



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:55 PM GMT

PDB ID : 4U4O
Title : Crystal structure of Geneticin bound to the yeast 80S ribosome
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on : 2014-07-24
Resolution : 3.60 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : **FAILED**
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

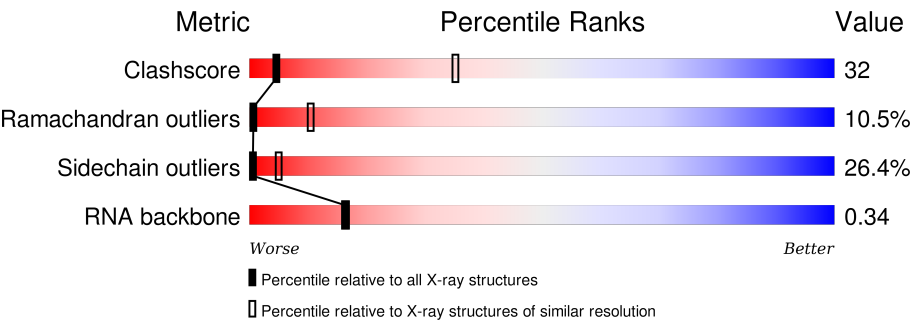
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.60 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1010 (3.74-3.46)
Ramachandran outliers	100387	1007 (3.76-3.44)
Sidechain outliers	100360	1007 (3.76-3.44)
RNA backbone	2183	1058 (4.40-2.80)







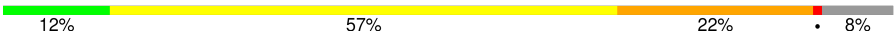

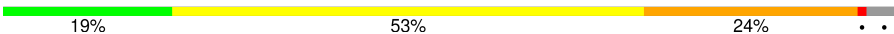

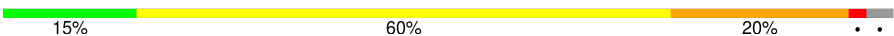

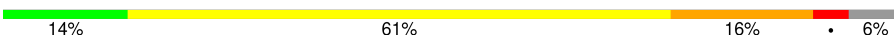





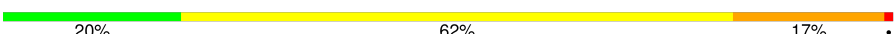



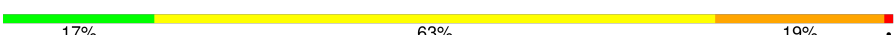


The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Note EDS failed to run properly.

Mol	Chain	Length	Quality of chain
1	2	1800	<div><div></div><div>8%39%39%11%.</div></div>
1	6	1800	<div><div></div><div>7%32%44%17%.</div></div>
2	S0	251	<div><div></div><div>12%46%23%.18%</div></div>
2	s0	251	<div><div></div><div>54%25%.18%</div></div>
3	S1	254	<div><div></div><div>10%48%23%.16%</div></div>
3	s1	254	<div><div></div><div>59%24%.15%</div></div>


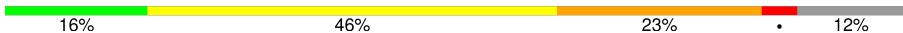



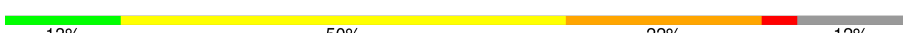





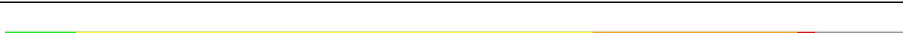








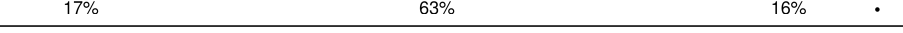




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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2	142	
14	c2	142	
15	C3	150	
15	c3	150	
16	C4	136	

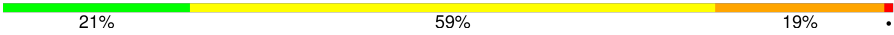



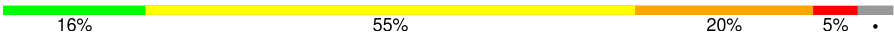

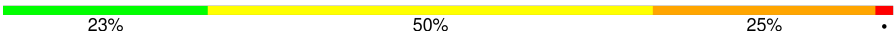
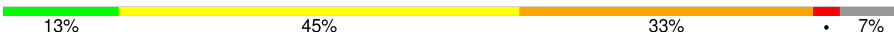
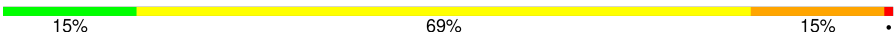















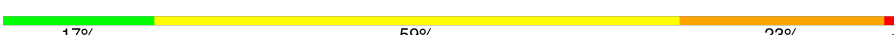
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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134	
26	d4	134	
27	D5	107	
27	d5	107	
28	D6	97	
28	d6	97	








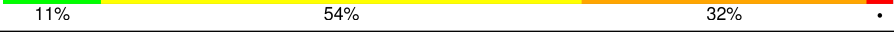


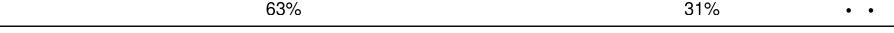
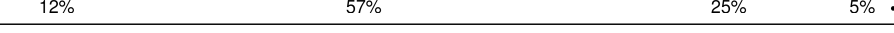
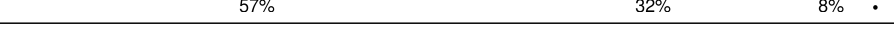


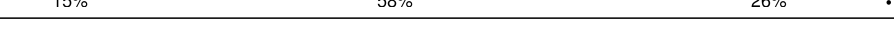

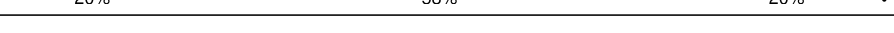







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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253	
40	L3	386	
40	l3	386	
41	L4	361	
41	l4	361	
42	L5	296	



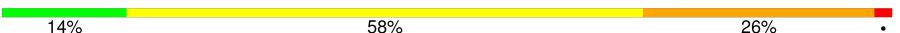



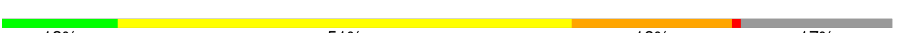










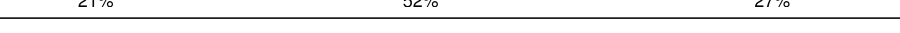







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Mol	Chain	Length	Quality of chain
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6	198	
52	m6	198	
53	M7	183	
53	m7	183	
54	M8	185	
54	m8	185	


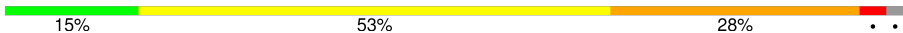

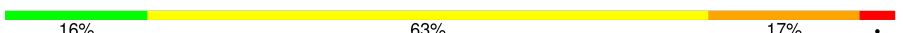

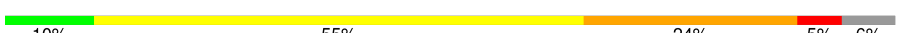





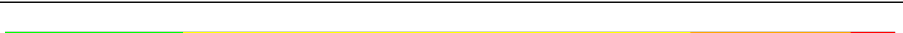













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Mol	Chain	Length	Quality of chain
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	148	
65	N9	58	
65	n9	58	
66	O0	104	
66	o0	104	
67	O1	112	






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Mol	Chain	Length	Quality of chain
67	o1	112	
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	119	
70	o4	119	
71	O5	119	
71	o5	119	
72	O6	99	
72	o6	99	
73	O7	87	
73	o7	87	
74	O8	77	
74	o8	77	
75	O9	50	
75	o9	50	
76	Q0	52	
76	q0	52	
77	Q1	25	
77	q1	25	
78	Q2	105	
78	q2	105	
79	Q3	91	
79	q3	91	

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Mol	Chain	Length	Quality of chain
80	e0	62	
81	e1	76	
82	m2	160	
83	p0	311	
84	p1	47	
85	p2	46	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
87	OHX	1	3871	-	-	X	-
87	OHX	1	3959	-	-	X	-
87	OHX	1	3965	-	-	X	-
87	OHX	1	3972	-	-	X	-
87	OHX	1	3976	-	-	X	-
87	OHX	1	3993	-	-	X	-
87	OHX	1	4003	-	-	X	-
87	OHX	1	4032	-	-	X	-
87	OHX	1	4044	-	-	X	-
87	OHX	1	4154	-	-	X	-
87	OHX	1	4155	-	-	X	-
87	OHX	1	4171	-	-	X	-
87	OHX	1	4180	-	-	X	-
87	OHX	1	4198	-	-	X	-
87	OHX	2	2031	-	-	X	-
87	OHX	2	2044	-	-	X	-
87	OHX	2	2090	-	-	X	-
87	OHX	2	2095	-	-	X	-
87	OHX	2	2099	-	-	X	-
87	OHX	2	2111	-	-	X	-
87	OHX	2	2131	-	-	X	-
87	OHX	2	2146	-	-	X	-
87	OHX	5	3937	-	-	X	-
87	OHX	5	3973	-	-	X	-
87	OHX	5	4006	-	-	X	-
87	OHX	5	4016	-	-	X	-
87	OHX	5	4028	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
87	OHX	5	4050	-	-	X	-
87	OHX	5	4061	-	-	X	-
87	OHX	5	4075	-	-	X	-
87	OHX	5	4086	-	-	X	-
87	OHX	5	4097	-	-	X	-
87	OHX	5	4138	-	-	X	-
87	OHX	5	4193	-	-	X	-
87	OHX	5	4194	-	-	X	-
87	OHX	5	4195	-	-	X	-
87	OHX	5	4211	-	-	X	-
87	OHX	5	4228	-	-	X	-
87	OHX	5	4237	-	-	X	-
87	OHX	6	2064	-	-	X	-
87	OHX	6	2125	-	-	X	-
87	OHX	6	2130	-	-	X	-
87	OHX	6	2135	-	-	X	-
87	OHX	6	2152	-	-	X	-
87	OHX	6	2155	-	-	X	-
87	OHX	6	2177	-	-	X	-
87	OHX	6	2189	-	-	X	-
87	OHX	8	220	-	-	X	-
87	OHX	8	229	-	-	X	-
87	OHX	C5	201	-	-	X	-
87	OHX	O1	202	-	-	X	-
89	ZN	Q2	501	-	-	X	-

2 Entry composition

There are 89 unique types of molecules in this entry. The entry contains 411095 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	2	1750	Total	C	N	O	P	0	0	0
			37283	16668	6591	12274	1750			
1	6	1791	Total	C	N	O	P	0	0	0
			38149	17055	6738	12565	1791			

- Molecule 2 is a protein called 40S ribosomal protein S0-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	S0	206	Total	C	N	O	S	0	0	0
			1577	1014	278	283	2			
2	s0	206	Total	C	N	O	S	0	0	0
			1583	1017	281	283	2			

- Molecule 3 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	S1	214	Total	C	N	O	S	0	0	0
			1709	1084	310	311	4			
3	s1	216	Total	C	N	O	S	0	0	0
			1722	1091	312	315	4			

- Molecule 4 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	S2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			
4	s2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			

- Molecule 5 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	S3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			
5	s3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			

- Molecule 6 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	S4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			
6	s4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			

- Molecule 7 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	S5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			
7	s5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			

- Molecule 8 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	S6	226	Total	C	N	O	S	0	0	0
			1799	1129	346	321	3			
8	s6	218	Total	C	N	O	S	0	0	0
			1755	1102	337	313	3			

- Molecule 9 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	S7	184	Total	C	N	O	0	0	0
			1481	951	265	265			
9	s7	186	Total	C	N	O	0	0	0
			1491	957	267	267			

- Molecule 10 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	S8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	s8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

- Molecule 11 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	S9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			
11	s9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			

- Molecule 12 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	C0	96	Total	C	N	O	S	0	0	0
			773	500	126	145	2			
12	c0	96	Total	C	N	O	S	0	0	0
			762	491	125	144	2			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C0	89	ALA	GLY	conflict	UNP Q08745
c0	89	ALA	GLY	conflict	UNP Q08745

- Molecule 13 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	C1	155	Total	C	N	O	S	0	0	0
			1214	775	230	206	3			
13	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C1	147	ALA	GLY	conflict	UNP P0CX47
c1	147	ALA	GLY	conflict	UNP P0CX47

- Molecule 14 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	C2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			
14	c2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C2	104	ALA	GLY	conflict	UNP P48589
C2	110	ALA	GLY	conflict	UNP P48589
c2	104	ALA	GLY	conflict	UNP P48589
c2	110	ALA	GLY	conflict	UNP P48589

- Molecule 15 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	C3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			
15	c3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			

- Molecule 16 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	C4	127	Total	C	N	O	S	0	0	0
			891	545	182	163	1			
16	c4	128	Total	C	N	O	S	0	0	0
			949	582	188	176	3			

- Molecule 17 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	C5	124	Total	C	N	O	S	0	0	0
			977	622	182	166	7			
17	c5	135	Total	C	N	O	S	0	0	0
			1039	658	196	178	7			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C5	137	SER	ARG	conflict	UNP Q01855
c5	137	SER	ARG	conflict	UNP Q01855

- Molecule 18 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	C6	141	Total	C	N	O	0	0	0
			1105	708	203	194			
18	c6	142	Total	C	N	O	0	0	0
			1111	711	204	196			

- Molecule 19 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	C7	120	Total	C	N	O	S	0	0	0
			926	577	177	170	2			
19	c7	117	Total	C	N	O	S	0	0	0
			906	563	174	167	2			

- Molecule 20 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	C8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			
20	c8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			

- Molecule 21 is a protein called 40S ribosomal protein S19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	C9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			
21	c9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			

- Molecule 22 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	D0	107	Total	C	N	O	S	0	0	0
			855	539	156	159	1			
22	d0	110	Total	C	N	O	S	0	0	0
			882	554	161	166	1			

- Molecule 23 is a protein called 40S ribosomal protein S21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	D1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			
23	d1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			

- Molecule 24 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	D2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			
24	d2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			

- Molecule 25 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	D3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			
25	d3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			

- Molecule 26 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	D4	134	Total	C	N	O	0	0	0
			1073	676	208	189			
26	d4	134	Total	C	N	O	0	0	0
			1073	676	208	189			

- Molecule 27 is a protein called 40S ribosomal protein S25-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	D5	70	Total	C	N	O	0	0	0
			563	360	104	99			
27	d5	69	Total	C	N	O	0	0	0
			558	357	103	98			

- Molecule 28 is a protein called 40S ribosomal protein S26-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	D6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	d6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

- Molecule 29 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	D7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			
29	d7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			

- Molecule 30 is a protein called 40S ribosomal protein S28-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	D8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			
30	d8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			

- Molecule 31 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	D9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			
31	d9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			

- Molecule 32 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	E0	60	Total	C	N	O	S	0	0	0
			475	299	98	77	1			

- Molecule 33 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	E1	71	Total	C	N	O	S	0	0	0
			566	362	106	94	4			

- Molecule 34 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	SR	318	Total	C	N	O	S	0	0	0
			2441	1544	419	470	8			
34	sR	318	Total	C	N	O	S	0	0	0
			2442	1544	418	472	8			

- Molecule 35 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	SM	159	Total	C	N	O		0	0	0
			1104	652	221	231				
35	sM	104	Total	C	N	O		0	0	0
			679	402	140	137				

- Molecule 36 is a RNA chain called 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1	3149	Total	C	N	O	P	0	0	0
			67355	30086	12142	21978	3149			
36	5	3150	Total	C	N	O	P	0	0	0
			67376	30095	12145	21987	3149			

- Molecule 37 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	3	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			
37	7	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			

- Molecule 38 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	4	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			
38	8	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			

- Molecule 39 is a protein called 60S ribosomal protein L2-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	L2	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	12	252	Total	C	N	O	S	0	0	0
			1912	1190	388	333	1			

- Molecule 40 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	L3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			
40	13	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			

- Molecule 41 is a protein called 60S ribosomal protein L4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	L4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			
41	14	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			

- Molecule 42 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	L5	296	Total	C	N	O	S	0	0	0
			2375	1501	414	458	2			
42	15	294	Total	C	N	O	S	0	0	0
			2359	1489	412	456	2			

- Molecule 43 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	L6	156	Total	C	N	O	S	0	0	0
			1239	800	222	216	1			
43	16	157	Total	C	N	O	S	0	0	0
			1248	806	224	217	1			

- Molecule 44 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	L7	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			
44	17	223	Total	C	N	O	S	0	0	0
			1791	1155	325	310	1			

- Molecule 45 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	L8	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			
45	18	231	Total	C	N	O	S	0	0	0
			1763	1130	316	314	3			

- Molecule 46 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	L9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			
46	19	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

- Molecule 47 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	M0	211	Total	C	N	O	S	0	0	0
			1705	1083	322	294	6			
47	m0	213	Total	C	N	O	S	0	0	0
			1722	1094	325	297	6			

- Molecule 48 is a protein called 60S ribosomal protein L11-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	M1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			
48	m1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			

- Molecule 49 is a protein called 60S ribosomal protein L13-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	M3	193	Total	C	N	O	0	0	0
			1543	962	315	266			
49	m3	194	Total	C	N	O	0	0	0
			1548	965	316	267			

- Molecule 50 is a protein called 60S ribosomal protein L14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	M4	136	Total	C	N	O	S	0	0	0
			1053	675	199	177	2			
50	m4	137	Total	C	N	O	S	0	0	0
			1059	678	200	179	2			

- Molecule 51 is a protein called 60S ribosomal protein L15-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			
51	m5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			

- Molecule 52 is a protein called 60S ribosomal protein L16-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			
52	m6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			

- Molecule 53 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	M7	183	Total	C	N	O		0	0	0
			1420	882	281	257				
53	m7	155	Total	C	N	O		0	0	0
			1227	764	238	225				

- Molecule 54 is a protein called 60S ribosomal protein L18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	M8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			
54	m8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			

- Molecule 55 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	M9	188	Total	C	N	O		0	0	0
			1521	935	326	260				

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
55	m9	188	Total	C	N	O	0	0	0
			1521	935	326	260			

- Molecule 56 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	N0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			
56	n0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			

- Molecule 57 is a protein called 60S ribosomal protein L21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	N1	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			
57	n1	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			

- Molecule 58 is a protein called 60S ribosomal protein L22-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
58	N2	100	Total	C	N	O	0	0	0
			796	516	131	149			
58	n2	98	Total	C	N	O	0	0	0
			778	505	127	146			

- Molecule 59 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
59	N3	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			
59	n3	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			

- Molecule 60 is a protein called 60S ribosomal protein L24-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
60	N4	98	Total	C	N	O	S	0	0	0
			699	443	137	118	1			
60	n4	135	Total	C	N	O	S	0	0	0
			1038	651	206	180	1			

- Molecule 61 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	N5	121	Total	C	N	O	S	0	0	0
			964	620	169	173	2			
61	n5	120	Total	C	N	O	S	0	0	0
			959	617	168	172	2			

- Molecule 62 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
62	N6	126	Total	C	N	O		0	0	0
			993	625	192	176				
62	n6	126	Total	C	N	O		0	0	0
			993	625	192	176				

- Molecule 63 is a protein called 60S ribosomal protein L27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
63	N7	135	Total	C	N	O		0	0	0
			1092	710	202	180				
63	n7	135	Total	C	N	O		0	0	0
			1092	710	202	180				

- Molecule 64 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
64	N8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			
64	n8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			

- Molecule 65 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
65	N9	58	Total	C	N	O		0	0	0
			462	289	100	73				
65	n9	58	Total	C	N	O		0	0	0
			462	289	100	73				

- Molecule 66 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	O0	97	Total	C	N	O	S	0	0	0
			743	479	124	139	1			
66	o0	100	Total	C	N	O	S	0	0	0
			767	492	128	146	1			

- Molecule 67 is a protein called 60S ribosomal protein L31-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
67	O1	109	Total	C	N	O	S	0	0	0
			876	556	167	152	1			
67	o1	109	Total	C	N	O	S	0	0	0
			883	559	167	156	1			

- Molecule 68 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
68	O2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			
68	o2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			

- Molecule 69 is a protein called 60S ribosomal protein L33-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
69	O3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			
69	o3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			

- Molecule 70 is a protein called 60S ribosomal protein L34-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
70	O4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			
70	o4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			

There are 22 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
O4	110	GLU	-	expression tag	UNP P87262
O4	111	ALA	-	expression tag	UNP P87262
O4	112	ALA	-	expression tag	UNP P87262

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Chain	Residue	Modelled	Actual	Comment	Reference
O4	113	LYS	-	expression tag	UNP P87262
O4	114	SER	-	expression tag	UNP P87262
O4	115	GLU	-	expression tag	UNP P87262
O4	116	LYS	-	expression tag	UNP P87262
O4	117	LYS	-	expression tag	UNP P87262
O4	118	ALA	-	expression tag	UNP P87262
O4	119	LYS	-	expression tag	UNP P87262
O4	120	LYS	-	expression tag	UNP P87262
o4	110	GLU	-	expression tag	UNP P87262
o4	111	ALA	-	expression tag	UNP P87262
o4	112	ALA	-	expression tag	UNP P87262
o4	113	LYS	-	expression tag	UNP P87262
o4	114	SER	-	expression tag	UNP P87262
o4	115	GLU	-	expression tag	UNP P87262
o4	116	LYS	-	expression tag	UNP P87262
o4	117	LYS	-	expression tag	UNP P87262
o4	118	ALA	-	expression tag	UNP P87262
o4	119	LYS	-	expression tag	UNP P87262
o4	120	LYS	-	expression tag	UNP P87262

- Molecule 71 is a protein called 60S ribosomal protein L35-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
71	O5	119	Total	C	N	O	S	0	0	0
			969	615	186	167	1			
71	o5	119	Total	C	N	O	S	0	0	0
			965	612	185	167	1			

- Molecule 72 is a protein called 60S ribosomal protein L36-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
72	O6	99	Total	C	N	O	S	0	0	0
			771	481	156	132	2			
72	o6	99	Total	C	N	O	S	0	0	0
			770	481	156	131	2			

- Molecule 73 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	O7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	o7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

- Molecule 74 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
74	O8	77	Total	C	N	O		0	0	0
			612	391	115	106				
74	o8	77	Total	C	N	O		0	0	0
			608	388	114	106				

- Molecule 75 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
75	O9	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			
75	o9	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			

- Molecule 76 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
76	Q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			
76	q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			

- Molecule 77 is a protein called 60S ribosomal protein L41-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
77	Q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			
77	q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			

- Molecule 78 is a protein called 60S ribosomal protein L42-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	Q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			
78	q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			

- Molecule 79 is a protein called 60S ribosomal protein L43-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	Q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			
79	q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			

- Molecule 80 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	e0	62	Total	C	N	O	S	0	0	0
			491	309	101	80	1			

- Molecule 81 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
81	e1	76	Total	C	N	O	S	0	0	0
			608	388	117	99	4			

- Molecule 82 is a protein called unknown protein chain m2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
82	m2	150	Total	C	N	O	0	0	0
			750	450	150	150			

- Molecule 83 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
83	p0	143	Total	C	N	O	S	0	0	0
			1076	686	192	195	3			

- Molecule 84 is a protein called unknown protein chain p1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
84	p1	47	Total	C	N	O	0	0	0
			235	141	47	47			

- Molecule 85 is a protein called unknown protein chain p2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
85	p2	46	Total	C	N	O	0	0	0
			230	138	46	46			

- Molecule 86 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	L7	2	Total 2	Mg 2	0	0
86	N9	1	Total 1	Mg 1	0	0
86	n8	2	Total 2	Mg 2	0	0
86	o1	1	Total 1	Mg 1	0	0
86	N5	2	Total 2	Mg 2	0	0
86	6	150	Total 150	Mg 150	0	0
86	n4	1	Total 1	Mg 1	0	0
86	m5	2	Total 2	Mg 2	0	0
86	l3	6	Total 6	Mg 6	0	0
86	M1	1	Total 1	Mg 1	0	0
86	d6	1	Total 1	Mg 1	0	0
86	2	124	Total 124	Mg 124	0	0
86	O3	1	Total 1	Mg 1	0	0
86	L4	2	Total 2	Mg 2	0	0
86	l7	2	Total 2	Mg 2	0	0
86	M5	2	Total 2	Mg 2	0	0
86	o0	1	Total 1	Mg 1	0	0
86	S2	2	Total 2	Mg 2	0	0
86	L8	1	Total 1	Mg 1	0	0
86	D3	1	Total 1	Mg 1	0	0
86	o4	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	M9	1	Total 1	Mg 1	0	0
86	q0	2	Total 2	Mg 2	0	0
86	SM	1	Total 1	Mg 1	0	0
86	c8	1	Total 1	Mg 1	0	0
86	M0	3	Total 3	Mg 3	0	0
86	5	499	Total 499	Mg 499	0	0
86	L5	1	Total 1	Mg 1	0	0
86	O7	1	Total 1	Mg 1	0	0
86	l4	1	Total 1	Mg 1	0	0
86	n9	2	Total 2	Mg 2	0	0
86	1	468	Total 468	Mg 468	0	0
86	s2	1	Total 1	Mg 1	0	0
86	d3	1	Total 1	Mg 1	0	0
86	S8	1	Total 1	Mg 1	0	0
86	l2	1	Total 1	Mg 1	0	0
86	O2	1	Total 1	Mg 1	0	0
86	q3	2	Total 2	Mg 2	0	0
86	o3	2	Total 2	Mg 2	0	0
86	M3	2	Total 2	Mg 2	0	0
86	N3	2	Total 2	Mg 2	0	0
86	N8	4	Total 4	Mg 4	0	0

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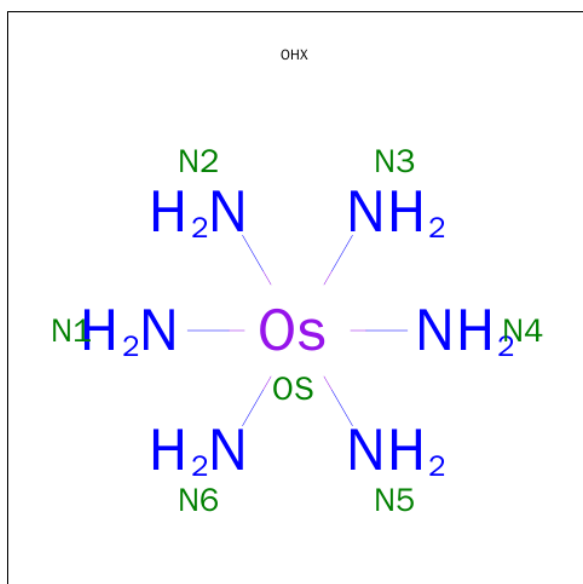
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	4	23	Total 23	Mg 23	0	0
86	D4	1	Total 1	Mg 1	0	0
86	L2	2	Total 2	Mg 2	0	0
86	m1	1	Total 1	Mg 1	0	0
86	l5	3	Total 3	Mg 3	0	0
86	m7	4	Total 4	Mg 4	0	0
86	M7	5	Total 5	Mg 5	0	0
86	m4	1	Total 1	Mg 1	0	0
86	L6	2	Total 2	Mg 2	0	0
86	s1	1	Total 1	Mg 1	0	0
86	l9	1	Total 1	Mg 1	0	0
86	O1	1	Total 1	Mg 1	0	0
86	s8	2	Total 2	Mg 2	0	0
86	o2	1	Total 1	Mg 1	0	0
86	c7	1	Total 1	Mg 1	0	0
86	7	15	Total 15	Mg 15	0	0
86	n3	1	Total 1	Mg 1	0	0
86	q1	1	Total 1	Mg 1	0	0
86	L3	2	Total 2	Mg 2	0	0
86	O5	1	Total 1	Mg 1	0	0
86	m6	3	Total 3	Mg 3	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	N6	1	Total	Mg	0	0
			1	1		
86	8	17	Total	Mg	0	0
			17	17		
86	m0	1	Total	Mg	0	0
			1	1		
86	M6	1	Total	Mg	0	0
			1	1		
86	N0	1	Total	Mg	0	0
			1	1		
86	3	14	Total	Mg	0	0
			14	14		

- Molecule 87 is osmium (III) hexammine (three-letter code: OHX) (formula: $\text{H}_{12}\text{N}_6\text{Os}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
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87	2	1	Total	N	Os	0	0
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87	2	1	Total	N	Os	0	0
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			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	2	1	Total	N	Os	0	0
			7	6	1		
87	S8	1	Total	N	Os	0	0
			7	6	1		
87	C3	1	Total	N	Os	0	0
			7	6	1		
87	C5	1	Total	N	Os	0	0
			7	6	1		
87	C8	1	Total	N	Os	0	0
			7	6	1		
87	D3	1	Total	N	Os	0	0
			7	6	1		
87	D9	1	Total	N	Os	0	0
			7	6	1		
87	SR	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
			7	6	1		
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
			7	6	1		
87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	1	1	Total	N	Os	0	0
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87	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	3	1	Total	N	Os	0	0
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87	4	1	Total	N	Os	0	0
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87	4	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	4	1	Total	N	Os	0	0
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87	L3	1	Total	N	Os	0	0
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87	L3	1	Total	N	Os	0	0
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87	L3	1	Total	N	Os	0	0
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87	L4	1	Total	N	Os	0	0
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87	M0	1	Total	N	Os	0	0
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87	M5	1	Total	N	Os	0	0
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87	M6	1	Total	N	Os	0	0
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87	M7	1	Total	N	Os	0	0
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87	M9	1	Total	N	Os	0	0
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87	M9	1	Total	N	Os	0	0
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87	N9	1	Total	N	Os	0	0
			7	6	1		
87	O1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	O3	1	Total	N	Os	0	0
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87	O7	1	Total	N	Os	0	0
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87	O7	1	Total	N	Os	0	0
			7	6	1		
87	Q2	1	Total	N	Os	0	0
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87	6	1	Total	N	Os	0	0
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87	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	c5	1	Total	N	Os	0	0
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87	c8	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
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			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
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			7	6	1		
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87	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	5	1	Total	N	Os	0	0
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87	5	1	Total	N	Os	0	0
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			7	6	1		
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			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
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87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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87	7	1	Total	N	Os	0	0
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87	7	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		

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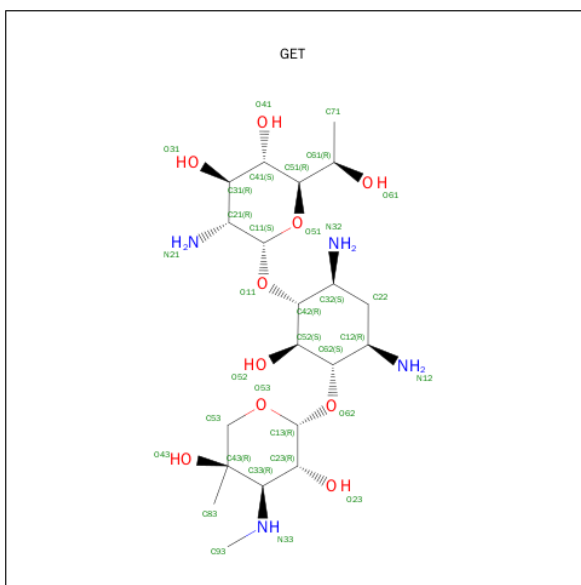
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
			7	6	1		
87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
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87	8	1	Total	N	Os	0	0
			7	6	1		
87	13	1	Total	N	Os	0	0
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87	13	1	Total	N	Os	0	0
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87	14	1	Total	N	Os	0	0
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87	14	1	Total	N	Os	0	0
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87	15	1	Total	N	Os	0	0
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87	15	1	Total	N	Os	0	0
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87	15	1	Total	N	Os	0	0
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87	15	1	Total	N	Os	0	0
			7	6	1		
87	19	1	Total	N	Os	0	0
			7	6	1		
87	m0	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	m0	1	Total	N	Os	0	0
			7	6	1		
87	m1	1	Total	N	Os	0	0
			7	6	1		
87	m4	1	Total	N	Os	0	0
			7	6	1		
87	m5	1	Total	N	Os	0	0
			7	6	1		
87	m7	1	Total	N	Os	0	0
			7	6	1		
87	m9	1	Total	N	Os	0	0
			7	6	1		
87	n3	1	Total	N	Os	0	0
			7	6	1		
87	n9	1	Total	N	Os	0	0
			7	6	1		
87	o3	1	Total	N	Os	0	0
			7	6	1		
87	o7	1	Total	N	Os	0	0
			7	6	1		
87	o9	1	Total	N	Os	0	0
			7	6	1		
87	q1	1	Total	N	Os	0	0
			7	6	1		
87	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 88 is GENETICIN (three-letter code: GET) (formula: C₂₀H₄₀N₄O₁₀).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
88	2	1	Total	C	N	O	0	0
			34	20	4	10		

- Molecule 89 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
89	q0	1	Total Zn 1 1	0	0
89	D6	1	Total Zn 1 1	0	0
89	Q2	1	Total Zn 1 1	0	0
89	e1	1	Total Zn 1 1	0	0
89	Q3	1	Total Zn 1 1	0	0
89	D9	1	Total Zn 1 1	0	0
89	E1	1	Total Zn 1 1	0	0
89	Q0	1	Total Zn 1 1	0	0
89	d7	1	Total Zn 1 1	0	0
89	q3	1	Total Zn 1 1	0	0
89	d9	1	Total Zn 1 1	0	0

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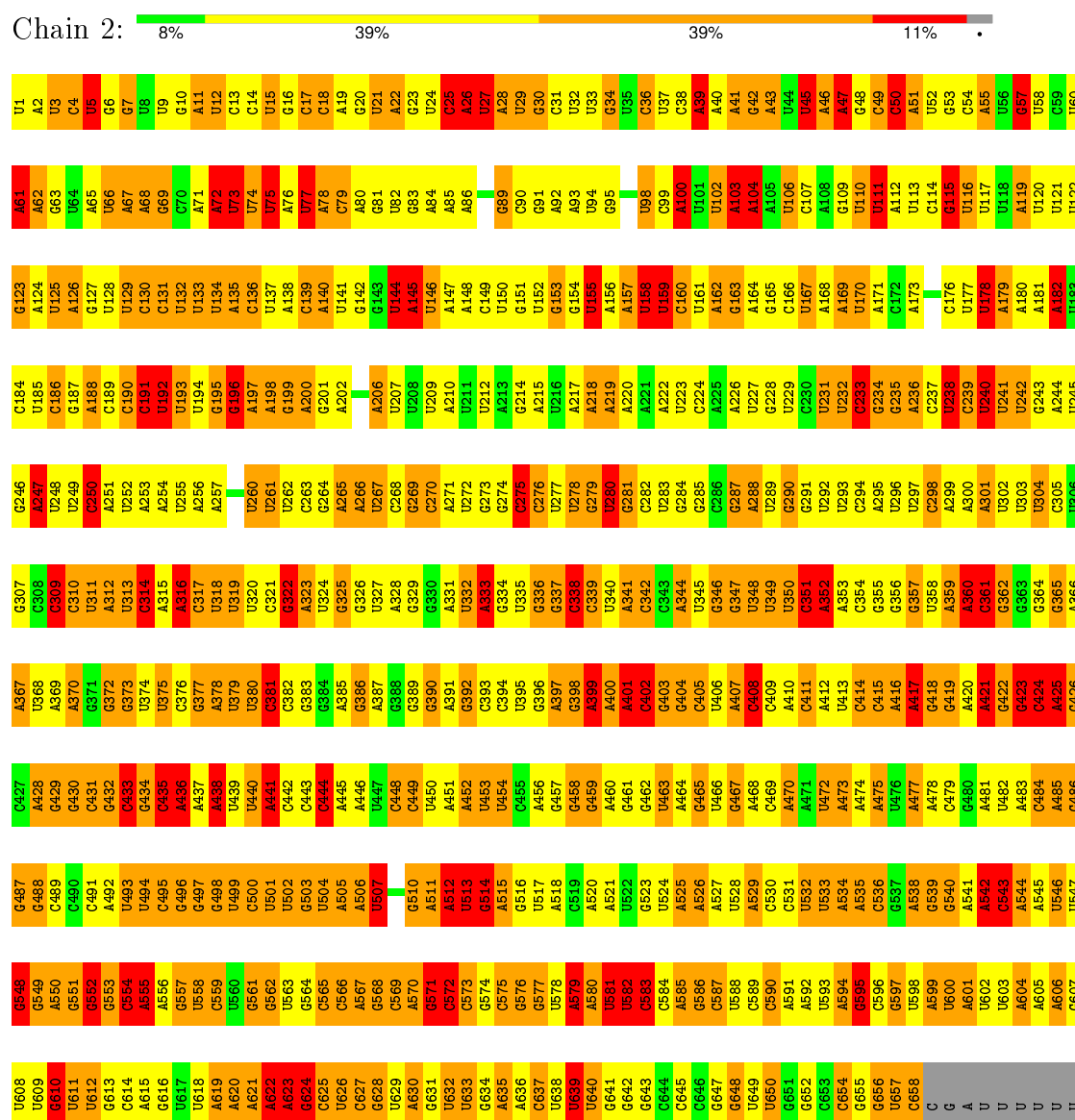
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
89	D7	1	Total 1	Zn 1	0	0
89	d6	1	Total 1	Zn 1	0	0
89	o7	1	Total 1	Zn 1	0	0
89	O7	1	Total 1	Zn 1	0	0
89	q2	1	Total 1	Zn 1	0	0

3 Residue-property plots

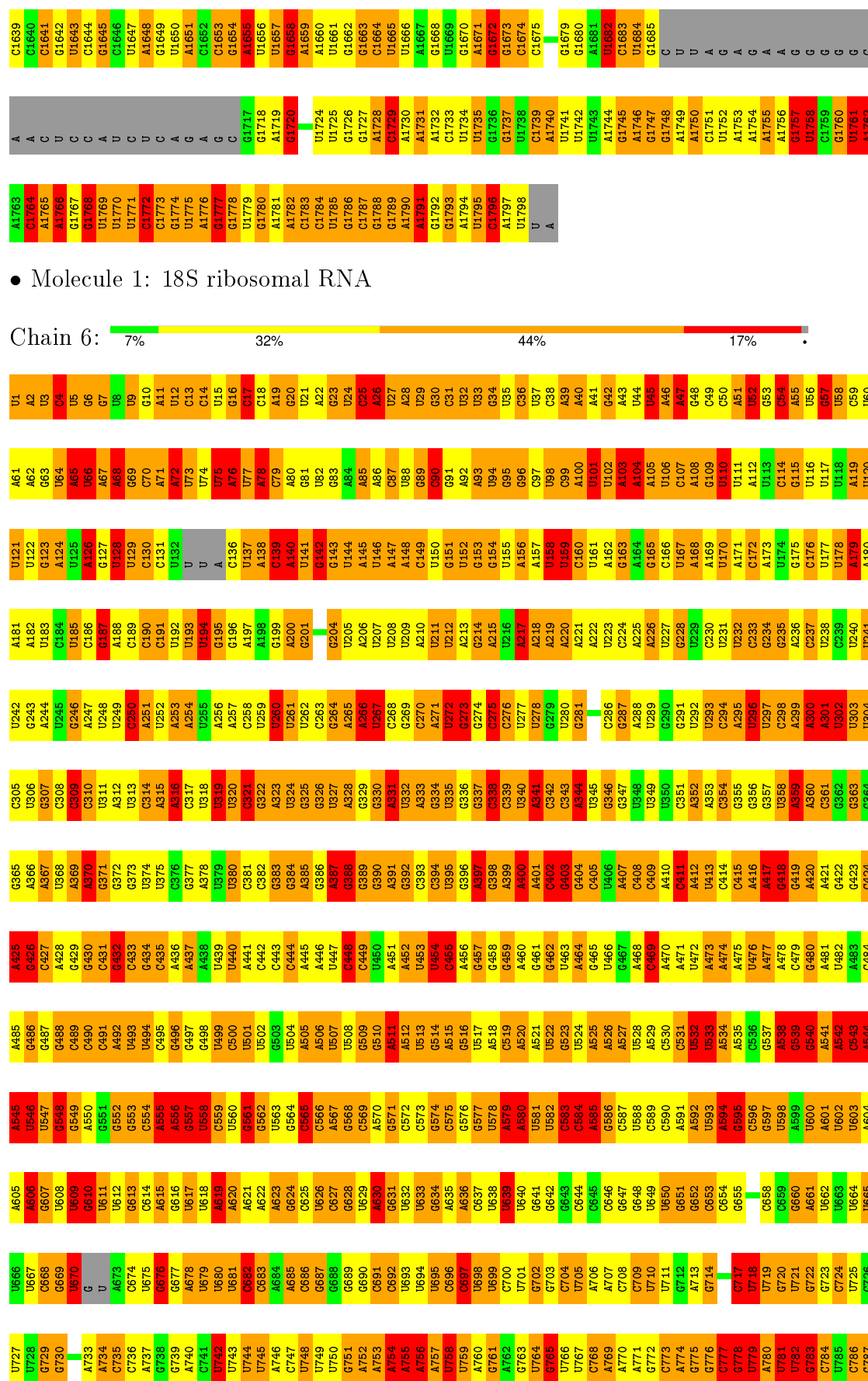
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

Note EDS failed to run properly.

• Molecule 1: 18S ribosomal RNA





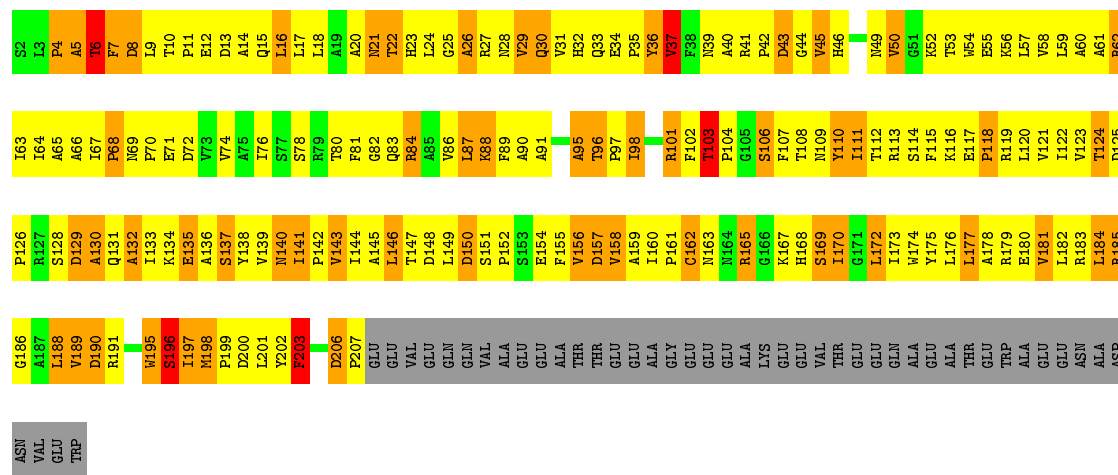


G1686	C1636	A1576	A1515	G1455	G1395	U1335	C1274	G1212	A1152	A1092	G1032	U972	U912	U851	A788
G1687	C1637	A1577	A1516	G1456	U1396	A1336	A1275	G1213	G1153	A1093	C1033	A973	G913	C852	A789
G1688	G1638	U1578	U1517	G1457	U1397	A1337	G1276	U1214	G1154	G1094	C1034	A974	G914	G853	A790
G1689	C1639	G1579	C1518	G1458	U1398	A1338	G1277		U1095	U1095	G1035	A975	A915		A791
C1700	C1640	U1580	U1519	C1459	C1339	C1339	G1278	A1217	C1156	C1096	A1036	G976	U916	A856	U792
A1701	C1641	U1581	C1520	A1460	A1340	U1340	C1279	G1218	A1157	U1097	C1037	A977	U917	U857	A793
A1702	G1642	U1582	G1521	C1461	A1401	A1341	C1280	A1219	C1158	U1098	U1038	A978	U918	G858	U794
C1703	U1643	A1583	U1522	G1462	G1402	C1342	U1281	C1220	U1159	U1099	A1039	A979	U919	A859	U795
U1704	C1644	A1584	G1523	G1463	C1403	U1343	U1282	A1221	A1160	G1100	G1040	G980	U920	U860	A796
C1705	G1645	A1585	A1524	G1464	C1404	A1344	U1283	G1222	C1161	G1101	G1041	U981	U921	U861	G797
C1706	C1646	A1586	A1525	C1465	G1405	A1345	C1284	A1223	C1162	G1102	G1042	U982	U922	U862	C798
A1707	G1647	A1587	A1526	G1466	A1406	A1346	U1285		A1163	U1103	A1043	A983	A923	A863	A799
U1708	A1648	G1588	C1527	C1467	U1407	U1347	U1286	A1226	G1164	U1104	U1044	G984	A924	U864	U800
C1709	G1649	C1589	U1528	U1468	G1408	A1348	A1287	A1227	G1165	C1105	C1045	G985	G925	A865	G801
U1710	U1650	G1590	C1529	C1469	G1409	G1349	G1288	G1228	A1166	U1106	G1046	G986	A926	G866	G802
C1711	A1651	C1591	C1530	C1470	A1410	U1350	U1289	G1229	G1167	G1107	G1047	G987	A927	G867	A803
A1712	C1652	A1592	G1531	A1471	G1411	G1351	U1290	A1230	U1168	G1108	G1048	U988	U928	G868	A804
G1713	C1653	A1593	U1532	C1472	G1412	G1352	U1291	U1231	G1169	G1109	U1049	U989	A929	A869	U805
A1714	G1654	G1594	U1533	U1473	U1413	U1353	G1292	U1232	G1170	G1110	G1050	C990	A930	C870	
G1715	A1655	U1595	G1534	U1474	U1414	G1354	U1293	G1233	A1171	G1111	G1051	G991	G931	G871	U806
C1716	U1656	C1596	U1535	A1475	U1415	G1355	G1294	G1234	G1172	G1112	G1052	A992	U932	G872	A809
G1717	U1657	A1597	G1536	G1476	G1416	U1356	U1295	C1235	C1173	A993	G1053	A993	A933	U873	G810
G1718	C1658	U1598	C1537	G1477	A1417	A1357	A1296	A1236	C1174	G1114	U1054	G994	C934	C874	A811
A1719	A1659	C1599	U1538	G1478	G1418	G1358	U1297	G1237	U1175	U1115	U1055	A995	U935	G875	A812
G1720	A1660	A1600	G1539	A1479	G1419	C1359	U1298	A1238	G1176	A1116	U1056	U996	G936	G876	U813
A1721	U1661	G1601	G1540	G1480	G1420	A1360	G1299	U1239	C1177	U1117	U1057	G997	G937	G877	A814
A1722	G1662	C1602	G1541	C1481	A1421	U1361	A1300	U1240	G1178	G1118	U1058	A998	G938	G878	G815
U1723	G1663	U1603	G1542	C1482	U1422	U1362	U1301	U1241	G1179	U999	U1059	A999	A939	G879	G816
U1724	C1664	A1604	U1543	A1483	U1423	U1363	U1302	A1242	A1180	U1120	U1060	C1000	A940	C880	
U1725	U1665	G1605	U1544	G1484	A1424	G1364	U1303	G1243	U1181	C1121	A1061	A1001	A941	A881	
G1726	U1666	C1606	A1545	C1485	A1425	C1365	G1304	A1244	U1182	G1122	A1062	G1002	G942	U882	U820
G1727	A1667	G1607	G1546	G1486	C1426	U1366	U1305	G1245	A1183	C1123	U1063	A1003	G943	C883	
A1728	G1668	U1608	A1547	A1487	A1427	G1367	U1306	C1246	A1184	U1004	G1064	A1005	G944	A884	U821
C1729	U1669	G1609	G1548	G1488	G1428	G1368	U1307	U1247	U1185	A1125	A1065	A1006	U945	G885	U822
A1730	G1670	G1610	C1549	U1489	G1429	U1369	G1308	C1248	U1186	G1126	C1066	G1007	U946	U886	G823
A1731	A1671	A1611	U1550	C1490	U1430	U1370	C1309	U1249	U1187	G1127	G1067	G1007	U947	A887	U825
A1732	G1672	U1612	U1551	U1491	G1431	A1371	U1310	U1250	G1188	C1128	G1068	G1008	G948	U888	U826
C1733	G1673	U1613	U1552	A1492	U1432	U1372	U1311	U1251	A1189	U1129	A1069	U1009	C949	U889	C827
U1734	G1674	A1614	G1553	A1493	A1433	C1373	A1312	U1252	C1190	G1130	C1070	C1010	G950	C890	U828
U1735	C1675	C1615	U1554	U1494	U1434	C1374	A1313	U1253	U1191	A1131	U1071	G1011	A951	A891	A829
G1736	U1676	G1616	A1555	C1495	G1435	A1375	U1314	U1254	C1192	A1132	C1072	U1012	A952	A892	U830
G1737	C1677	U1617	A1556	U1496	A1436	C1376	U1315	G1255	A1193	A1133	G1073	A1013	G953	U893	U831
U1738	C1678	C1618	U1557	U1497	G1437	U1377	G1316	A1256	A1194	C1134	G1074	G1014	G954	U894	U832
C1739	G1679	G1619	U1558	G1498	G1438	U1378	C1317	U1257	C1195	U1135	C1075	U1015	A955	G895	U833
A1740	G1680	C1620	A1559	G1499	G1439	C1379	G1318	U1258	A1196	U1136	A1076	G1016	G956	U896	G834
U1741	A1681	U1621	U1560	C1500	C1440	U1380	A1319	U1259	G1197	A1137	C1077	U1017	G957	C897	U835
U1742	U1682	G1622	G1561	C1501	C1441	U1381	U1320	U1260	G1198	A1138	C1078	U1018	U958	A898	U836
U1743	C1683	C1623	U1562	G1502	U1442	A1382	A1321	G1261	G1199	A1139	U1079	A1019	U959	G899	G837
A1744	U1684	C1624	U1563	A1503	U1443	G1383	A1322	U1262	G1200	G1140	U1080	A1020	U960	A900	G838
G1745	G1685	C1625	C1565	G1504	A1444	A1384	C1323	G1263	G1201	G1141	A1081	C1021	U961	G901	
A1746	C1686	U1626	U1566	A1505	G1445	G1385	G1324	G1264	A1202	A1142	C1082	C1022	G962	G902	U841
G1747	U1687	U1627	U1567	G1506	A1446	G1386	A1325	G1265	A1203	A1143	G1083	A1023	A963	U903	C842
G1748	U1688	C1628	C1568	G1507	C1447	G1387	A1326	U1266	A1204	U1144	A1084	U1024	U964	G904	U843
A1749	A1689	G1629	A1569	U1508	G1448	A1388	C1327	G1267	C1205	U1145	G1085	A1025	U965	A905	A844
C1750	G1690	A1570	U1570	U1509	U1449	G1389	G1330	U1268	U1206	G1146	A1086	A1026	A966	A906	G845
C1751	A1691	A1631	U1571	U1510	U1450	U1390	G1330	U1269	G1207	A1147	A1087	A1027	A967	A907	G846
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A1753	A1693	C1573	U1574	G1512	U1452	U1392	C1332	G1271	G1209	G1149	U1089	U1029	C969	U909	C848
A	A1694	C1634	G1574	G1513	C1453	C1393	U1272	U1272	C1210	G1150	U1090	A1030	A970	C910	C849
		A1695	G1575	U1514	G1454	G1394	U1334	G1273	A1211	A1151	A1091	U1031	A971	U911	A850

A	G
U1768	C1768
U1769	C1769
U1770	C1770
U1771	C1771
U1772	C1772
U1773	C1773
U1774	C1774
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U1798	C1798
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U1800	C1800

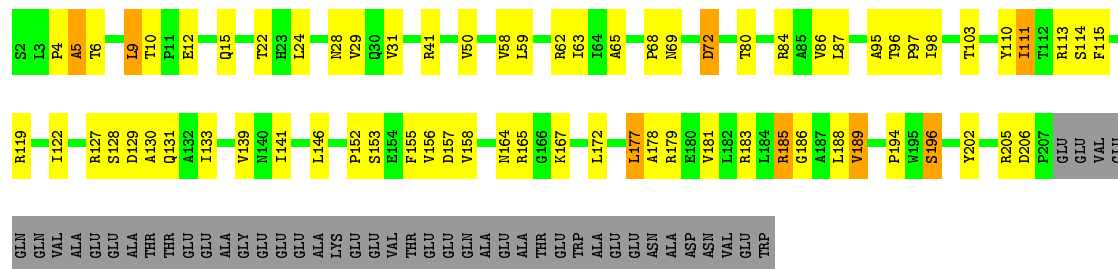
• Molecule 2: 40S ribosomal protein S0-A

Chain S0: 12% 46% 23% 18%



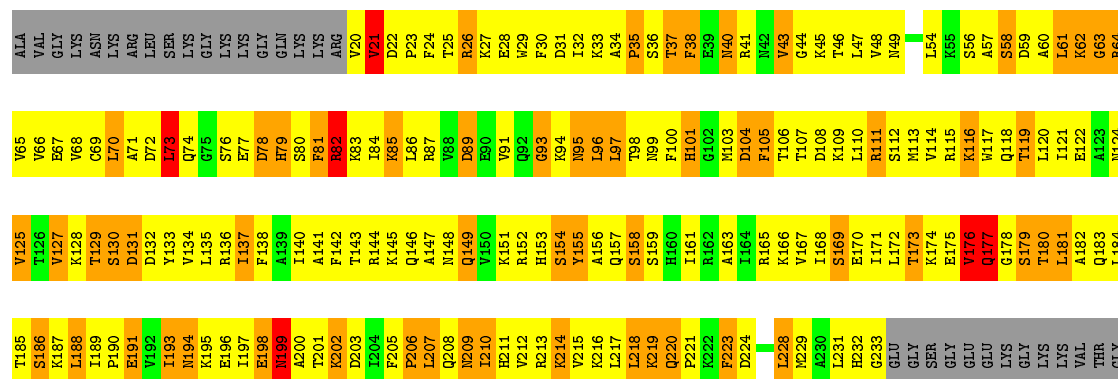
• Molecule 2: 40S ribosomal protein S0-A

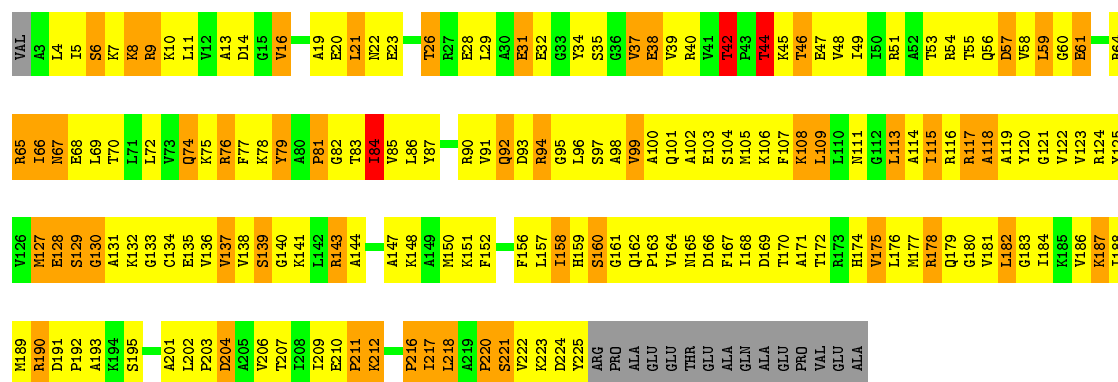
Chain s0: 54% 25% 18%



• Molecule 3: 40S ribosomal protein S1-A

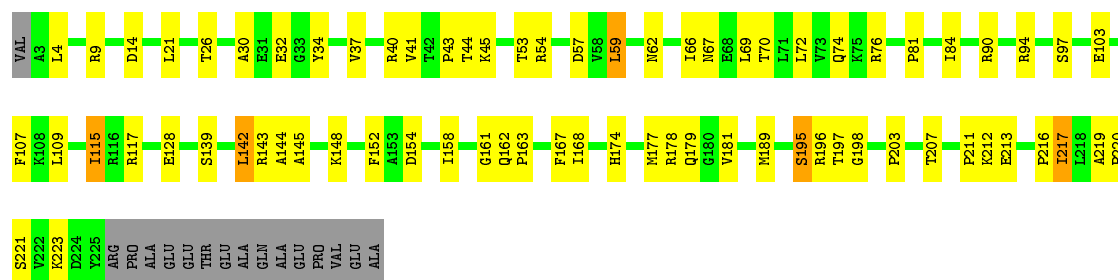
Chain S1: 10% 48% 23% 16%





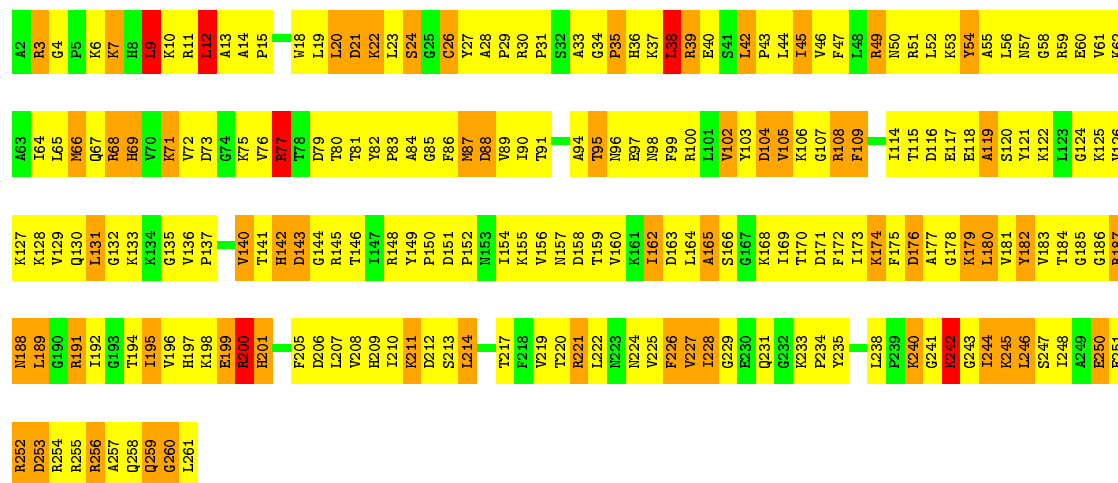
• Molecule 5: 40S ribosomal protein S3

Chain s3: 63% 28% 7%



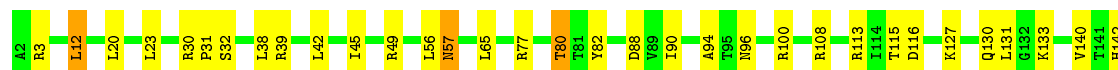
• Molecule 6: 40S ribosomal protein S4-A

Chain S4: 17% 58% 23%



• Molecule 6: 40S ribosomal protein S4-A

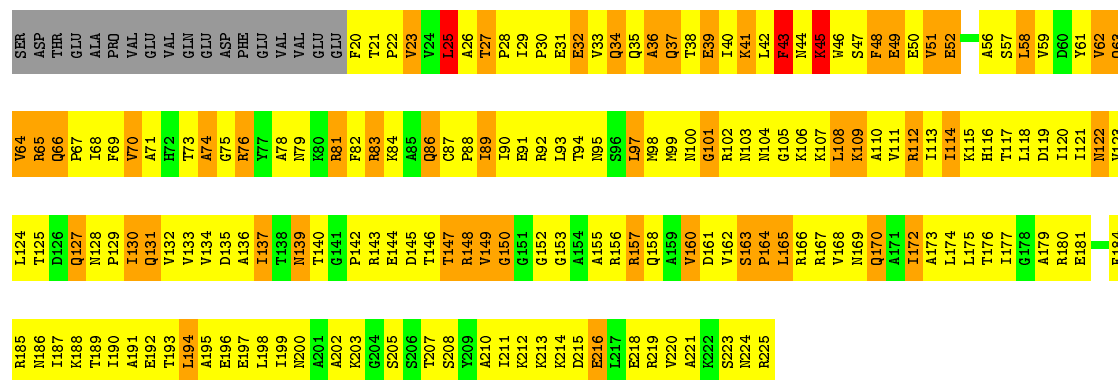
Chain s4: 70% 26%





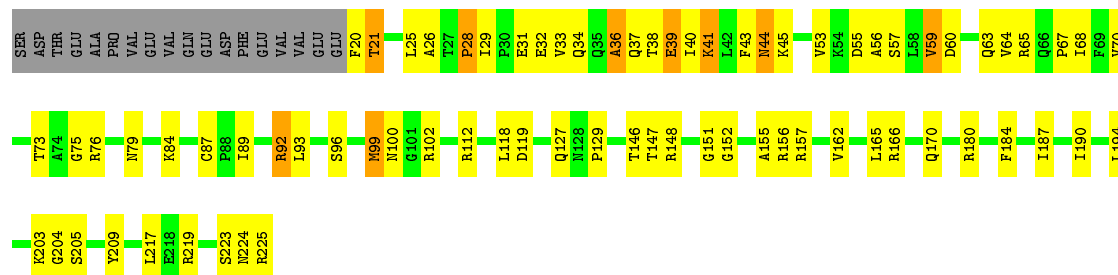
• Molecule 7: 40S ribosomal protein S5

Chain S5: 12% 57% 22% 8%



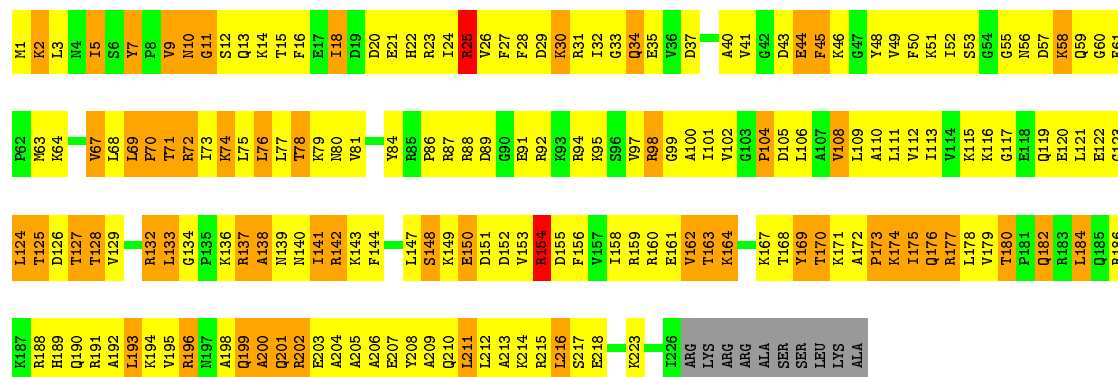
• Molecule 7: 40S ribosomal protein S5

Chain s5: 58% 29% 8%

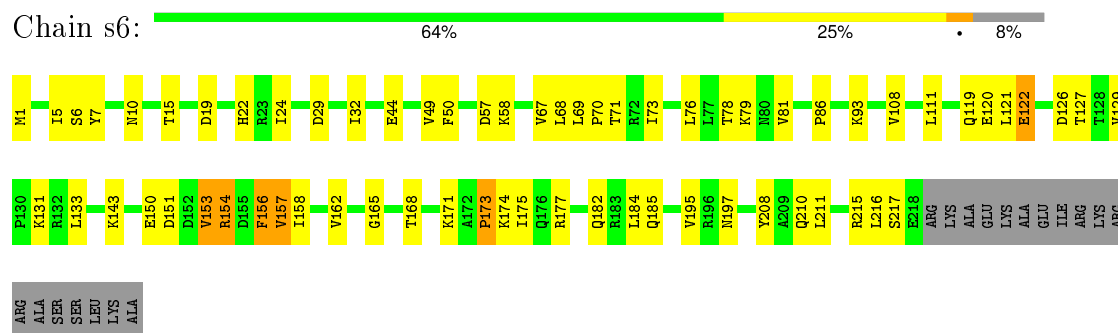


• Molecule 8: 40S ribosomal protein S6-A

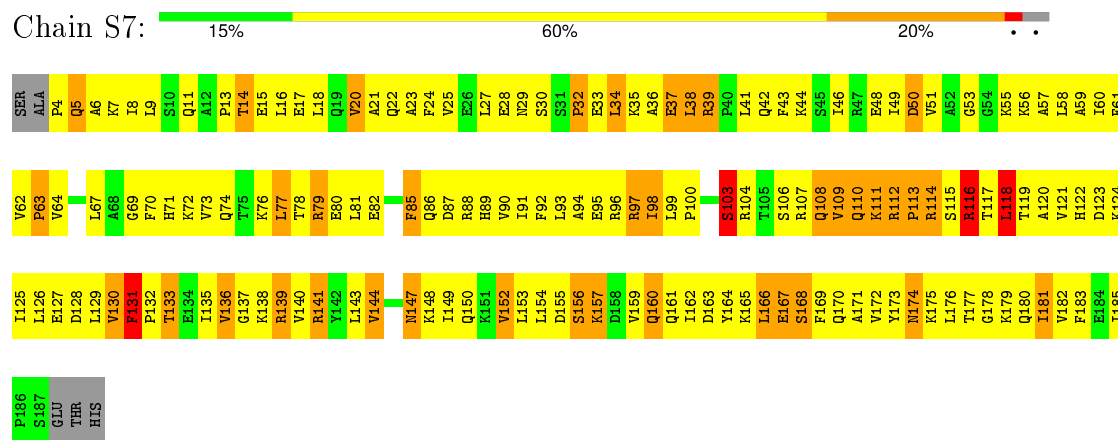
Chain S6: 19% 53% 24%



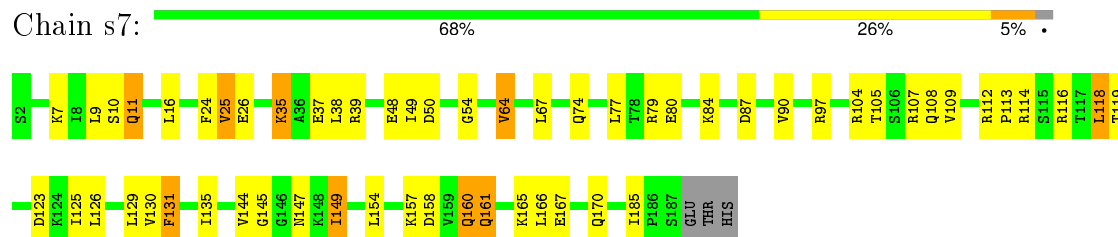
• Molecule 8: 40S ribosomal protein S6-A



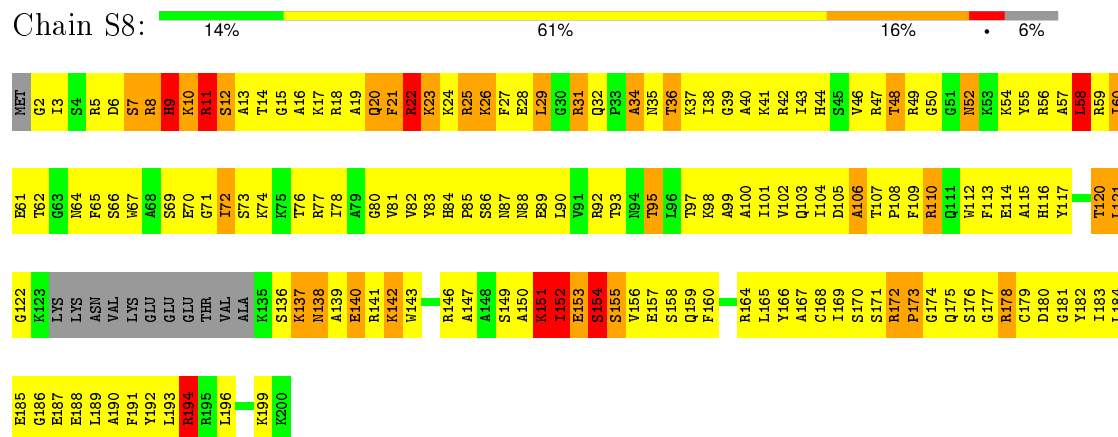
• Molecule 9: 40S ribosomal protein S7-A



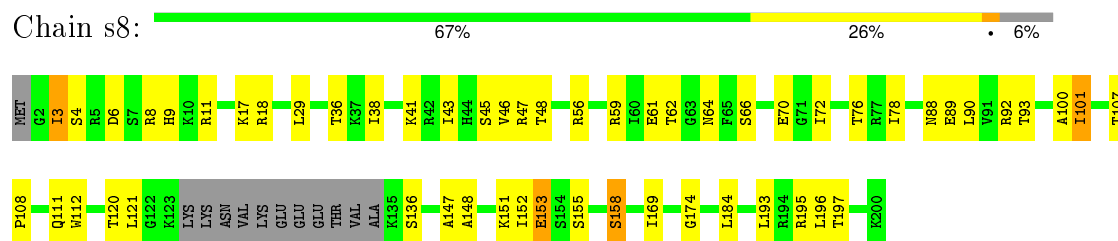
• Molecule 9: 40S ribosomal protein S7-A



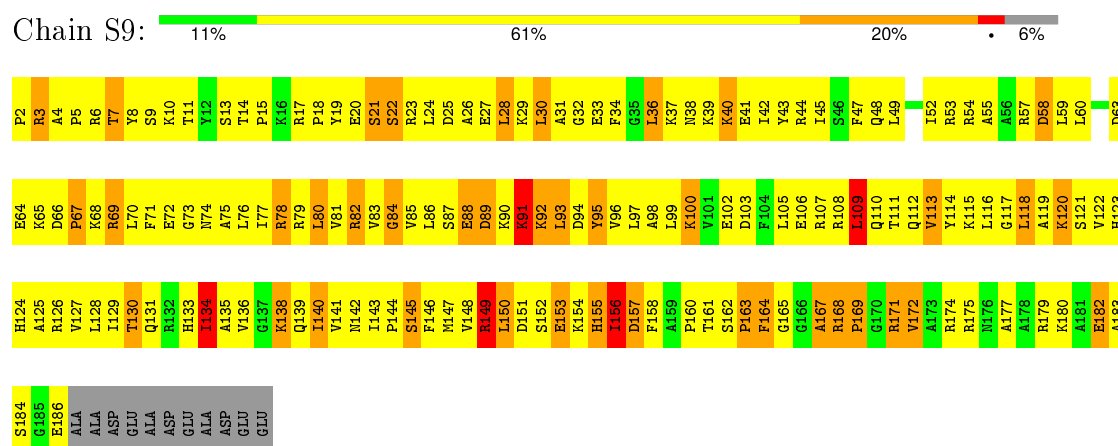
• Molecule 10: 40S ribosomal protein S8-A



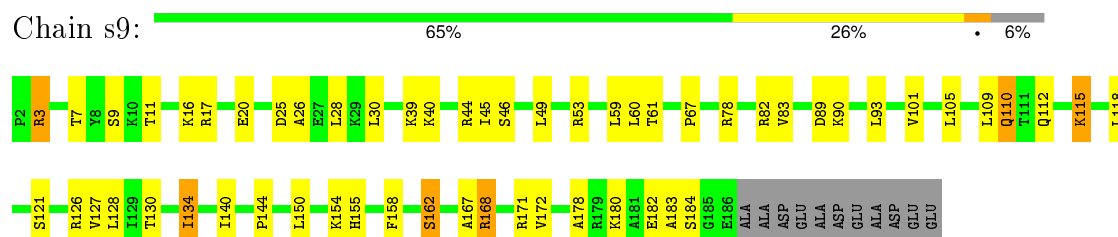
- Molecule 10: 40S ribosomal protein S8-A



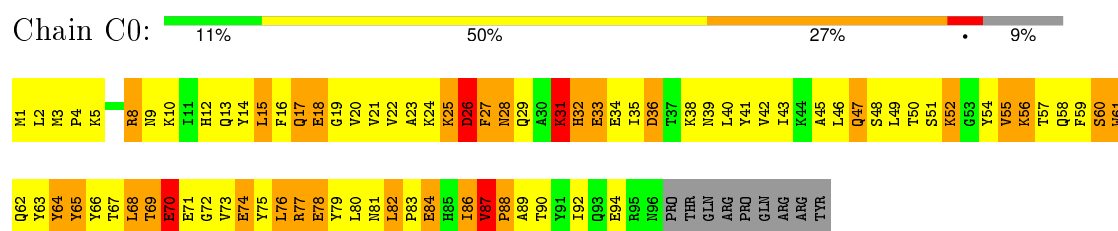
- Molecule 11: 40S ribosomal protein S9-A



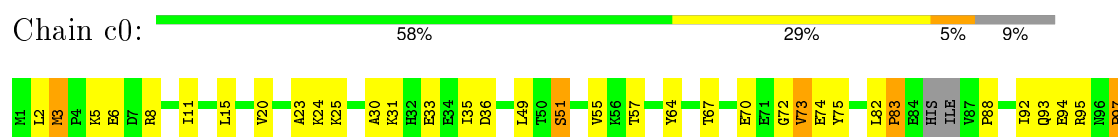
- Molecule 11: 40S ribosomal protein S9-A

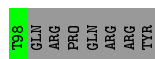


- Molecule 12: 40S ribosomal protein S10-A



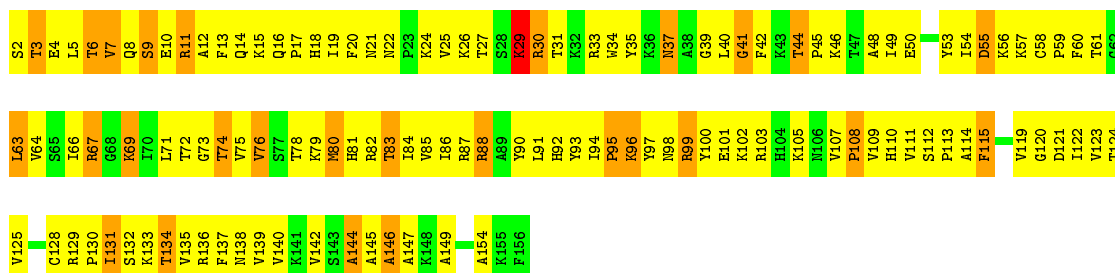
- Molecule 12: 40S ribosomal protein S10-A





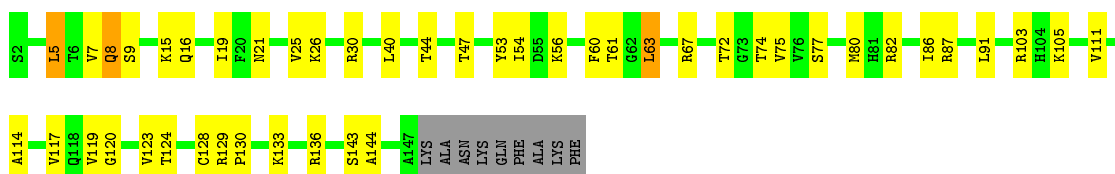
- Molecule 13: 40S ribosomal protein S11-A

Chain C1: 20% 62% 17%



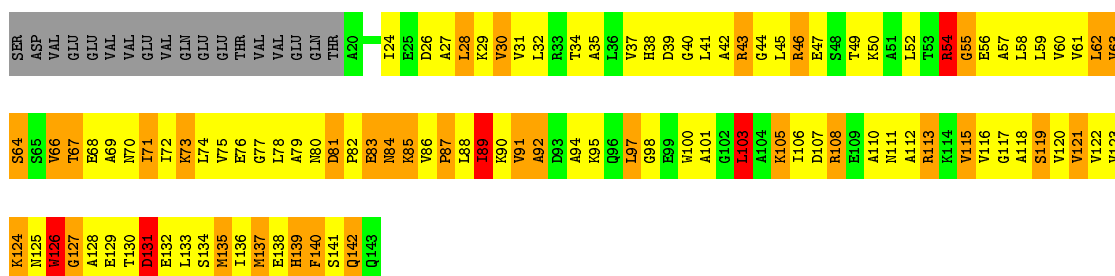
- Molecule 13: 40S ribosomal protein S11-A

Chain c1: 65% 28% 6%



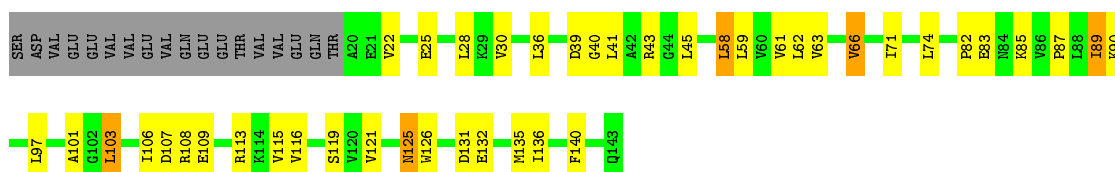
- Molecule 14: 40S ribosomal protein S12

Chain C2: 13% 47% 23% 13%



- Molecule 14: 40S ribosomal protein S12

Chain c2: 57% 27% 13%



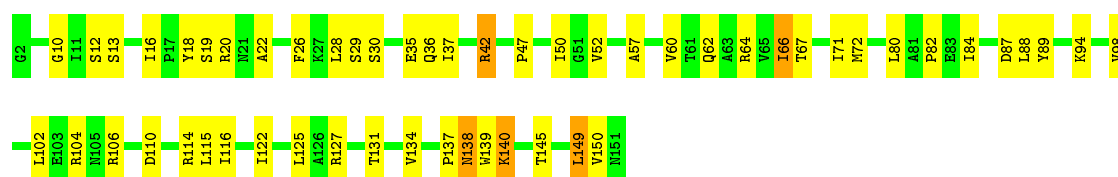
- Molecule 15: 40S ribosomal protein S13

Chain C3: 17% 63% 19%



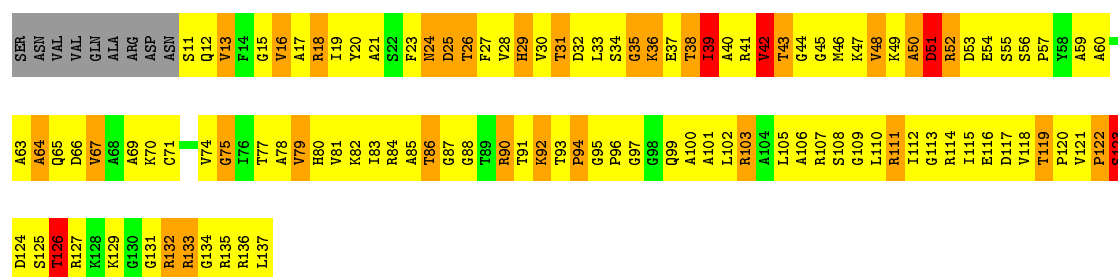
• Molecule 15: 40S ribosomal protein S13

Chain c3: 64% 33%



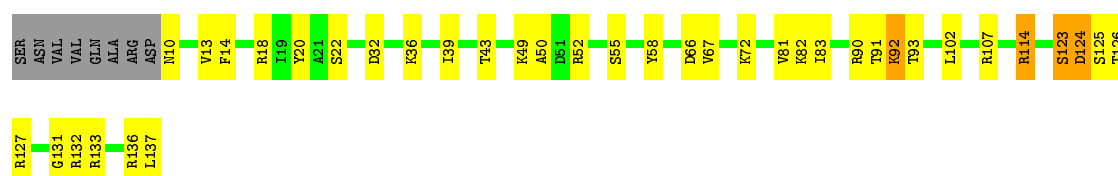
• Molecule 16: 40S ribosomal protein S14-A

Chain C4: 10% 58% 21% 7%



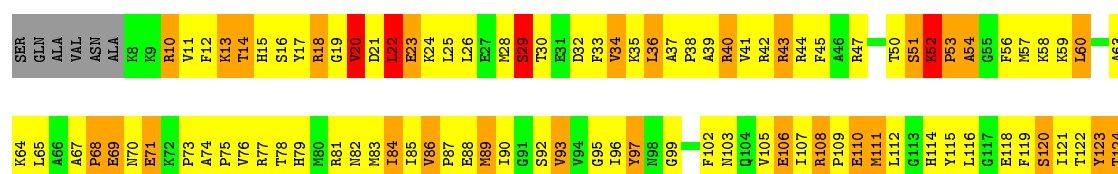
• Molecule 16: 40S ribosomal protein S14-A

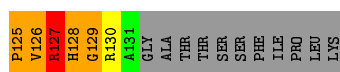
Chain c4: 66% 25% 6%



• Molecule 17: 40S ribosomal protein S15

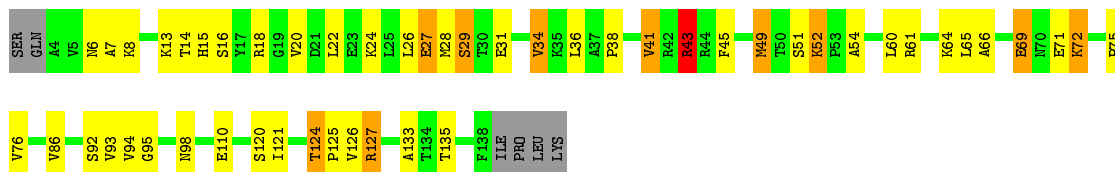
Chain C5: 16% 46% 23% 12%





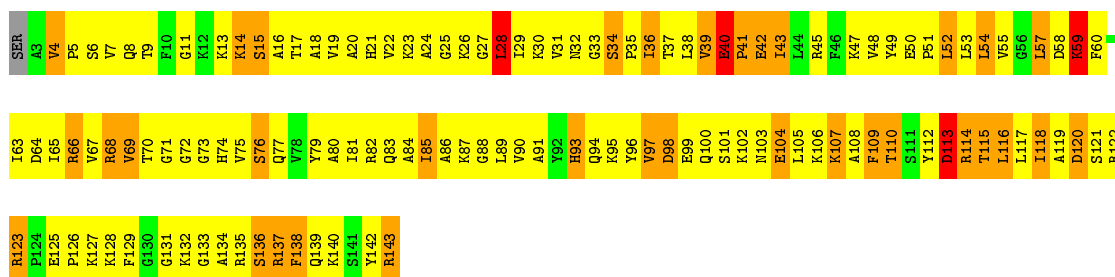
- Molecule 17: 40S ribosomal protein S15

Chain c5: 60% 28% 7% . .



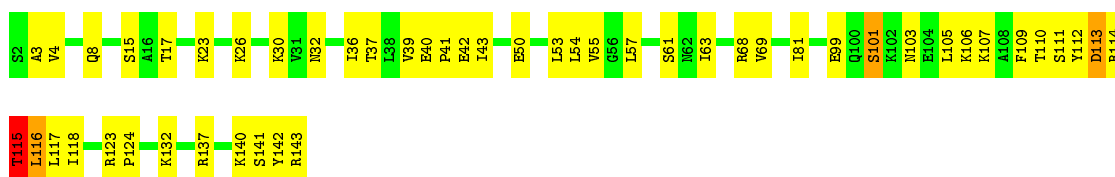
- Molecule 18: 40S ribosomal protein S16-A

Chain C6: 10% 63% 24% . .



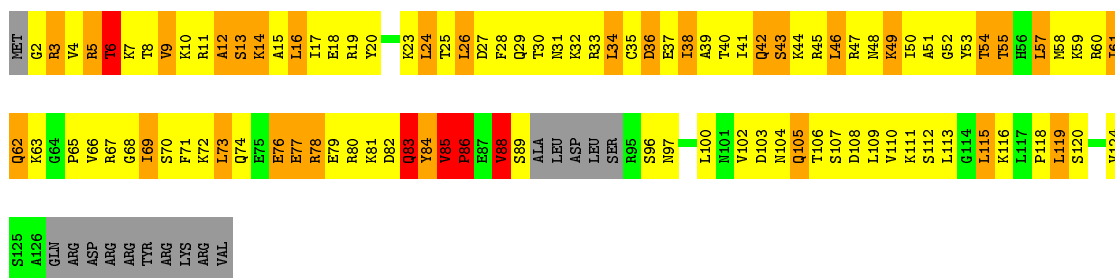
- Molecule 18: 40S ribosomal protein S16-A

Chain c6: 65% 32% . .

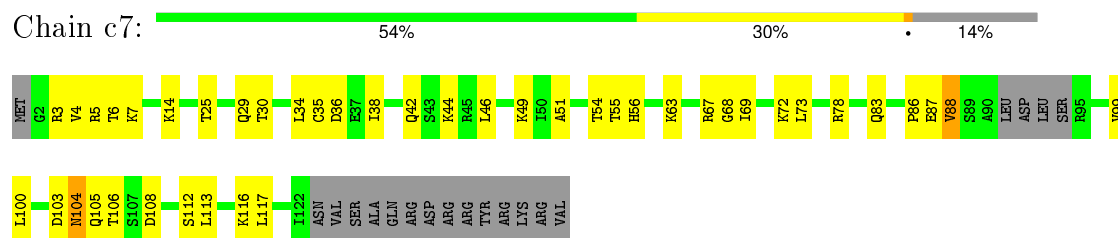


- Molecule 19: 40S ribosomal protein S17-A

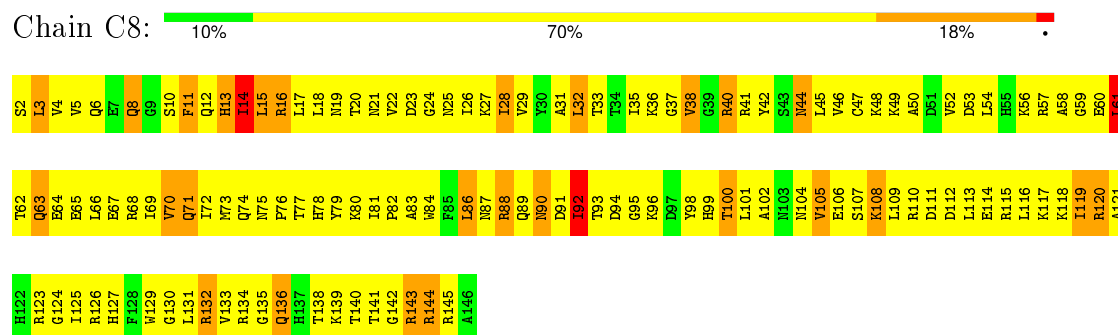
Chain C7: 13% 50% 22% . 12%



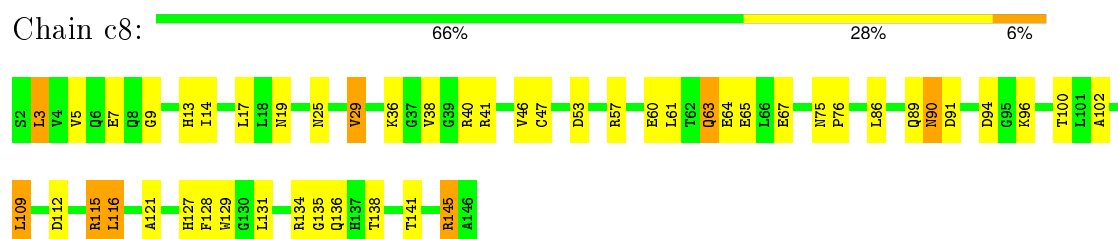
- Molecule 19: 40S ribosomal protein S17-A



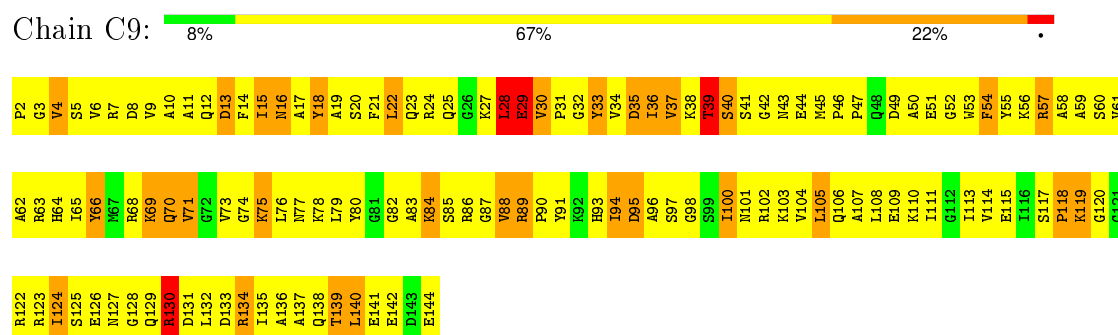
- Molecule 20: 40S ribosomal protein S18-A



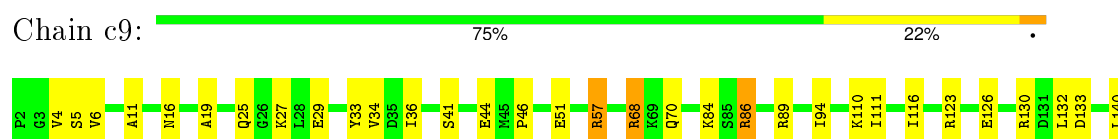
- Molecule 20: 40S ribosomal protein S18-A



- Molecule 21: 40S ribosomal protein S19-A



- Molecule 21: 40S ribosomal protein S19-A



E141
E142
D143
E144

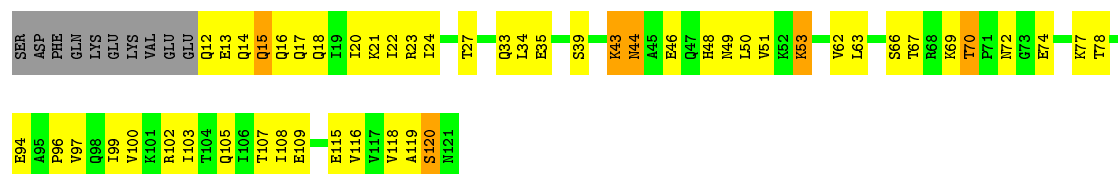
- Molecule 22: 40S ribosomal protein S20

Chain D0: 8% 58% 23% 11%



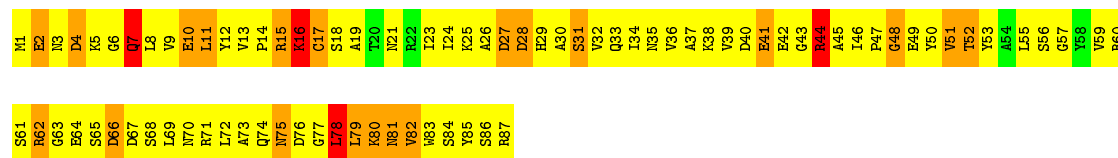
- Molecule 22: 40S ribosomal protein S20

Chain d0: 49% 38% 5% 8%



- Molecule 23: 40S ribosomal protein S21-A

Chain D1: 5% 68% 23% 5%



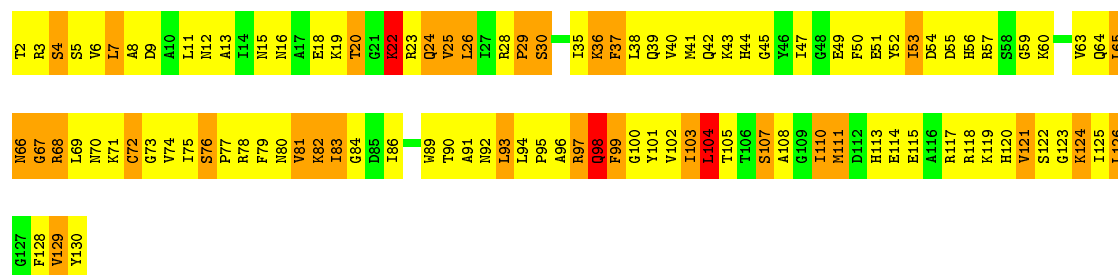
- Molecule 23: 40S ribosomal protein S21-A

Chain d1: 70% 26%

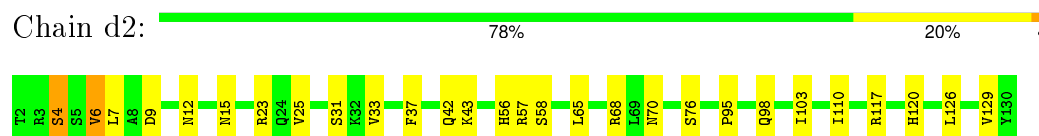


- Molecule 24: 40S ribosomal protein S22-A

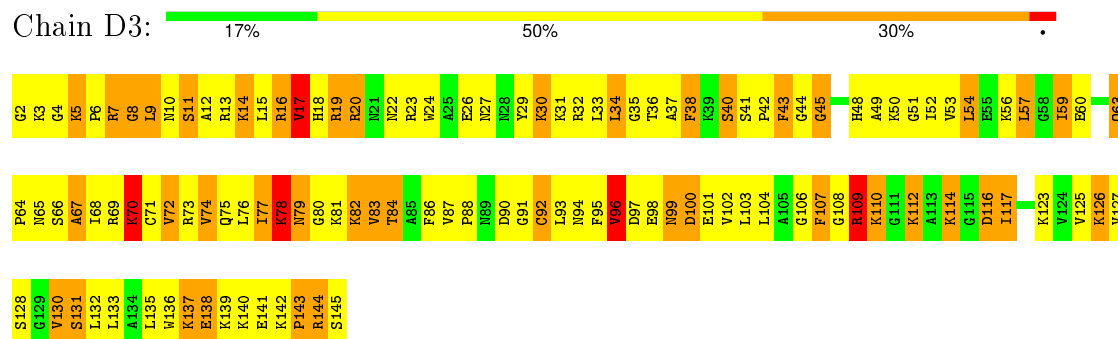
Chain D2: 17% 57% 24%



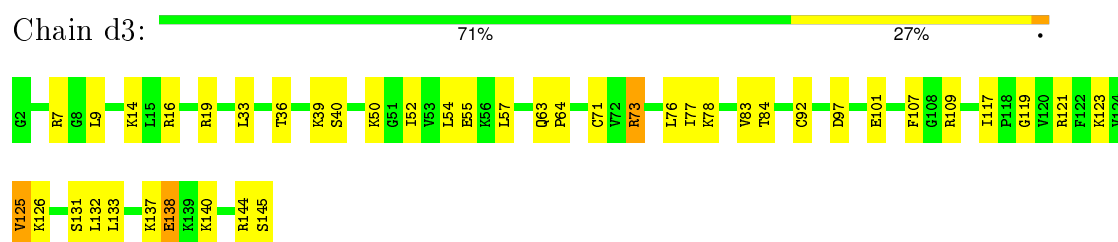
- Molecule 24: 40S ribosomal protein S22-A



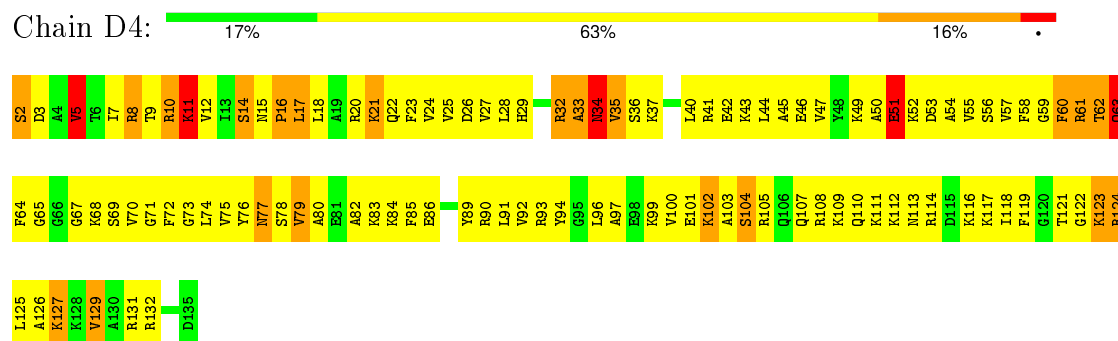
- Molecule 25: 40S ribosomal protein S23-A



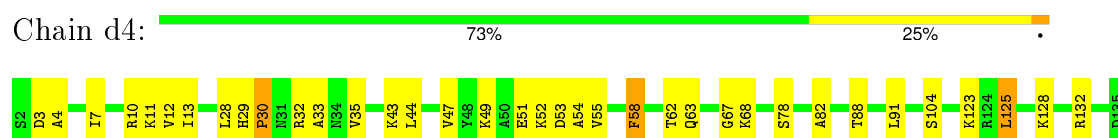
- Molecule 25: 40S ribosomal protein S23-A



- Molecule 26: 40S ribosomal protein S24-A

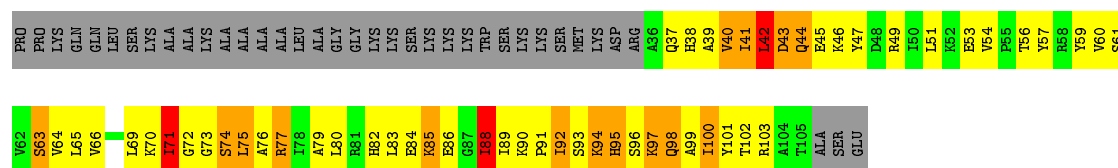


- Molecule 26: 40S ribosomal protein S24-A



- Molecule 27: 40S ribosomal protein S25-A

Chain D5: 

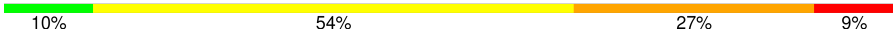


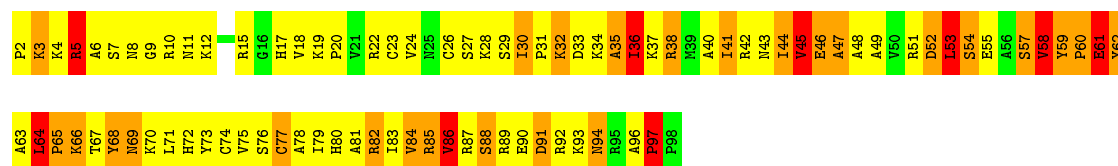
- Molecule 27: 40S ribosomal protein S25-A

Chain d5: 



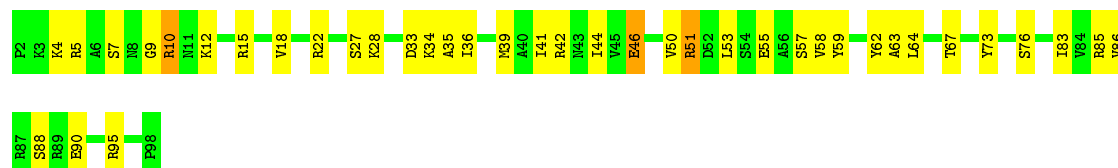
- Molecule 28: 40S ribosomal protein S26-B

Chain D6: 



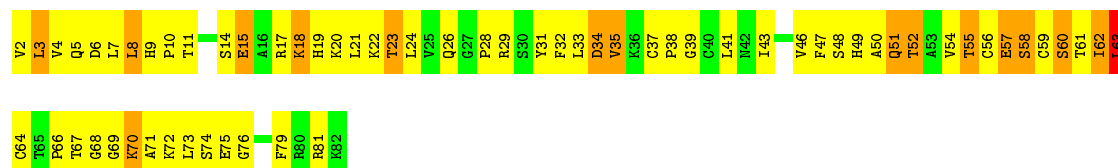
- Molecule 28: 40S ribosomal protein S26-B

Chain d6: 



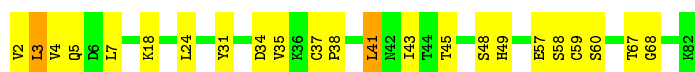
- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 



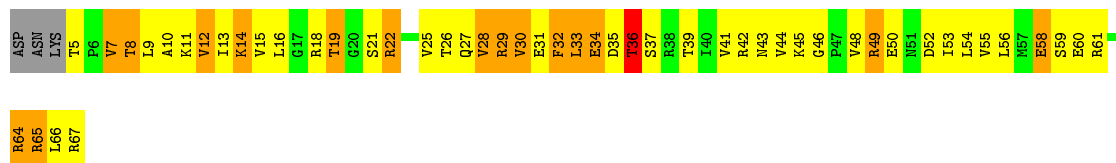
- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 



- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 18% 52% 24% 5%



- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 65% 26% 5% 5%



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 16% 55% 20% 5%



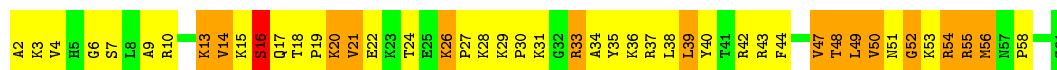
- Molecule 31: 40S ribosomal protein S29-A

Chain d9: 58% 35%



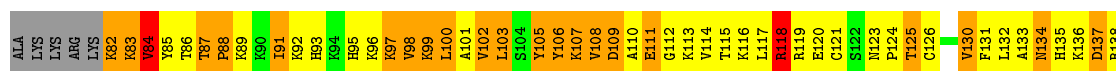
- Molecule 32: 40S ribosomal protein S30-A

Chain E0: 23% 50% 25% 5%



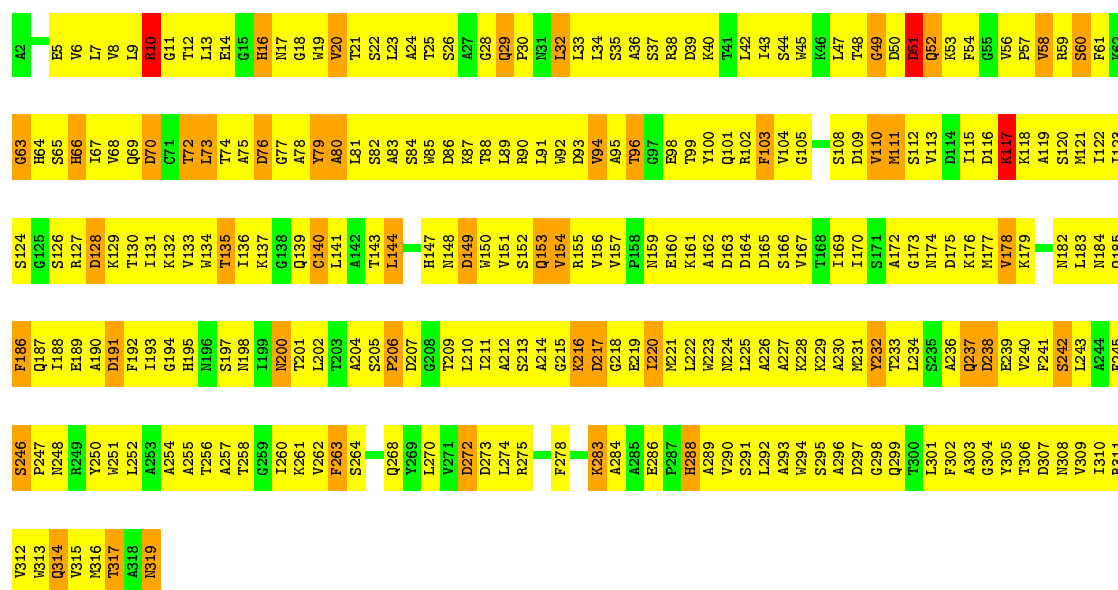
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1: 13% 45% 33% 7%



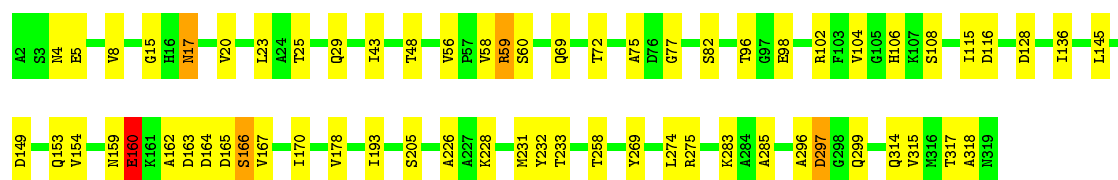
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR: 

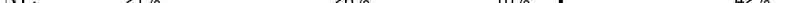


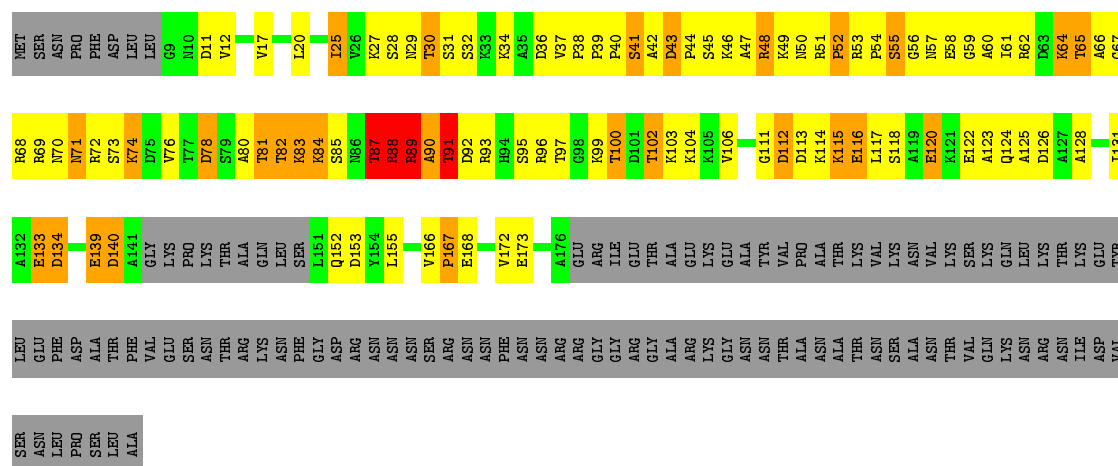
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain sR: 80% 19%



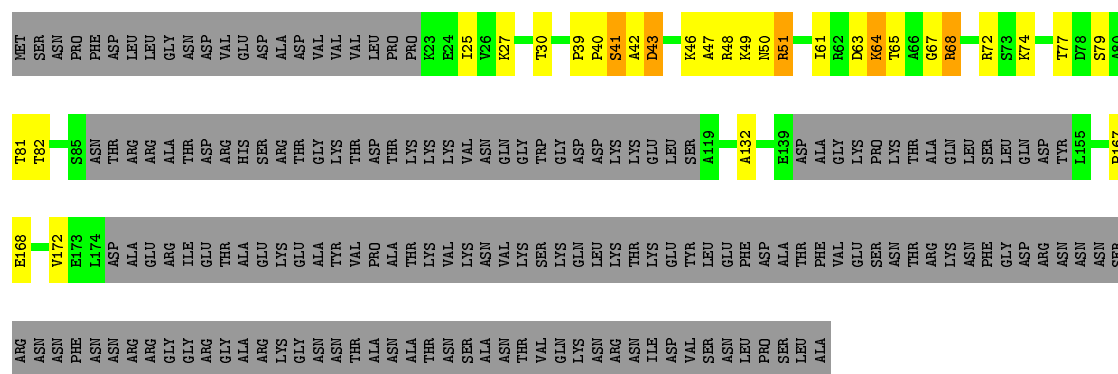
- Molecule 35: Suppressor protein STM1

Chain SM: 

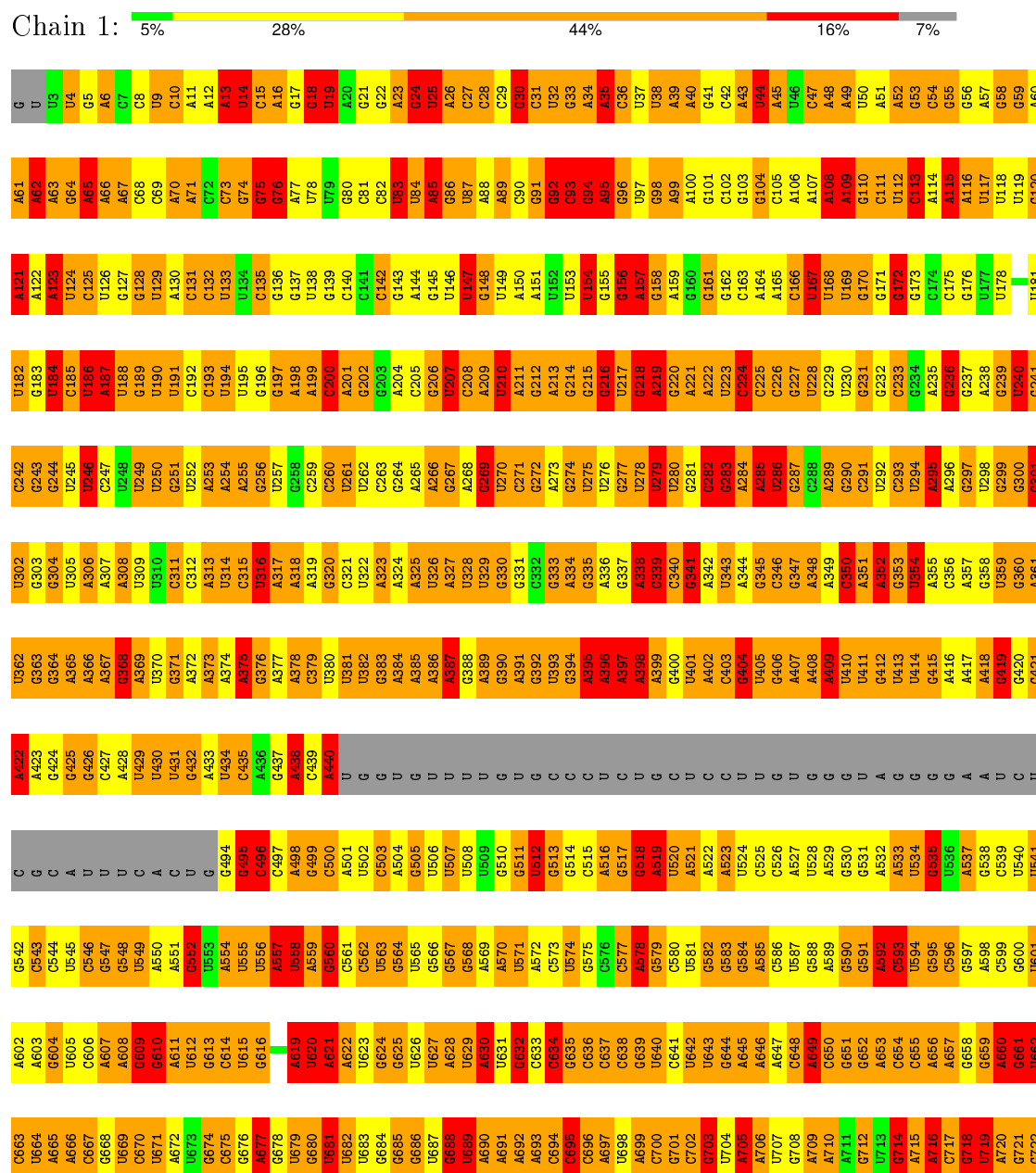


- Molecule 35: Suppressor protein STM1

Chain sM:  27% 9% 0% 62%



- Molecule 36: 25S ribosomal RNA



U1630	C1631	A1632	C1633	G1634	C1635	G1636	A1637	C1638	G1639	C1640	A1641	C1642	A1643	G1644	C1645	G1646	A1647	C1648	G1649	U1650	U1651	C1652	G1653	A1654	C1655	U1656	C1657	G1658	U1659	C1660	U1661	A1662	C1663	G1664	A1665	C1666	U1667	A1668	C1669	U1670	C1671	A1672	U1673	C1674	U1675	A1676	C1677	U1678	A1679	C1680	U1681	C1682	A1683	C1684	U1685	A1686	U1687	C1688	U1689		
U1570	U1571	A1572	U1573	G1574	A1575	U1576	C1577	U1578	A1579	U1580	C1581	U1582	A1583	U1584	C1585	G1586	C1587	A1588	U1589	C1590	U1591	C1592	A1593	U1594	C1595	U1596	C1597	U1598	U1599	U1600	U1601	A1602	C1603	G1604	A1605	C1606	U1607	C1608	U1609	U1610	C1611	A1612	U1613	C1614	U1615	A1616	C1617	U1618	A1619	U1620	A1621	U1622	C1623	A1624	U1625	C1626	U1627	C1628	U1629		
G1450	C1451	A1452	A1453	G1454	U1455	A1456	U1457	A1458	C1459	U1460	A1461	U1462	A1463	U1464	A1465	A1466	A1467	A1468	U1469	U1470	U1471	U1472	G1473	A1474	U1475	A1476	U1477	A1478	U1479	U1480	A1481	U1482	U1483	A1484	C1485	A1486	U1487	U1488	A1489	U1490	U1491	C1492	U1493	U1494	U1495	C1496	U1497	A1498	U1499	U1500	U1501	U1502	A1503	U1504	C1505	U1506	U1507	U1508	U1509	U1510	
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U1269	A1270	U1271	C1272	A1273	U1274	C1275	U1276	C1277	A1278	U1279	C1280	U1281	C1282	U1283	A1284	U1285	A1286	A1287	U1288	U1289	U1290	C1292	U1293	A1294	U1295	C1296	U1297	C1298	U1299	A1300	U1301	U1302	A1303	C1304	U1305	U1306	A1307	U1308	U1309	U1310	C1311	U1312	C1313	U1314	U1315	U1316	U1317	U1318	U1319	U1320	U1321	U1322	U1323	U1324	U1325	U1326	U1327	U1328	U1329		
G1149	A1150	U1151	G1152	A1153	U1154	C1155	C1156	U1157	A1158	U1159	C1160	U1161	A1162	U1163	G1164	A1165	U1166	C1167	U1168	U1169	U1170	U1171	C1172	U1173	G1174	C1175	U1176	G1177	U1178	A1179	U1180	U1181	A1182	C1183	U1184	C1185	U1186	C1187	U1188	U1189	A1190	U1191	C1192	U1193	G1194	A1195	C1196	A1197	U1198	U1199	A1200	C1201	U1202	A1203	U1204	A1205	G1206	U1207	U1208		
G1087	U1088	G1089	U1090	A1091	U1092	U1093	U1094	U1095	U1096	U1097	A1098	U1099	U1100	A1101	U1102	A1103	G1104	A1105	C1106	U1107	U1108	U1109	U1110	U1111	A1112	U1113	U1114	C1115	U1116	U1117	U1118	C1119	A1120	U1121	U1122	U1123	U1124	U1125	U1126	U1127	U1128	U1129	A1130	U1131	C1132	U1133	U1134	A1135	U1136	C1137	U1138	U1139	U1140	C1141	U1142	A1143	U1144	U1145	C1146	U1147	U1148
A1026	A1027	U1028	G1029	A1030	C1031	U1032	U1033	U1034	U1035	U1036	C1037	C1038	U1039	A1040	U1041	U1042	U1043	U1044	U1045	A1046	A1047	U1048	C1049	U1050	U1051	U1052	A1053	U1054	A1055	U1056	A1057	U1058	U1059	U1060	A1061	U1062	A1063	U1064	A1065	U1066	U1067	C1068	U1069	U1070	U1071	G1072	U1073	U1074	A1075	C1076	U1077	U1078	A1079	U1080	U1081	U1082	A1083	U1084	C1085	U1086	U1087
U966	A967	C968	C969	A970	C971	A972	A973	C974	U975	U976	C977	C978	U979	A980	U981	C982	A983	U984	U985	A986	U987	C988	A989	U990	C991	A992	U993	A994	U995	A996	U997	U998	U999	A1000	G1001	A1002	A1003	U1004	G1005	U1006	U1007	U1008	U1009	U1010	A1011	U1012	G1013	U1014	U1015	C1016	U1017	U1018	U1019	C1020	U1021	U1022	C1023	U1024	U1025		
A846	A847	A848	C849	U850	C851	U852	U853	A854	U855	U856	A857	A858	U859	A860	C861	U862	C863	A864	U865	A866	U867	C868	A869	C870	U871	U872	A873	U874	U875	A876	C877	A878	U879	A880	U881	A882	A883	C884	U885	C886	U887	U888	C889	A890	U891	U892	C893	A894	U895	A896	C897	U898	U899	G900	A901	A902	G903	A904	U905		
A784	G785	A786	C787	U788	A789	U790	A791	G792	C793	U794	A795	U796	U797	G798	A799	U800	C801	C802	C803	C804	A805	C806	A807	A808	C809	A810	U811	G812	A813	U814	C815	A816	A817	C818	U819	A820	U821	C822	C823	U824	U825	C826	A827	U828	U829	A830	C831	G832	U833	U834	A835	U836	A837	U838	C839	C840	A841	G842			
U723	U724	G725	C726	U727	A728	U729	C730	U731	C732	U733	A734	U735	A736	G737	U738	C739	U740	U741	C742	C743	A744	C745	A746	U747	U748	C749	A750	U751	C752	U753	A754	C755	U756	A757	C758	U759	A760	U761	U762	C763	U764	C765	U766	U767	C768	U769	A770	C771	U772	U773	G774	A775	U776	U777	U778	U779	A780	U781	U782	A783	

A2601	G2539	C	A2295	C2235	G2174	C2144	G	G1934	A1874	A1814	G1751	C1690
G2602	A2540	C	A2296	G2236	U2175	G2115	U	G1935	G1875	U1815	A1752	U1691
G2603	A2541	A	U2297	C2237	U2176	G2116	C	A1936	U1876	A1816	U1753	U1692
U2604	U2542	G	U2298	G2238	C2177	A2117	U	U1937	U1877	A1817	G1754	C1693
G2605	C2543	U	A2299	G2239	A2178	C2118	G	U1938	G1878	U1818	G1755	U1694
G2606	C2544	U	A2299	G2240	C2179	A2119	U	G1939	A1879	U1819	U1756	U1695
G2607	C2545	A	U2301	U2241	G2180	A2120	A	G1940	U1880	U1820	A1696	A1696
G2608	U2546	A	G2302	A2242	G2181	G2121	U	C1941	U1881	U1821	G1758	A1697
A2609	A2547	A	A2303	A2243	A2182	G2122	G	U1942	G1882	C1822	C1759	A1698
G2610	G2548	U	C2304	A2244	A2183	G2123	U	C1943	A1883	A1823	A1760	A1699
G2611	G2549	A	G2305	C2245	U2184	G2124	C	U1944	A1884	U1824	C1761	A1700
U2612	U2550	C	C2306	G2246	G2185	A2125	G	A1945	U1885	G1825	U1763	C1701
G2613	U2551	C	G2307	G2247	A2186	A2126	C	U1946	A1886	C1826	U1764	U1702
U2614	A2552	A	C2308	C2248	G2187	U2127	U	G1947	A1887	C1827	U1765	U1703
G2615	G2553	C	A2309	G2249	A2188	C2128	U	G1948	U1888	A1828	U1766	A1704
G2616	U2554	U	U2310	C2250	U2189	U2129	G	C1949	G1889	A1829	G1767	A1705
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G2618	C2556	C	A2312	A2252	U2191	A2131	A	C1951	A1891	U1831	U1769	C1708
G2619	C2557	C	G2313	G2253	C2192	C2132	G	G1952	G1892	C1832	G1770	C1709
G2620	U2558	U	U2314	U2254	U2193	U2133	A	U1953	A1893	G1833	C1771	C1710
G2621	U2559	U	G2315	A2255	C2194	G2134	C	G1954	A1894	U1834	U1772	G1711
G2622	C2560	U	G2316	A2256	C2195	U2135	C	U1955	A1895	A1835	C1773	G1712
G2623	A2561	U	A2317	C2257	C2196	C2136	G	A	A1896	C1836	C1774	G1713
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G2625	C2563	U	U2319	A2259	A2198	A2138	C	G	G1898	A1838	U1776	A1715
A2626	U2564	U	A2320	U2260	G2199	A2139	G	U	G1899	A1839	C1779	U1716
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C2630	C2568	A	A2324	U2264	U2203	A2143	G	C	U1903	C1843	U1783	U1720
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G2632	U2570	U	A2326	U2266	U2205	A2145	G	C	G1905	G1845	U1785	U1722
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U2637	G2575	U	G2331	A2271	G2210	G2150	U	C	A1910	A1850	G1790	G1727
C2638	U2576	U	A2332	G2272	U2211	C2151	U	C	A1911	G1851	C1791	G1728
G2639	G2579	U	C2333	G2273	C2212	A2152	A	G	U1912	G1852	C1792	A1729
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A2642	C2582	A	U2336	G2276	A2215	G2155	G	C	A1915	U1855	U1795	U1732
G2643	C2583	U	C2337	C2277	G2216	G2156	U	C	U1916	C1856	G1796	G1733
C2644	U2584	A	G2338	C2278	U2217	G2157	G	C	C1917	C1857	A1797	G1734
G2645	G2585	A	C2339	A2279	G2218	A2158	C	A	C1918	A1858	A1798	G1735
C2646	U2586	G	U2340	A2280	A2219	U2159	C	G	G1919	A1859	A1799	G1736
A2647	U2587	U	A2341	C2281	A2220	G2160	U	C	U1920	G1860	A1800	U1737
G2648	G2588	G	U2342	U2282	G2161	G2161	U	G	A1921	U1861	U1801	C1738
A2649	C2589	G	C2343	G2283	U2262	U2162	G	G	A1922	U1862	C1802	U1739
U2650	A2590	G	U2344	C2284	C2163	U2163	U	C	C1923	G1863	G1803	U1740
G2651	U2591	A	A2345	C2285	A2224	A2164	U	C	U1924	A1864	A1804	A1741
U2652	C2592	G	G2346	U2286	U2226	G2165	G	C	U1925	A1865	C1805	U1742
C2653	A2593	C	U2347	C2287	C2227	A2166	U	U	C1926	A1866	G1743	G1743
G2654	U2594	U	A2348	G2288	A2228	A2167	A	G	G1927	A1867	G1807	G1744
U2655	G2595	U	U2349	U2289	A2229	A2168	C	C	G1928	G1868	G1808	C1745
A2656	U2596	C	C2350	C2290	C2230	G2169	A	U	G1929	C1869	A1809	U1746
G2657	U2597	G	U2351	A2291	C2231	U2170	C	U	A1930	C1870	A1810	G1747
C2658	C2598	C	A2352	U2292	A2232	G2171	G	G	U1931	U1871	G1811	G1748
U2659	U2599	G	G2353	C2293	A2233	A2172	U	U	A1932	C1872	C1812	A1749
G2660	C2600	U	C2354	U2294	G2234	U2173	C	G	A1933	U1873	A1813	A1750

A3323	G3263	C3143	G3083	G3022	U2962	A2902	U2842	U2721	C2661
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G3325	G3265	G3145	A3085	A3024	G2964	U2904	A2844	U2723	C2663
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G3327	A3267	G3147	A3087	G3026	C2966	C2906	U2846	U2725	U2665
G3328	A3268	U3148	A3088	A3027	U2967	G2907	U2847	U2726	C2666
G3329	U3269	G3149	C3089	G3028	G2968	G2908	G2848	A2727	A2667
A3330	U3270	A3150	A3090	G3029	G2969	U2909	C2849	U2728	U2668
A3331	G3271	U3151	A3091	G3030	C2970	A2910	C2850	U2729	C2669
G3332	C3272	A3152	C3092	G3031	U2971	A2911	A2851	G2730	A2670
G3333	A3273	U3153	C3093	A3032	G2972	G2912	C2852	U2731	A2671
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A3335	U3275	U3155	A3095	C3034	U2974	G2914	C2854	G2733	A2673
A3336	G3276	U3156	C3096		U2975	U2915	U2855	A2734	A2674
G3337	U3277	G3157	C3097	U3037	A2976	U2916	C2856	U2735	C2675
C3338	A3278	A3158	G3098	U3038	G2977	G2917	C2857	A2736	A2676
A3339	G3279	C3159	C3099	C3039	U2978	G2918	C2858	C2737	G2677
G3340	A3280	U3160	U3100	A3040	U2979	A2919	U2859	A2738	A2678
U3341	C3281	G3161	G3101	U3041	U2980	U2920	U2860	A2739	A2679
A3342	U3282	C3162	G3102	U3042	U2981	U2921	U2861	A2740	A2680
G3343	G3283	A3163	A3103	C3043	A2982	G2922	U2862	C2741	U2681
A3344	G3284	C3164	U3104	G3044	C2983	U2923	C2863	C2742	C2682
G3345	C3285	A3165	G3105	G3045	C2984	U2924	A2864	A2743	U2683
G3346	G3286	C3166	A3106	A3046	C2985	C2925	U2865	U2744	C2684
A3347	U3287	A3167	U3107	U3047	U2986	A2926	U2866	G2745	C2685
G3348	G3288	A3168	G3108	A3048	A2987	C2927	C2867	A2746	A2686
C3349	U3289	A3169	G3109	A3049	C2988	G2928	U2868	A2747	C2687
C3350	G3290	A3170	C3110	U3050	C2989	C2929	U2869	U2748	U2688
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C3352	A3292	A3172	G3112	G3052	U2991	C2931	C2871	U2750	C2690
G3353	U3293	G3173	A3113	C3053	U2992	U2932	A2872	G2751	A2691
A3354	A3294	A3174	A3114	U3054	G2993	A2933	U2873	U2752	A2692
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G3356	A3296	G3176	G3116	U3056	U2995	U2935	U2875	C2754	A2694
U3357	G3297	G3177	C3117	U3057	C2996	A2936	C2876	G2755	A2695
U3358	C3298	A3178	C3118	U3058	G2997	G2937	G2877	C2756	A2696
A3359	A3299	U3179	U3119	G3059	U2998	G2938	G2878	U2757	C2697
C3360	C3300	A3180	C3120	C3060	U2999	G2939	C2879	A2758	G2698
G3361	U3301	C3181	U3121	G3061	A3000	A2940	U2880	U2759	G2699
A3362	G3302	G3182	A3122	C3062	C3001	A2941	C2881	C2760	G2700
U3363	G3303	A3183	A3123	C3063	C3002	C2942	U2882	G2761	U2701
G3364	U3304	A3184	G3124	U3064	G3003	C2943	U2883	A2762	A2702
A3365	A3305	U3185	U3125	G3065	C3004	U2944	C2884	U2763	A2703
U3366	G3306	A3186	C3126	U3066	C3005	G2945	C2885	G2764	A2704
C3367	A3307	A3187	A3127	C3067	A3006	A2946	U2886	C2765	A2705
G3368	C3308	G3188	G3128	U3068	U3007	G2947	U2887	U2766	G2706
U3369	G3309	A3189	A3129	G3069	C3008	C2948	C2888	U2767	C2707
G3370	A3310	C3190	A3130	A3070	G3009	U2949	C2889	U2768	C2708
A3371	C3311	G3191	U3131	U3071	U3010	G2950	A2890	A2769	C2709
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G3373	U3313	C3193	C3133	A3073	A3012	C2952	A2892	U2771	C2711
U3374	A3314	C3194	A3134	G3074	U3013	U2953	C2893	U2772	U2712
A3375	U3315	U3195	U3135	G3075	C3014	U2954	C2894	C2773	U2713
G3376	G3316	U3196	G3136	C3076	G3015	U2955	U2895	C2774	G2714
U3377	C3317	G3197	C3137	A3077	A3016	A2956	A2896	U2775	A2715
A3378	U3318	U3198	U3138	U3078	A3017	G2957	A2897	G2776	U2716
G3379	G3319	G3199	A3139	U3079	C3018	A2958	C2898	G2777	U2717
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A3381	A3321	C3201	A3141	C3081	U3020	C2960	A2900	A2779	U2719
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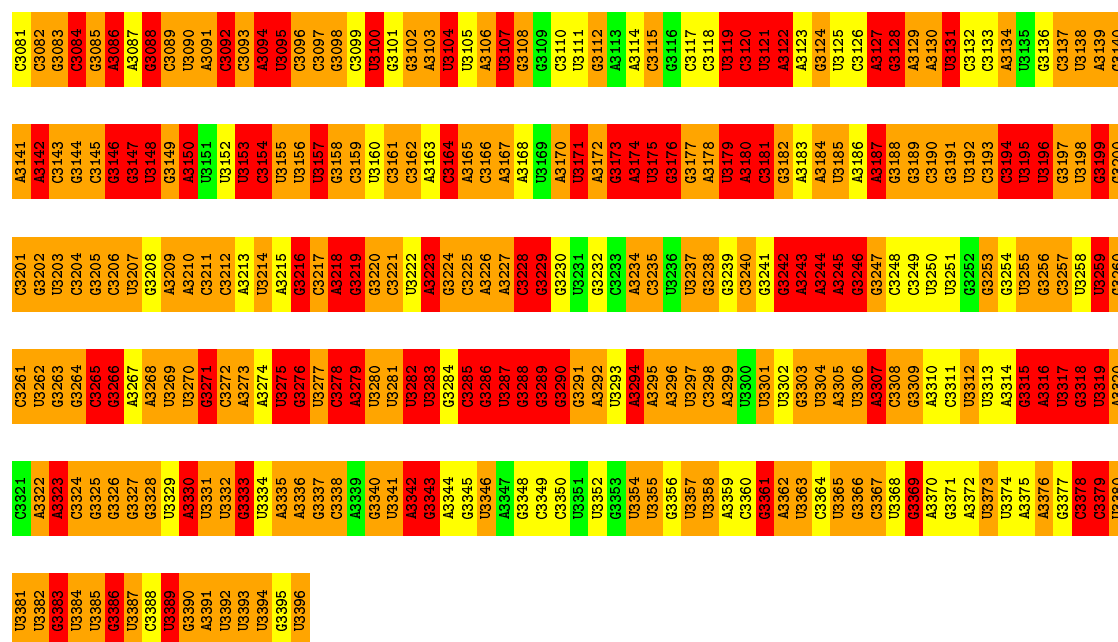
Chain 5: 5% 26% 44% 17% 7%

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A66	A6	A66
A67	C7	A67
C68	C8	A68
C69	U9	A69
A70	A10	A70
A71	A11	A71
G72	A12	A72
G73	A13	A73
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U78	G18	A78
U79	U19	A79
G80	A20	A80
C81	G21	A81
C82	G22	A82
U83	A23	A83
U84	G24	A84
A85	U25	A85
G86	A26	A86
U87	C27	A87
A88	C28	A88
A89	C29	A89
C90	G30	A90
G91	C31	A91
G92	U32	A92
C93	G33	A93
G94	A34	A94
A95	A35	A95
G96	C36	A96
U97	U37	A97
C98	U38	A98
A99	A39	A99
A100	A40	A100
G101	G41	A101
C102	C42	A102
G103	A43	A103
U104	U44	A104
C105	A45	A105
G106	U46	A106
A107	C47	A107
A108	A48	A108
A109	G371	A109
G110	A49	A110
C111	U50	A111
U112	A51	A112
C113	A52	A113
A114	C53	A114
A115	C54	A115
G116	G377	A116
C117	C378	A117
U118	C56	A118
A57	A57	A57
G58	C58	A58
C120	U59	A120
A121	A60	A121

G1086	G1087	G1088	G1089	G1090	G1091	G1092	G1093	G1094	G1095	G1096	G1097	G1098	G1099	G1100	G1101	G1102	G1103	G1104	G1105	G1106	G1107	G1108	G1109	G1110	G1111	G1112	G1113	G1114	G1115	G1116	G1117	G1118	G1119	G1120	G1121	G1122	G1123	G1124	G1125	G1126	G1127	G1128	G1129	G1130	G1131	G1132	G1133	G1134	G1135	G1136	G1137	G1138	G1139	G1140	G1141	G1142	G1143	G1144	G1145																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
A906	A907	A908	A909	A910	A911	A912	A913	A914	A915	A916	A917	A918	A919	A920	A921	A922	A923	A924	A925	A926	A927	A928	A929	A930	A931	A932	A933	A934	A935	A936	A937	A938	A939	A940	A941	A942	A943	A944	A945	A946	A947	A948	A949	A950	A951	A952	A953	A954	A955	A956	A957	A958	A959	A960	A961	A962	A963	A964	A965																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
A846	A847	A848	A849	A850	A851	A852	A853	A854	A855	A856	A857	A858	A859	A860	A861	A862	A863	A864	A865	A866	A867	A868	A869	A870	A871	A872	A873	A874	A875	A876	A877	A878	A879	A880	A881	A882	A883	A884	A885	A886	A887	A888	A889	A890	A891	A892	A893	A894	A895	A896	A897	A898	A899	A900	A901	A902	A903	A904	A905																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
A786	A787	A788	A789	A790	A791	A792	A793	A794	A795	A796	A797	A798	A799	A800	A801	A802	A803	A804	A805	A806	A807	A808	A809	A810	A811	A812	A813	A814	A815	A816	A817	A818	A819	A820	A821	A822	A823	A824	A825	A826	A827	A828	A829	A830	A831	A832	A833	A834	A835	A836	A837	A838	A839	A840	A841	A842	A843	A844	A845																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
G725	G726	G727	G728	G729	G730	G731	G732	G733	G734	G735	G736	G737	G738	G739	G740	G741	G742	G743	G744	G745	G746	G747	G748	G749	G750	G751	G752	G753	G754	G755	G756	G757	G758	G759	G760	G761	G762	G763	G764	G765	G766	G767	G768	G769	G770	G771	G772	G773	G774	G775	G776	G777	G778	G779	G780	G781	G782	G783	G784	G785																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
A666	A667	A668	A669	A670	A671	A672	A673	A674	A675	A676	A677	A678	A679	A680	A681	A682	A683	A684	A685	A686	A687	A688	A689	A690	A691	A692	A693	A694	A695	A696	A697	A698	A699	A700	A701	A702	A703	A704	A705	A706	A707	A708	A709	A710	A711	A712	A713	A714	A715	A716	A717	A718	A719	A720	A721	A722	A723	A724																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
U605	U606	U607	U608	U609	U610	U611	U612	U613	U614	U615	U616	U617	U618	U619	U620	U621	U622	U623	U624	U625	U626	U627	U628	U629	U630	U631	U632	U633	U634	U635	U636	U637	U638	U639	U640	U641	U642	U643	U644	U645	U646	U647	U648	U649	U650	U651	U652	U653	U654	U655	U656	U657	U658	U659	U660	U661	U662	U663	U664																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
U545	U546	U547	U548	U549	U550	U551	U552	U553	U554	U555	U556	U557	U558	U559	U560	U561	U562	U563	U564	U565	U566	U567	U568	U569	U570	U571	U572	U573	U574	U575	U576	U577	U578	U579	U580	U581	U582	U583	U584	U585	U586	U587	U588	U589	U590	U591	U592	U593	U594	U595	U596	U597	U598	U599	U600	U601	U602	U603	U604																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
C	A	U	U	U	U	C	A	C491	U492	G493	G494	G495	C496	C497	A498	G499	C500	A501	U502	U503	U504	U505	U506	U507	U508	U509	G510	G511	U512	U513	U514	U515	U516	U517	U518	U519	U520	A521	A522	A523	U524	C525	C526	U527	U528	U529	U530	U531	U532	U533	U534	U535	U536	U537	U538	U539	U540	U541	U542	U543	U544																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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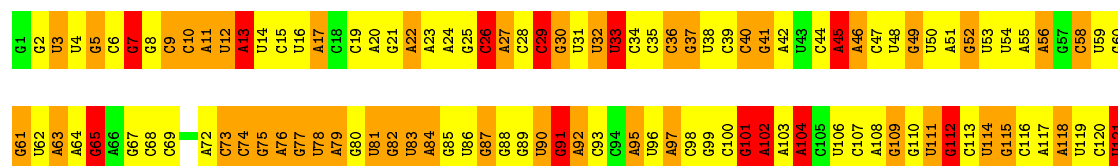


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A3024	G2964	U2964	U2904	G2844	U2723	G2663	G2603	U2542	U	U2421	A2361	U2301	G2240	G2180	A2120
G3025	U2965	A2965	U2905	A2845	U2724	G2664	U2604	U2543	G	C2422	C2362	G2302	U2241	C2181	G2121
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A3027	A2967	G2967	G2907	U2847	C2726	G2666	G2606	C2545	A	U2426	G2364	C2304	A2243	A2183	G2123
G3028	G2968	U2968	U2908	G2848	A2727	G2667	G2607	C2546	A	U2427	C2365	G2305	A2244	U2184	G2124
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G3033	G2973	A2973	C2913	A2853	G2732	G2672	U2612	U2551	A	G2431	G2370	U2310	G2249	U2189	U2129
C3034	U2974	U2974	G2914	U2854	A2733	A2673	U2613	C2552	C	A2432	G2371	G2311	G2250	U2190	G2130
A3035	U2975	U2975	U2915	U2855	U2734	A2674	G2614	U2553	U	U2433	A2372	A2312	G2251	U2191	A2131
G3036	A2976	U2976	U2916	G2856	U2735	C2675	G2615	A2554	A	U2434	A2373	A2313	A2252	C2192	C2132
U3037	U2977	G2977	G2917	A2857	A2736	A2676	G2616	G2555	C	G2435	C2374	U2314	G2253	U2193	U2133
U3038	U2978	U2978	G2918	G2858	C2737	G2677	U2617	C2556	C	U2436	G2375	U2315	U2254	G2194	G2134
C3039	U2979	U2979	A2919	U2859	A2738	A2678	G2618	A2557	U	G2437	G2376	G2316	A2255	C2195	U2135
A3040	U2980	U2980	U2920	U2860	A2739	A2679	G2619	U2558	U	A2438	G2377	A2317	A2256	C2196	U2136
U3041	U2981	U2981	G2921	U2861	U2740	A2680	G2620	U2559	U	U2439	C2378	A2318	C2257	C2197	U2137
U3042	A2982	U2982	G2922	G2862	C2741	U2681	G2621	C2560	A	G2440	U2379	A2319	U2258	A2198	A2138
C3043	C2983	G2983	U2923	G2863	C2742	C2682	C2622	A2561	U	A2441	U2380	A2320	A2259	G2199	A2139
G3044	C2984	U2984	U2924	A2864	A2743	U2683	G2623	A2562	A	G2442	G2381	U2321	U2260	U2200	U2140
G3045	C2985	U2985	G2925	U2865	U2744	G2684	G2624	G2563	G2503	A2443	G2382	C2322	G2261	G2201	U2141
A3046	U2986	U2986	A2926	U2866	G2745	C2685	C2625	G2564	U2504	C2444	C2383	G2323	A2262	C2202	A2142
U3047	A2987	U2987	C2927	G2867	A2746	A2686	A2626	U2565	U2505	A	A2384	A2324	C2263	U2203	A2143
A3048	C2988	U2988	C2928	U2868	A2747	G2687	C2627	G2566	U2506	U	G2385	A2325	G2264	C2204	A2144
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U3051	A2991	U2991	C2931	G2871	U2750	G2690	C2630	A2569	U2509	A	U2388	U2328	U2267	A2207	U2147
G3052	U2992	U2992	U2932	A2872	G2751	A2691	U2631	U2570	U2510	G	C2389	U2329	U2268	A2208	U2148
G3053	C2993	U2993	A2933	U2873	U2752	A2692	G2632	U2571	A2511	G	A2390	C2330	A2270	U2209	A2149
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G3065	A3005	U3005	G2945	C2885	C2764	A2704	C2644	C2583	A2523	G	A2402	U2342	U2282	G2221	G2161
U3066	U3006	U3006	A2946	U2886	C2765	A2705	G2645	G2584	A2524	U	G2403	C2343	G2283	U2162	U2162
C3067	U3007	U3007	G2947	A2887	U2766	G2706	C2646	G2585	G2525	G	A2404	U2344	C2284	C2223	C2163
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G3069	G3009	U3009	U2949	C2889	U2768	C2708	G2648	U2587	G2527	G	C2406	C2346	U2286	U2225	G2165
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C3072	C3012	C3012	C2952	A2892	U2771	C2711	G2651	A2591	G2530	C	G2409	U2349	U2289	U2228	A2168
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A3077	U3017	U3017	G2957	A2897	C2776	U2716	A2656	U2596	A2535	G	G2414	C2354	U2294	A2233	U2173
U3078	C3018	U3018	A2958	G2898	G2777	U2717	A2657	U2597	A2536	C	C2415	G2355	A2295	G2234	U2174
U3079	U3019	U3019	C2959	C2899	G2778	U2718	G2658	G2598	U2537	G	U2416	A2356	A2296	A2235	U2175
G3080	U3020	U3020	C2960	A2900	A2779	U2719	G2659	U2599	U2538	C	U2417	A2357	U2297	G2236	U2176



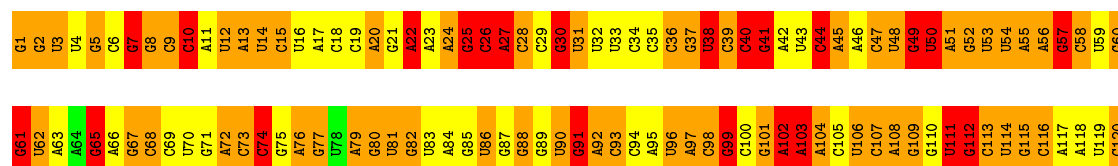
• Molecule 37: 5S ribosomal RNA

Chain 3: 7% 46% 36% 11%



• Molecule 37: 5S ribosomal RNA

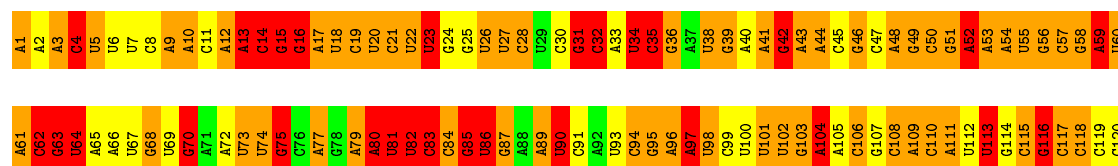
Chain 7: 31% 49% 19%

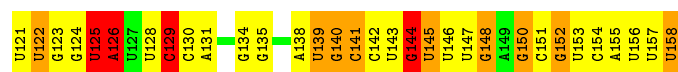


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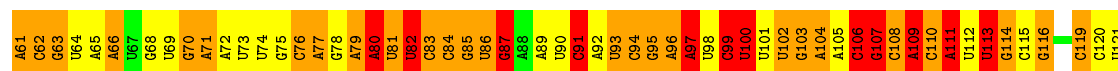
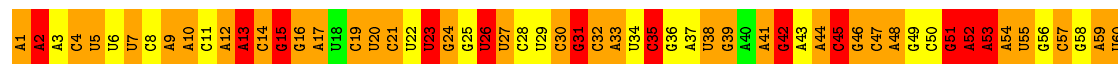
• Molecule 38: 5.8S ribosomal RNA

Chain 4: 8% 29% 42% 21%

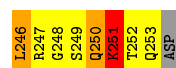
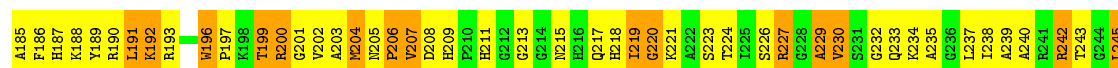
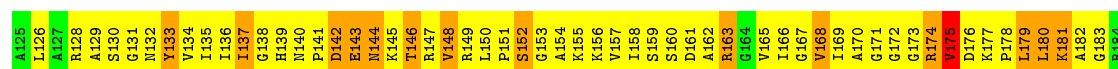
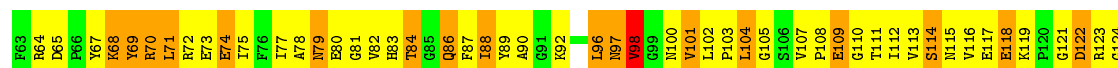
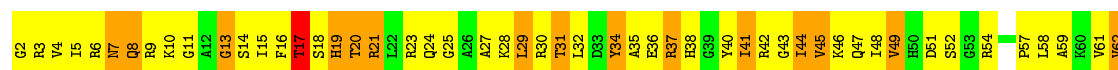
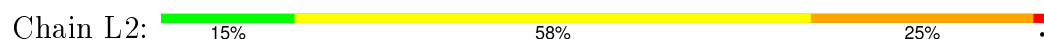




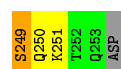
• Molecule 38: 5.8S ribosomal RNA



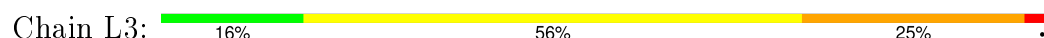
• Molecule 39: 60S ribosomal protein L2-A

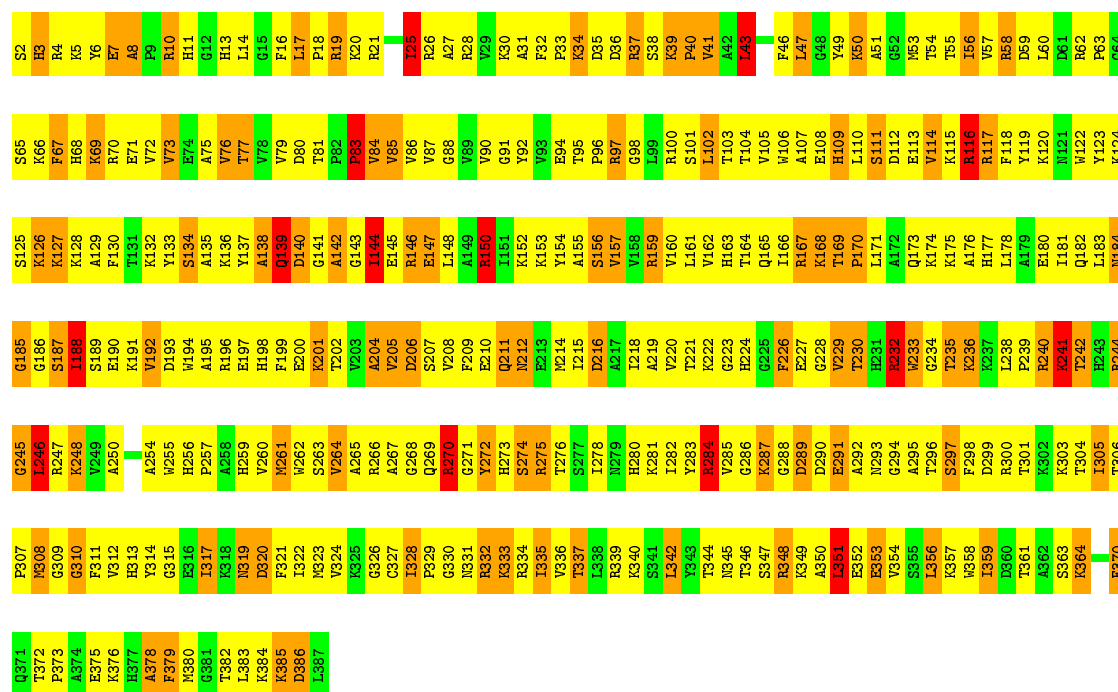


• Molecule 39: 60S ribosomal protein L2-A



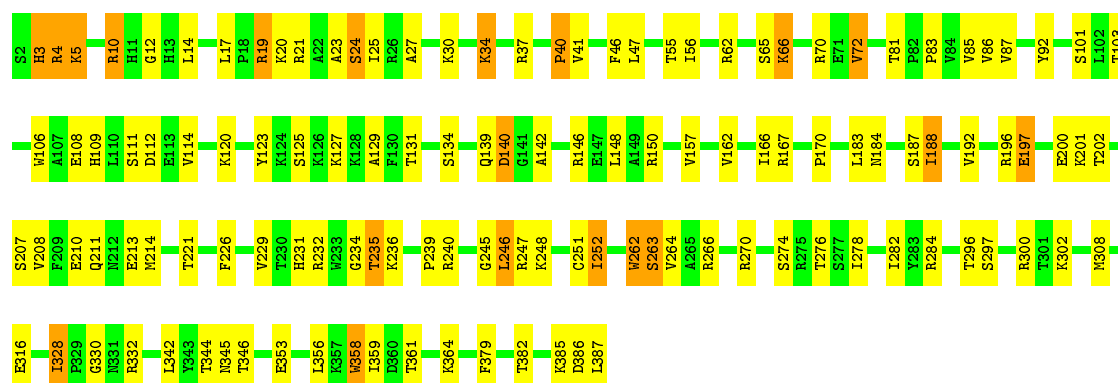
• Molecule 40: 60S ribosomal protein L3





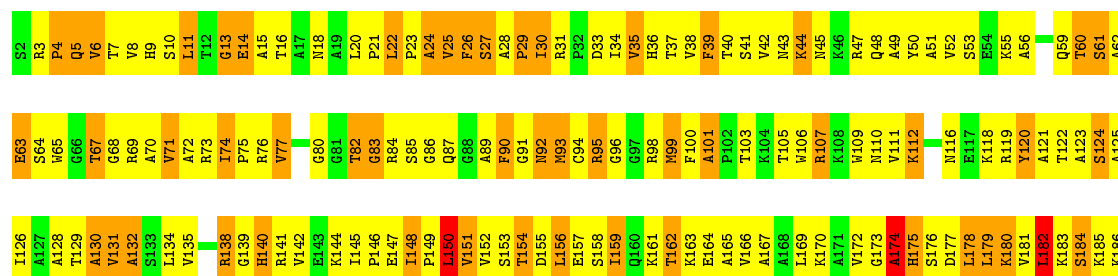
• Molecule 40: 60S ribosomal protein L3

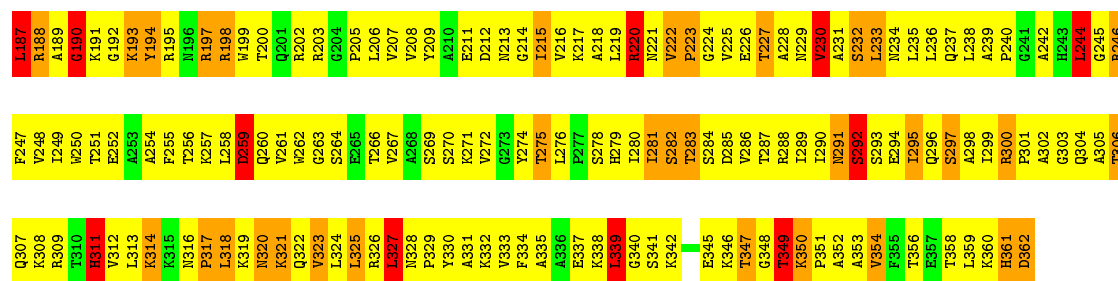
Chain 13: 67% 27% 5%



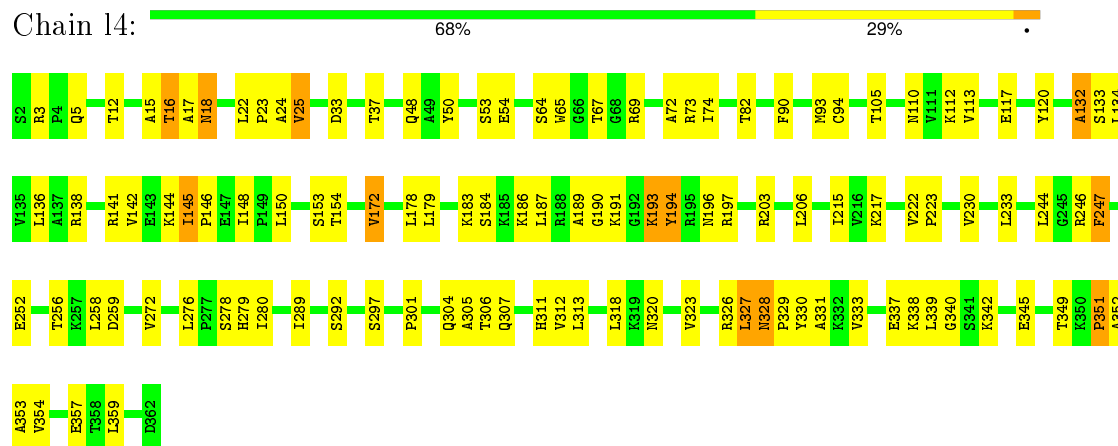
• Molecule 41: 60S ribosomal protein L4-A

Chain L4: 13% 60% 23%

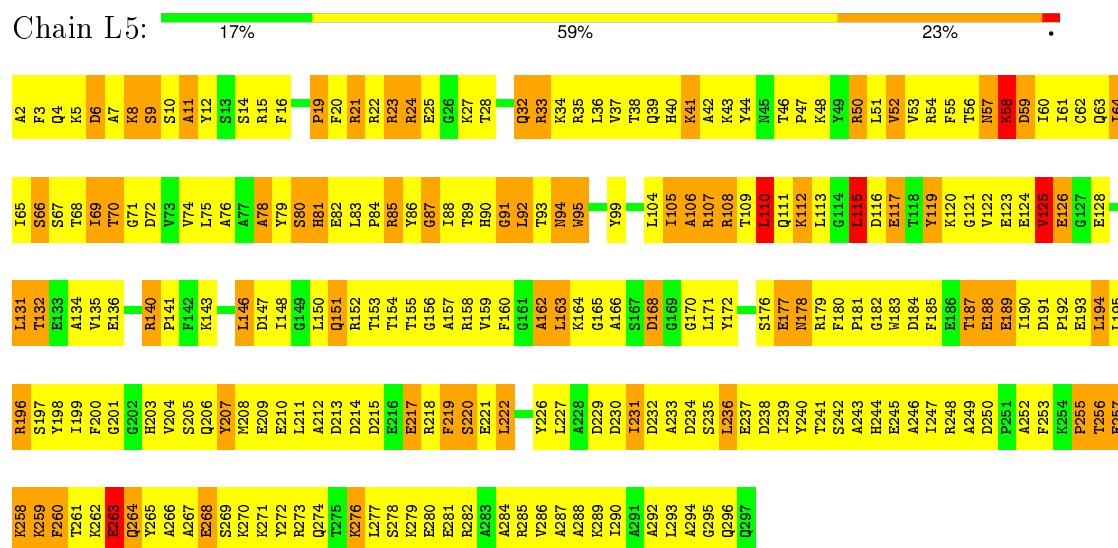




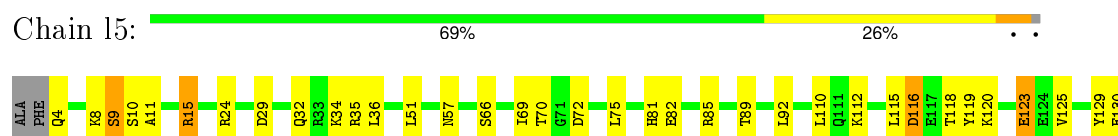
• Molecule 41: 60S ribosomal protein L4-A

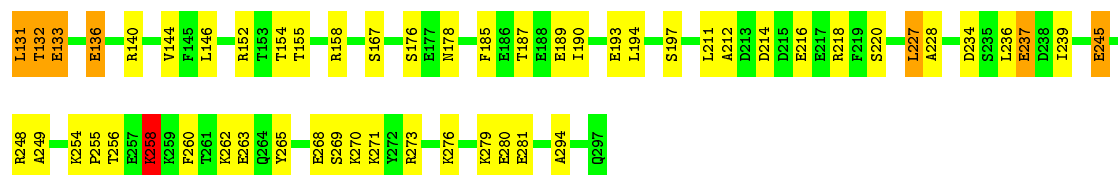


• Molecule 42: 60S ribosomal protein L5



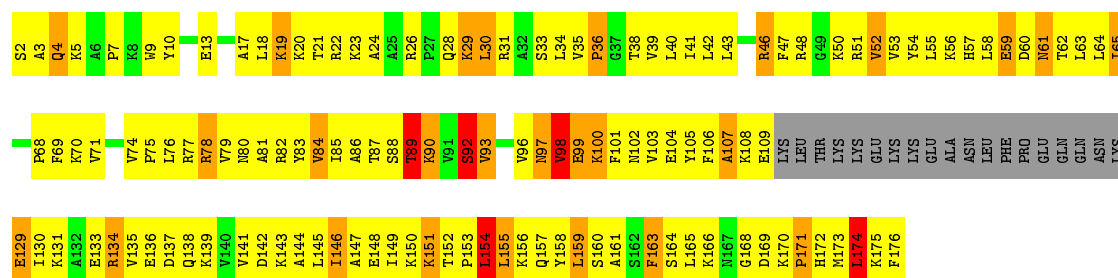
• Molecule 42: 60S ribosomal protein L5





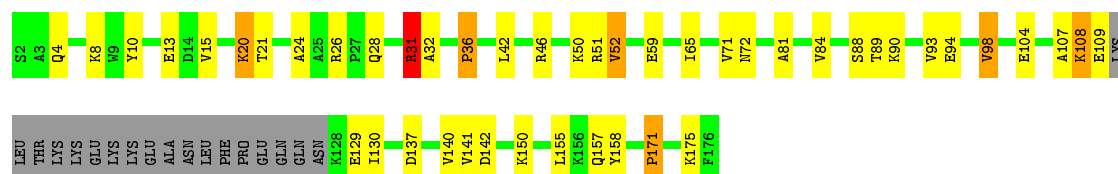
• Molecule 43: 60S ribosomal protein L6-A

Chain L6: 14% 57% 15% • 11%



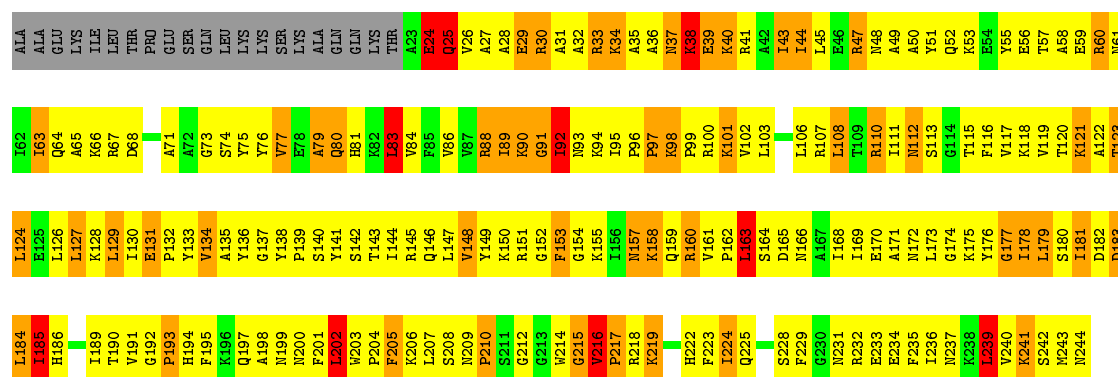
• Molecule 43: 60S ribosomal protein L6-A

Chain l6: 63% 22% • • 10%



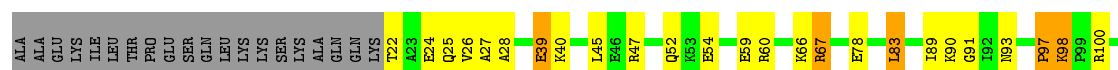
• Molecule 44: 60S ribosomal protein L7-A

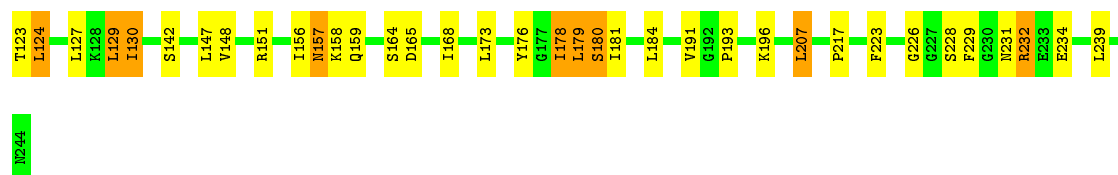
Chain L7: 12% 54% 21% • 9%



• Molecule 44: 60S ribosomal protein L7-A

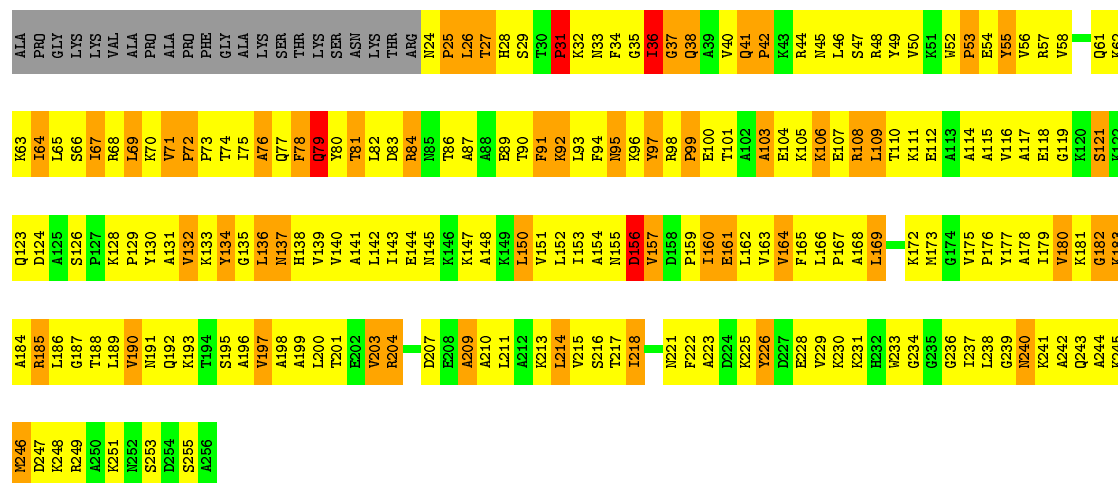
Chain 17: 67% 19% 6% 8%





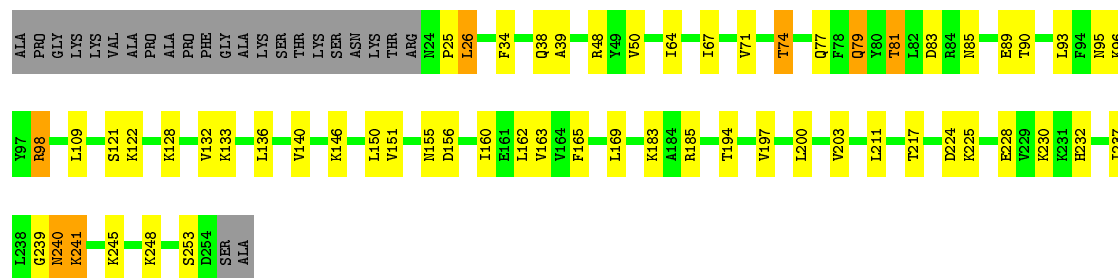
- Molecule 45: 60S ribosomal protein L8-A

Chain L8: 14% 55% 20% 9%



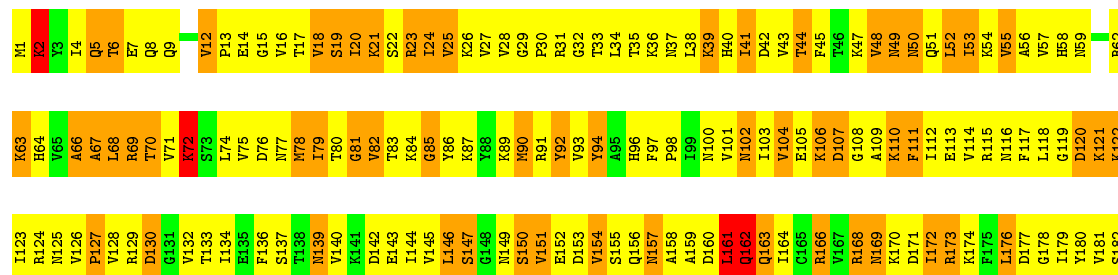
- Molecule 45: 60S ribosomal protein L8-A

Chain l8: 67% 21% 9%



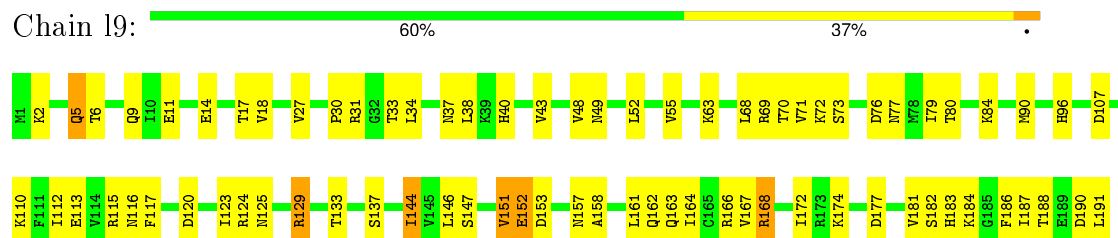
- Molecule 46: 60S ribosomal protein L9-A

Chain L9: 11% 54% 32%

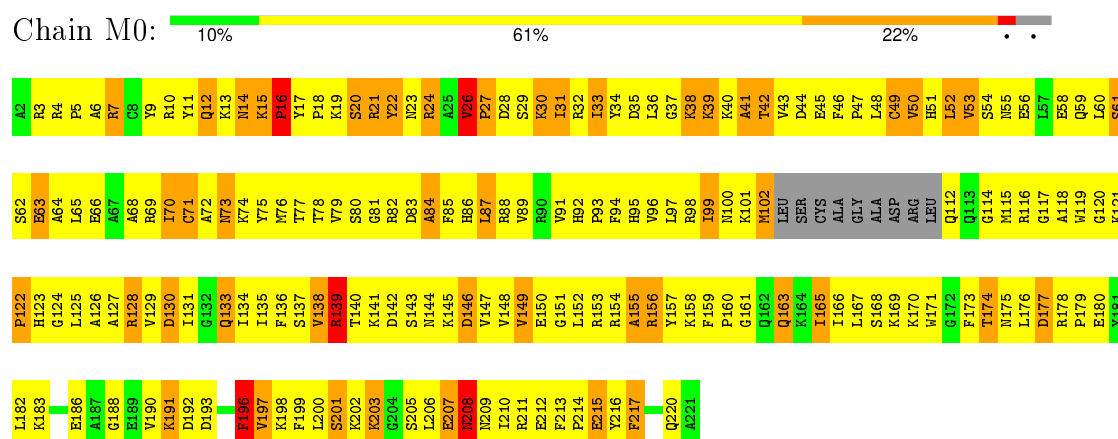




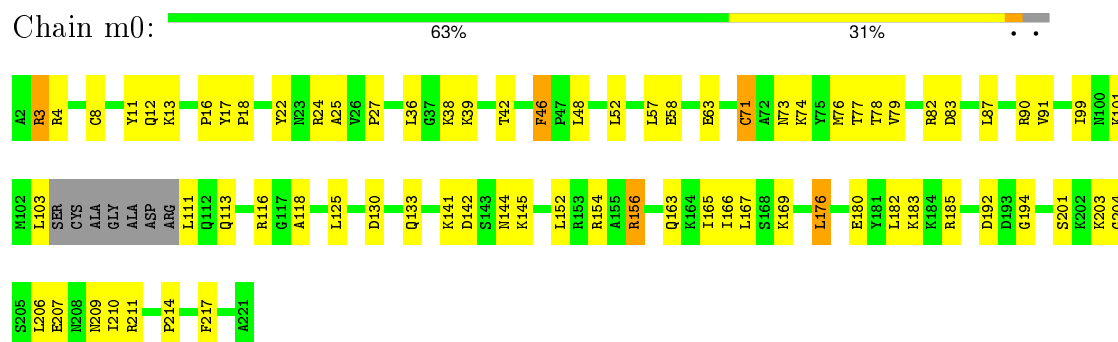
- Molecule 46: 60S ribosomal protein L9-A



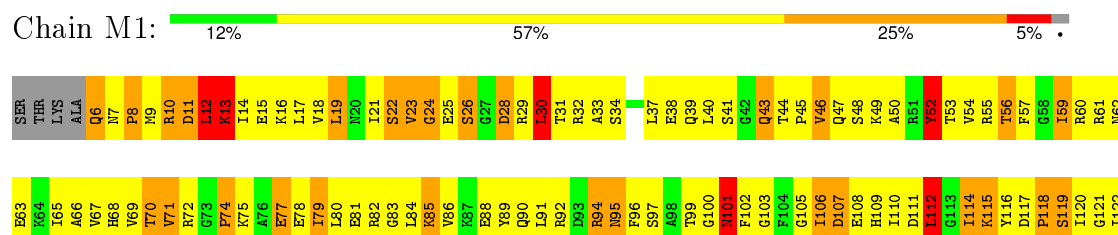
- Molecule 47: 60S ribosomal protein L10



- Molecule 47: 60S ribosomal protein L10



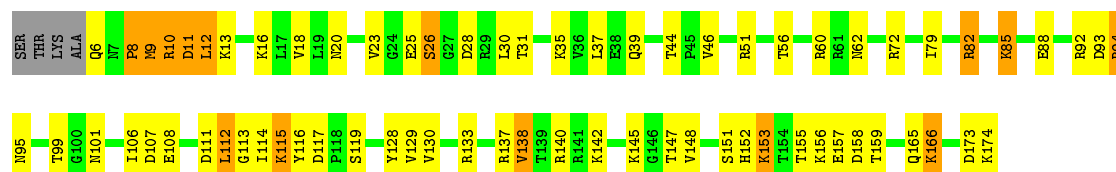
- Molecule 48: 60S ribosomal protein L11-B





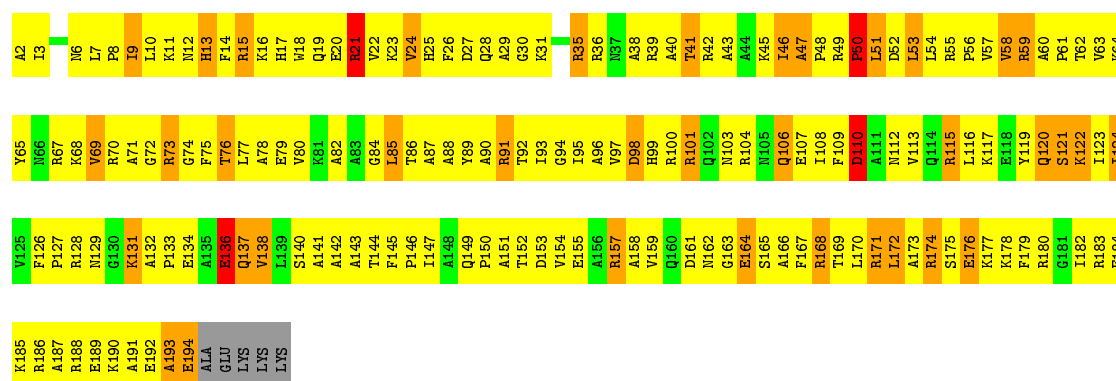
• Molecule 48: 60S ribosomal protein L11-B

Chain m1: 57% 32% 8% .



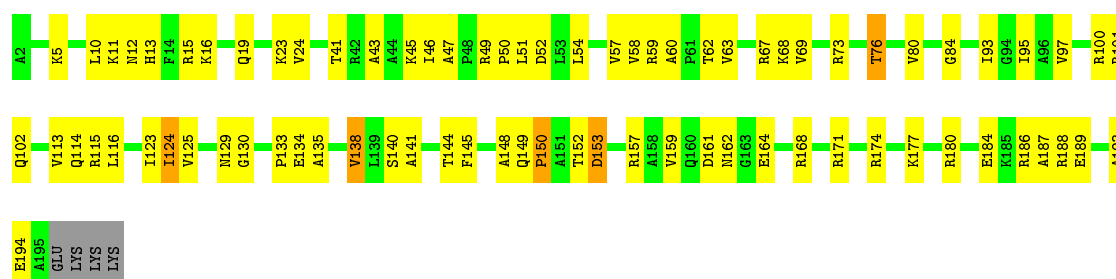
• Molecule 49: 60S ribosomal protein L13-A

Chain M3: 12% 65% 19% . .



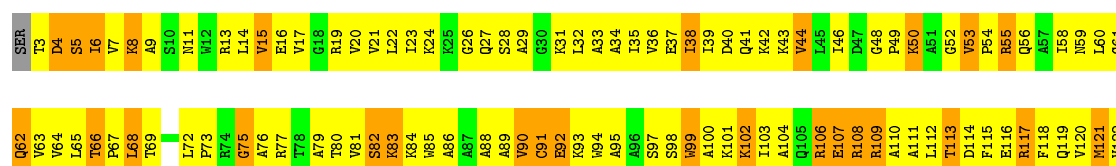
• Molecule 49: 60S ribosomal protein L13-A

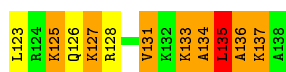
Chain m3: 59% 37% . .



• Molecule 50: 60S ribosomal protein L14-A

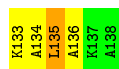
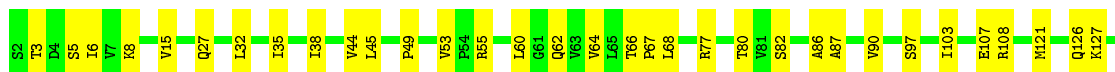
Chain M4: 15% 58% 26% . .





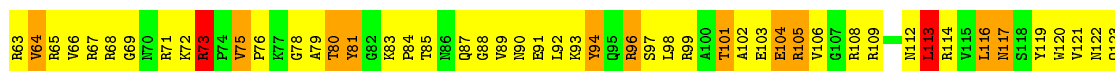
• Molecule 50: 60S ribosomal protein L14-A

Chain m4: 73% 26% .



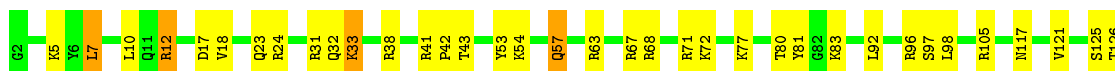
• Molecule 51: 60S ribosomal protein L15-A

Chain M5: 20% 58% 20% .



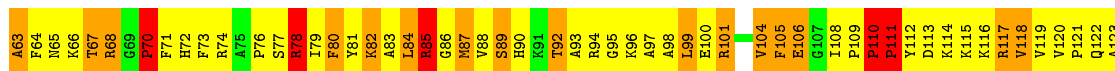
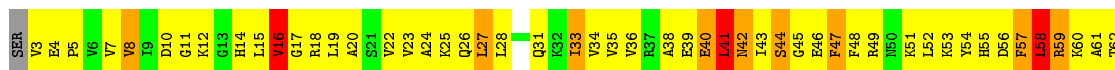
• Molecule 51: 60S ribosomal protein L15-A

Chain m5: 73% 25% .



• Molecule 52: 60S ribosomal protein L16-A

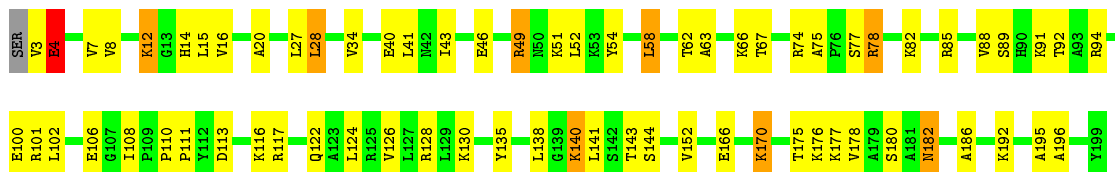
Chain M6: 14% 58% 22% 6% .





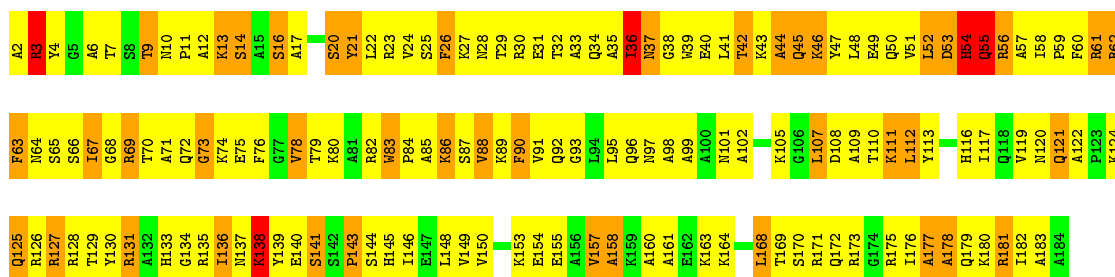
• Molecule 52: 60S ribosomal protein L16-A

Chain m6: 64% 31%



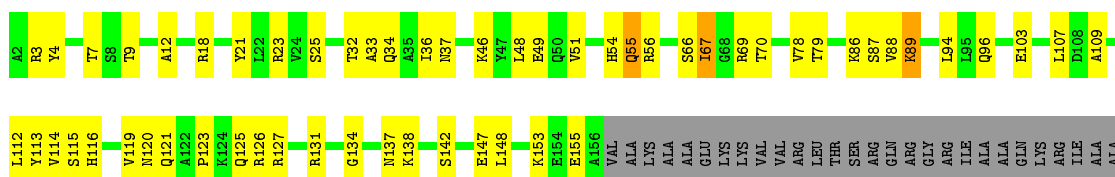
• Molecule 53: 60S ribosomal protein L17-A

Chain M7: 16% 58% 23%



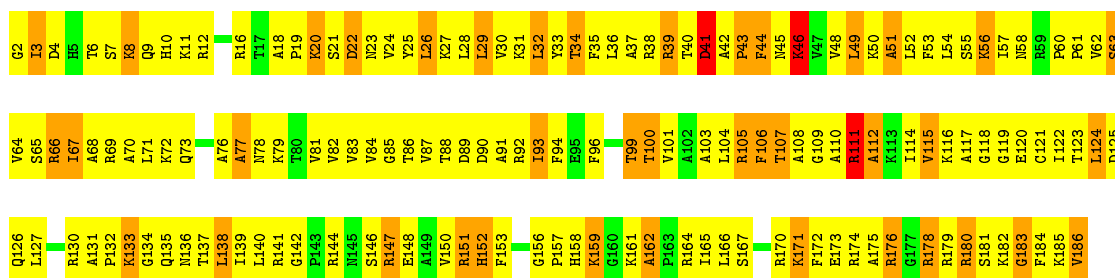
• Molecule 53: 60S ribosomal protein L17-A

Chain m7: 54% 30% 15%

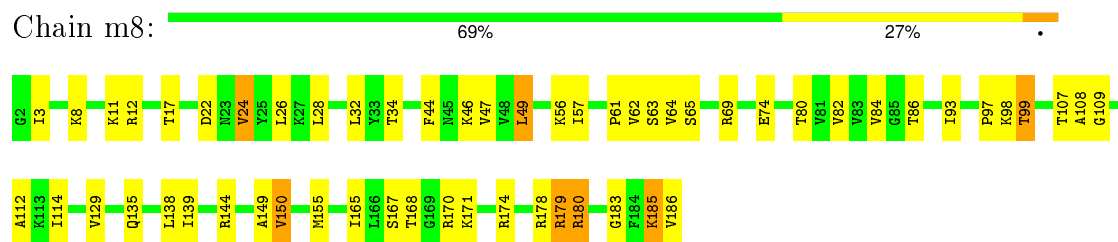


• Molecule 54: 60S ribosomal protein L18-A

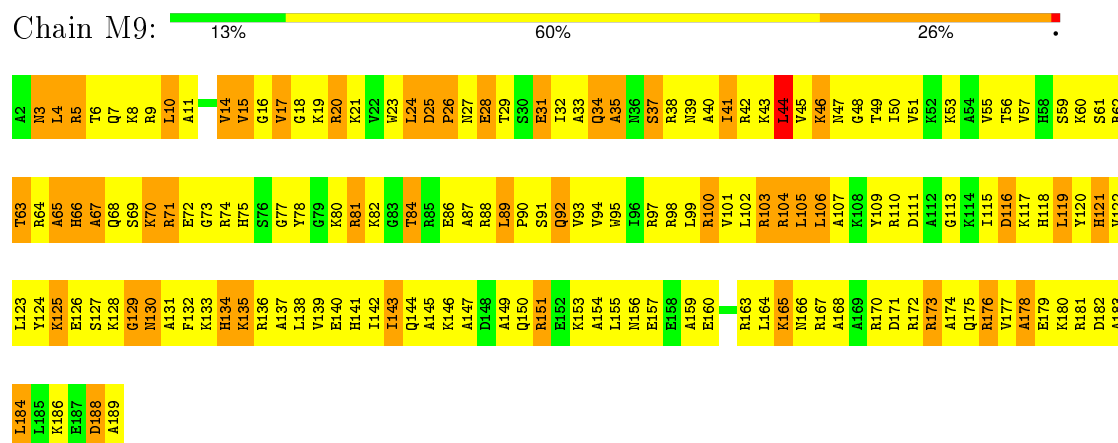
Chain M8: 15% 62% 22%



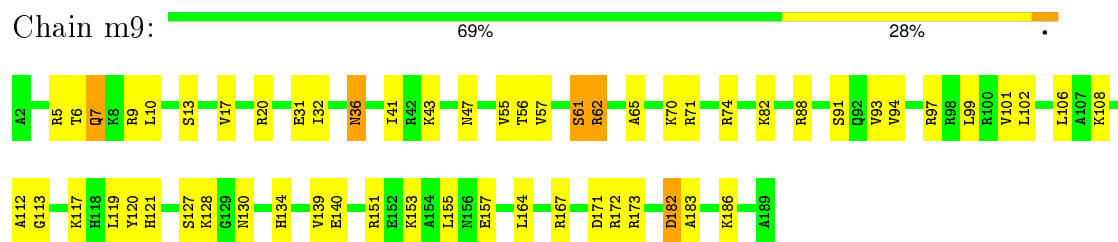
• Molecule 54: 60S ribosomal protein L18-A



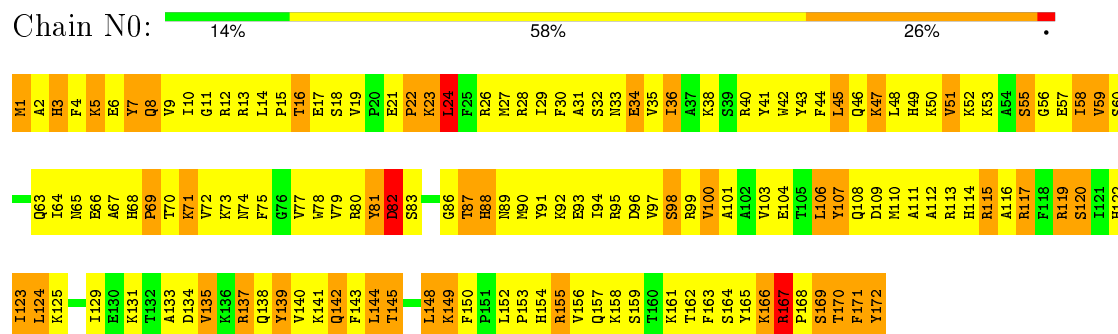
- Molecule 55: 60S ribosomal protein L19-A



- Molecule 55: 60S ribosomal protein L19-A

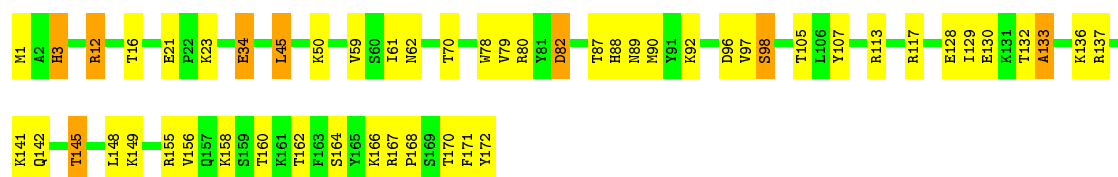


- Molecule 56: 60S ribosomal protein L20-A

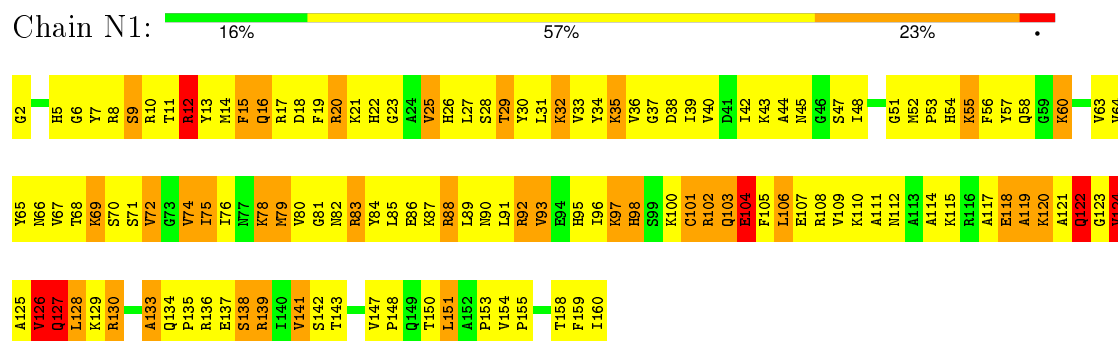


- Molecule 56: 60S ribosomal protein L20-A

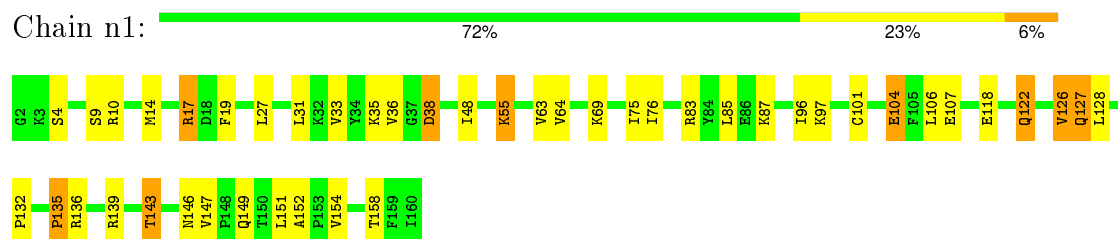




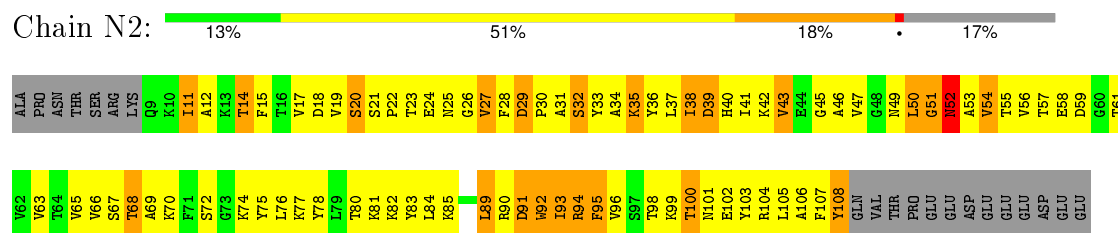
• Molecule 57: 60S ribosomal protein L21-A



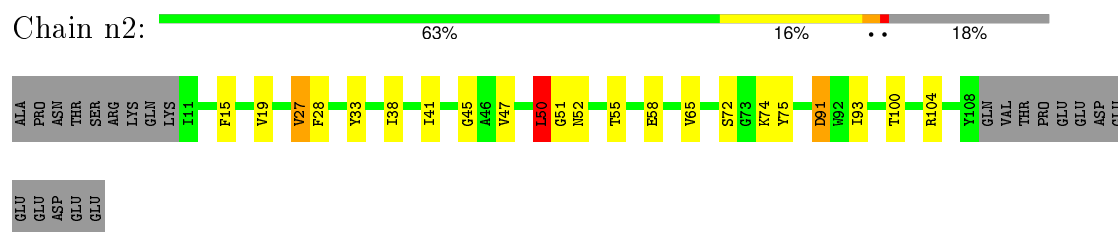
• Molecule 57: 60S ribosomal protein L21-A



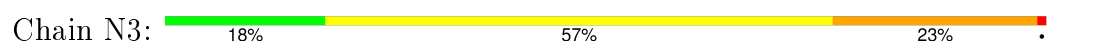
• Molecule 58: 60S ribosomal protein L22-A

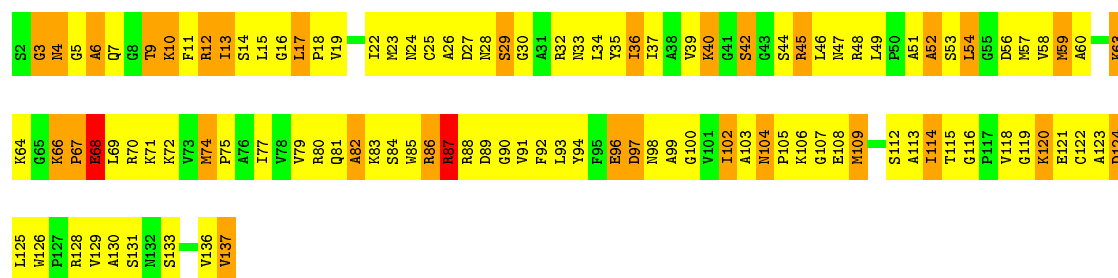


• Molecule 58: 60S ribosomal protein L22-A



• Molecule 59: 60S ribosomal protein L23-A





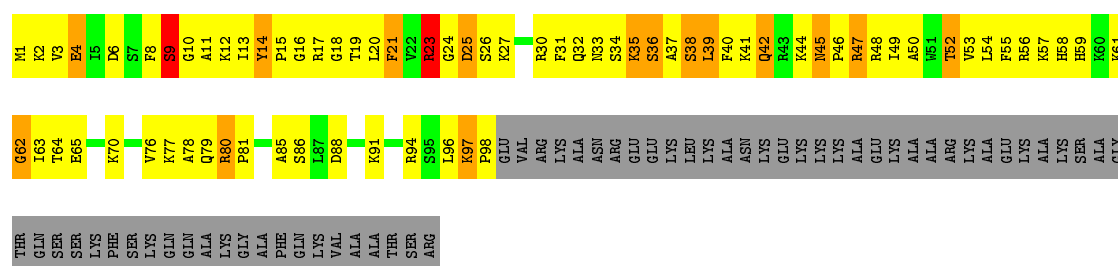
• Molecule 59: 60S ribosomal protein L23-A

Chain n3:



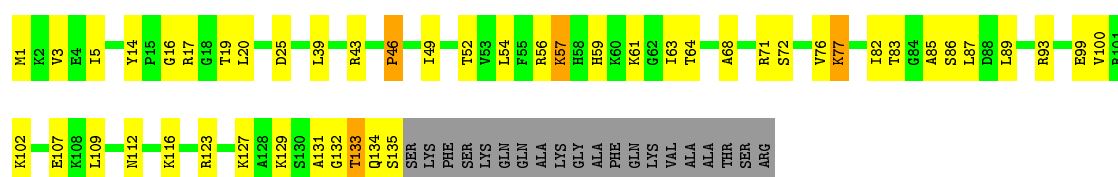
• Molecule 60: 60S ribosomal protein L24-A

Chain N4:



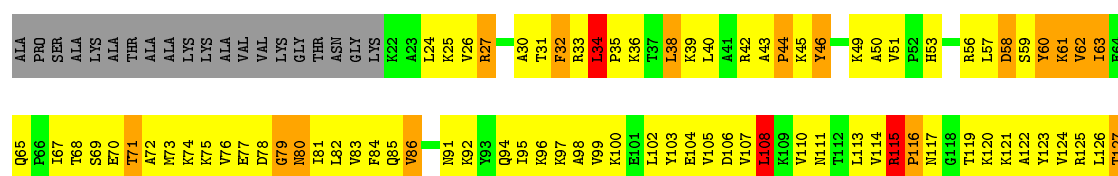
• Molecule 60: 60S ribosomal protein L24-A

Chain n4:



• Molecule 61: 60S ribosomal protein L25

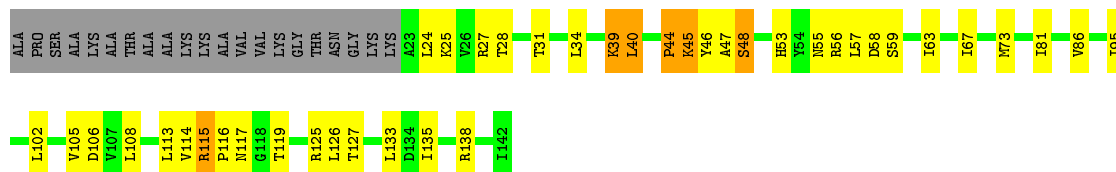
Chain N5:





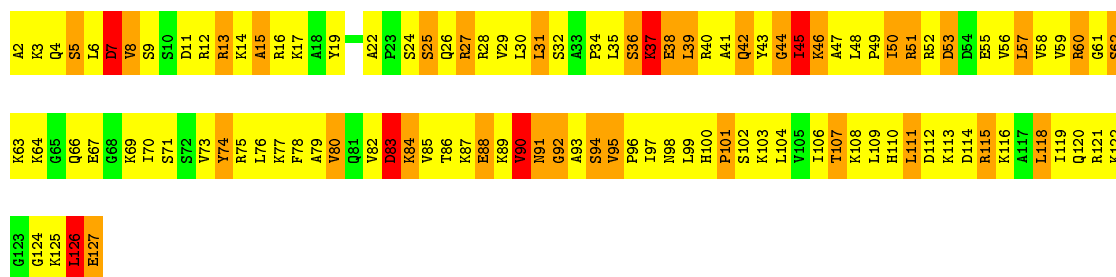
• Molecule 61: 60S ribosomal protein L25

Chain n5: 56% 25% 15%



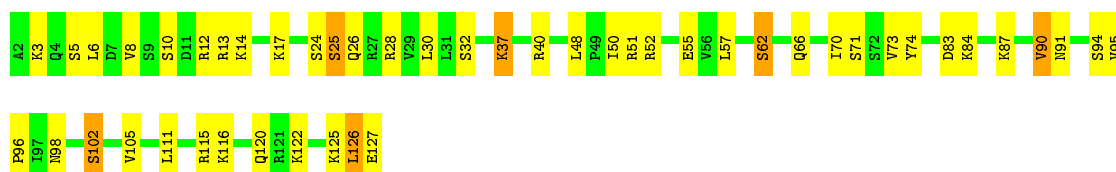
• Molecule 62: 60S ribosomal protein L26-A

Chain N6: 11% 58% 26% 5%



• Molecule 62: 60S ribosomal protein L26-A

Chain n6: 62% 33% 5%

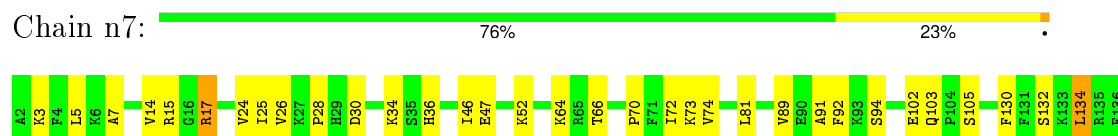


• Molecule 63: 60S ribosomal protein L27-A

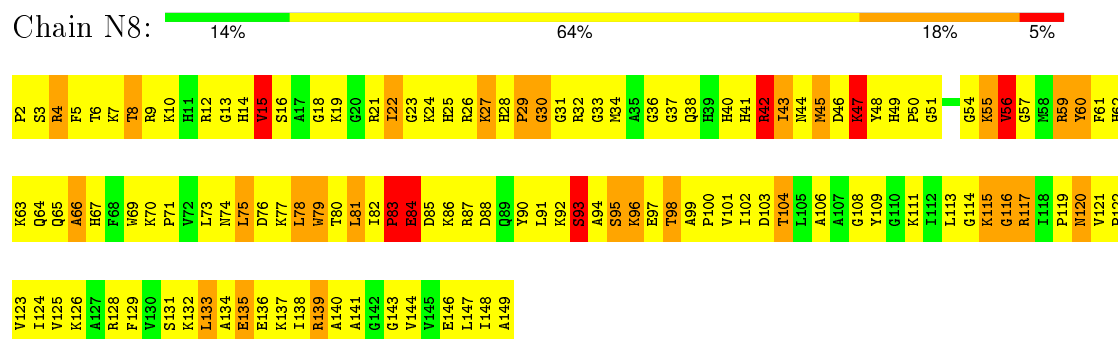
Chain N7: 21% 52% 27%



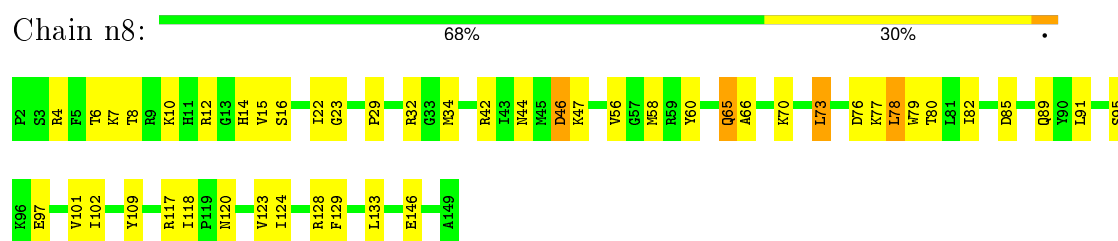
• Molecule 63: 60S ribosomal protein L27-A



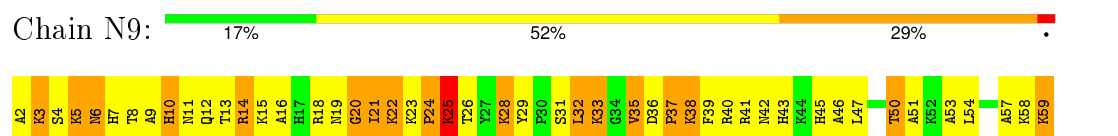
• Molecule 64: 60S ribosomal protein L28



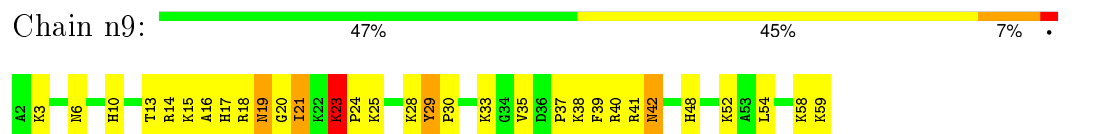
• Molecule 64: 60S ribosomal protein L28



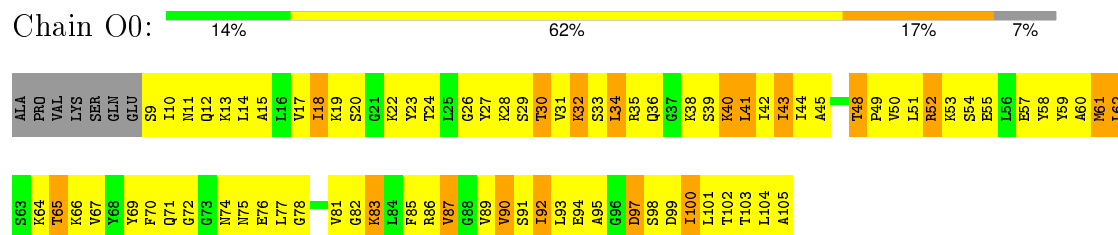
• Molecule 65: 60S ribosomal protein L29



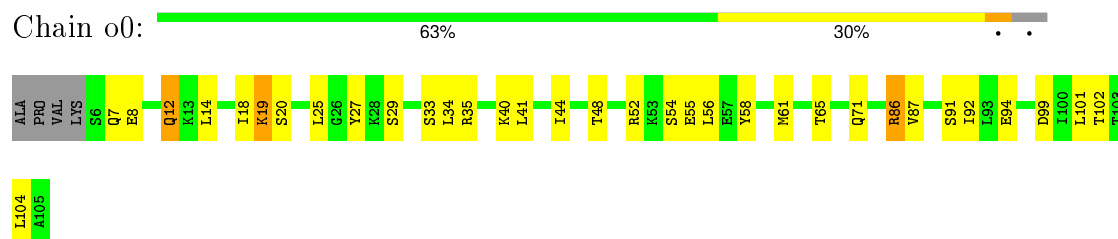
• Molecule 65: 60S ribosomal protein L29



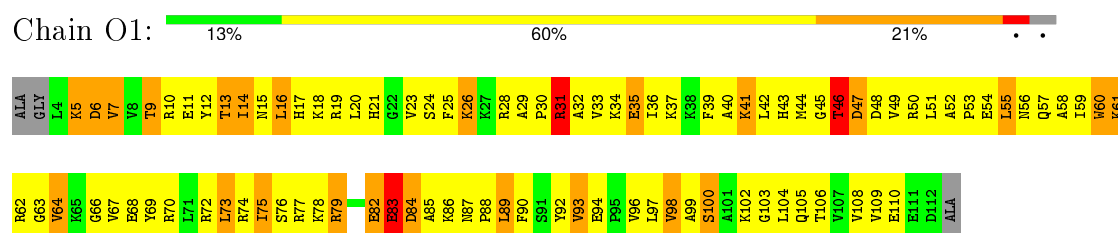
• Molecule 66: 60S ribosomal protein L30



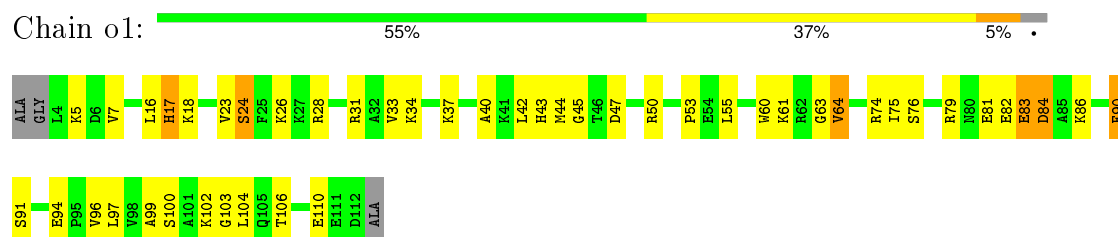
- Molecule 66: 60S ribosomal protein L30



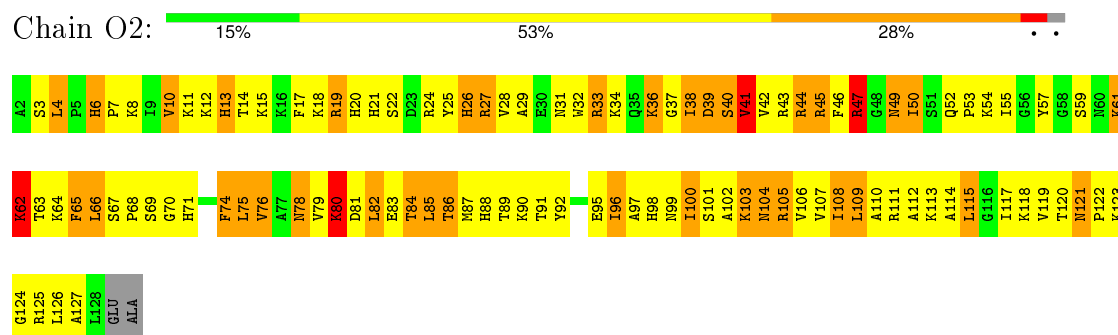
- Molecule 67: 60S ribosomal protein L31-A



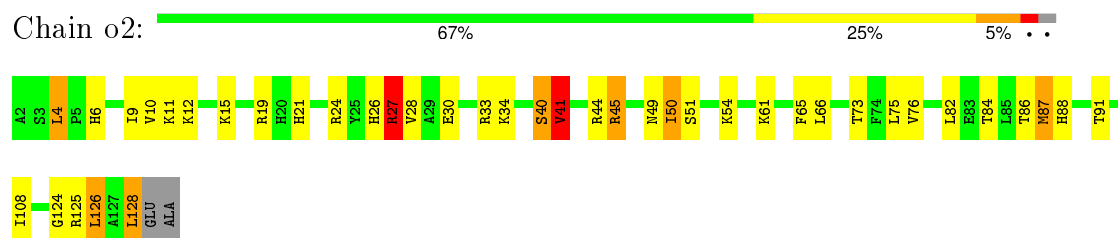
- Molecule 67: 60S ribosomal protein L31-A



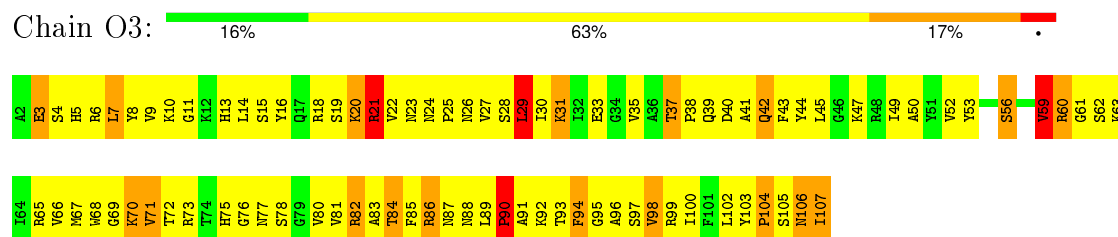
- Molecule 68: 60S ribosomal protein L32



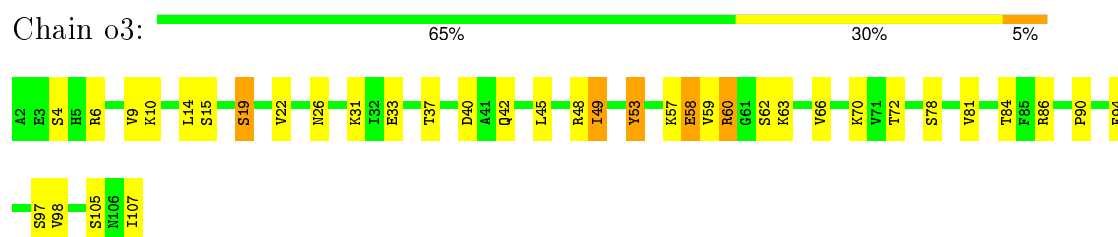
- Molecule 68: 60S ribosomal protein L32



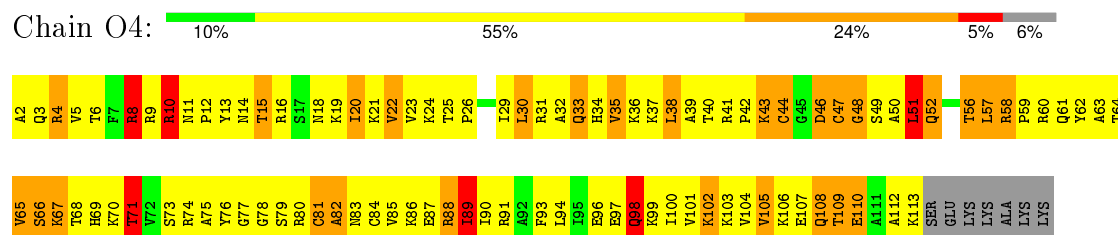
- Molecule 69: 60S ribosomal protein L33-A



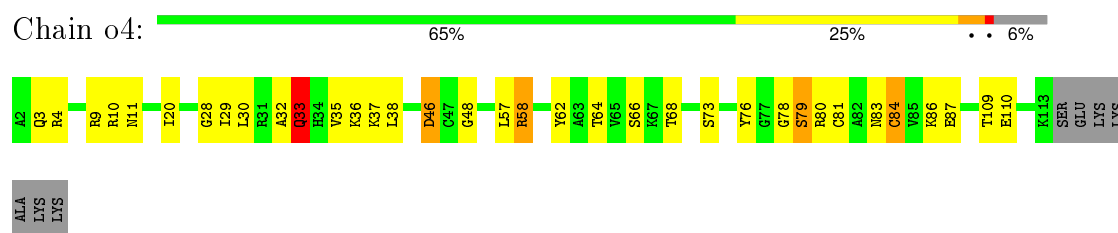
- Molecule 69: 60S ribosomal protein L33-A



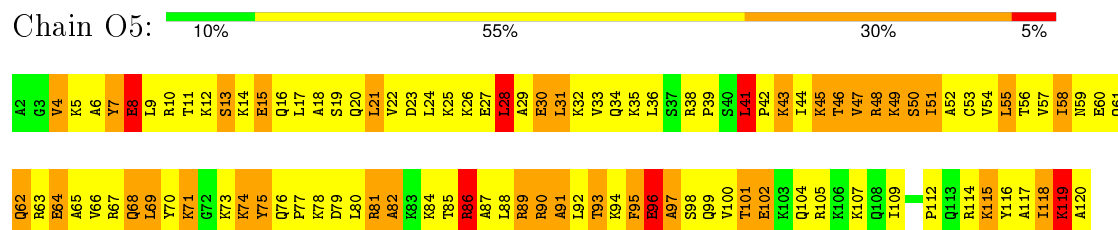
- Molecule 70: 60S ribosomal protein L34-A



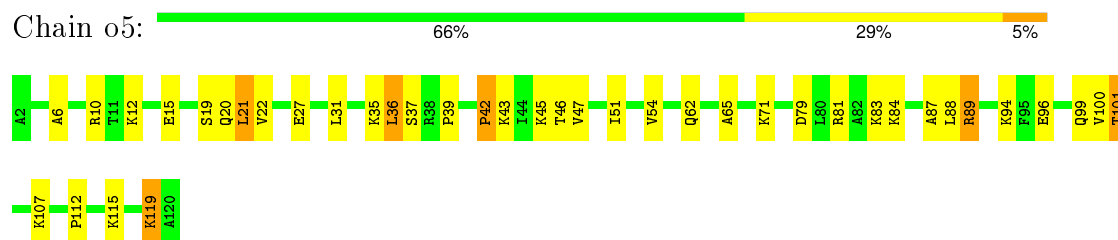
- Molecule 70: 60S ribosomal protein L34-A



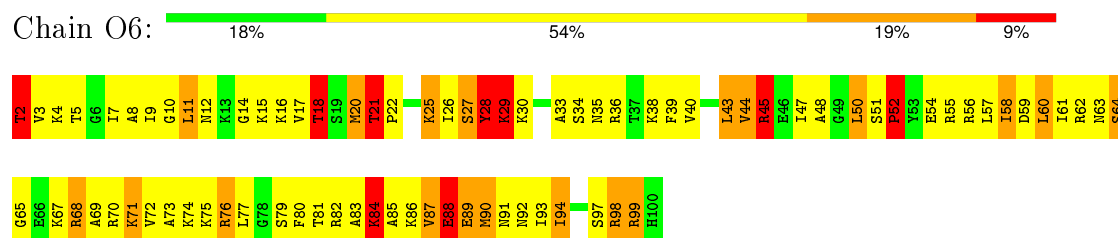
- Molecule 71: 60S ribosomal protein L35-A



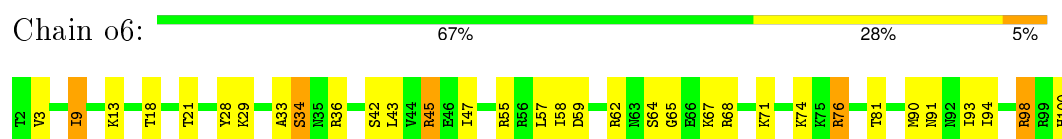
- Molecule 71: 60S ribosomal protein L35-A



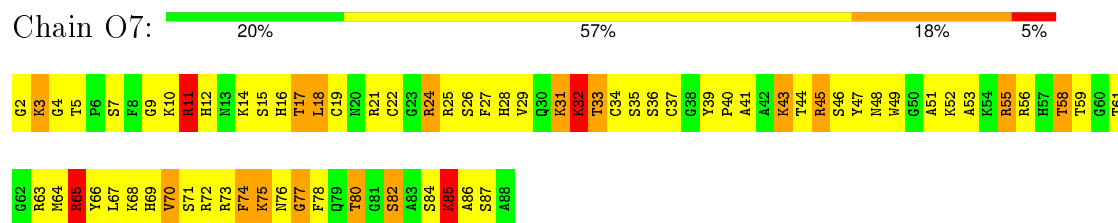
- Molecule 72: 60S ribosomal protein L36-A



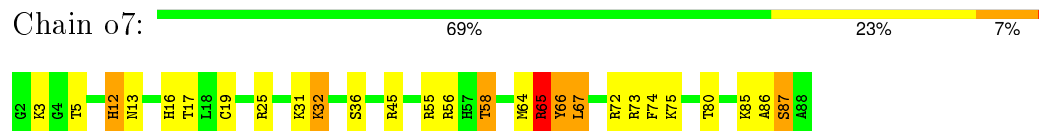
- Molecule 72: 60S ribosomal protein L36-A



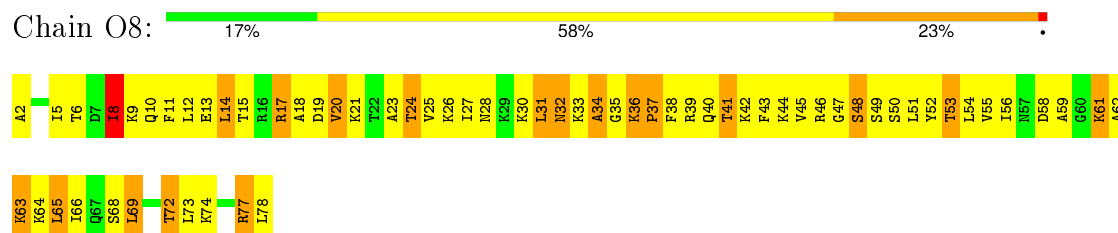
- Molecule 73: 60S ribosomal protein L37-A




- Molecule 73: 60S ribosomal protein L37-A



- Molecule 74: 60S ribosomal protein L38



- Molecule 74: 60S ribosomal protein L38

Chain o8:  77% 22%



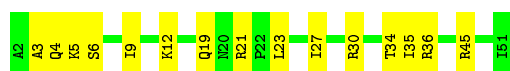
- Molecule 75: 60S ribosomal protein L39

Chain O9:  18% 52% 28%




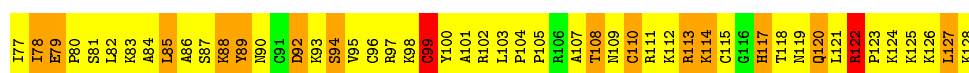
- Molecule 75: 60S ribosomal protein L39

Chain o9:  70% 30%



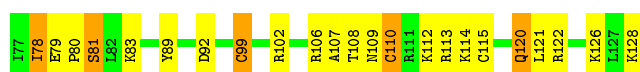
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:  6% 63% 27%



- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0:  56% 35% 10%



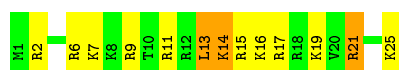
- Molecule 77: 60S ribosomal protein L41-A

Chain Q1:  8% 52% 40%

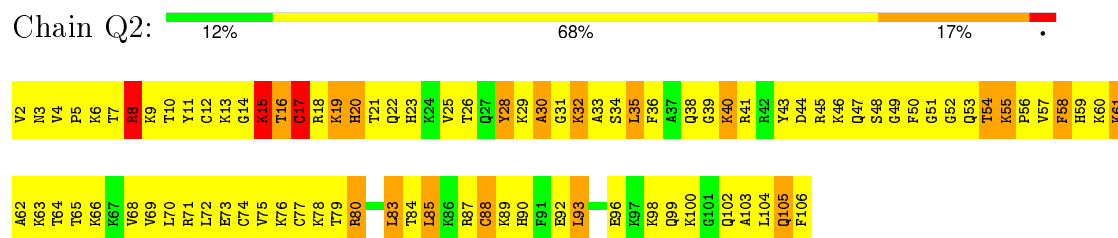


- Molecule 77: 60S ribosomal protein L41-A

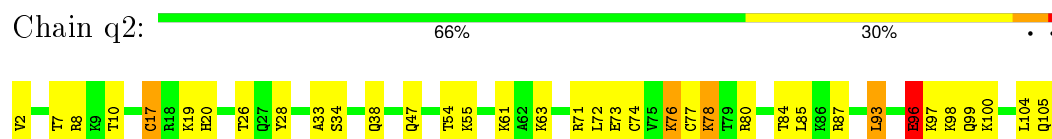
Chain q1:  48% 40% 12%



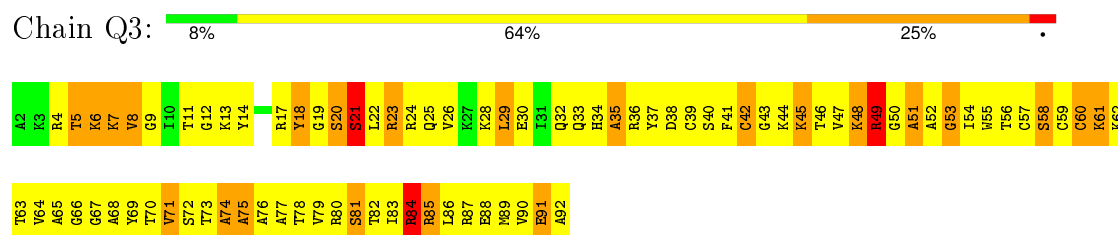
- Molecule 78: 60S ribosomal protein L42-A



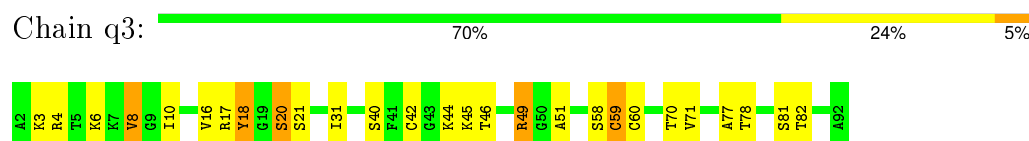
- Molecule 78: 60S ribosomal protein L42-A



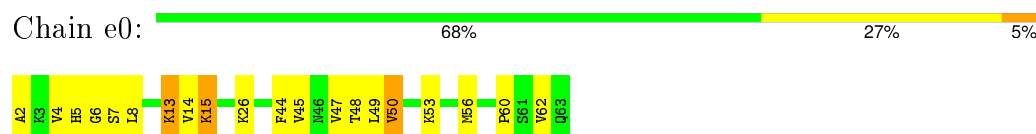
- Molecule 79: 60S ribosomal protein L43-A



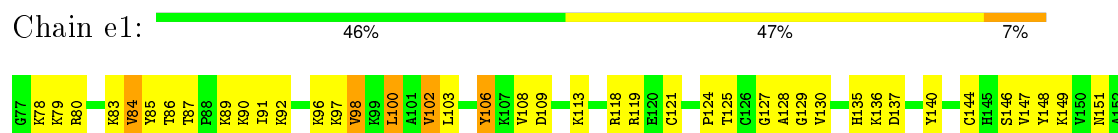
- Molecule 79: 60S ribosomal protein L43-A



- Molecule 80: 40S ribosomal protein S30-A

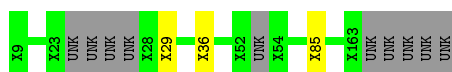


- Molecule 81: Ubiquitin-40S ribosomal protein S31



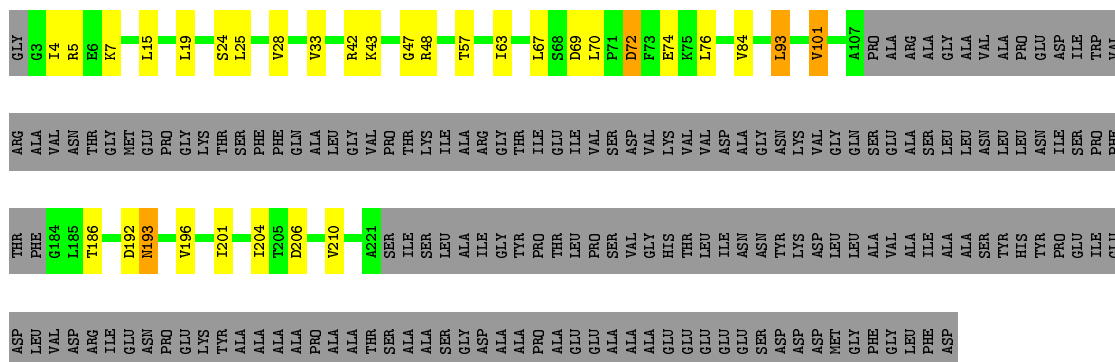
- Molecule 82: unknown protein chain m2





- Molecule 83: 60S acidic ribosomal protein P0

Chain p0:



- Molecule 84: unknown protein chain p1

Chain p1:



There are no outlier residues recorded for this chain.

- Molecule 85: unknown protein chain p2

Chain p2:



There are no outlier residues recorded for this chain.

4 Data and refinement statistics

EDS failed to run properly - this section will therefore be incomplete.

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	437.00Å 286.75Å 305.18Å 90.00° 99.24° 90.00°	Depositor
Resolution (Å)	135.58 – 3.60	Depositor
% Data completeness (in resolution range)	100.0 (135.58-3.60)	Depositor
R_{merge}	0.52	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.26 (at 3.58Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.190 , 0.267	Depositor
Wilson B-factor (Å ²)	115.6	Xtriage
Anisotropy	0.083	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.25$	Xtriage
Outliers	0 of 855155 reflections	Xtriage
Total number of atoms	411095	wwPDB-VP
Average B, all atoms (Å ²)	98.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.62% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, OHX, MG, GET

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	2	1.08	91/41698 (0.2%)	1.83	1528/64972 (2.4%)
1	6	1.44	367/42663 (0.9%)	2.19	2982/66472 (4.5%)
2	S0	0.60	0/1617	0.83	0/2215
2	s0	0.75	0/1623	0.92	1/2222 (0.0%)
3	S1	0.46	0/1735	0.74	0/2335
3	s1	0.67	0/1748	0.87	3/2352 (0.1%)
4	S2	0.74	2/1665 (0.1%)	0.90	2/2263 (0.1%)
4	s2	0.87	1/1665 (0.1%)	1.01	4/2263 (0.2%)
5	S3	0.72	0/1759	0.86	1/2368 (0.0%)
5	s3	0.72	0/1759	0.89	1/2368 (0.0%)
6	S4	0.65	0/2109	0.86	2/2839 (0.1%)
6	s4	0.77	0/2109	0.90	1/2839 (0.0%)
7	S5	0.54	0/1629	0.76	0/2202
7	s5	0.89	1/1629 (0.1%)	1.02	4/2202 (0.2%)
8	S6	0.64	0/1823	0.79	0/2439
8	s6	0.88	0/1779	0.99	2/2379 (0.1%)
9	S7	0.54	0/1506	0.75	0/2028
9	s7	0.68	0/1516	0.91	2/2043 (0.1%)
10	S8	0.79	0/1514	0.92	1/2021 (0.0%)
10	s8	0.86	0/1514	0.94	1/2021 (0.0%)
11	S9	0.65	0/1519	0.84	1/2035 (0.0%)
11	s9	0.79	0/1519	0.91	2/2035 (0.1%)
12	C0	0.66	0/790	0.86	2/1069 (0.2%)
12	c0	0.56	0/777	0.87	2/1049 (0.2%)
13	C1	0.82	0/1240	0.88	0/1675
13	c1	0.91	0/1194	1.00	2/1610 (0.1%)
14	C2	0.51	0/900	0.80	1/1224 (0.1%)
14	c2	0.46	0/900	0.69	1/1224 (0.1%)
15	C3	0.59	0/1215	0.76	0/1638
15	c3	0.80	0/1215	0.96	2/1638 (0.1%)
16	C4	0.50	0/901	0.79	0/1217
16	c4	0.76	0/960	0.91	0/1290

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.69	0/998	0.81	0/1341
17	c5	0.89	0/1060	1.05	3/1426 (0.2%)
18	C6	0.60	0/1125	0.89	3/1510 (0.2%)
18	c6	0.93	0/1131	1.06	2/1518 (0.1%)
19	C7	0.59	0/935	0.87	3/1254 (0.2%)
19	c7	0.80	0/914	0.91	1/1224 (0.1%)
20	C8	0.61	0/1211	0.82	0/1628
20	c8	0.92	2/1211 (0.2%)	1.08	5/1628 (0.3%)
21	C9	0.61	0/1130	0.83	0/1517
21	c9	0.94	1/1130 (0.1%)	1.01	2/1517 (0.1%)
22	D0	0.65	0/865	0.83	0/1169
22	d0	0.79	0/892	0.97	1/1205 (0.1%)
23	D1	0.65	0/693	0.88	2/935 (0.2%)
23	d1	0.79	0/693	0.92	0/935
24	D2	0.63	0/1038	0.89	1/1395 (0.1%)
24	d2	0.88	0/1038	0.98	1/1395 (0.1%)
25	D3	0.90	1/1139 (0.1%)	1.04	1/1518 (0.1%)
25	d3	1.17	5/1139 (0.4%)	1.14	4/1518 (0.3%)
26	D4	0.66	0/1087	0.80	0/1449
26	d4	0.77	0/1087	0.92	0/1449
27	D5	0.61	0/571	0.84	0/768
27	d5	0.81	0/566	0.96	0/761
28	D6	0.66	0/782	0.84	0/1047
28	d6	0.81	0/782	0.92	1/1047 (0.1%)
29	D7	0.53	0/620	0.81	1/838 (0.1%)
29	d7	0.67	0/620	0.93	2/838 (0.2%)
30	D8	0.49	0/499	0.74	0/670
30	d8	0.76	0/499	0.97	1/670 (0.1%)
31	D9	0.75	0/452	0.86	0/600
31	d9	0.97	0/452	0.97	0/600
32	E0	0.69	0/483	0.87	0/643
33	E1	0.65	0/577	0.90	0/770
34	SR	0.54	0/2494	0.72	0/3393
34	sR	0.69	0/2495	0.85	2/3395 (0.1%)
35	SM	0.72	0/1113	0.91	2/1502 (0.1%)
35	sM	0.77	0/682	0.98	1/921 (0.1%)
36	1	1.76	1434/75394 (1.9%)	2.53	7929/117545 (6.7%)
36	5	1.87	1867/75414 (2.5%)	2.61	8463/117575 (7.2%)
37	3	1.50	28/2883 (1.0%)	2.28	214/4491 (4.8%)
37	7	2.04	91/2883 (3.2%)	2.85	410/4491 (9.1%)
38	4	1.54	29/3746 (0.8%)	2.42	331/5832 (5.7%)
38	8	1.43	34/3746 (0.9%)	2.16	250/5832 (4.3%)
39	L2	0.98	1/1948 (0.1%)	1.08	2/2617 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	l2	0.96	1/1946 (0.1%)	1.03	4/2614 (0.2%)
40	L3	1.12	3/3146 (0.1%)	1.12	11/4228 (0.3%)
40	l3	1.32	9/3146 (0.3%)	1.24	17/4228 (0.4%)
41	L4	1.03	0/2800	1.15	13/3790 (0.3%)
41	l4	1.02	1/2800 (0.0%)	1.11	5/3790 (0.1%)
42	L5	0.84	1/2425 (0.0%)	0.97	2/3271 (0.1%)
42	l5	1.16	2/2408 (0.1%)	1.08	3/3248 (0.1%)
43	L6	1.15	2/1260 (0.2%)	1.17	4/1694 (0.2%)
43	l6	1.18	2/1269 (0.2%)	1.15	3/1705 (0.2%)
44	L7	1.09	0/1821	1.13	9/2451 (0.4%)
44	l7	1.26	3/1828 (0.2%)	1.17	7/2461 (0.3%)
45	L8	0.74	0/1836	0.91	0/2481
45	l8	0.72	0/1795	0.86	1/2429 (0.0%)
46	L9	0.97	0/1539	1.07	1/2073 (0.0%)
46	l9	1.33	4/1539 (0.3%)	1.23	8/2073 (0.4%)
47	M0	1.02	4/1741 (0.2%)	1.04	1/2335 (0.0%)
47	m0	1.23	5/1758 (0.3%)	1.20	7/2358 (0.3%)
48	M1	0.80	1/1374 (0.1%)	0.93	3/1842 (0.2%)
48	m1	1.09	3/1374 (0.2%)	1.09	5/1842 (0.3%)
49	M3	0.96	2/1568 (0.1%)	1.09	4/2106 (0.2%)
49	m3	0.87	0/1573	1.02	0/2113
50	M4	1.10	0/1068	1.13	1/1438 (0.1%)
50	m4	1.30	1/1074 (0.1%)	1.15	3/1446 (0.2%)
51	M5	0.97	0/1757	1.04	5/2354 (0.2%)
51	m5	0.84	0/1757	0.93	2/2354 (0.1%)
52	M6	1.25	6/1585 (0.4%)	1.28	12/2128 (0.6%)
52	m6	1.54	9/1585 (0.6%)	1.38	14/2128 (0.7%)
53	M7	1.21	3/1443 (0.2%)	1.09	3/1944 (0.2%)
53	m7	1.18	1/1250 (0.1%)	1.19	2/1683 (0.1%)
54	M8	1.03	0/1465	1.12	5/1965 (0.3%)
54	m8	0.98	1/1465 (0.1%)	1.06	3/1965 (0.2%)
55	M9	0.84	0/1538	0.92	3/2050 (0.1%)
55	m9	0.88	1/1538 (0.1%)	0.92	2/2050 (0.1%)
56	N0	1.05	0/1481	1.10	5/1990 (0.3%)
56	n0	1.46	7/1481 (0.5%)	1.21	5/1990 (0.3%)
57	N1	1.09	1/1300 (0.1%)	1.10	4/1743 (0.2%)
57	n1	1.28	6/1300 (0.5%)	1.17	5/1743 (0.3%)
58	N2	0.73	1/812 (0.1%)	0.89	1/1099 (0.1%)
58	n2	0.73	0/794	0.84	1/1076 (0.1%)
59	N3	1.09	2/1018 (0.2%)	1.07	3/1369 (0.2%)
59	n3	1.35	7/1018 (0.7%)	1.28	7/1369 (0.5%)
60	N4	0.90	0/712	0.98	1/958 (0.1%)
60	n4	1.04	0/1052	1.04	0/1398

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
61	N5	0.86	1/979 (0.1%)	1.00	4/1321 (0.3%)
61	n5	0.85	0/974	1.03	2/1314 (0.2%)
62	N6	0.92	0/1004	1.11	6/1341 (0.4%)
62	n6	0.89	0/1004	1.02	5/1341 (0.4%)
63	N7	0.68	0/1118	0.89	1/1497 (0.1%)
63	n7	0.67	0/1118	0.83	0/1497
64	N8	1.05	0/1204	1.10	5/1612 (0.3%)
64	n8	0.98	1/1204 (0.1%)	1.08	2/1612 (0.1%)
65	N9	0.98	0/473	1.07	1/629 (0.2%)
65	n9	1.12	1/473 (0.2%)	1.33	3/629 (0.5%)
66	O0	0.71	0/751	0.87	0/1008
66	o0	0.69	0/775	0.88	2/1040 (0.2%)
67	O1	0.90	0/890	1.00	1/1196 (0.1%)
67	o1	1.13	2/897 (0.2%)	1.20	3/1205 (0.2%)
68	O2	1.21	2/1041 (0.2%)	1.20	4/1394 (0.3%)
68	o2	1.15	2/1041 (0.2%)	1.13	5/1394 (0.4%)
69	O3	1.32	2/868 (0.2%)	1.23	3/1168 (0.3%)
69	o3	1.38	3/868 (0.3%)	1.19	2/1168 (0.2%)
70	O4	0.84	0/890	1.00	4/1189 (0.3%)
70	o4	0.83	1/890 (0.1%)	0.99	2/1189 (0.2%)
71	O5	0.98	2/978 (0.2%)	1.09	2/1301 (0.2%)
71	o5	0.82	0/974	0.89	1/1297 (0.1%)
72	O6	0.84	0/778	0.98	1/1034 (0.1%)
72	o6	0.79	0/777	0.98	1/1033 (0.1%)
73	O7	1.08	0/696	1.20	4/923 (0.4%)
73	o7	0.99	0/696	1.07	3/923 (0.3%)
74	O8	0.72	0/618	0.84	0/826
74	o8	0.66	0/614	0.90	0/822
75	O9	1.05	0/443	1.19	3/588 (0.5%)
75	o9	0.82	0/443	0.99	0/588
76	Q0	1.04	2/423 (0.5%)	1.14	1/562 (0.2%)
76	q0	1.58	3/423 (0.7%)	1.44	5/562 (0.9%)
77	Q1	0.76	0/234	1.11	2/300 (0.7%)
77	q1	1.03	0/234	1.30	3/300 (1.0%)
78	Q2	1.12	1/860 (0.1%)	1.07	2/1136 (0.2%)
78	q2	1.13	2/860 (0.2%)	1.09	2/1136 (0.2%)
79	Q3	1.04	0/701	1.10	3/934 (0.3%)
79	q3	1.07	1/701 (0.1%)	1.05	0/934
80	e0	0.81	0/499	0.95	0/665
81	e1	0.51	0/619	0.87	0/822
83	p0	0.75	0/1091	0.85	0/1472
All	All	1.39	4070/429970 (0.9%)	1.97	22469/631198 (3.6%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	S0	0	2
2	s0	0	2
3	s1	0	3
5	S3	0	2
5	s3	0	2
6	s4	0	2
7	s5	0	3
9	s7	0	1
11	S9	0	2
11	s9	0	1
12	C0	0	2
15	c3	0	1
16	C4	0	1
17	c5	0	1
18	C6	0	1
18	c6	0	3
19	C7	0	1
19	c7	0	2
20	c8	0	1
21	c9	0	1
22	d0	0	1
23	D1	0	1
24	D2	0	1
24	d2	0	2
25	D3	0	2
26	D4	0	1
26	d4	0	2
27	D5	0	1
27	d5	0	1
28	D6	0	1
28	d6	0	1
33	E1	0	2
35	SM	0	1
39	l2	0	2
40	L3	0	3
40	l3	0	5
41	L4	0	5
41	l4	0	2
42	L5	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
42	l5	0	3
43	L6	0	2
43	l6	0	1
44	L7	0	2
44	l7	0	3
45	l8	0	1
47	M0	0	2
47	m0	0	1
48	m1	0	1
49	m3	0	2
52	M6	0	2
52	m6	0	2
53	M7	0	1
53	m7	0	2
54	m8	0	1
56	n0	0	2
57	N1	0	1
57	n1	0	1
60	n4	0	1
61	n5	0	1
63	N7	0	2
64	N8	0	4
64	n8	0	2
65	N9	0	2
65	n9	0	1
67	o1	0	1
68	o2	0	2
69	O3	0	2
70	O4	0	2
70	o4	0	2
72	O6	0	1
76	q0	0	1
80	e0	0	2
81	e1	0	1
82	m2	0	3
83	p0	0	1
All	All	0	130

All (4070) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	15.17	2.08	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	806	A	N9-C4	-14.79	1.28	1.37
37	7	89	G	C6-O6	14.62	1.37	1.24
36	5	2397	A	N9-C4	-14.38	1.29	1.37
36	5	2875	U	N1-C2	13.97	1.51	1.38
36	5	1303	A	C5-C6	-13.90	1.28	1.41
36	5	2689	A	N3-C4	-13.75	1.26	1.34
1	6	1753	A	N9-C4	13.53	1.46	1.37
36	5	2358	A	N9-C4	-13.26	1.29	1.37
36	1	408	A	N3-C4	-12.89	1.27	1.34
36	1	1432	C	N1-C6	-12.89	1.29	1.37
36	1	2875	U	C2-N3	12.87	1.46	1.37
36	5	1152	G	N9-C4	-12.77	1.27	1.38
36	1	2726	C	N3-C4	-12.50	1.25	1.33
36	1	3011	A	N9-C4	-12.47	1.30	1.37
36	1	2373	A	N9-C4	-12.37	1.30	1.37
36	5	367	A	N9-C4	-12.32	1.30	1.37
36	5	1589	A	C5-C6	-12.05	1.30	1.41
36	1	2834	G	N3-C4	-11.96	1.27	1.35
36	5	1159	A	N9-C4	-11.92	1.30	1.37
36	5	1195	A	N3-C4	-11.89	1.27	1.34
36	5	958	C	N1-C6	-11.88	1.30	1.37
36	1	1103	A	N7-C5	11.71	1.46	1.39
36	1	2636	A	N9-C4	-11.68	1.30	1.37
76	q0	99	CYS	CB-SG	-11.64	1.62	1.82
36	5	917	A	N9-C4	-11.55	1.30	1.37
36	1	2409	G	N9-C8	-11.52	1.29	1.37
37	7	104	A	N9-C4	-11.52	1.30	1.37
36	1	645	A	C6-N6	-11.48	1.24	1.33
37	7	84	A	N3-C4	-11.45	1.27	1.34
36	1	2875	U	N1-C2	11.42	1.48	1.38
36	1	2820	A	N9-C4	-11.37	1.31	1.37
36	1	3142	A	N9-C4	-11.35	1.31	1.37
36	5	3005	A	N7-C5	-11.35	1.32	1.39
36	5	2875	U	C2-N3	11.35	1.45	1.37
36	5	2988	C	N1-C6	-11.35	1.30	1.37
36	5	1183	C	N1-C6	-11.29	1.30	1.37
36	5	994	G	C5-C4	-11.23	1.30	1.38
36	1	2860	U	C4-O4	11.21	1.32	1.23
36	5	2291	A	N9-C4	-11.17	1.31	1.37
36	5	2892	A	N3-C4	-11.10	1.28	1.34
36	1	2877	G	N3-C4	-11.07	1.27	1.35
36	1	1316	C	N1-C6	-11.05	1.30	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2636	A	N3-C4	-11.02	1.28	1.34
36	5	1197	A	N3-C4	-10.91	1.28	1.34
36	1	1330	A	N9-C4	-10.90	1.31	1.37
36	5	2799	A	N3-C4	-10.88	1.28	1.34
36	5	523	A	N3-C4	-10.87	1.28	1.34
36	1	2619	G	C5-C4	-10.85	1.30	1.38
36	5	523	A	N9-C4	-10.85	1.31	1.37
36	5	1159	A	N3-C4	-10.84	1.28	1.34
36	5	960	U	N1-C2	10.82	1.48	1.38
36	1	3006	A	N9-C4	-10.81	1.31	1.37
36	5	2936	A	C5-C4	-10.80	1.31	1.38
36	5	1303	A	C5-C4	-10.79	1.31	1.38
36	5	2743	A	N9-C4	-10.74	1.31	1.37
36	1	936	A	N9-C4	-10.68	1.31	1.37
36	1	962	A	N3-C4	-10.66	1.28	1.34
36	1	962	A	N9-C4	-10.66	1.31	1.37
36	5	2875	U	C4-C5	10.62	1.53	1.43
36	1	1135	A	N3-C4	-10.62	1.28	1.34
37	7	102	A	N9-C4	-10.60	1.31	1.37
36	5	40	A	N9-C4	-10.56	1.31	1.37
36	1	744	A	N9-C4	-10.56	1.31	1.37
1	6	1131	A	C5-C6	-10.55	1.31	1.41
36	1	2409	G	C8-N7	-10.53	1.24	1.30
36	5	1195	A	N9-C4	-10.52	1.31	1.37
1	6	1537	C	N1-C6	10.52	1.43	1.37
36	5	2386	A	N9-C4	-10.49	1.31	1.37
36	1	2404	A	N3-C4	10.48	1.41	1.34
1	6	992	A	N9-C4	-10.48	1.31	1.37
36	5	1178	G	C6-N1	-10.45	1.32	1.39
36	5	2397	A	N3-C4	-10.44	1.28	1.34
36	1	2877	G	C5-C4	-10.43	1.31	1.38
36	5	2879	C	N1-C6	-10.41	1.30	1.37
36	5	2892	A	N9-C4	-10.36	1.31	1.37
36	5	1883	A	N3-C4	-10.34	1.28	1.34
36	1	2409	G	N7-C5	-10.32	1.33	1.39
36	1	1103	A	C5-C6	10.30	1.50	1.41
36	1	2404	A	C5-C4	10.26	1.46	1.38
36	5	2703	A	N3-C4	-10.25	1.28	1.34
36	1	1411	C	N3-C4	-10.22	1.26	1.33
36	5	2813	A	N7-C5	-10.22	1.33	1.39
36	1	3011	A	N3-C4	-10.17	1.28	1.34
56	n0	128	GLU	CG-CD	10.15	1.67	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2379	U	C2-N3	-10.15	1.30	1.37
36	1	423	A	N3-C4	-10.14	1.28	1.34
36	5	3310	A	N7-C5	-10.14	1.33	1.39
36	1	367	A	N9-C4	-10.13	1.31	1.37
1	6	1778	G	C5-C4	-10.12	1.31	1.38
36	1	70	A	N9-C4	-10.11	1.31	1.37
36	5	3012	A	C5-C4	-10.11	1.31	1.38
36	5	2836	C	N1-C6	-10.11	1.31	1.37
36	5	2994	A	N3-C4	-10.04	1.28	1.34
36	5	2139	A	N3-C4	-10.02	1.28	1.34
36	5	1320	C	N1-C6	-10.01	1.31	1.37
36	1	1180	A	N9-C4	-10.00	1.31	1.37
36	5	94	G	N9-C4	-9.99	1.29	1.38
36	1	962	A	N7-C5	-9.97	1.33	1.39
1	6	1537	C	C2-N3	9.97	1.43	1.35
36	1	2605	G	N9-C4	-9.96	1.29	1.38
36	1	35	A	C5-C6	-9.95	1.32	1.41
36	5	2404	A	C5-C6	9.94	1.50	1.41
36	5	3245	A	C5-C6	-9.93	1.32	1.41
36	1	806	A	N9-C4	-9.92	1.31	1.37
36	5	654	C	N1-C6	-9.92	1.31	1.37
36	5	1174	G	C5-C4	-9.92	1.31	1.38
36	5	1332	A	N9-C4	-9.89	1.31	1.37
36	1	2860	U	N3-C4	9.88	1.47	1.38
36	1	3305	A	N7-C5	-9.86	1.33	1.39
36	5	3012	A	N9-C4	-9.84	1.31	1.37
36	5	2689	A	N9-C4	-9.83	1.31	1.37
1	6	1556	A	N9-C4	-9.82	1.31	1.37
36	5	1330	A	N9-C4	-9.81	1.31	1.37
36	1	1154	A	N3-C4	-9.79	1.28	1.34
36	5	1399	A	N9-C4	-9.79	1.31	1.37
56	n0	78	TRP	CB-CG	-9.78	1.32	1.50
36	5	1370	G	C6-N1	-9.77	1.32	1.39
36	5	2353	G	C5-C6	-9.75	1.32	1.42
36	5	3091	A	N7-C5	-9.71	1.33	1.39
36	1	1393	A	N3-C4	-9.67	1.29	1.34
36	5	1040	A	N9-C4	-9.67	1.32	1.37
36	1	2605	G	N3-C4	-9.66	1.28	1.35
36	5	1047	A	N3-C4	-9.64	1.29	1.34
36	5	2644	C	N1-C6	-9.63	1.31	1.37
36	5	3029	A	N9-C4	-9.59	1.32	1.37
36	5	2920	U	C2-N3	-9.58	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	667	C	N3-C4	-9.58	1.27	1.33
36	1	1369	A	N9-C4	-9.56	1.32	1.37
36	5	994	G	C5-C6	-9.55	1.32	1.42
1	6	1028	C	N1-C6	-9.54	1.31	1.37
36	5	3043	C	N1-C6	-9.54	1.31	1.37
36	5	2986	U	N1-C2	-9.53	1.29	1.38
36	1	913	A	N7-C5	-9.53	1.33	1.39
36	1	2377	G	C6-N1	-9.51	1.32	1.39
36	5	1292	C	N1-C2	-9.51	1.30	1.40
36	1	402	A	N7-C5	-9.50	1.33	1.39
36	1	2333	C	N3-C4	-9.50	1.27	1.33
36	5	1103	A	C5-C4	9.49	1.45	1.38
36	1	2964	G	N7-C5	-9.44	1.33	1.39
37	7	44	C	C2-O2	9.44	1.32	1.24
36	5	2626	A	N3-C4	-9.43	1.29	1.34
36	1	2326	A	N9-C4	-9.42	1.32	1.37
36	1	2644	C	N1-C6	-9.40	1.31	1.37
1	6	1003	A	N9-C4	-9.40	1.32	1.37
36	5	806	A	N3-C4	-9.39	1.29	1.34
36	5	1332	A	N7-C5	-9.38	1.33	1.39
36	5	3213	A	N9-C4	-9.38	1.32	1.37
36	1	2871	G	N9-C8	9.37	1.44	1.37
36	1	1432	C	N3-C4	-9.37	1.27	1.33
36	1	2878	G	N9-C8	-9.36	1.31	1.37
36	5	1103	A	N3-C4	9.36	1.40	1.34
36	1	1320	C	N3-C4	-9.35	1.27	1.33
57	n1	104	GLU	CB-CG	9.30	1.69	1.52
36	5	848	A	N7-C5	-9.28	1.33	1.39
36	1	421	G	N1-C2	-9.27	1.30	1.37
36	5	884	A	C5-C6	-9.26	1.32	1.41
36	5	345	G	N9-C8	-9.26	1.31	1.37
36	5	1205	A	N3-C4	-9.26	1.29	1.34
36	5	428	A	N9-C4	-9.26	1.32	1.37
36	5	2918	G	C6-N1	-9.26	1.33	1.39
36	1	1103	A	N9-C4	9.25	1.43	1.37
36	1	3272	C	N1-C6	-9.25	1.31	1.37
36	5	3195	U	C2-N3	9.23	1.44	1.37
36	5	2626	A	N9-C4	-9.20	1.32	1.37
36	5	2970	C	N1-C6	-9.20	1.31	1.37
36	1	422	A	N3-C4	-9.19	1.29	1.34
36	1	2644	C	N3-C4	-9.19	1.27	1.33
1	6	100	A	N3-C4	-9.18	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	345	G	N7-C5	-9.17	1.33	1.39
36	5	1136	A	N3-C4	-9.16	1.29	1.34
36	5	2145	A	N7-C5	-9.15	1.33	1.39
36	5	2401	A	C5-C4	9.13	1.45	1.38
36	1	2877	G	C2-N3	-9.11	1.25	1.32
1	6	1778	G	C5-C6	-9.10	1.33	1.42
36	5	422	A	N3-C4	-9.09	1.29	1.34
36	1	1304	A	N9-C4	-9.09	1.32	1.37
36	1	2969	A	N9-C4	-9.08	1.32	1.37
36	5	1204	A	N9-C4	-9.07	1.32	1.37
36	1	644	G	C6-N1	-9.06	1.33	1.39
36	1	2159	U	N1-C2	9.06	1.46	1.38
36	5	512	U	C2-N3	-9.06	1.31	1.37
36	5	2149	A	N9-C4	-9.05	1.32	1.37
36	1	3181	C	N3-C4	-9.04	1.27	1.33
36	5	2908	G	N7-C5	-9.04	1.33	1.39
36	5	2309	A	N3-C4	-9.03	1.29	1.34
36	1	2948	C	N3-C4	-9.02	1.27	1.33
36	5	2879	C	C4-C5	-9.02	1.35	1.43
36	5	1589	A	N7-C5	-9.01	1.33	1.39
36	5	1592	G	C6-O6	8.99	1.32	1.24
36	5	3024	A	N9-C4	-8.99	1.32	1.37
36	5	1406	A	N3-C4	-8.98	1.29	1.34
36	1	1154	A	N7-C5	-8.95	1.33	1.39
37	7	73	C	N1-C6	8.95	1.42	1.37
36	5	2857	C	N3-C4	-8.95	1.27	1.33
36	1	357	A	N3-C4	-8.95	1.29	1.34
36	1	2641	U	C2-N3	-8.95	1.31	1.37
36	5	1152	G	N3-C4	-8.94	1.29	1.35
36	5	2401	A	N9-C4	8.91	1.43	1.37
36	5	2821	C	N1-C2	8.90	1.49	1.40
36	1	638	C	N1-C6	-8.89	1.31	1.37
36	1	70	A	N3-C4	-8.89	1.29	1.34
36	1	2878	G	C5-C4	-8.88	1.32	1.38
36	5	2936	A	N3-C4	-8.88	1.29	1.34
36	5	2304	C	C4-C5	-8.87	1.35	1.43
36	1	3142	A	N3-C4	-8.87	1.29	1.34
37	3	10	C	N1-C6	-8.86	1.31	1.37
36	5	2703	A	N7-C5	-8.86	1.33	1.39
36	5	2404	A	C5-C4	8.86	1.45	1.38
36	1	693	A	N3-C4	-8.84	1.29	1.34
36	5	367	A	N7-C5	-8.84	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2938	G	N7-C5	-8.83	1.33	1.39
36	5	1103	A	N9-C4	8.82	1.43	1.37
36	5	3038	U	C4-O4	-8.82	1.16	1.23
36	5	2386	A	N3-C4	-8.81	1.29	1.34
78	q2	17	CYS	CB-SG	8.81	1.97	1.82
36	5	884	A	N7-C5	-8.81	1.33	1.39
36	5	3310	A	C5-C4	-8.80	1.32	1.38
36	1	780	A	N3-C4	-8.80	1.29	1.34
36	5	2279	A	C5-C6	-8.79	1.33	1.41
36	1	2811	A	N3-C4	-8.77	1.29	1.34
1	6	1148	C	N3-C4	-8.77	1.27	1.33
36	5	2940	A	N7-C5	-8.77	1.33	1.39
36	5	2381	G	N9-C8	-8.74	1.31	1.37
36	5	3012	A	N7-C5	-8.73	1.34	1.39
36	5	2637	A	N3-C4	-8.72	1.29	1.34
36	1	1204	A	N9-C4	-8.72	1.32	1.37
36	1	1867	A	N9-C4	-8.71	1.32	1.37
36	5	2980	U	N3-C4	-8.71	1.30	1.38
36	5	39	A	N9-C4	-8.71	1.32	1.37
36	5	3213	A	C5-C4	-8.71	1.32	1.38
37	7	95	A	N3-C4	-8.70	1.29	1.34
36	5	2378	C	N1-C6	-8.70	1.31	1.37
36	5	2902	A	N3-C4	-8.70	1.29	1.34
36	5	2404	A	N9-C4	8.68	1.43	1.37
36	5	2875	U	C5-C6	8.67	1.42	1.34
36	5	2830	G	N3-C4	-8.67	1.29	1.35
36	1	1901	A	N9-C4	-8.67	1.32	1.37
36	5	2353	G	N7-C5	-8.66	1.34	1.39
36	5	2377	G	C5-C4	-8.66	1.32	1.38
36	5	3310	A	N3-C4	-8.66	1.29	1.34
36	1	2601	A	N3-C4	-8.65	1.29	1.34
36	5	2933	A	C6-N1	-8.65	1.29	1.35
36	5	2996	U	N3-C4	8.64	1.46	1.38
36	1	806	A	N3-C4	-8.64	1.29	1.34
36	5	2637	A	N9-C4	-8.62	1.32	1.37
36	1	2819	A	C5-C4	-8.62	1.32	1.38
36	1	3142	A	C6-N1	-8.62	1.29	1.35
36	1	635	G	C5-C6	-8.61	1.33	1.42
36	1	1145	G	N7-C5	-8.61	1.34	1.39
36	5	1307	G	N7-C5	-8.61	1.34	1.39
36	5	2412	G	N7-C5	-8.61	1.34	1.39
1	6	1025	A	N7-C5	-8.60	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1047	A	C6-N1	-8.60	1.29	1.35
36	5	1197	A	N7-C5	-8.59	1.34	1.39
36	1	2277	C	N1-C6	-8.59	1.31	1.37
36	1	2627	C	N1-C6	-8.59	1.31	1.37
36	5	951	A	C6-N1	-8.59	1.29	1.35
36	1	1333	C	N3-C4	-8.58	1.27	1.33
36	5	2125	A	N9-C4	-8.58	1.32	1.37
36	5	3035	A	N9-C4	-8.58	1.32	1.37
36	1	2365	C	N1-C6	-8.58	1.32	1.37
36	1	1398	U	C2-N3	-8.58	1.31	1.37
36	5	2726	C	N3-C4	-8.57	1.27	1.33
36	1	2971	A	N9-C4	8.56	1.43	1.37
36	5	3242	G	N1-C2	-8.56	1.30	1.37
36	1	2325	G	N7-C5	-8.56	1.34	1.39
36	5	345	G	C8-N7	-8.56	1.25	1.30
36	1	2187	G	N3-C4	-8.56	1.29	1.35
36	1	1182	A	N9-C4	-8.56	1.32	1.37
36	5	1178	G	N3-C4	-8.55	1.29	1.35
36	5	1205	A	C6-N1	-8.55	1.29	1.35
36	1	1178	G	C6-N1	-8.55	1.33	1.39
36	1	2880	U	N3-C4	-8.54	1.30	1.38
36	5	2816	G	N9-C4	-8.54	1.31	1.38
36	5	2934	A	C5-C6	-8.54	1.33	1.41
36	1	1884	A	N9-C4	-8.53	1.32	1.37
36	5	1203	A	C5-C6	-8.53	1.33	1.41
36	1	639	G	N9-C4	-8.53	1.31	1.38
36	1	2878	G	N7-C5	-8.53	1.34	1.39
1	6	1660	A	N3-C4	-8.51	1.29	1.34
36	5	2379	U	N3-C4	-8.51	1.30	1.38
36	5	1847	A	N9-C4	-8.51	1.32	1.37
1	2	1208	A	N9-C4	-8.50	1.32	1.37
36	5	2986	U	N1-C6	-8.50	1.30	1.38
36	5	2285	C	N1-C6	-8.50	1.32	1.37
36	1	1178	G	N1-C2	-8.50	1.30	1.37
36	5	2386	A	N7-C5	-8.49	1.34	1.39
36	1	804	C	N1-C6	-8.49	1.32	1.37
36	5	1120	A	N3-C4	-8.49	1.29	1.34
38	4	12	A	C5-C6	-8.48	1.33	1.41
36	5	3061	G	N9-C4	-8.48	1.31	1.38
36	5	1794	G	N9-C4	-8.46	1.31	1.38
36	5	806	A	N7-C5	-8.46	1.34	1.39
36	5	1175	C	N3-C4	-8.46	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2813	A	C5-C6	-8.45	1.33	1.41
36	1	2326	A	N3-C4	-8.45	1.29	1.34
38	4	24	G	N3-C4	-8.45	1.29	1.35
36	5	668	G	C5-C4	-8.44	1.32	1.38
36	1	2869	U	C4-C5	-8.44	1.35	1.43
36	1	1046	A	C5-C6	-8.43	1.33	1.41
36	1	1127	G	N3-C4	-8.42	1.29	1.35
36	5	367	A	N3-C4	-8.42	1.29	1.34
36	1	2356	A	N7-C5	-8.42	1.34	1.39
36	1	1156	C	N3-C4	-8.41	1.28	1.33
36	5	2933	A	N3-C4	-8.41	1.29	1.34
36	5	3209	A	C5-C4	8.41	1.44	1.38
36	5	3308	C	N1-C6	-8.41	1.32	1.37
36	1	348	A	N9-C4	-8.40	1.32	1.37
36	5	425	G	N3-C4	-8.40	1.29	1.35
36	1	421	G	C6-N1	-8.39	1.33	1.39
36	1	423	A	N9-C4	-8.39	1.32	1.37
36	1	2618	G	C6-N1	-8.39	1.33	1.39
36	5	1300	G	N9-C8	-8.39	1.31	1.37
36	1	2404	A	N9-C4	8.39	1.42	1.37
36	1	639	G	N3-C4	-8.39	1.29	1.35
36	5	2811	A	N3-C4	-8.38	1.29	1.34
1	6	1753	A	N3-C4	8.38	1.39	1.34
36	1	1366	A	C5-C6	-8.37	1.33	1.41
36	1	3098	G	C5-C4	-8.36	1.32	1.38
36	5	2976	A	C5-C4	-8.35	1.32	1.38
36	1	808	A	N9-C4	-8.35	1.32	1.37
36	5	2620	G	C6-N1	-8.34	1.33	1.39
36	1	645	A	C6-N1	-8.33	1.29	1.35
36	5	1149	G	C6-O6	8.33	1.31	1.24
36	5	3005	A	N3-C4	-8.33	1.29	1.34
36	5	3005	A	C5-C4	-8.33	1.32	1.38
36	5	921	A	N3-C4	-8.33	1.29	1.34
36	5	2979	U	C2-N3	-8.33	1.31	1.37
36	5	2375	G	N3-C4	-8.32	1.29	1.35
36	5	1165	A	N7-C5	-8.31	1.34	1.39
36	1	612	U	C2-N3	-8.30	1.31	1.37
36	5	1546	A	N3-C4	-8.30	1.29	1.34
36	5	422	A	C6-N1	-8.29	1.29	1.35
36	5	2285	C	N3-C4	-8.29	1.28	1.33
1	6	100	A	C6-N1	-8.28	1.29	1.35
25	d3	63	GLN	CB-CG	8.28	1.75	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2743	A	N3-C4	-8.28	1.29	1.34
36	5	3195	U	N3-C4	8.28	1.45	1.38
36	5	345	G	N7-C5	-8.27	1.34	1.39
36	1	27	C	N3-C4	-8.27	1.28	1.33
37	7	95	A	N9-C4	-8.27	1.32	1.37
36	1	1001	G	C6-N1	8.26	1.45	1.39
36	5	642	U	C2-N3	-8.26	1.31	1.37
36	1	1431	G	C5-C4	-8.25	1.32	1.38
36	1	1197	A	C6-N1	-8.24	1.29	1.35
36	1	189	G	N3-C4	-8.24	1.29	1.35
36	1	408	A	N9-C4	-8.23	1.32	1.37
36	5	1886	A	N3-C4	-8.23	1.29	1.34
36	1	1134	G	N9-C8	-8.22	1.32	1.37
36	5	3382	U	N1-C2	8.21	1.46	1.38
36	5	1867	A	N9-C4	-8.21	1.32	1.37
36	1	2811	A	N7-C5	-8.20	1.34	1.39
36	1	2619	G	N9-C8	-8.19	1.32	1.37
1	6	1746	A	N9-C4	-8.19	1.32	1.37
36	1	1156	C	N1-C6	-8.19	1.32	1.37
36	5	2879	C	N1-C2	-8.18	1.31	1.40
49	M3	176	GLU	CG-CD	8.18	1.64	1.51
36	1	2819	A	N3-C4	-8.17	1.29	1.34
36	5	1295	G	C5-C6	-8.17	1.34	1.42
36	1	2415	C	N3-C4	-8.16	1.28	1.33
36	5	2302	G	N3-C4	-8.16	1.29	1.35
36	1	2619	G	N7-C5	-8.15	1.34	1.39
36	5	1292	C	N1-C6	-8.15	1.32	1.37
36	5	994	G	C8-N7	-8.15	1.26	1.30
36	5	2302	G	C6-N1	-8.15	1.33	1.39
36	5	1053	A	N3-C4	-8.14	1.29	1.34
36	1	2306	C	N1-C2	8.13	1.48	1.40
36	5	2819	A	N3-C4	-8.13	1.29	1.34
36	1	1369	A	N3-C4	-8.12	1.29	1.34
36	5	1891	A	N9-C4	-8.12	1.32	1.37
1	6	757	A	N9-C4	-8.12	1.32	1.37
36	5	2117	A	N9-C4	-8.11	1.32	1.37
36	5	2935	U	N1-C2	-8.10	1.31	1.38
36	1	1116	G	C6-N1	-8.10	1.33	1.39
36	1	1197	A	N3-C4	-8.09	1.29	1.34
36	1	2802	A	N9-C4	-8.09	1.32	1.37
36	5	1005	G	N9-C4	-8.09	1.31	1.38
36	5	2302	G	N1-C2	-8.08	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2414	G	N3-C4	-8.08	1.29	1.35
36	1	2623	G	C5-C6	-8.08	1.34	1.42
36	5	2392	C	N1-C6	-8.08	1.32	1.37
36	5	1513	G	N7-C5	-8.07	1.34	1.39
36	1	2372	A	N9-C4	8.06	1.42	1.37
36	5	402	A	N7-C5	-8.05	1.34	1.39
36	1	2979	U	C2-N3	-8.04	1.32	1.37
36	5	921	A	C6-N1	-8.04	1.29	1.35
36	1	1883	A	N9-C4	-8.04	1.33	1.37
36	5	3310	A	N9-C4	-8.04	1.33	1.37
36	5	1432	C	N1-C6	-8.03	1.32	1.37
36	5	2387	A	N3-C4	-8.03	1.30	1.34
36	1	2377	G	N7-C5	-8.02	1.34	1.39
36	1	2860	U	C4-C5	8.02	1.50	1.43
36	1	1197	A	C5-C6	-8.02	1.33	1.41
36	1	2981	U	C2-N3	-8.01	1.32	1.37
36	5	2934	A	N7-C5	-8.01	1.34	1.39
36	1	2640	A	N3-C4	-8.00	1.30	1.34
36	5	920	A	N3-C4	-8.00	1.30	1.34
36	1	905	U	N1-C2	-8.00	1.31	1.38
36	5	1845	G	N9-C8	-8.00	1.32	1.37
1	6	1655	A	N7-C5	-7.98	1.34	1.39
36	5	3012	A	C5-C6	-7.98	1.33	1.41
36	1	1399	A	N3-C4	-7.98	1.30	1.34
36	1	2956	A	N3-C4	-7.98	1.30	1.34
36	5	2637	A	C6-N1	-7.97	1.29	1.35
37	3	88	G	C6-N1	-7.97	1.33	1.39
36	1	796	U	C4-C5	-7.97	1.36	1.43
36	5	437	G	N9-C4	7.96	1.44	1.38
36	5	2847	A	N9-C4	-7.96	1.33	1.37
36	1	1127	G	N9-C4	-7.96	1.31	1.38
36	1	1145	G	N9-C8	-7.96	1.32	1.37
36	5	1794	G	C5-C4	-7.96	1.32	1.38
36	5	1129	A	C5-C6	-7.95	1.33	1.41
36	1	2356	A	N9-C4	-7.95	1.33	1.37
36	1	1146	C	C4-C5	-7.95	1.36	1.43
36	5	367	A	N9-C8	-7.94	1.31	1.37
1	6	321	C	N1-C2	7.93	1.48	1.40
36	5	2150	G	N7-C5	-7.92	1.34	1.39
36	1	2404	A	C5-C6	7.92	1.48	1.41
36	1	366	A	N7-C5	-7.91	1.34	1.39
36	1	651	G	C8-N7	-7.91	1.26	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1116	G	N7-C5	-7.91	1.34	1.39
36	5	2917	G	N3-C4	-7.91	1.29	1.35
36	5	1337	A	N9-C4	-7.91	1.33	1.37
1	6	1670	G	N7-C5	-7.90	1.34	1.39
36	5	1332	A	N9-C8	-7.90	1.31	1.37
36	5	2130	G	N9-C4	-7.90	1.31	1.38
36	5	3112	G	N9-C8	-7.89	1.32	1.37
1	6	1119	G	N7-C5	-7.89	1.34	1.39
36	5	585	A	N7-C5	-7.89	1.34	1.39
36	5	1887	A	N7-C5	-7.88	1.34	1.39
36	1	691	A	N9-C4	-7.88	1.33	1.37
37	7	81	U	C2-N3	-7.88	1.32	1.37
37	7	84	A	C6-N1	-7.88	1.30	1.35
36	1	3006	A	N3-C4	-7.88	1.30	1.34
36	5	1139	G	N9-C4	-7.88	1.31	1.38
36	5	1203	A	N7-C5	-7.87	1.34	1.39
1	6	1778	G	N7-C5	-7.87	1.34	1.39
38	4	15	G	N7-C5	-7.86	1.34	1.39
36	5	3207	U	C4-C5	7.86	1.50	1.43
36	1	2819	A	N9-C4	-7.85	1.33	1.37
36	5	1205	A	N9-C4	-7.85	1.33	1.37
36	5	3209	A	C5-C6	7.85	1.48	1.41
36	5	1520	G	N9-C4	7.85	1.44	1.38
36	5	3310	A	C5-C6	-7.85	1.33	1.41
36	1	3273	A	N3-C4	-7.84	1.30	1.34
36	1	423	A	N7-C5	-7.84	1.34	1.39
36	5	3006	A	N3-C4	-7.83	1.30	1.34
36	5	3093	C	N1-C6	-7.83	1.32	1.37
36	1	1886	A	N3-C4	-7.83	1.30	1.34
36	1	3081	C	N3-C4	-7.83	1.28	1.33
36	5	3124	G	N3-C4	-7.83	1.29	1.35
36	5	363	G	N7-C5	-7.83	1.34	1.39
36	5	2172	A	N7-C5	-7.83	1.34	1.39
36	1	2980	U	C2-O2	-7.82	1.15	1.22
36	5	367	A	C5-C4	-7.82	1.33	1.38
36	5	2884	C	N1-C2	-7.82	1.32	1.40
36	1	3150	A	C5-C6	-7.82	1.34	1.41
36	1	414	U	C2-N3	-7.81	1.32	1.37
36	1	425	G	C6-N1	-7.81	1.34	1.39
36	1	916	G	C5-C4	-7.81	1.32	1.38
36	1	880	G	N9-C4	-7.80	1.31	1.38
36	1	2809	C	N1-C2	-7.80	1.32	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	3182	G	C6-N1	-7.80	1.34	1.39
1	6	1671	A	N3-C4	-7.80	1.30	1.34
36	1	1145	G	C5-C4	-7.80	1.32	1.38
36	1	2834	G	C5-C4	-7.80	1.32	1.38
36	5	396	A	N9-C4	-7.80	1.33	1.37
36	5	2138	A	N3-C4	-7.80	1.30	1.34
36	5	1174	G	C6-N1	-7.80	1.34	1.39
36	1	1153	A	N3-C4	-7.79	1.30	1.34
36	5	2665	U	C4-C5	-7.79	1.36	1.43
36	5	1486	G	N9-C4	-7.79	1.31	1.38
36	1	644	G	N3-C4	-7.79	1.29	1.35
36	5	1217	A	N9-C4	-7.79	1.33	1.37
36	5	3130	A	N3-C4	-7.78	1.30	1.34
36	5	3091	A	C5-C6	-7.77	1.34	1.41
36	1	1197	A	N9-C4	-7.76	1.33	1.37
36	5	2404	A	N3-C4	7.76	1.39	1.34
1	6	1137	A	N9-C4	-7.76	1.33	1.37
36	5	2940	A	N3-C4	-7.76	1.30	1.34
36	5	1174	G	N1-C2	-7.75	1.31	1.37
36	5	2400	G	C2-N3	-7.75	1.26	1.32
37	7	25	G	C6-N1	-7.75	1.34	1.39
36	1	1401	A	N9-C4	-7.74	1.33	1.37
36	5	647	A	N3-C4	-7.74	1.30	1.34
36	5	2415	C	N1-C6	-7.74	1.32	1.37
36	1	1180	A	N3-C4	-7.74	1.30	1.34
36	5	51	A	N7-C5	-7.74	1.34	1.39
36	5	3025	C	N3-C4	-7.73	1.28	1.33
36	1	3011	A	C5-C4	-7.73	1.33	1.38
36	5	1101	G	C6-N1	-7.73	1.34	1.39
40	L3	233	TRP	CB-CG	-7.73	1.36	1.50
36	5	1197	A	C5-C4	-7.73	1.33	1.38
36	5	1197	A	C6-N1	-7.73	1.30	1.35
38	8	80	A	N9-C4	7.73	1.42	1.37
36	5	1175	C	N1-C6	-7.72	1.32	1.37
36	1	1197	A	C5-C4	-7.72	1.33	1.38
36	1	3172	A	N7-C5	-7.72	1.34	1.39
36	5	3132	C	N1-C6	-7.72	1.32	1.37
36	5	918	C	N1-C6	-7.72	1.32	1.37
36	1	2875	U	N3-C4	7.72	1.45	1.38
36	1	357	A	N9-C4	-7.72	1.33	1.37
36	5	2386	A	C5-C6	-7.72	1.34	1.41
1	6	309	C	N1-C6	-7.71	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	971	G	C6-N1	-7.71	1.34	1.39
36	5	2373	A	C6-N1	-7.71	1.30	1.35
36	1	2614	G	N1-C2	-7.70	1.31	1.37
36	1	2875	U	N1-C6	7.70	1.44	1.38
36	5	2382	G	N9-C4	-7.70	1.31	1.38
36	5	2743	A	N7-C5	-7.70	1.34	1.39
36	1	2996	U	N1-C2	7.69	1.45	1.38
36	5	3085	G	C5-C4	-7.69	1.32	1.38
36	1	1149	G	C6-O6	7.69	1.31	1.24
36	1	3180	A	C6-N1	-7.68	1.30	1.35
1	6	65	A	N9-C4	-7.68	1.33	1.37
1	6	391	A	N3-C4	-7.68	1.30	1.34
36	5	2811	A	N9-C4	-7.68	1.33	1.37
36	5	2329	C	N1-C6	-7.68	1.32	1.37
36	1	402	A	C5-C6	-7.68	1.34	1.41
36	5	1910	A	C5-C6	-7.68	1.34	1.41
36	5	1307	G	N3-C4	-7.68	1.30	1.35
36	1	865	U	C2-N3	-7.67	1.32	1.37
36	1	2913	C	N1-C6	-7.67	1.32	1.37
36	1	2164	A	N3-C4	-7.67	1.30	1.34
36	1	2953	U	C4-O4	7.66	1.29	1.23
36	5	2875	U	N1-C6	7.66	1.44	1.38
36	1	2956	A	N7-C5	-7.66	1.34	1.39
36	5	189	G	N3-C4	-7.66	1.30	1.35
36	5	363	G	C5-C6	-7.66	1.34	1.42
38	8	53	A	N3-C4	-7.66	1.30	1.34
36	5	2364	G	N7-C5	-7.65	1.34	1.39
36	1	2613	U	C2-O2	-7.65	1.15	1.22
1	6	1778	G	N3-C4	-7.65	1.30	1.35
1	6	1729	C	N1-C6	-7.65	1.32	1.37
36	1	65	A	N9-C4	-7.64	1.33	1.37
36	1	583	G	C6-N1	-7.64	1.34	1.39
36	1	2356	A	N3-C4	-7.64	1.30	1.34
36	5	2946	A	N3-C4	-7.64	1.30	1.34
36	5	2341	A	N9-C4	-7.64	1.33	1.37
36	5	2370	G	N7-C5	-7.64	1.34	1.39
37	3	87	G	C2-N3	-7.63	1.26	1.32
36	5	95	A	N9-C4	-7.63	1.33	1.37
36	5	2868	U	C2-N3	-7.63	1.32	1.37
36	1	883	A	C6-N1	-7.62	1.30	1.35
36	5	994	G	N7-C5	-7.62	1.34	1.39
36	5	2287	C	N3-C4	-7.62	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	3061	G	C5-C6	-7.62	1.34	1.42
36	1	883	A	N3-C4	-7.62	1.30	1.34
37	7	79	A	N9-C4	-7.62	1.33	1.37
36	1	1905	G	N3-C4	-7.61	1.30	1.35
36	5	2849	C	N1-C6	-7.61	1.32	1.37
36	1	952	A	C6-N1	-7.61	1.30	1.35
36	1	1340	G	C5-C4	-7.61	1.33	1.38
36	1	2641	U	N3-C4	-7.61	1.31	1.38
37	3	89	G	C5-C4	-7.61	1.33	1.38
36	5	1370	G	N3-C4	-7.61	1.30	1.35
36	1	397	A	N3-C4	-7.61	1.30	1.34
36	5	588	G	C5-C4	-7.61	1.33	1.38
36	5	2120	A	N9-C4	-7.61	1.33	1.37
36	5	1298	C	C4-C5	-7.60	1.36	1.43
36	1	964	G	C5-C6	-7.60	1.34	1.42
36	1	1910	A	N9-C4	-7.60	1.33	1.37
1	6	1547	A	N9-C4	-7.60	1.33	1.37
36	5	958	C	N3-C4	-7.60	1.28	1.33
36	5	201	A	N9-C4	-7.59	1.33	1.37
37	7	95	A	N7-C5	-7.59	1.34	1.39
1	6	163	G	N3-C4	-7.59	1.30	1.35
36	5	3344	A	N9-C4	-7.59	1.33	1.37
36	1	2409	G	C5-C4	-7.58	1.33	1.38
36	5	883	A	N3-C4	-7.58	1.30	1.34
36	1	1340	G	C5-C6	-7.57	1.34	1.42
36	1	2864	A	N3-C4	-7.57	1.30	1.34
36	1	940	G	C5-C4	-7.57	1.33	1.38
36	1	1103	A	N3-C4	7.57	1.39	1.34
36	1	2385	G	C5-C6	-7.57	1.34	1.42
36	5	1205	A	C5-C4	-7.57	1.33	1.38
36	5	2867	C	N1-C6	-7.57	1.32	1.37
36	5	633	C	C4-C5	-7.56	1.36	1.43
36	5	1879	A	N3-C4	-7.56	1.30	1.34
36	5	2242	A	N3-C4	-7.56	1.30	1.34
36	1	942	U	C4-O4	7.56	1.29	1.23
36	5	637	C	N1-C6	-7.56	1.32	1.37
36	5	2856	G	N3-C4	-7.55	1.30	1.35
36	1	1405	U	C2-N3	-7.55	1.32	1.37
1	6	1025	A	C5-C6	-7.55	1.34	1.41
36	5	2639	G	N3-C4	-7.55	1.30	1.35
36	5	2936	A	N9-C8	-7.55	1.31	1.37
36	1	2422	C	N3-C4	-7.54	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3130	A	N7-C5	-7.54	1.34	1.39
36	5	418	A	N3-C4	-7.53	1.30	1.34
36	1	2353	G	N7-C5	-7.53	1.34	1.39
36	1	1159	A	N9-C4	-7.53	1.33	1.37
36	1	596	C	N3-C4	-7.52	1.28	1.33
36	5	1402	C	N1-C6	-7.52	1.32	1.37
1	6	1746	A	N3-C4	-7.52	1.30	1.34
36	5	799	G	N3-C4	-7.52	1.30	1.35
36	5	3227	A	C5-C6	-7.52	1.34	1.41
1	2	1655	A	N9-C4	-7.51	1.33	1.37
36	5	1332	A	C5-C6	-7.51	1.34	1.41
36	1	1854	C	N1-C6	-7.51	1.32	1.37
36	5	647	A	N7-C5	-7.51	1.34	1.39
36	5	2401	A	N3-C4	-7.51	1.39	1.34
36	5	1127	G	N9-C8	-7.51	1.32	1.37
36	5	2936	A	C6-N1	-7.50	1.30	1.35
36	5	2920	U	N3-C4	-7.50	1.31	1.38
36	1	422	A	N7-C5	-7.49	1.34	1.39
36	1	937	G	C5-C6	-7.49	1.34	1.42
36	1	973	A	N9-C4	-7.49	1.33	1.37
36	1	220	G	N9-C4	-7.49	1.31	1.38
36	1	1887	A	N9-C4	-7.49	1.33	1.37
36	5	2375	G	N7-C5	-7.48	1.34	1.39
36	1	660	A	C6-N1	-7.48	1.30	1.35
36	5	2877	G	C6-N1	-7.48	1.34	1.39
36	1	810	A	C6-N1	-7.48	1.30	1.35
36	5	1879	A	N9-C4	-7.48	1.33	1.37
36	1	1131	G	N9-C8	-7.48	1.32	1.37
36	5	2922	G	C6-N1	-7.47	1.34	1.39
36	1	979	U	N1-C2	-7.47	1.45	1.38
36	5	941	G	C5-C4	-7.47	1.33	1.38
36	1	401	U	N1-C2	-7.47	1.45	1.38
36	1	645	A	N9-C4	-7.47	1.42	1.37
36	1	2373	A	N3-C4	-7.47	1.30	1.34
36	1	365	A	N3-C4	-7.47	1.30	1.34
38	8	2	A	N3-C4	-7.47	1.30	1.34
36	5	1177	G	C6-N1	-7.46	1.34	1.39
1	6	623	A	N9-C4	-7.46	1.33	1.37
36	1	2755	C	N3-C4	-7.46	1.28	1.33
1	2	377	G	N9-C4	-7.45	1.31	1.38
36	5	2952	G	N7-C5	-7.45	1.34	1.39
36	5	503	C	N1-C6	-7.45	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	943	U	N1-C6	-7.45	1.31	1.38
36	1	2635	A	N3-C4	-7.44	1.30	1.34
36	1	1366	A	C6-N1	-7.44	1.30	1.35
36	1	1366	A	C6-N6	-7.44	1.27	1.33
36	5	2620	G	N3-C4	-7.44	1.30	1.35
37	7	113	C	N1-C6	-7.44	1.32	1.37
36	1	2983	C	N3-C4	-7.43	1.28	1.33
1	6	1131	A	N7-C5	-7.43	1.34	1.39
36	5	669	U	N1-C2	7.43	1.45	1.38
36	5	2976	A	N3-C4	-7.43	1.30	1.34
70	o4	84	CYS	CB-SG	-7.43	1.69	1.82
36	1	2377	G	C5-C4	-7.43	1.33	1.38
36	5	1374	G	C5-C6	-7.43	1.34	1.42
36	5	2385	G	N7-C5	-7.42	1.34	1.39
36	5	408	A	N3-C4	-7.42	1.30	1.34
37	7	102	A	C5-C4	-7.42	1.33	1.38
36	1	699	A	N9-C4	-7.42	1.33	1.37
36	5	2125	A	N3-C4	-7.42	1.30	1.34
36	5	3005	A	N9-C8	-7.41	1.31	1.37
36	5	3035	A	N3-C4	-7.41	1.30	1.34
36	1	909	G	N7-C5	-7.41	1.34	1.39
36	5	706	A	N9-C4	-7.41	1.33	1.37
36	1	1542	G	C5-C6	-7.40	1.34	1.42
36	1	2412	G	N1-C2	-7.40	1.31	1.37
36	1	2869	U	N1-C2	-7.40	1.31	1.38
36	1	1313	G	N9-C4	-7.40	1.32	1.38
36	1	2639	G	N9-C4	-7.40	1.32	1.38
38	8	2	A	C6-N1	-7.40	1.30	1.35
36	1	2954	U	N3-C4	7.39	1.45	1.38
1	6	506	A	N9-C4	7.39	1.42	1.37
1	2	1455	G	C6-O6	7.39	1.30	1.24
36	1	1154	A	C5-C4	-7.39	1.33	1.38
36	1	1901	A	C5-C4	-7.39	1.33	1.38
36	1	2371	G	C6-N1	-7.39	1.34	1.39
36	1	2387	A	C6-N6	-7.39	1.28	1.33
1	6	456	A	N3-C4	-7.38	1.30	1.34
36	5	2943	G	C5-C6	-7.38	1.34	1.42
36	5	2969	A	N3-C4	-7.38	1.30	1.34
36	5	2374	C	N1-C6	-7.37	1.32	1.37
36	5	1310	G	C5-C6	-7.37	1.34	1.42
36	5	2823	G	N7-C5	-7.36	1.34	1.39
38	8	53	A	C5-C4	-7.36	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1336	A	N9-C4	-7.36	1.33	1.37
36	1	2358	A	N9-C4	-7.36	1.33	1.37
37	3	82	G	N3-C4	-7.36	1.30	1.35
36	5	2662	G	N9-C8	-7.36	1.32	1.37
36	5	1128	U	N1-C2	-7.36	1.31	1.38
1	6	1525	A	N3-C4	-7.35	1.30	1.34
36	1	28	C	N1-C6	-7.35	1.32	1.37
36	1	2916	U	C2-O2	7.34	1.28	1.22
36	1	608	A	N9-C4	7.34	1.42	1.37
36	5	1116	G	C6-N1	-7.34	1.34	1.39
36	5	3085	G	N1-C2	-7.34	1.31	1.37
36	1	189	G	C6-N1	-7.33	1.34	1.39
37	7	104	A	N3-C4	-7.33	1.30	1.34
37	3	95	A	C5-C6	-7.32	1.34	1.41
36	1	2652	U	N1-C2	-7.32	1.31	1.38
36	5	2833	A	C5-C4	-7.31	1.33	1.38
36	5	2994	A	N7-C5	-7.31	1.34	1.39
36	5	1182	A	N3-C4	-7.31	1.30	1.34
36	5	3017	A	C5-C4	-7.31	1.33	1.38
36	5	1006	A	N3-C4	-7.31	1.30	1.34
36	5	3041	U	C2-N3	-7.31	1.32	1.37
36	1	808	A	N3-C4	-7.31	1.30	1.34
36	5	878	G	N9-C4	7.30	1.43	1.38
36	1	2605	G	N7-C5	-7.30	1.34	1.39
36	1	3307	A	C5-C6	-7.30	1.34	1.41
36	5	1849	C	N1-C6	-7.29	1.32	1.37
1	6	1645	G	N3-C4	7.29	1.40	1.35
36	5	1048	A	N3-C4	-7.29	1.30	1.34
36	5	3048	A	N9-C4	-7.29	1.33	1.37
36	1	1203	A	N9-C4	-7.29	1.33	1.37
1	2	1336	A	N9-C4	-7.29	1.33	1.37
36	1	408	A	C6-N1	-7.29	1.30	1.35
1	6	746	A	N7-C5	-7.29	1.34	1.39
42	15	193	GLU	CG-CD	7.28	1.62	1.51
38	8	138	A	C6-N1	-7.28	1.30	1.35
36	1	2344	U	N1-C2	-7.28	1.32	1.38
36	1	385	A	N3-C4	-7.27	1.30	1.34
36	1	1594	A	C6-N1	-7.27	1.30	1.35
36	5	417	A	N3-C4	-7.27	1.30	1.34
36	5	1307	G	C5-C4	-7.27	1.33	1.38
36	1	2802	A	C5-C4	-7.27	1.33	1.38
36	5	1556	C	N1-C2	7.27	1.47	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	933	A	N9-C4	7.26	1.42	1.37
36	1	408	A	C5-C4	-7.26	1.33	1.38
36	1	1131	G	C5-C4	-7.26	1.33	1.38
36	5	2900	A	N7-C5	-7.26	1.34	1.39
36	5	2796	G	N9-C8	-7.25	1.32	1.37
36	5	3180	A	N9-C4	-7.25	1.33	1.37
1	6	163	G	N9-C4	-7.25	1.32	1.38
36	1	52	A	N3-C4	-7.24	1.30	1.34
36	5	2986	U	C2-O2	-7.24	1.15	1.22
36	1	2864	A	N9-C4	-7.24	1.33	1.37
36	1	2937	G	C5-C4	-7.24	1.33	1.38
36	1	2639	G	C2-N3	-7.24	1.26	1.32
38	4	104	A	N9-C4	-7.24	1.33	1.37
36	5	2957	G	N9-C4	-7.23	1.32	1.38
36	5	426	G	C5-C4	-7.23	1.33	1.38
36	5	1327	C	N3-C4	-7.23	1.28	1.33
36	5	1053	A	N9-C4	-7.23	1.33	1.37
36	5	2863	G	N9-C4	-7.23	1.32	1.38
36	1	1134	G	N3-C4	-7.23	1.30	1.35
36	5	1116	G	C5-C6	-7.23	1.35	1.42
36	5	2954	U	N1-C2	7.22	1.45	1.38
36	1	1432	C	C2-O2	-7.22	1.18	1.24
36	5	2897	A	N3-C4	-7.22	1.30	1.34
36	5	3172	A	C5-C4	-7.22	1.33	1.38
36	5	1309	U	C2-N3	-7.22	1.32	1.37
36	5	940	G	N7-C5	7.22	1.43	1.39
36	5	1892	G	N7-C5	-7.22	1.34	1.39
36	1	2640	A	N9-C4	-7.22	1.33	1.37
1	6	1777	G	C5-C6	-7.22	1.35	1.42
36	1	908	G	N7-C5	-7.21	1.34	1.39
36	1	2168	A	N3-C4	-7.21	1.30	1.34
37	7	73	C	N1-C2	7.21	1.47	1.40
36	5	1140	G	C5-C4	-7.21	1.33	1.38
36	1	913	A	C5-C6	-7.21	1.34	1.41
36	1	1197	A	N7-C5	-7.21	1.34	1.39
36	1	2874	G	N9-C4	7.21	1.43	1.38
36	5	958	C	C4-C5	-7.20	1.37	1.43
36	5	803	C	C4-C5	-7.20	1.37	1.43
36	1	282	G	C2-N3	-7.20	1.26	1.32
36	5	799	G	N9-C4	-7.20	1.32	1.38
36	1	2156	C	N1-C6	-7.19	1.32	1.37
36	1	1506	A	N7-C5	-7.18	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	407	A	N9-C8	-7.18	1.32	1.37
36	5	607	A	N3-C4	-7.18	1.30	1.34
36	1	659	G	N9-C8	-7.18	1.32	1.37
37	7	49	G	N7-C5	-7.18	1.34	1.39
36	5	2367	A	N3-C4	-7.18	1.30	1.34
36	5	1933	A	N3-C4	-7.17	1.30	1.34
36	1	585	A	N3-C4	-7.17	1.30	1.34
36	1	2802	A	N7-C5	-7.17	1.34	1.39
36	5	3376	A	N3-C4	-7.17	1.30	1.34
76	Q0	99	CYS	CB-SG	-7.17	1.70	1.82
36	5	1116	G	N3-C4	-7.17	1.30	1.35
36	1	2912	G	C6-N1	-7.17	1.34	1.39
36	5	2931	C	C4-N4	-7.17	1.27	1.33
1	6	1313	A	N9-C4	-7.17	1.33	1.37
36	5	1006	A	N9-C4	-7.17	1.33	1.37
36	1	2999	U	C2-N3	-7.17	1.32	1.37
36	1	883	A	N9-C4	-7.16	1.33	1.37
36	1	1116	G	N3-C4	-7.16	1.30	1.35
36	1	2371	G	N7-C5	-7.16	1.34	1.39
36	5	1041	U	N1-C2	-7.16	1.32	1.38
36	1	3277	U	N1-C2	7.16	1.45	1.38
7	s5	87	CYS	CB-SG	-7.16	1.70	1.82
36	1	2187	G	C6-N1	-7.16	1.34	1.39
36	1	2117	A	C5-C4	-7.16	1.33	1.38
36	5	2400	G	N9-C4	-7.15	1.32	1.38
36	5	3189	G	N9-C8	-7.15	1.32	1.37
36	1	2296	A	C5-C6	-7.15	1.34	1.41
36	1	3130	A	N3-C4	-7.15	1.30	1.34
36	5	2857	C	N1-C6	-7.15	1.32	1.37
36	1	80	G	C6-N1	-7.14	1.34	1.39
36	5	677	A	C5-C6	-7.14	1.34	1.41
36	5	2919	A	C6-N1	-7.14	1.30	1.35
36	5	2799	A	N9-C4	-7.14	1.33	1.37
36	5	789	A	N3-C4	-7.14	1.30	1.34
36	1	789	A	N3-C4	-7.14	1.30	1.34
36	5	1145	G	C5-C4	-7.13	1.33	1.38
36	5	2338	C	N1-C6	-7.13	1.32	1.37
1	6	1100	G	N9-C4	-7.13	1.32	1.38
36	5	3016	A	C6-N1	-7.12	1.30	1.35
36	5	3085	G	C6-N1	-7.12	1.34	1.39
36	5	995	U	C2-N3	-7.12	1.32	1.37
36	5	1054	A	N9-C4	-7.12	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	3015	G	N9-C4	-7.12	1.32	1.38
36	5	2953	U	C4-O4	7.11	1.29	1.23
36	5	917	A	N3-C4	-7.11	1.30	1.34
36	5	3310	A	C6-N1	-7.11	1.30	1.35
36	1	911	C	N3-C4	-7.11	1.28	1.33
36	1	1116	G	N7-C5	-7.11	1.34	1.39
36	5	3122	A	N9-C4	-7.10	1.33	1.37
36	5	731	U	C2-N3	-7.10	1.32	1.37
36	5	911	C	N1-C6	-7.10	1.32	1.37
36	5	2995	A	N9-C4	-7.10	1.33	1.37
1	2	615	A	N9-C4	7.10	1.42	1.37
36	5	96	G	N7-C5	7.10	1.43	1.39
36	5	1887	A	N3-C4	-7.10	1.30	1.34
36	1	2878	G	N3-C4	-7.10	1.30	1.35
36	5	3053	G	N9-C8	-7.10	1.32	1.37
1	6	1614	A	C5-C6	-7.09	1.34	1.41
36	5	3172	A	N9-C4	-7.09	1.33	1.37
59	n3	39	VAL	CA-CB	-7.09	1.39	1.54
36	5	795	G	N1-C2	-7.09	1.32	1.37
36	5	2736	A	N9-C4	-7.09	1.33	1.37
47	m0	71	CYS	CB-SG	7.09	1.94	1.82
36	1	1307	G	P-O5'	-7.08	1.52	1.59
1	6	1658	G	N3-C4	-7.08	1.30	1.35
36	5	1289	G	N1-C2	-7.08	1.32	1.37
36	5	589	A	N7-C5	-7.08	1.35	1.39
36	5	2996	U	C2-N3	7.08	1.42	1.37
36	5	2401	A	C5-C6	7.08	1.47	1.41
36	1	808	A	C5-C4	-7.07	1.33	1.38
36	5	2743	A	N9-C8	-7.07	1.32	1.37
36	5	2919	A	N3-C4	-7.07	1.30	1.34
36	5	3189	G	N1-C2	-7.07	1.32	1.37
36	5	1175	C	C2-N3	-7.07	1.30	1.35
36	5	1332	A	C5-C4	-7.06	1.33	1.38
36	1	2939	G	N9-C8	-7.06	1.32	1.37
36	5	818	C	N1-C6	-7.06	1.32	1.37
36	5	1202	A	N7-C5	-7.06	1.35	1.39
36	5	2936	A	N1-C2	-7.06	1.27	1.34
1	6	1504	G	N3-C4	-7.06	1.30	1.35
36	5	61	A	C6-N1	-7.05	1.30	1.35
36	5	637	C	C4-C5	-7.05	1.37	1.43
53	M7	138	LYS	CD-CE	7.05	1.68	1.51
36	5	2733	A	N9-C4	-7.05	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	3344	A	N3-C4	-7.05	1.30	1.34
36	5	866	A	N9-C4	-7.04	1.33	1.37
36	5	1099	A	N9-C4	-7.04	1.33	1.37
36	1	422	A	C5-C4	-7.04	1.33	1.38
36	1	3006	A	N7-C5	-7.04	1.35	1.39
36	1	45	A	N9-C4	-7.04	1.33	1.37
36	1	2330	C	N3-C4	-7.04	1.29	1.33
36	5	522	A	N9-C4	-7.04	1.33	1.37
36	5	2968	G	N9-C4	-7.04	1.32	1.38
36	5	2872	A	C6-N1	7.03	1.40	1.35
36	5	1184	A	N9-C4	-7.03	1.33	1.37
36	5	1348	U	N1-C2	7.03	1.44	1.38
36	5	1310	G	C6-O6	-7.03	1.17	1.24
36	5	2813	A	N3-C4	-7.02	1.30	1.34
36	5	2833	A	N3-C4	-7.02	1.30	1.34
36	5	2359	C	N1-C6	-7.02	1.32	1.37
36	1	920	A	N3-C4	-7.02	1.30	1.34
38	8	111	A	N9-C4	-7.02	1.33	1.37
1	6	1005	A	C6-N1	-7.02	1.30	1.35
36	5	2837	A	C5-C4	-7.02	1.33	1.38
36	1	2207	A	N9-C4	7.01	1.42	1.37
36	5	416	A	N9-C4	-7.01	1.33	1.37
36	5	1150	A	N9-C4	-7.01	1.33	1.37
36	5	67	A	N9-C4	-7.01	1.33	1.37
52	M6	40	GLU	CB-CG	7.01	1.65	1.52
36	1	1504	A	N3-C4	-7.00	1.30	1.34
36	1	2404	A	C6-N1	7.00	1.40	1.35
36	5	2976	A	N9-C4	-7.00	1.33	1.37
36	1	860	G	N7-C5	-7.00	1.35	1.39
36	1	1409	G	N7-C5	-7.00	1.35	1.39
36	1	1880	U	C2-N3	-7.00	1.32	1.37
36	1	1401	A	N3-C4	-7.00	1.30	1.34
36	1	3084	C	N3-C4	-7.00	1.29	1.33
36	5	1332	A	N3-C4	-7.00	1.30	1.34
1	6	1201	G	N9-C4	-6.99	1.32	1.38
36	5	3206	C	N3-C4	-6.99	1.29	1.33
38	4	54	A	N7-C5	-6.99	1.35	1.39
36	5	289	A	N9-C4	-6.99	1.33	1.37
36	5	2665	U	C4-O4	-6.99	1.18	1.23
36	1	2303	A	N3-C4	-6.99	1.30	1.34
1	6	580	A	N9-C4	6.99	1.42	1.37
36	1	812	G	N3-C4	-6.99	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	787	G	N9-C8	-6.99	1.32	1.37
36	1	2689	A	N3-C4	-6.99	1.30	1.34
36	5	1298	C	N1-C6	-6.99	1.32	1.37
36	5	1404	G	C6-N1	-6.99	1.34	1.39
36	5	1437	C	N1-C6	-6.99	1.32	1.37
36	5	2876	C	C2-N3	-6.99	1.30	1.35
36	5	2367	A	C6-N1	-6.98	1.30	1.35
37	3	56	A	N9-C4	-6.98	1.33	1.37
36	1	89	A	N3-C4	-6.98	1.30	1.34
36	5	1107	C	N1-C6	-6.97	1.32	1.37
36	1	1131	G	N9-C4	-6.97	1.32	1.38
36	1	2960	C	C2-N3	-6.97	1.30	1.35
36	5	2884	C	N1-C6	-6.97	1.32	1.37
36	5	2898	G	N9-C8	-6.97	1.32	1.37
36	5	3016	A	C5-C6	-6.97	1.34	1.41
36	5	969	C	N1-C6	-6.97	1.32	1.37
36	1	3316	A	N9-C4	-6.97	1.33	1.37
1	6	1108	G	C6-N1	-6.97	1.34	1.39
36	5	2607	G	N7-C5	-6.97	1.35	1.39
36	1	911	C	N1-C6	-6.96	1.32	1.37
36	1	1100	U	C2-N3	-6.96	1.32	1.37
36	5	1163	A	C6-N1	-6.96	1.30	1.35
36	1	2404	A	N7-C5	6.96	1.43	1.39
36	5	2259	A	N9-C4	-6.96	1.33	1.37
36	1	2986	U	C4-C5	-6.96	1.37	1.43
36	5	3203	U	C2-N3	-6.95	1.32	1.37
36	5	2284	C	C4-C5	-6.95	1.37	1.43
36	5	2874	G	C6-O6	6.95	1.30	1.24
36	5	2956	A	C6-N1	-6.95	1.30	1.35
36	5	94	G	N7-C5	-6.94	1.35	1.39
36	5	943	U	N1-C2	-6.94	1.32	1.38
36	1	635	G	C6-O6	-6.94	1.18	1.24
36	1	806	A	C6-N1	-6.94	1.30	1.35
36	5	583	G	C5-C4	-6.94	1.33	1.38
36	5	3017	A	C6-N1	-6.94	1.30	1.35
1	6	746	A	C5-C6	-6.94	1.34	1.41
36	5	3106	A	N7-C5	-6.94	1.35	1.39
36	5	1146	C	C4-C5	-6.94	1.37	1.43
36	5	3242	G	C6-N1	-6.94	1.34	1.39
36	1	206	G	C5-C4	-6.93	1.33	1.38
36	1	660	A	N7-C5	-6.93	1.35	1.39
36	1	3142	A	C5-C4	-6.93	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1660	A	N7-C5	-6.93	1.35	1.39
36	5	3060	C	C4-C5	-6.93	1.37	1.43
36	1	1310	G	N9-C4	-6.93	1.32	1.38
36	1	85	A	N3-C4	-6.93	1.30	1.34
36	1	2308	C	N1-C6	-6.92	1.32	1.37
1	6	1116	A	N7-C5	-6.92	1.35	1.39
36	5	2903	A	N3-C4	-6.92	1.30	1.34
36	5	3140	G	C5-C6	-6.92	1.35	1.42
36	1	3150	A	N9-C4	-6.91	1.33	1.37
36	5	1867	A	N3-C4	-6.91	1.30	1.34
36	5	3045	G	N7-C5	-6.91	1.35	1.39
36	1	2796	G	N1-C2	-6.91	1.32	1.37
36	1	952	A	N3-C4	-6.91	1.30	1.34
36	5	897	U	N1-C2	-6.91	1.32	1.38
36	5	1405	U	N1-C2	-6.91	1.32	1.38
36	1	1153	A	N7-C5	-6.90	1.35	1.39
36	1	218	G	C5-C4	-6.90	1.33	1.38
36	1	918	C	N3-C4	-6.90	1.29	1.33
36	1	2914	G	N3-C4	-6.90	1.30	1.35
36	5	2405	C	N3-C4	-6.90	1.29	1.33
36	1	272	G	N9-C4	-6.90	1.32	1.38
36	5	2402	A	N3-C4	-6.90	1.30	1.34
1	2	104	A	N9-C4	6.90	1.42	1.37
36	1	589	A	N9-C8	-6.90	1.32	1.37
36	5	2246	G	N7-C5	-6.89	1.35	1.39
36	1	2185	G	N7-C5	-6.89	1.35	1.39
36	5	3016	A	C6-N6	-6.89	1.28	1.33
36	1	656	A	C5-C4	-6.89	1.33	1.38
36	1	1186	G	N1-C2	-6.89	1.32	1.37
36	5	3005	A	C5-C6	-6.89	1.34	1.41
36	5	651	G	N7-C5	-6.88	1.35	1.39
36	5	1150	A	N7-C5	-6.88	1.35	1.39
36	5	654	C	N1-C2	-6.88	1.33	1.40
36	1	338	A	N7-C5	-6.88	1.35	1.39
36	5	352	A	N9-C4	-6.88	1.33	1.37
36	5	1318	A	N3-C4	-6.88	1.30	1.34
36	5	3127	A	C6-N6	-6.88	1.28	1.33
36	5	3172	A	C5-C6	-6.88	1.34	1.41
36	1	1583	A	N3-C4	-6.88	1.30	1.34
36	1	2802	A	N3-C4	-6.88	1.30	1.34
36	5	1924	U	N1-C2	-6.88	1.32	1.38
36	1	1146	C	N1-C6	-6.87	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	521	A	N3-C4	-6.87	1.30	1.34
36	5	1076	C	N1-C6	-6.87	1.33	1.37
36	5	1136	A	N7-C5	-6.87	1.35	1.39
36	5	2689	A	C6-N1	-6.87	1.30	1.35
36	1	2878	G	N9-C4	-6.87	1.32	1.38
36	5	2145	A	C5-C6	-6.87	1.34	1.41
36	5	2284	C	N3-C4	-6.87	1.29	1.33
36	1	589	A	C5-C4	-6.87	1.33	1.38
36	5	2616	C	N1-C6	-6.87	1.33	1.37
1	6	427	C	N3-C4	-6.87	1.29	1.33
36	5	1131	G	N3-C4	-6.87	1.30	1.35
36	5	3038	U	N3-C4	-6.87	1.32	1.38
36	1	2802	A	C6-N1	-6.87	1.30	1.35
36	1	587	U	N1-C2	-6.87	1.32	1.38
36	1	2364	G	N9-C8	-6.86	1.33	1.37
36	1	2985	C	N3-C4	-6.86	1.29	1.33
36	5	406	G	N9-C4	-6.86	1.32	1.38
36	5	1477	A	C6-N1	-6.86	1.30	1.35
36	1	2377	G	C6-O6	-6.86	1.18	1.24
36	1	2287	C	N1-C6	-6.86	1.33	1.37
36	1	1120	A	N3-C4	-6.86	1.30	1.34
36	1	1893	A	N3-C4	-6.86	1.30	1.34
57	n1	104	GLU	CG-CD	6.86	1.62	1.51
36	5	1141	C	N3-C4	-6.86	1.29	1.33
36	5	3146	G	C8-N7	-6.86	1.26	1.30
37	7	72	A	N9-C4	6.86	1.42	1.37
1	6	797	G	C5-C4	-6.85	1.33	1.38
36	5	2853	A	C5-C6	-6.85	1.34	1.41
71	O5	64	GLU	CG-CD	6.85	1.62	1.51
1	6	1537	C	C5-C6	6.85	1.39	1.34
36	5	2821	C	N3-C4	6.85	1.38	1.33
36	1	1340	G	N7-C5	-6.85	1.35	1.39
36	5	695	C	N1-C6	-6.85	1.33	1.37
36	5	3036	G	N3-C4	-6.85	1.30	1.35
37	7	88	G	N7-C5	-6.85	1.35	1.39
36	1	654	C	N1-C6	-6.84	1.33	1.37
36	5	21	G	N3-C4	-6.84	1.30	1.35
36	5	1456	A	N3-C4	-6.84	1.30	1.34
1	2	1270	G	N7-C5	-6.84	1.35	1.39
36	1	1139	G	N9-C4	-6.84	1.32	1.38
36	1	2969	A	N3-C4	-6.84	1.30	1.34
36	5	2931	C	C4-C5	-6.84	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1554	U	C2-N3	6.84	1.42	1.37
36	5	1149	G	C6-N1	6.84	1.44	1.39
36	5	2847	A	N3-C4	-6.84	1.30	1.34
36	5	2967	A	N3-C4	-6.84	1.30	1.34
1	6	100	A	C5-C6	-6.84	1.34	1.41
1	6	971	A	N9-C4	-6.84	1.33	1.37
36	5	2895	G	N3-C4	-6.84	1.30	1.35
36	5	3127	A	C6-N1	-6.84	1.30	1.35
36	1	344	A	N9-C4	-6.83	1.33	1.37
36	1	2394	G	N9-C8	-6.83	1.33	1.37
36	1	1428	A	C5-C6	-6.83	1.34	1.41
36	1	2960	C	N3-C4	-6.83	1.29	1.33
1	6	441	A	N7-C5	-6.83	1.35	1.39
36	5	1403	C	N1-C6	-6.83	1.33	1.37
36	1	2821	C	N3-C4	6.83	1.38	1.33
36	1	904	A	N9-C4	-6.83	1.33	1.37
36	1	2386	A	N3-C4	-6.83	1.30	1.34
36	1	3273	A	C5-C4	-6.82	1.33	1.38
36	5	3226	A	N3-C4	-6.82	1.30	1.34
36	1	34	A	N3-C4	-6.82	1.30	1.34
36	1	1881	A	N3-C4	-6.82	1.30	1.34
36	5	2184	U	C2-N3	-6.82	1.32	1.37
36	1	2639	G	N3-C4	-6.82	1.30	1.35
36	1	1366	A	N7-C5	-6.81	1.35	1.39
36	1	2834	G	N9-C4	-6.81	1.32	1.38
36	5	2994	A	C6-N1	-6.81	1.30	1.35
36	1	2617	U	N3-C4	-6.81	1.32	1.38
36	1	3130	A	C6-N1	-6.81	1.30	1.35
36	5	3091	A	N3-C4	-6.81	1.30	1.34
36	1	1901	A	N3-C4	-6.80	1.30	1.34
36	1	2875	U	C2-O2	6.80	1.28	1.22
36	5	1289	G	C6-N1	-6.80	1.34	1.39
36	1	1887	A	C5-C6	-6.80	1.34	1.41
1	6	1732	A	N9-C4	-6.80	1.33	1.37
36	1	2919	A	N9-C4	-6.79	1.33	1.37
36	1	663	C	N1-C6	-6.79	1.33	1.37
36	1	218	G	N9-C4	-6.79	1.32	1.38
36	1	2633	U	N1-C2	-6.79	1.32	1.38
47	M0	186	GLU	CG-CD	6.79	1.62	1.51
36	5	2099	A	N9-C4	6.79	1.42	1.37
36	1	358	G	N9-C4	-6.79	1.32	1.38
36	1	364	G	N7-C5	-6.79	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2385	G	N9-C4	-6.78	1.32	1.38
36	5	3127	A	N7-C5	-6.78	1.35	1.39
36	1	952	A	N9-C4	-6.78	1.33	1.37
36	1	2143	A	C5-C4	-6.78	1.34	1.38
36	5	3272	C	N3-C4	-6.78	1.29	1.33
36	5	217	U	N3-C4	-6.78	1.32	1.38
36	1	1913	A	N9-C4	-6.77	1.33	1.37
36	5	2290	C	N1-C6	-6.77	1.33	1.37
36	5	2794	G	C5-C4	-6.77	1.33	1.38
36	1	2205	U	N1-C2	6.77	1.44	1.38
36	1	2809	C	N1-C6	-6.77	1.33	1.37
36	5	1217	A	N3-C4	-6.76	1.30	1.34
36	5	3045	G	C6-N1	-6.76	1.34	1.39
36	5	2892	A	N7-C5	-6.76	1.35	1.39
36	1	282	G	N1-C2	-6.76	1.32	1.37
36	1	1103	A	C5-C4	6.76	1.43	1.38
1	6	1093	A	N9-C4	6.76	1.42	1.37
36	5	3043	C	N3-C4	-6.76	1.29	1.33
36	1	1887	A	N7-C5	-6.76	1.35	1.39
36	1	2956	A	C5-C6	-6.76	1.34	1.41
36	5	1115	G	C5-C6	-6.76	1.35	1.42
36	1	635	G	C6-N1	-6.76	1.34	1.39
1	6	1762	A	N3-C4	-6.76	1.30	1.34
36	5	402	A	N3-C4	-6.76	1.30	1.34
36	5	2151	C	N1-C2	-6.76	1.33	1.40
36	5	3199	G	C5-C4	-6.75	1.33	1.38
1	6	46	A	C5-C6	-6.75	1.34	1.41
36	5	633	C	N1-C6	-6.75	1.33	1.37
36	5	2864	A	C5-C6	-6.75	1.34	1.41
25	d3	63	GLN	CG-CD	6.75	1.66	1.51
36	5	3275	U	N1-C2	6.75	1.44	1.38
36	1	2613	U	N1-C2	-6.75	1.32	1.38
1	6	19	A	N3-C4	-6.75	1.30	1.34
36	5	3209	A	N3-C4	6.75	1.38	1.34
36	5	1430	U	N1-C6	-6.74	1.31	1.38
36	1	2748	A	N9-C4	-6.74	1.33	1.37
36	1	109	A	N3-C4	-6.74	1.30	1.34
1	6	179	A	N9-C4	6.74	1.41	1.37
36	1	2374	C	N3-C4	-6.74	1.29	1.33
36	1	900	G	C5-C4	-6.74	1.33	1.38
52	M6	40	GLU	CG-CD	6.74	1.62	1.51
1	6	391	A	N9-C4	-6.74	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	628	A	N3-C4	-6.73	1.30	1.34
36	1	2302	G	N1-C2	-6.73	1.32	1.37
36	5	1433	A	N7-C5	-6.73	1.35	1.39
36	5	2946	A	N9-C4	-6.73	1.33	1.37
40	13	66	LYS	CD-CE	6.73	1.68	1.51
36	5	2938	G	C5-C4	-6.73	1.33	1.38
36	1	1429	G	N1-C2	-6.72	1.32	1.37
36	1	2948	C	N1-C6	-6.72	1.33	1.37
36	5	189	G	C6-N1	-6.72	1.34	1.39
36	1	211	A	N9-C4	-6.72	1.33	1.37
36	1	1886	A	N9-C4	-6.72	1.33	1.37
36	5	924	G	N3-C4	-6.72	1.30	1.35
36	5	951	A	N9-C4	-6.72	1.33	1.37
36	5	2247	G	N1-C2	-6.72	1.32	1.37
36	5	2886	U	C2-N3	-6.72	1.33	1.37
36	5	3030	G	C5-C4	-6.72	1.33	1.38
36	5	3226	A	N9-C4	-6.72	1.33	1.37
36	1	693	A	N9-C4	-6.71	1.33	1.37
36	5	1300	G	C8-N7	-6.71	1.26	1.30
37	7	5	G	C5-C4	-6.71	1.33	1.38
37	7	29	C	N1-C6	-6.71	1.33	1.37
36	1	2137	U	N1-C6	-6.71	1.31	1.38
36	5	1845	G	C5-C4	-6.71	1.33	1.38
36	5	2837	A	N3-C4	-6.71	1.30	1.34
36	5	2911	A	N7-C5	-6.71	1.35	1.39
36	5	2980	U	C4-O4	-6.71	1.18	1.23
36	1	920	A	C6-N1	-6.70	1.30	1.35
36	5	2126	A	C5-C4	-6.70	1.34	1.38
36	1	34	A	N9-C4	-6.70	1.33	1.37
36	1	343	U	N1-C6	-6.70	1.31	1.38
36	5	958	C	C2-N3	-6.70	1.30	1.35
36	1	2385	G	C5-C4	-6.70	1.33	1.38
36	5	2956	A	C5-C6	-6.70	1.35	1.41
36	5	2963	C	N1-C2	-6.70	1.33	1.40
36	1	1306	G	N7-C5	-6.70	1.35	1.39
36	1	2954	U	C2-N3	6.70	1.42	1.37
20	c8	47	CYS	CB-SG	-6.70	1.70	1.82
36	5	1867	A	C6-N1	-6.70	1.30	1.35
36	1	1432	C	C2-N3	-6.69	1.30	1.35
1	6	310	C	C4-C5	-6.69	1.37	1.43
38	8	12	A	N9-C4	6.69	1.41	1.37
36	1	220	G	N3-C4	-6.69	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	52	A	N3-C4	-6.69	1.30	1.34
36	5	3295	A	C6-N1	-6.69	1.30	1.35
36	5	1883	A	N9-C4	-6.69	1.33	1.37
56	n0	128	GLU	CB-CG	6.69	1.64	1.52
36	1	2847	A	N9-C4	-6.69	1.33	1.37
36	5	2813	A	N9-C4	-6.69	1.33	1.37
36	1	904	A	N3-C4	-6.68	1.30	1.34
69	O3	71	VAL	CB-CG1	-6.68	1.38	1.52
36	5	1064	A	N9-C4	-6.68	1.33	1.37
36	5	1296	C	N3-C4	-6.68	1.29	1.33
36	1	361	A	N9-C4	-6.68	1.33	1.37
1	2	1654	G	N1-C2	-6.68	1.32	1.37
1	6	46	A	N7-C5	-6.68	1.35	1.39
1	6	758	U	N3-C4	-6.68	1.32	1.38
1	6	982	U	C2-N3	-6.68	1.33	1.37
36	5	1116	G	N9-C8	-6.68	1.33	1.37
36	5	1173	U	N3-C4	-6.68	1.32	1.38
36	5	2404	A	C6-N1	6.68	1.40	1.35
36	5	2416	U	C2-N3	-6.68	1.33	1.37
36	5	1197	A	N9-C4	-6.68	1.33	1.37
36	1	2762	A	C5-C4	-6.68	1.34	1.38
1	6	369	A	N9-C4	6.68	1.41	1.37
1	6	758	U	C2-N3	-6.68	1.33	1.37
36	5	900	G	N7-C5	-6.68	1.35	1.39
36	1	1915	A	N9-C4	-6.67	1.33	1.37
38	8	15	G	C6-N1	-6.67	1.34	1.39
36	5	647	A	N9-C4	-6.67	1.33	1.37
36	1	2979	U	P-O5'	-6.67	1.53	1.59
36	5	973	A	N7-C5	-6.67	1.35	1.39
36	1	1158	A	C5-C4	-6.67	1.34	1.38
36	1	100	A	N7-C5	-6.67	1.35	1.39
36	5	583	G	N7-C5	-6.67	1.35	1.39
36	1	2129	U	C2-N3	-6.66	1.33	1.37
1	6	23	G	N3-C4	-6.66	1.30	1.35
36	5	1306	G	N3-C4	-6.66	1.30	1.35
36	5	3295	A	N3-C4	-6.66	1.30	1.34
36	1	1440	G	C5-C4	-6.66	1.33	1.38
1	6	1087	A	C6-N1	-6.66	1.30	1.35
36	5	2689	A	N7-C5	-6.66	1.35	1.39
36	5	2374	C	N1-C2	-6.66	1.33	1.40
1	6	992	A	N7-C5	-6.66	1.35	1.39
36	1	1061	A	N9-C8	-6.65	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	585	A	C5-C4	-6.65	1.34	1.38
38	4	3	A	C5-C4	-6.65	1.34	1.38
36	5	2276	G	N3-C4	-6.65	1.30	1.35
36	5	2847	A	C5-C6	-6.65	1.35	1.41
36	1	2811	A	C5-C6	-6.65	1.35	1.41
1	6	797	G	N9-C4	-6.65	1.32	1.38
36	5	1128	U	C2-O2	-6.65	1.16	1.22
36	5	1887	A	N9-C4	-6.65	1.33	1.37
36	5	2313	A	N3-C4	-6.65	1.30	1.34
36	5	2637	A	C5-C6	-6.64	1.35	1.41
1	6	1337	A	N9-C4	-6.64	1.33	1.37
36	1	1369	A	N7-C5	-6.64	1.35	1.39
36	1	1398	U	C2-O2	-6.64	1.16	1.22
36	5	1417	G	C6-N1	-6.64	1.34	1.39
36	5	2941	A	N7-C5	-6.64	1.35	1.39
36	5	990	U	C2-N3	-6.64	1.33	1.37
36	5	1481	A	N7-C5	-6.64	1.35	1.39
1	2	1751	C	C2-N3	-6.63	1.30	1.35
36	1	2932	U	N3-C4	-6.63	1.32	1.38
1	6	342	C	N1-C6	-6.63	1.33	1.37
36	5	559	A	N7-C5	-6.63	1.35	1.39
36	5	2139	A	C6-N1	-6.63	1.30	1.35
36	5	2915	U	C4-C5	-6.63	1.37	1.43
40	13	251	CYS	CB-SG	-6.63	1.71	1.82
36	1	1320	C	N1-C6	-6.63	1.33	1.37
36	5	2915	U	N1-C2	-6.63	1.32	1.38
36	1	1910	A	C6-N1	-6.63	1.30	1.35
36	1	2831	G	C5-C6	-6.63	1.35	1.42
1	6	401	A	N3-C4	-6.63	1.30	1.34
36	5	944	C	N1-C6	-6.63	1.33	1.37
36	1	85	A	C6-N1	-6.63	1.30	1.35
36	5	920	A	C5-C6	-6.63	1.35	1.41
37	7	22	A	C6-N1	-6.62	1.30	1.35
36	1	85	A	N7-C5	-6.62	1.35	1.39
36	5	1310	G	N7-C5	-6.62	1.35	1.39
36	5	2335	G	C5-C4	-6.62	1.33	1.38
36	1	1435	A	C6-N1	-6.62	1.30	1.35
36	5	1899	G	N9-C8	-6.62	1.33	1.37
36	5	425	G	N9-C4	-6.62	1.32	1.38
36	1	1387	G	C6-N1	-6.61	1.34	1.39
1	6	1777	G	N7-C5	-6.61	1.35	1.39
36	5	2728	G	N7-C5	-6.61	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1112	G	N3-C4	-6.61	1.30	1.35
36	1	788	C	N1-C6	-6.61	1.33	1.37
36	1	2994	A	N7-C5	-6.61	1.35	1.39
1	6	1763	A	N3-C4	-6.60	1.30	1.34
36	5	2796	G	C5-C4	-6.60	1.33	1.38
36	1	327	A	C5-C6	-6.60	1.35	1.41
36	1	943	U	C2-O2	-6.60	1.16	1.22
1	6	26	A	C6-N6	-6.60	1.28	1.33
36	5	1178	G	N1-C2	-6.60	1.32	1.37
36	5	3141	A	N3-C4	-6.60	1.30	1.34
38	8	2	A	C5-C6	-6.60	1.35	1.41
36	5	1515	A	N9-C4	-6.59	1.33	1.37
1	2	353	A	N7-C5	-6.59	1.35	1.39
36	1	2398	A	N9-C8	-6.59	1.32	1.37
36	1	3009	G	N7-C5	-6.59	1.35	1.39
36	5	2856	G	N7-C5	-6.59	1.35	1.39
36	1	96	G	N9-C4	-6.59	1.32	1.38
1	6	1226	A	N9-C4	6.59	1.41	1.37
36	5	2277	C	N1-C6	-6.59	1.33	1.37
36	1	709	A	C5-C4	-6.59	1.34	1.38
36	1	2377	G	N3-C4	-6.58	1.30	1.35
36	1	3005	A	N3-C4	-6.58	1.30	1.34
36	5	3047	U	N1-C2	-6.58	1.32	1.38
36	1	1159	A	N7-C5	-6.58	1.35	1.39
1	6	427	C	N1-C6	-6.58	1.33	1.37
36	5	1081	U	N1-C2	6.58	1.44	1.38
37	3	82	G	C6-N1	-6.58	1.34	1.39
36	1	2733	A	C5-C4	-6.58	1.34	1.38
36	5	2404	A	C6-N6	6.58	1.39	1.33
36	5	2828	G	N1-C2	-6.58	1.32	1.37
36	1	1704	A	N9-C4	-6.57	1.33	1.37
36	1	2613	U	C4-O4	6.57	1.28	1.23
1	6	1517	U	N1-C2	-6.57	1.32	1.38
36	5	2968	G	N3-C4	-6.57	1.30	1.35
36	5	1911	A	N3-C4	-6.57	1.30	1.34
36	5	2816	G	N3-C4	-6.57	1.30	1.35
36	1	796	U	C4-O4	-6.57	1.18	1.23
36	1	2365	C	N3-C4	-6.57	1.29	1.33
36	5	433	A	C5-C6	-6.57	1.35	1.41
36	5	3088	G	N7-C5	-6.57	1.35	1.39
1	6	388	G	N3-C4	-6.57	1.30	1.35
36	5	2296	A	N9-C8	-6.57	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2796	G	C8-N7	-6.57	1.27	1.30
47	m0	8	CYS	CB-SG	-6.57	1.71	1.82
36	1	1046	A	N9-C4	-6.57	1.33	1.37
37	7	88	G	C6-N1	-6.57	1.34	1.39
36	5	3004	C	C4-C5	-6.56	1.37	1.43
36	5	2750	U	C2-N3	-6.56	1.33	1.37
36	5	2332	A	C5-C4	-6.56	1.34	1.38
1	6	565	C	N1-C6	-6.56	1.33	1.37
36	5	2922	G	N3-C4	-6.56	1.30	1.35
36	5	3344	A	C5-C4	-6.56	1.34	1.38
36	1	32	U	N1-C6	-6.56	1.32	1.38
36	1	907	G	C2-N3	6.56	1.38	1.32
36	1	916	G	N3-C4	-6.56	1.30	1.35
36	5	2418	G	N1-C2	6.56	1.43	1.37
36	1	2659	G	N7-C5	-6.55	1.35	1.39
1	6	1112	G	N9-C4	-6.55	1.32	1.38
36	5	1310	G	C6-N1	-6.55	1.34	1.39
36	5	3061	G	N7-C5	-6.55	1.35	1.39
36	5	2977	G	N3-C4	-6.55	1.30	1.35
1	2	1631	A	N9-C4	-6.55	1.33	1.37
36	1	1400	G	N9-C8	-6.55	1.33	1.37
37	7	24	A	C6-N1	-6.55	1.30	1.35
36	1	345	G	N9-C8	-6.55	1.33	1.37
36	5	1290	A	C5-C6	-6.55	1.35	1.41
36	1	2412	G	C2-N3	-6.55	1.27	1.32
36	5	2743	A	C5-C4	-6.55	1.34	1.38
36	5	1350	A	N9-C4	6.54	1.41	1.37
36	5	2690	G	N9-C4	-6.54	1.32	1.38
36	5	3173	G	C6-N1	-6.54	1.34	1.39
38	8	133	G	N9-C4	-6.54	1.32	1.38
36	5	1212	A	C6-N6	-6.54	1.28	1.33
36	5	2117	A	N3-C4	-6.54	1.30	1.34
36	5	1370	G	C6-O6	-6.54	1.18	1.24
36	1	1159	A	N3-C4	-6.53	1.30	1.34
36	1	2145	A	C6-N6	-6.53	1.28	1.33
36	1	820	A	C6-N1	-6.53	1.30	1.35
36	5	1180	A	N3-C4	-6.53	1.30	1.34
36	5	3305	A	N3-C4	-6.53	1.30	1.34
36	1	1656	A	N9-C4	-6.53	1.33	1.37
36	1	659	G	C5-C4	-6.53	1.33	1.38
36	5	588	G	N7-C5	-6.53	1.35	1.39
36	5	1309	U	N1-C2	-6.53	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1432	C	C4-C5	-6.53	1.37	1.43
36	1	935	U	C2-O2	-6.52	1.16	1.22
36	5	1150	A	N3-C4	-6.52	1.30	1.34
1	2	599	A	N9-C4	6.52	1.41	1.37
36	1	33	G	N3-C4	-6.52	1.30	1.35
36	1	2424	A	N3-C4	-6.52	1.30	1.34
1	6	601	A	C5-C4	-6.52	1.34	1.38
36	5	218	G	P-O5'	-6.52	1.53	1.59
36	5	1370	G	N1-C2	-6.52	1.32	1.37
36	1	1309	U	N1-C2	-6.51	1.32	1.38
36	5	2333	C	N1-C6	-6.51	1.33	1.37
36	1	860	G	C5-C6	-6.51	1.35	1.42
37	3	95	A	N3-C4	-6.51	1.30	1.34
36	5	937	G	N9-C8	-6.51	1.33	1.37
36	1	1195	A	N7-C5	-6.51	1.35	1.39
36	5	857	G	N7-C5	-6.51	1.35	1.39
36	5	1295	G	N1-C2	-6.51	1.32	1.37
36	1	2311	G	N7-C5	-6.51	1.35	1.39
36	5	408	A	C6-N1	-6.51	1.30	1.35
36	5	3206	C	N1-C6	-6.51	1.33	1.37
1	6	901	G	C6-N1	6.50	1.44	1.39
36	1	335	G	C2-N3	-6.50	1.27	1.32
36	5	425	G	N7-C5	-6.50	1.35	1.39
36	5	962	A	N7-C5	-6.50	1.35	1.39
36	5	2644	C	N1-C2	-6.50	1.33	1.40
36	5	3130	A	C5-C4	-6.50	1.34	1.38
1	2	757	A	N9-C4	6.50	1.41	1.37
36	1	780	A	N7-C5	-6.50	1.35	1.39
36	1	505	G	N3-C4	-6.50	1.30	1.35
36	1	1144	U	N1-C2	-6.50	1.32	1.38
36	1	2363	A	N9-C4	-6.50	1.33	1.37
36	1	358	G	C5-C6	-6.49	1.35	1.42
36	5	424	G	C5-C6	-6.49	1.35	1.42
1	2	1750	A	N3-C4	-6.49	1.30	1.34
36	5	3044	G	N7-C5	-6.49	1.35	1.39
37	7	14	U	C2-N3	-6.49	1.33	1.37
36	1	929	A	C5-C6	-6.49	1.35	1.41
36	5	1892	G	C6-N1	-6.49	1.35	1.39
36	5	2889	C	C2-N3	-6.49	1.30	1.35
36	5	2950	G	C5-C6	-6.49	1.35	1.42
36	1	1401	A	N7-C5	-6.48	1.35	1.39
36	5	1139	G	N3-C4	-6.48	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2396	G	N9-C4	-6.48	1.32	1.38
36	5	2371	G	N9-C8	-6.48	1.33	1.37
36	5	1408	G	C8-N7	-6.48	1.27	1.30
36	1	3045	G	N7-C5	-6.48	1.35	1.39
36	5	2913	C	N1-C6	-6.48	1.33	1.37
56	n0	34	GLU	CG-CD	6.48	1.61	1.51
1	6	39	A	N3-C4	-6.48	1.30	1.34
36	1	364	G	N9-C4	-6.47	1.32	1.38
36	1	2878	G	C6-N1	-6.47	1.35	1.39
36	5	2817	A	N3-C4	-6.47	1.30	1.34
36	1	109	A	N9-C4	-6.47	1.33	1.37
36	1	367	A	N9-C8	-6.47	1.32	1.37
36	5	2303	A	C5-C6	-6.47	1.35	1.41
36	1	585	A	N7-C5	-6.47	1.35	1.39
36	1	1306	G	N3-C4	-6.47	1.30	1.35
36	5	1060	U	C2-N3	-6.47	1.33	1.37
36	5	2877	G	N1-C2	-6.47	1.32	1.37
36	5	2863	G	N7-C5	-6.46	1.35	1.39
1	6	1002	G	N9-C4	-6.46	1.32	1.38
1	6	1535	U	N3-C4	-6.46	1.32	1.38
1	6	1765	A	N3-C4	-6.46	1.30	1.34
36	5	1303	A	N9-C4	-6.46	1.33	1.37
36	1	25	U	C2-N3	6.46	1.42	1.37
36	1	1440	G	N1-C2	-6.46	1.32	1.37
36	1	2801	A	C5-C6	-6.46	1.35	1.41
36	5	406	G	N3-C4	-6.46	1.30	1.35
36	5	1886	A	C6-N1	-6.45	1.31	1.35
36	5	500	C	N1-C6	-6.45	1.33	1.37
36	5	3140	G	N1-C2	-6.45	1.32	1.37
36	1	2834	G	N9-C8	-6.45	1.33	1.37
36	5	2119	A	N7-C5	-6.45	1.35	1.39
1	6	992	A	C5-C6	-6.45	1.35	1.41
36	5	2375	G	N9-C4	-6.45	1.32	1.38
36	1	2620	G	C2-N3	-6.44	1.27	1.32
36	5	2980	U	C2-N3	-6.44	1.33	1.37
36	1	220	G	N7-C5	-6.44	1.35	1.39
36	1	1309	U	C2-O2	-6.44	1.16	1.22
36	1	1534	A	N3-C4	-6.44	1.30	1.34
36	5	2848	G	N3-C4	-6.44	1.30	1.35
36	5	235	A	N9-C4	-6.44	1.33	1.37
36	5	283	G	N1-C2	-6.44	1.32	1.37
36	5	3118	C	N3-C4	-6.44	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	971	G	N9-C8	-6.44	1.33	1.37
57	n1	63	VAL	CA-CB	-6.44	1.41	1.54
36	1	1460	A	C5-C4	-6.43	1.34	1.38
36	5	2755	C	N1-C6	-6.43	1.33	1.37
1	6	1651	A	C5-C6	-6.43	1.35	1.41
36	5	2307	G	N3-C4	-6.43	1.30	1.35
36	5	1188	U	N1-C6	-6.43	1.32	1.38
36	5	1913	A	C5-C6	-6.43	1.35	1.41
36	1	697	A	N3-C4	6.42	1.38	1.34
36	1	1135	A	N9-C4	-6.42	1.33	1.37
36	1	1398	U	N1-C2	-6.42	1.32	1.38
36	5	278	U	N3-C4	-6.42	1.32	1.38
36	5	942	U	C4-O4	6.42	1.28	1.23
36	1	1094	U	C2-N3	6.42	1.42	1.37
36	1	432	G	N3-C4	-6.42	1.30	1.35
36	1	2424	A	N9-C4	-6.42	1.33	1.37
1	6	151	G	N3-C4	-6.42	1.30	1.35
36	5	2875	U	C4-O4	6.42	1.28	1.23
36	5	3315	G	C6-N1	-6.42	1.35	1.39
36	5	52	A	N9-C4	-6.41	1.34	1.37
36	5	1314	C	N1-C6	-6.41	1.33	1.37
36	5	2326	A	N7-C5	-6.41	1.35	1.39
36	1	322	U	C2-N3	-6.41	1.33	1.37
1	6	1592	A	N3-C4	-6.41	1.31	1.34
1	2	6	G	N9-C4	6.41	1.43	1.38
36	1	916	G	N9-C4	-6.41	1.32	1.38
1	2	1751	C	N3-C4	-6.41	1.29	1.33
36	1	2641	U	C4-O4	-6.41	1.18	1.23
36	1	2971	A	C6-N1	6.41	1.40	1.35
36	5	2748	A	C6-N1	-6.41	1.31	1.35
36	5	1929	G	N9-C4	-6.40	1.32	1.38
36	5	2116	G	N7-C5	-6.40	1.35	1.39
36	5	2634	U	C4-O4	-6.40	1.18	1.23
37	7	42	A	N7-C5	-6.40	1.35	1.39
1	6	410	A	N7-C5	-6.40	1.35	1.39
36	5	2849	C	N1-C2	-6.40	1.33	1.40
36	5	2890	A	N3-C4	-6.40	1.31	1.34
36	1	1867	A	N3-C4	-6.39	1.31	1.34
36	5	428	A	N7-C5	-6.39	1.35	1.39
36	5	929	A	C5-C4	-6.39	1.34	1.38
36	5	1127	G	N7-C5	-6.39	1.35	1.39
36	5	1897	G	C5-C6	-6.39	1.35	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	572	A	N3-C4	-6.39	1.31	1.34
36	5	2872	A	N3-C4	6.39	1.38	1.34
36	5	2983	C	C4-C5	-6.39	1.37	1.43
37	7	99	G	C5-C4	-6.39	1.33	1.38
1	6	349	U	C2-N3	-6.39	1.33	1.37
36	5	2926	A	N3-C4	-6.39	1.31	1.34
1	6	1653	C	N1-C6	-6.39	1.33	1.37
1	6	1750	A	N3-C4	-6.39	1.31	1.34
36	5	2172	A	C5-C6	-6.38	1.35	1.41
36	5	2416	U	C2-O2	-6.38	1.16	1.22
36	1	3260	G	N3-C4	-6.38	1.30	1.35
36	5	1834	U	C4-O4	6.38	1.28	1.23
36	5	3094	A	C6-N1	-6.38	1.31	1.35
36	1	2899	C	N3-C4	-6.38	1.29	1.33
1	2	1208	A	N3-C4	-6.38	1.31	1.34
38	4	104	A	N3-C4	-6.38	1.31	1.34
36	1	2651	G	N9-C8	-6.37	1.33	1.37
36	5	1205	A	C6-N6	-6.37	1.28	1.33
36	1	3011	A	C6-N1	-6.37	1.31	1.35
36	5	2919	A	N9-C4	-6.37	1.34	1.37
36	1	2756	C	N3-C4	-6.37	1.29	1.33
36	5	1129	A	N7-C5	-6.37	1.35	1.39
36	5	1174	G	N7-C5	-6.37	1.35	1.39
47	m0	11	TYR	CE2-CZ	6.37	1.46	1.38
36	1	1402	C	N3-C4	-6.37	1.29	1.33
1	6	46	A	C6-N1	-6.37	1.31	1.35
36	5	1795	U	C2-N3	-6.37	1.33	1.37
36	5	2969	A	N9-C4	-6.37	1.34	1.37
36	1	2326	A	C6-N1	-6.36	1.31	1.35
36	1	2910	A	C6-N1	-6.36	1.31	1.35
36	5	1286	A	N9-C4	-6.36	1.34	1.37
36	5	2830	G	C6-N1	-6.36	1.35	1.39
36	1	1169	A	N3-C4	-6.36	1.31	1.34
36	1	1357	G	N7-C5	-6.36	1.35	1.39
36	5	365	A	C5-C6	-6.36	1.35	1.41
36	5	3096	C	N1-C6	-6.36	1.33	1.37
36	1	1333	C	C4-N4	-6.36	1.28	1.33
36	1	1340	G	C6-O6	-6.36	1.18	1.24
36	1	1905	G	N9-C4	-6.36	1.32	1.38
36	1	2386	A	C5-C4	-6.36	1.34	1.38
36	1	2830	G	N9-C4	-6.36	1.32	1.38
36	5	2969	A	N7-C5	-6.36	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1321	G	C5-C4	-6.35	1.33	1.38
38	4	53	A	N3-C4	-6.35	1.31	1.34
36	5	577	C	N3-C4	-6.35	1.29	1.33
36	1	100	A	N3-C4	-6.35	1.31	1.34
36	5	1212	A	C5-C6	-6.35	1.35	1.41
36	5	2108	C	N1-C6	-6.35	1.33	1.37
36	5	2385	G	N3-C4	-6.35	1.31	1.35
1	2	47	A	N7-C5	-6.35	1.35	1.39
36	1	2145	A	C5-C6	-6.35	1.35	1.41
36	5	1198	C	N3-C4	-6.35	1.29	1.33
36	5	2407	C	C4-C5	-6.35	1.37	1.43
36	5	520	U	N1-C2	6.35	1.44	1.38
36	5	1189	C	N1-C6	-6.35	1.33	1.37
36	1	1311	G	N9-C8	-6.34	1.33	1.37
1	6	1765	A	C6-N1	-6.34	1.31	1.35
36	5	3094	A	N3-C4	-6.34	1.31	1.34
36	1	189	G	C5-C4	-6.34	1.33	1.38
36	1	2289	U	N1-C6	-6.34	1.32	1.38
37	3	65	G	N9-C4	-6.34	1.32	1.38
36	5	932	U	C4-O4	-6.34	1.18	1.23
36	5	1133	A	N7-C5	-6.34	1.35	1.39
36	5	3190	C	N1-C6	-6.34	1.33	1.37
36	5	423	A	N7-C5	-6.34	1.35	1.39
36	5	1922	A	N9-C4	-6.34	1.34	1.37
36	1	157	A	N3-C4	-6.34	1.31	1.34
36	1	914	A	N9-C4	6.34	1.41	1.37
36	1	2404	A	C2-N3	6.34	1.39	1.33
36	5	960	U	C2-O2	6.34	1.28	1.22
36	5	2816	G	C2-N3	-6.34	1.27	1.32
36	5	3122	A	N7-C5	-6.33	1.35	1.39
36	5	3207	U	C5-C6	6.33	1.39	1.34
36	1	32	U	C5-C6	-6.33	1.28	1.34
36	1	1444	G	N7-C5	-6.33	1.35	1.39
1	6	102	U	N1-C2	-6.33	1.32	1.38
36	5	1196	C	C4-C5	6.33	1.48	1.43
36	5	3209	A	N9-C4	6.33	1.41	1.37
36	5	1138	U	N1-C6	-6.33	1.32	1.38
36	5	2370	G	C6-N1	-6.33	1.35	1.39
36	1	3273	A	C6-N1	-6.33	1.31	1.35
36	1	1906	G	C5-C4	-6.33	1.33	1.38
36	1	1371	G	N9-C8	-6.33	1.33	1.37
36	1	3087	A	N3-C4	-6.33	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	425	G	N9-C8	-6.33	1.33	1.37
36	5	1317	A	C5-C4	-6.33	1.34	1.38
36	5	2806	U	C2-N3	-6.33	1.33	1.37
36	5	1592	G	C5-C6	6.32	1.48	1.42
36	5	2746	A	N9-C4	-6.32	1.34	1.37
38	8	44	A	C5-C6	-6.32	1.35	1.41
36	1	373	A	C6-N1	-6.32	1.31	1.35
40	L3	27	ALA	CA-CB	-6.32	1.39	1.52
1	6	407	A	N3-C4	-6.32	1.31	1.34
36	5	2976	A	N7-C5	-6.32	1.35	1.39
1	2	1654	G	C6-N1	-6.32	1.35	1.39
36	1	942	U	N1-C6	-6.32	1.32	1.38
36	5	2300	G	C6-N1	-6.32	1.35	1.39
1	2	1004	U	N3-C4	-6.32	1.32	1.38
36	1	2117	A	N7-C5	-6.32	1.35	1.39
36	1	2932	U	C2-N3	-6.32	1.33	1.37
1	6	358	U	C2-N3	-6.32	1.33	1.37
36	5	2967	A	C6-N1	-6.32	1.31	1.35
36	1	517	G	N3-C4	-6.32	1.31	1.35
36	1	3033	A	N9-C4	6.32	1.41	1.37
36	1	3141	A	C5-C6	-6.32	1.35	1.41
36	1	3217	C	N1-C6	-6.32	1.33	1.37
36	5	1192	C	N1-C2	6.32	1.46	1.40
69	o3	33	GLU	CG-CD	6.32	1.61	1.51
36	5	2111	G	N9-C4	-6.31	1.32	1.38
36	5	2288	G	N1-C2	-6.31	1.32	1.37
36	5	2871	G	N9-C8	6.31	1.42	1.37
36	1	409	A	N7-C5	-6.31	1.35	1.39
36	5	1929	G	N3-C4	-6.31	1.31	1.35
36	1	1906	G	N7-C5	-6.31	1.35	1.39
37	3	98	C	N3-C4	-6.31	1.29	1.33
36	5	921	A	N7-C5	-6.31	1.35	1.39
36	1	45	A	N3-C4	-6.31	1.31	1.34
36	1	955	U	N1-C2	-6.31	1.32	1.38
36	5	1103	A	N9-C8	6.31	1.42	1.37
42	l5	136	GLU	CG-CD	6.31	1.61	1.51
36	5	3276	G	C6-N1	6.30	1.44	1.39
52	m6	40	GLU	CG-CD	6.30	1.61	1.51
36	1	2861	U	C2-N3	-6.30	1.33	1.37
36	1	3273	A	N9-C4	-6.30	1.34	1.37
36	5	3181	C	N1-C6	-6.30	1.33	1.37
1	6	597	G	N7-C5	-6.30	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1073	U	C2-N3	-6.30	1.33	1.37
36	5	1120	A	N9-C4	-6.30	1.34	1.37
36	5	2900	A	C5-C6	-6.30	1.35	1.41
1	6	1411	A	N9-C4	-6.30	1.34	1.37
36	1	752	C	N3-C4	-6.30	1.29	1.33
36	1	1886	A	C6-N1	-6.29	1.31	1.35
36	1	2236	G	N7-C5	-6.29	1.35	1.39
38	4	52	A	N3-C4	-6.29	1.31	1.34
36	5	705	A	N3-C4	-6.29	1.31	1.34
1	6	3	U	C2-N3	-6.29	1.33	1.37
1	6	1631	A	C5-C6	-6.29	1.35	1.41
36	5	2862	U	C2-N3	-6.29	1.33	1.37
36	5	1145	G	N7-C5	-6.29	1.35	1.39
36	5	3020	U	C4-C5	-6.29	1.37	1.43
36	5	1180	A	C5-C4	-6.29	1.34	1.38
36	5	2815	G	N9-C8	-6.29	1.33	1.37
36	1	422	A	N9-C4	-6.29	1.34	1.37
36	5	994	G	N1-C2	-6.29	1.32	1.37
36	5	1142	G	C5-C6	-6.29	1.36	1.42
36	1	826	G	C5-C6	-6.29	1.36	1.42
36	1	2325	G	C5-C6	-6.29	1.36	1.42
36	1	2834	G	C6-N1	-6.29	1.35	1.39
36	5	433	A	N7-C5	-6.29	1.35	1.39
36	1	440	A	N9-C4	6.28	1.41	1.37
40	L3	7	GLU	CG-CD	6.28	1.61	1.51
36	5	3083	G	C5-C6	-6.28	1.36	1.42
36	5	3129	A	C6-N1	-6.28	1.31	1.35
36	5	506	U	N1-C2	-6.28	1.32	1.38
36	5	2648	G	N9-C4	-6.28	1.32	1.38
38	8	41	A	N3-C4	-6.28	1.31	1.34
36	1	391	A	N3-C4	-6.28	1.31	1.34
36	1	1176	C	N3-C4	-6.28	1.29	1.33
36	5	278	U	C2-N3	-6.28	1.33	1.37
36	1	612	U	N1-C6	-6.27	1.32	1.38
36	5	1430	U	N1-C2	-6.27	1.32	1.38
76	q0	110	CYS	CB-SG	-6.27	1.71	1.82
36	1	1126	G	N7-C5	-6.27	1.35	1.39
36	1	1534	A	C5-C6	-6.27	1.35	1.41
36	1	2801	A	C5-C4	-6.27	1.34	1.38
36	1	3274	A	N7-C5	-6.27	1.35	1.39
36	5	1150	A	C5-C4	-6.27	1.34	1.38
36	5	2816	G	C5-C6	-6.27	1.36	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2946	A	C6-N1	-6.27	1.31	1.35
36	1	1465	A	N9-C4	-6.27	1.34	1.37
36	5	589	A	N3-C4	-6.27	1.31	1.34
36	5	2836	C	N3-C4	-6.27	1.29	1.33
36	5	2385	G	N9-C8	-6.26	1.33	1.37
36	5	2956	A	N3-C4	-6.26	1.31	1.34
36	1	2649	A	N7-C5	-6.26	1.35	1.39
36	5	2365	C	N1-C6	-6.26	1.33	1.37
36	1	1403	C	P-O5'	-6.26	1.53	1.59
37	3	63	A	N9-C4	-6.26	1.34	1.37
36	5	2346	C	N1-C2	-6.26	1.33	1.40
36	5	519	A	N7-C5	-6.26	1.35	1.39
36	1	2376	G	N3-C4	-6.26	1.31	1.35
1	6	1762	A	N9-C4	-6.26	1.34	1.37
36	1	2917	G	C6-N1	-6.25	1.35	1.39
36	1	1153	A	N9-C4	-6.25	1.34	1.37
36	1	2193	U	N1-C2	-6.25	1.32	1.38
36	1	2942	C	N3-C4	6.25	1.38	1.33
36	1	1117	G	C5-C4	-6.25	1.33	1.38
36	5	2698	G	C5-C4	-6.25	1.33	1.38
36	1	1131	G	N7-C5	-6.25	1.35	1.39
36	1	1454	A	N9-C4	-6.25	1.34	1.37
36	5	2913	C	N3-C4	-6.25	1.29	1.33
36	1	357	A	C6-N1	-6.24	1.31	1.35
36	1	2614	G	C6-N1	-6.24	1.35	1.39
36	5	1151	U	C4-O4	6.24	1.28	1.23
36	5	2618	G	C6-N1	-6.24	1.35	1.39
1	6	316	A	N9-C4	-6.24	1.34	1.37
36	5	1295	G	N3-C4	-6.24	1.31	1.35
36	5	1889	G	C5-C6	-6.24	1.36	1.42
36	5	3010	U	N3-C4	-6.24	1.32	1.38
1	2	1782	A	N7-C5	-6.24	1.35	1.39
1	6	1648	A	N9-C4	-6.24	1.34	1.37
36	5	1048	A	C6-N1	-6.24	1.31	1.35
37	7	39	C	N1-C6	-6.24	1.33	1.37
36	1	318	A	N9-C4	-6.24	1.34	1.37
36	5	1303	A	C6-N6	-6.24	1.28	1.33
36	1	206	G	N1-C2	-6.23	1.32	1.37
36	5	1179	A	C6-N1	-6.23	1.31	1.35
36	5	1205	A	C5-C6	-6.23	1.35	1.41
36	5	2647	A	N9-C4	-6.23	1.34	1.37
36	1	2656	A	C6-N1	-6.23	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	102	U	C2-N3	-6.23	1.33	1.37
36	5	2400	G	C5-C6	-6.23	1.36	1.42
36	5	1145	G	C8-N7	-6.23	1.27	1.30
36	5	2983	C	N1-C6	-6.23	1.33	1.37
37	3	92	A	N9-C4	-6.23	1.34	1.37
36	1	351	A	N9-C4	-6.22	1.34	1.37
1	6	1642	G	N1-C2	-6.22	1.32	1.37
36	5	890	C	N1-C6	-6.22	1.33	1.37
36	5	1186	G	C6-N1	-6.22	1.35	1.39
36	1	89	A	C6-N1	-6.22	1.31	1.35
37	3	102	A	N9-C4	-6.22	1.34	1.37
1	6	630	A	N7-C5	-6.22	1.35	1.39
36	5	645	A	N7-C5	-6.22	1.35	1.39
36	5	1060	U	N3-C4	-6.22	1.32	1.38
36	5	3189	G	C5-C4	-6.22	1.33	1.38
37	7	84	A	N9-C4	-6.22	1.34	1.37
36	5	650	C	N3-C4	-6.22	1.29	1.33
36	5	3203	U	N3-C4	-6.22	1.32	1.38
36	1	1169	A	C6-N1	-6.21	1.31	1.35
36	5	1098	A	N9-C4	-6.21	1.34	1.37
36	5	2977	G	C5-C4	-6.21	1.33	1.38
36	1	955	U	C2-N3	-6.21	1.33	1.37
1	6	630	A	C5-C6	-6.21	1.35	1.41
36	5	2893	C	C4-C5	-6.21	1.38	1.43
36	1	1176	C	N1-C6	-6.21	1.33	1.37
36	1	85	A	C5-C6	-6.21	1.35	1.41
36	5	3020	U	C4-O4	-6.21	1.18	1.23
1	2	1124	A	N9-C4	-6.21	1.34	1.37
36	1	294	U	C2-N3	-6.21	1.33	1.37
36	1	3102	G	C6-N1	-6.21	1.35	1.39
1	6	1777	G	C6-N1	-6.21	1.35	1.39
36	5	973	A	C5-C6	-6.21	1.35	1.41
36	5	1477	A	N3-C4	-6.21	1.31	1.34
36	1	880	G	C5-C4	-6.21	1.34	1.38
36	5	1140	G	N7-C5	-6.21	1.35	1.39
36	5	2925	C	N1-C2	-6.21	1.33	1.40
36	5	2932	U	N3-C4	-6.21	1.32	1.38
36	5	2895	G	C6-N1	-6.21	1.35	1.39
36	1	343	U	C4-C5	-6.20	1.38	1.43
36	5	189	G	C5-C4	-6.20	1.34	1.38
36	5	3088	G	N3-C4	-6.20	1.31	1.35
36	5	1199	C	N1-C6	-6.20	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	383	G	N9-C8	-6.20	1.33	1.37
36	1	2382	G	C6-N1	-6.20	1.35	1.39
36	1	101	G	C5-C6	-6.20	1.36	1.42
36	1	3147	G	C5-C4	-6.20	1.34	1.38
36	5	1300	G	N7-C5	-6.19	1.35	1.39
36	5	1099	A	C5-C4	-6.19	1.34	1.38
36	5	1316	C	N1-C6	-6.19	1.33	1.37
36	5	2632	G	P-O5'	-6.19	1.53	1.59
1	6	1124	A	C5-C6	-6.19	1.35	1.41
1	6	1596	C	N1-C6	-6.19	1.33	1.37
36	5	2199	G	N7-C5	-6.19	1.35	1.39
36	1	648	C	N1-C6	-6.19	1.33	1.37
1	6	1614	A	N9-C4	-6.19	1.34	1.37
36	1	1170	A	C5-C6	-6.18	1.35	1.41
36	5	1884	A	N7-C5	-6.18	1.35	1.39
36	5	2903	A	N9-C4	-6.18	1.34	1.37
36	5	425	G	C5-C4	-6.18	1.34	1.38
36	5	512	U	N3-C4	-6.18	1.32	1.38
36	5	2117	A	N7-C5	-6.18	1.35	1.39
36	5	2395	G	N3-C4	-6.18	1.31	1.35
36	5	2881	C	N3-C4	-6.18	1.29	1.33
36	1	35	A	N3-C4	-6.18	1.31	1.34
36	1	629	U	C2-N3	-6.18	1.33	1.37
1	2	1454	G	C5-C4	-6.18	1.34	1.38
36	1	3121	U	C2-N3	-6.18	1.33	1.37
36	5	64	G	N7-C5	-6.18	1.35	1.39
36	1	41	G	C5-C4	-6.17	1.34	1.38
36	5	1295	G	C5-C4	-6.17	1.34	1.38
36	5	2698	G	N9-C8	-6.17	1.33	1.37
36	5	2892	A	C6-N1	-6.17	1.31	1.35
36	5	591	G	N9-C8	-6.17	1.33	1.37
36	1	2952	G	N3-C4	-6.17	1.31	1.35
1	6	1592	A	C6-N1	-6.17	1.31	1.35
36	5	2294	U	C2-N3	-6.17	1.33	1.37
36	1	3319	U	N1-C2	6.17	1.44	1.38
36	5	800	G	C5-C4	-6.17	1.34	1.38
25	D3	60	GLU	CG-CD	6.17	1.61	1.51
36	1	2350	C	N1-C6	-6.17	1.33	1.37
36	5	1307	G	C5-C6	-6.17	1.36	1.42
1	2	1148	C	N3-C4	-6.17	1.29	1.33
36	5	2768	U	C2-N3	-6.17	1.33	1.37
36	1	793	C	N1-C6	-6.17	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2753	G	N9-C8	-6.17	1.33	1.37
36	5	2913	C	C4-C5	-6.17	1.38	1.43
36	1	751	A	C6-N1	-6.16	1.31	1.35
36	1	1846	C	N1-C2	-6.16	1.33	1.40
36	5	642	U	N1-C2	-6.16	1.33	1.38
36	1	146	U	N1-C2	6.16	1.44	1.38
36	1	2834	G	N7-C5	-6.16	1.35	1.39
36	1	218	G	N3-C4	-6.16	1.31	1.35
36	5	962	A	N9-C4	-6.16	1.34	1.37
36	5	3362	A	N3-C4	-6.16	1.31	1.34
36	1	649	A	N3-C4	-6.16	1.31	1.34
36	1	1910	A	C5-C4	-6.16	1.34	1.38
36	1	2823	G	N3-C4	-6.16	1.31	1.35
36	5	2247	G	C5-C4	-6.15	1.34	1.38
36	5	2920	U	C4-O4	-6.15	1.18	1.23
37	7	112	G	C6-N1	-6.15	1.35	1.39
69	o3	81	VAL	CB-CG1	-6.15	1.40	1.52
36	1	1350	A	N9-C4	6.15	1.41	1.37
36	1	1534	A	N7-C5	-6.15	1.35	1.39
36	1	2733	A	N3-C4	-6.15	1.31	1.34
36	5	3016	A	N7-C5	-6.15	1.35	1.39
36	5	3146	G	C5-C6	-6.15	1.36	1.42
36	5	3210	A	C6-N1	-6.15	1.31	1.35
36	1	338	A	N9-C8	-6.15	1.32	1.37
36	5	2381	G	N7-C5	-6.15	1.35	1.39
36	5	3336	A	N9-C4	-6.15	1.34	1.37
36	1	409	A	C5-C4	-6.15	1.34	1.38
36	5	2188	A	N9-C8	-6.15	1.32	1.37
1	6	1660	A	N9-C4	-6.15	1.34	1.37
36	5	1372	C	N1-C6	-6.15	1.33	1.37
36	1	2399	A	C5-C4	-6.14	1.34	1.38
36	1	2833	A	C6-N1	-6.14	1.31	1.35
1	6	794	U	N1-C2	6.14	1.44	1.38
36	1	907	G	C6-O6	-6.14	1.18	1.24
36	1	1910	A	N3-C4	-6.14	1.31	1.34
1	6	1584	G	N7-C5	-6.14	1.35	1.39
36	1	2693	C	N1-C6	-6.14	1.33	1.37
36	1	3244	A	C6-N1	-6.14	1.31	1.35
36	5	3128	G	N3-C4	-6.14	1.31	1.35
37	7	13	A	C5-C6	-6.14	1.35	1.41
36	5	945	C	N1-C6	-6.14	1.33	1.37
36	5	3138	U	N1-C2	-6.14	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1517	U	C2-N3	-6.13	1.33	1.37
36	5	2977	G	N7-C5	-6.13	1.35	1.39
36	1	2314	U	C2-N3	6.13	1.42	1.37
36	1	2358	A	N3-C4	-6.13	1.31	1.34
36	5	2918	G	C6-O6	-6.13	1.18	1.24
36	5	1152	G	C5-C6	-6.13	1.36	1.42
36	1	1061	A	N9-C4	-6.13	1.34	1.37
36	1	2335	G	C6-N1	-6.13	1.35	1.39
38	4	12	A	N7-C5	-6.13	1.35	1.39
36	5	1085	A	N3-C4	-6.13	1.31	1.34
36	5	3172	A	N3-C4	-6.13	1.31	1.34
36	1	1129	A	N7-C5	-6.12	1.35	1.39
36	5	289	A	C5-C6	-6.12	1.35	1.41
36	5	2815	G	N7-C5	-6.12	1.35	1.39
36	5	3245	A	N7-C5	-6.12	1.35	1.39
36	5	1142	G	C6-N1	-6.12	1.35	1.39
36	5	3098	G	C6-N1	-6.12	1.35	1.39
36	5	3114	A	C5-C6	-6.12	1.35	1.41
36	1	612	U	N3-C4	-6.12	1.32	1.38
36	1	2733	A	N9-C4	-6.12	1.34	1.37
36	1	2831	G	N7-C5	-6.12	1.35	1.39
36	5	706	A	N3-C4	-6.12	1.31	1.34
36	5	710	A	N7-C5	-6.12	1.35	1.39
36	1	1904	C	N1-C6	-6.12	1.33	1.37
36	1	2309	A	N3-C4	-6.12	1.31	1.34
1	6	1778	G	N1-C2	-6.12	1.32	1.37
36	5	2996	U	C4-O4	6.12	1.28	1.23
1	2	1212	G	N7-C5	-6.12	1.35	1.39
1	6	397	A	N9-C4	-6.12	1.34	1.37
1	6	1166	A	N9-C4	-6.12	1.34	1.37
36	5	1330	A	C5-C6	-6.12	1.35	1.41
36	5	1845	G	N7-C5	-6.12	1.35	1.39
36	5	1043	C	N1-C6	-6.11	1.33	1.37
36	5	2705	A	C5-C4	-6.11	1.34	1.38
36	5	3095	U	N1-C6	-6.11	1.32	1.38
36	1	2623	G	C2-N3	-6.11	1.27	1.32
1	6	1768	G	N3-C4	-6.11	1.31	1.35
36	5	505	G	N3-C4	-6.11	1.31	1.35
36	5	2373	A	N3-C4	-6.11	1.31	1.34
43	16	175	LYS	CD-CE	6.11	1.66	1.51
52	M6	40	GLU	CD-OE2	6.11	1.32	1.25
36	1	1374	G	N7-C5	-6.11	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3130	A	N9-C4	-6.11	1.34	1.37
36	5	807	A	N9-C4	-6.11	1.34	1.37
36	5	1887	A	C5-C4	-6.11	1.34	1.38
36	1	2374	C	C5-C6	-6.11	1.29	1.34
36	5	1428	A	C6-N1	-6.11	1.31	1.35
68	O2	8	LYS	CD-CE	6.10	1.66	1.51
36	5	1114	U	N1-C2	-6.10	1.33	1.38
36	5	2400	G	C5-C4	-6.10	1.34	1.38
36	1	1907	C	N3-C4	-6.10	1.29	1.33
36	5	1195	A	N7-C5	-6.10	1.35	1.39
36	5	2954	U	N3-C4	6.10	1.44	1.38
36	1	2724	U	N1-C2	-6.10	1.33	1.38
1	6	1762	A	C5-C4	-6.10	1.34	1.38
36	5	1374	G	N3-C4	-6.10	1.31	1.35
36	5	2316	G	N3-C4	-6.10	1.31	1.35
36	1	1381	A	N3-C4	-6.10	1.31	1.34
36	1	1425	U	C2-N3	-6.10	1.33	1.37
38	4	54	A	N3-C4	-6.10	1.31	1.34
36	5	1149	G	N3-C4	-6.10	1.31	1.35
36	5	1406	A	N9-C8	-6.10	1.32	1.37
36	5	2698	G	N9-C4	-6.10	1.33	1.38
36	1	911	C	C2-N3	-6.10	1.30	1.35
1	6	1124	A	N9-C4	-6.10	1.34	1.37
36	1	2917	G	N9-C8	-6.09	1.33	1.37
36	5	51	A	C5-C6	-6.09	1.35	1.41
36	5	1910	A	N7-C5	-6.09	1.35	1.39
1	6	1780	G	N9-C8	-6.09	1.33	1.37
36	5	1065	A	N9-C4	-6.09	1.34	1.37
36	5	3010	U	C2-N3	-6.09	1.33	1.37
36	1	1192	C	N1-C2	6.09	1.46	1.40
36	1	2963	C	N3-C4	-6.09	1.29	1.33
36	5	2943	G	N3-C4	-6.09	1.31	1.35
36	1	1399	A	N9-C4	-6.09	1.34	1.37
36	5	960	U	C2-N3	6.09	1.42	1.37
36	5	1174	G	N3-C4	-6.09	1.31	1.35
36	1	2971	A	C5-C4	6.09	1.43	1.38
36	5	82	C	N1-C6	-6.09	1.33	1.37
37	7	49	G	C6-N1	6.09	1.43	1.39
38	8	45	C	N1-C6	-6.09	1.33	1.37
36	5	630	A	N9-C4	-6.08	1.34	1.37
36	5	2683	U	C4-C5	-6.08	1.38	1.43
36	1	642	U	C4-O4	6.08	1.28	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2960	C	N1-C6	-6.08	1.33	1.37
36	5	2932	U	C4-O4	-6.08	1.18	1.23
36	1	980	A	C5-C4	6.08	1.43	1.38
36	1	1851	G	C2-N3	-6.08	1.27	1.32
36	1	1888	U	C2-N3	-6.08	1.33	1.37
1	6	107	C	N1-C6	-6.08	1.33	1.37
36	5	633	C	N3-C4	-6.08	1.29	1.33
36	5	1370	G	C5-C4	-6.08	1.34	1.38
36	5	2305	G	N3-C4	-6.08	1.31	1.35
36	1	1406	A	N3-C4	-6.08	1.31	1.34
36	1	2908	G	N7-C5	-6.08	1.35	1.39
36	5	1062	A	N9-C4	-6.08	1.34	1.37
36	5	3184	A	C5-C6	-6.08	1.35	1.41
1	6	1635	A	N9-C4	-6.08	1.34	1.37
1	6	1411	A	N3-C4	-6.08	1.31	1.34
1	6	1655	A	N3-C4	-6.08	1.31	1.34
36	5	1364	C	N3-C4	-6.08	1.29	1.33
36	1	433	A	N3-C4	-6.07	1.31	1.34
36	1	2981	U	N3-C4	-6.07	1.32	1.38
69	O3	3	GLU	CG-CD	6.07	1.61	1.51
36	5	1196	C	N1-C2	6.07	1.46	1.40
44	17	59	GLU	CG-CD	6.07	1.61	1.51
36	5	2819	A	C5-C4	-6.07	1.34	1.38
1	6	410	A	N3-C4	-6.07	1.31	1.34
36	5	893	C	N1-C6	-6.07	1.33	1.37
36	5	2392	C	N3-C4	-6.07	1.29	1.33
36	1	2910	A	N7-C5	-6.07	1.35	1.39
36	5	1909	A	N9-C4	-6.07	1.34	1.37
36	5	3306	U	N1-C6	-6.07	1.32	1.38
36	5	2367	A	N9-C4	-6.07	1.34	1.37
36	1	2270	A	C5-C6	-6.06	1.35	1.41
36	1	2323	G	C5-C4	-6.06	1.34	1.38
36	5	2841	G	C6-N1	-6.06	1.35	1.39
36	5	635	G	N9-C8	-6.06	1.33	1.37
36	5	1200	A	C5-C6	-6.06	1.35	1.41
36	5	3324	C	N1-C6	-6.06	1.33	1.37
1	6	1108	G	N3-C4	-6.06	1.31	1.35
36	5	630	A	N9-C8	-6.06	1.32	1.37
36	1	2333	C	C2-N3	-6.06	1.30	1.35
36	1	2364	G	C5-C4	-6.05	1.34	1.38
59	n3	120	LYS	CD-CE	6.05	1.66	1.51
36	1	2374	C	N1-C6	-6.05	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	410	A	C5-C6	-6.05	1.35	1.41
36	1	2378	C	N1-C6	-6.05	1.33	1.37
36	5	856	G	C6-N1	-6.05	1.35	1.39
36	5	2768	U	N3-C4	-6.05	1.33	1.38
36	5	799	G	N7-C5	-6.05	1.35	1.39
36	5	2851	A	N9-C4	-6.05	1.34	1.37
36	5	2891	U	C2-N3	-6.05	1.33	1.37
36	1	1909	A	N9-C4	-6.04	1.34	1.37
38	4	13	A	N7-C5	-6.04	1.35	1.39
36	5	2341	A	C6-N1	-6.04	1.31	1.35
36	5	2994	A	C5-C4	-6.04	1.34	1.38
36	5	367	A	C6-N1	-6.04	1.31	1.35
36	5	660	A	C6-N1	-6.04	1.31	1.35
36	5	2287	C	N1-C6	-6.04	1.33	1.37
36	1	200	C	N1-C6	-6.04	1.33	1.37
36	1	519	A	N9-C4	-6.04	1.34	1.37
36	1	1887	A	N9-C8	-6.04	1.32	1.37
36	1	1320	C	C2-N3	-6.04	1.30	1.35
36	1	907	G	C6-N1	-6.04	1.35	1.39
1	6	417	A	N9-C4	6.04	1.41	1.37
36	1	2825	C	N1-C6	-6.03	1.33	1.37
36	1	3172	A	N3-C4	-6.03	1.31	1.34
36	5	936	A	C6-N1	-6.03	1.31	1.35
36	1	368	G	N3-C4	-6.03	1.31	1.35
36	5	3125	U	C2-N3	-6.03	1.33	1.37
36	5	1188	U	N1-C2	-6.03	1.33	1.38
36	5	2642	A	C5-C6	-6.03	1.35	1.41
36	5	2868	U	N1-C2	-6.03	1.33	1.38
36	1	1459	C	N1-C6	-6.03	1.33	1.37
36	5	1379	G	C6-N1	-6.03	1.35	1.39
1	2	1127	G	N3-C4	-6.03	1.31	1.35
1	6	611	U	N1-C6	-6.03	1.32	1.38
36	5	869	G	C6-N1	-6.03	1.35	1.39
36	5	1342	C	C2-N3	-6.03	1.30	1.35
36	5	2168	A	N7-C5	-6.03	1.35	1.39
36	1	1061	A	C5-C4	-6.03	1.34	1.38
36	1	3180	A	N3-C4	-6.03	1.31	1.34
1	6	401	A	N9-C4	-6.03	1.34	1.37
36	5	535	G	N7-C5	-6.02	1.35	1.39
36	5	2660	G	N9-C4	-6.02	1.33	1.38
36	5	3026	G	N7-C5	-6.02	1.35	1.39
38	4	2	A	C6-N1	-6.02	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	29	C	N1-C6	-6.02	1.33	1.37
36	1	1429	G	C2-N2	-6.02	1.28	1.34
36	1	2916	U	N1-C2	6.02	1.44	1.38
36	5	996	A	N9-C4	-6.02	1.34	1.37
36	1	2374	C	C4-C5	-6.02	1.38	1.43
36	5	648	C	C4-N4	6.02	1.39	1.33
36	5	2391	G	C5-C4	-6.02	1.34	1.38
36	1	2875	U	C4-O4	6.01	1.28	1.23
36	1	2601	A	C5-C4	-6.01	1.34	1.38
36	5	2286	U	N3-C4	-6.01	1.33	1.38
37	7	84	A	N7-C5	-6.01	1.35	1.39
36	1	1386	A	C5-C6	6.01	1.46	1.41
36	5	2977	G	C5-C6	-6.01	1.36	1.42
68	o2	41	VAL	CA-CB	-6.01	1.42	1.54
36	1	865	U	N1-C2	-6.01	1.33	1.38
36	1	2382	G	N1-C2	-6.01	1.32	1.37
36	5	2705	A	C6-N1	-6.01	1.31	1.35
36	1	1401	A	C5-C4	-6.01	1.34	1.38
36	1	2838	A	N9-C4	-6.01	1.34	1.37
36	5	569	A	C5-C4	-6.01	1.34	1.38
36	1	2431	C	N1-C6	-6.00	1.33	1.37
36	5	206	G	N1-C2	-6.00	1.32	1.37
36	5	2702	A	N7-C5	-6.00	1.35	1.39
36	1	2966	G	N3-C4	-6.00	1.31	1.35
1	2	1655	A	C5-C4	-6.00	1.34	1.38
36	1	2986	U	N1-C6	-6.00	1.32	1.38
36	5	883	A	C5-C4	-6.00	1.34	1.38
36	1	27	C	N1-C6	-6.00	1.33	1.37
36	5	2965	U	C4-C5	-6.00	1.38	1.43
38	8	138	A	N3-C4	-6.00	1.31	1.34
1	6	1570	A	N9-C4	-6.00	1.34	1.37
36	5	396	A	C6-N1	-6.00	1.31	1.35
36	1	1120	A	C6-N1	-5.99	1.31	1.35
36	1	1695	U	C2-N3	-5.99	1.33	1.37
1	6	1671	A	N9-C4	-5.99	1.34	1.37
36	5	1172	G	N7-C5	-5.99	1.35	1.39
36	5	1302	A	N3-C4	-5.99	1.31	1.34
1	6	1025	A	N3-C4	-5.99	1.31	1.34
1	2	1762	A	N9-C4	-5.99	1.34	1.37
36	1	608	A	C5-C6	-5.99	1.35	1.41
36	5	2799	A	N7-C5	-5.99	1.35	1.39
36	1	2948	C	C4-C5	-5.99	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	3	83	U	C2-N3	-5.99	1.33	1.37
37	7	14	U	N1-C2	-5.99	1.33	1.38
36	1	838	G	N9-C4	-5.99	1.33	1.38
1	6	1470	C	N3-C4	-5.99	1.29	1.33
36	5	958	C	C5-C6	-5.99	1.29	1.34
36	5	2130	G	C5-C4	-5.99	1.34	1.38
36	5	3374	U	C2-N3	-5.98	1.33	1.37
1	2	405	C	N1-C6	-5.98	1.33	1.37
36	1	1310	G	N7-C5	-5.98	1.35	1.39
1	6	1524	A	N7-C5	-5.98	1.35	1.39
36	5	3032	A	C6-N1	-5.98	1.31	1.35
36	1	787	G	N7-C5	-5.98	1.35	1.39
36	5	3336	A	N3-C4	-5.98	1.31	1.34
36	1	784	A	N9-C4	-5.98	1.34	1.37
36	1	1424	C	N1-C6	-5.98	1.33	1.37
36	1	2939	G	C6-N1	-5.98	1.35	1.39
36	1	2346	C	N1-C6	-5.98	1.33	1.37
36	5	1177	G	N9-C8	-5.98	1.33	1.37
36	5	1146	C	N1-C6	-5.98	1.33	1.37
36	5	2637	A	C6-N6	-5.98	1.29	1.33
36	1	2386	A	N7-C5	-5.97	1.35	1.39
1	6	1137	A	N9-C8	-5.97	1.32	1.37
36	5	519	A	C6-N1	-5.97	1.31	1.35
36	5	1490	A	N3-C4	-5.97	1.31	1.34
36	1	2935	U	N1-C2	-5.97	1.33	1.38
36	5	2314	U	N1-C2	5.97	1.44	1.38
36	5	2386	A	C5-C4	-5.97	1.34	1.38
36	5	2662	G	C6-N1	-5.97	1.35	1.39
36	5	2956	A	N7-C5	-5.97	1.35	1.39
36	1	95	A	N3-C4	-5.97	1.31	1.34
36	1	2371	G	N9-C8	-5.97	1.33	1.37
36	1	3059	G	N7-C5	5.97	1.42	1.39
36	1	2811	A	C5-C4	-5.97	1.34	1.38
36	5	1153	A	N7-C5	-5.97	1.35	1.39
36	5	2884	C	C2-N3	-5.97	1.30	1.35
36	1	2274	U	C2-N3	-5.96	1.33	1.37
36	1	2605	G	C5-C6	-5.96	1.36	1.42
1	6	1655	A	C5-C6	-5.96	1.35	1.41
36	1	1192	C	C2-N3	5.96	1.40	1.35
1	6	1467	C	N3-C4	-5.96	1.29	1.33
36	5	1791	C	N1-C6	-5.96	1.33	1.37
36	1	2919	A	N3-C4	-5.96	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2975	U	C2-N3	-5.96	1.33	1.37
36	5	2270	A	N9-C4	-5.96	1.34	1.37
36	5	2671	A	N9-C4	-5.96	1.34	1.37
36	5	3146	G	N7-C5	-5.96	1.35	1.39
36	5	569	A	N9-C4	-5.96	1.34	1.37
1	2	353	A	C5-C6	-5.96	1.35	1.41
36	1	39	A	N9-C4	-5.96	1.34	1.37
36	1	3308	C	N3-C4	-5.96	1.29	1.33
36	5	3091	A	N9-C4	-5.96	1.34	1.37
37	7	33	U	C2-N3	-5.96	1.33	1.37
36	5	422	A	C5-C4	-5.96	1.34	1.38
36	5	2182	A	N9-C4	-5.96	1.34	1.37
36	1	511	G	N9-C4	-5.95	1.33	1.38
36	1	1171	G	N3-C4	-5.95	1.31	1.35
36	5	639	G	C6-N1	-5.95	1.35	1.39
36	5	1136	A	C6-N1	-5.95	1.31	1.35
36	5	2637	A	N7-C5	-5.95	1.35	1.39
36	1	435	C	N1-C6	-5.95	1.33	1.37
36	1	3295	A	C6-N1	-5.95	1.31	1.35
36	5	1406	A	N9-C4	-5.95	1.34	1.37
36	5	2701	U	C4-O4	-5.95	1.18	1.23
1	6	151	G	C2-N3	-5.95	1.27	1.32
36	1	1116	G	N1-C2	-5.95	1.32	1.37
1	6	1644	C	N3-C4	-5.95	1.29	1.33
36	5	585	A	N9-C8	-5.95	1.32	1.37
36	5	1607	U	C4-O4	5.95	1.28	1.23
36	5	3061	G	C5-C4	-5.95	1.34	1.38
36	1	397	A	C6-N1	-5.94	1.31	1.35
36	5	1143	A	N9-C4	-5.94	1.34	1.37
36	1	430	U	C2-N3	-5.94	1.33	1.37
36	1	2199	G	N1-C2	-5.94	1.32	1.37
36	1	2981	U	C2-O2	-5.94	1.17	1.22
36	5	2840	C	N3-C4	-5.94	1.29	1.33
36	1	879	U	N1-C2	-5.94	1.33	1.38
36	1	2296	A	C6-N1	-5.94	1.31	1.35
1	6	1375	A	N9-C4	-5.94	1.34	1.37
36	5	3130	A	N7-C5	-5.94	1.35	1.39
36	5	654	C	N3-C4	-5.94	1.29	1.33
38	4	10	A	C6-N1	-5.94	1.31	1.35
1	2	1096	C	N1-C2	5.93	1.46	1.40
36	1	1305	U	N1-C2	-5.93	1.33	1.38
36	5	43	A	C5-C6	-5.93	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1113	A	C6-N1	-5.93	1.31	1.35
36	1	358	G	N7-C5	-5.93	1.35	1.39
36	1	2778	G	C6-N1	-5.93	1.35	1.39
36	5	860	G	C5-C6	-5.93	1.36	1.42
36	5	1103	A	N7-C5	5.93	1.42	1.39
36	1	1314	C	N1-C6	-5.93	1.33	1.37
36	5	637	C	C5-C6	-5.93	1.29	1.34
36	5	3298	C	N1-C6	-5.93	1.33	1.37
25	d3	71	CYS	CB-SG	-5.92	1.72	1.81
36	5	2701	U	C4-C5	-5.92	1.38	1.43
36	1	3054	U	C4-O4	5.92	1.28	1.23
36	5	1003	A	C5-C6	-5.92	1.35	1.41
36	1	2188	A	N3-C4	-5.92	1.31	1.34
36	5	2955	U	N1-C2	-5.92	1.33	1.38
36	5	2882	U	C2-N3	-5.92	1.33	1.37
36	5	2122	G	N9-C4	-5.92	1.33	1.38
36	5	2177	G	C6-N1	-5.92	1.35	1.39
36	5	2704	A	N7-C5	-5.92	1.35	1.39
36	1	1192	C	C2-O2	5.92	1.29	1.24
36	5	1429	G	N3-C4	-5.92	1.31	1.35
36	5	2307	G	N7-C5	-5.92	1.35	1.39
36	5	2316	G	C6-N1	-5.92	1.35	1.39
36	5	2678	A	N9-C4	-5.92	1.34	1.37
36	1	2324	A	C5-C6	-5.92	1.35	1.41
36	1	22	G	N3-C4	-5.91	1.31	1.35
36	1	1305	U	C2-O2	-5.91	1.17	1.22
36	1	1516	C	N3-C4	-5.91	1.29	1.33
36	5	1202	A	N9-C8	-5.91	1.33	1.37
36	5	2382	G	C5-C4	-5.91	1.34	1.38
36	5	2404	A	N7-C5	5.91	1.42	1.39
1	2	1744	A	N3-C4	-5.91	1.31	1.34
36	1	2425	G	C6-N1	-5.91	1.35	1.39
36	1	2607	G	N9-C8	-5.91	1.33	1.37
36	5	561	C	N1-C6	-5.91	1.33	1.37
36	5	3048	A	N7-C5	-5.91	1.35	1.39
58	N2	92	TRP	CB-CG	5.91	1.60	1.50
36	5	1185	C	N1-C6	-5.91	1.33	1.37
36	1	1583	A	N9-C4	-5.91	1.34	1.37
36	1	1906	G	C5-C6	-5.90	1.36	1.42
36	1	2920	U	C4-C5	-5.90	1.38	1.43
36	1	2149	A	N3-C4	-5.90	1.31	1.34
37	3	97	A	N9-C8	-5.90	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	646	A	C6-N1	-5.90	1.31	1.35
36	5	1174	G	N9-C8	-5.90	1.33	1.37
36	1	1163	A	N9-C4	-5.90	1.34	1.37
36	5	2116	G	N3-C4	-5.90	1.31	1.35
36	5	3242	G	N9-C4	5.90	1.42	1.38
36	5	1160	C	N1-C6	-5.90	1.33	1.37
36	5	1477	A	C5-C4	-5.90	1.34	1.38
36	1	962	A	C5-C4	-5.89	1.34	1.38
36	5	3104	U	C2-N3	-5.89	1.33	1.37
56	n0	79	VAL	CB-CG2	-5.89	1.40	1.52
36	1	808	A	C6-N6	-5.89	1.29	1.33
36	1	2279	A	N9-C4	-5.89	1.34	1.37
36	1	2996	U	N3-C4	5.89	1.43	1.38
36	5	1008	U	P-O5'	-5.89	1.53	1.59
36	1	2773	C	N1-C6	-5.89	1.33	1.37
36	5	3012	A	N3-C4	-5.89	1.31	1.34
36	1	1450	G	C2-N3	-5.89	1.28	1.32
36	1	1114	U	C2-N3	-5.89	1.33	1.37
36	1	3140	G	N1-C2	-5.89	1.33	1.37
36	5	895	A	C6-N1	-5.89	1.31	1.35
36	5	984	G	N7-C5	-5.89	1.35	1.39
36	1	751	A	C6-N6	-5.88	1.29	1.33
36	1	1404	G	N9-C8	-5.88	1.33	1.37
1	6	635	A	N9-C4	-5.88	1.34	1.37
36	1	367	A	C5-C4	-5.88	1.34	1.38
36	1	2241	U	N1-C2	-5.88	1.33	1.38
36	5	1163	A	N3-C4	-5.88	1.31	1.34
36	5	2798	C	N1-C6	-5.88	1.33	1.37
36	5	3110	C	N3-C4	-5.88	1.29	1.33
36	1	3213	A	N7-C5	-5.88	1.35	1.39
36	5	981	U	N1-C2	5.88	1.43	1.38
36	5	1625	A	N9-C4	-5.88	1.34	1.37
36	5	2912	G	C5-C4	-5.88	1.34	1.38
36	1	628	A	C6-N1	-5.88	1.31	1.35
36	5	2145	A	C6-N1	-5.88	1.31	1.35
36	1	306	A	C6-N1	-5.87	1.31	1.35
36	1	900	G	N7-C5	-5.87	1.35	1.39
36	1	1182	A	C5-C6	-5.87	1.35	1.41
36	1	2831	G	N9-C4	-5.87	1.33	1.38
1	6	390	G	N7-C5	-5.87	1.35	1.39
1	6	576	G	N7-C5	-5.87	1.35	1.39
36	1	2672	G	C5-C4	-5.87	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2997	G	N7-C5	-5.87	1.35	1.39
36	5	2370	G	N3-C4	-5.87	1.31	1.35
36	5	365	A	N7-C5	-5.87	1.35	1.39
36	5	583	G	C6-N1	-5.87	1.35	1.39
36	5	1152	G	C8-N7	5.87	1.34	1.30
36	5	2242	A	N9-C4	-5.87	1.34	1.37
36	5	2754	G	N1-C2	-5.87	1.33	1.37
36	5	2762	A	N9-C4	-5.87	1.34	1.37
1	6	1594	G	N9-C8	-5.87	1.33	1.37
37	7	73	C	C2-N3	5.87	1.40	1.35
1	2	390	G	N3-C4	-5.87	1.31	1.35
36	5	1406	A	N7-C5	-5.87	1.35	1.39
36	5	2813	A	C6-N1	-5.87	1.31	1.35
36	5	2871	G	N7-C5	5.87	1.42	1.39
36	1	2857	C	N1-C6	-5.86	1.33	1.37
52	M6	80	PHE	CB-CG	-5.86	1.41	1.51
36	1	2738	A	N3-C4	-5.86	1.31	1.34
36	1	431	U	N1-C2	-5.86	1.33	1.38
36	1	1309	U	C2-N3	-5.86	1.33	1.37
36	1	1335	C	N1-C6	-5.86	1.33	1.37
36	1	3139	A	N3-C4	-5.86	1.31	1.34
1	6	19	A	N7-C5	-5.86	1.35	1.39
36	5	88	A	N7-C5	-5.86	1.35	1.39
36	5	752	C	N1-C6	-5.86	1.33	1.37
38	8	12	A	C5-C6	-5.86	1.35	1.41
40	l3	46	PHE	CB-CG	-5.86	1.41	1.51
67	o1	90	PHE	CB-CG	-5.86	1.41	1.51
36	1	1401	A	C8-N7	-5.86	1.27	1.31
36	1	431	U	C2-N3	-5.86	1.33	1.37
36	1	2431	C	N3-C4	-5.86	1.29	1.33
36	5	2831	G	C6-O6	5.86	1.29	1.24
36	5	3013	U	C4-O4	-5.86	1.19	1.23
37	7	121	U	N1-C2	5.86	1.43	1.38
36	5	1557	A	N3-C4	-5.85	1.31	1.34
36	1	3213	A	C5-C6	-5.85	1.35	1.41
36	5	402	A	N9-C8	-5.85	1.33	1.37
36	5	1314	C	C4-C5	-5.85	1.38	1.43
36	1	2877	G	N9-C4	-5.85	1.33	1.38
36	1	3086	A	N3-C4	-5.85	1.31	1.34
36	5	3137	C	N1-C6	-5.85	1.33	1.37
1	2	551	G	N9-C4	-5.85	1.33	1.38
38	4	52	A	N9-C4	-5.85	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1759	C	N1-C6	-5.85	1.33	1.37
36	5	888	A	N9-C4	-5.85	1.34	1.37
36	5	2950	G	N9-C4	-5.85	1.33	1.38
37	7	89	G	C6-N1	5.85	1.43	1.39
36	1	317	A	C6-N1	-5.85	1.31	1.35
36	5	884	A	N9-C8	-5.85	1.33	1.37
36	5	3195	U	C4-O4	5.85	1.28	1.23
38	8	14	C	N1-C6	-5.85	1.33	1.37
36	1	1366	A	N3-C4	-5.85	1.31	1.34
36	5	2940	A	C5-C6	-5.85	1.35	1.41
36	1	2402	A	C5-C4	-5.84	1.34	1.38
1	6	410	A	C6-N1	-5.84	1.31	1.35
36	5	421	G	C6-N1	-5.84	1.35	1.39
36	5	1303	A	C6-N1	-5.84	1.31	1.35
36	1	338	A	C5-C4	-5.84	1.34	1.38
36	1	498	A	C5-C4	-5.84	1.34	1.38
36	5	3110	C	N1-C6	-5.84	1.33	1.37
1	2	978	A	N9-C4	5.84	1.41	1.37
36	1	828	A	C5-C6	-5.84	1.35	1.41
36	1	2811	A	C6-N1	-5.84	1.31	1.35
36	5	559	A	N3-C4	-5.84	1.31	1.34
36	5	920	A	C2-N3	-5.84	1.28	1.33
36	5	1432	C	N3-C4	-5.84	1.29	1.33
36	5	2865	U	C2-N3	-5.84	1.33	1.37
36	5	1148	G	C8-N7	-5.84	1.27	1.30
36	5	2110	G	C6-N1	-5.84	1.35	1.39
36	5	2168	A	C5-C6	-5.84	1.35	1.41
36	5	2703	A	N9-C8	-5.84	1.33	1.37
36	1	209	A	C6-N1	-5.84	1.31	1.35
36	1	2391	G	N9-C8	-5.84	1.33	1.37
36	5	396	A	N3-C4	-5.84	1.31	1.34
36	5	1852	G	C5-C6	-5.84	1.36	1.42
36	1	2779	A	N3-C4	-5.83	1.31	1.34
36	1	2802	A	C5-C6	-5.83	1.35	1.41
36	1	1076	C	N1-C6	-5.83	1.33	1.37
36	1	3083	G	C5-C4	-5.83	1.34	1.38
36	5	755	A	N7-C5	-5.83	1.35	1.39
36	1	1585	C	C2-O2	5.83	1.29	1.24
36	5	2278	C	C2-O2	5.83	1.29	1.24
36	1	1554	U	N3-C4	5.83	1.43	1.38
49	M3	176	GLU	CB-CG	5.83	1.63	1.52
36	5	1180	A	C6-N1	-5.83	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2965	U	N1-C2	-5.83	1.33	1.38
36	1	1313	G	C5-C6	-5.83	1.36	1.42
36	1	3206	C	N1-C6	-5.82	1.33	1.37
47	M0	14	ASN	CB-CG	5.82	1.64	1.51
20	c8	129	TRP	CB-CG	-5.82	1.39	1.50
36	1	2641	U	N1-C6	-5.82	1.32	1.38
1	6	402	C	N1-C6	-5.82	1.33	1.37
36	5	2790	A	N9-C4	-5.82	1.34	1.37
36	1	676	G	N9-C4	5.82	1.42	1.38
36	1	2309	A	C5-C6	-5.82	1.35	1.41
36	5	2119	A	C5-C6	-5.82	1.35	1.41
36	1	2273	G	N3-C4	-5.82	1.31	1.35
36	1	2353	G	C5-C6	-5.82	1.36	1.42
36	5	3129	A	N7-C5	-5.82	1.35	1.39
36	1	3085	G	C5-C4	-5.82	1.34	1.38
36	5	353	G	N7-C5	-5.82	1.35	1.39
1	6	1730	A	C6-N1	-5.81	1.31	1.35
36	1	1171	G	C5-C4	-5.81	1.34	1.38
36	1	1184	A	N3-C4	-5.81	1.31	1.34
36	5	2364	G	C5-C6	-5.81	1.36	1.42
36	1	2383	C	C2-N3	5.81	1.40	1.35
36	1	2672	G	N1-C2	-5.81	1.33	1.37
36	5	2951	G	N1-C2	-5.81	1.33	1.37
36	5	3134	A	C6-N1	-5.81	1.31	1.35
36	5	3140	G	N3-C4	-5.81	1.31	1.35
37	7	84	A	C5-C6	-5.81	1.35	1.41
36	1	1316	C	C2-O2	-5.81	1.19	1.24
36	1	1431	G	N9-C8	-5.81	1.33	1.37
36	1	1877	U	C2-N3	-5.81	1.33	1.37
1	6	1142	A	C6-N1	-5.81	1.31	1.35
36	5	2892	A	C5-C6	-5.81	1.35	1.41
36	1	585	A	N9-C8	-5.81	1.33	1.37
36	5	3195	U	N1-C2	5.81	1.43	1.38
36	1	397	A	C5-C4	-5.80	1.34	1.38
36	1	2884	C	P-O5'	-5.80	1.53	1.59
1	6	1005	A	N3-C4	-5.80	1.31	1.34
36	5	3207	U	C4-O4	5.80	1.28	1.23
36	1	2360	C	C4-C5	-5.80	1.38	1.43
36	1	2964	G	N9-C8	-5.80	1.33	1.37
36	1	3272	C	C4-C5	-5.80	1.38	1.43
1	6	1133	A	N7-C5	-5.80	1.35	1.39
36	5	26	A	N9-C4	-5.80	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	N1	104	GLU	CG-CD	5.80	1.60	1.51
36	5	1784	G	N1-C2	-5.80	1.33	1.37
36	5	889	U	C2-N3	-5.80	1.33	1.37
36	5	2911	A	N3-C4	-5.80	1.31	1.34
36	5	2811	A	C5-C4	-5.80	1.34	1.38
1	6	1159	C	N1-C6	-5.79	1.33	1.37
36	1	1136	A	N3-C4	-5.79	1.31	1.34
1	6	1130	G	N1-C2	-5.79	1.33	1.37
36	1	939	U	C4-C5	-5.79	1.38	1.43
36	1	1377	G	C5-C6	-5.79	1.36	1.42
36	5	980	A	N3-C4	5.79	1.38	1.34
36	1	962	A	N9-C8	-5.79	1.33	1.37
1	6	46	A	N3-C4	-5.79	1.31	1.34
36	1	2651	G	N7-C5	-5.79	1.35	1.39
36	1	2853	A	N9-C4	-5.79	1.34	1.37
36	1	3085	G	N9-C4	-5.79	1.33	1.38
36	5	3148	U	C2-N3	-5.79	1.33	1.37
36	5	3362	A	N7-C5	-5.79	1.35	1.39
36	1	1906	G	N9-C4	-5.78	1.33	1.38
36	5	2303	A	N9-C4	-5.78	1.34	1.37
36	5	2400	G	N7-C5	-5.78	1.35	1.39
36	5	2662	G	C8-N7	-5.78	1.27	1.30
36	1	61	A	N7-C5	-5.78	1.35	1.39
36	1	3009	G	N9-C4	-5.78	1.33	1.38
36	5	3309	G	N1-C2	-5.78	1.33	1.37
1	6	157	A	N9-C4	-5.78	1.34	1.37
36	1	2933	A	C5-C6	-5.78	1.35	1.41
36	5	1185	C	C2-N3	-5.78	1.31	1.35
36	1	659	G	C6-N1	-5.78	1.35	1.39
36	1	2358	A	C5-C4	-5.78	1.34	1.38
1	6	1166	A	N3-C4	-5.78	1.31	1.34
36	5	2302	G	C2-N3	-5.78	1.28	1.32
36	1	2954	U	N1-C2	5.77	1.43	1.38
36	5	951	A	N7-C5	-5.77	1.35	1.39
36	5	1374	G	N9-C4	-5.77	1.33	1.38
36	5	2379	U	N1-C2	-5.77	1.33	1.38
36	5	2947	G	C6-O6	-5.77	1.19	1.24
36	1	1438	U	C2-O2	-5.77	1.17	1.22
1	6	991	G	C2-N3	-5.77	1.28	1.32
36	5	2954	U	C2-N3	5.77	1.41	1.37
36	1	2288	G	N1-C2	-5.77	1.33	1.37
36	1	2302	G	C5-C4	-5.77	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	L5	74	VAL	CA-CB	-5.77	1.42	1.54
36	5	2326	A	N9-C4	-5.77	1.34	1.37
36	5	2342	U	C4-O4	-5.77	1.19	1.23
36	1	77	A	N9-C4	-5.76	1.34	1.37
36	5	651	G	C5-C4	-5.76	1.34	1.38
36	5	1406	A	C5-C4	-5.76	1.34	1.38
36	5	3013	U	C4-C5	-5.76	1.38	1.43
1	6	1548	G	C5-C4	-5.76	1.34	1.38
1	2	1751	C	N1-C6	-5.76	1.33	1.37
36	1	1406	A	C5-C6	-5.76	1.35	1.41
36	1	3244	A	N3-C4	-5.76	1.31	1.34
36	5	589	A	N9-C8	-5.76	1.33	1.37
36	5	1152	G	C2-N3	-5.76	1.28	1.32
36	5	2151	C	N1-C6	-5.76	1.33	1.37
36	1	2201	G	N1-C2	-5.76	1.33	1.37
1	6	1584	G	C5-C4	-5.76	1.34	1.38
36	5	2339	C	C4-C5	-5.76	1.38	1.43
36	5	2647	A	C6-N1	-5.76	1.31	1.35
1	6	367	A	N3-C4	-5.75	1.31	1.34
36	5	2723	U	N3-C4	-5.75	1.33	1.38
36	1	2159	U	C2-O2	5.75	1.27	1.22
1	6	1039	A	N9-C4	-5.75	1.34	1.37
36	1	1373	A	N9-C4	-5.75	1.34	1.37
1	6	96	G	N7-C5	-5.75	1.35	1.39
36	5	2994	A	N9-C4	-5.75	1.34	1.37
36	5	2868	U	C4-C5	-5.75	1.38	1.43
38	8	8	C	C4-C5	-5.75	1.38	1.43
36	1	370	U	C4-C5	-5.75	1.38	1.43
36	1	780	A	C6-N1	-5.75	1.31	1.35
36	1	1891	A	N9-C4	-5.75	1.34	1.37
36	1	1924	U	C2-N3	-5.75	1.33	1.37
36	1	3011	A	C5-C6	-5.75	1.35	1.41
36	5	423	A	C5-C4	-5.75	1.34	1.38
36	5	2419	A	P-O5'	5.75	1.65	1.59
47	M0	49	CYS	CB-SG	-5.75	1.72	1.81
36	5	2936	A	C6-N6	-5.75	1.29	1.33
36	1	1206	G	C8-N7	-5.75	1.27	1.30
36	5	994	G	N9-C8	-5.75	1.33	1.37
36	5	1174	G	C8-N7	-5.74	1.27	1.30
36	1	955	U	N3-C4	-5.74	1.33	1.38
36	1	1163	A	C5-C6	-5.74	1.35	1.41
36	5	3207	U	N1-C6	5.74	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1752	A	C6-N1	-5.74	1.31	1.35
36	1	2833	A	N9-C4	-5.74	1.34	1.37
47	M0	186	GLU	CB-CG	5.74	1.63	1.52
36	5	314	U	N1-C2	-5.74	1.33	1.38
36	5	3004	C	N1-C6	-5.74	1.33	1.37
36	5	3209	A	N9-C8	5.74	1.42	1.37
36	1	1874	A	N7-C5	-5.74	1.35	1.39
36	1	883	A	C6-N6	-5.74	1.29	1.33
36	1	3180	A	N9-C4	-5.74	1.34	1.37
36	5	2868	U	N1-C6	-5.74	1.32	1.38
36	5	3131	U	C2-N3	-5.74	1.33	1.37
36	5	1352	A	N9-C4	5.73	1.41	1.37
36	1	570	A	N9-C4	-5.73	1.34	1.37
1	6	542	A	C6-N1	-5.73	1.31	1.35
36	5	1456	A	C5-C4	-5.73	1.34	1.38
36	1	80	G	N7-C5	-5.73	1.35	1.39
36	1	2377	G	N9-C8	-5.73	1.33	1.37
36	5	1319	G	N9-C8	-5.73	1.33	1.37
40	l3	197	GLU	CG-CD	5.73	1.60	1.51
1	6	1614	A	N7-C5	-5.73	1.35	1.39
36	5	2813	A	C5-C4	-5.73	1.34	1.38
36	5	2837	A	C6-N1	-5.73	1.31	1.35
36	5	3042	U	C4-O4	-5.73	1.19	1.23
36	1	2363	A	N7-C5	-5.73	1.35	1.39
1	6	408	C	N3-C4	-5.73	1.29	1.33
1	6	1638	G	N7-C5	-5.73	1.35	1.39
36	5	563	U	C2-N3	-5.73	1.33	1.37
36	5	3120	C	N1-C6	-5.73	1.33	1.37
36	5	378	A	N9-C4	-5.73	1.34	1.37
36	5	503	C	N3-C4	-5.72	1.29	1.33
36	5	1881	A	N3-C4	-5.72	1.31	1.34
36	5	2100	A	N3-C4	5.72	1.38	1.34
36	5	2952	G	N9-C8	-5.72	1.33	1.37
1	2	1454	G	N9-C8	-5.72	1.33	1.37
36	5	2976	A	N9-C8	-5.72	1.33	1.37
64	n8	16	SER	CA-CB	5.72	1.61	1.52
36	1	2800	G	N3-C4	-5.72	1.31	1.35
36	1	1407	A	C6-N1	-5.72	1.31	1.35
36	1	2401	A	C5-C4	5.72	1.42	1.38
1	6	568	G	C6-N1	-5.72	1.35	1.39
1	6	1111	G	N7-C5	-5.72	1.35	1.39
25	d3	138	GLU	CG-CD	5.72	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1933	A	N9-C4	-5.72	1.34	1.37
36	5	2748	A	N3-C4	-5.72	1.31	1.34
36	1	1154	A	C6-N1	-5.71	1.31	1.35
36	5	2401	A	C6-N6	5.71	1.38	1.33
36	5	844	G	N9-C4	-5.71	1.33	1.38
36	5	2943	G	C2-N3	-5.71	1.28	1.32
1	6	1110	G	N7-C5	-5.71	1.35	1.39
1	6	1116	A	C5-C6	-5.71	1.35	1.41
36	5	2886	U	C2-O2	-5.71	1.17	1.22
36	5	3127	A	C5-C6	-5.71	1.35	1.41
36	1	2093	A	N9-C4	5.71	1.41	1.37
36	5	1307	G	N9-C8	-5.71	1.33	1.37
36	1	607	A	N7-C5	-5.71	1.35	1.39
36	5	3114	A	N9-C4	-5.71	1.34	1.37
37	7	88	G	C6-O6	-5.71	1.19	1.24
36	5	2936	A	C5-C6	-5.71	1.35	1.41
36	5	3180	A	C6-N6	-5.71	1.29	1.33
36	1	1409	G	C5-C4	-5.71	1.34	1.38
36	1	2640	A	C6-N1	-5.71	1.31	1.35
36	5	560	G	N3-C4	-5.70	1.31	1.35
36	5	3047	U	C2-O2	-5.70	1.17	1.22
36	5	3172	A	N7-C5	-5.70	1.35	1.39
36	5	647	A	C6-N1	-5.70	1.31	1.35
1	2	525	A	N9-C4	-5.70	1.34	1.37
36	1	41	G	N9-C4	-5.70	1.33	1.38
36	1	2129	U	N3-C4	-5.70	1.33	1.38
36	1	2985	C	N1-C2	-5.70	1.34	1.40
1	6	933	A	N3-C4	-5.70	1.31	1.34
36	5	884	A	C5-C4	-5.70	1.34	1.38
36	5	2986	U	C2-N3	-5.70	1.33	1.37
36	1	1363	A	C5-C6	-5.70	1.35	1.41
36	1	2974	U	N1-C2	-5.70	1.33	1.38
36	1	3058	U	N1-C2	-5.70	1.33	1.38
36	5	1753	G	C5-C4	-5.70	1.34	1.38
36	1	2697	A	N3-C4	-5.70	1.31	1.34
1	6	1651	A	C6-N1	-5.70	1.31	1.35
36	5	2418	G	C5-C4	5.70	1.42	1.38
36	1	1178	G	C5-C6	-5.70	1.36	1.42
36	1	2860	U	C2-N3	5.70	1.41	1.37
36	1	3098	G	C6-N1	-5.70	1.35	1.39
36	1	585	A	C6-N1	-5.69	1.31	1.35
36	1	1154	A	N9-C4	-5.69	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	582	U	N1-C2	5.69	1.43	1.38
36	1	523	A	N9-C4	-5.69	1.34	1.37
36	1	652	G	N1-C2	-5.69	1.33	1.37
36	1	398	A	N3-C4	5.69	1.38	1.34
36	1	630	A	N7-C5	-5.69	1.35	1.39
36	1	1343	A	N9-C4	-5.69	1.34	1.37
37	7	102	A	C5-C6	-5.69	1.35	1.41
59	n3	137	VAL	CB-CG2	-5.69	1.41	1.52
36	1	807	A	C5-C6	-5.69	1.35	1.41
36	1	939	U	N1-C2	-5.69	1.33	1.38
36	5	1101	G	N1-C2	-5.69	1.33	1.37
36	5	3245	A	N9-C4	-5.69	1.34	1.37
36	5	1432	C	N1-C2	-5.69	1.34	1.40
36	1	2689	A	N7-C5	-5.68	1.35	1.39
36	5	1402	C	N3-C4	-5.68	1.29	1.33
36	5	2816	G	C5-C4	-5.68	1.34	1.38
37	7	98	C	N1-C6	-5.68	1.33	1.37
36	1	402	A	C5-C4	-5.68	1.34	1.38
36	5	3092	C	N1-C6	-5.68	1.33	1.37
36	1	2743	A	C5-C4	-5.68	1.34	1.38
37	7	113	C	N3-C4	-5.68	1.29	1.33
1	6	85	A	N9-C4	-5.68	1.34	1.37
1	6	1119	G	C5-C4	-5.68	1.34	1.38
36	5	2195	C	N3-C4	-5.68	1.29	1.33
36	5	2401	A	N7-C5	5.68	1.42	1.39
36	1	1369	A	N9-C8	-5.68	1.33	1.37
36	1	2185	G	N9-C8	-5.68	1.33	1.37
36	1	2396	G	N7-C5	-5.68	1.35	1.39
1	6	2	A	N9-C4	5.68	1.41	1.37
36	5	900	G	C6-N1	-5.68	1.35	1.39
36	5	946	U	C2-O2	-5.68	1.17	1.22
36	5	3075	G	N9-C4	-5.68	1.33	1.38
36	1	1927	G	N1-C2	-5.67	1.33	1.37
36	1	2913	C	N1-C2	-5.67	1.34	1.40
36	1	906	A	N7-C5	-5.67	1.35	1.39
1	6	1753	A	C2-N3	5.67	1.38	1.33
36	1	633	C	C4-C5	-5.67	1.38	1.43
36	1	3011	A	C6-N6	-5.67	1.29	1.33
1	6	119	A	N3-C4	-5.67	1.31	1.34
1	6	746	A	N3-C4	-5.67	1.31	1.34
36	5	1429	G	N1-C2	-5.67	1.33	1.37
37	7	37	G	N9-C4	5.67	1.42	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1405	U	N3-C4	-5.67	1.33	1.38
39	12	196	TRP	CB-CG	-5.67	1.40	1.50
36	1	967	A	N7-C5	-5.67	1.35	1.39
36	5	2607	G	N9-C8	-5.67	1.33	1.37
36	1	2367	A	N3-C4	-5.67	1.31	1.34
36	5	1332	A	C6-N1	-5.67	1.31	1.35
36	5	1376	C	C4-C5	-5.67	1.38	1.43
1	6	1243	G	N9-C4	5.67	1.42	1.38
36	5	2628	A	N3-C4	-5.67	1.31	1.34
36	5	3139	A	C6-N1	-5.67	1.31	1.35
36	1	1393	A	C6-N1	-5.66	1.31	1.35
36	5	1197	A	N9-C8	-5.66	1.33	1.37
36	5	2879	C	C5-C6	-5.66	1.29	1.34
36	1	2833	A	N3-C4	-5.66	1.31	1.34
36	5	1188	U	C2-O2	-5.66	1.17	1.22
1	6	1525	A	C5-C4	-5.66	1.34	1.38
36	5	1399	A	C5-C6	-5.66	1.35	1.41
36	5	1411	C	N1-C6	-5.66	1.33	1.37
36	5	2641	U	C4-C5	-5.66	1.38	1.43
36	1	1398	U	N3-C4	-5.66	1.33	1.38
1	6	72	A	N9-C4	5.66	1.41	1.37
36	5	876	A	C5-C6	-5.66	1.35	1.41
36	5	2419	A	N3-C4	-5.66	1.31	1.34
36	1	2731	U	N1-C2	-5.66	1.33	1.38
1	6	865	A	N3-C4	-5.66	1.31	1.34
78	q2	96	GLU	CG-CD	5.66	1.60	1.51
36	1	1180	A	C5-C4	-5.66	1.34	1.38
36	1	2628	A	N7-C5	-5.66	1.35	1.39
1	6	779	U	N1-C2	5.66	1.43	1.38
36	5	1166	G	N9-C4	-5.66	1.33	1.38
36	1	25	U	C4-O4	5.65	1.28	1.23
1	6	1000	C	N3-C4	-5.65	1.29	1.33
1	6	1649	G	N7-C5	-5.65	1.35	1.39
36	5	1883	A	N7-C5	-5.65	1.35	1.39
36	5	3009	G	C6-N1	-5.65	1.35	1.39
36	5	512	U	N1-C2	-5.65	1.33	1.38
36	1	3047	U	C2-N3	-5.65	1.33	1.37
1	2	1737	G	N9-C4	-5.64	1.33	1.38
36	1	35	A	C5-C4	-5.64	1.34	1.38
36	1	691	A	C5-C6	-5.64	1.35	1.41
36	1	2794	G	N9-C4	5.64	1.42	1.38
36	5	566	G	N1-C2	-5.64	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1163	A	N7-C5	-5.64	1.35	1.39
36	5	744	A	C5-C6	-5.64	1.35	1.41
36	5	798	G	N7-C5	-5.64	1.35	1.39
4	S2	35	TRP	CB-CG	5.64	1.60	1.50
36	1	920	A	C5-C6	-5.64	1.35	1.41
36	1	1541	G	N7-C5	-5.64	1.35	1.39
37	3	95	A	C6-N1	-5.64	1.31	1.35
36	5	353	G	N3-C4	-5.64	1.31	1.35
36	1	2302	G	C6-N1	-5.64	1.35	1.39
36	5	1861	G	C6-N1	-5.64	1.35	1.39
37	7	87	G	N3-C4	-5.64	1.31	1.35
46	19	11	GLU	CG-CD	5.64	1.60	1.51
36	1	2188	A	C5-C4	-5.63	1.34	1.38
1	6	1517	U	C2-O2	-5.63	1.17	1.22
36	5	944	C	N3-C4	-5.63	1.30	1.33
36	1	1178	G	N9-C4	5.63	1.42	1.38
36	1	1332	A	N7-C5	-5.63	1.35	1.39
36	1	405	U	N1-C2	-5.63	1.33	1.38
36	1	1187	C	N1-C6	-5.63	1.33	1.37
36	5	639	G	N3-C4	-5.63	1.31	1.35
1	6	1139	A	N7-C5	-5.63	1.35	1.39
36	5	1145	G	N9-C8	-5.63	1.33	1.37
36	1	343	U	N3-C4	-5.63	1.33	1.38
36	1	2143	A	N3-C4	-5.63	1.31	1.34
1	6	906	A	N9-C4	-5.63	1.34	1.37
1	6	1642	G	C6-N1	-5.63	1.35	1.39
36	5	2342	U	N3-C4	-5.63	1.33	1.38
36	5	3273	A	N3-C4	-5.63	1.31	1.34
36	5	1101	G	N9-C8	-5.62	1.33	1.37
38	4	103	G	N9-C4	5.62	1.42	1.38
36	5	1200	A	P-O5'	-5.62	1.54	1.59
36	5	2652	U	C4-C5	-5.62	1.38	1.43
36	5	2833	A	C6-N1	-5.62	1.31	1.35
36	1	35	A	N7-C5	-5.62	1.35	1.39
36	1	866	A	N3-C4	-5.62	1.31	1.34
36	1	2629	U	N1-C2	-5.62	1.33	1.38
36	1	2697	A	C6-N1	-5.62	1.31	1.35
36	5	2828	G	C6-N1	-5.62	1.35	1.39
36	5	845	G	C6-O6	5.62	1.29	1.24
36	1	425	G	N7-C5	-5.62	1.35	1.39
36	1	2932	U	N1-C2	-5.62	1.33	1.38
36	5	2113	A	N9-C4	-5.62	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	3119	U	N3-C4	-5.62	1.33	1.38
36	5	3213	A	C5-C6	-5.62	1.35	1.41
36	1	2401	A	N7-C5	5.62	1.42	1.39
36	5	1062	A	N7-C5	-5.62	1.35	1.39
36	5	2307	G	C5-C4	-5.62	1.34	1.38
36	5	2892	A	C5-C4	-5.62	1.34	1.38
36	1	637	C	N3-C4	-5.62	1.30	1.33
36	1	1348	U	N1-C2	5.62	1.43	1.38
36	1	2111	G	C5-C4	-5.62	1.34	1.38
36	1	2185	G	C5-C6	-5.62	1.36	1.42
36	5	3213	A	N3-C4	-5.62	1.31	1.34
38	8	38	U	N1-C2	5.62	1.43	1.38
36	5	1784	G	C5-C4	-5.61	1.34	1.38
36	5	3122	A	C5-C6	-5.61	1.35	1.41
37	7	27	A	C6-N1	-5.61	1.31	1.35
40	l3	106	TRP	CB-CG	-5.61	1.40	1.50
36	1	1888	U	N1-C6	-5.61	1.32	1.38
36	5	911	C	C2-O2	-5.61	1.19	1.24
36	1	2756	C	N1-C6	-5.61	1.33	1.37
1	6	1147	A	N3-C4	-5.61	1.31	1.34
36	5	1535	A	C5-C4	-5.61	1.34	1.38
52	m6	40	GLU	CD-OE1	5.61	1.31	1.25
36	1	1117	G	N7-C5	-5.60	1.35	1.39
36	5	3305	A	N7-C5	-5.60	1.35	1.39
1	2	373	G	N7-C5	-5.60	1.35	1.39
36	1	654	C	N3-C4	-5.60	1.30	1.33
36	5	2371	G	N7-C5	-5.60	1.35	1.39
36	5	3015	G	N3-C4	-5.60	1.31	1.35
36	5	2872	A	C5-C6	5.60	1.46	1.41
36	5	2910	A	N9-C4	-5.60	1.34	1.37
36	1	2149	A	N9-C4	-5.60	1.34	1.37
36	1	2401	A	N9-C8	5.60	1.42	1.37
36	5	651	G	C8-N7	-5.60	1.27	1.30
36	5	3245	A	C2-N3	-5.60	1.28	1.33
79	q3	8	VAL	CB-CG2	-5.60	1.41	1.52
36	5	2995	A	C5-C6	-5.60	1.36	1.41
36	1	52	A	C6-N1	-5.59	1.31	1.35
36	1	2827	U	N3-C4	-5.59	1.33	1.38
36	5	424	G	N7-C5	-5.59	1.35	1.39
36	5	2363	A	N3-C4	-5.59	1.31	1.34
36	5	2830	G	N9-C4	-5.59	1.33	1.38
37	3	87	G	N3-C4	-5.59	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	760	A	N3-C4	-5.59	1.31	1.34
36	5	1863	G	C5-C4	-5.59	1.34	1.38
36	1	780	A	N9-C4	-5.59	1.34	1.37
36	1	2920	U	N1-C2	-5.59	1.33	1.38
1	6	781	U	N1-C2	5.59	1.43	1.38
36	5	1142	G	N7-C5	-5.59	1.35	1.39
36	5	2961	G	C8-N7	-5.59	1.27	1.30
36	1	1143	A	N7-C5	-5.59	1.35	1.39
36	1	1397	C	N1-C6	-5.59	1.33	1.37
37	3	25	G	N1-C2	-5.59	1.33	1.37
37	3	75	G	N3-C4	-5.59	1.31	1.35
1	6	100	A	N7-C5	-5.59	1.35	1.39
36	5	2155	G	N3-C4	-5.59	1.31	1.35
36	5	2259	A	C5-C4	-5.59	1.34	1.38
36	5	2394	G	C2-N3	-5.59	1.28	1.32
36	5	3057	U	C4-C5	-5.59	1.38	1.43
36	5	3144	G	C2-N2	-5.59	1.28	1.34
36	5	3220	G	C6-N1	-5.59	1.35	1.39
36	1	1176	C	C4-C5	-5.58	1.38	1.43
36	1	2520	A	N9-C4	-5.58	1.34	1.37
36	1	2650	U	N3-C4	-5.58	1.33	1.38
36	1	2997	G	C5-C6	-5.58	1.36	1.42
52	M6	166	GLU	CG-CD	5.58	1.60	1.51
1	6	375	U	N1-C2	-5.58	1.33	1.38
36	5	1119	C	N1-C6	-5.58	1.33	1.37
36	1	2273	G	C5-C4	-5.58	1.34	1.38
36	1	2874	G	P-O5'	5.58	1.65	1.59
1	6	1636	C	N1-C6	-5.58	1.33	1.37
36	5	2627	C	N1-C6	-5.58	1.33	1.37
36	1	2971	A	N3-C4	5.58	1.38	1.34
36	5	1141	C	C4-N4	-5.58	1.28	1.33
36	1	964	G	N7-C5	-5.58	1.35	1.39
36	1	1432	C	N1-C2	-5.58	1.34	1.40
36	1	2155	G	C6-N1	-5.58	1.35	1.39
36	5	1137	C	N1-C6	-5.58	1.33	1.37
36	5	3224	G	C5-C4	-5.58	1.34	1.38
36	5	2151	C	N3-C4	-5.58	1.30	1.33
36	5	3226	A	C6-N1	-5.58	1.31	1.35
36	5	2379	U	C2-O2	-5.57	1.17	1.22
36	1	909	G	C5-C6	-5.57	1.36	1.42
36	1	2111	G	C6-N1	-5.57	1.35	1.39
36	1	2335	G	N1-C2	-5.57	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	635	G	N7-C5	-5.57	1.35	1.39
36	1	1310	G	C6-O6	-5.57	1.19	1.24
36	5	281	G	C6-N1	-5.57	1.35	1.39
36	1	1169	A	C5-C4	-5.57	1.34	1.38
36	1	13	A	N7-C5	-5.57	1.35	1.39
53	M7	83	TRP	CB-CG	-5.57	1.40	1.50
36	1	628	A	N9-C4	-5.57	1.34	1.37
36	1	1180	A	P-O5'	-5.57	1.54	1.59
36	1	1096	U	P-O5'	5.56	1.65	1.59
36	1	2321	A	N9-C4	-5.56	1.34	1.37
36	1	1145	G	C8-N7	-5.56	1.27	1.30
36	1	2213	A	N9-C4	-5.56	1.34	1.37
36	5	501	A	C5-C4	-5.56	1.34	1.38
36	5	1473	G	N1-C2	-5.56	1.33	1.37
36	5	1665	C	N3-C4	-5.56	1.30	1.33
36	5	1897	G	N7-C5	-5.56	1.35	1.39
36	5	2748	A	C2-N3	-5.56	1.28	1.33
38	8	106	C	N1-C6	-5.56	1.33	1.37
36	5	349	A	N3-C4	-5.56	1.31	1.34
36	5	2933	A	C5-C4	-5.56	1.34	1.38
36	1	1207	G	N7-C5	-5.56	1.35	1.39
36	1	1361	U	N1-C2	-5.56	1.33	1.38
36	1	2145	A	C6-N1	-5.56	1.31	1.35
36	5	789	A	C6-N1	-5.56	1.31	1.35
36	5	2648	G	N9-C8	-5.56	1.33	1.37
36	5	2884	C	C2-O2	-5.56	1.19	1.24
36	5	3034	C	N1-C6	-5.56	1.33	1.37
1	2	562	G	C6-N1	-5.56	1.35	1.39
36	1	980	A	N9-C4	5.56	1.41	1.37
36	1	1791	C	N3-C4	-5.56	1.30	1.33
36	5	923	C	N3-C4	-5.56	1.30	1.33
36	5	566	G	C6-N1	-5.56	1.35	1.39
36	5	2670	G	N3-C4	-5.56	1.31	1.35
36	1	666	A	C6-N1	-5.55	1.31	1.35
36	5	1205	A	N7-C5	-5.55	1.35	1.39
36	5	3112	G	C5-C4	-5.55	1.34	1.38
36	1	1438	U	N1-C2	-5.55	1.33	1.38
36	1	1506	A	N9-C4	-5.55	1.34	1.37
36	1	2699	G	N9-C4	-5.55	1.33	1.38
36	1	3085	G	N7-C5	-5.55	1.35	1.39
1	6	318	U	N1-C2	-5.55	1.33	1.38
1	6	788	A	N9-C4	-5.55	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	842	G	C5-C4	-5.55	1.34	1.38
36	1	335	G	C5-C6	-5.55	1.36	1.42
1	6	1529	C	N1-C6	-5.55	1.33	1.37
1	2	623	A	N3-C4	-5.55	1.31	1.34
36	5	1451	C	C4-C5	-5.55	1.38	1.43
36	5	3181	C	N3-C4	-5.55	1.30	1.33
1	6	1002	G	C5-C4	-5.54	1.34	1.38
36	5	1136	A	C5-C4	-5.54	1.34	1.38
1	2	449	C	N3-C4	-5.54	1.30	1.33
36	1	2402	A	C6-N6	-5.54	1.29	1.33
36	5	847	A	N3-C4	-5.54	1.31	1.34
1	2	390	G	C2-N3	-5.54	1.28	1.32
36	1	1400	G	N7-C5	-5.54	1.35	1.39
36	5	3038	U	C4-C5	-5.54	1.38	1.43
36	1	640	U	N1-C2	-5.54	1.33	1.38
36	5	958	C	N1-C2	-5.54	1.34	1.40
36	5	3046	A	N9-C4	-5.54	1.34	1.37
36	1	2145	A	C5-C4	-5.54	1.34	1.38
1	6	1631	A	N9-C4	-5.54	1.34	1.37
36	5	2731	U	N3-C4	-5.54	1.33	1.38
36	5	2807	U	C4-C5	-5.54	1.38	1.43
36	1	1886	A	C5-C4	-5.54	1.34	1.38
1	6	781	U	C2-N3	5.54	1.41	1.37
36	5	725	G	C6-N1	-5.54	1.35	1.39
36	1	900	G	N3-C4	-5.53	1.31	1.35
36	1	2647	A	C5-C6	-5.53	1.36	1.41
36	5	2973	G	C2-N3	-5.53	1.28	1.32
36	1	2305	G	C6-N1	-5.53	1.35	1.39
1	6	1597	A	N7-C5	-5.53	1.35	1.39
36	5	2863	G	N3-C4	-5.53	1.31	1.35
36	1	3273	A	N1-C2	-5.53	1.29	1.34
36	5	199	A	N9-C4	5.53	1.41	1.37
36	5	2993	G	N7-C5	-5.53	1.35	1.39
37	7	25	G	C5-C4	-5.53	1.34	1.38
36	1	2649	A	C5-C6	-5.53	1.36	1.41
36	5	583	G	N3-C4	-5.53	1.31	1.35
38	8	1	A	N9-C8	-5.53	1.33	1.37
36	5	3086	A	N9-C4	-5.53	1.34	1.37
36	5	2244	A	P-O5'	-5.53	1.54	1.59
36	5	2632	G	C8-N7	-5.53	1.27	1.30
36	1	943	U	N1-C2	-5.52	1.33	1.38
36	5	1005	G	N3-C4	-5.52	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2378	C	N1-C2	-5.52	1.34	1.40
36	1	3045	G	C5-C6	-5.52	1.36	1.42
36	5	2307	G	N9-C4	-5.52	1.33	1.38
36	5	2616	C	C2-O2	-5.52	1.19	1.24
36	1	619	A	N3-C4	5.52	1.38	1.34
36	1	2153	U	C4-O4	-5.52	1.19	1.23
36	1	2881	C	C2-O2	5.52	1.29	1.24
36	1	3027	A	N9-C4	-5.52	1.34	1.37
38	4	52	A	C6-N1	-5.52	1.31	1.35
36	5	644	G	N9-C4	5.52	1.42	1.38
36	5	2630	C	N1-C6	-5.52	1.33	1.37
36	1	424	G	C6-O6	-5.51	1.19	1.24
36	1	744	A	N3-C4	-5.51	1.31	1.34
36	1	1913	A	N3-C4	-5.51	1.31	1.34
36	5	1589	A	C5-C4	-5.51	1.34	1.38
36	5	1908	A	N9-C4	5.51	1.41	1.37
36	5	2647	A	N3-C4	-5.51	1.31	1.34
36	5	2871	G	C5-C4	5.51	1.42	1.38
36	5	3056	U	C2-N3	-5.51	1.33	1.37
37	7	49	G	N9-C4	-5.51	1.33	1.38
36	1	2858	U	N1-C6	-5.51	1.32	1.38
36	5	1305	U	N1-C6	-5.51	1.32	1.38
36	5	2968	G	N9-C8	-5.51	1.33	1.37
36	5	588	G	C6-N1	-5.51	1.35	1.39
36	5	2172	A	C6-N1	-5.51	1.31	1.35
37	7	14	U	N1-C6	-5.51	1.32	1.38
36	1	691	A	N7-C5	-5.51	1.35	1.39
36	5	1116	G	C5-C4	-5.51	1.34	1.38
36	5	1182	A	C5-C4	-5.51	1.34	1.38
36	5	1397	C	N1-C6	-5.51	1.33	1.37
36	5	2703	A	P-O5'	-5.51	1.54	1.59
36	5	2757	U	N3-C4	-5.51	1.33	1.38
36	1	2996	U	C2-N3	5.51	1.41	1.37
36	1	3008	A	N9-C4	-5.51	1.34	1.37
36	5	3045	G	N3-C4	-5.51	1.31	1.35
36	1	2403	G	N9-C4	5.50	1.42	1.38
36	5	2848	G	N9-C4	-5.50	1.33	1.38
36	5	668	G	N3-C4	-5.50	1.31	1.35
36	5	1047	A	N9-C4	-5.50	1.34	1.37
36	5	2665	U	C2-N3	-5.50	1.33	1.37
36	5	3065	G	N3-C4	-5.50	1.31	1.35
36	1	2891	U	N1-C2	-5.50	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2980	U	N1-C6	-5.50	1.33	1.38
36	5	1193	A	N7-C5	-5.50	1.35	1.39
36	5	1217	A	C5-C4	-5.50	1.34	1.38
36	5	2188	A	N3-C4	-5.50	1.31	1.34
36	1	1467	A	N9-C4	-5.50	1.34	1.37
36	1	2940	A	N7-C5	-5.50	1.35	1.39
36	5	2409	G	N7-C5	-5.50	1.35	1.39
36	5	2618	G	P-O5'	-5.50	1.54	1.59
37	7	117	A	N3-C4	-5.50	1.31	1.34
1	2	323	A	N9-C4	-5.50	1.34	1.37
36	1	34	A	C5-C6	-5.49	1.36	1.41
36	1	2415	C	N1-C6	-5.49	1.33	1.37
36	1	3022	G	C5-C6	-5.49	1.36	1.42
36	5	2187	G	N3-C4	-5.49	1.31	1.35
1	2	42	G	N9-C8	-5.49	1.34	1.37
36	5	951	A	N3-C4	-5.49	1.31	1.34
36	5	3026	G	C8-N7	-5.49	1.27	1.30
36	1	1079	A	N3-C4	-5.49	1.31	1.34
36	1	2755	C	C2-N3	-5.49	1.31	1.35
36	1	3150	A	N7-C5	-5.49	1.35	1.39
36	5	1869	C	N1-C6	-5.49	1.33	1.37
36	5	1916	U	C2-N3	-5.49	1.33	1.37
36	5	3124	G	C5-C6	-5.49	1.36	1.42
36	1	2994	A	N3-C4	-5.49	1.31	1.34
36	1	3210	A	C6-N1	-5.49	1.31	1.35
36	5	2628	A	C6-N1	-5.49	1.31	1.35
36	5	2918	G	N1-C2	-5.49	1.33	1.37
36	5	2950	G	N7-C5	-5.49	1.35	1.39
36	5	3262	U	C2-O2	-5.49	1.17	1.22
36	5	2130	G	N3-C4	-5.49	1.31	1.35
36	5	1370	G	C2-N3	-5.49	1.28	1.32
36	5	2995	A	C5-C4	-5.49	1.34	1.38
1	6	1300	A	C5-C4	-5.48	1.34	1.38
1	2	1786	G	N3-C4	-5.48	1.31	1.35
36	1	2875	U	C5-C6	5.48	1.39	1.34
1	6	631	G	N3-C4	-5.48	1.31	1.35
1	6	1111	G	C6-N1	-5.48	1.35	1.39
1	6	1584	G	C5-C6	-5.48	1.36	1.42
36	5	915	A	N7-C5	-5.48	1.35	1.39
36	5	3139	A	N9-C8	-5.48	1.33	1.37
36	5	3299	A	N3-C4	-5.48	1.31	1.34
1	6	1127	G	C6-N1	5.48	1.43	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	356	C	N1-C6	-5.48	1.33	1.37
36	5	844	G	C5-C4	-5.48	1.34	1.38
36	5	1311	G	N9-C8	-5.48	1.34	1.37
36	5	2606	G	N9-C4	-5.48	1.33	1.38
36	1	650	C	N1-C6	-5.48	1.33	1.37
36	1	1417	G	N9-C4	-5.48	1.33	1.38
36	5	2188	A	N9-C4	-5.48	1.34	1.37
36	1	3130	A	C5-C6	-5.48	1.36	1.41
36	5	651	G	C6-N1	-5.48	1.35	1.39
36	5	1076	C	N3-C4	-5.48	1.30	1.33
36	5	2830	G	N9-C8	-5.48	1.34	1.37
43	16	52	VAL	CB-CG2	-5.48	1.41	1.52
36	1	518	G	N9-C4	-5.48	1.33	1.38
36	5	2124	G	N7-C5	-5.48	1.35	1.39
36	1	1401	A	N9-C8	-5.47	1.33	1.37
36	1	3121	U	N1-C6	-5.47	1.33	1.38
36	5	1309	U	C2-O2	-5.47	1.17	1.22
36	5	1892	G	C5-C4	-5.47	1.34	1.38
36	5	2353	G	C6-O6	-5.47	1.19	1.24
38	8	15	G	N3-C4	-5.47	1.31	1.35
38	8	111	A	C5-C6	-5.47	1.36	1.41
36	1	916	G	C6-N1	-5.47	1.35	1.39
36	1	1186	G	C6-N1	-5.47	1.35	1.39
36	5	1894	U	N1-C6	-5.47	1.33	1.38
36	5	2117	A	C6-N1	-5.47	1.31	1.35
36	5	2886	U	N1-C6	-5.47	1.33	1.38
36	5	3047	U	C2-N3	-5.47	1.33	1.37
57	n1	107	GLU	CG-CD	5.47	1.60	1.51
36	1	2122	G	N9-C8	5.47	1.41	1.37
36	5	2159	U	N1-C2	5.47	1.43	1.38
36	5	2616	C	C4-C5	-5.47	1.38	1.43
36	1	659	G	N3-C4	-5.47	1.31	1.35
36	1	973	A	N3-C4	-5.47	1.31	1.34
36	1	1599	G	N3-C4	-5.47	1.31	1.35
36	1	2394	G	N3-C4	-5.47	1.31	1.35
36	1	2831	G	C2-N3	-5.47	1.28	1.32
1	6	615	A	N3-C4	-5.47	1.31	1.34
36	5	1156	C	P-O5'	-5.47	1.54	1.59
36	5	1157	G	N9-C8	-5.47	1.34	1.37
36	5	3180	A	C6-N1	-5.47	1.31	1.35
36	5	3194	C	N1-C6	-5.47	1.33	1.37
36	5	2382	G	N3-C4	-5.47	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2994	A	C6-N1	-5.47	1.31	1.35
36	1	522	A	C6-N1	-5.46	1.31	1.35
36	1	1522	U	C2-N3	-5.46	1.33	1.37
36	1	3226	A	N9-C4	-5.46	1.34	1.37
37	7	45	A	C6-N1	-5.46	1.31	1.35
55	m9	140	GLU	CG-CD	5.46	1.60	1.51
36	1	2821	C	C4-N4	5.46	1.38	1.33
36	5	1136	A	N9-C8	-5.46	1.33	1.37
36	5	2390	A	N9-C4	-5.46	1.34	1.37
36	5	3083	G	N9-C4	-5.46	1.33	1.38
37	7	46	A	C5-C6	-5.46	1.36	1.41
36	1	944	C	N1-C6	-5.46	1.33	1.37
1	6	1525	A	N9-C4	-5.46	1.34	1.37
40	l3	72	VAL	CA-CB	-5.46	1.43	1.54
36	1	1431	G	N1-C2	-5.46	1.33	1.37
36	1	2924	U	N1-C2	-5.46	1.33	1.38
36	1	3010	U	N1-C2	-5.46	1.33	1.38
36	5	428	A	N3-C4	-5.46	1.31	1.34
36	5	505	G	C2-N3	-5.46	1.28	1.32
36	5	2401	A	C6-N1	5.46	1.39	1.35
36	5	2916	U	C4-O4	-5.46	1.19	1.23
36	1	1362	G	N9-C4	-5.46	1.33	1.38
36	5	1186	G	P-O5'	-5.46	1.54	1.59
36	5	888	A	N7-C5	-5.45	1.35	1.39
36	5	1117	G	C6-N1	-5.45	1.35	1.39
36	5	2881	C	N1-C6	-5.45	1.33	1.37
1	2	1146	G	N7-C5	-5.45	1.35	1.39
36	1	741	U	N1-C2	-5.45	1.33	1.38
36	1	2153	U	N3-C4	-5.45	1.33	1.38
36	5	1047	A	C5-C4	-5.45	1.34	1.38
36	5	1143	A	N7-C5	-5.45	1.35	1.39
36	5	2649	A	C5-C6	-5.45	1.36	1.41
36	5	2717	U	N1-C2	-5.45	1.33	1.38
1	2	162	A	N9-C4	5.45	1.41	1.37
36	1	1310	G	N3-C4	-5.45	1.31	1.35
36	5	1195	A	C6-N1	-5.45	1.31	1.35
36	5	1594	A	N3-C4	-5.45	1.31	1.34
36	1	85	A	N9-C4	-5.45	1.34	1.37
36	5	706	A	C5-C4	-5.45	1.34	1.38
36	5	789	A	N9-C4	-5.45	1.34	1.37
36	5	2754	G	C5-C4	-5.45	1.34	1.38
36	5	925	A	C6-N1	5.45	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1153	A	C5-C4	-5.45	1.34	1.38
36	5	2614	G	N1-C2	-5.45	1.33	1.37
36	5	2908	G	N9-C4	-5.45	1.33	1.38
36	5	2279	A	C6-N1	-5.44	1.31	1.35
36	1	2638	C	N3-C4	-5.44	1.30	1.33
36	1	3184	A	N3-C4	-5.44	1.31	1.34
38	4	20	U	N1-C2	-5.44	1.33	1.38
36	5	1177	G	C5-C4	-5.44	1.34	1.38
36	5	2934	A	N9-C4	-5.44	1.34	1.37
36	1	1306	G	C5-C6	-5.44	1.36	1.42
1	6	1638	G	N3-C4	-5.44	1.31	1.35
36	5	633	C	C5-C6	-5.44	1.29	1.34
36	5	943	U	C2-O2	-5.44	1.17	1.22
36	5	1175	C	C2-O2	-5.44	1.19	1.24
36	5	1382	G	N9-C4	-5.44	1.33	1.38
36	5	2369	G	N9-C8	-5.44	1.34	1.37
52	m6	135	TYR	CD1-CE1	-5.44	1.31	1.39
1	2	1782	A	N9-C4	-5.44	1.34	1.37
1	6	399	A	N9-C4	-5.44	1.34	1.37
36	5	2242	A	C5-C4	-5.44	1.34	1.38
37	7	39	C	C4-C5	-5.44	1.38	1.43
36	1	1513	G	N7-C5	-5.44	1.35	1.39
36	1	2107	A	C6-N1	-5.44	1.31	1.35
1	6	294	C	N1-C6	-5.44	1.33	1.37
36	5	1435	A	C6-N1	-5.44	1.31	1.35
36	1	2603	G	N7-C5	-5.44	1.35	1.39
36	1	2702	A	N7-C5	-5.44	1.35	1.39
36	5	2601	A	C5-C4	-5.44	1.34	1.38
36	1	935	U	N1-C6	-5.43	1.33	1.38
36	1	1210	U	C2-N3	-5.43	1.33	1.37
36	5	2422	C	N1-C6	-5.43	1.33	1.37
36	5	2819	A	N1-C2	-5.43	1.29	1.34
36	1	1353	U	N1-C2	5.43	1.43	1.38
36	1	958	C	N1-C6	-5.43	1.33	1.37
36	1	272	G	C2-N3	-5.43	1.28	1.32
36	1	985	U	C2-O2	-5.43	1.17	1.22
36	1	1928	G	N9-C4	-5.43	1.33	1.38
1	6	317	C	N1-C6	-5.43	1.33	1.37
4	s2	120	GLU	CG-CD	5.43	1.60	1.51
36	5	1135	A	N3-C4	-5.43	1.31	1.34
36	5	1203	A	C5-C4	-5.43	1.34	1.38
36	5	3046	A	C6-N6	-5.43	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	m1	157	GLU	CB-CG	5.43	1.62	1.52
36	1	2157	G	N9-C8	-5.43	1.34	1.37
36	1	2605	G	C5-C4	-5.43	1.34	1.38
36	5	804	C	C2-N3	5.43	1.40	1.35
36	5	1487	G	N7-C5	-5.43	1.35	1.39
36	1	638	C	C5-C6	-5.42	1.30	1.34
36	1	2639	G	N7-C5	-5.42	1.35	1.39
36	1	2799	A	C6-N1	-5.42	1.31	1.35
36	1	644	G	N1-C2	-5.42	1.33	1.37
36	1	934	G	N1-C2	-5.42	1.33	1.37
36	1	2954	U	N1-C6	5.42	1.42	1.38
1	6	1118	G	N3-C4	-5.42	1.31	1.35
36	5	418	A	C5-C4	-5.42	1.34	1.38
36	5	518	G	N9-C4	-5.42	1.33	1.38
38	8	44	A	N7-C5	-5.42	1.35	1.39
36	1	931	C	C4-C5	-5.42	1.38	1.43
36	1	2918	G	N7-C5	-5.42	1.35	1.39
36	5	661	G	C6-N1	-5.42	1.35	1.39
36	5	3060	C	N1-C6	-5.42	1.33	1.37
36	1	206	G	N9-C8	-5.42	1.34	1.37
36	1	2812	C	C2-O2	-5.42	1.19	1.24
1	6	407	A	C5-C6	-5.42	1.36	1.41
21	c9	144	GLU	CB-CG	5.42	1.62	1.52
36	5	1107	C	N3-C4	-5.42	1.30	1.33
36	1	512	U	C4-O4	5.42	1.27	1.23
36	1	2755	C	N1-C6	-5.42	1.33	1.37
36	1	3098	G	N1-C2	-5.42	1.33	1.37
36	5	325	A	N9-C4	-5.42	1.34	1.37
36	5	1320	C	C4-C5	-5.42	1.38	1.43
36	5	2358	A	N3-C4	-5.42	1.31	1.34
36	1	2639	G	C5-C6	-5.42	1.36	1.42
36	5	1293	U	C4-O4	-5.42	1.19	1.23
37	3	97	A	C5-C4	-5.41	1.34	1.38
1	6	1	U	N1-C2	5.41	1.43	1.38
36	5	2917	G	C2-N3	-5.41	1.28	1.32
36	1	3007	U	C2-N3	-5.41	1.33	1.37
36	1	2156	C	N3-C4	-5.41	1.30	1.33
1	6	1645	G	N9-C4	5.41	1.42	1.38
36	1	1135	A	C6-N1	-5.41	1.31	1.35
36	5	1901	A	N1-C2	-5.41	1.29	1.34
36	5	2110	G	C5-C4	-5.41	1.34	1.38
36	5	2915	U	N1-C6	-5.41	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2323	G	N9-C8	-5.41	1.34	1.37
36	1	284	A	N7-C5	-5.41	1.36	1.39
1	6	1028	C	N3-C4	-5.41	1.30	1.33
36	5	2418	G	C2-N3	5.41	1.37	1.32
1	6	746	A	C6-N1	-5.40	1.31	1.35
36	5	2343	C	C2-N3	-5.40	1.31	1.35
36	5	2936	A	N7-C5	-5.40	1.36	1.39
36	5	3310	A	N9-C8	-5.40	1.33	1.37
1	2	974	A	N9-C4	-5.40	1.34	1.37
36	1	2332	A	C5-C6	-5.40	1.36	1.41
36	1	2917	G	C5-C4	-5.40	1.34	1.38
36	5	344	A	N7-C5	-5.40	1.36	1.39
36	5	1161	G	N3-C4	-5.40	1.31	1.35
36	5	1422	G	N7-C5	-5.40	1.36	1.39
37	7	42	A	N9-C8	-5.40	1.33	1.37
1	6	28	A	C6-N1	-5.40	1.31	1.35
1	6	1655	A	N9-C4	-5.40	1.34	1.37
36	5	998	A	C6-N1	-5.40	1.31	1.35
36	5	2185	G	N3-C4	-5.40	1.31	1.35
36	1	2848	G	C5-C4	-5.40	1.34	1.38
1	6	1634	C	N1-C2	5.40	1.45	1.40
36	5	3182	G	N1-C2	-5.40	1.33	1.37
38	8	15	G	N9-C8	-5.40	1.34	1.37
36	1	93	C	C4-C5	-5.40	1.38	1.43
37	7	88	G	C5-C4	-5.40	1.34	1.38
36	1	375	A	N9-C4	-5.39	1.34	1.37
36	1	2659	G	C5-C6	-5.39	1.36	1.42
38	4	13	A	C6-N1	-5.39	1.31	1.35
36	1	333	G	C6-N1	-5.39	1.35	1.39
36	1	1295	G	N1-C2	-5.39	1.33	1.37
36	1	2803	A	C5-C4	-5.39	1.34	1.38
36	1	2958	A	C6-N1	-5.39	1.31	1.35
37	7	90	U	P-O5'	-5.39	1.54	1.59
1	2	470	A	N9-C4	-5.39	1.34	1.37
36	1	2922	G	N1-C2	-5.39	1.33	1.37
36	5	2994	A	C5-C6	-5.39	1.36	1.41
36	5	3199	G	N7-C5	-5.39	1.36	1.39
36	1	941	G	N9-C8	-5.39	1.34	1.37
36	5	66	A	N9-C4	-5.39	1.34	1.37
36	5	589	A	N9-C4	-5.39	1.34	1.37
36	5	2311	G	N3-C4	-5.39	1.31	1.35
37	7	102	A	N3-C4	-5.39	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1003	A	C5-C6	-5.39	1.36	1.41
36	5	755	A	C5-C6	-5.39	1.36	1.41
1	2	632	U	C2-N3	-5.39	1.33	1.37
1	2	1322	A	N9-C4	-5.39	1.34	1.37
36	1	2229	A	C5-C6	-5.39	1.36	1.41
36	5	1025	A	N9-C4	5.39	1.41	1.37
36	5	423	A	N3-C4	-5.38	1.31	1.34
36	5	2933	A	N7-C5	-5.38	1.36	1.39
1	2	1795	U	N1-C2	5.38	1.43	1.38
1	6	1631	A	C5-C4	-5.38	1.34	1.38
36	5	1060	U	C4-O4	-5.38	1.19	1.23
36	5	1881	A	N7-C5	-5.38	1.36	1.39
36	5	2367	A	C5-C6	-5.38	1.36	1.41
76	q0	115	CYS	CB-SG	-5.38	1.73	1.81
36	1	920	A	C5-C4	-5.38	1.34	1.38
36	1	1341	U	C4-C5	-5.38	1.38	1.43
36	1	2988	C	C2-N3	-5.38	1.31	1.35
36	5	1376	C	N1-C6	-5.38	1.33	1.37
36	5	2637	A	C5-C4	-5.38	1.34	1.38
1	6	100	A	N9-C4	-5.38	1.34	1.37
36	5	984	G	C5-C4	-5.38	1.34	1.38
36	5	1178	G	C5-C4	-5.38	1.34	1.38
36	5	1304	A	P-O5'	-5.38	1.54	1.59
36	5	2348	A	N3-C4	-5.38	1.31	1.34
36	1	3049	A	C5-C4	-5.37	1.34	1.38
36	1	1402	C	N1-C6	-5.37	1.33	1.37
36	1	2344	U	C2-N3	-5.37	1.33	1.37
36	5	969	C	N1-C2	-5.37	1.34	1.40
44	17	78	GLU	CG-CD	5.37	1.60	1.51
36	1	3049	A	N9-C8	-5.37	1.33	1.37
1	6	1547	A	C5-C6	-5.37	1.36	1.41
1	6	1610	G	C8-N7	-5.37	1.27	1.30
36	5	1443	G	N9-C4	-5.37	1.33	1.38
36	1	677	A	C5-C4	-5.37	1.34	1.38
36	1	1440	G	C6-N1	-5.37	1.35	1.39
36	1	3141	A	N9-C4	-5.37	1.34	1.37
37	3	10	C	C4-C5	-5.37	1.38	1.43
37	3	25	G	C6-N1	-5.37	1.35	1.39
38	4	4	C	C2-O2	-5.37	1.19	1.24
1	6	1460	A	N9-C4	-5.37	1.34	1.37
36	5	40	A	N3-C4	-5.37	1.31	1.34
36	1	1613	A	N9-C4	-5.37	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2259	A	C5-C6	-5.37	1.36	1.41
36	5	2641	U	N1-C6	-5.37	1.33	1.38
36	1	1296	C	N3-C4	-5.37	1.30	1.33
36	1	2423	U	C2-N3	5.37	1.41	1.37
36	5	1461	A	C5-C4	-5.37	1.34	1.38
36	5	2411	U	C2-O2	-5.37	1.17	1.22
37	7	25	G	C6-O6	-5.37	1.19	1.24
37	7	99	G	N9-C4	-5.37	1.33	1.38
1	2	7	G	N7-C5	-5.36	1.36	1.39
36	1	2143	A	C5-C6	-5.36	1.36	1.41
36	1	3244	A	C5-C6	-5.36	1.36	1.41
36	5	2631	U	N1-C2	-5.36	1.33	1.38
36	1	2880	U	C2-N3	-5.36	1.33	1.37
36	1	365	A	C6-N1	-5.36	1.31	1.35
36	1	949	C	N1-C6	-5.36	1.33	1.37
36	1	1911	A	C5-C4	-5.36	1.34	1.38
1	6	415	C	N3-C4	-5.36	1.30	1.33
1	6	815	G	N9-C4	-5.36	1.33	1.38
36	5	981	U	N1-C6	5.36	1.42	1.38
36	5	1332	A	C8-N7	-5.36	1.27	1.31
36	5	2956	A	C6-N6	-5.36	1.29	1.33
36	5	3272	C	N1-C6	-5.36	1.33	1.37
36	1	1460	A	N3-C4	-5.36	1.31	1.34
37	3	89	G	N9-C8	-5.36	1.34	1.37
36	5	916	G	C5-C4	-5.36	1.34	1.38
36	5	917	A	C5-C4	-5.36	1.35	1.38
36	5	1153	A	C5-C6	-5.36	1.36	1.41
36	5	1200	A	C6-N1	-5.36	1.31	1.35
36	5	2255	A	C5-C4	-5.36	1.34	1.38
46	19	181	VAL	CB-CG2	-5.36	1.41	1.52
52	m6	40	GLU	CD-OE2	5.36	1.31	1.25
36	1	1135	A	N7-C5	-5.36	1.36	1.39
36	1	1349	G	N9-C4	5.36	1.42	1.38
36	1	1915	A	N3-C4	-5.36	1.31	1.34
36	1	2146	C	N1-C6	-5.36	1.33	1.37
1	6	1580	C	N1-C6	-5.36	1.33	1.37
36	5	1062	A	C5-C6	-5.36	1.36	1.41
36	5	1860	G	C6-N1	-5.36	1.35	1.39
36	5	2167	A	N3-C4	-5.36	1.31	1.34
36	1	205	C	N1-C6	-5.35	1.33	1.37
1	6	1004	U	N3-C4	-5.35	1.33	1.38
36	5	3314	A	N7-C5	-5.35	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	1133	A	N3-C4	-5.35	1.31	1.34
36	1	1175	C	N1-C2	-5.35	1.34	1.40
36	5	2317	A	N3-C4	-5.35	1.31	1.34
36	5	2996	U	C2-O2	5.35	1.27	1.22
36	5	3211	C	N1-C6	-5.35	1.33	1.37
36	1	1886	A	C2-N3	-5.35	1.28	1.33
36	1	3175	U	N1-C2	5.35	1.43	1.38
38	8	14	C	N1-C2	-5.35	1.34	1.40
40	13	358	TRP	CB-CG	-5.35	1.40	1.50
36	1	402	A	C6-N6	-5.35	1.29	1.33
36	5	353	G	N9-C4	-5.35	1.33	1.38
36	5	400	G	N9-C4	-5.35	1.33	1.38
36	5	1056	U	N1-C2	5.35	1.43	1.38
36	5	1085	A	C5-C6	-5.35	1.36	1.41
37	7	45	A	N7-C5	5.35	1.42	1.39
1	6	1117	U	N1-C2	-5.35	1.33	1.38
36	1	411	U	N1-C2	-5.34	1.33	1.38
36	1	1836	C	N1-C6	-5.34	1.33	1.37
1	6	1004	U	C2-N3	-5.34	1.34	1.37
36	5	916	G	N7-C5	-5.34	1.36	1.39
36	5	2387	A	N9-C4	-5.34	1.34	1.37
36	5	1099	A	N3-C4	-5.34	1.31	1.34
36	5	2995	A	N3-C4	-5.34	1.31	1.34
36	1	2357	A	C3'-C2'	-5.34	1.46	1.52
36	1	3125	U	C2-N3	-5.34	1.34	1.37
36	1	3127	A	C6-N1	-5.34	1.31	1.35
36	1	3341	U	N1-C2	5.34	1.43	1.38
1	6	1100	G	N9-C8	-5.34	1.34	1.37
1	6	1778	G	N9-C4	-5.34	1.33	1.38
36	5	1117	G	C6-O6	-5.34	1.19	1.24
36	5	2304	C	N1-C6	-5.34	1.33	1.37
37	7	95	A	N9-C8	-5.34	1.33	1.37
36	5	888	A	N3-C4	-5.34	1.31	1.34
36	5	2202	C	N1-C6	-5.34	1.33	1.37
36	5	2722	U	C4-C5	-5.34	1.38	1.43
36	5	2982	A	N9-C4	-5.34	1.34	1.37
36	5	3090	U	C4-C5	-5.34	1.38	1.43
37	7	83	U	C4-O4	-5.34	1.19	1.23
36	5	2902	A	C6-N1	-5.34	1.31	1.35
36	1	960	U	N1-C2	5.34	1.43	1.38
1	6	1322	A	N9-C4	-5.34	1.34	1.37
1	6	1610	G	N7-C5	-5.34	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	1780	G	C8-N7	-5.34	1.27	1.30
36	5	1175	C	N1-C2	-5.34	1.34	1.40
36	5	3257	C	N3-C4	-5.34	1.30	1.33
37	7	112	G	N1-C2	-5.34	1.33	1.37
37	7	13	A	N7-C5	-5.33	1.36	1.39
36	1	2972	G	N3-C4	-5.33	1.31	1.35
1	6	1780	G	N7-C5	-5.33	1.36	1.39
36	5	1337	A	C6-N1	-5.33	1.31	1.35
36	5	1451	C	N3-C4	-5.33	1.30	1.33
36	5	2639	G	N9-C4	-5.33	1.33	1.38
36	1	2955	U	N1-C2	5.33	1.43	1.38
1	6	1309	C	N1-C6	-5.33	1.33	1.37
36	5	277	G	N3-C4	-5.33	1.31	1.35
36	5	916	G	C8-N7	-5.33	1.27	1.30
36	5	1185	C	N3-C4	-5.33	1.30	1.33
36	5	1369	A	N7-C5	-5.33	1.36	1.39
52	m6	34	VAL	CB-CG1	-5.33	1.41	1.52
36	1	1794	G	N9-C8	-5.33	1.34	1.37
52	m6	75	ALA	CA-CB	-5.33	1.41	1.52
1	2	397	A	N9-C4	-5.33	1.34	1.37
36	1	70	A	C5-C4	-5.33	1.35	1.38
36	1	537	A	N9-C4	-5.33	1.34	1.37
36	1	1102	A	N9-C4	-5.33	1.34	1.37
36	5	951	A	C6-N6	-5.33	1.29	1.33
1	6	1652	C	N1-C6	-5.33	1.33	1.37
36	1	499	G	C2-N3	-5.33	1.28	1.32
36	1	1154	A	C5-C6	-5.33	1.36	1.41
37	3	46	A	N9-C4	-5.33	1.34	1.37
1	6	408	C	N1-C2	-5.33	1.34	1.40
52	m6	4	GLU	CD-OE2	5.33	1.31	1.25
1	2	550	A	N7-C5	-5.32	1.36	1.39
36	1	367	A	N3-C4	-5.32	1.31	1.34
36	5	353	G	C5-C4	-5.32	1.34	1.38
36	5	1604	G	C6-N1	-5.32	1.35	1.39
36	5	3332	U	N1-C2	-5.32	1.33	1.38
37	7	104	A	N7-C5	-5.32	1.36	1.39
46	19	27	VAL	CB-CG2	-5.32	1.41	1.52
36	1	2419	A	N9-C4	-5.32	1.34	1.37
36	5	2212	C	N1-C2	5.32	1.45	1.40
36	5	952	A	N9-C4	-5.32	1.34	1.37
38	8	138	A	N7-C5	-5.32	1.36	1.39
36	1	2877	G	C6-N1	-5.32	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	551	G	N3-C4	-5.32	1.31	1.35
36	1	952	A	N7-C5	-5.32	1.36	1.39
1	6	441	A	N9-C8	-5.32	1.33	1.37
1	6	1521	G	C5-C4	-5.32	1.34	1.38
1	6	1556	A	C5-C6	-5.32	1.36	1.41
36	1	2159	U	N3-C4	5.32	1.43	1.38
36	1	2834	G	C2-N3	-5.32	1.28	1.32
38	4	89	A	N9-C4	-5.32	1.34	1.37
36	5	1140	G	N9-C8	-5.32	1.34	1.37
36	5	3115	C	N1-C2	-5.32	1.34	1.40
36	1	1134	G	C6-N1	-5.31	1.35	1.39
1	6	48	G	N3-C4	-5.31	1.31	1.35
1	2	1119	G	C6-N1	-5.31	1.35	1.39
36	1	1893	A	N9-C4	-5.31	1.34	1.37
36	5	2234	G	C5-C4	-5.31	1.34	1.38
36	5	2658	G	C6-N1	-5.31	1.35	1.39
36	5	2718	U	C2-N3	-5.31	1.34	1.37
36	5	3124	G	N7-C5	-5.31	1.36	1.39
37	7	89	G	C8-N7	-5.31	1.27	1.30
59	n3	96	GLU	CG-CD	5.31	1.59	1.51
36	1	3197	G	N9-C4	-5.31	1.33	1.38
36	1	2619	G	C8-N7	-5.31	1.27	1.30
36	1	2896	A	N7-C5	-5.31	1.36	1.39
36	1	2918	G	C5-C4	-5.31	1.34	1.38
36	5	2339	C	N1-C6	-5.31	1.33	1.37
36	5	2971	A	N9-C4	5.31	1.41	1.37
36	1	2164	A	C5-C4	-5.31	1.35	1.38
36	5	1051	U	N1-C2	-5.31	1.33	1.38
36	5	2329	C	N1-C2	-5.31	1.34	1.40
36	5	1366	A	N3-C4	-5.31	1.31	1.34
36	5	3037	U	N1-C2	-5.31	1.33	1.38
36	1	44	U	C5'-C4'	-5.30	1.45	1.51
36	1	2939	G	N9-C4	5.30	1.42	1.38
50	m4	66	THR	CA-CB	-5.30	1.39	1.53
1	2	1139	A	N9-C4	-5.30	1.34	1.37
36	1	881	C	N3-C4	-5.30	1.30	1.33
1	6	755	A	C5-C6	-5.30	1.36	1.41
1	6	1399	C	N1-C6	5.30	1.40	1.37
1	6	1629	G	C6-N1	-5.30	1.35	1.39
36	5	360	G	N3-C4	-5.30	1.31	1.35
36	5	644	G	C6-N1	-5.30	1.35	1.39
36	5	1307	G	N9-C4	-5.30	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2938	G	N9-C8	-5.30	1.34	1.37
36	1	896	A	N7-C5	-5.30	1.36	1.39
1	6	751	G	N9-C4	-5.30	1.33	1.38
36	5	588	G	N1-C2	-5.30	1.33	1.37
36	5	3049	A	N3-C4	-5.30	1.31	1.34
36	1	943	U	N3-C4	-5.30	1.33	1.38
36	1	2918	G	N9-C8	-5.30	1.34	1.37
1	6	609	U	N1-C6	-5.30	1.33	1.38
36	1	583	G	N1-C2	-5.30	1.33	1.37
36	5	2707	C	C4-C5	-5.30	1.38	1.43
36	1	2283	G	C2-N3	-5.29	1.28	1.32
36	5	1203	A	N9-C4	-5.29	1.34	1.37
36	5	2307	G	C5-C6	-5.29	1.37	1.42
36	5	2930	A	N9-C4	-5.29	1.34	1.37
36	5	2316	G	N1-C2	-5.29	1.33	1.37
36	1	2801	A	N3-C4	-5.29	1.31	1.34
36	5	983	A	N9-C4	-5.29	1.34	1.37
36	5	1188	U	C2-N3	-5.29	1.34	1.37
36	1	937	G	N3-C4	-5.29	1.31	1.35
36	5	1295	G	N7-C5	-5.29	1.36	1.39
36	5	1432	C	C2-N3	-5.29	1.31	1.35
36	5	1545	A	N7-C5	-5.29	1.36	1.39
36	5	2659	G	C5-C6	-5.29	1.37	1.42
36	5	2906	C	N3-C4	5.29	1.37	1.33
36	1	1656	A	N3-C4	-5.29	1.31	1.34
1	6	152	U	N1-C2	-5.29	1.33	1.38
36	5	1296	C	C2-O2	-5.29	1.19	1.24
36	5	1430	U	C2-N3	-5.29	1.34	1.37
36	5	1865	A	C5-C6	-5.29	1.36	1.41
36	5	2397	A	N7-C5	-5.29	1.36	1.39
36	5	3063	C	N1-C6	-5.29	1.33	1.37
36	1	372	A	N7-C5	-5.28	1.36	1.39
36	1	574	U	N1-C2	-5.28	1.33	1.38
36	1	887	G	C6-O6	-5.28	1.19	1.24
36	1	1400	G	C5-C4	-5.28	1.34	1.38
36	1	3011	A	N9-C8	-5.28	1.33	1.37
36	5	1374	G	C5-C4	-5.28	1.34	1.38
36	5	2916	U	C2-O2	5.28	1.27	1.22
1	6	678	A	N9-C4	5.28	1.41	1.37
36	5	2611	U	N1-C2	-5.28	1.33	1.38
36	1	654	C	C2-N3	-5.28	1.31	1.35
36	1	2386	A	C6-N1	-5.28	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3221	C	N1-C6	-5.28	1.33	1.37
1	6	103	A	C5-C6	-5.28	1.36	1.41
1	6	1491	U	C2-N3	5.28	1.41	1.37
36	5	1085	A	N7-C5	-5.28	1.36	1.39
36	5	1435	A	C5-C4	-5.28	1.35	1.38
36	5	2834	G	C5-C4	-5.28	1.34	1.38
36	5	2341	A	C6-N6	-5.28	1.29	1.33
36	5	2375	G	C2-N3	-5.28	1.28	1.32
1	2	1084	A	C5-C4	-5.28	1.35	1.38
36	1	985	U	N1-C2	-5.28	1.33	1.38
36	1	3141	A	N7-C5	-5.28	1.36	1.39
1	6	407	A	N9-C4	-5.28	1.34	1.37
1	6	1100	G	C5-C4	-5.28	1.34	1.38
1	6	1768	G	C2-N3	-5.28	1.28	1.32
36	5	1889	G	N7-C5	-5.28	1.36	1.39
36	5	3295	A	C5-C4	-5.28	1.35	1.38
37	7	25	G	N1-C2	-5.28	1.33	1.37
36	1	2399	A	C5-C6	-5.27	1.36	1.41
36	1	3260	G	N7-C5	-5.27	1.36	1.39
1	6	139	C	N3-C4	-5.27	1.30	1.33
36	5	1161	G	N9-C4	-5.27	1.33	1.38
36	1	220	G	N9-C8	-5.27	1.34	1.37
36	1	409	A	N9-C4	-5.27	1.34	1.37
36	1	2121	G	C5-C6	5.27	1.47	1.42
36	1	2370	G	N9-C8	-5.27	1.34	1.37
36	5	1288	U	C2-N3	-5.27	1.34	1.37
36	5	3144	G	N1-C2	-5.27	1.33	1.37
37	7	51	A	N7-C5	-5.27	1.36	1.39
1	6	1445	G	N9-C4	-5.27	1.33	1.38
36	5	1173	U	C2-N3	-5.27	1.34	1.37
36	5	2691	A	N9-C4	-5.27	1.34	1.37
36	1	2905	U	N1-C2	-5.27	1.33	1.38
1	6	1418	G	C6-O6	5.27	1.28	1.24
36	5	2298	U	N1-C6	-5.27	1.33	1.38
36	5	3179	U	N1-C6	-5.27	1.33	1.38
36	1	74	G	C6-N1	-5.27	1.35	1.39
36	1	200	C	N3-C4	-5.27	1.30	1.33
36	1	2376	G	C6-N1	-5.27	1.35	1.39
36	1	2819	A	N1-C2	-5.27	1.29	1.34
52	M6	100	GLU	CD-OE1	5.27	1.31	1.25
36	5	1915	A	C6-N1	-5.27	1.31	1.35
36	5	2368	A	N7-C5	-5.27	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2912	G	N3-C4	-5.27	1.31	1.35
1	6	1031	U	C2-N3	-5.27	1.34	1.37
36	5	1040	A	N3-C4	-5.27	1.31	1.34
36	5	3275	U	C2-N3	5.27	1.41	1.37
36	5	595	G	C8-N7	-5.26	1.27	1.30
36	5	1310	G	C5-C4	-5.26	1.34	1.38
36	5	3125	U	N3-C4	-5.26	1.33	1.38
37	7	94	C	N3-C4	-5.26	1.30	1.33
36	5	521	A	N7-C5	-5.26	1.36	1.39
36	5	1184	A	N3-C4	-5.26	1.31	1.34
1	2	597	G	C5-C6	-5.26	1.37	1.42
36	1	2643	A	N9-C4	-5.26	1.34	1.37
36	5	1843	C	N1-C6	-5.26	1.33	1.37
36	5	3058	U	N1-C2	-5.26	1.33	1.38
36	1	712	G	N9-C8	-5.26	1.34	1.37
36	1	2843	U	N1-C2	5.26	1.43	1.38
37	3	79	A	N9-C4	-5.26	1.34	1.37
1	6	78	A	C6-N1	-5.26	1.31	1.35
1	6	1543	A	C6-N1	-5.26	1.31	1.35
36	5	2636	A	N9-C4	-5.26	1.34	1.37
1	2	577	G	C5-C6	-5.26	1.37	1.42
36	1	433	A	N9-C4	-5.26	1.34	1.37
36	1	2938	G	C8-N7	-5.26	1.27	1.30
36	5	654	C	C2-O2	-5.26	1.19	1.24
36	5	3310	A	C8-N7	-5.26	1.27	1.31
36	5	3326	G	N9-C8	-5.26	1.34	1.37
36	5	884	A	C8-N7	-5.26	1.27	1.31
36	5	920	A	C6-N1	-5.26	1.31	1.35
36	5	2954	U	C4-C5	5.26	1.48	1.43
36	1	3140	G	C5-C6	-5.25	1.37	1.42
36	5	3096	C	N3-C4	-5.25	1.30	1.33
36	1	334	A	C6-N6	-5.25	1.29	1.33
36	5	796	U	C2-N3	-5.25	1.34	1.37
36	5	1183	C	C4-C5	-5.25	1.38	1.43
36	5	2644	C	N3-C4	-5.25	1.30	1.33
1	2	1589	C	N3-C4	-5.25	1.30	1.33
36	1	1207	G	C5-C6	-5.25	1.37	1.42
36	1	2963	C	C4-C5	-5.25	1.38	1.43
36	5	2100	A	N9-C4	5.25	1.41	1.37
36	5	2320	A	N3-C4	-5.25	1.31	1.34
36	5	2858	U	N1-C6	-5.25	1.33	1.38
36	1	41	G	N7-C5	-5.25	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3009	G	C5-C6	-5.25	1.37	1.42
36	5	2705	A	C6-N6	-5.25	1.29	1.33
37	7	26	C	N1-C2	5.25	1.45	1.40
36	1	1891	A	C6-N1	-5.25	1.31	1.35
59	N3	52	ALA	CA-CB	-5.25	1.41	1.52
36	5	944	C	C2-N3	-5.25	1.31	1.35
36	5	1892	G	N9-C8	-5.25	1.34	1.37
1	2	983	A	N9-C4	5.25	1.41	1.37
36	1	368	G	C6-N1	-5.25	1.35	1.39
36	1	751	A	N7-C5	-5.25	1.36	1.39
36	1	2385	G	P-O5'	-5.25	1.54	1.59
38	4	53	A	C5-C4	-5.25	1.35	1.38
1	6	147	A	C5-C6	-5.25	1.36	1.41
36	5	1059	G	N3-C4	-5.25	1.31	1.35
36	5	1891	A	N3-C4	-5.25	1.31	1.34
36	1	994	G	C6-N1	-5.24	1.35	1.39
36	5	951	A	C5-C4	-5.24	1.35	1.38
36	5	990	U	C4-O4	-5.24	1.19	1.23
36	5	2262	A	C5-C6	-5.24	1.36	1.41
36	5	2697	A	C5-C4	-5.24	1.35	1.38
36	5	3177	G	C6-N1	-5.24	1.35	1.39
36	1	899	U	N3-C4	-5.24	1.33	1.38
36	1	2627	C	N1-C2	-5.24	1.34	1.40
37	7	86	U	N1-C2	-5.24	1.33	1.38
1	2	1375	A	N9-C4	-5.24	1.34	1.37
36	1	627	U	N1-C2	-5.24	1.33	1.38
1	6	1403	C	N1-C6	-5.24	1.34	1.37
36	5	2799	A	C6-N1	-5.24	1.31	1.35
36	1	2805	G	C5-C4	-5.24	1.34	1.38
36	1	3147	G	N3-C4	-5.24	1.31	1.35
36	5	1311	G	N7-C5	-5.24	1.36	1.39
36	5	2381	G	C5-C4	-5.24	1.34	1.38
36	5	2328	U	C4-O4	-5.24	1.19	1.23
1	2	529	A	N9-C4	-5.24	1.34	1.37
36	1	1299	U	N1-C2	-5.24	1.33	1.38
36	1	2761	G	N7-C5	-5.24	1.36	1.39
1	6	865	A	C5-C4	-5.24	1.35	1.38
36	5	3103	A	N9-C4	-5.24	1.34	1.37
59	n3	53	SER	CA-CB	-5.24	1.45	1.52
36	1	573	C	N3-C4	-5.23	1.30	1.33
1	6	332	U	C2-N3	-5.23	1.34	1.37
1	6	1537	C	N3-C4	5.23	1.37	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3299	A	N9-C4	-5.23	1.34	1.37
36	5	1290	A	N7-C5	-5.23	1.36	1.39
36	5	1386	A	N9-C4	-5.23	1.34	1.37
36	5	2167	A	N9-C4	-5.23	1.34	1.37
36	5	3118	C	C4-C5	-5.23	1.38	1.43
36	5	357	A	N3-C4	-5.23	1.31	1.34
36	5	629	U	N1-C2	-5.23	1.33	1.38
36	5	2967	A	N7-C5	-5.23	1.36	1.39
36	1	1171	G	C6-N1	-5.23	1.35	1.39
36	1	2894	C	N1-C6	-5.23	1.34	1.37
36	5	21	G	N9-C4	-5.23	1.33	1.38
36	5	1401	A	C5-C4	-5.23	1.35	1.38
36	5	2688	U	N1-C6	-5.23	1.33	1.38
37	7	49	G	C6-O6	5.23	1.28	1.24
36	1	635	G	C5-C4	-5.23	1.34	1.38
36	1	1153	A	C6-N1	-5.23	1.31	1.35
1	6	1658	G	N9-C4	-5.23	1.33	1.38
36	5	816	A	N9-C4	5.23	1.41	1.37
36	5	1884	A	N3-C4	-5.23	1.31	1.34
37	7	2	G	C6-N1	-5.23	1.35	1.39
36	1	2377	G	C5-C6	-5.22	1.37	1.42
36	1	2404	A	N1-C2	5.22	1.39	1.34
36	5	583	G	C5-C6	-5.22	1.37	1.42
36	5	1431	G	C5-C6	-5.22	1.37	1.42
36	5	2611	U	N1-C6	-5.22	1.33	1.38
36	1	1410	U	C4-C5	-5.22	1.38	1.43
1	6	788	A	N3-C4	-5.22	1.31	1.34
36	5	501	A	C6-N1	-5.22	1.31	1.35
36	5	3033	A	N7-C5	-5.22	1.36	1.39
36	5	2694	A	N9-C4	-5.22	1.34	1.37
36	1	1456	A	N9-C4	-5.22	1.34	1.37
36	1	1657	C	N1-C6	-5.22	1.34	1.37
1	6	383	G	N7-C5	-5.22	1.36	1.39
36	5	668	G	C6-N1	-5.22	1.35	1.39
36	5	2931	C	N3-C4	-5.22	1.30	1.33
36	1	1481	A	N7-C5	-5.22	1.36	1.39
1	2	1650	U	N1-C2	-5.22	1.33	1.38
36	1	2872	A	N9-C4	5.22	1.41	1.37
36	1	2930	A	C5-C4	-5.22	1.35	1.38
1	6	331	A	N7-C5	-5.22	1.36	1.39
36	5	523	A	N7-C5	-5.22	1.36	1.39
36	5	1456	A	N7-C5	-5.22	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	7	8	G	C6-N1	-5.22	1.35	1.39
53	m7	4	TYR	CD1-CE1	-5.22	1.31	1.39
36	1	2800	G	C5-C6	-5.21	1.37	1.42
36	1	2991	A	N7-C5	-5.21	1.36	1.39
36	5	595	G	N7-C5	-5.21	1.36	1.39
36	5	788	C	N3-C4	-5.21	1.30	1.33
36	5	1149	G	N7-C5	-5.21	1.36	1.39
38	8	133	G	C5-C4	-5.21	1.34	1.38
36	5	1468	A	N9-C4	-5.21	1.34	1.37
36	1	2389	C	N3-C4	-5.21	1.30	1.33
36	1	2631	U	C2-N3	-5.21	1.34	1.37
1	6	1670	G	N9-C8	-5.21	1.34	1.37
37	7	24	A	C6-N6	-5.21	1.29	1.33
65	n9	16	ALA	CA-CB	-5.21	1.41	1.52
36	1	2521	U	C2-N3	-5.21	1.34	1.37
36	5	3017	A	N3-C4	-5.21	1.31	1.34
48	m1	157	GLU	CG-CD	5.21	1.59	1.51
36	1	1658	G	N3-C4	-5.21	1.31	1.35
36	1	2307	G	C5-C4	-5.21	1.34	1.38
36	1	2318	U	C4-O4	-5.21	1.19	1.23
36	1	2641	U	C5-C6	-5.21	1.29	1.34
36	1	3135	U	N3-C4	-5.21	1.33	1.38
36	5	1299	U	N1-C2	-5.21	1.33	1.38
36	5	1846	C	P-O5'	-5.21	1.54	1.59
36	1	860	G	C5-C4	-5.21	1.34	1.38
1	6	1584	G	N9-C8	-5.21	1.34	1.37
37	7	5	G	N1-C2	-5.21	1.33	1.37
52	m6	166	GLU	CG-CD	5.21	1.59	1.51
36	1	1446	A	N7-C5	-5.21	1.36	1.39
36	5	3094	A	C5-C6	-5.21	1.36	1.41
36	1	715	A	N3-C4	-5.20	1.31	1.34
36	1	2826	U	N1-C2	-5.20	1.33	1.38
36	1	2914	G	C6-N1	-5.20	1.35	1.39
1	6	307	G	C6-N1	-5.20	1.35	1.39
1	6	1086	A	C6-N1	-5.20	1.31	1.35
36	5	3373	U	N3-C4	-5.20	1.33	1.38
36	1	2187	G	N1-C2	-5.20	1.33	1.37
1	6	1504	G	C6-N1	-5.20	1.35	1.39
36	1	1061	A	C8-N7	-5.20	1.27	1.31
36	1	1141	C	N3-C4	-5.20	1.30	1.33
36	5	1190	A	C5-C6	-5.20	1.36	1.41
36	5	1851	G	C2-N3	-5.20	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2690	G	N3-C4	-5.20	1.31	1.35
36	1	2371	G	C5-C4	-5.20	1.34	1.38
1	6	1194	A	N3-C4	-5.20	1.31	1.34
36	5	1128	U	N3-C4	-5.20	1.33	1.38
36	5	2299	A	N3-C4	-5.20	1.31	1.34
36	5	2629	U	N1-C6	-5.20	1.33	1.38
36	5	2821	C	C2-O2	5.20	1.29	1.24
36	5	3005	A	N9-C4	-5.20	1.34	1.37
1	2	1750	A	N7-C5	-5.20	1.36	1.39
36	1	1120	A	C5-C4	-5.20	1.35	1.38
36	1	1411	C	N1-C6	-5.20	1.34	1.37
36	1	3197	G	C2-N3	-5.20	1.28	1.32
36	5	906	A	N3-C4	-5.20	1.31	1.34
36	1	2805	G	N1-C2	-5.20	1.33	1.37
1	6	320	U	C2-O2	5.20	1.27	1.22
36	5	1375	G	N7-C5	-5.20	1.36	1.39
36	5	2391	G	N9-C8	-5.20	1.34	1.37
36	5	2703	A	C5-C4	-5.19	1.35	1.38
36	1	3135	U	N1-C6	-5.19	1.33	1.38
36	5	651	G	N9-C8	-5.19	1.34	1.37
36	5	2309	A	N9-C4	-5.19	1.34	1.37
36	1	433	A	C5-C4	-5.19	1.35	1.38
36	1	1143	A	C6-N1	-5.19	1.31	1.35
1	6	1116	A	C6-N1	-5.19	1.31	1.35
1	6	1781	A	N7-C5	-5.19	1.36	1.39
36	1	1404	G	N9-C4	-5.19	1.33	1.38
1	2	1659	A	C6-N1	-5.19	1.31	1.35
36	1	33	G	C6-N1	-5.19	1.35	1.39
36	1	643	U	C4-C5	-5.19	1.38	1.43
36	1	987	U	N1-C2	-5.19	1.33	1.38
36	1	1156	C	C4-C5	-5.19	1.38	1.43
36	1	3206	C	N1-C2	-5.19	1.34	1.40
1	6	1537	C	C2-O2	5.19	1.29	1.24
36	5	512	U	N1-C6	-5.19	1.33	1.38
36	1	2125	A	N9-C4	-5.19	1.34	1.37
36	1	1123	U	N1-C2	-5.18	1.33	1.38
36	5	523	A	C5-C4	-5.18	1.35	1.38
36	5	2177	G	C6-O6	-5.18	1.19	1.24
37	7	99	G	N9-C8	-5.18	1.34	1.37
36	1	144	A	N3-C4	-5.18	1.31	1.34
43	L6	59	GLU	CD-OE2	5.18	1.31	1.25
1	6	796	A	N9-C4	-5.18	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	998	A	C6-N1	-5.18	1.31	1.35
1	6	1800	A	N9-C4	5.18	1.41	1.37
36	5	569	A	C5-C6	-5.18	1.36	1.41
36	5	718	G	N7-C5	-5.18	1.36	1.39
36	5	1431	G	C5-C4	-5.18	1.34	1.38
1	6	1152	A	N3-C4	-5.18	1.31	1.34
1	6	1750	A	N7-C5	-5.18	1.36	1.39
38	8	57	C	N3-C4	-5.18	1.30	1.33
36	1	1372	C	N1-C6	-5.18	1.34	1.37
36	1	2356	A	C5-C6	-5.18	1.36	1.41
1	6	1602	C	N3-C4	-5.18	1.30	1.33
36	5	1784	G	N9-C8	-5.18	1.34	1.37
36	5	2375	G	C5-C4	-5.18	1.34	1.38
57	n1	149	GLN	CG-CD	5.18	1.62	1.51
36	1	557	A	N9-C4	-5.18	1.34	1.37
1	6	326	G	N7-C5	-5.18	1.36	1.39
36	5	3015	G	N9-C8	-5.18	1.34	1.37
36	1	2888	U	N1-C6	-5.18	1.33	1.38
1	6	441	A	C5-C4	-5.18	1.35	1.38
1	6	859	A	N9-C4	-5.18	1.34	1.37
36	5	2947	G	C5-C6	-5.18	1.37	1.42
1	2	1739	C	N1-C2	-5.17	1.34	1.40
36	1	890	C	C2-N3	-5.17	1.31	1.35
36	1	1303	A	N3-C4	-5.17	1.31	1.34
1	6	152	U	N3-C4	-5.17	1.33	1.38
36	5	811	U	N1-C6	-5.17	1.33	1.38
36	5	2144	A	N9-C4	5.17	1.41	1.37
36	1	1046	A	N7-C5	-5.17	1.36	1.39
48	M1	52	TYR	CD1-CE1	-5.17	1.31	1.39
36	5	518	G	N7-C5	-5.17	1.36	1.39
36	5	587	U	C4'-C3'	-5.17	1.47	1.52
36	5	595	G	N9-C8	-5.17	1.34	1.37
36	5	3392	U	C2-N3	-5.17	1.34	1.37
38	8	7	U	N1-C2	-5.17	1.33	1.38
1	2	1524	A	N7-C5	-5.17	1.36	1.39
36	1	612	U	C2-O2	-5.17	1.17	1.22
36	5	904	A	C5-C6	-5.17	1.36	1.41
36	5	2157	G	N9-C4	-5.17	1.33	1.38
36	5	2197	C	C5-C6	-5.17	1.30	1.34
36	1	973	A	C6-N1	-5.17	1.31	1.35
36	1	1411	C	C4-N4	-5.17	1.29	1.33
76	Q0	110	CYS	CB-SG	-5.17	1.73	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	651	G	N3-C4	-5.17	1.31	1.35
36	1	646	A	C6-N1	-5.17	1.31	1.35
36	1	2941	A	N9-C4	5.17	1.41	1.37
43	L6	104	GLU	CD-OE1	5.17	1.31	1.25
36	5	799	G	C5-C4	-5.17	1.34	1.38
36	5	869	G	N3-C4	-5.17	1.31	1.35
36	5	1794	G	N3-C4	-5.17	1.31	1.35
36	5	2647	A	C5-C6	-5.17	1.36	1.41
36	1	2388	U	N1-C6	-5.17	1.33	1.38
61	N5	86	VAL	CB-CG1	-5.17	1.42	1.52
36	5	1300	G	N3-C4	-5.17	1.31	1.35
36	5	2399	A	N9-C4	-5.17	1.34	1.37
36	1	433	A	C5-C6	-5.17	1.36	1.41
1	6	1467	C	C4-C5	-5.17	1.38	1.43
36	5	820	A	N3-C4	-5.17	1.31	1.34
36	5	2731	U	N1-C6	-5.17	1.33	1.38
59	n3	68	GLU	CD-OE2	5.17	1.31	1.25
1	2	433	C	N1-C6	-5.16	1.34	1.37
1	2	440	U	N1-C2	-5.16	1.33	1.38
1	2	1658	G	C6-N1	-5.16	1.35	1.39
36	1	358	G	C5-C4	-5.16	1.34	1.38
36	1	1608	C	N3-C4	-5.16	1.30	1.33
36	1	2297	U	C2-O2	-5.16	1.17	1.22
38	4	4	C	N1-C6	-5.16	1.34	1.37
36	5	425	G	C6-N1	-5.16	1.35	1.39
36	5	1139	G	C6-N1	-5.16	1.35	1.39
36	5	3382	U	C2-N3	5.16	1.41	1.37
36	5	2631	U	C4-C5	-5.16	1.39	1.43
36	1	2387	A	C6-N1	-5.16	1.31	1.35
36	1	3127	A	N3-C4	-5.16	1.31	1.34
36	1	3305	A	C6-N6	-5.16	1.29	1.33
1	6	609	U	N3-C4	-5.16	1.33	1.38
36	5	2964	G	N7-C5	-5.16	1.36	1.39
36	5	3065	G	N9-C4	-5.16	1.33	1.38
36	1	803	C	N3-C4	-5.16	1.30	1.33
36	1	1442	U	C2-N3	5.16	1.41	1.37
1	6	1487	A	N9-C4	5.16	1.41	1.37
36	5	866	A	C5-C4	-5.16	1.35	1.38
36	5	980	A	N7-C5	5.16	1.42	1.39
36	1	580	C	N3-C4	-5.16	1.30	1.33
37	7	43	U	C2-N3	-5.16	1.34	1.37
36	1	349	A	C6-N1	-5.16	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2761	G	N9-C8	-5.16	1.34	1.37
36	1	2999	U	N3-C4	-5.16	1.33	1.38
36	1	3010	U	C4-C5	-5.16	1.39	1.43
1	6	1787	C	N1-C6	-5.16	1.34	1.37
36	5	2283	G	N7-C5	5.16	1.42	1.39
37	7	95	A	C5-C4	-5.16	1.35	1.38
47	m0	46	PHE	CB-CG	-5.16	1.42	1.51
36	1	628	A	N7-C5	-5.15	1.36	1.39
36	5	787	G	N7-C5	-5.15	1.36	1.39
37	7	94	C	C2-N3	-5.15	1.31	1.35
36	1	900	G	N9-C8	-5.15	1.34	1.37
36	5	1140	G	C6-N1	-5.15	1.35	1.39
36	5	2149	A	N7-C5	-5.15	1.36	1.39
36	5	2621	G	N3-C4	-5.15	1.31	1.35
36	1	611	A	N9-C4	-5.15	1.34	1.37
36	1	1850	A	N7-C5	-5.15	1.36	1.39
36	1	2884	C	N1-C2	-5.15	1.34	1.40
1	6	314	C	N3-C4	-5.15	1.30	1.33
1	6	761	G	C6-N1	-5.15	1.35	1.39
1	6	1765	A	N9-C4	-5.15	1.34	1.37
36	5	1303	A	N1-C2	-5.15	1.29	1.34
36	5	2343	C	C2-O2	-5.15	1.19	1.24
1	6	1124	A	C6-N6	-5.15	1.29	1.33
36	5	3004	C	N1-C2	-5.15	1.35	1.40
36	5	3299	A	N9-C4	-5.15	1.34	1.37
1	2	1615	C	N1-C2	5.15	1.45	1.40
1	6	876	G	N9-C4	-5.15	1.33	1.38
1	6	1502	G	C6-N1	-5.15	1.35	1.39
36	5	998	A	N3-C4	-5.15	1.31	1.34
36	5	1050	U	N1-C6	-5.15	1.33	1.38
37	7	101	G	C2-N3	-5.15	1.28	1.32
36	1	1174	G	N9-C8	-5.15	1.34	1.37
36	5	1366	A	C5-C6	-5.15	1.36	1.41
36	5	1514	G	C8-N7	-5.15	1.27	1.30
36	5	2607	G	C6-N1	-5.15	1.35	1.39
36	5	2956	A	C5-C4	-5.15	1.35	1.38
36	1	1385	C	N3-C4	-5.14	1.30	1.33
36	1	1473	G	C5-C4	-5.14	1.34	1.38
36	5	218	G	P-OP2	-5.14	1.40	1.49
36	5	648	C	N1-C6	-5.14	1.34	1.37
36	5	2912	G	N7-C5	-5.14	1.36	1.39
36	5	2918	G	N9-C8	-5.14	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	104	G	N9-C4	-5.14	1.33	1.38
36	1	915	A	N3-C4	-5.14	1.31	1.34
37	3	65	G	N9-C8	-5.14	1.34	1.37
1	6	1007	C	C2-N3	-5.14	1.31	1.35
1	6	1762	A	N7-C5	-5.14	1.36	1.39
36	5	848	A	C5-C6	-5.14	1.36	1.41
36	5	2826	U	C2-N3	-5.14	1.34	1.37
36	5	3017	A	N7-C5	-5.14	1.36	1.39
36	5	3200	G	N3-C4	-5.14	1.31	1.35
59	n3	39	VAL	CB-CG1	-5.14	1.42	1.52
36	1	1150	A	N9-C4	-5.14	1.34	1.37
1	6	1135	U	C2-N3	-5.14	1.34	1.37
36	5	1403	C	N1-C2	-5.14	1.35	1.40
36	5	1429	G	N9-C8	-5.14	1.34	1.37
36	1	89	A	N7-C5	-5.14	1.36	1.39
1	6	1776	A	N9-C4	5.14	1.41	1.37
36	5	1374	G	C6-N1	-5.14	1.35	1.39
36	5	3043	C	C2-N3	-5.14	1.31	1.35
1	2	346	G	N3-C4	-5.14	1.31	1.35
36	1	970	A	C6-N1	-5.14	1.31	1.35
36	5	2667	A	C6-N1	-5.14	1.31	1.35
36	1	1607	U	N3-C4	-5.14	1.33	1.38
36	1	2398	A	C6-N6	-5.14	1.29	1.33
36	1	2706	G	C8-N7	-5.14	1.27	1.30
36	1	3060	C	N1-C6	-5.14	1.34	1.37
36	1	3226	A	N3-C4	-5.14	1.31	1.34
36	5	1344	G	N3-C4	-5.14	1.31	1.35
36	5	2422	C	N3-C4	-5.14	1.30	1.33
36	5	3146	G	C5-C4	-5.14	1.34	1.38
56	n0	166	LYS	CD-CE	5.14	1.64	1.51
36	1	2143	A	N1-C2	-5.13	1.29	1.34
1	6	1133	A	N9-C4	-5.13	1.34	1.37
36	5	1399	A	N3-C4	-5.13	1.31	1.34
36	5	1431	G	C6-N1	-5.13	1.35	1.39
36	5	2636	A	N3-C4	-5.13	1.31	1.34
1	6	552	G	N7-C5	-5.13	1.36	1.39
36	1	107	A	C5-C6	-5.13	1.36	1.41
36	5	2393	G	C5-C6	-5.13	1.37	1.42
36	5	2797	C	N1-C6	-5.13	1.34	1.37
36	5	2926	A	N7-C5	-5.13	1.36	1.39
36	5	3139	A	C5-C4	-5.13	1.35	1.38
36	1	1899	G	N7-C5	-5.13	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1177	G	N1-C2	-5.13	1.33	1.37
36	5	1913	A	N7-C5	-5.13	1.36	1.39
36	5	2882	U	N3-C4	-5.13	1.33	1.38
36	5	2918	G	C5-C4	-5.13	1.34	1.38
36	5	2959	C	C2-O2	-5.13	1.19	1.24
36	5	3088	G	N9-C8	-5.13	1.34	1.37
36	5	3328	G	C5-C4	-5.13	1.34	1.38
36	1	1103	A	C6-N1	5.12	1.39	1.35
39	L2	219	ILE	CA-CB	-5.12	1.43	1.54
36	1	641	C	P-O5'	-5.12	1.54	1.59
36	1	2969	A	C5-C4	-5.12	1.35	1.38
1	6	407	A	N7-C5	-5.12	1.36	1.39
1	6	1642	G	N9-C4	-5.12	1.33	1.38
36	5	2122	G	C2-N3	-5.12	1.28	1.32
37	7	101	G	N7-C5	-5.12	1.36	1.39
37	3	102	A	C5-C6	-5.12	1.36	1.41
36	5	3108	G	N7-C5	-5.12	1.36	1.39
36	5	1289	G	C5-C4	-5.12	1.34	1.38
36	1	2607	G	N7-C5	-5.12	1.36	1.39
36	5	2282	U	C5'-C4'	-5.12	1.45	1.51
38	4	56	G	C6-N1	-5.12	1.35	1.39
36	5	2197	C	C4-C5	-5.12	1.38	1.43
36	5	2874	G	N9-C4	5.12	1.42	1.38
36	1	615	U	N1-C6	-5.12	1.33	1.38
36	1	1153	A	C5-C6	-5.12	1.36	1.41
36	1	1784	G	N3-C4	-5.12	1.31	1.35
1	6	1271	G	C8-N7	-5.12	1.27	1.30
36	5	596	C	N3-C4	-5.12	1.30	1.33
36	5	2811	A	C6-N1	-5.12	1.31	1.35
36	5	3094	A	N7-C5	-5.12	1.36	1.39
38	8	133	G	N9-C8	-5.12	1.34	1.37
36	1	2386	A	N9-C8	-5.11	1.33	1.37
1	6	1493	A	N9-C4	-5.11	1.34	1.37
36	5	883	A	N9-C4	-5.11	1.34	1.37
36	5	889	U	N1-C6	-5.11	1.33	1.38
36	5	1111	U	C2-N3	-5.11	1.34	1.37
36	5	1320	C	N1-C2	-5.11	1.35	1.40
36	5	1431	G	N7-C5	-5.11	1.36	1.39
36	5	2883	U	N3-C4	-5.11	1.33	1.38
36	5	3017	A	N9-C8	-5.11	1.33	1.37
38	8	9	A	N9-C4	-5.11	1.34	1.37
36	1	3066	U	N1-C2	-5.11	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	100	A	N9-C4	-5.11	1.34	1.37
36	5	2984	C	N1-C6	-5.11	1.34	1.37
36	5	3139	A	N3-C4	-5.11	1.31	1.34
36	1	370	U	N1-C2	-5.11	1.33	1.38
36	1	969	C	N1-C6	-5.11	1.34	1.37
36	1	1313	G	N3-C4	-5.11	1.31	1.35
36	1	2627	C	N3-C4	-5.11	1.30	1.33
36	5	856	G	N7-C5	-5.11	1.36	1.39
36	5	2357	A	N9-C8	-5.11	1.33	1.37
36	5	2983	C	N3-C4	-5.11	1.30	1.33
36	1	2324	A	N7-C5	-5.11	1.36	1.39
1	6	401	A	N7-C5	-5.11	1.36	1.39
36	5	679	U	N3-C4	-5.11	1.33	1.38
36	1	3126	C	N3-C4	-5.11	1.30	1.33
36	5	1128	U	N1-C6	-5.11	1.33	1.38
36	5	1128	U	C2-N3	-5.11	1.34	1.37
36	5	2335	G	C6-N1	-5.11	1.35	1.39
36	1	272	G	N3-C4	-5.11	1.31	1.35
1	6	160	C	N3-C4	-5.11	1.30	1.33
36	5	949	C	N1-C6	-5.11	1.34	1.37
37	7	96	U	N1-C6	-5.11	1.33	1.38
67	o1	75	ILE	CA-CB	-5.11	1.43	1.54
1	6	1457	C	N1-C2	5.10	1.45	1.40
1	2	1133	A	C5-C4	-5.10	1.35	1.38
36	1	719	U	C2-O2	5.10	1.26	1.22
36	1	900	G	N9-C4	-5.10	1.33	1.38
36	1	1752	A	N3-C4	-5.10	1.31	1.34
36	1	2888	U	N1-C2	-5.10	1.33	1.38
36	1	1059	G	C5-C4	-5.10	1.34	1.38
59	N3	4	ASN	CB-CG	5.10	1.62	1.51
36	5	1211	U	C5-C6	-5.10	1.29	1.34
1	2	1032	G	N3-C4	-5.10	1.31	1.35
36	1	943	U	C2-N3	-5.10	1.34	1.37
36	1	2425	G	C5-C4	-5.10	1.34	1.38
36	5	651	G	N1-C2	-5.10	1.33	1.37
36	5	806	A	C5-C4	-5.10	1.35	1.38
36	5	1314	C	N3-C4	-5.10	1.30	1.33
36	1	1197	A	C2-N3	-5.10	1.28	1.33
36	1	2324	A	N3-C4	-5.10	1.31	1.34
36	5	1208	U	N3-C4	-5.10	1.33	1.38
36	5	2679	A	C5-C4	-5.10	1.35	1.38
36	1	370	U	N1-C6	-5.10	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3267	A	N3-C4	-5.10	1.31	1.34
1	6	94	U	N1-C2	-5.10	1.33	1.38
36	5	347	G	P-O5'	-5.10	1.54	1.59
36	5	391	A	C5-C4	-5.10	1.35	1.38
36	5	511	G	N3-C4	-5.10	1.31	1.35
36	5	1193	A	C5-C6	-5.10	1.36	1.41
36	5	1370	G	N9-C4	-5.10	1.33	1.38
36	5	2369	G	N7-C5	-5.10	1.36	1.39
36	5	2857	C	C2-N3	-5.10	1.31	1.35
36	1	656	A	C6-N6	-5.09	1.29	1.33
36	1	2979	U	P-OP2	-5.09	1.40	1.49
36	5	1497	C	N1-C6	-5.09	1.34	1.37
36	5	2649	A	C6-N1	-5.09	1.31	1.35
36	1	2302	G	N3-C4	-5.09	1.31	1.35
36	5	378	A	N3-C4	-5.09	1.31	1.34
37	7	99	G	N3-C4	-5.09	1.31	1.35
36	5	2819	A	C6-N1	-5.09	1.31	1.35
1	2	1291	G	N3-C4	-5.09	1.31	1.35
36	1	626	U	N1-C2	-5.09	1.33	1.38
36	1	2223	A	N3-C4	-5.09	1.31	1.34
36	1	2845	A	N9-C4	5.09	1.41	1.37
36	1	3098	G	N7-C5	-5.09	1.36	1.39
36	1	3138	U	N1-C6	-5.09	1.33	1.38
1	6	998	A	N3-C4	-5.09	1.31	1.34
1	6	1606	C	N1-C6	-5.09	1.34	1.37
36	1	404	G	C5-C6	-5.09	1.37	1.42
36	1	2156	C	C2-N3	-5.09	1.31	1.35
36	5	510	G	N3-C4	-5.09	1.31	1.35
52	m6	54	TYR	CE1-CZ	-5.09	1.31	1.38
1	6	160	C	C4-N4	-5.09	1.29	1.33
36	5	559	A	C5-C6	-5.09	1.36	1.41
36	5	2946	A	C5-C6	-5.09	1.36	1.41
38	4	140	G	C2-N3	-5.08	1.28	1.32
36	5	1856	C	N1-C6	-5.08	1.34	1.37
36	5	2512	C	N1-C6	-5.08	1.34	1.37
69	o3	53	TYR	CD2-CE2	-5.08	1.31	1.39
36	1	587	U	C2-O2	-5.08	1.17	1.22
36	5	1047	A	C5-C6	-5.08	1.36	1.41
36	5	1898	G	N7-C5	5.08	1.42	1.39
36	1	725	G	N9-C8	-5.08	1.34	1.37
36	1	1884	A	N3-C4	-5.08	1.31	1.34
36	1	649	A	C6-N1	-5.08	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1144	U	C4-C5	-5.08	1.39	1.43
36	1	2312	A	C5-C4	-5.08	1.35	1.38
36	1	2636	A	N7-C5	-5.08	1.36	1.39
36	5	563	U	N1-C6	-5.08	1.33	1.38
36	5	774	G	C5-C6	-5.08	1.37	1.42
36	5	1912	U	N1-C2	-5.08	1.33	1.38
36	5	3075	G	N3-C4	-5.08	1.31	1.35
36	5	3319	U	N1-C2	5.08	1.43	1.38
36	5	393	U	N1-C2	-5.08	1.33	1.38
36	5	515	C	N3-C4	-5.08	1.30	1.33
47	m0	17	TYR	CD2-CE2	5.08	1.47	1.39
36	1	1159	A	C5-C4	-5.08	1.35	1.38
36	1	2333	C	N1-C6	-5.08	1.34	1.37
36	5	948	C	N3-C4	-5.08	1.30	1.33
36	5	1203	A	C4'-C3'	-5.08	1.47	1.52
36	5	1339	C	C2-N3	-5.08	1.31	1.35
36	5	2331	C	N1-C6	-5.08	1.34	1.37
36	5	1391	C	N1-C6	-5.07	1.34	1.37
36	5	2924	U	C4-C5	-5.07	1.39	1.43
36	1	787	G	C6-N1	-5.07	1.35	1.39
36	1	936	A	C6-N6	-5.07	1.29	1.33
36	1	744	A	C5-C6	-5.07	1.36	1.41
36	1	2727	A	C5-C6	5.07	1.45	1.41
36	5	417	A	N9-C4	-5.07	1.34	1.37
36	5	638	C	N1-C6	-5.07	1.34	1.37
36	5	1896	A	P-O5'	-5.07	1.54	1.59
36	5	3223	A	N3-C4	-5.07	1.31	1.34
36	1	820	A	N9-C4	-5.07	1.34	1.37
36	1	1047	A	N3-C4	-5.07	1.31	1.34
36	1	1136	A	N9-C8	-5.07	1.33	1.37
36	1	1308	A	C6-N6	5.07	1.38	1.33
36	1	2954	U	C4-C5	5.07	1.48	1.43
1	6	1139	A	C5-C4	-5.07	1.35	1.38
36	5	1485	G	C6-N1	-5.07	1.36	1.39
36	5	3012	A	C8-N7	-5.07	1.28	1.31
36	1	792	G	N3-C4	-5.07	1.31	1.35
36	1	1143	A	C5-C6	-5.07	1.36	1.41
38	4	4	C	N3-C4	-5.07	1.30	1.33
38	4	99	C	N1-C6	-5.07	1.34	1.37
36	5	904	A	N3-C4	-5.07	1.31	1.34
36	5	2656	A	N3-C4	-5.07	1.31	1.34
36	5	3047	U	N1-C6	-5.07	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	7	89	G	C2-N3	-5.07	1.28	1.32
40	l3	92	TYR	CE1-CZ	-5.07	1.31	1.38
1	6	109	G	N9-C4	-5.07	1.33	1.38
1	6	1681	A	N9-C4	-5.07	1.34	1.37
36	5	941	G	N7-C5	-5.07	1.36	1.39
36	5	2855	U	N1-C6	-5.07	1.33	1.38
56	n0	78	TRP	CE3-CZ3	-5.07	1.29	1.38
1	2	1299	G	C2-N3	5.06	1.36	1.32
36	1	2796	G	C2-N2	-5.06	1.29	1.34
1	6	1171	A	C6-N1	-5.06	1.32	1.35
1	6	1794	A	N9-C4	-5.06	1.34	1.37
36	5	942	U	N1-C6	-5.06	1.33	1.38
36	5	1320	C	N3-C4	-5.06	1.30	1.33
36	1	317	A	C6-N6	-5.06	1.29	1.33
36	1	815	G	N9-C8	-5.06	1.34	1.37
36	1	2937	G	C2-N3	-5.06	1.28	1.32
1	6	544	A	N9-C4	5.06	1.40	1.37
1	6	1137	A	C1'-N9	-5.06	1.39	1.46
36	1	2123	G	C5-C4	-5.06	1.34	1.38
36	5	1134	G	C2-N3	-5.06	1.28	1.32
36	5	3016	A	N9-C4	-5.06	1.34	1.37
36	5	3211	C	N1-C2	-5.06	1.35	1.40
68	o2	76	VAL	CB-CG1	-5.06	1.42	1.52
1	2	337	G	N3-C4	-5.06	1.31	1.35
36	1	680	G	C2-N3	-5.06	1.28	1.32
36	1	2368	A	N9-C4	5.06	1.40	1.37
38	4	20	U	C2-O2	-5.06	1.17	1.22
1	6	1753	A	C2'-C1'	5.06	1.58	1.53
36	5	39	A	N3-C4	-5.06	1.31	1.34
36	5	519	A	N3-C4	-5.06	1.31	1.34
36	5	1127	G	C2-N3	5.06	1.36	1.32
36	5	1404	G	C5-C6	-5.06	1.37	1.42
36	1	1522	U	N1-C6	-5.06	1.33	1.38
36	5	940	G	N1-C2	-5.06	1.33	1.37
36	5	1047	A	C6-N6	-5.06	1.29	1.33
36	5	2941	A	C6-N1	-5.06	1.32	1.35
36	1	2962	U	C2-N3	-5.06	1.34	1.37
1	6	29	U	C2-N3	-5.06	1.34	1.37
36	5	2948	C	N3-C4	-5.06	1.30	1.33
36	1	1134	G	C5-C4	-5.05	1.34	1.38
36	5	927	C	C2-O2	-5.05	1.20	1.24
48	m1	18	VAL	CA-CB	-5.05	1.44	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2	555	A	N9-C4	5.05	1.40	1.37
44	17	78	GLU	CB-CG	5.05	1.61	1.52
36	1	1524	A	C5-C6	5.05	1.45	1.41
36	1	2702	A	N9-C8	-5.05	1.33	1.37
1	6	352	A	N3-C4	-5.05	1.31	1.34
36	5	585	A	C6-N1	-5.05	1.32	1.35
36	5	1001	G	N7-C5	5.05	1.42	1.39
36	5	1197	A	C5-C6	-5.05	1.36	1.41
36	5	2840	C	N1-C6	-5.05	1.34	1.37
36	5	2907	G	C6-N1	-5.05	1.36	1.39
36	5	2938	G	C5-C6	-5.05	1.37	1.42
36	1	2698	G	C5-C4	-5.05	1.34	1.38
53	M7	46	LYS	CD-CE	5.05	1.63	1.51
36	5	284	A	N3-C4	-5.05	1.31	1.34
36	5	349	A	C5-C4	-5.05	1.35	1.38
36	5	1141	C	P-O5'	-5.05	1.54	1.59
36	5	1290	A	C6-N1	-5.05	1.32	1.35
36	5	2163	C	N3-C4	-5.05	1.30	1.33
36	5	2295	A	C5-C4	-5.05	1.35	1.38
36	5	2320	A	N9-C8	-5.05	1.33	1.37
36	5	2364	G	C5-C4	-5.05	1.34	1.38
36	5	2942	C	C4-C5	5.05	1.47	1.43
37	7	68	C	N3-C4	-5.05	1.30	1.33
36	1	1116	G	N9-C8	-5.05	1.34	1.37
36	1	2818	U	N1-C2	-5.05	1.34	1.38
1	6	55	A	N9-C4	-5.05	1.34	1.37
1	6	1118	G	C2-N3	-5.05	1.28	1.32
1	6	1787	C	C2-O2	-5.05	1.20	1.24
36	5	755	A	C6-N1	-5.05	1.32	1.35
36	5	1892	G	N3-C4	-5.05	1.31	1.35
36	5	3143	C	C2-N3	5.05	1.39	1.35
41	14	117	GLU	CG-CD	5.05	1.59	1.51
36	1	583	G	N9-C8	-5.04	1.34	1.37
1	6	968	U	C2-N3	-5.04	1.34	1.37
36	5	2116	G	C2-N3	-5.04	1.28	1.32
36	1	2236	G	C8-N7	-5.04	1.27	1.30
1	6	1147	A	C6-N1	-5.04	1.32	1.35
25	d3	125	VAL	CA-CB	-5.04	1.44	1.54
36	5	648	C	N3-C4	-5.04	1.30	1.33
36	5	1156	C	C4-C5	-5.04	1.39	1.43
36	5	2863	G	C2-N3	-5.04	1.28	1.32
36	1	808	A	N7-C5	-5.04	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	3045	G	C6-O6	-5.04	1.19	1.24
36	5	1317	A	C5-C6	-5.04	1.36	1.41
1	6	407	A	C5-C4	-5.04	1.35	1.38
36	5	1413	G	N9-C8	-5.04	1.34	1.37
36	5	1451	C	N1-C6	-5.04	1.34	1.37
36	1	2891	U	N1-C6	-5.04	1.33	1.38
36	1	3005	A	N9-C4	-5.04	1.34	1.37
36	1	3267	A	N7-C5	-5.04	1.36	1.39
38	8	102	U	C2-N3	-5.04	1.34	1.37
46	19	153	ASP	CB-CG	5.04	1.62	1.51
36	1	824	C	N1-C6	-5.04	1.34	1.37
36	5	1141	C	C4-C5	-5.04	1.39	1.43
36	1	2209	U	C2-N3	5.04	1.41	1.37
36	1	2980	U	N1-C2	-5.04	1.34	1.38
36	5	1202	A	C5-C6	-5.04	1.36	1.41
36	5	1473	G	C5-C4	-5.04	1.34	1.38
36	5	2276	G	N9-C4	-5.04	1.33	1.38
36	5	2318	U	N1-C2	-5.04	1.34	1.38
37	7	37	G	N3-C4	5.04	1.39	1.35
57	n1	63	VAL	CB-CG2	-5.04	1.42	1.52
36	1	1906	G	N3-C4	-5.03	1.31	1.35
36	1	2764	C	N1-C2	-5.03	1.35	1.40
1	6	1569	A	N7-C5	-5.03	1.36	1.39
36	5	2394	G	N3-C4	-5.03	1.31	1.35
36	5	2643	A	P-O5'	-5.03	1.54	1.59
36	5	2869	U	N3-C4	-5.03	1.33	1.38
36	1	935	U	C2-N3	-5.03	1.34	1.37
36	1	3318	G	N7-C5	-5.03	1.36	1.39
1	6	1136	U	N1-C2	-5.03	1.34	1.38
36	1	968	G	C2-N3	5.03	1.36	1.32
36	1	1604	G	N9-C4	5.03	1.42	1.38
1	6	1128	C	N3-C4	-5.03	1.30	1.33
36	5	437	G	O3'-P	5.03	1.67	1.61
36	5	900	G	C5-C4	-5.03	1.34	1.38
54	m8	74	GLU	CG-CD	5.03	1.59	1.51
36	1	983	A	N3-C4	-5.03	1.31	1.34
36	5	1891	A	C5-C4	-5.03	1.35	1.38
1	2	1555	A	N3-C4	-5.03	1.31	1.34
4	S2	232	GLU	CB-CG	5.03	1.61	1.52
36	1	880	G	N9-C8	-5.03	1.34	1.37
36	1	953	G	N9-C4	-5.03	1.33	1.38
36	1	1177	G	N1-C2	-5.03	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2135	U	C2-N3	-5.03	1.34	1.37
1	6	558	U	C2-N3	5.03	1.41	1.37
36	5	2311	G	N9-C4	-5.03	1.33	1.38
36	5	2880	U	O3'-P	-5.03	1.55	1.61
37	7	118	A	N3-C4	-5.03	1.31	1.34
38	8	4	C	C2-O2	-5.03	1.20	1.24
36	1	2113	A	C5-C6	5.03	1.45	1.41
1	6	1658	G	C2-N3	-5.03	1.28	1.32
37	7	61	G	C6-N1	-5.03	1.36	1.39
36	1	2785	A	C6-N1	-5.02	1.32	1.35
36	5	1923	C	C4-C5	-5.02	1.39	1.43
36	1	2850	G	C6-N1	-5.02	1.36	1.39
68	O2	41	VAL	CA-CB	-5.02	1.44	1.54
36	5	585	A	N9-C4	-5.02	1.34	1.37
36	5	2239	G	C2-N3	-5.02	1.28	1.32
36	5	2399	A	C6-N6	-5.02	1.29	1.33
36	5	3322	A	N7-C5	-5.02	1.36	1.39
36	1	505	G	N9-C4	-5.02	1.33	1.38
36	1	625	G	N3-C4	-5.02	1.31	1.35
36	1	652	G	C6-N1	-5.02	1.36	1.39
36	1	860	G	N9-C8	-5.02	1.34	1.37
36	1	2804	A	C5-C4	-5.02	1.35	1.38
36	1	3379	C	N1-C6	-5.02	1.34	1.37
36	1	1119	C	N1-C6	-5.02	1.34	1.37
1	6	160	C	C2-N3	-5.02	1.31	1.35
36	5	417	A	C5-C4	-5.02	1.35	1.38
36	5	754	G	C6-N1	-5.02	1.36	1.39
36	5	798	G	C5-C6	-5.02	1.37	1.42
36	5	3025	C	C2-N3	-5.02	1.31	1.35
36	1	2321	A	N3-C4	-5.02	1.31	1.34
36	1	3129	A	N9-C4	-5.02	1.34	1.37
36	5	876	A	C6-N6	-5.02	1.29	1.33
36	5	1190	A	N7-C5	-5.02	1.36	1.39
40	l3	5	LYS	CD-CE	5.02	1.63	1.51
1	2	47	A	N3-C4	-5.02	1.31	1.34
36	1	1204	A	N3-C4	-5.02	1.31	1.34
36	1	2924	U	C2-O2	-5.02	1.17	1.22
36	5	1914	G	N3-C4	-5.02	1.31	1.35
36	1	649	A	N9-C8	-5.01	1.33	1.37
1	6	760	A	N9-C4	-5.01	1.34	1.37
38	4	104	A	C6-N1	-5.01	1.32	1.35
71	O5	64	GLU	CB-CG	5.01	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2696	A	N3-C4	-5.01	1.31	1.34
37	7	22	A	N3-C4	-5.01	1.31	1.34
36	1	1362	G	C5-C4	-5.01	1.34	1.38
36	1	2663	G	C5-C4	-5.01	1.34	1.38
36	1	3012	A	C5-C4	-5.01	1.35	1.38
36	5	283	G	C6-N1	-5.01	1.36	1.39
36	5	1064	A	N7-C5	-5.01	1.36	1.39
36	5	2131	A	C5-C4	-5.01	1.35	1.38
36	5	2607	G	C5-C6	-5.01	1.37	1.42
36	1	1313	G	C6-O6	-5.01	1.19	1.24
36	1	1905	G	C2-N3	-5.01	1.28	1.32
36	1	2201	G	C5-C4	-5.01	1.34	1.38
36	1	2613	U	N1-C6	-5.01	1.33	1.38
36	1	2923	U	N1-C2	-5.01	1.34	1.38
36	5	1446	A	N9-C8	-5.01	1.33	1.37
36	5	2270	A	C5-C6	-5.01	1.36	1.41
36	5	2392	C	N1-C2	-5.01	1.35	1.40
36	5	3189	G	C8-N7	-5.01	1.27	1.30
36	5	3320	A	N7-C5	-5.01	1.36	1.39
1	2	1761	U	N3-C4	-5.01	1.33	1.38
36	5	511	G	C8-N7	-5.01	1.27	1.30
36	1	648	C	N3-C4	-5.01	1.30	1.33
36	1	1050	U	C5'-C4'	-5.01	1.45	1.51
36	1	3207	U	C4-C5	5.01	1.48	1.43
1	6	1732	A	N7-C5	-5.01	1.36	1.39
36	5	356	C	N3-C4	-5.01	1.30	1.33
36	5	914	A	N9-C4	-5.01	1.34	1.37
1	2	367	A	N3-C4	-5.00	1.31	1.34
1	6	971	A	C5-C6	-5.00	1.36	1.41
36	5	3048	A	N3-C4	-5.00	1.31	1.34
36	1	2300	G	N3-C4	-5.00	1.31	1.35
36	5	650	C	C4-N4	-5.00	1.29	1.33
36	5	1136	A	N9-C4	-5.00	1.34	1.37
36	5	2370	G	C5-C4	-5.00	1.34	1.38
36	1	3227	A	N7-C5	-5.00	1.36	1.39
36	5	1915	A	N7-C5	-5.00	1.36	1.39
36	5	3223	A	C6-N1	-5.00	1.32	1.35

All (22469) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-N9	-25.15	110.91	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	44	C	C6-N1-C2	24.27	130.01	120.30
36	5	648	C	N3-C4-C5	-23.62	112.45	121.90
36	5	884	A	N1-C6-N6	23.07	132.44	118.60
38	4	94	C	C6-N1-C2	22.99	129.50	120.30
36	5	1897	G	N1-C6-O6	21.43	132.75	119.90
36	1	2831	G	N1-C6-O6	21.37	132.72	119.90
36	5	424	G	C5-C6-O6	-21.05	115.97	128.60
36	5	1152	G	N3-C4-C5	20.71	138.95	128.60
36	5	3196	U	O5'-P-OP2	-20.22	86.43	110.70
36	5	1589	A	N1-C6-N6	19.86	130.52	118.60
36	5	40	A	O5'-P-OP1	-19.50	87.30	110.70
36	1	1308	A	O5'-P-OP2	-19.14	87.73	110.70
36	1	2726	C	N3-C4-N4	-19.14	104.60	118.00
36	5	1303	A	C5-C6-N6	-18.88	108.60	123.70
36	5	1115	G	C5-C6-O6	-18.78	117.33	128.60
36	5	1179	A	O5'-P-OP1	-18.71	88.25	110.70
37	7	49	G	N1-C6-O6	18.44	130.96	119.90
36	1	211	A	O5'-P-OP1	-18.36	88.67	110.70
36	1	3217	C	C2-N1-C1'	18.32	138.95	118.80
36	5	1149	G	N1-C6-O6	18.22	130.83	119.90
36	1	2811	A	C6-N1-C2	-18.10	107.74	118.60
36	5	632	G	O5'-P-OP2	-18.10	88.97	110.70
36	5	1897	G	C5-C6-O6	-18.09	117.75	128.60
36	5	3115	C	N1-C2-O2	-18.09	108.05	118.90
36	5	1556	C	N1-C2-O2	17.99	129.69	118.90
1	6	1579	U	O5'-P-OP1	-17.98	89.12	110.70
36	5	1115	G	N3-C4-N9	17.90	136.74	126.00
36	5	2140	U	O5'-P-OP2	-17.80	89.34	110.70
38	4	20	U	O5'-P-OP2	-17.77	89.38	110.70
36	1	2726	C	C5-C4-N4	17.72	132.61	120.20
36	5	648	C	C5-C4-N4	17.55	132.48	120.20
37	7	89	G	C5-C6-N1	-17.51	102.75	111.50
1	6	1137	A	C8-N9-C4	17.43	112.77	105.80
36	5	2937	G	O5'-P-OP2	-17.38	89.84	110.70
36	5	661	G	O5'-P-OP1	-17.38	89.85	110.70
36	1	2305	G	N1-C6-O6	-17.35	109.49	119.90
1	6	1131	A	N1-C6-N6	17.29	128.98	118.60
36	1	583	G	N1-C6-O6	-17.27	109.54	119.90
36	5	218	G	O5'-P-OP2	-17.26	89.99	110.70
36	1	1307	G	O5'-P-OP1	-17.23	90.03	110.70
36	5	1407	A	O5'-P-OP2	-17.21	90.05	110.70
36	5	3245	A	N1-C6-N6	17.18	128.91	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2315	G	O5'-P-OP1	-17.14	90.13	110.70
36	5	1303	A	N1-C6-N6	17.09	128.85	118.60
36	1	2963	C	C6-N1-C2	-16.99	113.50	120.30
36	1	2871	G	O5'-P-OP2	-16.91	90.41	110.70
36	1	2953	U	N3-C4-C5	-16.86	104.49	114.60
36	1	101	G	N1-C6-O6	16.83	130.00	119.90
36	1	2353	G	N1-C6-O6	16.77	129.96	119.90
38	4	26	U	C6-N1-C2	-16.72	110.97	121.00
37	7	89	G	N1-C6-O6	16.67	129.90	119.90
1	6	163	G	N3-C4-N9	-16.51	116.09	126.00
36	1	2941	A	O5'-P-OP2	-16.51	90.84	105.70
36	1	1371	G	O5'-P-OP2	-16.46	90.89	105.70
36	1	2811	A	N1-C2-N3	16.45	137.52	129.30
38	4	26	U	N3-C4-C5	-16.43	104.74	114.60
1	6	385	A	O5'-P-OP2	-16.37	90.97	105.70
36	5	1852	G	C5-C6-O6	-16.32	118.81	128.60
36	5	2199	G	N1-C6-O6	16.31	129.69	119.90
36	1	2942	C	C5-C6-N1	16.26	129.13	121.00
36	5	2689	A	C8-N9-C4	-16.25	99.30	105.80
36	1	2871	G	C4-C5-N7	16.15	117.26	110.80
36	5	2212	C	N1-C2-O2	16.11	128.57	118.90
36	1	1905	G	N3-C4-N9	-16.11	116.34	126.00
36	1	959	C	C6-N1-C2	16.09	126.74	120.30
36	5	2936	A	C6-N1-C2	-16.08	108.95	118.60
36	1	2623	G	N1-C6-O6	16.07	129.54	119.90
36	5	961	C	O5'-P-OP1	-16.02	91.28	105.70
36	5	884	A	C5-C6-N6	-16.02	110.89	123.70
36	5	1115	G	C6-C5-N7	-15.99	120.81	130.40
36	1	1542	G	C4-C5-N7	15.95	117.18	110.80
36	5	437	G	C8-N9-C4	-15.94	100.03	106.40
36	5	994	G	N9-C4-C5	-15.93	99.03	105.40
36	1	639	G	C2-N3-C4	-15.77	104.01	111.90
36	5	1330	A	C2-N3-C4	-15.72	102.74	110.60
36	5	3032	A	N1-C6-N6	-15.71	109.17	118.60
36	5	1373	A	N1-C6-N6	15.70	128.02	118.60
36	5	695	C	C6-N1-C2	15.64	126.56	120.30
36	1	1386	A	N1-C6-N6	-15.63	109.22	118.60
36	5	2353	G	C4-C5-N7	15.61	117.04	110.80
36	1	964	G	C5-C6-O6	-15.53	119.28	128.60
36	5	1321	G	N1-C6-O6	15.49	129.19	119.90
36	5	578	A	N1-C6-N6	-15.47	109.32	118.60
36	5	1303	A	C4-C5-N7	15.43	118.42	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1208	U	C5-C4-O4	15.41	135.15	125.90
36	1	2625	C	C6-N1-C2	15.40	126.46	120.30
36	5	994	G	C5-C6-O6	-15.31	119.41	128.60
36	1	979	U	C6-N1-C2	-15.28	111.83	121.00
36	5	2620	G	C5-C6-O6	15.25	137.75	128.60
36	1	2727	A	N9-C4-C5	15.23	111.89	105.80
36	1	1000	C	C6-N1-C2	15.19	126.38	120.30
37	3	88	G	N1-C6-O6	-15.19	110.78	119.90
36	5	1115	G	N9-C4-C5	-15.19	99.33	105.40
36	1	2726	C	C6-N1-C2	-15.18	114.23	120.30
36	1	2939	G	C4-C5-N7	-15.18	104.73	110.80
36	5	3146	G	N1-C6-O6	15.18	129.00	119.90
36	5	2803	A	O5'-P-OP2	-15.17	92.05	105.70
36	1	3325	G	C8-N9-C4	15.16	112.47	106.40
36	5	1151	U	C5-C6-N1	15.14	130.27	122.70
36	5	3146	G	C5-C6-O6	-15.12	119.53	128.60
36	1	1392	G	N1-C6-O6	-15.12	110.83	119.90
36	5	3144	G	O5'-P-OP1	-15.12	92.09	105.70
1	6	1778	G	C4-C5-N7	15.10	116.84	110.80
36	5	1897	G	C6-C5-N7	-15.08	121.35	130.40
36	1	608	A	N1-C6-N6	15.06	127.64	118.60
36	1	2379	U	O5'-P-OP2	-15.04	92.17	105.70
36	5	1604	G	N1-C6-O6	-15.04	110.88	119.90
36	5	1556	C	N3-C2-O2	-15.02	111.39	121.90
1	2	73	U	O4'-C1'-N1	14.96	120.17	108.20
36	5	330	G	C8-N9-C4	14.95	112.38	106.40
36	5	971	G	N1-C6-O6	-14.93	110.94	119.90
36	1	2609	A	O5'-P-OP2	-14.92	92.28	105.70
36	5	2638	C	C6-N1-C2	-14.91	114.34	120.30
36	5	2821	C	N1-C2-O2	14.90	127.84	118.90
36	1	1178	G	N3-C4-N9	14.89	134.94	126.00
36	5	884	A	N9-C4-C5	-14.88	99.85	105.80
36	5	1000	C	C6-N1-C2	14.88	126.25	120.30
36	5	1152	G	C2-N3-C4	-14.86	104.47	111.90
38	8	20	U	O5'-P-OP2	-14.86	92.33	105.70
36	5	2715	A	N9-C4-C5	14.85	111.74	105.80
36	5	994	G	C4-C5-N7	14.81	116.72	110.80
36	5	3245	A	C2-N3-C4	-14.80	103.20	110.60
36	5	1129	A	N1-C6-N6	14.79	127.48	118.60
36	5	2943	G	N1-C6-O6	14.78	128.77	119.90
36	5	437	G	N3-C4-C5	-14.77	121.22	128.60
36	1	2930	A	O5'-P-OP2	-14.76	92.42	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1211	U	C6-N1-C2	14.75	129.85	121.00
1	6	1778	G	C5-C6-O6	-14.68	119.79	128.60
36	5	2715	A	N1-C6-N6	-14.68	109.79	118.60
36	5	1295	G	C4-C5-N7	14.68	116.67	110.80
36	5	1589	A	C5-C6-N6	-14.66	111.97	123.70
36	1	1435	A	C8-N9-C4	-14.65	99.94	105.80
36	5	1151	U	C6-N1-C2	-14.65	112.21	121.00
1	6	1463	C	C6-N1-C2	14.64	126.16	120.30
36	1	917	A	N1-C6-N6	-14.64	109.82	118.60
36	5	1116	G	O5'-P-OP1	-14.62	92.54	105.70
36	5	2139	A	N1-C2-N3	14.62	136.61	129.30
36	5	1127	G	N3-C4-C5	-14.62	121.29	128.60
1	6	1731	A	O5'-P-OP2	-14.61	92.55	105.70
1	6	1131	A	C5-C6-N6	-14.60	112.02	123.70
36	1	2618	G	N1-C6-O6	-14.59	111.14	119.90
36	5	3096	C	C6-N1-C2	-14.56	114.48	120.30
38	8	38	U	N3-C2-O2	-14.55	112.01	122.20
36	5	818	C	C6-N1-C2	14.53	126.11	120.30
36	1	2374	C	N1-C2-O2	14.52	127.61	118.90
36	5	1115	G	N1-C6-O6	14.51	128.61	119.90
36	5	1149	G	C6-C5-N7	-14.48	121.71	130.40
36	1	2981	U	N3-C2-O2	-14.46	112.08	122.20
1	6	360	A	O5'-P-OP2	-14.44	92.70	105.70
36	1	1508	C	C6-N1-C2	-14.42	114.53	120.30
37	7	49	G	C6-C5-N7	-14.41	121.76	130.40
1	2	1195	C	N3-C2-O2	-14.39	111.83	121.90
36	5	363	G	C5-C6-O6	-14.37	119.98	128.60
1	2	1280	C	C6-N1-C2	-14.36	114.56	120.30
36	1	206	G	C8-N9-C4	14.34	112.14	106.40
36	5	101	G	O5'-P-OP2	-14.33	92.80	105.70
36	1	651	G	N3-C4-N9	14.32	134.59	126.00
36	1	3181	C	C5-C4-N4	14.32	130.23	120.20
1	6	1535	U	N3-C2-O2	-14.30	112.19	122.20
36	1	92	G	N1-C6-O6	14.30	128.48	119.90
36	5	2334	U	N3-C2-O2	-14.30	112.19	122.20
36	5	2945	G	C8-N9-C4	-14.28	100.69	106.40
36	1	3217	C	N3-C2-O2	-14.27	111.91	121.90
38	4	27	U	O5'-P-OP1	-14.25	92.88	105.70
36	1	2939	G	N3-C4-C5	-14.23	121.48	128.60
1	6	1644	C	N3-C2-O2	-14.23	111.94	121.90
36	1	2639	G	N3-C2-N2	-14.22	109.94	119.90
36	5	1897	G	C4-C5-N7	14.22	116.49	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2617	U	C4-C5-C6	14.21	128.23	119.70
36	5	2689	A	N1-C2-N3	14.21	136.41	129.30
36	5	2875	U	C4-C5-C6	14.21	128.23	119.70
36	5	1151	U	N3-C4-C5	-14.21	106.08	114.60
1	6	1108	G	C8-N9-C4	-14.19	100.72	106.40
36	1	423	A	C6-N1-C2	-14.16	110.11	118.60
36	1	1298	C	O5'-P-OP1	-14.15	92.97	105.70
36	1	1594	A	N1-C6-N6	-14.14	110.11	118.60
36	5	2312	A	N1-C6-N6	-14.14	110.11	118.60
36	5	1165	A	C8-N9-C4	-14.12	100.15	105.80
36	1	2871	G	C5-C6-O6	-14.11	120.13	128.60
36	5	1054	A	C8-N9-C4	14.09	111.44	105.80
36	5	2340	U	O5'-P-OP1	-14.09	93.02	105.70
36	5	2615	G	C5-C6-O6	-14.07	120.16	128.60
36	5	2954	U	O5'-P-OP1	-14.07	93.04	105.70
36	5	64	G	C6-C5-N7	-14.06	121.96	130.40
36	1	421	G	N1-C6-O6	-14.05	111.47	119.90
36	5	82	C	C6-N1-C2	14.02	125.91	120.30
36	1	2871	G	C5-N7-C8	-13.99	97.30	104.30
36	5	2275	A	C8-N9-C4	-13.98	100.21	105.80
38	4	18	U	O5'-P-OP1	-13.96	93.13	105.70
36	1	2409	G	C8-N9-C1'	-13.94	108.88	127.00
36	1	644	G	C5-C6-O6	13.93	136.96	128.60
36	1	2622	C	C6-N1-C2	-13.93	114.73	120.30
36	5	2703	A	C4-C5-C6	13.92	123.96	117.00
36	1	2280	A	O5'-P-OP2	13.91	127.40	110.70
36	5	2851	A	N1-C6-N6	-13.91	110.25	118.60
1	6	1753	A	N3-C4-C5	-13.91	117.06	126.80
36	1	1132	C	O5'-P-OP1	-13.90	93.19	105.70
36	5	2689	A	N1-C6-N6	-13.89	110.27	118.60
36	1	2726	C	N3-C2-O2	-13.89	112.18	121.90
36	1	366	A	C8-N9-C4	-13.88	100.25	105.80
36	5	3014	U	O5'-P-OP2	-13.87	93.22	105.70
36	1	2136	C	N3-C4-C5	-13.86	116.36	121.90
36	5	2902	A	N1-C2-N3	13.86	136.23	129.30
36	1	2727	A	N1-C6-N6	-13.86	110.28	118.60
36	5	366	A	C2-N3-C4	-13.85	103.67	110.60
36	5	424	G	N1-C6-O6	13.85	128.21	119.90
36	1	2394	G	C4-C5-N7	-13.83	105.27	110.80
36	5	884	A	C6-C5-N7	-13.81	122.63	132.30
36	5	2139	A	N1-C6-N6	-13.78	110.33	118.60
1	6	1732	A	C2-N3-C4	-13.78	103.71	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2202	C	C6-N1-C2	-13.77	114.79	120.30
36	1	1340	G	C5-C6-O6	-13.75	120.35	128.60
36	5	2816	G	N3-C4-C5	13.74	135.47	128.60
36	1	806	A	C2-N3-C4	-13.74	103.73	110.60
36	1	1178	G	N3-C4-C5	-13.74	121.73	128.60
37	7	101	G	N1-C6-O6	13.73	128.13	119.90
1	6	1742	U	O5'-P-OP2	-13.70	93.37	105.70
36	1	1406	A	N1-C6-N6	13.69	126.82	118.60
37	3	98	C	C5-C6-N1	-13.69	114.15	121.00
36	5	2689	A	N9-C4-C5	13.68	111.27	105.80
36	1	2869	U	N3-C2-O2	13.66	131.76	122.20
36	1	1111	U	C5-C6-N1	-13.66	115.87	122.70
36	5	1310	G	C5-C6-O6	-13.66	120.41	128.60
36	5	1296	C	C6-N1-C2	-13.65	114.84	120.30
37	7	84	A	C8-N9-C4	-13.65	100.34	105.80
36	5	2615	G	N1-C6-O6	13.65	128.09	119.90
36	1	40	A	N1-C6-N6	-13.63	110.42	118.60
36	5	2970	C	O5'-P-OP1	-13.62	93.44	105.70
36	1	2371	G	O5'-P-OP2	-13.62	93.44	105.70
36	5	3085	G	N1-C6-O6	-13.62	111.73	119.90
36	5	867	G	N1-C6-O6	13.61	128.07	119.90
36	5	3245	A	C5-N7-C8	-13.57	97.11	103.90
36	1	3277	U	N3-C2-O2	-13.56	112.71	122.20
36	1	2385	G	C5-C6-O6	-13.54	120.47	128.60
36	5	1156	C	C6-N1-C2	-13.52	114.89	120.30
36	5	1115	G	C4-C5-N7	13.52	116.21	110.80
36	1	645	A	C5-C6-N1	13.51	124.46	117.70
36	5	2940	A	C8-N9-C4	-13.51	100.40	105.80
1	6	1730	A	N1-C6-N6	-13.50	110.50	118.60
36	1	3092	C	C6-N1-C2	13.49	125.70	120.30
36	5	1303	A	N9-C4-C5	-13.49	100.40	105.80
1	6	1467	C	C6-N1-C2	-13.49	114.91	120.30
36	5	1896	A	N1-C6-N6	-13.49	110.51	118.60
1	6	1572	G	N1-C6-O6	13.48	127.99	119.90
1	6	1112	G	N1-C6-O6	-13.48	111.81	119.90
36	1	2363	A	N9-C4-C5	13.47	111.19	105.80
36	5	2416	U	O5'-P-OP2	-13.47	93.58	105.70
36	1	780	A	N9-C4-C5	13.45	111.18	105.80
36	1	2168	A	N1-C6-N6	-13.44	110.54	118.60
37	7	93	C	C6-N1-C2	-13.43	114.93	120.30
36	5	2278	C	N1-C2-O2	13.42	126.95	118.90
36	5	3245	A	C5-C6-N1	-13.42	110.99	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	101	G	C4-C5-N7	13.40	116.16	110.80
36	1	2356	A	C5-N7-C8	-13.40	97.20	103.90
36	5	2393	G	C6-C5-N7	-13.40	122.36	130.40
36	1	635	G	C5-C6-O6	-13.38	120.57	128.60
36	5	2298	U	N1-C2-O2	13.38	132.17	122.80
36	1	3217	C	C6-N1-C1'	-13.38	104.75	120.80
1	6	1457	C	N1-C2-O2	13.38	126.93	118.90
1	2	310	C	C6-N1-C2	-13.35	114.96	120.30
36	5	924	G	O5'-P-OP1	-13.35	93.68	105.70
36	5	1152	G	C8-N9-C1'	13.33	144.33	127.00
36	5	339	C	C6-N1-C2	13.33	125.63	120.30
36	5	2400	G	N3-C4-N9	-13.33	118.00	126.00
36	5	2393	G	C4-C5-N7	13.32	116.13	110.80
1	6	1463	C	N3-C4-C5	13.31	127.23	121.90
36	1	892	U	O5'-P-OP1	13.31	126.67	110.70
36	5	669	U	N1-C2-O2	13.30	132.11	122.80
36	1	2399	A	C5-C6-N6	-13.30	113.06	123.70
1	2	1195	C	N1-C2-O2	13.29	126.87	118.90
36	5	1327	C	O5'-P-OP2	-13.28	93.75	105.70
36	5	1901	A	C5-C6-N1	13.28	124.34	117.70
36	5	3200	G	C5-C6-N1	-13.27	104.86	111.50
36	1	1542	G	N1-C6-O6	13.27	127.86	119.90
36	1	2930	A	C5-C6-N6	-13.26	113.09	123.70
36	5	1589	A	C6-C5-N7	-13.26	123.02	132.30
36	1	1392	G	C4-C5-N7	-13.26	105.50	110.80
37	7	45	A	N1-C6-N6	-13.24	110.66	118.60
36	1	2241	U	C5-C4-O4	13.22	133.83	125.90
36	5	2353	G	C5-N7-C8	-13.21	97.70	104.30
36	1	146	U	N3-C2-O2	-13.19	112.97	122.20
36	1	942	U	N3-C4-C5	-13.18	106.69	114.60
36	1	651	G	N9-C4-C5	-13.16	100.14	105.40
1	2	1096	C	N1-C2-O2	13.15	126.79	118.90
36	1	435	C	C6-N1-C2	13.15	125.56	120.30
36	1	2605	G	C2-N3-C4	-13.15	105.32	111.90
36	1	2617	U	N1-C2-N3	13.15	122.79	114.90
36	1	1103	A	O5'-P-OP1	-13.14	93.87	105.70
36	5	2137	U	O5'-P-OP1	-13.10	93.91	105.70
36	5	2139	A	N9-C4-C5	13.10	111.04	105.80
36	5	2212	C	N3-C2-O2	-13.10	112.73	121.90
36	1	1305	U	N1-C2-N3	13.09	122.76	114.90
36	1	3179	U	O5'-P-OP1	-13.09	93.92	105.70
36	5	942	U	N3-C4-C5	-13.09	106.75	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2356	A	N7-C8-N9	13.08	120.34	113.80
36	1	633	C	C6-N1-C2	-13.08	115.07	120.30
36	5	1330	A	C8-N9-C4	13.08	111.03	105.80
36	1	2631	U	N3-C2-O2	-13.07	113.05	122.20
36	5	940	G	C5-C6-N1	13.04	118.02	111.50
37	7	92	A	N1-C6-N6	13.03	126.42	118.60
36	1	1129	A	C8-N9-C4	-13.02	100.59	105.80
36	1	697	A	C8-N9-C4	13.02	111.01	105.80
1	6	1131	A	C4-C5-N7	13.01	117.20	110.70
36	5	2329	C	C6-N1-C2	13.01	125.50	120.30
36	5	2383	C	C6-N1-C2	-13.00	115.10	120.30
1	6	160	C	N3-C4-C5	13.00	127.10	121.90
36	1	635	G	C4-C5-N7	13.00	116.00	110.80
36	1	2353	G	C6-C5-N7	-12.99	122.60	130.40
36	5	578	A	N9-C4-C5	12.97	110.99	105.80
36	5	2943	G	C6-C5-N7	-12.96	122.62	130.40
36	1	423	A	N1-C2-N3	12.95	135.77	129.30
1	6	621	A	N1-C6-N6	-12.94	110.84	118.60
36	5	2932	U	N3-C4-O4	-12.94	110.34	119.40
36	1	2880	U	C5-C4-O4	12.94	133.66	125.90
1	6	1506	G	O5'-P-OP1	-12.94	94.06	105.70
36	1	2811	A	C5-C6-N6	-12.92	113.36	123.70
36	5	669	U	N3-C2-O2	-12.90	113.17	122.20
36	1	596	C	N3-C2-O2	-12.90	112.87	121.90
36	1	2368	A	N1-C6-N6	12.89	126.33	118.60
36	1	1433	A	C6-N1-C2	-12.89	110.87	118.60
1	6	1025	A	N1-C6-N6	12.87	126.32	118.60
36	5	1303	A	O5'-P-OP1	-12.86	94.12	105.70
36	5	2942	C	C5-C4-N4	12.87	129.21	120.20
36	5	929	A	C2-N3-C4	12.86	117.03	110.60
36	5	2400	G	C8-N9-C1'	12.86	143.72	127.00
1	6	1614	A	N1-C6-N6	12.85	126.31	118.60
36	5	1165	A	N7-C8-N9	12.84	120.22	113.80
1	6	1484	G	O5'-P-OP1	-12.83	94.15	105.70
36	1	101	G	C6-C5-N7	-12.83	122.70	130.40
1	6	321	C	C6-N1-C2	-12.83	115.17	120.30
36	1	2939	G	C5-N7-C8	12.82	110.71	104.30
36	5	1295	G	C6-C5-N7	-12.82	122.70	130.40
36	5	2310	U	O5'-P-OP1	-12.82	94.16	105.70
36	5	2353	G	C8-N9-C4	-12.82	101.27	106.40
37	3	7	G	N1-C6-O6	-12.82	112.21	119.90
1	6	1100	G	C8-N9-C4	12.82	111.53	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2305	G	N9-C4-C5	12.82	110.53	105.40
36	1	3217	C	N1-C2-O2	12.81	126.58	118.90
36	5	1403	C	C6-N1-C2	12.80	125.42	120.30
36	1	780	A	N1-C6-N6	-12.79	110.92	118.60
36	1	101	G	C5-C6-O6	-12.79	120.93	128.60
36	1	2334	U	O5'-P-OP2	-12.78	94.20	105.70
36	5	1198	C	N3-C2-O2	-12.77	112.96	121.90
36	5	2897	A	N1-C6-N6	12.77	126.26	118.60
36	5	1365	G	N3-C2-N2	-12.77	110.96	119.90
36	1	2953	U	C6-N1-C2	-12.77	113.34	121.00
36	1	2980	U	N1-C2-N3	12.76	122.56	114.90
36	1	942	U	N3-C4-O4	12.75	128.33	119.40
36	1	69	C	O5'-P-OP1	-12.75	94.22	105.70
36	1	651	G	C5-C6-O6	-12.75	120.95	128.60
36	1	938	C	C6-N1-C2	-12.74	115.20	120.30
36	5	1156	C	C5-C6-N1	12.73	127.37	121.00
36	1	3181	C	C6-N1-C2	-12.73	115.21	120.30
36	5	2811	A	C6-N1-C2	-12.73	110.97	118.60
36	5	1310	G	C4-C5-N7	12.72	115.89	110.80
1	6	1470	C	C6-N1-C2	-12.70	115.22	120.30
1	6	1607	G	O5'-P-OP1	-12.70	94.27	105.70
36	5	2353	G	C5-C6-O6	-12.70	120.98	128.60
36	5	639	G	C2-N3-C4	-12.70	105.55	111.90
36	1	937	G	C4-C5-N7	12.69	115.88	110.80
36	5	911	C	C2-N3-C4	-12.68	113.56	119.90
36	5	2278	C	O5'-P-OP2	-12.68	94.29	105.70
1	2	1291	G	N7-C8-N9	12.68	119.44	113.10
1	6	163	G	C2-N3-C4	-12.68	105.56	111.90
1	6	419	G	O5'-P-OP1	-12.68	94.29	105.70
36	5	2950	G	C4-C5-N7	12.68	115.87	110.80
1	6	321	C	N3-C2-O2	-12.67	113.03	121.90
1	6	1494	C	C6-N1-C2	-12.67	115.23	120.30
36	5	2936	A	C5-C6-N1	12.65	124.02	117.70
36	5	2412	G	C8-N9-C4	-12.64	101.34	106.40
36	5	2875	U	N3-C2-O2	-12.64	113.35	122.20
36	1	2197	C	N3-C4-C5	12.63	126.95	121.90
36	1	1594	A	N9-C4-C5	12.63	110.85	105.80
36	5	2799	A	N1-C2-N3	12.63	135.61	129.30
1	6	1640	C	N1-C2-O2	12.62	126.47	118.90
36	5	2943	G	C4-C5-N7	12.62	115.85	110.80
36	5	2886	U	C5-C6-N1	-12.62	116.39	122.70
1	6	608	U	N3-C2-O2	-12.60	113.38	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	583	G	C5-C6-O6	12.59	136.16	128.60
36	1	780	A	C8-N9-C4	-12.59	100.77	105.80
36	1	1905	G	N9-C4-C5	12.59	110.44	105.40
36	5	1295	G	N1-C6-O6	12.59	127.45	119.90
36	1	1487	G	C8-N9-C4	-12.59	101.37	106.40
36	1	1556	C	N3-C2-O2	-12.58	113.09	121.90
36	1	2314	U	C5-C4-O4	-12.58	118.35	125.90
36	1	2385	G	N1-C6-O6	12.57	127.44	119.90
36	1	3075	G	N1-C6-O6	12.57	127.44	119.90
36	5	2847	A	N1-C6-N6	12.57	126.14	118.60
36	5	2611	U	N3-C4-C5	-12.56	107.06	114.60
36	1	751	A	C8-N9-C4	-12.55	100.78	105.80
36	1	2772	C	C2-N1-C1'	12.55	132.60	118.80
1	2	331	A	N1-C6-N6	-12.53	111.08	118.60
37	7	49	G	C5-C6-N1	-12.53	105.24	111.50
36	5	404	G	C5-C6-N1	-12.53	105.24	111.50
36	5	2978	U	O5'-P-OP2	-12.53	94.43	105.70
36	5	650	C	N3-C4-C5	12.52	126.91	121.90
36	5	2875	U	C6-N1-C2	-12.52	113.49	121.00
36	5	3026	G	C6-C5-N7	-12.51	122.89	130.40
37	7	44	C	N1-C2-N3	-12.51	110.44	119.20
36	5	1520	G	N3-C4-C5	-12.51	122.34	128.60
36	1	648	C	O5'-P-OP1	-12.46	94.48	105.70
36	1	2613	U	N3-C4-C5	-12.45	107.13	114.60
1	6	1640	C	C2-N1-C1'	12.45	132.50	118.80
36	1	1208	U	N1-C2-O2	12.45	131.51	122.80
36	5	2935	U	C5-C6-N1	12.44	128.92	122.70
36	1	1500	G	C4-C5-N7	12.44	115.77	110.80
36	1	3278	C	N1-C2-O2	12.43	126.36	118.90
36	1	65	A	C8-N9-C4	12.43	110.77	105.80
36	5	2705	A	N1-C6-N6	-12.43	111.14	118.60
36	5	2393	G	N1-C6-O6	12.42	127.35	119.90
36	1	3186	A	N1-C6-N6	-12.42	111.15	118.60
36	5	363	G	C6-C5-N7	-12.41	122.95	130.40
36	1	1120	A	O5'-P-OP1	-12.41	94.53	105.70
36	5	1198	C	C6-N1-C2	-12.40	115.34	120.30
36	5	1848	G	C8-N9-C4	12.40	111.36	106.40
36	1	3248	C	O5'-P-OP1	-12.40	94.54	105.70
36	1	964	G	C4-C5-N7	12.38	115.75	110.80
36	1	3093	C	N3-C4-C5	-12.38	116.95	121.90
36	5	874	U	N3-C4-C5	-12.37	107.18	114.60
36	1	3132	C	C6-N1-C2	12.36	125.25	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1424	C	N3-C4-C5	-12.36	116.96	121.90
36	5	2199	G	C6-C5-N7	-12.35	122.99	130.40
36	5	2620	G	N9-C4-C5	12.35	110.34	105.40
36	5	2947	G	C5-C6-O6	-12.34	121.19	128.60
36	1	2306	C	N1-C2-O2	12.34	126.30	118.90
36	5	2397	A	C2-N3-C4	-12.33	104.43	110.60
1	2	1212	G	N1-C6-O6	12.33	127.30	119.90
36	5	971	G	C5-C6-O6	12.33	136.00	128.60
36	5	3067	C	C5-C6-N1	-12.33	114.84	121.00
36	5	1127	G	C2-N3-C4	12.32	118.06	111.90
36	5	2119	A	N1-C6-N6	12.32	125.99	118.60
36	5	2346	C	N3-C4-C5	-12.32	116.97	121.90
36	1	2874	G	N3-C4-C5	-12.31	122.44	128.60
1	6	1191	U	N3-C2-O2	-12.31	113.58	122.20
36	1	873	C	C6-N1-C2	-12.31	115.38	120.30
36	5	2610	G	N3-C2-N2	-12.31	111.28	119.90
36	1	2827	U	C5-C4-O4	12.30	133.28	125.90
36	1	2869	U	C5-C4-O4	-12.30	118.52	125.90
36	1	2639	G	N3-C4-N9	-12.29	118.62	126.00
36	5	2707	C	N3-C4-C5	12.29	126.82	121.90
36	1	397	A	N1-C6-N6	-12.29	111.23	118.60
36	5	363	G	N1-C6-O6	12.28	127.27	119.90
36	5	940	G	N1-C6-O6	-12.28	112.53	119.90
36	5	3140	G	N1-C6-O6	12.27	127.26	119.90
36	5	1137	C	O5'-P-OP2	-12.26	94.67	105.70
36	1	2403	G	C5-C6-O6	-12.26	121.25	128.60
37	3	98	C	C2-N3-C4	-12.24	113.78	119.90
36	1	638	C	O5'-P-OP2	-12.22	94.70	105.70
36	1	2831	G	C6-C5-N7	-12.22	123.07	130.40
36	1	2359	C	N3-C4-C5	-12.20	117.02	121.90
37	7	76	A	O5'-P-OP2	-12.20	94.72	105.70
36	5	2757	U	O5'-P-OP1	-12.20	94.72	105.70
36	5	3129	A	C2-N3-C4	-12.20	104.50	110.60
36	5	942	U	N3-C4-O4	12.18	127.93	119.40
36	1	1720	U	N3-C2-O2	-12.18	113.67	122.20
36	5	802	C	N3-C4-C5	12.17	126.77	121.90
36	1	1901	A	C5-C6-N1	12.17	123.79	117.70
36	1	2380	U	C5-C6-N1	-12.17	116.61	122.70
36	5	2880	U	C5-C4-O4	12.17	133.20	125.90
1	6	1457	C	N3-C2-O2	-12.16	113.39	121.90
37	3	97	A	C8-N9-C4	12.16	110.67	105.80
36	5	3026	G	N1-C6-O6	12.16	127.20	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3067	C	C6-N1-C2	12.16	125.17	120.30
1	6	1622	G	N1-C6-O6	12.16	127.20	119.90
36	5	1166	G	C4-C5-N7	12.16	115.66	110.80
36	5	951	A	N1-C6-N6	-12.15	111.31	118.60
36	5	424	G	C4-C5-N7	12.15	115.66	110.80
36	1	3142	A	N1-C6-N6	-12.14	111.32	118.60
36	5	1883	A	N1-C2-N3	12.13	135.37	129.30
36	1	628	A	N1-C2-N3	12.12	135.36	129.30
36	5	1152	G	N3-C2-N2	-12.12	111.42	119.90
36	5	2848	G	O5'-P-OP1	-12.12	94.79	105.70
36	1	1061	A	C8-N9-C4	12.12	110.65	105.80
36	5	2263	C	C6-N1-C2	-12.11	115.46	120.30
36	5	957	C	C6-N1-C2	-12.11	115.46	120.30
36	1	1392	G	C5-C6-O6	12.10	135.86	128.60
36	5	2950	G	N1-C6-O6	12.10	127.16	119.90
36	5	3245	A	C4-C5-N7	12.10	116.75	110.70
1	6	338	C	C6-N1-C2	-12.10	115.46	120.30
36	1	2325	G	C6-C5-N7	-12.10	123.14	130.40
1	6	1753	A	C2-N3-C4	12.10	116.65	110.60
36	5	1489	A	N1-C2-N3	12.09	135.35	129.30
36	5	1879	A	O5'-P-OP1	12.08	125.19	110.70
36	5	2656	A	N1-C6-N6	-12.07	111.36	118.60
36	5	2136	C	N3-C4-C5	-12.07	117.07	121.90
1	6	1634	C	N1-C2-O2	12.06	126.14	118.90
36	1	28	C	C5-C6-N1	-12.06	114.97	121.00
36	1	1182	A	C8-N9-C4	12.06	110.62	105.80
36	1	281	G	C8-N9-C4	-12.05	101.58	106.40
36	5	2188	A	O5'-P-OP1	-12.05	94.85	105.70
36	5	50	U	N3-C2-O2	-12.05	113.76	122.20
36	1	1178	G	N3-C2-N2	12.05	128.33	119.90
36	1	28	C	C6-N1-C2	12.04	125.12	120.30
36	5	639	G	N1-C2-N3	12.04	131.13	123.90
36	5	1481	A	C8-N9-C4	-12.04	100.98	105.80
36	5	2353	G	N7-C8-N9	12.04	119.12	113.10
36	1	2377	G	N1-C6-O6	-12.02	112.69	119.90
36	1	1482	A	N1-C6-N6	12.02	125.81	118.60
36	1	2881	C	C6-N1-C2	12.02	125.11	120.30
1	6	140	A	C8-N9-C4	-12.02	100.99	105.80
36	1	2943	G	N1-C6-O6	12.01	127.11	119.90
36	1	1448	U	C5-C6-N1	-12.01	116.70	122.70
36	1	2727	A	C8-N9-C4	-12.01	101.00	105.80
36	5	2724	U	O5'-P-OP2	-12.01	94.89	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1456	C	N3-C4-C5	-12.00	117.10	121.90
36	1	1429	G	N1-C2-N2	-12.00	105.40	116.20
36	1	2199	G	N3-C4-C5	-12.00	122.60	128.60
36	1	2772	C	C6-N1-C1'	-12.00	106.40	120.80
36	1	2930	A	N1-C6-N6	12.00	125.80	118.60
36	5	1212	A	C5-N7-C8	-11.99	97.90	103.90
36	5	3125	U	C5-C4-O4	11.99	133.09	125.90
36	5	1149	G	N7-C8-N9	11.98	119.09	113.10
1	6	1535	U	N3-C4-O4	-11.98	111.02	119.40
36	1	35	A	N1-C6-N6	11.97	125.78	118.60
36	5	2816	G	N3-C4-N9	-11.97	118.81	126.00
36	5	1520	G	N3-C4-N9	11.97	133.18	126.00
36	1	1594	A	C8-N9-C4	-11.97	101.01	105.80
1	6	1535	U	C5-C4-O4	11.97	133.08	125.90
1	6	1524	A	C8-N9-C4	-11.97	101.01	105.80
36	1	1846	C	N1-C2-O2	-11.96	111.72	118.90
36	1	2871	G	N1-C6-O6	11.95	127.07	119.90
36	1	2241	U	N3-C4-C5	-11.95	107.43	114.60
36	5	2929	C	C5-C4-N4	-11.95	111.83	120.20
36	1	1542	G	C5-N7-C8	-11.95	98.33	104.30
1	6	139	C	C6-N1-C2	-11.95	115.52	120.30
1	2	1455	G	C5-C6-N1	-11.94	105.53	111.50
36	1	2363	A	O5'-P-OP1	-11.93	94.97	105.70
1	6	1137	A	N7-C8-N9	-11.93	107.84	113.80
1	6	29	U	N3-C2-O2	-11.92	113.85	122.20
36	1	2705	A	N1-C6-N6	-11.92	111.45	118.60
1	6	1121	C	O5'-P-OP2	-11.92	94.97	105.70
36	5	1901	A	C2-N3-C4	11.91	116.56	110.60
1	6	431	C	N1-C2-O2	-11.91	111.76	118.90
37	3	88	G	C8-N9-C4	-11.90	101.64	106.40
36	5	3242	G	O5'-P-OP2	-11.90	94.99	105.70
36	1	2159	U	N1-C2-O2	11.90	131.13	122.80
36	1	1333	C	O5'-P-OP2	-11.90	94.99	105.70
37	7	109	G	C4-C5-N7	11.90	115.56	110.80
36	5	2728	G	O5'-P-OP2	-11.90	94.99	105.70
1	6	321	C	N1-C2-O2	11.89	126.03	118.90
1	2	1600	A	N1-C6-N6	11.88	125.73	118.60
36	5	1906	G	N1-C6-O6	-11.88	112.77	119.90
36	5	3146	G	N9-C4-C5	-11.88	100.65	105.40
36	1	1542	G	C5-C6-O6	-11.88	121.47	128.60
38	4	26	U	C4-C5-C6	11.87	126.82	119.70
1	6	597	G	N1-C6-O6	11.86	127.02	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	827	A	C8-N9-C4	-11.86	101.06	105.80
38	4	140	G	C8-N9-C4	-11.85	101.66	106.40
36	1	2407	C	N1-C2-O2	-11.85	111.79	118.90
1	6	1418	G	C5-C6-N1	-11.84	105.58	111.50
36	5	96	G	N3-C4-C5	11.82	134.51	128.60
38	8	107	G	N1-C6-O6	11.82	126.99	119.90
36	5	1940	G	O5'-P-OP2	-11.82	95.06	105.70
36	5	994	G	C8-N9-C4	11.81	111.12	106.40
36	1	1386	A	N9-C4-C5	11.80	110.52	105.80
1	2	566	C	C6-N1-C2	11.80	125.02	120.30
36	1	2417	U	N1-C2-O2	-11.80	114.54	122.80
36	5	2117	A	N1-C2-N3	11.80	135.20	129.30
36	5	3182	G	N1-C6-O6	-11.80	112.82	119.90
36	1	806	A	C8-N9-C4	11.79	110.52	105.80
36	1	2942	C	N3-C4-N4	11.79	126.26	118.00
37	7	15	C	C6-N1-C2	-11.79	115.58	120.30
36	1	2352	A	C5-C6-N6	-11.79	114.27	123.70
36	5	1152	G	N9-C4-C5	11.79	110.12	105.40
36	5	2874	G	C8-N9-C4	-11.78	101.69	106.40
36	1	2880	U	N1-C2-N3	11.78	121.97	114.90
36	5	61	A	C5-C6-N6	11.78	133.12	123.70
36	5	1794	G	C8-N9-C4	11.78	111.11	106.40
36	5	2415	C	N3-C4-C5	-11.78	117.19	121.90
36	1	2919	A	C5-C6-N1	-11.77	111.81	117.70
36	5	2794	G	C5-C6-N1	11.77	117.39	111.50
1	6	1747	G	O5'-P-OP2	-11.77	95.11	105.70
36	1	2305	G	C5-C6-O6	11.77	135.66	128.60
36	1	2635	A	C8-N9-C4	-11.77	101.09	105.80
36	5	1379	G	N1-C2-N3	11.76	130.96	123.90
36	1	3209	A	N1-C6-N6	11.76	125.66	118.60
36	5	986	U	N3-C2-O2	-11.76	113.97	122.20
36	5	61	A	N1-C6-N6	-11.76	111.55	118.60
36	5	1852	G	C4-C5-N7	11.76	115.50	110.80
36	1	636	C	N1-C2-O2	-11.75	111.85	118.90
36	1	3004	C	N1-C2-O2	-11.75	111.85	118.90
1	6	1098	U	O5'-P-OP1	-11.75	95.12	105.70
36	5	366	A	N1-C2-N3	11.75	135.18	129.30
36	5	3166	C	C6-N1-C2	-11.75	115.60	120.30
37	7	85	G	C5-C6-O6	-11.75	121.55	128.60
36	1	3210	A	N1-C6-N6	-11.75	111.55	118.60
1	6	1663	G	O5'-P-OP2	-11.75	95.13	105.70
36	5	632	G	O5'-P-OP1	11.75	124.80	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1166	G	C5-N7-C8	-11.75	98.43	104.30
36	5	2874	G	C4-C5-C6	11.75	125.85	118.80
36	5	1310	G	C5-C6-N1	11.73	117.37	111.50
36	5	1336	U	C5-C4-O4	-11.73	118.86	125.90
36	1	2831	G	C4-C5-N7	11.73	115.49	110.80
36	1	1500	G	N9-C4-C5	-11.72	100.71	105.40
36	1	2765	C	C6-N1-C2	-11.72	115.61	120.30
1	6	967	A	N1-C6-N6	11.72	125.63	118.60
1	6	301	A	N1-C6-N6	-11.71	111.57	118.60
36	5	3140	G	C4-C5-N7	11.71	115.48	110.80
36	5	409	A	O5'-P-OP2	-11.71	95.17	105.70
36	1	3076	C	C6-N1-C2	-11.70	115.62	120.30
36	1	2374	C	N3-C2-O2	-11.69	113.72	121.90
36	1	2831	G	C5-C6-N1	-11.67	105.66	111.50
36	1	3004	C	N3-C2-O2	11.67	130.07	121.90
38	4	70	G	O5'-P-OP2	-11.66	95.20	105.70
36	5	2353	G	C6-C5-N7	-11.66	123.40	130.40
36	5	3140	G	C6-C5-N7	-11.66	123.40	130.40
36	5	2278	C	N1-C2-N3	-11.66	111.04	119.20
36	5	2976	A	C6-N1-C2	-11.66	111.61	118.60
36	1	277	G	C2-N3-C4	11.65	117.73	111.90
36	5	648	C	C2-N3-C4	11.64	125.72	119.90
36	1	2831	G	C5-C6-O6	-11.64	121.62	128.60
36	5	2363	A	C5-C6-N6	11.64	133.01	123.70
52	M6	110	PRO	C-N-CD	-11.62	95.03	120.60
1	6	163	G	N3-C2-N2	-11.62	111.77	119.90
36	5	2632	G	N9-C4-C5	-11.62	100.75	105.40
1	6	1610	G	N3-C4-N9	11.62	132.97	126.00
36	1	1143	A	C2-N3-C4	-11.62	104.79	110.60
36	1	1905	G	N3-C2-N2	-11.60	111.78	119.90
36	5	2913	C	O5'-P-OP1	-11.60	95.26	105.70
36	5	515	C	C6-N1-C2	11.59	124.94	120.30
36	5	959	C	N3-C4-C5	-11.59	117.26	121.90
36	1	2813	A	N1-C6-N6	-11.59	111.65	118.60
38	4	20	U	N1-C2-O2	-11.59	114.69	122.80
36	5	2305	G	C5-C6-O6	11.58	135.55	128.60
36	1	2623	G	C4-C5-N7	11.58	115.43	110.80
36	1	2811	A	C4-C5-C6	11.58	122.79	117.00
36	5	2874	G	N3-C4-C5	-11.58	122.81	128.60
36	5	2892	A	O5'-P-OP2	-11.57	95.28	105.70
36	5	938	C	N3-C4-C5	11.57	126.53	121.90
36	1	2305	G	N9-C4-C5	11.56	110.03	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1537	C	N3-C4-C5	-11.56	117.27	121.90
36	5	1367	G	C4-N9-C1'	11.56	141.53	126.50
36	5	2758	A	O5'-P-OP2	-11.56	95.29	105.70
37	7	85	G	N1-C6-O6	11.56	126.83	119.90
36	1	2618	G	C5-C6-O6	11.55	135.53	128.60
36	5	1372	C	C6-N1-C2	11.55	124.92	120.30
36	5	2308	C	N1-C2-O2	-11.55	111.97	118.90
36	5	1450	G	C8-N9-C4	-11.55	101.78	106.40
36	1	1493	G	N1-C6-O6	-11.55	112.97	119.90
36	5	2877	G	N3-C4-C5	-11.55	122.83	128.60
36	1	937	G	C5-C6-O6	-11.55	121.67	128.60
36	5	608	A	N1-C6-N6	11.55	125.53	118.60
36	1	2409	G	C4-N9-C1'	11.55	141.51	126.50
36	1	2877	G	N3-C4-N9	-11.54	119.07	126.00
36	5	1208	U	N3-C4-O4	-11.53	111.33	119.40
1	6	78	A	N1-C6-N6	-11.52	111.69	118.60
36	5	2665	U	C5-C4-O4	-11.52	118.99	125.90
36	1	2368	A	C5-C6-N6	-11.52	114.49	123.70
36	1	2382	G	N1-C6-O6	-11.52	112.99	119.90
36	5	2400	G	N3-C4-C5	11.52	134.36	128.60
36	1	1380	G	C2-N3-C4	-11.51	106.14	111.90
38	4	26	U	N1-C2-N3	11.51	121.81	114.90
36	5	1894	U	C5-C4-O4	-11.51	118.99	125.90
36	5	3245	A	C6-C5-N7	-11.51	124.25	132.30
36	1	612	U	C5-C6-N1	-11.50	116.95	122.70
1	6	1131	A	C6-C5-N7	-11.50	124.25	132.30
36	5	2617	U	C6-N1-C2	-11.50	114.10	121.00
1	6	385	A	N1-C6-N6	-11.50	111.70	118.60
36	5	2308	C	O5'-P-OP1	-11.49	95.35	105.70
36	1	2396	G	C8-N9-C4	-11.49	101.80	106.40
1	6	1631	A	O5'-P-OP1	-11.49	95.36	105.70
1	2	577	G	N1-C6-O6	11.48	126.79	119.90
37	3	106	U	O5'-P-OP1	-11.48	95.37	105.70
36	5	521	A	C2-N3-C4	-11.48	104.86	110.60
36	5	2875	U	N1-C2-N3	11.48	121.79	114.90
36	5	3061	G	N1-C6-O6	11.48	126.79	119.90
36	1	2869	U	N3-C4-O4	11.47	127.43	119.40
36	5	3146	G	C4-C5-N7	11.47	115.39	110.80
36	1	608	A	C5-C6-N6	-11.46	114.53	123.70
36	5	1114	U	N3-C4-C5	-11.46	107.72	114.60
36	5	2400	G	N1-C2-N2	11.45	126.51	116.20
36	1	1888	U	N3-C2-O2	-11.45	114.18	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2377	G	C5-C6-N1	11.45	117.23	111.50
36	1	1100	U	C5-C6-N1	-11.44	116.98	122.70
36	5	2173	U	O5'-P-OP2	-11.44	95.40	105.70
36	5	2411	U	C5-C4-O4	-11.44	119.03	125.90
36	1	1149	G	C4-C5-C6	11.44	125.67	118.80
36	5	2197	C	C6-N1-C2	11.44	124.88	120.30
36	5	256	G	C8-N9-C4	-11.44	101.83	106.40
36	5	1306	G	C8-N9-C4	-11.44	101.83	106.40
36	1	408	A	N1-C2-N3	11.43	135.02	129.30
36	5	330	G	N9-C4-C5	-11.43	100.83	105.40
1	6	163	G	N3-C4-C5	11.43	134.32	128.60
1	6	1773	C	N3-C4-C5	-11.43	117.33	121.90
36	1	1050	U	N3-C2-O2	-11.43	114.20	122.20
36	5	1317	A	C5-C6-N1	11.43	123.41	117.70
36	1	1152	G	N1-C6-O6	-11.41	113.05	119.90
1	6	991	G	O5'-P-OP2	-11.41	95.43	105.70
38	4	5	U	C6-N1-C2	11.41	127.85	121.00
36	5	695	C	C5-C6-N1	-11.41	115.30	121.00
36	1	1851	G	N1-C6-O6	11.41	126.74	119.90
1	6	927	C	N1-C2-O2	11.41	125.74	118.90
1	2	1773	C	C6-N1-C2	-11.40	115.74	120.30
1	2	1006	C	N1-C2-O2	11.40	125.74	118.90
36	5	2376	G	C5-N7-C8	-11.40	98.60	104.30
1	6	26	A	C5-C6-N1	11.39	123.40	117.70
36	5	2283	G	C4-C5-N7	11.39	115.36	110.80
36	5	1408	G	C6-C5-N7	-11.39	123.57	130.40
36	1	2623	G	C2-N3-C4	-11.39	106.21	111.90
36	5	884	A	C4-C5-N7	11.38	116.39	110.70
36	5	2799	A	C6-N1-C2	-11.38	111.77	118.60
36	5	2953	U	N3-C4-C5	-11.38	107.77	114.60
1	2	1457	C	O5'-P-OP2	-11.38	95.46	105.70
36	1	2625	C	N3-C4-C5	11.38	126.45	121.90
36	1	933	A	C4-C5-C6	11.37	122.69	117.00
36	5	2920	U	N3-C4-O4	-11.37	111.44	119.40
38	4	16	G	O5'-P-OP2	-11.37	95.47	105.70
36	5	1307	G	C6-C5-N7	-11.36	123.58	130.40
36	5	1108	U	N3-C2-O2	-11.36	114.25	122.20
36	1	1520	G	N1-C6-O6	11.36	126.72	119.90
36	5	1379	G	C6-C5-N7	-11.36	123.58	130.40
36	5	2726	C	C5-C4-N4	11.36	128.15	120.20
36	5	187	A	C8-N9-C4	-11.36	101.26	105.80
36	1	1542	G	C6-C5-N7	-11.36	123.59	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	633	U	N3-C2-O2	-11.35	114.26	122.20
1	2	1212	G	C6-C5-N7	-11.34	123.59	130.40
36	5	2957	G	C2-N3-C4	-11.34	106.23	111.90
37	7	44	C	N3-C2-O2	11.34	129.84	121.90
36	1	1149	G	C5-C6-N1	-11.34	105.83	111.50
37	7	105	C	C6-N1-C2	-11.34	115.77	120.30
36	1	2402	A	O4'-C1'-N9	11.33	117.27	108.20
36	1	2257	C	C2-N1-C1'	11.32	131.26	118.80
1	6	96	G	C8-N9-C4	-11.32	101.87	106.40
36	1	2930	A	C8-N9-C4	11.32	110.33	105.80
36	5	2700	G	C5-C6-N1	11.32	117.16	111.50
36	5	568	G	C5-C6-O6	-11.32	121.81	128.60
36	1	595	G	O5'-P-OP1	-11.31	95.52	105.70
36	1	2241	U	O5'-P-OP1	-11.31	95.52	105.70
36	5	1367	G	C4-C5-C6	11.30	125.58	118.80
36	1	964	G	N1-C6-O6	11.30	126.68	119.90
36	5	798	G	N1-C6-O6	11.30	126.68	119.90
36	1	2148	U	O5'-P-OP2	-11.29	95.54	105.70
36	1	1312	C	N3-C4-C5	-11.29	117.39	121.90
36	1	652	G	N3-C4-C5	-11.29	122.96	128.60
36	1	890	C	N3-C2-O2	-11.28	114.01	121.90
36	5	2944	U	N3-C2-O2	-11.28	114.31	122.20
36	5	1902	G	N1-C6-O6	11.28	126.67	119.90
36	5	630	A	C8-N9-C4	11.27	110.31	105.80
36	5	2715	A	C4-C5-N7	-11.27	105.07	110.70
36	5	437	G	N7-C8-N9	11.27	118.73	113.10
36	1	427	C	N3-C4-N4	11.26	125.88	118.00
1	6	1778	G	C5-N7-C8	-11.26	98.67	104.30
1	6	1556	A	C8-N9-C4	11.26	110.30	105.80
36	5	1585	C	C6-N1-C2	-11.26	115.80	120.30
36	5	3092	C	C5-C4-N4	-11.26	112.32	120.20
38	8	138	A	N1-C6-N6	-11.26	111.84	118.60
37	7	104	A	O5'-P-OP1	11.26	124.21	110.70
36	5	2620	G	C8-N9-C4	-11.26	101.90	106.40
36	5	1385	C	C6-N1-C2	-11.25	115.80	120.30
36	1	1198	C	O5'-P-OP1	-11.24	95.58	105.70
1	6	1108	G	O5'-P-OP2	-11.24	95.58	105.70
36	5	832	G	N1-C6-O6	-11.24	113.15	119.90
36	5	842	G	C8-N9-C4	11.24	110.90	106.40
1	6	583	C	C6-N1-C2	-11.24	115.81	120.30
36	1	198	A	C8-N9-C4	-11.23	101.31	105.80
36	5	1060	U	C5-C6-N1	-11.23	117.09	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	99	C	N1-C2-O2	11.23	125.64	118.90
36	5	2727	A	N1-C6-N6	-11.23	111.86	118.60
36	5	816	A	O5'-P-OP2	-11.22	95.60	105.70
36	5	96	G	C2-N3-C4	-11.22	106.29	111.90
36	5	1589	A	C4-C5-N7	11.21	116.31	110.70
36	1	2887	A	C8-N9-C4	-11.21	101.31	105.80
36	5	640	U	N1-C2-O2	-11.21	114.96	122.80
36	1	3176	G	N1-C6-O6	11.20	126.62	119.90
36	1	780	A	O5'-P-OP2	-11.19	95.63	105.70
36	1	3180	A	N1-C6-N6	-11.19	111.89	118.60
36	5	3140	G	C5-C6-O6	-11.19	121.89	128.60
36	5	939	U	OP1-P-OP2	-11.19	102.82	119.60
36	5	3019	U	N3-C2-O2	-11.19	114.37	122.20
36	1	1149	G	C6-C5-N7	-11.18	123.69	130.40
36	1	93	C	N1-C2-N3	-11.18	111.38	119.20
36	5	2199	G	C4-C5-C6	11.18	125.51	118.80
36	1	2197	C	C6-N1-C2	11.18	124.77	120.30
36	1	2613	U	N1-C2-N3	11.18	121.61	114.90
36	1	929	A	N1-C6-N6	11.17	125.30	118.60
36	1	1901	A	C6-N1-C2	-11.17	111.90	118.60
36	5	1199	C	O5'-P-OP2	-11.17	95.64	105.70
1	2	1273	G	O5'-P-OP1	-11.16	95.65	105.70
36	1	146	U	N1-C2-O2	11.16	130.61	122.80
36	1	1173	U	O5'-P-OP2	-11.16	95.66	105.70
36	5	3242	G	N1-C6-O6	-11.16	113.21	119.90
36	1	2623	G	C5-C6-O6	-11.15	121.91	128.60
36	5	637	C	C6-N1-C2	11.15	124.76	120.30
36	5	3012	A	C5-C6-N6	-11.15	114.78	123.70
36	1	2622	C	N3-C2-O2	-11.15	114.10	121.90
36	1	423	A	N9-C4-C5	11.15	110.26	105.80
36	1	1442	U	N3-C4-O4	11.15	127.20	119.40
36	5	3326	G	C8-N9-C4	11.15	110.86	106.40
1	2	1615	C	N1-C2-O2	11.14	125.59	118.90
37	7	45	A	N1-C2-N3	11.14	134.87	129.30
1	6	1645	G	N3-C4-N9	11.14	132.69	126.00
36	5	3144	G	N1-C2-N3	11.14	130.58	123.90
36	1	1448	U	C2-N3-C4	-11.14	120.32	127.00
36	1	2936	A	N1-C6-N6	-11.14	111.92	118.60
36	5	2402	A	N1-C2-N3	11.14	134.87	129.30
1	6	996	U	C5-C6-N1	11.13	128.27	122.70
36	1	2644	C	C5-C6-N1	-11.13	115.43	121.00
36	1	1306	G	C6-C5-N7	-11.13	123.72	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	994	G	N1-C6-O6	11.13	126.58	119.90
1	6	144	U	N3-C2-O2	-11.13	114.41	122.20
36	5	2280	A	N1-C6-N6	11.12	125.28	118.60
36	1	2818	U	O5'-P-OP2	-11.12	95.69	105.70
36	1	908	G	C8-N9-C4	-11.12	101.95	106.40
36	1	1393	A	N1-C2-N3	11.12	134.86	129.30
36	1	2168	A	N9-C4-C5	11.12	110.25	105.80
1	6	1781	A	C8-N9-C4	-11.12	101.35	105.80
36	5	2940	A	N7-C8-N9	11.12	119.36	113.80
36	1	2948	C	C6-N1-C2	-11.12	115.85	120.30
36	5	1142	G	C8-N9-C4	-11.11	101.95	106.40
36	5	2382	G	N3-C4-N9	-11.11	119.33	126.00
36	5	2931	C	N3-C4-C5	11.11	126.34	121.90
36	1	2380	U	C2-N3-C4	-11.11	120.34	127.00
36	5	2512	C	C6-N1-C2	11.11	124.74	120.30
36	1	3096	C	C6-N1-C2	-11.10	115.86	120.30
36	1	798	G	C5-N7-C8	-11.10	98.75	104.30
36	5	1527	C	C6-N1-C2	11.10	124.74	120.30
36	1	585	A	C6-N1-C2	-11.10	111.94	118.60
36	5	2346	C	N3-C4-N4	11.09	125.76	118.00
36	1	1411	C	N3-C2-O2	-11.09	114.14	121.90
36	1	806	A	N1-C2-N3	11.08	134.84	129.30
1	6	1753	A	C8-N9-C4	-11.08	101.37	105.80
38	4	5	U	C5-C6-N1	-11.08	117.16	122.70
36	5	1430	U	C5-C6-N1	-11.08	117.16	122.70
36	5	1441	G	O5'-P-OP1	-11.08	95.73	105.70
36	5	1321	G	N3-C2-N2	-11.07	112.15	119.90
37	7	88	G	C8-N9-C4	-11.07	101.97	106.40
36	5	1323	G	C8-N9-C4	-11.07	101.97	106.40
1	2	1486	G	C4-N9-C1'	11.07	140.89	126.50
36	1	89	A	N1-C2-N3	11.07	134.83	129.30
36	1	2396	G	N7-C8-N9	11.07	118.64	113.10
36	1	796	U	O5'-P-OP1	-11.07	95.74	105.70
36	5	578	A	C5-C6-N6	11.07	132.55	123.70
36	5	2886	U	N1-C2-N3	11.06	121.54	114.90
36	5	842	G	C5-C6-N1	11.06	117.03	111.50
36	1	2356	A	C8-N9-C4	-11.06	101.38	105.80
36	5	517	G	N1-C6-O6	11.06	126.54	119.90
67	o1	97	LEU	CA-CB-CG	-11.06	89.86	115.30
36	5	927	C	C5-C4-N4	-11.06	112.46	120.20
36	5	2816	G	N3-C2-N2	-11.06	112.16	119.90
36	5	3061	G	C5-C6-O6	-11.05	121.97	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3122	A	C5-N7-C8	-11.05	98.38	103.90
36	1	2399	A	N1-C6-N6	11.05	125.23	118.60
36	1	1306	G	N1-C6-O6	11.04	126.53	119.90
36	5	1292	C	C6-N1-C2	11.04	124.72	120.30
36	5	66	A	C8-N9-C4	11.04	110.22	105.80
36	5	2863	G	N3-C4-N9	-11.04	119.38	126.00
36	5	3383	G	C5-C6-O6	-11.04	121.98	128.60
36	1	1120	A	C6-N1-C2	-11.04	111.98	118.60
36	5	2895	G	N1-C2-N3	11.04	130.52	123.90
36	1	3274	A	C8-N9-C4	-11.03	101.39	105.80
36	5	928	C	O5'-P-OP2	-11.04	95.77	105.70
1	6	1777	G	C6-C5-N7	-11.03	123.78	130.40
36	5	2298	U	N3-C2-O2	-11.03	114.48	122.20
36	5	2943	G	C5-C6-O6	-11.03	121.98	128.60
1	6	576	G	N1-C6-O6	11.02	126.52	119.90
36	5	1852	G	N1-C6-O6	11.02	126.51	119.90
38	4	94	C	N3-C4-C5	11.02	126.31	121.90
36	5	638	C	C6-N1-C2	-11.02	115.89	120.30
36	1	1442	U	N3-C2-O2	11.01	129.91	122.20
36	1	1658	G	N3-C2-N2	-11.01	112.19	119.90
36	1	2187	G	C5-C6-O6	11.01	135.21	128.60
36	1	3208	G	N3-C4-N9	11.01	132.61	126.00
36	5	3393	U	C5-C6-N1	-11.01	117.19	122.70
36	5	994	G	C6-C5-N7	-11.01	123.80	130.40
36	1	220	G	C5-C6-N1	-11.01	106.00	111.50
36	1	2927	C	N3-C2-O2	11.01	129.60	121.90
36	5	933	A	O5'-P-OP2	-11.01	95.79	105.70
36	5	1307	G	N1-C6-O6	11.01	126.50	119.90
36	5	1435	A	N1-C6-N6	-11.01	112.00	118.60
36	5	2278	C	C5-C4-N4	-11.01	112.50	120.20
36	5	2879	C	N1-C2-O2	-11.01	112.30	118.90
36	5	3206	C	N3-C2-O2	-11.01	114.20	121.90
36	5	994	G	N3-C4-N9	11.00	132.60	126.00
36	1	693	A	O5'-P-OP1	-11.00	95.80	105.70
36	5	1927	G	O5'-P-OP2	-10.99	95.81	105.70
36	5	2741	C	C6-N1-C2	-10.99	115.90	120.30
36	1	2093	A	C2-N3-C4	10.99	116.10	110.60
36	1	1050	U	C5-C6-N1	-10.99	117.20	122.70
36	1	3025	C	O5'-P-OP1	-10.99	95.81	105.70
36	5	2149	A	C2-N3-C4	-10.98	105.11	110.60
36	5	2708	C	C5-C4-N4	-10.98	112.51	120.20
36	1	2727	A	C4-C5-N7	-10.98	105.21	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1139	G	N3-C4-N9	-10.98	119.41	126.00
36	5	2275	A	O5'-P-OP1	-10.98	95.82	105.70
36	1	1429	G	C8-N9-C4	10.98	110.79	106.40
36	1	2877	G	N9-C4-C5	10.98	109.79	105.40
36	5	2341	A	N1-C2-N3	10.98	134.79	129.30
36	5	2875	U	N3-C4-C5	-10.98	108.01	114.60
36	1	2199	G	N3-C4-N9	10.97	132.58	126.00
1	6	393	C	N3-C4-C5	10.97	126.29	121.90
36	5	2970	C	N3-C4-C5	-10.97	117.51	121.90
1	6	891	A	C8-N9-C4	10.97	110.19	105.80
36	5	644	G	C5-C6-O6	10.97	135.18	128.60
36	5	1149	G	C5-C6-O6	-10.97	122.02	128.60
36	5	854	G	N3-C2-N2	-10.96	112.22	119.90
36	1	2727	A	C5-C6-N6	10.96	132.47	123.70
36	1	1152	G	C5-C6-N1	10.96	116.98	111.50
36	1	35	A	C4-C5-N7	10.95	116.17	110.70
36	5	1152	G	C4-N9-C1'	-10.95	112.27	126.50
36	1	104	G	N1-C6-O6	10.94	126.47	119.90
36	5	2816	G	O5'-P-OP2	-10.94	95.85	105.70
1	6	1640	C	N3-C2-O2	-10.94	114.25	121.90
36	5	2341	A	C2-N3-C4	-10.94	105.13	110.60
36	5	2728	G	C6-C5-N7	-10.94	123.84	130.40
36	5	3140	G	C8-N9-C1'	-10.94	112.78	127.00
36	1	2363	A	C5-C6-N6	10.93	132.45	123.70
36	5	2376	G	N7-C8-N9	10.93	118.57	113.10
36	5	64	G	N7-C8-N9	10.93	118.57	113.10
36	1	585	A	N1-C2-N3	10.93	134.76	129.30
36	5	1902	G	O5'-P-OP1	-10.93	95.86	105.70
36	5	2296	A	C8-N9-C4	10.93	110.17	105.80
1	6	1637	C	N1-C2-O2	10.93	125.45	118.90
36	5	64	G	C8-N9-C4	-10.93	102.03	106.40
36	5	784	A	N1-C6-N6	10.92	125.16	118.60
36	1	2635	A	N9-C4-C5	10.92	110.17	105.80
1	6	697	C	C6-N1-C2	-10.92	115.93	120.30
36	5	3041	U	N3-C4-C5	10.92	121.15	114.60
38	8	38	U	C6-N1-C2	-10.92	114.45	121.00
36	1	25	U	N3-C4-C5	-10.91	108.05	114.60
36	5	2906	C	N3-C4-N4	10.91	125.64	118.00
36	1	2887	A	C5-C6-N1	10.91	123.16	117.70
38	4	99	C	C6-N1-C2	10.91	124.66	120.30
36	5	3146	G	C6-C5-N7	-10.91	123.85	130.40
36	1	2613	U	O5'-P-OP2	-10.90	95.89	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2661	G	C8-N9-C1'	-10.89	112.84	127.00
36	5	3091	A	C2-N3-C4	-10.89	105.15	110.60
36	5	1004	U	O5'-P-OP1	-10.89	95.90	105.70
36	5	3091	A	C6-C5-N7	-10.89	124.68	132.30
1	2	967	A	N1-C6-N6	10.88	125.13	118.60
36	5	1203	A	O5'-P-OP1	-10.88	95.90	105.70
36	1	1429	G	N1-C2-N3	10.88	130.43	123.90
36	5	1293	U	O5'-P-OP1	-10.88	95.91	105.70
36	5	2139	A	C6-N1-C2	-10.88	112.07	118.60
36	5	1178	G	N1-C6-O6	-10.88	113.37	119.90
36	5	2971	A	N1-C6-N6	-10.88	112.07	118.60
36	1	281	G	N9-C4-C5	10.87	109.75	105.40
36	1	1002	A	C8-N9-C4	10.87	110.15	105.80
36	1	2979	U	C2-N1-C1'	-10.87	104.65	117.70
36	1	423	A	C8-N9-C4	-10.87	101.45	105.80
36	5	2616	C	C6-N1-C2	-10.87	115.95	120.30
36	1	729	C	C6-N1-C2	-10.87	115.95	120.30
36	1	1178	G	C6-C5-N7	-10.86	123.88	130.40
36	5	639	G	C6-C5-N7	-10.86	123.89	130.40
36	5	2376	G	C8-N9-C4	-10.86	102.06	106.40
36	1	1116	G	C6-C5-N7	-10.86	123.89	130.40
38	4	12	A	N1-C6-N6	10.86	125.11	118.60
36	5	2811	A	N1-C6-N6	-10.86	112.09	118.60
36	1	224	C	C6-N1-C2	-10.85	115.96	120.30
36	1	691	A	C2-N3-C4	-10.85	105.17	110.60
36	5	2847	A	C2-N3-C4	-10.85	105.17	110.60
37	7	116	C	N3-C4-C5	10.85	126.24	121.90
36	1	2898	G	O5'-P-OP2	-10.85	95.94	105.70
36	1	86	G	O5'-P-OP2	-10.85	95.94	105.70
36	5	857	G	C5-C6-N1	-10.84	106.08	111.50
36	5	3065	G	C2-N3-C4	-10.84	106.48	111.90
36	1	962	A	O5'-P-OP1	-10.84	95.94	105.70
36	1	2145	A	C5-C6-N1	10.84	123.12	117.70
36	5	2700	G	N3-C4-C5	-10.84	123.18	128.60
36	5	1374	G	N3-C4-C5	10.83	134.02	128.60
36	5	2397	A	C5-N7-C8	-10.83	98.48	103.90
36	5	969	C	N1-C2-O2	-10.83	112.40	118.90
36	5	2661	G	N3-C4-N9	10.83	132.50	126.00
36	5	2877	G	N1-C2-N2	-10.83	106.45	116.20
37	7	92	A	O5'-P-OP1	-10.83	95.95	105.70
36	5	94	G	N3-C4-N9	-10.82	119.51	126.00
37	3	82	G	N1-C2-N3	10.82	130.39	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	758	U	C5-C4-O4	10.81	132.39	125.90
38	4	26	U	C5-C4-O4	10.81	132.39	125.90
1	6	1025	A	C6-C5-N7	-10.81	124.73	132.30
36	1	2400	G	N1-C6-O6	10.81	126.38	119.90
36	1	2617	U	C5-C6-N1	-10.81	117.30	122.70
36	5	1151	U	N3-C4-O4	10.81	126.97	119.40
36	1	832	G	O5'-P-OP2	-10.80	95.97	105.70
36	1	1414	G	C4-C5-N7	10.80	115.12	110.80
36	1	2385	G	C4-C5-N7	10.80	115.12	110.80
36	5	2386	A	C5-N7-C8	-10.80	98.50	103.90
36	5	3383	G	C4-C5-N7	10.80	115.12	110.80
36	1	939	U	C5-C6-N1	10.80	128.10	122.70
36	1	651	G	N1-C6-O6	10.80	126.38	119.90
36	1	1000	C	N3-C2-O2	10.80	129.46	121.90
36	5	2391	G	N1-C6-O6	-10.80	113.42	119.90
36	5	1665	C	C6-N1-C2	10.79	124.62	120.30
36	5	2278	C	C6-N1-C1'	-10.79	107.85	120.80
36	1	652	G	O5'-P-OP2	-10.78	95.99	105.70
36	5	1196	C	C5-C4-N4	10.78	127.75	120.20
36	5	2354	C	N3-C4-C5	-10.78	117.59	121.90
36	5	2927	C	N1-C2-O2	-10.78	112.43	118.90
36	5	2246	G	C8-N9-C4	-10.78	102.09	106.40
36	1	2869	U	N1-C2-O2	-10.77	115.26	122.80
38	4	32	C	N3-C4-C5	-10.77	117.59	121.90
38	4	12	A	C5-N7-C8	-10.77	98.52	103.90
36	5	2870	C	C6-N1-C2	10.77	124.61	120.30
36	5	2945	G	N7-C8-N9	10.77	118.48	113.10
36	1	979	U	N3-C2-O2	-10.76	114.67	122.20
36	1	1152	G	C2-N3-C4	10.76	117.28	111.90
36	1	2931	C	C6-N1-C2	10.76	124.60	120.30
1	6	1127	G	N1-C6-O6	10.76	126.36	119.90
1	6	1622	G	C5-C6-O6	-10.76	122.14	128.60
36	5	2278	C	O5'-P-OP1	10.76	123.61	110.70
36	1	2280	A	O5'-P-OP1	-10.76	96.02	105.70
36	5	1546	A	N1-C2-N3	10.75	134.68	129.30
36	5	189	G	N1-C6-O6	-10.75	113.45	119.90
36	5	3079	U	C5-C4-O4	10.75	132.35	125.90
38	4	4	C	C2-N3-C4	-10.75	114.53	119.90
36	5	1107	C	C4-C5-C6	10.74	122.77	117.40
36	5	1156	C	O5'-P-OP1	-10.74	96.03	105.70
36	1	1204	A	C2-N3-C4	-10.74	105.23	110.60
36	1	2655	U	C6-N1-C2	-10.74	114.56	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2363	A	N1-C6-N6	-10.74	112.16	118.60
36	5	2644	C	N1-C2-O2	-10.74	112.46	118.90
1	6	1509	C	O5'-P-OP2	-10.74	96.04	105.70
36	5	2403	G	N1-C6-O6	10.74	126.34	119.90
36	5	1373	A	C5-C6-N6	-10.73	115.11	123.70
36	5	2662	G	C8-N9-C1'	-10.73	113.05	127.00
36	1	828	A	C5-N7-C8	-10.73	98.54	103.90
36	5	3188	G	N3-C4-C5	-10.72	123.24	128.60
36	5	3307	A	N1-C6-N6	10.72	125.03	118.60
36	5	640	U	C6-N1-C2	-10.72	114.57	121.00
36	5	2870	C	C5-C6-N1	-10.72	115.64	121.00
1	2	449	C	C6-N1-C2	-10.71	116.01	120.30
36	1	36	C	N1-C2-O2	10.71	125.33	118.90
36	1	1420	C	N1-C2-O2	-10.71	112.47	118.90
36	1	101	G	N9-C4-C5	-10.71	101.11	105.40
36	1	808	A	C6-N1-C2	-10.71	112.18	118.60
1	6	431	C	N3-C4-C5	-10.71	117.62	121.90
36	5	2623	G	C8-N9-C4	10.71	110.68	106.40
36	1	2996	U	C2-N1-C1'	10.70	130.54	117.70
36	1	3217	C	C6-N1-C2	-10.71	116.02	120.30
38	4	12	A	C4-C5-N7	10.70	116.05	110.70
36	5	1321	G	C5-C6-N1	-10.70	106.15	111.50
36	1	1061	A	N7-C8-N9	-10.70	108.45	113.80
36	1	1116	G	N1-C2-N2	-10.70	106.57	116.20
36	1	651	G	C6-C5-N7	-10.70	123.98	130.40
36	1	2985	C	N1-C2-O2	-10.69	112.48	118.90
1	6	1610	G	N3-C4-C5	-10.70	123.25	128.60
36	5	1203	A	N1-C6-N6	10.69	125.02	118.60
36	5	932	U	N3-C4-C5	10.69	121.02	114.60
36	5	1590	G	C8-N9-C4	10.69	110.68	106.40
36	5	2363	A	N9-C4-C5	10.69	110.08	105.80
36	5	3096	C	N3-C4-C5	-10.69	117.62	121.90
1	6	1664	C	N3-C4-C5	-10.69	117.62	121.90
36	1	187	A	N1-C6-N6	-10.68	112.19	118.60
36	1	1151	U	N3-C4-C5	-10.68	108.19	114.60
36	5	567	G	N1-C6-O6	10.68	126.31	119.90
36	5	1310	G	C6-C5-N7	-10.68	124.00	130.40
36	5	2684	C	C6-N1-C2	-10.68	116.03	120.30
1	6	1280	C	N3-C4-C5	-10.67	117.63	121.90
36	5	1377	G	C5-C6-O6	10.67	135.00	128.60
36	5	2698	G	C8-N9-C4	10.67	110.67	106.40
37	7	15	C	C2-N1-C1'	10.67	130.54	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1047	A	O5'-P-OP2	-10.67	96.10	105.70
36	1	645	A	C8-N9-C4	-10.66	101.53	105.80
1	6	144	U	N1-C2-O2	10.66	130.26	122.80
36	5	2393	G	C5-C6-O6	-10.66	122.20	128.60
36	5	2689	A	C6-N1-C2	-10.66	112.20	118.60
36	5	2852	C	C6-N1-C2	10.66	124.57	120.30
36	5	2700	G	N1-C6-O6	-10.66	113.50	119.90
1	6	1278	G	C8-N9-C4	-10.66	102.14	106.40
36	5	3045	G	C8-N9-C4	-10.66	102.14	106.40
1	2	1615	C	N3-C2-O2	-10.66	114.44	121.90
36	5	2395	G	C4-C5-N7	10.66	115.06	110.80
36	5	3137	C	N3-C4-N4	10.66	125.46	118.00
36	1	1438	U	N1-C2-N3	10.65	121.29	114.90
36	5	796	U	N3-C2-O2	-10.65	114.74	122.20
36	5	2634	U	C5-C4-O4	-10.65	119.51	125.90
36	1	1065	A	N1-C2-N3	10.65	134.62	129.30
36	1	3142	A	C5-C6-N6	10.65	132.22	123.70
36	5	960	U	N1-C2-O2	10.65	130.26	122.80
36	5	2921	U	C6-N1-C2	10.65	127.39	121.00
36	5	3124	G	C8-N9-C4	-10.65	102.14	106.40
36	1	609	G	C6-C5-N7	-10.65	124.01	130.40
36	1	1307	G	P-O3'-C3'	10.65	132.48	119.70
36	5	1196	C	C5-C6-N1	-10.65	115.68	121.00
36	5	3078	U	C5-C4-O4	10.64	132.29	125.90
36	1	1414	G	N1-C6-O6	10.64	126.28	119.90
36	5	1050	U	C5-C6-N1	-10.64	117.38	122.70
36	1	2957	G	O5'-P-OP2	-10.63	96.13	105.70
36	5	998	A	N1-C2-N3	10.63	134.62	129.30
36	5	3182	G	C5-C6-O6	10.63	134.98	128.60
36	1	1585	C	C6-N1-C2	10.63	124.55	120.30
36	5	2942	C	N3-C4-N4	-10.62	110.56	118.00
36	1	2644	C	C2-N3-C4	-10.62	114.59	119.90
37	7	84	A	N7-C8-N9	10.62	119.11	113.80
36	1	205	C	C5-C6-N1	-10.62	115.69	121.00
36	1	2414	G	C2-N3-C4	-10.62	106.59	111.90
36	1	2707	C	C6-N1-C2	-10.62	116.05	120.30
36	1	1592	G	N3-C4-C5	-10.62	123.29	128.60
1	6	1644	C	N1-C2-O2	10.62	125.27	118.90
36	5	667	C	N3-C4-N4	-10.62	110.57	118.00
36	5	3245	A	N7-C8-N9	10.62	119.11	113.80
36	5	1176	C	C2-N1-C1'	-10.62	107.12	118.80
1	6	1758	U	O5'-P-OP2	-10.61	96.15	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2378	C	O5'-P-OP1	-10.61	96.15	105.70
36	5	857	G	C8-N9-C4	-10.61	102.16	106.40
36	1	316	U	C6-N1-C2	-10.61	114.64	121.00
36	5	2428	U	C5-C6-N1	-10.61	117.40	122.70
36	1	651	G	C8-N9-C1'	-10.60	113.22	127.00
36	1	1386	A	C5-C6-N6	10.60	132.18	123.70
36	1	1224	C	C6-N1-C2	-10.60	116.06	120.30
1	2	543	C	N1-C2-O2	10.60	125.26	118.90
1	6	142	G	C4-C5-N7	-10.60	106.56	110.80
1	6	474	A	N1-C2-N3	-10.60	124.00	129.30
36	5	2246	G	N7-C8-N9	10.60	118.40	113.10
36	5	1794	G	N3-C4-C5	10.59	133.90	128.60
36	1	890	C	N1-C2-O2	10.59	125.25	118.90
36	1	220	G	N1-C6-O6	10.59	126.25	119.90
36	1	1387	G	N1-C2-N3	10.59	130.25	123.90
1	6	139	C	N3-C2-O2	-10.59	114.49	121.90
36	5	2936	A	N3-C4-C5	-10.59	119.39	126.80
36	5	917	A	O5'-P-OP2	-10.58	96.18	105.70
36	1	1149	G	N1-C6-O6	10.58	126.25	119.90
36	5	637	C	N3-C4-C5	10.58	126.13	121.90
36	1	2811	A	C6-C5-N7	-10.58	124.90	132.30
36	5	595	G	C6-C5-N7	-10.58	124.05	130.40
36	5	1141	C	O5'-P-OP2	-10.58	96.18	105.70
36	1	2390	A	N1-C6-N6	-10.57	112.25	118.60
36	5	648	C	C6-N1-C2	-10.57	116.07	120.30
36	5	2941	A	O5'-P-OP2	-10.57	96.18	105.70
1	6	1005	A	N1-C2-N3	10.57	134.59	129.30
36	1	625	G	O5'-P-OP2	-10.57	96.19	105.70
36	5	1486	G	N3-C4-C5	10.57	133.88	128.60
1	2	377	G	N3-C4-N9	-10.56	119.66	126.00
36	5	512	U	C5-C6-N1	-10.56	117.42	122.70
36	5	1339	C	O5'-P-OP1	-10.56	96.19	105.70
36	5	3140	G	N9-C4-C5	-10.56	101.18	105.40
1	2	1291	G	C8-N9-C4	-10.56	102.18	106.40
36	1	1182	A	N1-C6-N6	10.56	124.93	118.60
36	1	818	C	N3-C4-C5	-10.55	117.68	121.90
36	1	345	G	C4-C5-C6	10.54	125.12	118.80
36	5	1292	C	N1-C2-O2	-10.54	112.58	118.90
36	5	2637	A	N1-C2-N3	10.54	134.57	129.30
36	1	1377	G	N1-C6-O6	10.54	126.22	119.90
36	5	3069	G	C4-C5-N7	10.54	115.02	110.80
38	8	133	G	C8-N9-C4	10.53	110.61	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1340	G	C5-C6-N1	10.53	116.77	111.50
36	1	1141	C	C6-N1-C2	-10.53	116.09	120.30
36	5	521	A	C8-N9-C4	-10.53	101.59	105.80
36	1	1408	G	N1-C6-O6	10.53	126.22	119.90
1	6	421	A	C8-N9-C4	10.53	110.01	105.80
36	1	394	G	N9-C4-C5	10.52	109.61	105.40
36	1	895	A	C8-N9-C4	-10.51	101.59	105.80
1	6	1296	A	O5'-P-OP1	-10.51	96.24	105.70
36	5	3227	A	N1-C6-N6	10.51	124.91	118.60
36	1	938	C	N3-C2-O2	-10.51	114.54	121.90
36	1	335	G	C8-N9-C4	-10.50	102.20	106.40
36	1	656	A	C5-C6-N1	10.50	122.95	117.70
36	1	1398	U	N1-C2-N3	10.50	121.20	114.90
36	5	874	U	N1-C2-N3	10.50	121.20	114.90
36	5	3092	C	C6-N1-C2	10.50	124.50	120.30
1	6	794	U	C2-N1-C1'	10.50	130.29	117.70
36	1	973	A	N1-C6-N6	-10.49	112.30	118.60
36	1	3018	C	C6-N1-C2	10.49	124.50	120.30
1	6	337	G	C5-N7-C8	-10.49	99.05	104.30
36	1	2408	U	C6-N1-C2	-10.49	114.70	121.00
36	1	645	A	C6-N1-C2	-10.49	112.31	118.60
36	1	1500	G	C5-C6-O6	-10.49	122.31	128.60
36	5	2715	A	O5'-P-OP1	-10.49	96.26	105.70
36	5	94	G	N3-C4-C5	10.48	133.84	128.60
36	5	3323	A	C8-N9-C4	-10.48	101.61	105.80
1	6	1426	C	C6-N1-C2	10.48	124.49	120.30
36	5	1129	A	C5-C6-N6	-10.48	115.31	123.70
36	5	3016	A	C2-N3-C4	-10.48	105.36	110.60
36	5	3061	G	N3-C4-C5	10.48	133.84	128.60
37	7	44	C	N3-C4-C5	10.48	126.09	121.90
1	6	163	G	N9-C4-C5	10.48	109.59	105.40
36	5	2934	A	N1-C6-N6	10.48	124.89	118.60
36	5	1900	A	C5-C6-N1	10.47	122.94	117.70
36	5	2762	A	O5'-P-OP1	-10.47	96.27	105.70
38	4	41	A	C6-N1-C2	-10.47	112.32	118.60
36	5	867	G	O5'-P-OP2	10.47	123.27	110.70
36	1	1495	U	N1-C2-O2	-10.47	115.47	122.80
36	1	2810	C	N3-C4-C5	-10.47	117.71	121.90
36	5	227	G	O5'-P-OP2	-10.47	96.28	105.70
36	5	293	C	N3-C4-C5	10.47	126.09	121.90
36	5	2950	G	C5-C6-O6	-10.47	122.32	128.60
36	1	2605	G	N3-C4-C5	10.46	133.83	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	998	A	N1-C6-N6	-10.46	112.32	118.60
1	6	1556	A	N1-C6-N6	10.46	124.88	118.60
36	5	1209	G	N1-C6-O6	10.47	126.18	119.90
36	5	2130	G	N3-C4-C5	10.46	133.83	128.60
1	6	972	G	N1-C6-O6	10.46	126.18	119.90
36	1	424	G	C5-C6-O6	-10.46	122.33	128.60
36	1	35	A	C5-C6-N6	-10.46	115.33	123.70
36	5	994	G	C8-N9-C1'	-10.46	113.41	127.00
36	1	1547	G	N3-C4-N9	10.46	132.27	126.00
36	1	2880	U	C6-N1-C2	-10.46	114.73	121.00
36	5	2906	C	C5-C4-N4	-10.45	112.88	120.20
36	5	283	G	C8-N9-C1'	-10.45	113.41	127.00
36	1	2692	A	C8-N9-C4	-10.45	101.62	105.80
36	1	1178	G	N1-C2-N2	-10.45	106.80	116.20
36	1	272	G	N3-C4-N9	-10.44	119.73	126.00
36	5	27	C	O5'-P-OP1	-10.45	96.30	105.70
36	5	2708	C	N1-C2-O2	-10.45	112.63	118.90
36	1	358	G	C4-C5-N7	10.44	114.98	110.80
36	5	2707	C	C6-N1-C2	10.44	124.48	120.30
36	1	663	C	O5'-P-OP1	10.44	123.23	110.70
36	1	2651	G	N1-C6-O6	10.44	126.16	119.90
36	1	3313	U	O5'-P-OP2	-10.44	96.31	105.70
38	4	20	U	N1-C2-N3	10.44	121.16	114.90
37	7	37	G	N3-C4-N9	10.44	132.26	126.00
36	5	1196	C	N3-C2-O2	-10.44	114.60	121.90
36	1	1134	G	C4-C5-N7	-10.43	106.63	110.80
36	1	1433	A	C5-C6-N1	10.43	122.92	117.70
36	5	502	U	O5'-P-OP2	-10.43	96.31	105.70
36	5	52	A	O5'-P-OP1	-10.43	96.31	105.70
36	5	192	C	C6-N1-C2	-10.43	116.13	120.30
36	5	2234	G	C8-N9-C4	10.43	110.57	106.40
36	5	3362	A	C8-N9-C4	-10.43	101.63	105.80
36	1	1048	A	N1-C6-N6	-10.42	112.35	118.60
36	1	979	U	N1-C2-N3	10.42	121.15	114.90
36	1	937	G	N1-C6-O6	10.42	126.15	119.90
36	1	2281	A	O5'-P-OP2	-10.42	96.33	105.70
36	5	2187	G	N9-C4-C5	10.42	109.57	105.40
36	5	3085	G	N7-C8-N9	-10.42	107.89	113.10
1	6	1536	G	O5'-P-OP1	-10.41	96.33	105.70
36	5	940	G	C6-C5-N7	10.41	136.65	130.40
36	5	2900	A	O5'-P-OP2	-10.41	96.33	105.70
36	1	2753	G	N1-C6-O6	-10.41	113.66	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	4	C	C6-N1-C2	-10.41	116.14	120.30
36	1	2409	G	N3-C4-N9	10.41	132.24	126.00
1	6	359	A	C4-C5-C6	-10.41	111.80	117.00
36	5	2400	G	C4-N9-C1'	-10.41	112.97	126.50
36	5	2976	A	C5-C6-N1	10.40	122.90	117.70
36	1	305	U	C5-C6-N1	-10.40	117.50	122.70
36	1	1887	A	C8-N9-C4	10.40	109.96	105.80
36	5	2353	G	N1-C6-O6	10.40	126.14	119.90
36	1	860	G	N1-C6-O6	10.40	126.14	119.90
36	5	1367	G	C8-N9-C1'	-10.40	113.48	127.00
37	7	109	G	C5-C6-O6	-10.40	122.36	128.60
1	2	1196	A	O5'-P-OP1	-10.39	96.35	105.70
1	6	905	A	N1-C6-N6	-10.39	112.36	118.60
1	6	337	G	N7-C8-N9	10.39	118.30	113.10
36	5	344	A	C8-N9-C4	-10.39	101.64	105.80
36	1	344	A	C5-N7-C8	-10.39	98.70	103.90
36	5	64	G	N1-C6-O6	10.39	126.13	119.90
36	5	2381	G	C4-C5-N7	-10.39	106.64	110.80
36	5	3210	A	N1-C6-N6	-10.39	112.36	118.60
36	1	421	G	C5-C6-N1	10.39	116.69	111.50
36	5	1861	G	O5'-P-OP2	-10.39	96.35	105.70
36	5	2927	C	N3-C2-O2	10.39	129.17	121.90
37	7	84	A	C5-N7-C8	-10.39	98.71	103.90
36	1	2363	A	C8-N9-C4	-10.39	101.65	105.80
1	6	1614	A	C2-N3-C4	-10.38	105.41	110.60
36	5	2116	G	C8-N9-C4	-10.38	102.25	106.40
36	5	2953	U	N3-C2-O2	10.38	129.47	122.20
36	1	2385	G	O5'-P-OP2	-10.38	96.36	105.70
1	6	597	G	C6-C5-N7	-10.38	124.17	130.40
36	5	3219	G	C8-N9-C4	-10.38	102.25	106.40
36	5	2953	U	N3-C4-O4	10.38	126.66	119.40
36	1	206	G	N7-C8-N9	-10.37	107.91	113.10
36	1	630	A	O5'-P-OP2	-10.37	96.36	105.70
36	1	1708	C	C6-N1-C2	10.37	124.45	120.30
36	1	2306	C	C2-N1-C1'	10.37	130.21	118.80
36	5	1931	U	C2-N1-C1'	-10.37	105.25	117.70
36	5	1379	G	N1-C2-N2	-10.37	106.87	116.20
1	2	543	C	C6-N1-C2	-10.37	116.15	120.30
36	1	404	G	C6-C5-N7	-10.37	124.18	130.40
36	5	3085	G	C5-C6-N1	10.36	116.68	111.50
1	2	14	C	C6-N1-C2	-10.36	116.16	120.30
1	2	338	C	N3-C4-C5	-10.36	117.75	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1761	U	N3-C2-O2	-10.36	114.95	122.20
36	1	1448	U	N1-C2-N3	10.36	121.12	114.90
36	5	3180	A	C2-N3-C4	-10.36	105.42	110.60
36	1	1846	C	N3-C2-O2	10.36	129.15	121.90
36	5	86	G	C5-C6-N1	10.36	116.68	111.50
36	1	425	G	N1-C6-O6	-10.35	113.69	119.90
36	1	860	G	C5-C6-O6	-10.35	122.39	128.60
36	5	2247	G	O5'-P-OP1	-10.35	96.38	105.70
36	5	2808	A	O5'-P-OP1	-10.35	96.39	105.70
36	5	2818	U	O5'-P-OP1	-10.35	96.39	105.70
36	1	2827	U	C4-C5-C6	10.35	125.91	119.70
36	5	1497	C	O5'-P-OP1	-10.35	96.39	105.70
36	5	2290	C	C6-N1-C2	10.35	124.44	120.30
36	1	644	G	N1-C6-O6	-10.34	113.69	119.90
1	6	1640	C	C6-N1-C1'	-10.34	108.39	120.80
36	5	927	C	N3-C4-N4	10.34	125.24	118.00
36	5	2305	G	C8-N9-C4	-10.33	102.27	106.40
36	5	2119	A	C6-C5-N7	-10.33	125.07	132.30
36	1	2811	A	N1-C6-N6	10.32	124.80	118.60
36	5	1367	G	C6-C5-N7	-10.32	124.21	130.40
36	5	2996	U	N1-C2-N3	-10.32	108.71	114.90
36	1	994	G	N1-C6-O6	-10.32	113.71	119.90
36	1	3181	C	N3-C4-N4	-10.32	110.78	118.00
36	5	731	U	N3-C2-O2	-10.32	114.98	122.20
36	5	922	U	C2-N1-C1'	-10.32	105.32	117.70
36	5	938	C	C4-C5-C6	-10.32	112.24	117.40
36	5	2673	A	C8-N9-C4	10.31	109.92	105.80
36	1	1195	A	C8-N9-C4	-10.31	101.68	105.80
36	1	2185	G	C6-C5-N7	-10.31	124.22	130.40
36	1	2672	G	N1-C6-O6	-10.31	113.72	119.90
36	5	2689	A	N7-C8-N9	10.31	118.95	113.80
36	5	668	G	N7-C8-N9	-10.31	107.95	113.10
36	1	2409	G	C4-C5-C6	10.30	124.98	118.80
36	1	2628	A	C8-N9-C4	-10.30	101.68	105.80
36	5	858	A	N1-C6-N6	-10.31	112.42	118.60
36	5	1592	G	C4-C5-N7	-10.30	106.68	110.80
36	1	395	A	O5'-P-OP2	-10.30	96.43	105.70
37	7	106	U	C5-C6-N1	-10.30	117.55	122.70
36	1	3273	A	C5-C6-N1	10.30	122.85	117.70
37	3	95	A	C2-N3-C4	-10.30	105.45	110.60
36	1	2831	G	N3-C4-C5	10.29	133.75	128.60
36	1	967	A	N1-C2-N3	10.29	134.45	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2947	G	C5-C6-N1	10.29	116.65	111.50
36	1	1316	C	C4-C5-C6	10.29	122.54	117.40
36	5	1163	A	O5'-P-OP2	-10.29	96.44	105.70
36	1	209	A	C2-N3-C4	-10.29	105.46	110.60
36	1	2811	A	N3-C4-C5	-10.29	119.60	126.80
36	5	1181	U	N1-C2-N3	10.29	121.07	114.90
36	1	2175	U	O5'-P-OP1	-10.28	96.45	105.70
1	6	144	U	C2-N1-C1'	10.28	130.04	117.70
36	5	3041	U	C2-N3-C4	-10.28	120.83	127.00
36	1	908	G	C4-N9-C1'	10.28	139.86	126.50
36	1	942	U	C4-C5-C6	10.28	125.87	119.70
36	1	2352	A	N1-C6-N6	10.28	124.77	118.60
36	5	860	G	C4-C5-N7	10.28	114.91	110.80
36	5	2272	G	O4'-C1'-N9	10.28	116.42	108.20
36	1	923	C	C6-N1-C2	10.27	124.41	120.30
36	5	3385	U	C5-C6-N1	-10.27	117.56	122.70
36	1	1519	G	C4-C5-N7	10.27	114.91	110.80
36	5	2117	A	C2-N3-C4	-10.27	105.47	110.60
37	7	109	G	N1-C6-O6	10.27	126.06	119.90
1	6	1730	A	N9-C4-C5	10.27	109.91	105.80
36	5	526	C	N1-C2-O2	10.27	125.06	118.90
36	5	3122	A	C8-N9-C4	-10.27	101.69	105.80
1	6	554	C	C2-N3-C4	-10.26	114.77	119.90
36	1	674	G	N1-C6-O6	10.26	126.05	119.90
36	5	806	A	C2-N3-C4	-10.26	105.47	110.60
36	5	1196	C	N3-C4-N4	-10.26	110.82	118.00
36	5	2872	A	C4-C5-C6	-10.25	111.87	117.00
36	5	787	G	C2-N3-C4	-10.25	106.78	111.90
1	6	179	A	C8-N9-C4	-10.25	101.70	105.80
36	5	3309	G	N3-C4-N9	10.25	132.15	126.00
36	1	1307	G	N9-C4-C5	10.24	109.50	105.40
38	4	4	C	N1-C2-N3	10.24	126.37	119.20
36	5	2621	G	C5-C6-N1	-10.24	106.38	111.50
36	1	808	A	C5-C6-N1	10.24	122.82	117.70
1	6	554	C	C5-C6-N1	-10.24	115.88	121.00
36	5	1379	G	C2-N3-C4	-10.24	106.78	111.90
36	5	1113	G	C2-N3-C4	-10.24	106.78	111.90
36	5	3086	A	O5'-P-OP1	-10.24	96.48	105.70
36	5	3150	A	N1-C6-N6	10.24	124.74	118.60
36	5	2620	G	N1-C6-O6	-10.24	113.76	119.90
36	1	1139	G	N3-C4-N9	-10.23	119.86	126.00
38	8	1	A	N1-C6-N6	-10.23	112.46	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2927	C	N1-C2-O2	-10.23	112.76	118.90
1	6	1148	C	C6-N1-C2	-10.23	116.21	120.30
36	5	1450	G	N7-C8-N9	10.22	118.21	113.10
36	5	2879	C	N3-C2-O2	10.22	129.06	121.90
36	5	64	G	C4-C5-C6	10.22	124.93	118.80
36	5	2646	C	O5'-P-OP2	-10.22	96.50	105.70
36	1	2379	U	O5'-P-OP1	10.22	122.96	110.70
36	5	1934	G	C8-N9-C4	10.22	110.49	106.40
36	5	2728	G	N3-C4-N9	10.22	132.13	126.00
36	1	907	G	N1-C6-O6	-10.21	113.77	119.90
36	5	1212	A	N7-C8-N9	10.21	118.91	113.80
36	5	1433	A	N1-C6-N6	10.21	124.73	118.60
36	5	1310	G	C6-N1-C2	-10.21	118.97	125.10
38	4	4	C	N3-C2-O2	-10.21	114.75	121.90
36	1	613	G	O5'-P-OP1	-10.20	96.52	105.70
1	6	1773	C	N3-C4-N4	10.20	125.14	118.00
36	5	1060	U	C2-N3-C4	-10.20	120.88	127.00
36	1	1443	G	N1-C6-O6	10.20	126.02	119.90
36	1	290	G	N3-C2-N2	-10.19	112.76	119.90
1	6	1121	C	N3-C2-O2	-10.20	114.76	121.90
36	5	637	C	C5-C4-N4	-10.19	113.06	120.20
36	5	1367	G	C5-C6-N1	-10.20	106.40	111.50
36	5	2244	A	O5'-P-OP1	-10.20	96.52	105.70
37	7	89	G	C6-N1-C2	10.20	131.22	125.10
38	4	32	C	C6-N1-C2	-10.19	116.22	120.30
36	5	1310	G	C5-N7-C8	-10.19	99.20	104.30
1	2	543	C	C2-N1-C1'	10.19	130.01	118.80
36	5	2335	G	C5-N7-C8	10.19	109.39	104.30
36	5	649	A	N1-C6-N6	10.19	124.71	118.60
36	1	635	G	C5-C6-N1	10.18	116.59	111.50
36	5	2920	U	N3-C4-C5	10.18	120.71	114.60
1	6	474	A	C4-C5-C6	-10.18	111.91	117.00
36	1	1917	C	C6-N1-C2	10.18	124.37	120.30
36	5	883	A	C6-N1-C2	-10.17	112.50	118.60
36	5	2694	A	O5'-P-OP1	-10.17	96.55	105.70
36	5	2195	C	N3-C4-N4	-10.17	110.88	118.00
1	6	1753	A	N3-C4-N9	10.17	135.53	127.40
36	1	1341	U	O5'-P-OP2	-10.17	96.55	105.70
36	5	2946	A	C2-N3-C4	-10.16	105.52	110.60
36	1	27	C	C6-N1-C2	-10.16	116.24	120.30
38	4	81	U	N3-C2-O2	-10.16	115.09	122.20
36	5	682	U	C5-C4-O4	10.16	132.00	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2335	G	N7-C8-N9	-10.16	108.02	113.10
36	1	1208	U	C2-N1-C1'	10.16	129.89	117.70
36	1	2617	U	N3-C2-O2	-10.16	115.09	122.20
36	5	940	G	C4-C5-C6	-10.16	112.70	118.80
1	6	1112	G	C5-C6-O6	10.16	134.69	128.60
36	1	1493	G	C5-C6-O6	10.15	134.69	128.60
37	7	26	C	C4-C5-C6	10.15	122.48	117.40
37	7	98	C	O5'-P-OP2	-10.15	96.56	105.70
36	1	632	G	C5-C6-O6	-10.15	122.51	128.60
36	5	1159	A	C2-N3-C4	-10.15	105.53	110.60
36	5	2187	G	C8-N9-C4	-10.15	102.34	106.40
36	5	3227	A	C2-N3-C4	-10.15	105.52	110.60
36	5	3285	C	N1-C2-O2	10.15	124.99	118.90
36	1	2308	C	C5-C6-N1	-10.15	115.93	121.00
36	5	1176	C	C6-N1-C2	10.15	124.36	120.30
36	1	967	A	C2-N3-C4	-10.15	105.53	110.60
36	1	2880	U	N3-C4-O4	-10.15	112.30	119.40
36	1	2168	A	C5-C6-N6	10.14	131.81	123.70
36	5	52	A	N1-C2-N3	10.14	134.37	129.30
36	5	578	A	C8-N9-C4	-10.14	101.74	105.80
38	4	3	A	C2-N3-C4	10.14	115.67	110.60
36	5	1149	G	C4-C5-C6	10.14	124.88	118.80
36	1	2306	C	N3-C2-O2	-10.14	114.81	121.90
36	1	1366	A	N1-C2-N3	10.13	134.37	129.30
36	1	2327	U	O5'-P-OP1	-10.13	96.58	105.70
38	4	26	U	N3-C2-O2	-10.14	115.11	122.20
36	1	2889	C	N3-C4-C5	-10.13	117.85	121.90
36	5	945	C	O5'-P-OP2	-10.13	96.58	105.70
36	5	2428	U	C6-N1-C2	10.13	127.08	121.00
1	6	1615	C	N3-C4-C5	10.13	125.95	121.90
36	1	1419	A	O5'-P-OP1	10.13	122.86	110.70
36	5	1003	A	N1-C6-N6	10.13	124.68	118.60
36	1	1001	G	O5'-P-OP1	-10.13	96.59	105.70
36	1	2946	A	N1-C2-N3	10.13	134.36	129.30
36	5	938	C	C6-N1-C2	10.13	124.35	120.30
36	5	2358	A	C8-N9-C4	10.13	109.85	105.80
1	2	1096	C	N3-C2-O2	-10.12	114.81	121.90
36	1	1192	C	N1-C2-O2	10.12	124.97	118.90
36	5	200	C	N1-C2-O2	10.12	124.97	118.90
36	5	2130	G	N3-C4-N9	-10.12	119.93	126.00
36	1	639	G	N3-C4-C5	10.12	133.66	128.60
36	1	908	G	N3-C4-C5	-10.12	123.54	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2396	G	C5-N7-C8	-10.12	99.24	104.30
1	6	105	A	O5'-P-OP1	-10.12	96.59	105.70
36	1	2942	C	C5-C4-N4	-10.12	113.12	120.20
36	5	347	G	O5'-P-OP2	-10.12	96.59	105.70
36	5	2897	A	C6-N1-C2	-10.12	112.53	118.60
1	6	1108	G	N9-C4-C5	10.11	109.44	105.40
36	1	2963	C	N3-C2-O2	-10.11	114.82	121.90
36	1	3262	U	N3-C2-O2	-10.11	115.12	122.20
36	5	1107	C	N3-C2-O2	-10.11	114.82	121.90
36	5	595	G	C4-N9-C1'	10.11	139.64	126.50
36	1	1419	A	C8-N9-C4	-10.11	101.76	105.80
36	5	2283	G	N1-C6-O6	10.11	125.96	119.90
36	1	939	U	OP1-P-OP2	-10.10	104.44	119.60
36	1	2827	U	N1-C2-N3	10.10	120.96	114.90
36	5	2393	G	N9-C4-C5	-10.10	101.36	105.40
36	5	2662	G	C4-N9-C1'	10.10	139.63	126.50
36	5	2192	C	N3-C4-C5	-10.10	117.86	121.90
36	5	1155	C	N1-C2-O2	-10.10	112.84	118.90
36	5	2168	A	N1-C6-N6	10.10	124.66	118.60
37	7	105	C	N3-C4-C5	-10.10	117.86	121.90
36	1	2726	C	N1-C2-N3	10.10	126.27	119.20
1	6	36	C	C6-N1-C2	10.09	124.34	120.30
36	5	1489	A	C4-C5-C6	10.09	122.05	117.00
1	2	378	A	N1-C6-N6	10.09	124.66	118.60
36	5	1295	G	N9-C4-C5	-10.09	101.36	105.40
36	1	2919	A	C2-N3-C4	-10.09	105.56	110.60
36	1	3094	A	O5'-P-OP1	-10.09	96.62	105.70
36	1	1166	G	N1-C6-O6	10.08	125.95	119.90
1	2	1737	G	N1-C6-O6	10.08	125.95	119.90
36	1	147	U	N3-C2-O2	-10.08	115.14	122.20
36	1	693	A	N1-C2-N3	10.08	134.34	129.30
36	1	1108	U	O5'-P-OP1	-10.08	96.63	105.70
36	5	2816	G	N1-C6-O6	10.08	125.95	119.90
36	1	897	U	N1-C2-O2	10.07	129.85	122.80
36	5	2887	A	N1-C6-N6	-10.07	112.56	118.60
1	6	1774	G	C8-N9-C4	-10.07	102.37	106.40
36	5	2189	U	O5'-P-OP1	-10.07	96.64	105.70
36	5	2897	A	C5-C6-N6	-10.07	115.64	123.70
36	1	3172	A	C6-N1-C2	-10.07	112.56	118.60
37	3	30	G	N3-C4-C5	-10.07	123.57	128.60
36	1	413	U	C5-C6-N1	-10.06	117.67	122.70
36	1	575	G	O5'-P-OP1	-10.06	96.64	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3261	C	N3-C4-C5	-10.06	117.88	121.90
36	1	606	C	N1-C2-O2	-10.06	112.86	118.90
36	1	2378	C	C6-N1-C2	10.06	124.32	120.30
36	5	2959	C	C6-N1-C2	-10.06	116.28	120.30
36	1	1443	G	C4-C5-N7	10.06	114.82	110.80
36	5	1148	G	C6-C5-N7	-10.06	124.37	130.40
1	2	75	U	N1-C2-O2	10.05	129.84	122.80
36	1	718	G	C5-N7-C8	-10.05	99.27	104.30
36	5	3333	G	O5'-P-OP2	-10.05	96.65	105.70
36	1	2637	A	N1-C6-N6	-10.05	112.57	118.60
36	5	567	G	C4-C5-N7	10.04	114.82	110.80
36	1	608	A	C6-C5-N7	-10.04	125.27	132.30
1	6	1498	G	N1-C6-O6	10.04	125.92	119.90
37	7	97	A	C6-N1-C2	-10.04	112.58	118.60
36	1	1182	A	C5-C6-N6	-10.04	115.67	123.70
38	4	18	U	C2-N1-C1'	10.04	129.75	117.70
36	5	1485	G	N1-C6-O6	-10.04	113.88	119.90
36	5	2620	G	N1-C2-N3	10.04	129.92	123.90
36	5	609	G	O5'-P-OP2	-10.03	96.67	105.70
36	1	707	U	C5-C4-O4	10.03	131.92	125.90
36	1	2824	G	C6-C5-N7	-10.03	124.38	130.40
36	5	2584	G	C8-N9-C4	-10.03	102.39	106.40
36	5	2661	G	C4-N9-C1'	10.03	139.53	126.50
36	5	3043	C	C6-N1-C2	10.03	124.31	120.30
38	8	53	A	C6-N1-C2	-10.03	112.58	118.60
36	5	1129	A	N9-C4-C5	-10.02	101.79	105.80
36	1	3100	U	C6-N1-C2	10.02	127.01	121.00
36	1	394	G	C8-N9-C4	-10.02	102.39	106.40
36	1	3092	C	C5-C6-N1	-10.02	115.99	121.00
36	1	2764	C	N3-C4-C5	-10.01	117.89	121.90
36	1	3054	U	N3-C4-C5	-10.01	108.59	114.60
36	5	1897	G	C5-N7-C8	-10.01	99.30	104.30
36	1	102	C	N1-C2-O2	10.01	124.90	118.90
36	5	2426	U	N3-C4-C5	-10.01	108.60	114.60
36	5	3144	G	N3-C4-C5	-10.00	123.60	128.60
1	2	377	G	N3-C4-C5	10.00	133.60	128.60
36	5	345	G	C8-N9-C1'	-10.00	114.00	127.00
36	5	856	G	O5'-P-OP1	-10.00	96.70	105.70
36	5	1592	G	C5-C6-N1	-10.00	106.50	111.50
36	1	641	C	C2-N3-C4	10.00	124.90	119.90
1	2	1291	G	C6-C5-N7	-9.99	124.40	130.40
36	5	345	G	N1-C6-O6	9.99	125.90	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	885	U	C5-C6-N1	-9.99	117.70	122.70
1	6	388	G	C5-C6-N1	-9.99	106.50	111.50
36	5	1429	G	C6-N1-C2	-9.99	119.10	125.10
36	5	2811	A	N1-C2-N3	9.99	134.30	129.30
36	1	1405	U	N3-C4-O4	-9.99	112.41	119.40
37	7	69	C	C6-N1-C2	9.99	124.30	120.30
36	1	2703	A	C4-C5-C6	9.99	121.99	117.00
1	6	597	G	C4-C5-N7	9.99	114.79	110.80
36	5	1336	U	N3-C4-O4	9.99	126.39	119.40
38	8	42	G	O5'-P-OP2	-9.98	96.72	105.70
36	1	2874	G	C4-N9-C1'	9.98	139.48	126.50
36	5	1128	U	N1-C2-N3	9.98	120.89	114.90
36	5	2934	A	C5-C6-N1	-9.98	112.71	117.70
36	1	211	A	N1-C6-N6	-9.97	112.62	118.60
36	1	3041	U	O5'-P-OP2	-9.97	96.72	105.70
37	3	98	C	C4-C5-C6	9.97	122.39	117.40
38	4	28	C	N3-C4-N4	9.97	124.98	118.00
36	5	1872	C	C6-N1-C2	-9.97	116.31	120.30
36	1	1178	G	C4-N9-C1'	9.97	139.46	126.50
1	6	967	A	C5-C6-N6	-9.97	115.73	123.70
36	5	1115	G	C8-N9-C1'	-9.97	114.04	127.00
36	5	1669	C	N3-C4-C5	-9.97	117.91	121.90
36	5	2610	G	N1-C2-N2	9.97	125.17	116.20
36	5	2916	U	N1-C2-O2	9.97	129.78	122.80
36	5	1152	G	C5-N7-C8	-9.97	99.32	104.30
36	1	1049	C	O5'-P-OP1	-9.96	96.73	105.70
36	5	1129	A	C4-C5-N7	9.96	115.68	110.70
36	5	2950	G	C5-N7-C8	-9.96	99.32	104.30
36	1	3344	A	C5-N7-C8	-9.96	98.92	103.90
1	6	1765	A	O5'-P-OP1	-9.96	96.73	105.70
36	5	2833	A	C6-N1-C2	-9.96	112.62	118.60
36	5	2879	C	N3-C4-N4	9.96	124.97	118.00
36	1	2241	U	C6-N1-C1'	9.96	135.14	121.20
36	1	1554	U	C5-C6-N1	9.96	127.68	122.70
1	2	1272	U	C6-N1-C2	-9.95	115.03	121.00
36	1	3142	A	N3-C4-N9	-9.96	119.44	127.40
36	5	3215	A	C8-N9-C4	9.95	109.78	105.80
36	1	345	G	C8-N9-C4	-9.95	102.42	106.40
36	1	2930	A	N9-C4-C5	-9.95	101.82	105.80
36	1	1149	G	O5'-P-OP2	-9.95	96.74	105.70
36	1	2417	U	N1-C2-N3	9.95	120.87	114.90
36	5	428	A	N1-C6-N6	9.95	124.57	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2804	A	N1-C6-N6	-9.95	112.63	118.60
36	5	3362	A	N7-C8-N9	9.95	118.78	113.80
36	5	289	A	N1-C6-N6	9.95	124.57	118.60
36	1	943	U	N1-C2-N3	9.94	120.87	114.90
36	1	1117	G	O5'-P-OP1	-9.95	96.75	105.70
36	1	3140	G	C4-C5-N7	9.94	114.78	110.80
36	5	2720	G	OP1-P-O3'	-9.94	83.32	105.20
36	5	1164	G	C5-C6-N1	9.94	116.47	111.50
36	5	2679	A	C8-N9-C4	9.94	109.78	105.80
36	5	2767	U	O5'-P-OP2	-9.94	96.75	105.70
36	5	3006	A	N1-C2-N3	9.94	134.27	129.30
36	1	220	G	C2-N3-C4	-9.94	106.93	111.90
1	6	427	C	C5-C6-N1	-9.94	116.03	121.00
36	1	2617	U	C5-C4-O4	9.94	131.86	125.90
36	1	2821	C	N3-C4-C5	-9.94	117.93	121.90
36	1	1429	G	C8-N9-C1'	-9.93	114.09	127.00
36	1	1192	C	O5'-P-OP2	-9.93	96.76	105.70
36	1	2996	U	N1-C2-O2	9.93	129.75	122.80
36	5	1149	G	C5-N7-C8	-9.93	99.33	104.30
36	5	2119	A	C4-C5-C6	9.93	121.97	117.00
1	2	1631	A	O5'-P-OP2	-9.93	96.77	105.70
36	5	286	U	C5-C6-N1	9.93	127.66	122.70
36	1	2400	G	O5'-P-OP1	-9.93	96.77	105.70
36	1	2953	U	C2-N3-C4	9.93	132.96	127.00
36	1	2997	G	C4-C5-N7	9.93	114.77	110.80
1	6	151	G	N3-C4-N9	-9.92	120.05	126.00
1	6	1535	U	N1-C2-N3	9.92	120.85	114.90
36	5	842	G	O5'-P-OP1	-9.92	96.77	105.70
36	1	2347	U	C5-C6-N1	9.92	127.66	122.70
1	6	444	C	C6-N1-C2	9.91	124.27	120.30
1	2	25	C	N1-C2-O2	-9.91	112.95	118.90
1	6	1542	G	O5'-P-OP1	-9.91	96.78	105.70
36	5	339	C	N3-C2-O2	9.91	128.84	121.90
36	5	2875	U	C5-C4-O4	9.91	131.85	125.90
36	1	1392	G	N9-C4-C5	9.91	109.36	105.40
36	5	813	G	O5'-P-OP2	-9.91	96.78	105.70
36	5	3010	U	N3-C2-O2	-9.91	115.26	122.20
38	8	107	G	C6-C5-N7	-9.91	124.45	130.40
36	1	2191	U	N3-C2-O2	-9.91	115.27	122.20
1	6	634	G	C8-N9-C4	-9.90	102.44	106.40
36	5	398	A	O5'-P-OP2	-9.90	96.79	105.70
36	1	1901	A	N1-C6-N6	-9.90	112.66	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2831	G	C2-N3-C4	-9.90	106.95	111.90
36	5	1481	A	N7-C8-N9	9.90	118.75	113.80
36	1	639	G	C5-C6-N1	-9.89	106.55	111.50
36	1	2639	G	N3-C4-C5	9.89	133.55	128.60
1	6	1787	C	C6-N1-C2	-9.89	116.34	120.30
36	5	2889	C	N1-C2-O2	9.89	124.83	118.90
36	1	334	A	C5-C6-N1	9.89	122.64	117.70
1	6	609	U	O4'-C1'-N1	-9.89	100.29	108.20
36	5	668	G	C8-N9-C4	9.89	110.36	106.40
38	4	62	C	C6-N1-C2	9.88	124.25	120.30
1	6	1131	A	C5-N7-C8	-9.88	98.96	103.90
36	5	796	U	N1-C2-O2	9.88	129.72	122.80
36	5	1793	C	C5-C4-N4	-9.88	113.28	120.20
37	3	115	G	C5-C6-O6	-9.88	122.67	128.60
38	4	38	U	C6-N1-C2	-9.88	115.07	121.00
36	5	1113	G	N3-C2-N2	-9.88	112.98	119.90
36	5	2874	G	C5-C6-N1	-9.88	106.56	111.50
1	6	1114	G	N1-C6-O6	-9.88	113.97	119.90
36	5	669	U	C2-N1-C1'	9.88	129.55	117.70
36	5	944	C	N3-C2-O2	-9.88	114.99	121.90
36	5	2155	G	C2-N3-C4	-9.88	106.96	111.90
36	1	928	C	C6-N1-C2	9.87	124.25	120.30
36	1	929	A	C5-C6-N6	-9.87	115.80	123.70
36	5	2199	G	C4-N9-C1'	9.87	139.34	126.50
36	1	2156	C	C6-N1-C2	9.87	124.25	120.30
36	5	1303	A	C8-N9-C4	9.87	109.75	105.80
36	5	1845	G	N3-C4-C5	-9.87	123.67	128.60
36	5	2940	A	C6-C5-N7	-9.87	125.39	132.30
37	3	97	A	N7-C8-N9	-9.86	108.87	113.80
36	5	1008	U	C6-N1-C2	9.86	126.92	121.00
1	6	337	G	C4-C5-N7	9.86	114.74	110.80
36	5	1399	A	N1-C6-N6	9.86	124.52	118.60
36	5	3091	A	N1-C6-N6	9.86	124.52	118.60
36	1	833	G	N1-C6-O6	-9.86	113.99	119.90
36	1	2347	U	C6-N1-C2	-9.86	115.09	121.00
36	5	2993	G	C8-N9-C4	-9.86	102.46	106.40
36	1	2960	C	C5-C6-N1	-9.85	116.07	121.00
36	1	3197	G	N3-C4-C5	9.85	133.53	128.60
36	5	521	A	C5-C6-N1	-9.85	112.77	117.70
36	5	2205	U	O4'-C1'-N1	9.85	116.08	108.20
36	1	2613	U	C4-C5-C6	9.85	125.61	119.70
1	6	1645	G	C5-C6-O6	-9.85	122.69	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	21	G	C8-N9-C4	-9.84	102.46	106.40
36	5	426	G	N7-C8-N9	-9.84	108.18	113.10
36	1	1552	G	N1-C6-O6	9.84	125.80	119.90
1	2	543	C	N3-C2-O2	-9.84	115.01	121.90
36	5	422	A	N1-C6-N6	-9.84	112.70	118.60
36	5	2994	A	C6-N1-C2	-9.84	112.70	118.60
36	1	397	A	C6-N1-C2	-9.84	112.70	118.60
36	1	798	G	C4-C5-N7	9.84	114.73	110.80
36	1	3277	U	N1-C2-N3	9.84	120.80	114.90
36	5	881	C	N1-C2-O2	9.84	124.80	118.90
36	5	2377	G	N1-C6-O6	-9.84	114.00	119.90
36	5	356	C	C2-N3-C4	-9.83	114.98	119.90
36	1	1170	A	N1-C6-N6	9.83	124.50	118.60
36	5	426	G	C8-N9-C4	9.83	110.33	106.40
36	5	576	C	C6-N1-C2	-9.83	116.37	120.30
1	6	797	G	N1-C6-O6	-9.83	114.00	119.90
36	5	363	G	O5'-P-OP2	9.83	122.49	110.70
36	5	644	G	C4-C5-N7	-9.83	106.87	110.80
36	5	2971	A	C2-N3-C4	9.83	115.51	110.60
36	1	609	G	N9-C4-C5	-9.82	101.47	105.40
1	6	448	C	C6-N1-C2	-9.82	116.37	120.30
1	6	1671	A	O5'-P-OP1	-9.82	96.86	105.70
38	8	38	U	C5-C4-O4	9.82	131.79	125.90
1	6	1456	C	C4-C5-C6	9.82	122.31	117.40
36	5	51	A	N1-C6-N6	9.82	124.49	118.60
36	1	41	G	N1-C6-O6	-9.82	114.01	119.90
36	5	2953	U	C2-N3-C4	9.82	132.89	127.00
36	5	216	G	N1-C6-O6	9.82	125.79	119.90
36	5	3015	G	N3-C2-N2	-9.82	113.03	119.90
36	1	609	G	N3-C4-N9	9.81	131.89	126.00
36	1	2278	C	N1-C2-O2	9.81	124.79	118.90
36	1	2697	A	C6-N1-C2	-9.81	112.71	118.60
36	1	3143	C	N1-C2-O2	9.81	124.78	118.90
36	1	3260	G	C2-N3-C4	-9.81	107.00	111.90
36	5	1429	G	N1-C2-N2	-9.81	107.37	116.20
36	5	2662	G	N3-C4-C5	-9.81	123.70	128.60
36	1	803	C	N3-C4-C5	9.81	125.82	121.90
36	1	1458	U	C6-N1-C2	9.81	126.88	121.00
36	1	1454	A	C2-N3-C4	-9.80	105.70	110.60
36	5	1487	G	C6-C5-N7	-9.80	124.52	130.40
1	6	554	C	C6-N1-C2	9.80	124.22	120.30
1	6	1201	G	N3-C4-C5	9.80	133.50	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	567	G	C6-C5-N7	-9.80	124.52	130.40
36	5	1076	C	C5-C6-N1	-9.80	116.10	121.00
1	2	334	G	C6-C5-N7	9.80	136.28	130.40
36	1	917	A	C4-C5-N7	-9.80	105.80	110.70
1	6	99	C	C6-N1-C2	9.80	124.22	120.30
36	5	2652	U	O5'-P-OP2	-9.80	96.88	105.70
36	5	3043	C	C5-C6-N1	-9.80	116.10	121.00
1	2	144	U	O4'-C1'-N1	9.79	116.04	108.20
36	1	1377	G	C5-C6-O6	-9.80	122.72	128.60
36	1	2608	G	N1-C6-O6	9.79	125.78	119.90
36	1	2934	A	C5-C6-N1	-9.80	112.80	117.70
36	5	2279	A	C4-C5-N7	9.80	115.60	110.70
36	5	803	C	C5-C4-N4	-9.79	113.34	120.20
36	1	1895	A	O5'-P-OP2	-9.79	96.89	105.70
36	5	2368	A	C4-C5-C6	9.79	121.90	117.00
36	1	67	A	C5-C6-N1	9.79	122.59	117.70
36	1	3261	C	C6-N1-C2	-9.79	116.38	120.30
1	6	960	U	N3-C2-O2	-9.79	115.35	122.20
36	5	579	G	O5'-P-OP2	-9.79	96.89	105.70
36	1	1323	G	C6-C5-N7	-9.79	124.53	130.40
38	4	3	A	C5-C6-N6	-9.79	115.87	123.70
36	5	3144	G	N3-C4-N9	9.79	131.87	126.00
36	1	311	C	N3-C4-N4	9.78	124.85	118.00
36	1	3325	G	N7-C8-N9	-9.78	108.21	113.10
36	1	2884	C	N3-C4-N4	-9.78	111.16	118.00
36	1	695	C	N3-C4-C5	9.78	125.81	121.90
36	5	1041	U	O5'-P-OP2	-9.78	96.90	105.70
36	5	2275	A	N7-C8-N9	9.78	118.69	113.80
36	5	35	A	N1-C6-N6	-9.77	112.74	118.60
36	5	805	G	C2-N3-C4	9.77	116.79	111.90
36	5	1187	C	N3-C4-C5	9.77	125.81	121.90
1	2	353	A	N1-C6-N6	9.77	124.46	118.60
36	5	3207	U	C5-C4-O4	9.77	131.76	125.90
36	1	609	G	N1-C6-O6	9.77	125.76	119.90
1	6	1480	G	C5-C6-O6	-9.77	122.74	128.60
36	5	1484	U	C2-N1-C1'	-9.77	105.98	117.70
36	5	1556	C	C2-N1-C1'	9.77	129.54	118.80
36	5	2125	A	C2-N3-C4	-9.77	105.72	110.60
36	5	3154	C	N1-C2-O2	9.77	124.76	118.90
36	1	2704	A	N1-C6-N6	-9.76	112.74	118.60
36	5	1665	C	N3-C4-C5	9.76	125.81	121.90
36	5	2943	G	C2-N3-C4	-9.76	107.02	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	624	G	O5'-P-OP2	-9.76	96.92	105.70
36	1	92	G	C6-C5-N7	-9.76	124.54	130.40
1	6	1483	A	C8-N9-C4	-9.76	101.90	105.80
36	5	1003	A	C5-C6-N6	-9.76	115.89	123.70
37	7	106	U	C6-N1-C2	9.76	126.86	121.00
36	1	2353	G	C5-C6-N1	-9.76	106.62	111.50
36	5	918	C	C4-C5-C6	9.75	122.28	117.40
36	1	427	C	N3-C4-C5	-9.75	118.00	121.90
36	1	2899	C	N1-C2-N3	9.75	126.03	119.20
1	6	407	A	N1-C6-N6	9.75	124.45	118.60
37	3	116	C	C6-N1-C2	-9.75	116.40	120.30
1	6	1541	G	O5'-P-OP1	-9.75	96.93	105.70
36	5	832	G	N3-C4-C5	-9.75	123.73	128.60
36	5	1117	G	O5'-P-OP1	-9.75	96.93	105.70
36	5	3220	G	N1-C6-O6	-9.75	114.05	119.90
36	5	3374	U	C6-N1-C2	9.75	126.85	121.00
36	1	939	U	C5-C4-O4	-9.74	120.05	125.90
36	1	2872	A	C5-C6-N6	-9.74	115.91	123.70
1	6	697	C	C5-C6-N1	9.74	125.87	121.00
36	5	2816	G	C2-N3-C4	-9.74	107.03	111.90
1	6	565	C	C2-N3-C4	-9.74	115.03	119.90
36	5	2278	C	C6-N1-C2	9.74	124.20	120.30
36	5	2796	G	O5'-P-OP1	-9.74	96.93	105.70
36	5	1841	A	O5'-P-OP1	-9.74	96.94	105.70
36	1	1887	A	C2-N3-C4	-9.74	105.73	110.60
36	1	2895	G	N3-C4-C5	-9.74	123.73	128.60
36	5	188	U	C6-N1-C2	-9.73	115.16	121.00
36	5	806	A	N3-C4-N9	-9.73	119.61	127.40
36	1	400	G	C8-N9-C4	-9.73	102.51	106.40
36	5	1085	A	O5'-P-OP1	-9.73	96.94	105.70
36	1	622	A	N1-C6-N6	9.73	124.44	118.60
36	1	1458	U	C5-C6-N1	-9.73	117.84	122.70
36	1	652	G	N3-C4-N9	9.72	131.83	126.00
1	6	927	C	N3-C2-O2	-9.72	115.09	121.90
36	5	213	A	C5-C6-N1	9.72	122.56	117.70
36	5	2827	U	O5'-P-OP2	-9.72	96.95	105.70
1	2	399	A	N1-C6-N6	-9.72	112.77	118.60
36	1	349	A	N1-C6-N6	-9.72	112.77	118.60
36	5	998	A	N1-C6-N6	-9.72	112.77	118.60
36	5	2305	G	N1-C6-O6	-9.72	114.07	119.90
36	1	218	G	N3-C4-N9	-9.72	120.17	126.00
1	6	163	G	C5-C6-N1	-9.71	106.64	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	93	C	C5-C4-N4	-9.71	113.40	120.20
36	1	342	A	C8-N9-C4	9.71	109.69	105.80
36	1	2278	C	N3-C4-C5	9.71	125.78	121.90
36	5	2632	G	C8-N9-C4	9.71	110.28	106.40
36	1	404	G	N1-C6-O6	9.71	125.73	119.90
36	1	676	G	N3-C4-C5	-9.71	123.75	128.60
36	5	1148	G	C2-N3-C4	-9.71	107.05	111.90
36	5	1290	A	C2-N3-C4	-9.71	105.75	110.60
36	5	2856	G	C5-C6-N1	-9.71	106.65	111.50
1	6	40	A	C2-N3-C4	-9.70	105.75	110.60
1	2	1199	G	O5'-P-OP1	-9.70	96.97	105.70
36	5	1303	A	C5-C6-N1	9.70	122.55	117.70
38	4	75	G	O5'-P-OP1	-9.70	96.97	105.70
36	1	2908	G	C8-N9-C4	-9.69	102.52	106.40
36	5	50	U	C2-N1-C1'	9.69	129.33	117.70
1	2	1655	A	C8-N9-C4	9.69	109.68	105.80
36	1	1367	G	N1-C6-O6	9.69	125.71	119.90
36	5	1376	C	O5'-P-OP1	-9.69	96.98	105.70
36	5	2897	A	N1-C2-N3	9.69	134.14	129.30
38	8	17	A	C8-N9-C4	9.69	109.68	105.80
36	1	2623	G	C6-C5-N7	-9.69	124.59	130.40
36	5	3122	A	N7-C8-N9	9.69	118.64	113.80
36	1	1432	C	O5'-P-OP1	-9.68	96.99	105.70
36	1	1524	A	N1-C6-N6	-9.68	112.79	118.60
36	1	1542	G	C2-N3-C4	-9.68	107.06	111.90
36	5	648	C	C4-C5-C6	9.68	122.24	117.40
36	5	3127	A	C2-N3-C4	-9.68	105.76	110.60
36	1	2874	G	C4-C5-C6	9.68	124.61	118.80
36	5	3091	A	N1-C2-N3	9.68	134.14	129.30
36	5	3179	U	C4-C5-C6	9.68	125.51	119.70
36	1	1301	A	N1-C6-N6	9.68	124.41	118.60
36	5	2624	G	C4-C5-N7	9.68	114.67	110.80
36	5	2914	G	N7-C8-N9	9.67	117.94	113.10
36	1	2325	G	N1-C6-O6	9.67	125.70	119.90
36	1	2814	G	C4-C5-N7	-9.67	106.93	110.80
36	5	1212	A	C5-C6-N1	9.67	122.53	117.70
37	7	88	G	C5-C6-N1	9.67	116.33	111.50
36	5	1603	A	C4-C5-C6	9.67	121.83	117.00
36	1	189	G	N1-C6-O6	-9.66	114.10	119.90
36	5	213	A	O5'-P-OP1	-9.66	97.00	105.70
36	1	2803	A	N1-C6-N6	-9.66	112.80	118.60
36	5	2395	G	C6-C5-N7	-9.66	124.60	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1278	G	N3-C4-C5	-9.66	123.77	128.60
36	5	2583	C	C6-N1-C2	-9.66	116.44	120.30
36	5	3063	C	C6-N1-C2	9.66	124.16	120.30
36	5	3200	G	C6-C5-N7	-9.66	124.60	130.40
36	5	1370	G	N1-C6-O6	-9.66	114.11	119.90
36	1	1364	C	N3-C4-C5	9.66	125.76	121.90
36	1	2186	U	O5'-P-OP2	-9.66	97.01	105.70
36	5	816	A	N1-C6-N6	-9.66	112.81	118.60
36	1	883	A	N1-C6-N6	-9.65	112.81	118.60
38	4	54	A	C8-N9-C4	-9.65	101.94	105.80
36	5	2871	G	O5'-P-OP2	-9.65	97.01	105.70
1	6	1792	G	N1-C6-O6	-9.65	114.11	119.90
36	1	2402	A	C5-C6-N1	9.65	122.53	117.70
1	6	1457	C	C2-N1-C1'	9.65	129.41	118.80
36	5	645	A	C8-N9-C4	-9.65	101.94	105.80
36	5	2400	G	N1-C2-N3	-9.65	118.11	123.90
36	1	2377	G	N9-C4-C5	9.65	109.26	105.40
36	1	2899	C	C6-N1-C2	-9.65	116.44	120.30
1	2	1146	G	N3-C4-C5	-9.64	123.78	128.60
36	5	1350	A	C8-N9-C4	-9.64	101.94	105.80
36	5	1372	C	C5-C6-N1	-9.64	116.18	121.00
36	1	2184	U	C5-C6-N1	9.64	127.52	122.70
36	1	2627	C	C5-C6-N1	-9.64	116.18	121.00
36	1	2831	G	C5-N7-C8	-9.64	99.48	104.30
36	5	1637	A	N1-C6-N6	-9.64	112.82	118.60
36	5	2945	G	C5-C6-O6	9.64	134.38	128.60
1	6	991	G	N3-C2-N2	-9.64	113.15	119.90
36	5	2288	G	C5-C6-O6	-9.64	122.82	128.60
36	5	2950	G	C6-C5-N7	-9.64	124.62	130.40
1	6	1583	A	N1-C6-N6	-9.64	112.82	118.60
36	5	1548	C	N1-C2-O2	-9.63	113.12	118.90
36	5	2700	G	C2-N3-C4	9.64	116.72	111.90
38	8	52	A	N1-C2-N3	9.63	134.12	129.30
36	1	636	C	N3-C4-N4	9.63	124.74	118.00
36	5	2679	A	N7-C8-N9	-9.63	108.98	113.80
36	1	793	C	N1-C2-O2	-9.63	113.12	118.90
36	1	1151	U	C5-C6-N1	9.63	127.52	122.70
36	5	2147	A	O5'-P-OP1	-9.63	97.03	105.70
36	1	826	G	C5-C6-O6	-9.62	122.83	128.60
38	4	53	A	C6-N1-C2	-9.62	112.83	118.60
36	5	650	C	C2-N3-C4	-9.62	115.09	119.90
36	1	961	C	N1-C2-O2	9.62	124.67	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	39	A	C5-C6-N1	9.62	122.51	117.70
36	1	61	A	C8-N9-C4	-9.62	101.95	105.80
36	5	1151	U	C2-N3-C4	9.62	132.77	127.00
36	5	1907	C	N1-C2-O2	-9.62	113.13	118.90
36	1	1442	U	O5'-P-OP2	9.62	122.24	110.70
1	6	1537	C	C6-N1-C2	-9.62	116.45	120.30
36	5	2971	A	C8-N9-C4	-9.62	101.95	105.80
57	n1	17	ARG	NE-CZ-NH1	9.62	125.11	120.30
36	5	3213	A	C8-N9-C4	9.62	109.65	105.80
36	1	2661	G	C4-C5-N7	9.61	114.65	110.80
36	5	345	G	C6-C5-N7	-9.62	124.63	130.40
36	1	1432	C	N1-C2-N3	9.61	125.93	119.20
36	1	2315	G	C4-C5-N7	-9.61	106.95	110.80
36	5	2111	G	N3-C4-C5	9.61	133.41	128.60
36	5	2906	C	N1-C2-O2	-9.61	113.13	118.90
36	5	3044	G	C6-C5-N7	-9.61	124.63	130.40
1	2	554	C	N1-C2-O2	9.61	124.67	118.90
36	1	1514	G	C4-N9-C1'	9.61	138.99	126.50
38	4	94	C	C5-C6-N1	-9.61	116.19	121.00
36	5	293	C	C6-N1-C2	9.61	124.14	120.30
36	1	3344	A	N7-C8-N9	9.61	118.60	113.80
36	1	1453	A	C6-N1-C2	-9.61	112.84	118.60
36	1	3273	A	N1-C6-N6	-9.61	112.84	118.60
38	4	16	G	N1-C6-O6	9.61	125.66	119.90
36	5	276	U	O5'-P-OP1	-9.61	97.06	105.70
36	5	3061	G	C8-N9-C4	9.61	110.24	106.40
1	2	1486	G	C8-N9-C1'	-9.60	114.52	127.00
36	5	2917	G	N3-C2-N2	-9.60	113.18	119.90
36	1	612	U	N1-C2-N3	9.60	120.66	114.90
36	5	1592	G	N3-C4-C5	-9.60	123.80	128.60
36	5	2719	U	N3-C2-O2	9.60	128.92	122.20
1	2	1751	C	N3-C4-C5	9.59	125.74	121.90
36	1	92	G	C4-C5-N7	9.59	114.64	110.80
36	1	793	C	C6-N1-C2	-9.59	116.46	120.30
36	1	1446	A	C8-N9-C4	-9.59	101.96	105.80
38	4	62	C	C5-C6-N1	-9.59	116.20	121.00
1	6	1602	C	C6-N1-C2	-9.59	116.46	120.30
36	5	2945	G	N9-C4-C5	9.59	109.24	105.40
36	1	952	A	C8-N9-C4	-9.59	101.96	105.80
36	1	2696	A	N1-C2-N3	-9.59	124.50	129.30
36	1	2998	U	N3-C2-O2	9.59	128.91	122.20
36	5	1289	G	N1-C6-O6	-9.59	114.15	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1778	G	C5-C6-N1	9.59	116.30	111.50
36	5	2339	C	N1-C2-O2	-9.59	113.15	118.90
36	1	812	G	N1-C2-N3	9.59	129.65	123.90
1	2	1587	A	C8-N9-C4	-9.59	101.97	105.80
36	1	96	G	C8-N9-C4	9.59	110.23	106.40
36	1	1050	U	C2-N3-C4	-9.59	121.25	127.00
1	6	1013	A	N1-C6-N6	-9.59	112.85	118.60
36	5	732	C	C6-N1-C2	-9.59	116.47	120.30
36	5	995	U	C5-C6-N1	-9.59	117.91	122.70
1	6	1457	C	C6-N1-C2	-9.58	116.47	120.30
36	1	693	A	C5-N7-C8	-9.58	99.11	103.90
36	5	878	G	N3-C4-C5	-9.58	123.81	128.60
36	5	1374	G	C4-C5-N7	9.58	114.63	110.80
36	1	1519	G	C5-N7-C8	-9.58	99.51	104.30
36	5	281	G	N1-C6-O6	-9.58	114.15	119.90
36	5	2653	C	N3-C2-O2	9.58	128.61	121.90
36	1	1196	C	C6-N1-C2	9.58	124.13	120.30
1	6	119	A	C2-N3-C4	-9.58	105.81	110.60
36	5	1872	C	N3-C2-O2	-9.58	115.19	121.90
36	5	1885	U	C6-N1-C2	-9.58	115.25	121.00
37	3	3	U	O5'-P-OP2	-9.57	97.08	105.70
36	5	2887	A	N9-C4-C5	9.57	109.63	105.80
36	5	2381	G	C5-N7-C8	9.57	109.09	104.30
36	1	495	G	N3-C4-N9	-9.57	120.26	126.00
36	5	582	G	C5-C6-O6	9.57	134.34	128.60
36	5	2420	C	C5-C6-N1	9.57	125.78	121.00
36	1	963	G	C4-C5-N7	9.57	114.63	110.80
36	5	2312	A	N9-C4-C5	9.57	109.63	105.80
36	5	1300	G	N1-C6-O6	9.56	125.64	119.90
1	2	1096	C	C2-N1-C1'	9.56	129.32	118.80
36	1	1303	A	N1-C6-N6	9.56	124.34	118.60
36	5	2155	G	C5-C6-N1	-9.56	106.72	111.50
36	5	1391	C	C6-N1-C2	9.56	124.12	120.30
36	1	2982	A	C6-N1-C2	-9.56	112.86	118.60
36	5	521	A	N1-C2-N3	9.56	134.08	129.30
36	5	1367	G	N1-C6-O6	9.56	125.64	119.90
36	5	595	G	C8-N9-C1'	-9.56	114.58	127.00
1	2	1299	G	N3-C4-C5	-9.55	123.82	128.60
36	1	2197	C	C4-C5-C6	-9.56	112.62	117.40
1	6	1473	U	O5'-P-OP1	9.55	122.17	110.70
36	5	645	A	C2-N3-C4	9.55	115.38	110.60
36	5	913	A	C6-N1-C2	-9.55	112.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1099	A	N1-C6-N6	9.55	124.33	118.60
36	5	3085	G	C8-N9-C4	9.55	110.22	106.40
36	5	1444	G	N3-C4-C5	-9.55	123.82	128.60
38	8	1	A	C4-C5-N7	-9.55	105.92	110.70
1	2	1757	G	N3-C4-C5	-9.55	123.83	128.60
36	1	1111	U	C6-N1-C2	9.55	126.73	121.00
36	1	2614	G	N1-C2-N2	-9.55	107.60	116.20
36	5	2283	G	C5-C6-O6	-9.55	122.87	128.60
36	5	2283	G	C5-N7-C8	-9.55	99.53	104.30
36	1	975	C	C6-N1-C2	-9.55	116.48	120.30
1	6	163	G	C8-N9-C4	-9.55	102.58	106.40
1	6	758	U	C5-C6-N1	-9.54	117.93	122.70
1	6	972	G	C6-C5-N7	-9.54	124.67	130.40
36	5	2943	G	C5-N7-C8	-9.54	99.53	104.30
36	1	428	A	N1-C6-N6	9.54	124.33	118.60
38	4	117	C	N1-C2-O2	-9.54	113.18	118.90
36	5	283	G	N3-C4-C5	-9.54	123.83	128.60
37	7	109	G	N9-C4-C5	-9.54	101.58	105.40
36	5	283	G	C4-N9-C1'	9.54	138.90	126.50
36	5	1780	G	O5'-P-OP2	-9.54	97.11	105.70
1	6	1146	G	C8-N9-C4	-9.54	102.58	106.40
1	6	1159	C	C6-N1-C2	9.54	124.11	120.30
36	5	1883	A	C2-N3-C4	-9.54	105.83	110.60
36	1	718	G	C4-C5-N7	9.54	114.61	110.80
36	1	905	U	N1-C2-O2	-9.54	116.13	122.80
36	1	2866	U	N1-C2-N3	9.53	120.62	114.90
36	5	874	U	C6-N1-C2	-9.53	115.28	121.00
36	1	2182	A	N1-C6-N6	9.53	124.32	118.60
36	1	2798	C	C6-N1-C2	-9.53	116.49	120.30
1	6	388	G	N1-C6-O6	9.53	125.62	119.90
36	5	2584	G	C4-N9-C1'	9.53	138.88	126.50
36	1	1340	G	C4-C5-N7	9.53	114.61	110.80
1	6	624	G	C4-C5-N7	9.53	114.61	110.80
36	5	396	A	C2-N3-C4	-9.53	105.84	110.60
36	1	1367	G	C5-C6-N1	-9.52	106.74	111.50
1	6	1447	C	C6-N1-C2	-9.52	116.49	120.30
36	5	3294	A	N1-C6-N6	-9.52	112.89	118.60
1	6	1729	C	C5-C6-N1	-9.52	116.24	121.00
36	1	583	G	C4-C5-N7	-9.51	106.99	110.80
36	1	2409	G	C6-C5-N7	-9.51	124.69	130.40
36	5	3091	A	C4-C5-C6	9.51	121.76	117.00
36	5	1902	G	C6-C5-N7	-9.51	124.69	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	856	G	C5-C6-O6	9.51	134.31	128.60
36	1	2374	C	O5'-P-OP2	-9.51	97.14	105.70
36	1	1173	U	N3-C2-O2	-9.51	115.54	122.20
36	1	1928	G	N3-C4-C5	9.51	133.35	128.60
36	1	1196	C	O4'-C1'-N1	-9.51	100.59	108.20
1	6	1031	U	N3-C2-O2	-9.51	115.54	122.20
36	5	2549	G	C6-C5-N7	-9.51	124.70	130.40
1	6	308	C	C2-N1-C1'	-9.50	108.35	118.80
1	2	1555	A	N1-C6-N6	-9.50	112.90	118.60
36	1	423	A	N1-C6-N6	-9.50	112.90	118.60
1	2	1277	G	C8-N9-C4	-9.50	102.60	106.40
36	1	1888	U	N1-C2-O2	9.50	129.45	122.80
37	3	36	C	C2-N1-C1'	9.50	129.25	118.80
36	1	3373	U	C6-N1-C2	9.50	126.70	121.00
1	6	1786	G	N1-C6-O6	-9.50	114.20	119.90
36	5	1498	A	N1-C6-N6	-9.50	112.90	118.60
36	5	2915	U	N3-C4-O4	9.50	126.05	119.40
36	5	1212	A	C5-C6-N6	-9.49	116.11	123.70
36	5	1408	G	C2-N3-C4	-9.49	107.15	111.90
36	5	2400	G	O4'-C1'-N9	9.49	115.80	108.20
36	5	811	U	C5-C6-N1	-9.49	117.95	122.70
36	5	1108	U	C6-N1-C2	-9.49	115.31	121.00
36	1	101	G	C5-N7-C8	-9.49	99.56	104.30
1	6	1086	A	C5-C6-N6	9.49	131.29	123.70
36	1	1122	U	N1-C2-N3	9.49	120.59	114.90
1	6	1142	A	N1-C6-N6	-9.49	112.91	118.60
36	5	879	U	N3-C2-O2	9.49	128.84	122.20
36	5	2630	C	O5'-P-OP1	-9.49	97.16	105.70
36	1	189	G	N9-C4-C5	9.49	109.19	105.40
36	1	615	U	N3-C2-O2	-9.49	115.56	122.20
36	5	3057	U	O5'-P-OP2	-9.49	97.16	105.70
36	1	937	G	C5-N7-C8	-9.48	99.56	104.30
36	1	1116	G	N3-C4-C5	-9.48	123.86	128.60
36	1	2335	G	N3-C4-C5	-9.48	123.86	128.60
36	1	929	A	OP1-P-O3'	9.48	126.06	105.20
36	1	2403	G	N1-C6-O6	9.48	125.59	119.90
36	5	1867	A	C2-N3-C4	-9.48	105.86	110.60
36	5	821	U	C6-N1-C2	-9.48	115.31	121.00
36	1	3208	G	N3-C2-N2	9.48	126.53	119.90
36	1	2824	G	N1-C6-O6	9.48	125.59	119.90
1	2	111	U	C5-C4-O4	-9.47	120.22	125.90
36	1	3181	C	N3-C2-O2	-9.47	115.27	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	680	G	O5'-P-OP2	-9.47	97.17	105.70
36	5	808	A	C6-N1-C2	-9.47	112.92	118.60
36	1	2697	A	N1-C2-N3	9.47	134.04	129.30
36	1	342	A	N9-C4-C5	-9.47	102.01	105.80
36	1	1396	C	C5-C4-N4	-9.47	113.57	120.20
1	6	1634	C	C2-N1-C1'	9.47	129.22	118.80
36	1	2333	C	C5-C6-N1	-9.47	116.27	121.00
1	6	1480	G	C4-C5-N7	9.47	114.59	110.80
36	5	2705	A	C5-C6-N1	9.47	122.43	117.70
36	5	2799	A	N9-C4-C5	9.47	109.59	105.80
36	5	2887	A	C6-N1-C2	-9.46	112.92	118.60
1	2	342	C	C5-C6-N1	-9.46	116.27	121.00
36	1	2762	A	C6-N1-C2	-9.46	112.92	118.60
36	5	2957	G	N3-C4-C5	9.46	133.33	128.60
36	1	1840	U	C2-N3-C4	-9.46	121.32	127.00
1	6	1063	U	C5-C6-N1	9.46	127.43	122.70
1	6	419	G	C5-C6-N1	9.46	116.23	111.50
36	5	3295	A	C6-N1-C2	-9.46	112.92	118.60
36	1	3118	C	O5'-P-OP1	-9.46	97.19	105.70
1	6	1729	C	C6-N1-C2	9.45	124.08	120.30
36	5	1127	G	N1-C6-O6	-9.45	114.23	119.90
36	1	2280	A	C8-N9-C4	-9.45	102.02	105.80
36	5	1429	G	N1-C2-N3	9.45	129.57	123.90
36	1	37	U	C6-N1-C2	9.45	126.67	121.00
36	1	2377	G	C8-N9-C4	-9.45	102.62	106.40
36	1	3197	G	N1-C6-O6	9.45	125.57	119.90
36	5	3054	U	N1-C2-O2	-9.45	116.19	122.80
36	1	432	G	C5-C6-N1	-9.45	106.78	111.50
36	1	857	G	C4-C5-N7	-9.45	107.02	110.80
36	1	2974	U	C5-C6-N1	9.45	127.42	122.70
36	5	891	G	C8-N9-C4	-9.45	102.62	106.40
36	5	1839	A	O5'-P-OP1	-9.45	97.20	105.70
36	5	3004	C	C5-C4-N4	-9.44	113.59	120.20
36	5	2584	G	N7-C8-N9	9.44	117.82	113.10
1	2	1615	C	C6-N1-C2	-9.44	116.52	120.30
36	5	283	G	N3-C4-N9	9.44	131.66	126.00
36	5	2991	A	C6-N1-C2	-9.44	112.94	118.60
36	1	435	C	C5-C6-N1	-9.44	116.28	121.00
36	1	798	G	O5'-P-OP1	-9.44	97.20	105.70
36	5	127	G	N1-C6-O6	9.44	125.56	119.90
36	5	278	U	N3-C2-O2	-9.44	115.59	122.20
36	1	2625	C	N1-C2-N3	-9.44	112.59	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1136	U	C5-C4-O4	-9.44	120.24	125.90
36	5	1512	U	O5'-P-OP1	-9.44	97.21	105.70
36	5	1898	G	N1-C6-O6	-9.44	114.24	119.90
36	5	3065	G	N1-C2-N3	9.44	129.56	123.90
38	4	27	U	O5'-P-OP2	9.43	122.02	110.70
1	2	967	A	N9-C4-C5	-9.43	102.03	105.80
36	5	2305	G	C4-C5-N7	-9.43	107.03	110.80
36	5	1139	G	N1-C6-O6	-9.43	114.24	119.90
36	5	3323	A	N1-C6-N6	-9.43	112.94	118.60
36	1	2729	U	O5'-P-OP1	-9.43	97.22	105.70
36	1	2823	G	N1-C2-N3	9.43	129.56	123.90
36	5	2118	C	C6-N1-C2	-9.43	116.53	120.30
36	1	1002	A	N7-C8-N9	-9.42	109.09	113.80
36	1	3010	U	C5-C6-N1	9.42	127.41	122.70
36	5	189	G	N9-C4-C5	9.42	109.17	105.40
36	5	945	C	N3-C4-C5	-9.42	118.13	121.90
36	1	2871	G	N3-C4-C5	9.42	133.31	128.60
36	1	344	A	N7-C8-N9	9.42	118.51	113.80
36	1	1180	A	N1-C6-N6	-9.42	112.95	118.60
36	5	2283	G	N9-C4-C5	-9.42	101.63	105.40
36	1	1906	G	O5'-P-OP1	-9.42	97.22	105.70
36	1	2959	C	N3-C2-O2	9.42	128.49	121.90
1	6	1086	A	N1-C6-N6	-9.42	112.95	118.60
1	6	456	A	N1-C2-N3	9.41	134.01	129.30
36	5	1847	A	N3-C4-C5	9.41	133.39	126.80
36	1	879	U	N1-C2-O2	-9.41	116.21	122.80
36	5	3377	G	C5-C6-N1	9.41	116.21	111.50
36	1	1175	C	N1-C2-O2	-9.41	113.25	118.90
36	1	2305	G	C8-N9-C4	-9.41	102.64	106.40
36	1	1930	A	C8-N9-C4	9.41	109.56	105.80
1	6	992	A	C2-N3-C4	-9.41	105.90	110.60
36	5	2395	G	N1-C6-O6	9.41	125.54	119.90
36	5	2820	A	OP1-P-O3'	-9.41	84.51	105.20
36	1	691	A	O5'-P-OP1	-9.40	97.24	105.70
1	2	334	G	C4-N9-C1'	-9.40	114.28	126.50
1	2	573	C	N3-C4-C5	-9.40	118.14	121.90
36	1	1191	U	C6-N1-C2	9.40	126.64	121.00
36	1	3193	C	C6-N1-C2	-9.40	116.54	120.30
36	5	3208	G	C4-C5-C6	9.40	124.44	118.80
37	7	15	C	O5'-P-OP2	-9.40	97.24	105.70
1	2	830	U	N1-C2-O2	9.39	129.37	122.80
36	1	1224	C	N3-C2-O2	-9.39	115.33	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2880	U	C6-N1-C1'	9.39	134.35	121.20
37	7	88	G	N3-C4-C5	-9.39	123.91	128.60
36	1	2309	A	N1-C6-N6	9.39	124.23	118.60
36	1	3137	C	N3-C4-C5	9.39	125.66	121.90
37	3	26	C	O5'-P-OP2	-9.39	97.25	105.70
36	1	1039	U	C5-C6-N1	-9.38	118.01	122.70
36	1	1157	G	C8-N9-C4	-9.38	102.65	106.40
36	1	3204	C	N3-C2-O2	-9.38	115.33	121.90
36	5	2877	G	N1-C2-N3	9.38	129.53	123.90
1	6	1768	G	C5-N7-C8	-9.38	99.61	104.30
36	1	805	G	N1-C6-O6	9.38	125.53	119.90
36	1	933	A	C8-N9-C4	-9.38	102.05	105.80
36	5	562	C	C6-N1-C2	9.38	124.05	120.30
36	5	2963	C	N1-C2-O2	-9.38	113.27	118.90
36	1	2895	G	N3-C4-N9	9.38	131.62	126.00
1	6	175	G	N1-C6-O6	9.38	125.53	119.90
1	6	1572	G	C2-N3-C4	-9.37	107.21	111.90
36	5	3182	G	N1-C2-N3	9.37	129.52	123.90
1	2	47	A	C8-N9-C4	-9.37	102.05	105.80
36	5	1895	A	C5-C6-N1	9.37	122.39	117.70
36	5	2164	A	N1-C6-N6	-9.37	112.98	118.60
36	5	2858	U	C6-N1-C2	-9.37	115.38	121.00
37	7	112	G	N1-C6-O6	-9.37	114.28	119.90
1	6	95	G	N1-C6-O6	-9.37	114.28	119.90
36	5	1046	A	O5'-P-OP2	9.37	121.94	110.70
36	1	1178	G	C4-C5-N7	9.37	114.55	110.80
36	1	1877	U	C6-N1-C2	9.37	126.62	121.00
36	5	2419	A	O5'-P-OP1	9.37	121.94	110.70
36	1	883	A	N1-C2-N3	9.37	133.98	129.30
36	1	1423	C	N3-C4-C5	-9.37	118.15	121.90
38	4	53	A	C4-C5-N7	-9.36	106.02	110.70
36	5	89	A	O5'-P-OP1	9.36	121.94	110.70
36	5	1212	A	C8-N9-C4	-9.37	102.05	105.80
36	5	2620	G	N3-C4-N9	-9.37	120.38	126.00
36	5	2874	G	C4-N9-C1'	9.36	138.67	126.50
36	5	1520	G	C4-N9-C1'	9.36	138.67	126.50
36	5	1896	A	O5'-P-OP1	-9.36	97.28	105.70
36	5	2678	A	C5-C6-N6	9.36	131.19	123.70
36	5	2699	G	C5-C6-O6	-9.36	122.98	128.60
37	7	84	A	N1-C2-N3	9.36	133.98	129.30
36	1	285	A	N1-C6-N6	9.36	124.21	118.60
36	1	2168	A	C4-C5-N7	-9.36	106.02	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	804	C	OP1-P-O3'	9.36	125.78	105.20
36	5	2886	U	C2-N3-C4	-9.36	121.39	127.00
36	1	2383	C	N1-C2-O2	-9.35	113.29	118.90
36	1	3027	A	C2-N3-C4	-9.35	105.92	110.60
36	5	959	C	C4-C5-C6	9.35	122.08	117.40
36	5	2618	G	N1-C6-O6	-9.35	114.29	119.90
36	5	1142	G	OP1-P-OP2	9.35	133.62	119.60
36	5	2914	G	C5-N7-C8	-9.35	99.63	104.30
36	5	168	U	O5'-P-OP1	-9.35	97.29	105.70
36	1	691	A	N1-C6-N6	9.35	124.21	118.60
36	1	833	G	C5-C6-O6	9.35	134.21	128.60
36	1	1208	U	C6-N1-C1'	-9.34	108.12	121.20
36	5	2281	A	O4'-C1'-N9	9.34	115.68	108.20
36	5	2816	G	C4-N9-C1'	-9.34	114.35	126.50
36	1	2759	U	N3-C2-O2	-9.34	115.66	122.20
1	2	331	A	C5-C6-N6	9.34	131.17	123.70
36	1	350	C	N1-C2-O2	9.34	124.50	118.90
36	1	1149	G	N1-C2-N3	9.34	129.50	123.90
36	1	2390	A	C5-C6-N1	9.34	122.37	117.70
36	1	2866	U	N3-C2-O2	-9.34	115.66	122.20
36	1	3199	G	O5'-P-OP1	-9.34	97.29	105.70
36	5	568	G	N3-C4-N9	9.34	131.60	126.00
36	5	3012	A	N1-C6-N6	9.34	124.20	118.60
36	1	1431	G	N7-C8-N9	-9.34	108.43	113.10
36	5	1115	G	N3-C4-C5	-9.34	123.93	128.60
1	2	1782	A	C8-N9-C4	-9.33	102.07	105.80
36	1	3383	G	N3-C4-N9	-9.33	120.40	126.00
36	5	1151	U	N3-C2-O2	-9.33	115.67	122.20
36	5	2306	C	C6-N1-C1'	-9.33	109.60	120.80
36	5	880	G	O5'-P-OP2	-9.33	97.30	105.70
37	3	25	G	N3-C4-C5	-9.33	123.94	128.60
36	1	1153	A	C2-N3-C4	-9.33	105.94	110.60
1	2	967	A	C8-N9-C4	9.32	109.53	105.80
36	1	99	A	O4'-C1'-N9	9.32	115.66	108.20
36	5	1156	C	N3-C4-N4	9.32	124.53	118.00
36	1	2943	G	C5-C6-O6	-9.32	123.01	128.60
36	5	1136	A	N1-C2-N3	9.32	133.96	129.30
36	5	2741	C	C5-C6-N1	9.32	125.66	121.00
36	1	93	C	C4-C5-C6	-9.32	112.74	117.40
36	1	1153	A	N1-C2-N3	9.32	133.96	129.30
36	5	1514	G	C6-C5-N7	-9.32	124.81	130.40
36	1	693	A	C2-N3-C4	-9.31	105.94	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2683	U	C5-C6-N1	9.31	127.36	122.70
37	7	13	A	C2-N3-C4	-9.31	105.94	110.60
36	1	366	A	N7-C8-N9	9.31	118.46	113.80
36	1	47	C	N3-C4-C5	-9.31	118.18	121.90
36	1	1157	G	C5-C6-N1	-9.31	106.84	111.50
36	1	1177	G	C4-C5-N7	9.31	114.52	110.80
36	1	2925	C	C2-N1-C1'	-9.31	108.56	118.80
36	5	575	G	C5-C6-O6	-9.31	123.01	128.60
36	5	2837	A	N7-C8-N9	-9.31	109.14	113.80
36	5	1536	G	C8-N9-C4	9.31	110.12	106.40
36	5	1907	C	N3-C4-C5	-9.31	118.18	121.90
36	5	1317	A	C6-N1-C2	-9.31	113.02	118.60
1	2	1241	G	O4'-C1'-N9	9.31	115.65	108.20
36	5	425	G	N3-C2-N2	-9.31	113.38	119.90
36	5	2991	A	N1-C6-N6	-9.31	113.02	118.60
36	5	1176	C	C5-C6-N1	-9.30	116.35	121.00
36	5	3269	U	C6-N1-C2	9.31	126.58	121.00
38	8	7	U	C5-C6-N1	-9.31	118.05	122.70
36	5	1101	G	N3-C4-N9	9.30	131.58	126.00
36	5	1322	U	O5'-P-OP1	-9.30	97.33	105.70
36	1	629	U	C5-C6-N1	-9.30	118.05	122.70
36	5	372	A	N1-C6-N6	-9.30	113.02	118.60
36	1	682	U	O5'-P-OP1	-9.30	97.33	105.70
36	5	1150	A	C6-N1-C2	-9.30	113.02	118.60
36	5	3050	U	C5-C6-N1	-9.30	118.05	122.70
37	3	98	C	O5'-P-OP2	-9.30	97.33	105.70
1	6	636	A	N1-C6-N6	-9.29	113.02	118.60
36	5	349	A	N1-C6-N6	-9.29	113.02	118.60
36	5	2403	G	C5-C6-O6	-9.29	123.02	128.60
36	5	2897	A	C4-C5-C6	9.29	121.65	117.00
52	m6	101	ARG	NE-CZ-NH1	9.29	124.95	120.30
36	1	2394	G	N1-C6-O6	-9.29	114.33	119.90
36	5	1468	A	N1-C2-N3	9.29	133.95	129.30
36	1	689	U	N1-C2-N3	-9.29	109.33	114.90
36	5	885	U	N1-C2-N3	9.29	120.47	114.90
36	1	1867	A	C2-N3-C4	-9.29	105.96	110.60
36	5	1430	U	C6-N1-C2	9.29	126.57	121.00
18	C6	40	GLU	C-N-CD	-9.28	100.17	120.60
36	1	1769	G	C8-N9-C4	-9.28	102.69	106.40
36	1	3028	G	O5'-P-OP1	-9.28	97.34	105.70
36	1	751	A	N1-C6-N6	-9.28	113.03	118.60
36	5	2728	G	N3-C4-C5	-9.28	123.96	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2147	A	O5'-P-OP1	-9.28	97.35	105.70
1	6	1639	C	N3-C4-C5	9.28	125.61	121.90
36	5	2352	A	C6-N1-C2	-9.28	113.03	118.60
1	6	1355	C	C5-C6-N1	9.28	125.64	121.00
36	5	3010	U	N1-C2-O2	9.28	129.29	122.80
1	6	1784	C	N3-C4-C5	9.28	125.61	121.90
36	5	1405	U	C5-C4-O4	9.28	131.47	125.90
36	5	3211	C	O5'-P-OP1	-9.28	97.35	105.70
36	1	660	A	N1-C6-N6	-9.28	113.03	118.60
36	1	877	C	C6-N1-C2	-9.28	116.59	120.30
36	1	1182	A	N9-C4-C5	-9.28	102.09	105.80
36	1	2850	G	N1-C6-O6	-9.28	114.33	119.90
36	5	283	G	O4'-C1'-N9	-9.28	100.78	108.20
36	5	1054	A	O5'-P-OP2	-9.28	97.35	105.70
36	1	2355	G	N1-C6-O6	9.27	125.46	119.90
36	1	1301	A	C5-C6-N6	-9.27	116.28	123.70
1	6	453	U	C2-N1-C1'	9.27	128.82	117.70
36	5	289	A	C4-C5-N7	9.27	115.34	110.70
38	8	31	G	C5-C6-O6	9.27	134.16	128.60
36	1	798	G	N7-C8-N9	9.27	117.73	113.10
36	1	1305	U	C6-N1-C2	-9.27	115.44	121.00
1	6	1700	C	N1-C2-O2	9.27	124.46	118.90
36	5	364	G	O5'-P-OP2	9.27	121.82	110.70
36	1	213	A	N1-C6-N6	9.27	124.16	118.60
36	1	1057	A	C5-C6-N1	-9.27	113.07	117.70
36	1	2953	U	N3-C4-O4	9.27	125.89	119.40
36	5	1046	A	O5'-P-OP1	-9.27	97.36	105.70
36	5	1163	A	N1-C2-N3	9.27	133.93	129.30
36	5	2376	G	C4-C5-N7	9.27	114.51	110.80
36	5	2387	A	O5'-P-OP1	-9.27	97.36	105.70
36	5	2392	C	N1-C2-O2	-9.27	113.34	118.90
36	1	2980	U	N1-C2-O2	-9.26	116.31	122.80
36	5	2794	G	C5-C6-O6	-9.26	123.04	128.60
1	6	326	G	C5-C6-N1	-9.26	106.87	111.50
36	5	2279	A	C5-N7-C8	-9.26	99.27	103.90
36	5	3036	G	C5-C6-N1	-9.26	106.87	111.50
36	5	1794	G	N7-C8-N9	-9.26	108.47	113.10
36	1	1177	G	N9-C4-C5	-9.26	101.70	105.40
69	O3	7	LEU	CA-CB-CG	-9.26	94.00	115.30
36	5	688	G	C6-C5-N7	-9.26	124.84	130.40
36	5	875	G	N3-C2-N2	-9.26	113.42	119.90
36	5	3295	A	N1-C2-N3	9.26	133.93	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1213	G	N9-C4-C5	9.26	109.10	105.40
36	5	2340	U	O5'-P-OP2	9.26	121.81	110.70
36	1	1905	G	N3-C4-C5	9.26	133.23	128.60
36	1	3202	G	C8-N9-C4	9.26	110.10	106.40
36	5	3206	C	N1-C2-O2	9.26	124.45	118.90
36	1	32	U	C6-N1-C2	9.25	126.55	121.00
36	1	2156	C	C5-C6-N1	-9.25	116.37	121.00
36	5	921	A	C8-N9-C4	-9.25	102.10	105.80
36	1	2414	G	N1-C6-O6	9.25	125.45	119.90
1	6	815	G	N3-C4-C5	9.25	133.22	128.60
36	5	2849	C	N3-C4-C5	-9.25	118.20	121.90
1	6	1139	A	C5-C6-N6	-9.25	116.30	123.70
36	5	636	C	N1-C2-O2	-9.25	113.35	118.90
36	5	1095	U	C6-N1-C2	-9.25	115.45	121.00
36	5	1375	G	N3-C4-C5	-9.24	123.98	128.60
36	5	2638	C	N3-C4-C5	-9.24	118.20	121.90
36	5	2830	G	C2-N3-C4	-9.24	107.28	111.90
36	1	1336	U	O5'-P-OP1	-9.24	97.38	105.70
36	1	2641	U	N1-C2-O2	9.24	129.27	122.80
36	1	645	A	N3-C4-C5	-9.24	120.33	126.80
36	1	801	A	N1-C6-N6	9.24	124.14	118.60
36	1	835	G	C4-C5-N7	9.24	114.49	110.80
36	1	2187	G	C8-N9-C4	-9.24	102.70	106.40
36	1	227	G	N3-C4-N9	9.23	131.54	126.00
36	1	1192	C	C2-N1-C1'	9.23	128.96	118.80
36	1	2198	A	O5'-P-OP1	-9.23	97.39	105.70
36	5	935	U	C6-N1-C2	-9.23	115.46	121.00
36	5	1286	A	C8-N9-C4	9.23	109.49	105.80
36	5	1295	G	C5-C6-O6	-9.23	123.06	128.60
36	1	693	A	N7-C8-N9	9.23	118.42	113.80
36	1	3308	C	C6-N1-C2	-9.23	116.61	120.30
36	1	952	A	N9-C4-C5	9.23	109.49	105.80
36	1	2308	C	C6-N1-C2	9.23	123.99	120.30
36	1	1408	G	C6-C5-N7	-9.23	124.86	130.40
36	1	229	G	O5'-P-OP1	-9.23	97.40	105.70
36	1	370	U	N3-C4-O4	9.23	125.86	119.40
36	1	1054	A	O5'-P-OP1	9.23	121.77	110.70
36	1	1176	C	N1-C2-O2	-9.23	113.36	118.90
36	5	2986	U	N1-C2-N3	9.23	120.44	114.90
36	1	306	A	N1-C6-N6	-9.22	113.06	118.60
36	1	720	A	O5'-P-OP1	-9.22	97.40	105.70
36	5	1142	G	O5'-P-OP1	-9.22	97.40	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2682	C	C6-N1-C2	-9.22	116.61	120.30
36	5	3046	A	N1-C6-N6	-9.22	113.06	118.60
36	5	1126	G	C5-C6-N1	-9.22	106.89	111.50
36	1	518	G	N3-C4-N9	-9.22	120.47	126.00
36	5	1307	G	C5-C6-O6	-9.22	123.07	128.60
36	5	2632	G	C5-C6-O6	-9.22	123.07	128.60
1	6	1601	G	C8-N9-C4	-9.21	102.71	106.40
36	5	395	A	C8-N9-C4	-9.21	102.11	105.80
36	1	2942	C	C6-N1-C2	-9.21	116.61	120.30
36	5	1897	G	N9-C4-C5	-9.21	101.72	105.40
36	5	1116	G	C6-C5-N7	-9.21	124.87	130.40
36	1	365	A	N1-C2-N3	9.21	133.90	129.30
36	1	757	C	O5'-P-OP2	-9.21	97.42	105.70
36	1	1103	A	O5'-P-OP2	9.20	121.75	110.70
36	5	2108	C	C5-C6-N1	-9.20	116.40	121.00
36	5	2138	A	N1-C2-N3	9.20	133.90	129.30
36	5	2300	G	O5'-P-OP2	-9.20	97.42	105.70
37	7	49	G	C5-N7-C8	-9.20	99.70	104.30
37	7	91	G	C2-N3-C4	-9.20	107.30	111.90
36	1	1077	U	C5-C6-N1	-9.20	118.10	122.70
37	7	99	G	C4-C5-N7	-9.20	107.12	110.80
36	1	2188	A	C6-N1-C2	-9.20	113.08	118.60
36	1	358	G	C5-C6-O6	-9.19	123.08	128.60
36	1	693	A	N1-C6-N6	9.19	124.12	118.60
36	5	1000	C	N3-C4-C5	9.19	125.58	121.90
36	5	1147	G	C4-C5-N7	9.20	114.48	110.80
36	5	1604	G	C5-C6-O6	9.19	134.12	128.60
36	1	839	C	C6-N1-C2	9.19	123.98	120.30
36	1	2611	U	N3-C4-C5	-9.19	109.08	114.60
36	1	1170	A	C5-C6-N6	-9.19	116.35	123.70
1	6	1100	G	N9-C4-C5	-9.19	101.72	105.40
36	5	1373	A	C6-C5-N7	-9.19	125.87	132.30
36	1	40	A	C8-N9-C4	-9.19	102.13	105.80
36	5	1881	A	C6-N1-C2	-9.18	113.09	118.60
36	5	3343	G	C4-N9-C1'	9.18	138.44	126.50
36	1	2732	G	O5'-P-OP2	-9.18	97.44	105.70
36	5	197	G	C4-C5-N7	9.18	114.47	110.80
36	5	3325	G	C8-N9-C4	9.18	110.07	106.40
36	1	3091	A	C8-N9-C4	-9.18	102.13	105.80
36	5	2212	C	C2-N1-C1'	9.18	128.90	118.80
36	5	3079	U	N1-C2-N3	9.18	120.41	114.90
36	5	1306	G	N7-C8-N9	9.18	117.69	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2887	A	C8-N9-C4	-9.18	102.13	105.80
36	1	937	G	C6-C5-N7	-9.17	124.90	130.40
36	1	1100	U	C2-N3-C4	-9.17	121.50	127.00
36	1	2323	G	C4-C5-N7	9.17	114.47	110.80
36	1	3263	G	N3-C4-N9	9.17	131.50	126.00
36	5	289	A	C5-N7-C8	-9.17	99.31	103.90
36	5	695	C	C2-N3-C4	-9.17	115.31	119.90
36	5	920	A	OP2-P-O3'	9.17	125.38	105.20
36	5	3024	A	C8-N9-C4	9.17	109.47	105.80
36	5	3147	G	N9-C4-C5	-9.17	101.73	105.40
36	1	1151	U	N3-C4-O4	9.17	125.82	119.40
36	1	2863	G	C2-N3-C4	-9.17	107.31	111.90
36	5	2972	G	OP1-P-O3'	9.17	125.37	105.20
36	5	3009	G	C8-N9-C4	-9.17	102.73	106.40
36	5	363	G	C4-C5-N7	9.17	114.47	110.80
36	5	1391	C	C5-C6-N1	-9.17	116.42	121.00
36	5	3214	U	N3-C2-O2	-9.17	115.78	122.20
36	5	2637	A	C2-N3-C4	-9.16	106.02	110.60
36	5	3200	G	N1-C6-O6	9.16	125.40	119.90
36	1	2356	A	C6-C5-N7	-9.16	125.89	132.30
36	1	3142	A	C2-N3-C4	-9.16	106.02	110.60
36	1	2988	C	N3-C2-O2	-9.16	115.49	121.90
36	1	2996	U	C6-N1-C1'	-9.16	108.38	121.20
36	5	2428	U	N1-C2-O2	-9.16	116.39	122.80
36	1	1140	G	C2-N3-C4	-9.16	107.32	111.90
1	6	1546	G	C6-C5-N7	-9.16	124.91	130.40
36	5	1211	U	C5-C6-N1	-9.16	118.12	122.70
36	5	2661	G	C6-C5-N7	-9.16	124.91	130.40
36	5	3246	G	N7-C8-N9	9.16	117.68	113.10
36	5	2715	A	C8-N9-C4	-9.16	102.14	105.80
36	1	697	A	N9-C4-C5	-9.15	102.14	105.80
36	5	1129	A	C6-C5-N7	-9.15	125.89	132.30
36	5	1473	G	N9-C4-C5	-9.15	101.74	105.40
36	1	1183	C	C6-N1-C2	9.15	123.96	120.30
36	1	439	C	C2-N1-C1'	9.15	128.87	118.80
36	1	655	C	N3-C4-C5	-9.15	118.24	121.90
1	6	1564	U	C5-C4-O4	-9.15	120.41	125.90
36	5	506	U	N1-C2-O2	-9.15	116.39	122.80
36	5	1906	G	C5-C6-N1	9.15	116.07	111.50
36	5	650	C	N1-C2-O2	-9.15	113.41	118.90
36	1	1451	C	C6-N1-C2	9.14	123.96	120.30
36	5	2841	G	N1-C6-O6	-9.14	114.41	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1751	C	C2-N3-C4	-9.14	115.33	119.90
36	1	2609	A	O5'-P-OP1	9.14	121.67	110.70
36	1	107	A	C5-N7-C8	-9.14	99.33	103.90
36	5	990	U	N3-C2-O2	-9.14	115.80	122.20
36	5	1059	G	N9-C4-C5	9.14	109.06	105.40
36	5	2346	C	N1-C2-O2	-9.14	113.42	118.90
36	5	1311	G	O5'-P-OP2	-9.14	97.48	105.70
36	1	2378	C	N3-C4-C5	9.13	125.55	121.90
36	1	2644	C	C4-C5-C6	9.13	121.97	117.40
36	1	2813	A	O5'-P-OP2	-9.14	97.48	105.70
36	1	2827	U	C5-C6-N1	-9.14	118.13	122.70
36	5	911	C	N1-C2-N3	9.14	125.59	119.20
36	1	2883	U	N3-C2-O2	-9.13	115.81	122.20
1	6	1602	C	N3-C2-O2	-9.13	115.51	121.90
36	5	3037	U	N3-C2-O2	9.13	128.59	122.20
36	1	2129	U	N3-C2-O2	-9.13	115.81	122.20
36	5	1548	C	N3-C2-O2	9.13	128.29	121.90
1	6	151	G	N3-C2-N2	-9.13	113.51	119.90
36	5	33	G	C5-C6-O6	9.13	134.08	128.60
36	5	857	G	C4-C5-C6	9.13	124.28	118.80
38	8	38	U	N1-C2-N3	9.13	120.38	114.90
36	1	3202	G	C5-C6-O6	-9.13	123.12	128.60
36	1	933	A	N3-C4-C5	-9.12	120.41	126.80
36	1	1408	G	C5-C6-O6	-9.12	123.12	128.60
1	6	1662	G	C8-N9-C4	9.12	110.05	106.40
36	1	714	G	N9-C4-C5	-9.12	101.75	105.40
36	1	860	G	C6-C5-N7	-9.12	124.93	130.40
36	1	917	A	O5'-P-OP2	-9.12	97.49	105.70
36	1	2308	C	C2-N3-C4	-9.12	115.34	119.90
1	6	7	G	O5'-P-OP2	-9.12	97.49	105.70
1	6	1274	C	C6-N1-C2	-9.12	116.65	120.30
1	6	1040	G	O5'-P-OP2	-9.12	97.49	105.70
36	5	2817	A	C2-N3-C4	9.12	115.16	110.60
36	1	3062	G	N1-C6-O6	9.12	125.37	119.90
38	4	140	G	N9-C4-C5	9.12	109.05	105.40
36	1	2138	A	N1-C6-N6	9.12	124.07	118.60
36	1	2238	G	C5-C6-N1	9.12	116.06	111.50
36	1	1851	G	C5-C6-O6	-9.11	123.13	128.60
36	5	208	C	O5'-P-OP1	-9.12	97.50	105.70
36	5	827	A	N1-C6-N6	-9.11	113.13	118.60
36	5	726	G	C8-N9-C4	-9.11	102.75	106.40
36	5	784	A	C4-C5-N7	9.11	115.26	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2315	G	O5'-P-OP2	9.11	121.63	110.70
36	1	2661	G	C5-C6-O6	-9.11	123.13	128.60
1	6	41	A	N1-C6-N6	-9.11	113.14	118.60
36	1	1414	G	N9-C4-C5	-9.11	101.76	105.40
36	1	1507	G	N9-C4-C5	-9.11	101.76	105.40
36	1	2280	A	N7-C8-N9	9.11	118.35	113.80
36	5	1213	G	N3-C2-N2	-9.11	113.53	119.90
1	6	1007	C	N3-C4-C5	9.11	125.54	121.90
36	5	1063	G	N3-C4-C5	9.11	133.15	128.60
37	7	85	G	C8-N9-C4	-9.11	102.76	106.40
36	5	2327	U	C5-C6-N1	-9.11	118.15	122.70
36	1	1418	A	O5'-P-OP1	-9.10	97.51	105.70
36	5	1188	U	N1-C2-N3	9.10	120.36	114.90
36	1	679	U	N3-C4-O4	-9.10	113.03	119.40
36	1	2422	C	C5-C4-N4	9.10	126.57	120.20
36	1	2934	A	N1-C6-N6	9.10	124.06	118.60
36	5	941	G	C5-C6-N1	9.10	116.05	111.50
36	5	1389	G	N9-C4-C5	-9.10	101.76	105.40
36	5	2737	C	N1-C2-O2	-9.10	113.44	118.90
36	5	2934	A	C6-N1-C2	9.10	124.06	118.60
36	5	3040	A	N1-C2-N3	9.10	133.85	129.30
36	5	559	A	N1-C6-N6	9.10	124.06	118.60
1	6	1005	A	C6-N1-C2	-9.10	113.14	118.60
36	5	879	U	N1-C2-O2	-9.10	116.43	122.80
36	5	2621	G	C2-N3-C4	-9.10	107.35	111.90
36	5	3136	G	C4-C5-N7	9.10	114.44	110.80
36	5	2996	U	O5'-P-OP1	9.09	121.61	110.70
36	5	3376	A	N1-C2-N3	9.09	133.85	129.30
36	1	1443	G	C6-C5-N7	-9.09	124.95	130.40
36	5	592	A	O5'-P-OP2	-9.09	97.52	105.70
36	5	1099	A	C5-C6-N6	-9.09	116.43	123.70
36	5	1116	G	C2-N3-C4	-9.09	107.36	111.90
1	6	1572	G	C5-C6-N1	-9.09	106.96	111.50
36	5	784	A	C5-C6-N6	-9.09	116.43	123.70
36	1	1466	G	C6-C5-N7	-9.09	124.95	130.40
36	5	651	G	C6-C5-N7	-9.09	124.95	130.40
36	5	2334	U	N1-C2-N3	9.09	120.35	114.90
36	5	2192	C	O5'-P-OP2	-9.08	97.53	105.70
1	2	577	G	C6-C5-N7	-9.08	124.95	130.40
1	6	266	A	O5'-P-OP1	-9.08	97.53	105.70
36	5	287	G	C8-N9-C4	-9.08	102.77	106.40
36	1	3054	U	N1-C2-N3	9.08	120.35	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	891	A	N9-C4-C5	-9.08	102.17	105.80
36	5	1211	U	N1-C2-N3	-9.08	109.45	114.90
36	5	2241	U	O5'-P-OP1	-9.08	97.53	105.70
36	5	3166	C	C5-C6-N1	9.08	125.54	121.00
1	6	972	G	C5-C6-O6	-9.07	123.16	128.60
36	5	1898	G	C2-N3-C4	9.07	116.44	111.90
36	1	1829	G	N9-C4-C5	9.07	109.03	105.40
36	5	2393	G	N3-C4-N9	9.07	131.44	126.00
36	1	1406	A	C6-C5-N7	-9.07	125.95	132.30
1	6	1361	U	C2-N1-C1'	9.07	128.58	117.70
36	5	907	G	C8-N9-C4	9.07	110.03	106.40
36	5	2656	A	N9-C4-C5	9.07	109.43	105.80
36	5	1589	A	N9-C4-C5	-9.06	102.17	105.80
36	5	3095	U	C4-C5-C6	9.06	125.14	119.70
36	5	1049	C	N3-C4-C5	-9.06	118.28	121.90
36	5	3148	U	N3-C4-O4	-9.06	113.06	119.40
36	1	2886	U	C5-C4-O4	-9.06	120.46	125.90
36	1	3144	G	C5-C6-O6	-9.06	123.16	128.60
36	5	398	A	C8-N9-C4	9.06	109.42	105.80
36	5	1894	U	N3-C4-O4	9.06	125.74	119.40
36	1	2380	U	N3-C4-C5	9.06	120.03	114.60
36	1	2659	G	C6-C5-N7	-9.06	124.97	130.40
36	1	2283	G	C5-N7-C8	-9.05	99.77	104.30
36	1	2818	U	OP2-P-O3'	9.05	125.12	105.20
1	6	1778	G	C6-C5-N7	-9.05	124.97	130.40
1	6	1784	C	C6-N1-C2	9.05	123.92	120.30
36	5	1556	C	C6-N1-C1'	-9.05	109.94	120.80
36	5	2936	A	O5'-P-OP2	9.05	121.57	110.70
1	2	470	A	C8-N9-C4	9.05	109.42	105.80
36	1	1884	A	C5-C6-N6	9.05	130.94	123.70
36	5	825	U	O5'-P-OP1	-9.05	97.55	105.70
36	5	3200	G	C2-N3-C4	-9.05	107.38	111.90
1	2	1264	G	N1-C6-O6	-9.05	114.47	119.90
36	1	640	U	N3-C4-O4	9.05	125.73	119.40
36	1	2932	U	C5-C6-N1	-9.05	118.18	122.70
1	6	1332	C	N3-C4-C5	-9.05	118.28	121.90
36	5	985	U	O5'-P-OP2	-9.05	97.56	105.70
36	5	2770	G	C8-N9-C4	-9.05	102.78	106.40
36	1	1337	A	C6-N1-C2	-9.05	113.17	118.60
36	1	2980	U	C2-N3-C4	-9.05	121.57	127.00
36	1	3049	A	C8-N9-C4	9.04	109.42	105.80
1	6	456	A	C6-N1-C2	-9.05	113.17	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1163	A	N9-C4-C5	9.04	109.42	105.80
36	5	2111	G	N3-C4-N9	-9.04	120.57	126.00
36	5	64	G	C4-N9-C1'	9.04	138.25	126.50
36	5	1428	A	N1-C2-N3	9.04	133.82	129.30
36	5	3095	U	O5'-P-OP1	-9.04	97.56	105.70
36	1	65	A	N1-C6-N6	9.04	124.02	118.60
36	1	1374	G	N3-C4-C5	-9.04	124.08	128.60
36	1	699	A	C2-N3-C4	-9.04	106.08	110.60
36	1	1829	G	C8-N9-C4	-9.04	102.78	106.40
36	1	2326	A	C2-N3-C4	-9.04	106.08	110.60
36	1	2627	C	N1-C2-O2	-9.04	113.48	118.90
1	6	1614	A	C6-C5-N7	-9.04	125.97	132.30
1	6	1747	G	C8-N9-C4	9.04	110.01	106.40
36	5	963	G	O5'-P-OP1	9.04	121.54	110.70
36	5	1107	C	C2-N3-C4	-9.04	115.38	119.90
36	1	227	G	C8-N9-C1'	-9.03	115.25	127.00
36	5	1544	G	O5'-P-OP2	-9.03	97.57	105.70
36	5	1922	A	C2-N3-C4	-9.04	106.08	110.60
36	1	719	U	C6-N1-C2	9.03	126.42	121.00
36	5	214	G	O5'-P-OP2	-9.03	97.57	105.70
36	5	1005	G	C2-N3-C4	-9.03	107.38	111.90
36	5	3335	A	O5'-P-OP2	-9.03	97.57	105.70
1	2	341	A	O5'-P-OP1	-9.03	97.57	105.70
36	1	2421	U	N3-C2-O2	-9.03	115.88	122.20
36	1	272	G	N3-C4-C5	9.03	133.11	128.60
36	5	2290	C	C2-N1-C1'	-9.03	108.87	118.80
37	3	79	A	C2-N3-C4	-9.03	106.09	110.60
36	1	2701	U	N1-C2-N3	9.02	120.31	114.90
36	1	1306	G	O5'-P-OP2	-9.02	97.58	105.70
36	5	640	U	OP2-P-O3'	9.02	125.05	105.20
36	5	1076	C	C6-N1-C2	9.02	123.91	120.30
36	5	2335	G	C4-C5-N7	-9.02	107.19	110.80
36	1	1432	C	C4-C5-C6	9.02	121.91	117.40
1	6	1367	G	C5-C6-O6	-9.02	123.19	128.60
36	5	2963	C	N3-C2-O2	9.02	128.21	121.90
36	1	2291	A	C8-N9-C4	-9.02	102.19	105.80
36	5	2924	U	C2-N1-C1'	9.02	128.52	117.70
1	2	475	A	C8-N9-C4	9.01	109.41	105.80
36	1	1552	G	C6-C5-N7	-9.01	124.99	130.40
36	5	2728	G	C4-C5-C6	9.01	124.21	118.80
36	1	1932	A	C5-C6-N1	9.01	122.21	117.70
1	6	758	U	N3-C4-O4	-9.01	113.09	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1163	A	C8-N9-C4	-9.01	102.19	105.80
36	5	2426	U	C4-C5-C6	9.01	125.11	119.70
36	1	978	G	N1-C6-O6	9.01	125.31	119.90
36	1	2814	G	N3-C2-N2	-9.01	113.59	119.90
1	2	1737	G	N3-C4-C5	9.01	133.10	128.60
36	1	644	G	C4-C5-N7	-9.01	107.20	110.80
36	1	806	A	N7-C8-N9	-9.01	109.30	113.80
1	6	1565	C	C2-N3-C4	-9.01	115.40	119.90
36	1	2400	G	C6-C5-N7	-9.01	125.00	130.40
36	5	798	G	C6-C5-N7	-9.01	125.00	130.40
36	5	3127	A	N1-C2-N3	9.01	133.80	129.30
37	3	88	G	N3-C4-C5	-9.00	124.10	128.60
36	5	2819	A	O5'-P-OP2	-9.00	97.60	105.70
38	4	103	G	N3-C4-N9	9.00	131.40	126.00
36	5	1190	A	O4'-C1'-N9	-9.00	101.00	108.20
36	1	595	G	C4-N9-C1'	9.00	138.20	126.50
36	1	1305	U	N1-C2-O2	-9.00	116.50	122.80
36	1	2979	U	N3-C4-O4	-9.00	113.10	119.40
1	6	1025	A	C4-C5-C6	9.00	121.50	117.00
36	5	507	U	C6-N1-C2	-9.00	115.60	121.00
36	1	431	U	O5'-P-OP1	-8.99	97.61	105.70
36	5	2880	U	N1-C2-O2	-8.99	116.50	122.80
36	1	3006	A	C2-N3-C4	-8.99	106.10	110.60
1	6	1191	U	N1-C2-O2	8.99	129.09	122.80
36	5	2199	G	C5-C6-O6	-8.99	123.20	128.60
36	1	964	G	C6-C5-N7	-8.99	125.01	130.40
36	1	1058	U	N3-C2-O2	-8.99	115.91	122.20
36	1	2647	A	N1-C6-N6	8.99	123.99	118.60
1	6	1191	U	C2-N1-C1'	8.99	128.48	117.70
36	5	1101	G	N3-C4-C5	-8.99	124.11	128.60
36	5	2329	C	N3-C2-O2	8.99	128.19	121.90
36	5	2626	A	C2-N3-C4	-8.99	106.11	110.60
36	1	406	G	O4'-C1'-N9	8.98	115.39	108.20
36	1	943	U	C4-C5-C6	8.98	125.09	119.70
36	1	1552	G	N3-C4-N9	8.98	131.39	126.00
1	6	420	A	C5-N7-C8	-8.98	99.41	103.90
36	1	2918	G	C5-C6-N1	8.98	115.99	111.50
1	6	1787	C	N1-C2-O2	-8.98	113.51	118.90
36	5	648	C	C6-N1-C1'	8.98	131.58	120.80
36	5	2726	C	C6-N1-C2	-8.98	116.71	120.30
36	5	2853	A	N1-C6-N6	8.98	123.99	118.60
36	5	3308	C	C2-N1-C1'	8.98	128.68	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	881	C	N1-C2-O2	8.98	124.29	118.90
36	1	1349	G	C2-N3-C4	8.98	116.39	111.90
37	3	98	C	N1-C2-O2	-8.98	113.51	118.90
1	6	1129	U	N3-C4-C5	-8.98	109.21	114.60
36	5	963	G	C5-C6-N1	8.98	115.99	111.50
36	5	2248	C	C6-N1-C2	8.98	123.89	120.30
36	5	2358	A	N3-C4-C5	8.98	133.09	126.80
36	5	677	A	C4-C5-N7	8.98	115.19	110.70
36	1	793	C	N3-C4-C5	-8.97	118.31	121.90
36	5	2288	G	N3-C4-N9	8.97	131.38	126.00
36	5	2993	G	C4-C5-N7	8.97	114.39	110.80
36	1	377	A	N1-C6-N6	8.97	123.98	118.60
36	1	3092	C	C2-N3-C4	-8.97	115.41	119.90
36	1	3202	G	N1-C6-O6	8.97	125.28	119.90
1	2	75	U	N3-C2-O2	-8.97	115.92	122.20
37	7	29	C	C5-C6-N1	-8.97	116.51	121.00
1	2	582	U	N1-C2-O2	8.97	129.08	122.80
36	1	1887	A	N1-C6-N6	8.97	123.98	118.60
1	6	578	U	C5-C6-N1	-8.97	118.22	122.70
36	5	3246	G	C8-N9-C4	-8.97	102.81	106.40
38	8	80	A	C8-N9-C4	-8.97	102.21	105.80
1	6	247	A	N1-C6-N6	8.97	123.98	118.60
36	5	3014	U	C5-C4-O4	-8.97	120.52	125.90
36	1	2399	A	C8-N9-C4	8.96	109.39	105.80
1	6	1539	G	O5'-P-OP1	-8.96	97.63	105.70
36	5	430	U	C2-N3-C4	-8.96	121.62	127.00
36	5	2761	G	C5-C6-N1	8.97	115.98	111.50
36	1	1468	A	N1-C2-N3	8.96	133.78	129.30
36	5	2624	G	C5-C6-O6	-8.96	123.22	128.60
36	5	3025	C	N3-C4-N4	-8.96	111.73	118.00
36	1	1395	G	O5'-P-OP1	8.96	121.45	110.70
36	1	1929	G	C4-C5-N7	8.96	114.38	110.80
1	6	1603	U	C5-C4-O4	-8.96	120.52	125.90
36	1	2912	G	N1-C6-O6	-8.96	114.52	119.90
36	5	1368	U	N3-C4-O4	8.96	125.67	119.40
36	5	1793	C	N3-C4-N4	8.96	124.27	118.00
36	5	1907	C	C6-N1-C2	-8.96	116.72	120.30
36	1	2943	G	C6-C5-N7	-8.96	125.03	130.40
36	5	102	C	C6-N1-C2	8.96	123.88	120.30
36	5	402	A	C4-C5-C6	8.96	121.48	117.00
36	5	591	G	C4-C5-C6	8.96	124.17	118.80
36	5	1331	U	C5-C6-N1	-8.96	118.22	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	629	U	C6-N1-C2	8.96	126.37	121.00
36	1	1307	G	C8-N9-C4	-8.95	102.82	106.40
1	6	1158	C	O5'-P-OP2	-8.96	97.64	105.70
1	6	1664	C	C4-C5-C6	8.96	121.88	117.40
40	13	196	ARG	NE-CZ-NH2	-8.95	115.82	120.30
36	1	1949	G	O5'-P-OP1	-8.95	97.65	105.70
36	5	832	G	C5-C6-O6	8.95	133.97	128.60
36	5	1212	A	C4-C5-N7	8.95	115.17	110.70
36	5	1604	G	C4-C5-N7	-8.95	107.22	110.80
36	5	2852	C	N3-C4-C5	8.95	125.48	121.90
36	1	2872	A	C5-C6-N1	8.95	122.17	117.70
36	1	2283	G	N7-C8-N9	8.95	117.57	113.10
36	1	2842	U	O5'-P-OP1	-8.95	97.65	105.70
36	1	3001	C	C5-C6-N1	-8.95	116.53	121.00
36	5	581	U	C5-C6-N1	8.95	127.17	122.70
36	5	655	C	C6-N1-C2	-8.95	116.72	120.30
36	5	3088	G	N1-C6-O6	8.95	125.27	119.90
37	7	89	G	C6-C5-N7	-8.95	125.03	130.40
37	7	117	A	C2-N3-C4	-8.95	106.13	110.60
1	6	911	U	N3-C2-O2	-8.94	115.94	122.20
36	5	2395	G	C5-C6-O6	-8.94	123.23	128.60
36	1	828	A	C4-C5-N7	8.94	115.17	110.70
36	1	1392	G	N3-C4-C5	-8.94	124.13	128.60
36	5	2887	A	OP2-P-O3'	8.94	124.87	105.20
36	1	1392	G	C5-N7-C8	8.94	108.77	104.30
36	1	2875	U	C6-N1-C2	-8.94	115.64	121.00
36	5	1615	C	N3-C2-O2	-8.94	115.64	121.90
36	5	2335	G	O5'-P-OP1	-8.94	97.66	105.70
36	1	790	U	C4-C5-C6	8.94	125.06	119.70
36	5	2640	A	N1-C6-N6	8.94	123.96	118.60
36	1	52	A	N1-C6-N6	-8.94	113.24	118.60
1	6	618	U	O5'-P-OP1	-8.94	97.66	105.70
36	5	1323	G	N1-C2-N3	8.94	129.26	123.90
36	1	419	G	C8-N9-C4	8.93	109.97	106.40
36	1	1316	C	O5'-P-OP1	-8.93	97.66	105.70
36	1	2373	A	C5-N7-C8	-8.93	99.43	103.90
36	5	511	G	N1-C2-N3	8.93	129.26	123.90
36	5	1722	U	O5'-P-OP1	-8.93	97.66	105.70
36	5	2303	A	N1-C6-N6	8.93	123.96	118.60
36	5	3140	G	C4-N9-C1'	8.93	138.11	126.50
36	1	3379	C	C6-N1-C2	8.93	123.87	120.30
1	6	1131	A	N9-C4-C5	-8.93	102.23	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2180	G	O5'-P-OP2	-8.93	97.66	105.70
36	5	2394	G	N1-C6-O6	8.93	125.26	119.90
36	1	911	C	C2-N3-C4	-8.93	115.44	119.90
36	1	1139	G	N3-C4-C5	8.92	133.06	128.60
1	6	1730	A	C8-N9-C4	-8.92	102.23	105.80
36	5	916	G	N3-C4-C5	-8.92	124.14	128.60
36	5	1195	A	N1-C2-N3	8.92	133.76	129.30
36	5	2400	G	C4-C5-C6	-8.92	113.45	118.80
36	5	2708	C	N3-C4-N4	8.92	124.25	118.00
36	1	3093	C	C6-N1-C2	-8.92	116.73	120.30
36	1	36	C	N3-C2-O2	-8.92	115.66	121.90
36	1	357	A	N1-C2-N3	8.92	133.76	129.30
36	5	1137	C	N3-C4-N4	8.92	124.24	118.00
1	2	419	G	C5-C6-O6	-8.92	123.25	128.60
36	1	2364	G	C6-N1-C2	-8.92	119.75	125.10
36	5	974	G	C6-C5-N7	-8.92	125.05	130.40
36	5	1879	A	C8-N9-C4	-8.92	102.23	105.80
36	5	3026	G	N9-C4-C5	-8.92	101.83	105.40
36	1	3217	C	N3-C4-N4	8.92	124.24	118.00
1	6	805	U	O5'-P-OP1	-8.91	97.68	105.70
36	1	33	G	C2-N3-C4	-8.91	107.44	111.90
36	1	2393	G	C6-C5-N7	-8.91	125.05	130.40
37	3	84	A	C8-N9-C4	-8.91	102.23	105.80
38	4	28	C	C5-C6-N1	8.91	125.46	121.00
36	5	3187	A	O5'-P-OP2	-8.91	97.68	105.70
36	1	1129	A	N7-C8-N9	8.91	118.25	113.80
36	1	1294	A	O5'-P-OP2	-8.91	97.68	105.70
36	5	1604	G	N9-C4-C5	8.91	108.96	105.40
36	5	2888	U	N1-C2-N3	8.91	120.25	114.90
36	1	272	G	N3-C2-N2	-8.91	113.67	119.90
36	1	2296	A	C2-N3-C4	-8.91	106.15	110.60
36	1	1429	G	N7-C8-N9	-8.91	108.65	113.10
1	6	611	U	N3-C2-O2	-8.91	115.97	122.20
1	6	1440	C	N3-C4-C5	8.91	125.46	121.90
1	6	1644	C	O5'-P-OP2	-8.91	97.68	105.70
37	7	85	G	N7-C8-N9	8.91	117.55	113.10
36	5	1407	A	N7-C8-N9	-8.91	109.35	113.80
38	4	27	U	C5-C4-O4	-8.90	120.56	125.90
36	5	2629	U	C4-C5-C6	8.90	125.04	119.70
36	5	1101	G	N1-C2-N2	-8.90	108.19	116.20
36	1	596	C	C6-N1-C2	-8.90	116.74	120.30
36	1	1116	G	OP2-P-O3'	8.90	124.78	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1622	G	C4-C5-N7	8.90	114.36	110.80
36	1	427	C	C6-N1-C2	-8.90	116.74	120.30
1	2	1594	G	O5'-P-OP1	-8.90	97.69	105.70
36	1	35	A	C5-N7-C8	-8.90	99.45	103.90
38	4	53	A	C5-N7-C8	8.90	108.35	103.90
38	8	4	C	N1-C2-O2	-8.90	113.56	118.90
37	7	93	C	N3-C2-O2	-8.89	115.67	121.90
36	1	101	G	C2-N3-C4	-8.89	107.45	111.90
46	19	168	ARG	NE-CZ-NH2	8.89	124.75	120.30
36	1	356	C	C5-C4-N4	-8.89	113.98	120.20
36	1	2387	A	C5-C6-N1	8.89	122.14	117.70
36	5	787	G	C5-C6-N1	-8.89	107.06	111.50
36	1	1498	A	C5-C6-N1	8.89	122.14	117.70
36	5	2386	A	C4-C5-N7	8.89	115.14	110.70
36	1	428	A	C5-C6-N6	-8.88	116.59	123.70
36	1	2159	U	C2-N1-C1'	8.88	128.36	117.70
36	1	3182	G	N3-C4-N9	8.89	131.33	126.00
1	2	331	A	N9-C4-C5	8.88	109.35	105.80
36	1	883	A	C6-N1-C2	-8.88	113.27	118.60
36	1	2937	G	N7-C8-N9	-8.88	108.66	113.10
36	5	371	G	N3-C4-N9	-8.88	120.67	126.00
36	1	507	U	N1-C2-O2	8.88	129.01	122.80
36	1	622	A	C4-C5-N7	8.88	115.14	110.70
36	1	3206	C	N1-C2-O2	-8.88	113.57	118.90
36	5	1550	C	C5-C6-N1	8.88	125.44	121.00
36	5	667	C	C5-C4-N4	8.88	126.41	120.20
36	1	1604	G	N3-C4-C5	-8.88	124.16	128.60
36	5	1127	G	C8-N9-C4	-8.88	102.85	106.40
36	5	1913	A	N1-C6-N6	8.88	123.93	118.60
36	1	3377	G	N1-C6-O6	-8.87	114.58	119.90
36	5	97	U	C5-C4-O4	-8.87	120.58	125.90
1	2	1200	G	N1-C6-O6	8.87	125.22	119.90
36	5	3393	U	C2-N1-C1'	-8.87	107.05	117.70
36	5	1520	G	C8-N9-C1'	-8.87	115.47	127.00
36	1	793	C	C4-C5-C6	8.87	121.83	117.40
1	6	1130	G	C5-C6-N1	8.87	115.93	111.50
36	5	974	G	N3-C4-N9	8.87	131.32	126.00
36	5	1128	U	N1-C2-O2	-8.87	116.59	122.80
36	1	2847	A	C2-N3-C4	-8.86	106.17	110.60
36	1	3135	U	C5-C6-N1	-8.87	118.27	122.70
36	5	3271	G	N1-C6-O6	8.87	125.22	119.90
1	6	332	U	N3-C2-O2	-8.86	116.00	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	942	U	C6-N1-C2	-8.86	115.68	121.00
36	1	2637	A	N9-C4-C5	8.86	109.34	105.80
36	1	2831	G	N3-C2-N2	-8.86	113.70	119.90
36	1	2939	G	N9-C4-C5	8.86	108.94	105.40
36	5	2837	A	C6-N1-C2	-8.86	113.28	118.60
1	6	209	U	N3-C4-O4	8.86	125.60	119.40
1	6	1418	G	N1-C6-O6	8.86	125.22	119.90
1	6	1634	C	N3-C2-O2	-8.86	115.70	121.90
36	5	2980	U	N3-C4-O4	-8.86	113.20	119.40
1	6	1187	U	C5-C6-N1	8.86	127.13	122.70
36	5	857	G	N1-C6-O6	8.86	125.21	119.90
1	2	577	G	C4-C5-N7	8.85	114.34	110.80
36	1	61	A	N7-C8-N9	8.85	118.23	113.80
36	1	1172	G	OP1-P-O3'	8.85	124.68	105.20
36	1	2629	U	N1-C2-O2	-8.85	116.60	122.80
36	1	1366	A	C2-N3-C4	-8.85	106.17	110.60
36	1	1414	G	C5-C6-O6	-8.85	123.29	128.60
36	1	2689	A	O5'-P-OP1	-8.85	97.73	105.70
37	7	48	U	C5-C4-O4	-8.85	120.59	125.90
36	1	344	A	C8-N9-C4	-8.85	102.26	105.80
1	6	1668	G	C2-N3-C4	-8.85	107.47	111.90
1	2	1146	G	C4-N9-C1'	8.85	138.00	126.50
36	1	2983	C	C5-C6-N1	-8.85	116.58	121.00
36	5	1905	G	N1-C6-O6	-8.85	114.59	119.90
36	5	2341	A	O5'-P-OP1	-8.85	97.74	105.70
1	2	1655	A	C4-C5-C6	-8.84	112.58	117.00
36	1	1528	G	N3-C4-C5	-8.84	124.18	128.60
36	5	1017	C	C2-N1-C1'	8.84	128.53	118.80
36	1	826	G	N1-C6-O6	8.84	125.20	119.90
36	1	3075	G	C5-C6-N1	-8.84	107.08	111.50
36	5	1148	G	N1-C2-N3	8.84	129.21	123.90
36	5	2306	C	O5'-P-OP2	-8.84	97.74	105.70
36	5	2726	C	O5'-P-OP1	8.84	121.31	110.70
36	1	407	A	C2-N3-C4	8.84	115.02	110.60
36	5	608	A	C5-C6-N6	-8.84	116.63	123.70
36	5	1151	U	C2-N1-C1'	8.84	128.31	117.70
36	5	2358	A	C2-N3-C4	-8.84	106.18	110.60
1	2	334	G	C4-C5-N7	-8.84	107.27	110.80
36	5	1165	A	C5-N7-C8	-8.84	99.48	103.90
36	1	1929	G	C5-C6-O6	-8.84	123.30	128.60
36	5	827	A	N9-C4-C5	8.84	109.33	105.80
36	5	3015	G	N1-C6-O6	8.84	125.20	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	17	C	N1-C2-O2	-8.83	113.60	118.90
1	2	1272	U	N3-C2-O2	-8.83	116.02	122.20
36	1	52	A	C5-C6-N6	8.83	130.77	123.70
36	5	1172	G	C6-C5-N7	-8.83	125.10	130.40
37	7	93	C	C2-N1-C1'	8.83	128.52	118.80
36	1	934	G	C8-N9-C4	-8.83	102.87	106.40
1	6	1295	G	N1-C6-O6	8.83	125.20	119.90
36	5	364	G	O5'-P-OP1	-8.83	97.75	105.70
36	1	1414	G	C2-N3-C4	-8.83	107.49	111.90
36	5	1582	C	C5-C6-N1	8.83	125.41	121.00
36	5	2924	U	C5-C4-O4	-8.83	120.60	125.90
1	2	21	U	N3-C4-O4	8.82	125.58	119.40
36	5	2375	G	N9-C4-C5	8.82	108.93	105.40
36	1	1201	C	C5-C4-N4	-8.82	114.02	120.20
36	1	2394	G	C5-N7-C8	8.82	108.71	104.30
36	5	2407	C	C5-C4-N4	-8.82	114.02	120.20
36	1	642	U	C5-C6-N1	8.82	127.11	122.70
36	1	2296	A	N1-C6-N6	8.82	123.89	118.60
36	5	1155	C	N3-C2-O2	8.82	128.07	121.90
36	5	791	A	N1-C6-N6	8.82	123.89	118.60
36	5	2888	U	C2-N3-C4	-8.82	121.71	127.00
36	5	3245	A	C6-N1-C2	8.82	123.89	118.60
36	1	1522	U	N3-C2-O2	-8.82	116.03	122.20
36	1	2636	A	O5'-P-OP2	8.82	121.28	110.70
36	5	1047	A	N1-C2-N3	8.82	133.71	129.30
36	5	2946	A	N1-C2-N3	8.82	133.71	129.30
1	2	820	U	C5-C6-N1	8.81	127.11	122.70
36	1	193	C	N3-C4-C5	-8.81	118.38	121.90
36	1	290	G	N1-C6-O6	8.81	125.19	119.90
36	1	1386	A	C8-N9-C4	-8.81	102.28	105.80
36	1	2714	G	N3-C4-N9	-8.81	120.71	126.00
37	3	88	G	C6-N1-C2	-8.81	119.81	125.10
36	5	2825	C	N3-C4-N4	8.81	124.17	118.00
36	1	2363	A	O5'-P-OP2	8.81	121.28	110.70
1	6	322	G	C8-N9-C4	-8.81	102.88	106.40
36	5	360	G	C4-C5-C6	8.81	124.09	118.80
36	5	1046	A	N1-C2-N3	8.81	133.71	129.30
36	5	1947	G	C5-C6-N1	8.81	115.91	111.50
38	8	44	A	N1-C6-N6	8.81	123.89	118.60
36	1	971	G	N3-C4-C5	-8.81	124.20	128.60
36	5	2346	C	N3-C2-O2	8.81	128.07	121.90
36	1	1453	A	N1-C2-N3	8.81	133.70	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2904	U	N3-C4-C5	8.81	119.88	114.60
38	8	15	G	C4-C5-N7	-8.81	107.28	110.80
36	1	507	U	N3-C2-O2	-8.80	116.04	122.20
36	5	1116	G	OP1-P-O3'	-8.81	85.83	105.20
36	5	2814	G	C5-C6-O6	-8.80	123.32	128.60
37	7	80	G	C8-N9-C4	8.80	109.92	106.40
37	3	98	C	N1-C2-N3	8.80	125.36	119.20
36	5	3208	G	N1-C2-N3	8.80	129.18	123.90
1	2	573	C	C6-N1-C2	-8.80	116.78	120.30
36	1	596	C	C4-C5-C6	8.80	121.80	117.40
36	5	216	G	C5-C6-O6	-8.80	123.32	128.60
36	5	3373	U	N1-C2-N3	8.80	120.18	114.90
1	6	315	A	C8-N9-C4	8.80	109.32	105.80
36	5	33	G	N1-C6-O6	-8.80	114.62	119.90
36	5	922	U	C5-C6-N1	-8.80	118.30	122.70
36	5	1114	U	C6-N1-C2	-8.80	115.72	121.00
36	5	2287	C	C4-C5-C6	8.80	121.80	117.40
1	2	1284	C	N1-C2-O2	-8.80	113.62	118.90
36	1	226	C	N1-C2-O2	-8.79	113.62	118.90
36	1	408	A	C6-N1-C2	-8.79	113.32	118.60
36	1	3083	G	C8-N9-C4	8.79	109.92	106.40
36	5	2132	C	N3-C2-O2	-8.79	115.74	121.90
36	5	3047	U	O5'-P-OP1	-8.79	97.78	105.70
36	5	3203	U	C5-C4-O4	8.79	131.18	125.90
1	2	144	U	C6-N1-C1'	8.79	133.51	121.20
36	1	960	U	C5-C6-N1	-8.79	118.30	122.70
36	5	2811	A	C5-C6-N1	8.79	122.09	117.70
36	5	3053	G	O5'-P-OP1	-8.79	97.79	105.70
36	5	3129	A	C8-N9-C4	-8.79	102.28	105.80
38	8	7	U	N1-C2-O2	-8.79	116.64	122.80
1	2	144	U	C5-C4-O4	8.79	131.17	125.90
36	1	414	U	C2-N3-C4	-8.79	121.73	127.00
36	5	957	C	C2-N1-C1'	8.79	128.47	118.80
37	7	27	A	N1-C6-N6	-8.79	113.33	118.60
36	1	439	C	C5-C6-N1	8.79	125.39	121.00
36	1	3050	U	N1-C2-N3	8.79	120.17	114.90
1	6	1414	U	N3-C2-O2	-8.79	116.05	122.20
1	6	1428	G	O5'-P-OP1	-8.79	97.79	105.70
36	5	2139	A	C5-C6-N6	8.79	130.73	123.70
36	5	2697	A	C5-C6-N6	-8.79	116.67	123.70
36	5	2830	G	C5-C6-O6	8.79	133.87	128.60
36	1	1116	G	N3-C2-N2	8.79	126.05	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2678	A	N1-C6-N6	-8.79	113.33	118.60
36	1	2797	C	N3-C4-C5	-8.79	118.39	121.90
36	5	437	G	N3-C4-N9	8.79	131.27	126.00
36	5	795	G	O5'-P-OP2	-8.79	97.79	105.70
38	8	1	A	C5-N7-C8	8.79	108.29	103.90
36	5	2305	G	N1-C2-N3	8.78	129.17	123.90
36	1	2351	U	N3-C2-O2	-8.78	116.05	122.20
36	5	2808	A	N7-C8-N9	8.78	118.19	113.80
36	5	3390	G	O5'-P-OP1	-8.78	97.80	105.70
36	5	884	A	C8-N9-C4	8.78	109.31	105.80
36	5	3041	U	C6-N1-C2	8.78	126.27	121.00
36	1	648	C	C2-N3-C4	-8.78	115.51	119.90
1	6	1700	C	C2-N1-C1'	8.78	128.45	118.80
36	5	1196	C	C4-C5-C6	8.78	121.79	117.40
36	5	2199	G	C5-C6-N1	-8.78	107.11	111.50
36	5	2373	A	N1-C6-N6	-8.78	113.33	118.60
36	5	2620	G	C2-N3-C4	-8.78	107.51	111.90
36	5	3005	A	C4-C5-C6	8.78	121.39	117.00
1	2	610	G	C8-N9-C1'	-8.77	115.59	127.00
1	2	1114	G	N3-C4-N9	8.77	131.26	126.00
1	2	334	G	N7-C8-N9	-8.77	108.71	113.10
36	1	828	A	N7-C8-N9	8.77	118.19	113.80
36	1	1187	C	C6-N1-C2	8.77	123.81	120.30
36	1	1209	G	N3-C4-N9	8.77	131.26	126.00
36	1	1433	A	C8-N9-C4	-8.77	102.29	105.80
36	5	2932	U	C2-N3-C4	-8.77	121.74	127.00
36	1	962	A	N1-C2-N3	8.77	133.69	129.30
38	4	3	A	C5-C6-N1	8.77	122.08	117.70
36	1	2289	U	C4-C5-C6	8.77	124.96	119.70
36	1	187	A	N9-C4-C5	8.77	109.31	105.80
36	1	1376	C	O5'-P-OP2	-8.77	97.81	105.70
36	5	286	U	C6-N1-C2	-8.77	115.74	121.00
36	5	990	U	N1-C2-O2	8.77	128.94	122.80
36	5	1217	A	O5'-P-OP1	8.77	121.22	110.70
36	5	2306	C	C2-N1-C1'	8.77	128.44	118.80
36	1	3245	A	C2-N3-C4	-8.76	106.22	110.60
36	5	1364	C	C6-N1-C2	-8.76	116.79	120.30
36	1	964	G	C5-N7-C8	-8.76	99.92	104.30
36	1	2642	A	C8-N9-C4	8.76	109.31	105.80
36	5	2426	U	C5-C4-O4	8.76	131.16	125.90
36	1	635	G	C6-C5-N7	-8.76	125.14	130.40
36	5	1111	U	C5-C6-N1	-8.76	118.32	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	35	A	C6-C5-N7	-8.76	126.17	132.30
36	1	2985	C	C6-N1-C2	-8.76	116.80	120.30
36	1	1880	U	C2-N3-C4	-8.76	121.75	127.00
36	1	2179	C	N3-C2-O2	-8.76	115.77	121.90
36	5	2743	A	N1-C2-N3	8.76	133.68	129.30
36	5	3039	C	N3-C4-N4	8.76	124.13	118.00
36	5	3328	G	C4-C5-N7	8.76	114.30	110.80
36	5	3362	A	C5-N7-C8	-8.76	99.52	103.90
36	1	400	G	N9-C4-C5	8.75	108.90	105.40
36	5	528	U	C6-N1-C2	-8.75	115.75	121.00
36	5	1170	A	C2-N3-C4	-8.75	106.22	110.60
1	6	1498	G	C8-N9-C1'	-8.75	115.62	127.00
36	5	3189	G	C8-N9-C4	8.75	109.90	106.40
37	7	49	G	C4-C5-C6	8.75	124.05	118.80
38	8	111	A	C8-N9-C4	8.75	109.30	105.80
1	2	507	U	N3-C2-O2	-8.75	116.07	122.20
36	1	220	G	C6-C5-N7	-8.75	125.15	130.40
36	1	1380	G	C5-C6-N1	-8.75	107.12	111.50
36	1	2827	U	O5'-P-OP2	-8.75	97.83	105.70
41	L4	182	LEU	CA-CB-CG	8.75	135.42	115.30
1	6	321	C	O5'-P-OP1	-8.75	97.83	105.70
36	5	2678	A	N1-C6-N6	-8.75	113.35	118.60
38	8	41	A	N1-C2-N3	8.75	133.67	129.30
36	1	1177	G	C5-C6-O6	-8.74	123.35	128.60
36	5	2700	G	C6-N1-C2	-8.74	119.85	125.10
36	1	57	A	N1-C2-N3	8.74	133.67	129.30
36	1	780	A	N1-C2-N3	8.74	133.67	129.30
36	1	1178	G	C8-N9-C1'	-8.74	115.63	127.00
36	5	3200	G	C4-C5-C6	8.74	124.05	118.80
36	1	3362	A	C5-N7-C8	-8.74	99.53	103.90
36	5	2307	G	O5'-P-OP2	-8.74	97.83	105.70
36	1	2918	G	N3-C4-C5	-8.74	124.23	128.60
36	1	23	A	N3-C4-C5	-8.74	120.68	126.80
36	1	397	A	C5-C6-N1	8.74	122.07	117.70
36	1	2283	G	C8-N9-C4	-8.74	102.91	106.40
36	5	3218	A	N1-C6-N6	8.74	123.84	118.60
36	1	640	U	N3-C4-C5	-8.73	109.36	114.60
36	1	971	G	N3-C4-N9	8.73	131.24	126.00
1	6	29	U	N1-C2-N3	8.73	120.14	114.90
36	1	3362	A	N7-C8-N9	8.73	118.17	113.80
36	5	630	A	N7-C8-N9	-8.73	109.43	113.80
38	8	136	G	C8-N9-C4	8.73	109.89	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2821	C	N3-C2-O2	-8.73	115.79	121.90
36	5	3140	G	N3-C4-N9	8.73	131.24	126.00
1	2	3	U	O5'-P-OP1	-8.73	97.85	105.70
1	6	142	G	C5-C6-O6	8.73	133.84	128.60
36	5	249	U	O4'-C1'-N1	8.73	115.18	108.20
36	5	2824	G	N9-C4-C5	-8.72	101.91	105.40
36	1	3096	C	N3-C4-C5	-8.72	118.41	121.90
36	1	107	A	C4-C5-N7	8.72	115.06	110.70
36	1	3172	A	C4-C5-C6	8.72	121.36	117.00
36	5	360	G	C5-C6-N1	-8.72	107.14	111.50
36	5	1165	A	N1-C2-N3	8.72	133.66	129.30
36	5	2662	G	N1-C2-N3	8.72	129.13	123.90
36	1	1134	G	N1-C2-N3	8.72	129.13	123.90
36	1	1431	G	N1-C6-O6	-8.72	114.67	119.90
38	4	111	A	C8-N9-C4	8.72	109.29	105.80
1	6	431	C	N3-C2-O2	8.72	128.00	121.90
36	5	96	G	C5-C6-N1	-8.71	107.14	111.50
36	5	1178	G	C5-C6-O6	8.71	133.83	128.60
36	5	1685	C	C6-N1-C2	8.71	123.79	120.30
36	5	2122	G	N1-C6-O6	8.71	125.13	119.90
1	6	1189	A	C8-N9-C4	8.71	109.28	105.80
38	8	4	C	N3-C4-C5	-8.71	118.42	121.90
36	5	2878	G	N3-C4-C5	-8.71	124.24	128.60
1	2	317	C	C6-N1-C2	-8.71	116.82	120.30
36	1	22	G	C2-N3-C4	-8.71	107.55	111.90
1	6	553	G	N1-C6-O6	8.71	125.12	119.90
36	5	1182	A	OP1-P-OP2	8.71	132.66	119.60
36	5	3010	U	N3-C4-O4	-8.71	113.30	119.40
36	5	1149	G	C5-C6-N1	-8.71	107.15	111.50
36	5	2937	G	N9-C4-C5	-8.70	101.92	105.40
36	5	3278	C	C2-N1-C1'	-8.71	109.22	118.80
36	1	718	G	N1-C6-O6	8.70	125.12	119.90
36	5	3144	G	C4-C5-C6	8.70	124.02	118.80
36	5	3343	G	C8-N9-C1'	-8.70	115.69	127.00
36	1	640	U	N1-C2-O2	-8.70	116.71	122.80
36	5	664	U	N3-C4-C5	-8.70	109.38	114.60
36	5	863	C	C6-N1-C2	8.70	123.78	120.30
36	1	880	G	C4-N9-C1'	-8.70	115.19	126.50
36	1	276	U	N3-C4-O4	8.70	125.49	119.40
36	1	674	G	C5-C6-N1	-8.70	107.15	111.50
36	1	3390	G	C4-N9-C1'	8.70	137.81	126.50
36	1	2353	G	C5-C6-O6	-8.69	123.38	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	808	A	C5-C6-N1	8.70	122.05	117.70
1	6	43	A	C8-N9-C4	8.69	109.28	105.80
36	5	856	G	C4-N9-C1'	8.69	137.80	126.50
36	5	1127	G	C4-C5-N7	-8.69	107.32	110.80
36	5	2126	A	C5-C6-N1	8.69	122.05	117.70
37	7	13	A	N1-C6-N6	8.69	123.81	118.60
36	1	2599	U	O5'-P-OP1	-8.69	97.88	105.70
1	6	1535	U	O5'-P-OP2	-8.69	97.88	105.70
36	5	155	G	N3-C4-N9	8.69	131.21	126.00
36	5	3199	G	C5-C6-N1	8.69	115.84	111.50
36	1	861	C	C6-N1-C2	-8.69	116.83	120.30
36	5	3036	G	O5'-P-OP2	-8.69	97.88	105.70
36	5	3383	G	N1-C6-O6	8.69	125.11	119.90
36	5	300	G	N1-C6-O6	-8.69	114.69	119.90
36	5	1149	G	O5'-P-OP2	-8.69	97.88	105.70
36	5	1202	A	C4-C5-C6	8.69	121.34	117.00
1	2	1291	G	C5-N7-C8	-8.68	99.96	104.30
36	5	1342	C	O5'-P-OP1	-8.68	97.88	105.70
36	1	102	C	O5'-P-OP1	8.68	121.12	110.70
36	5	900	G	C8-N9-C4	-8.68	102.93	106.40
36	5	1127	G	C4-N9-C1'	8.68	137.79	126.50
1	6	972	G	N3-C4-N9	8.68	131.21	126.00
36	5	2295	A	O5'-P-OP2	-8.68	97.89	105.70
36	5	3115	C	C6-N1-C1'	8.68	131.22	120.80
36	5	804	C	N3-C4-N4	8.68	124.07	118.00
36	5	2157	G	C8-N9-C4	8.68	109.87	106.40
36	5	2895	G	C6-N1-C2	-8.68	119.89	125.10
36	1	354	U	N3-C2-O2	-8.68	116.13	122.20
1	6	1029	U	C5-C4-O4	8.68	131.11	125.90
36	1	3245	A	N1-C2-N3	8.68	133.64	129.30
36	5	2428	U	N3-C2-O2	8.68	128.27	122.20
36	5	3115	C	N3-C2-O2	8.68	127.97	121.90
1	2	1073	G	C8-N9-C4	8.67	109.87	106.40
38	4	18	U	C6-N1-C2	-8.67	115.80	121.00
36	1	2195	C	O5'-P-OP1	-8.67	97.89	105.70
36	5	1337	A	N1-C6-N6	-8.67	113.40	118.60
36	5	2244	A	N7-C8-N9	-8.67	109.46	113.80
1	6	54	C	N3-C2-O2	-8.67	115.83	121.90
1	2	1146	G	C6-C5-N7	-8.67	125.20	130.40
36	1	413	U	C6-N1-C2	8.67	126.20	121.00
1	6	1474	G	C8-N9-C1'	-8.67	115.73	127.00
36	5	1173	U	N1-C2-N3	8.67	120.10	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1879	A	C5-N7-C8	-8.67	99.56	103.90
36	5	3193	C	O5'-P-OP1	-8.67	97.90	105.70
36	1	916	G	C5-C6-N1	8.67	115.83	111.50
36	1	916	G	N1-C6-O6	-8.67	114.70	119.90
36	1	2631	U	N1-C2-O2	8.67	128.87	122.80
36	1	1103	A	C2-N3-C4	8.67	114.93	110.60
36	1	1487	G	N7-C8-N9	8.67	117.43	113.10
1	6	1187	U	C6-N1-C2	-8.67	115.80	121.00
36	5	2634	U	N3-C4-C5	8.67	119.80	114.60
1	2	1190	C	C6-N1-C2	8.66	123.77	120.30
1	2	1768	G	C8-N9-C4	-8.66	102.93	106.40
1	2	353	A	C6-C5-N7	-8.66	126.24	132.30
36	1	2627	C	C2-N3-C4	-8.66	115.57	119.90
36	5	289	A	C5-C6-N6	-8.66	116.77	123.70
36	5	1130	A	N1-C2-N3	-8.66	124.97	129.30
36	1	676	G	C4-N9-C1'	8.66	137.76	126.50
36	1	2863	G	O5'-P-OP2	-8.66	97.91	105.70
36	5	595	G	N1-C2-N2	-8.66	108.41	116.20
36	5	2865	U	N1-C2-O2	8.66	128.86	122.80
36	1	205	C	C6-N1-C2	8.66	123.76	120.30
36	1	693	A	C6-C5-N7	-8.66	126.24	132.30
1	6	326	G	C6-C5-N7	-8.66	125.20	130.40
36	5	592	A	C8-N9-C4	8.66	109.26	105.80
36	5	594	U	C6-N1-C2	-8.66	115.81	121.00
36	5	1095	U	N3-C2-O2	-8.66	116.14	122.20
36	5	1196	C	N1-C2-O2	8.66	124.09	118.90
36	1	499	G	O5'-P-OP2	-8.65	97.91	105.70
36	1	1930	A	N9-C4-C5	-8.65	102.34	105.80
36	1	3045	G	N1-C2-N3	-8.65	118.71	123.90
1	6	41	A	N9-C4-C5	8.65	109.26	105.80
36	5	583	G	O5'-P-OP1	-8.65	97.91	105.70
36	5	1152	G	N1-C2-N2	8.65	123.99	116.20
38	8	8	C	C6-N1-C2	-8.65	116.84	120.30
36	1	655	C	C2-N1-C1'	8.65	128.32	118.80
36	1	2601	A	C6-N1-C2	-8.65	113.41	118.60
36	5	2715	A	C5-C6-N6	8.65	130.62	123.70
36	5	1192	C	N1-C2-O2	8.65	124.09	118.90
36	5	2940	A	C5-N7-C8	-8.65	99.58	103.90
36	5	3040	A	C8-N9-C4	8.65	109.26	105.80
36	5	3361	G	N1-C6-O6	8.65	125.09	119.90
1	6	621	A	C6-C5-N7	8.65	138.35	132.30
1	6	1208	A	C8-N9-C4	-8.65	102.34	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2246	G	C5-N7-C8	-8.65	99.98	104.30
36	5	2689	A	C5-C6-N6	8.65	130.62	123.70
36	5	2789	U	N1-C2-O2	-8.64	116.75	122.80
36	5	2871	G	C4-C5-N7	8.64	114.26	110.80
36	1	2284	C	N1-C2-O2	8.64	124.09	118.90
36	5	774	G	C4-C5-N7	8.64	114.26	110.80
36	5	1910	A	C5-C6-N6	-8.64	116.79	123.70
37	7	104	A	OP1-P-O3'	-8.64	86.18	105.20
36	1	2314	U	N3-C4-O4	8.64	125.45	119.40
36	1	3085	G	C5-C6-O6	-8.64	123.42	128.60
36	1	3201	C	C6-N1-C2	-8.64	116.84	120.30
1	6	383	G	C6-C5-N7	-8.64	125.22	130.40
36	5	424	G	C5-C6-N1	8.64	115.82	111.50
1	6	1629	G	N3-C4-C5	-8.64	124.28	128.60
36	5	1851	G	C5-N7-C8	-8.64	99.98	104.30
36	1	1116	G	C4-N9-C1'	8.64	137.73	126.50
36	1	2816	G	N1-C2-N2	-8.64	108.43	116.20
1	6	351	C	C6-N1-C2	8.64	123.75	120.30
36	5	96	G	C8-N9-C4	8.64	109.86	106.40
36	5	2285	C	C5-C6-N1	-8.64	116.68	121.00
36	5	2945	G	N1-C6-O6	-8.64	114.72	119.90
36	1	644	G	N1-C2-N3	8.63	129.08	123.90
36	1	1100	U	N1-C2-N3	8.64	120.08	114.90
36	1	1483	G	C5-C6-N1	8.63	115.82	111.50
1	6	1474	G	C4-N9-C1'	8.63	137.73	126.50
36	5	1694	U	N3-C2-O2	8.63	128.24	122.20
1	6	788	A	C8-N9-C4	8.63	109.25	105.80
38	8	21	C	N3-C4-C5	8.63	125.35	121.90
36	1	3001	C	C2-N3-C4	-8.63	115.58	119.90
36	5	2278	C	N3-C4-N4	8.63	124.04	118.00
36	5	3043	C	C2-N3-C4	-8.63	115.58	119.90
36	1	2764	C	C2-N3-C4	8.63	124.21	119.90
36	1	3049	A	N7-C8-N9	-8.63	109.49	113.80
36	5	345	G	N9-C4-C5	-8.63	101.95	105.40
36	5	2895	G	N1-C2-N2	-8.63	108.43	116.20
36	5	384	A	N1-C6-N6	8.63	123.78	118.60
36	1	41	G	C5-C6-N1	8.63	115.81	111.50
36	1	699	A	N3-C4-C5	8.63	132.84	126.80
36	1	2385	G	N9-C4-C5	-8.63	101.95	105.40
1	6	1731	A	O5'-P-OP1	8.63	121.05	110.70
1	2	1300	A	N1-C6-N6	-8.62	113.43	118.60
1	6	1729	C	C2-N3-C4	-8.62	115.59	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1310	G	N3-C4-N9	8.62	131.17	126.00
36	5	1902	G	N1-C2-N3	8.62	129.07	123.90
36	5	3185	U	C4-C5-C6	8.62	124.87	119.70
1	2	15	U	N3-C2-O2	-8.62	116.17	122.20
36	5	1178	G	N9-C4-C5	8.62	108.85	105.40
36	5	1181	U	C4-C5-C6	8.62	124.87	119.70
36	5	1514	G	N9-C4-C5	-8.62	101.95	105.40
1	2	507	U	N1-C2-O2	8.62	128.83	122.80
1	6	1491	U	P-O3'-C3'	8.62	130.04	119.70
1	6	1630	U	N3-C4-O4	8.62	125.43	119.40
36	5	2379	U	N3-C4-O4	-8.62	113.37	119.40
36	1	3374	U	C5-C6-N1	-8.62	118.39	122.70
36	5	2693	C	C2-N3-C4	-8.62	115.59	119.90
36	5	2942	C	N3-C2-O2	-8.62	115.87	121.90
36	1	1395	G	O5'-P-OP2	-8.61	97.95	105.70
36	1	2198	A	C2-N3-C4	-8.61	106.29	110.60
36	1	2386	A	O5'-P-OP1	-8.61	97.95	105.70
1	6	1478	G	C4-N9-C1'	8.61	137.70	126.50
36	5	568	G	C4-C5-N7	8.61	114.24	110.80
36	5	2812	C	O5'-P-OP2	8.61	121.03	110.70
36	5	1060	U	N3-C4-O4	-8.61	113.37	119.40
36	5	718	G	C6-C5-N7	-8.61	125.23	130.40
36	5	996	A	O5'-P-OP2	-8.61	97.95	105.70
36	5	1124	U	N3-C4-O4	-8.61	113.37	119.40
36	1	639	G	C5-N7-C8	-8.61	100.00	104.30
36	1	865	U	C5-C6-N1	-8.61	118.40	122.70
36	1	2310	U	O5'-P-OP1	-8.61	97.95	105.70
36	1	1146	C	N1-C2-N3	-8.61	113.18	119.20
1	6	856	A	N1-C6-N6	8.61	123.76	118.60
1	6	1000	C	C6-N1-C2	-8.61	116.86	120.30
36	5	1376	C	N3-C4-N4	8.61	124.02	118.00
36	5	2624	G	N1-C6-O6	8.61	125.06	119.90
36	1	1043	C	N3-C4-C5	8.60	125.34	121.90
1	6	1354	G	C8-N9-C4	-8.60	102.96	106.40
37	3	74	C	C6-N1-C2	8.60	123.74	120.30
36	5	672	A	C5-C6-N1	8.60	122.00	117.70
36	5	851	C	N3-C4-C5	8.60	125.34	121.90
1	2	1761	U	N1-C2-N3	8.60	120.06	114.90
36	1	887	G	N3-C4-N9	8.60	131.16	126.00
36	1	2629	U	N3-C4-C5	-8.60	109.44	114.60
36	1	2887	A	N7-C8-N9	8.60	118.10	113.80
38	4	103	G	N3-C4-C5	-8.60	124.30	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	344	A	N7-C8-N9	8.60	118.10	113.80
36	5	961	C	O5'-P-OP2	8.60	121.02	110.70
36	5	2244	A	N1-C6-N6	-8.60	113.44	118.60
37	7	109	G	N3-C4-C5	8.60	132.90	128.60
36	1	1061	A	C5-N7-C8	8.60	108.20	103.90
36	1	1420	C	C2-N3-C4	-8.60	115.60	119.90
36	1	3266	G	C8-N9-C4	-8.60	102.96	106.40
36	5	213	A	C6-N1-C2	-8.60	113.44	118.60
1	6	16	G	C4-C5-N7	8.59	114.24	110.80
37	7	73	C	C6-N1-C2	-8.59	116.86	120.30
36	1	691	A	C5-N7-C8	-8.59	99.60	103.90
36	1	2913	C	N3-C4-C5	-8.59	118.46	121.90
1	6	1086	A	N9-C4-C5	8.59	109.23	105.80
36	5	330	G	N1-C6-O6	8.59	125.05	119.90
36	5	1181	U	C5-C4-O4	8.59	131.06	125.90
36	1	938	C	C2-N1-C1'	8.59	128.24	118.80
1	6	1264	G	N1-C6-O6	8.59	125.05	119.90
36	1	1905	G	C8-N9-C1'	8.58	138.16	127.00
36	1	2877	G	O5'-P-OP2	-8.58	97.97	105.70
36	1	1151	U	C6-N1-C2	-8.58	115.85	121.00
36	1	2614	G	N3-C4-C5	-8.58	124.31	128.60
36	1	2904	U	N3-C4-O4	-8.58	113.39	119.40
1	6	1623	C	C5-C6-N1	8.58	125.29	121.00
36	5	301	G	N1-C6-O6	8.58	125.05	119.90
36	1	73	C	N1-C2-O2	-8.58	113.75	118.90
36	1	641	C	N1-C2-N3	-8.58	113.19	119.20
36	5	256	G	N7-C8-N9	8.58	117.39	113.10
36	5	2684	C	N3-C4-C5	-8.58	118.47	121.90
36	5	3041	U	C5-C6-N1	-8.58	118.41	122.70
1	6	1282	U	N1-C2-N3	8.58	120.05	114.90
36	5	71	A	N1-C6-N6	-8.58	113.45	118.60
36	5	2943	G	N1-C2-N3	8.58	129.05	123.90
36	5	3143	C	N3-C4-N4	8.58	124.00	118.00
36	1	2936	A	C5-C6-N1	8.58	121.99	117.70
36	5	3096	C	N1-C2-N3	8.58	125.20	119.20
36	5	665	A	C8-N9-C4	-8.57	102.37	105.80
36	5	865	U	N1-C2-O2	-8.57	116.80	122.80
36	5	906	A	N9-C4-C5	8.57	109.23	105.80
36	5	3202	G	N1-C6-O6	-8.57	114.75	119.90
1	6	575	C	C6-N1-C2	8.57	123.73	120.30
36	1	751	A	C5-C6-N1	8.57	121.98	117.70
36	1	1380	G	N3-C4-C5	8.57	132.88	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1807	G	N1-C6-O6	8.57	125.04	119.90
1	6	9	U	O5'-P-OP1	-8.57	97.99	105.70
1	6	1510	U	O5'-P-OP2	-8.57	97.99	105.70
36	5	2280	A	C5-C6-N6	-8.57	116.84	123.70
36	5	2335	G	N1-C6-O6	-8.57	114.76	119.90
36	1	65	A	N9-C4-C5	-8.57	102.37	105.80
36	1	908	G	N7-C8-N9	8.57	117.38	113.10
36	1	2330	C	N3-C4-C5	8.57	125.33	121.90
36	1	3050	U	N3-C2-O2	-8.57	116.20	122.20
1	6	1139	A	N1-C6-N6	8.57	123.74	118.60
36	5	2904	U	N1-C2-N3	8.57	120.04	114.90
48	m1	112	LEU	CA-CB-CG	8.57	135.01	115.30
36	5	2835	U	C6-N1-C2	-8.57	115.86	121.00
36	1	2314	U	C5-C6-N1	8.56	126.98	122.70
1	6	1572	G	C6-C5-N7	-8.56	125.26	130.40
1	6	1777	G	C4-C5-N7	8.56	114.22	110.80
36	5	707	U	N3-C4-C5	-8.56	109.46	114.60
36	5	2383	C	N3-C2-O2	-8.56	115.91	121.90
36	5	2695	A	N1-C6-N6	-8.56	113.46	118.60
36	1	414	U	N3-C4-C5	8.56	119.74	114.60
36	1	3273	A	C6-N1-C2	-8.56	113.46	118.60
36	1	2159	U	C6-N1-C1'	-8.56	109.22	121.20
36	5	1085	A	C6-C5-N7	-8.56	126.31	132.30
36	5	1719	G	N1-C6-O6	8.56	125.04	119.90
36	5	2195	C	N3-C4-C5	8.56	125.32	121.90
36	5	2697	A	N1-C6-N6	8.56	123.74	118.60
36	5	2848	G	C2-N3-C4	-8.56	107.62	111.90
36	5	2975	U	O5'-P-OP1	-8.56	98.00	105.70
36	5	371	G	C4-N9-C1'	-8.56	115.37	126.50
1	6	858	G	O4'-C1'-N9	8.56	115.05	108.20
1	2	1146	G	C8-N9-C4	-8.55	102.98	106.40
36	1	1442	U	N1-C2-O2	-8.56	116.81	122.80
1	6	1178	G	N3-C4-C5	-8.56	124.32	128.60
36	5	2908	G	C5-N7-C8	-8.56	100.02	104.30
36	1	326	U	N3-C4-C5	-8.55	109.47	114.60
36	5	2187	G	C5-C6-O6	8.55	133.73	128.60
37	3	88	G	N7-C8-N9	8.55	117.38	113.10
36	5	2243	A	N3-C4-C5	-8.55	120.81	126.80
36	1	719	U	N1-C2-N3	-8.55	109.77	114.90
36	1	1858	A	C2-N3-C4	8.55	114.88	110.60
36	5	1444	G	C4-C5-C6	8.55	123.93	118.80
36	5	2659	G	N1-C6-O6	8.55	125.03	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2871	G	C5-N7-C8	-8.55	100.03	104.30
1	2	610	G	C4-N9-C1'	8.55	137.61	126.50
36	1	217	U	C6-N1-C2	-8.55	115.87	121.00
36	5	1183	C	N3-C4-N4	8.55	123.98	118.00
36	5	2880	U	C2-N1-C1'	-8.55	107.44	117.70
36	1	857	G	N9-C4-C5	8.55	108.82	105.40
36	5	3085	G	OP1-P-O3'	8.55	124.00	105.20
36	1	2618	G	N9-C4-C5	8.55	108.82	105.40
36	5	713	U	N3-C2-O2	-8.55	116.22	122.20
36	5	2351	U	N1-C2-N3	8.55	120.03	114.90
36	5	2386	A	N1-C6-N6	8.55	123.73	118.60
36	1	3182	G	N1-C2-N2	-8.54	108.51	116.20
36	5	278	U	C5-C4-O4	8.54	131.03	125.90
1	2	1654	G	N3-C4-N9	8.54	131.13	126.00
1	2	1737	G	N3-C4-N9	-8.54	120.88	126.00
36	1	2939	G	OP2-P-O3'	8.54	124.00	105.20
36	1	2960	C	N3-C2-O2	-8.54	115.92	121.90
36	5	3324	C	C5-C6-N1	-8.54	116.73	121.00
36	5	3367	C	C6-N1-C2	8.54	123.72	120.30
36	1	3132	C	OP1-P-OP2	-8.54	106.79	119.60
36	5	2803	A	C5-C6-N1	-8.54	113.43	117.70
1	2	317	C	N3-C2-O2	-8.54	115.92	121.90
36	1	2640	A	N1-C2-N3	8.54	133.57	129.30
36	5	2732	G	C4-C5-N7	-8.54	107.39	110.80
36	5	3102	G	C8-N9-C4	8.54	109.81	106.40
36	1	1387	G	C6-N1-C2	-8.53	119.98	125.10
36	5	1298	C	C5-C4-N4	-8.53	114.23	120.20
36	1	2953	U	C5-C6-N1	8.53	126.97	122.70
36	5	2347	U	N3-C2-O2	-8.53	116.23	122.20
36	1	2639	G	C2-N3-C4	-8.53	107.64	111.90
36	5	1102	A	C6-N1-C2	-8.53	113.48	118.60
36	5	1131	G	N1-C6-O6	8.53	125.02	119.90
36	5	1209	G	N3-C2-N2	-8.53	113.93	119.90
36	5	2139	A	C8-N9-C4	-8.53	102.39	105.80
1	2	1114	G	N3-C4-C5	-8.53	124.34	128.60
36	1	714	G	C8-N9-C1'	-8.53	115.92	127.00
1	6	78	A	N9-C4-C5	8.53	109.21	105.80
36	5	2395	G	C5-N7-C8	-8.53	100.04	104.30
36	1	765	C	N1-C2-O2	8.52	124.01	118.90
37	3	88	G	C5-C6-O6	8.52	133.71	128.60
36	5	2379	U	C5-C4-O4	8.52	131.01	125.90
36	5	2692	A	C5-C6-N1	8.52	121.96	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	638	C	C6-N1-C2	8.52	123.71	120.30
36	1	744	A	C2-N3-C4	-8.52	106.34	110.60
1	6	1483	A	N9-C4-C5	8.52	109.21	105.80
36	5	848	A	C4-C5-C6	8.52	121.26	117.00
36	1	2312	A	C5-C6-N1	8.52	121.96	117.70
36	1	2399	A	N9-C4-C5	-8.52	102.39	105.80
36	1	2960	C	C2-N3-C4	-8.52	115.64	119.90
1	6	22	A	C8-N9-C4	-8.52	102.39	105.80
1	6	423	G	N9-C4-C5	8.52	108.81	105.40
36	5	526	C	N3-C2-O2	-8.52	115.94	121.90
36	5	2112	U	O5'-P-OP2	-8.52	98.03	105.70
36	5	2728	G	C4-N9-C1'	8.52	137.58	126.50
36	1	210	U	N3-C2-O2	-8.52	116.24	122.20
36	5	1527	C	C2-N1-C1'	-8.52	109.43	118.80
36	1	2383	C	N3-C2-O2	8.52	127.86	121.90
36	5	2853	A	C4-C5-N7	8.52	114.96	110.70
36	1	909	G	C4-C5-N7	8.52	114.21	110.80
36	1	2193	U	N1-C2-O2	-8.52	116.84	122.80
36	1	2880	U	C6-N1-C1'	8.52	133.12	121.20
36	5	662	U	C5-C4-O4	-8.52	120.79	125.90
1	2	144	U	N1-C2-N3	8.51	120.01	114.90
36	1	2231	C	C6-N1-C2	8.51	123.70	120.30
36	5	371	G	N1-C6-O6	-8.51	114.79	119.90
36	5	422	A	N1-C2-N3	8.51	133.56	129.30
36	5	1330	A	N1-C6-N6	8.51	123.71	118.60
36	5	1879	A	N7-C8-N9	8.51	118.06	113.80
36	5	2634	U	C2-N3-C4	-8.51	121.89	127.00
36	5	2702	A	C8-N9-C4	-8.51	102.39	105.80
36	5	2813	A	C2-N3-C4	-8.51	106.34	110.60
36	5	2973	G	N3-C2-N2	-8.51	113.94	119.90
36	1	2959	C	N1-C2-O2	-8.51	113.79	118.90
36	5	918	C	N3-C4-N4	8.51	123.96	118.00
36	5	2994	A	N1-C2-N3	8.51	133.56	129.30
36	1	1428	A	C2-N3-C4	-8.51	106.35	110.60
38	4	38	U	C2-N1-C1'	8.51	127.91	117.70
36	5	1786	G	C5-N7-C8	-8.51	100.05	104.30
36	1	2136	C	C4-C5-C6	8.51	121.65	117.40
36	5	646	A	N1-C2-N3	8.51	133.55	129.30
36	5	687	U	C5-C4-O4	8.51	131.00	125.90
36	5	973	A	C5-N7-C8	-8.51	99.65	103.90
36	5	2640	A	C5-C6-N6	-8.51	116.90	123.70
36	1	1551	C	N3-C4-C5	8.50	125.30	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2329	C	N3-C4-N4	8.50	123.95	118.00
36	5	2151	C	N1-C2-O2	-8.50	113.80	118.90
36	1	907	G	C5-C6-N1	8.50	115.75	111.50
36	1	971	G	C4-N9-C1'	8.50	137.55	126.50
36	1	2974	U	C6-N1-C2	-8.50	115.90	121.00
1	6	1111	G	N1-C2-N3	8.50	129.00	123.90
1	6	1566	U	C6-N1-C2	8.50	126.10	121.00
36	1	3137	C	N3-C4-N4	-8.50	112.05	118.00
36	5	2863	G	N3-C4-C5	8.50	132.85	128.60
36	5	1192	C	N3-C4-C5	-8.50	118.50	121.90
36	1	833	G	C4-C5-N7	-8.50	107.40	110.80
36	5	2205	U	C5-C6-N1	8.50	126.95	122.70
1	2	334	G	N3-C4-N9	-8.49	120.90	126.00
36	5	2354	C	N1-C2-O2	-8.49	113.80	118.90
36	5	2922	G	C8-N9-C4	-8.49	103.00	106.40
36	5	3261	C	N3-C2-O2	8.49	127.84	121.90
36	1	1877	U	C5-C6-N1	-8.49	118.45	122.70
36	5	656	A	C5-C6-N6	-8.49	116.91	123.70
36	5	2168	A	C5-C6-N6	-8.49	116.91	123.70
37	7	104	A	C2-N3-C4	-8.49	106.35	110.60
36	1	2623	G	N9-C4-C5	-8.49	102.00	105.40
37	3	36	C	N3-C2-O2	-8.49	115.96	121.90
36	5	1141	C	N3-C4-C5	8.49	125.30	121.90
36	5	1692	U	O5'-P-OP2	-8.49	98.06	105.70
36	5	2638	C	C5-C4-N4	8.49	126.14	120.20
36	5	2876	C	C4-C5-C6	-8.49	113.16	117.40
1	2	99	C	C6-N1-C2	8.49	123.69	120.30
36	1	872	U	N1-C2-N3	8.49	119.99	114.90
36	1	1304	A	C4-C5-C6	-8.49	112.76	117.00
1	6	1600	A	C2-N3-C4	-8.49	106.36	110.60
36	5	645	A	N9-C4-C5	8.49	109.19	105.80
36	5	906	A	C8-N9-C4	-8.49	102.41	105.80
36	5	1166	G	N3-C4-C5	8.49	132.84	128.60
36	5	994	G	O4'-C1'-N9	-8.49	101.41	108.20
36	5	2366	C	N1-C2-O2	-8.49	113.81	118.90
36	5	2699	G	N3-C2-N2	-8.49	113.96	119.90
36	5	2735	U	N1-C2-N3	8.49	119.99	114.90
1	2	55	A	N1-C6-N6	8.48	123.69	118.60
36	5	2382	G	C8-N9-C1'	8.48	138.03	127.00
36	5	2792	A	C8-N9-C4	-8.48	102.41	105.80
36	1	688	G	N3-C4-N9	8.48	131.09	126.00
36	1	2682	C	O5'-P-OP2	-8.48	98.06	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	728	G	C5-C6-O6	-8.48	123.51	128.60
36	5	2761	G	C6-N1-C2	-8.48	120.01	125.10
37	7	42	A	C4-C5-C6	8.48	121.24	117.00
36	1	1172	G	C8-N9-C4	-8.48	103.01	106.40
36	5	644	G	N3-C4-C5	-8.48	124.36	128.60
36	5	1195	A	C2-N3-C4	-8.48	106.36	110.60
36	5	2145	A	C2-N3-C4	-8.48	106.36	110.60
36	5	960	U	N3-C2-O2	-8.48	116.27	122.20
36	5	1417	G	C8-N9-C4	-8.48	103.01	106.40
36	5	2904	U	C2-N3-C4	-8.48	121.91	127.00
36	5	3278	C	C6-N1-C2	8.48	123.69	120.30
36	5	3308	C	C6-N1-C1'	-8.48	110.63	120.80
36	5	2304	C	N3-C2-O2	8.47	127.83	121.90
36	1	2363	A	N1-C6-N6	-8.47	113.52	118.60
36	5	921	A	N1-C2-N3	8.47	133.54	129.30
36	5	1187	C	C6-N1-C2	8.47	123.69	120.30
36	1	651	G	OP2-P-O3'	8.47	123.84	105.20
36	1	1070	U	N3-C2-O2	-8.47	116.27	122.20
36	1	2093	A	N1-C6-N6	-8.47	113.52	118.60
36	1	2605	G	OP2-P-O3'	8.47	123.84	105.20
1	2	1129	U	C5-C4-O4	8.47	130.98	125.90
36	1	3091	A	C5-N7-C8	-8.47	99.66	103.90
36	5	1337	A	C2-N3-C4	-8.47	106.36	110.60
36	5	2952	G	N1-C6-O6	8.47	124.98	119.90
36	1	2867	C	C6-N1-C2	-8.47	116.91	120.30
36	5	1332	A	C2-N3-C4	-8.47	106.37	110.60
36	5	2286	U	C5-C6-N1	-8.47	118.47	122.70
37	7	49	G	C4-C5-N7	8.47	114.19	110.80
36	1	608	A	N3-C4-N9	8.47	134.17	127.40
36	1	1006	A	N1-C6-N6	8.47	123.68	118.60
36	5	2865	U	N3-C2-O2	-8.47	116.27	122.20
1	6	541	A	N1-C6-N6	8.46	123.68	118.60
36	5	1546	A	O5'-P-OP1	-8.46	98.08	105.70
36	5	2761	G	N1-C6-O6	-8.46	114.82	119.90
36	1	2830	G	C8-N9-C4	8.46	109.78	106.40
36	5	2936	A	N1-C2-N3	8.46	133.53	129.30
36	5	3006	A	N9-C4-C5	8.46	109.18	105.80
36	5	3271	G	C6-C5-N7	-8.46	125.32	130.40
36	1	1116	G	C4-C5-C6	8.46	123.88	118.80
36	1	3091	A	N7-C8-N9	8.46	118.03	113.80
1	6	1753	A	C4-N9-C1'	8.46	141.53	126.30
36	1	3174	A	C5-C6-N1	-8.46	113.47	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	639	G	N1-C2-N2	-8.46	108.59	116.20
36	1	3277	U	C6-N1-C2	-8.46	115.93	121.00
1	2	576	G	N1-C6-O6	8.45	124.97	119.90
1	2	1280	C	C5-C6-N1	8.45	125.23	121.00
36	5	1918	C	O5'-P-OP2	-8.46	98.09	105.70
1	2	1675	C	C6-N1-C2	8.45	123.68	120.30
36	1	1720	U	N1-C2-O2	8.45	128.72	122.80
36	1	2981	U	N1-C2-N3	8.45	119.97	114.90
36	5	35	A	O5'-P-OP2	-8.45	98.09	105.70
36	5	1719	G	N3-C4-C5	8.45	132.83	128.60
1	2	144	U	C2-N1-C1'	-8.45	107.56	117.70
36	1	350	C	C2-N1-C1'	8.45	128.10	118.80
36	1	1916	U	C5-C6-N1	-8.45	118.47	122.70
36	1	3152	U	C5-C4-O4	8.45	130.97	125.90
36	5	2610	G	C5-C6-O6	-8.45	123.53	128.60
36	5	2851	A	C4-C5-N7	-8.45	106.47	110.70
36	5	3079	U	C5-C6-N1	-8.45	118.47	122.70
1	2	311	U	C6-N1-C2	-8.45	115.93	121.00
36	1	1174	G	C8-N9-C1'	-8.45	116.02	127.00
36	5	784	A	C5-N7-C8	-8.45	99.67	103.90
36	1	1437	C	N1-C2-O2	8.45	123.97	118.90
36	5	1604	G	N3-C4-C5	-8.45	124.38	128.60
36	5	1786	G	C8-N9-C4	-8.45	103.02	106.40
36	5	2986	U	N3-C4-C5	-8.45	109.53	114.60
1	2	1203	A	O5'-P-OP1	-8.45	98.10	105.70
37	7	10	C	C5-C4-N4	-8.45	114.29	120.20
37	7	56	A	N1-C6-N6	8.45	123.67	118.60
36	5	1115	G	C4-N9-C1'	8.44	137.47	126.50
1	2	1439	C	O5'-P-OP1	-8.44	98.10	105.70
36	1	342	A	N1-C6-N6	8.44	123.67	118.60
1	6	905	A	C5-C6-N6	8.44	130.45	123.70
36	5	218	G	N9-C4-C5	8.44	108.78	105.40
36	5	1345	G	C2-N3-C4	-8.44	107.68	111.90
36	5	3093	C	C5-C6-N1	-8.44	116.78	121.00
36	5	3322	A	C2-N3-C4	-8.44	106.38	110.60
38	8	138	A	N9-C4-C5	8.44	109.18	105.80
36	1	1127	G	C2-N3-C4	-8.44	107.68	111.90
36	5	2940	A	C4-C5-C6	8.44	121.22	117.00
36	5	3187	A	C8-N9-C4	8.44	109.18	105.80
36	5	2942	C	N1-C2-N3	8.44	125.11	119.20
36	5	642	U	O5'-P-OP2	-8.44	98.11	105.70
36	5	867	G	C5-C6-N1	-8.44	107.28	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3144	G	N1-C2-N2	-8.44	108.61	116.20
1	6	1759	C	N3-C4-C5	-8.43	118.53	121.90
36	1	1604	G	N1-C6-O6	-8.43	114.84	119.90
36	1	3098	G	C5-C6-N1	8.43	115.72	111.50
1	6	308	C	C5-C6-N1	-8.43	116.78	121.00
36	5	35	A	C4-C5-N7	-8.43	106.48	110.70
36	5	278	U	C6-N1-C2	-8.43	115.94	121.00
37	7	49	G	N7-C8-N9	8.43	117.32	113.10
12	C0	88	PRO	N-CA-CB	8.43	113.42	103.30
36	1	394	G	N1-C6-O6	-8.43	114.84	119.90
36	1	639	G	N1-C2-N3	8.43	128.96	123.90
38	4	4	C	C6-N1-C2	-8.43	116.93	120.30
1	6	317	C	O5'-P-OP2	-8.43	98.11	105.70
36	1	1164	G	O5'-P-OP2	-8.43	98.11	105.70
36	1	2942	C	C4-C5-C6	-8.43	113.19	117.40
1	6	636	A	N1-C2-N3	8.43	133.51	129.30
36	1	1010	G	N3-C4-C5	8.43	132.81	128.60
36	1	2679	A	N1-C6-N6	8.43	123.66	118.60
36	1	1043	C	C6-N1-C2	8.43	123.67	120.30
36	5	50	U	N1-C2-O2	8.43	128.70	122.80
36	5	784	A	C6-C5-N7	-8.43	126.40	132.30
36	1	198	A	O5'-P-OP1	-8.42	98.12	105.70
36	1	372	A	C8-N9-C4	-8.42	102.43	105.80
36	1	1164	G	N3-C2-N2	-8.42	114.00	119.90
36	1	1311	G	O5'-P-OP1	-8.42	98.12	105.70
1	6	1447	C	N3-C2-O2	-8.42	116.00	121.90
36	5	1174	G	OP1-P-OP2	8.42	132.24	119.60
36	5	1473	G	C4-C5-N7	8.42	114.17	110.80
36	5	1780	G	C8-N9-C4	-8.42	103.03	106.40
36	5	2367	A	C2-N3-C4	-8.42	106.39	110.60
36	5	3285	C	C2-N1-C1'	8.42	128.07	118.80
1	2	1127	G	C8-N9-C4	-8.42	103.03	106.40
1	6	942	G	C8-N9-C4	-8.42	103.03	106.40
36	1	635	G	C5-N7-C8	-8.42	100.09	104.30
36	1	1205	A	O5'-P-OP1	8.42	120.80	110.70
36	1	1435	A	N9-C4-C5	8.42	109.17	105.80
36	1	2860	U	O5'-P-OP1	-8.42	98.12	105.70
36	5	357	A	N1-C2-N3	8.42	133.51	129.30
36	5	2662	G	N3-C4-N9	8.42	131.05	126.00
41	14	339	LEU	CA-CB-CG	8.42	134.66	115.30
36	1	1194	G	C2-N3-C4	8.41	116.11	111.90
36	1	2159	U	N1-C2-N3	-8.41	109.85	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	973	A	C8-N9-C4	8.41	109.17	105.80
1	6	1257	U	N1-C2-O2	8.41	128.69	122.80
36	5	974	G	C5-C6-O6	-8.41	123.55	128.60
36	5	1904	C	N3-C4-C5	8.41	125.27	121.90
37	7	90	U	O5'-P-OP2	-8.41	98.13	105.70
36	1	2356	A	C4-C5-N7	8.41	114.91	110.70
36	1	3307	A	O5'-P-OP2	-8.41	98.13	105.70
1	6	1536	G	N3-C4-N9	8.41	131.05	126.00
36	5	97	U	N3-C2-O2	8.41	128.09	122.20
36	5	1139	G	N3-C4-C5	8.41	132.81	128.60
36	1	1483	G	N3-C4-C5	-8.41	124.40	128.60
36	1	2884	C	C2-N1-C1'	-8.41	109.55	118.80
36	1	2979	U	C6-N1-C1'	8.41	132.97	121.20
1	6	1172	G	N1-C6-O6	-8.41	114.85	119.90
1	6	1185	U	N3-C2-O2	-8.41	116.31	122.20
36	5	36	C	O5'-P-OP1	-8.41	98.13	105.70
36	5	2212	C	C6-N1-C1'	-8.41	110.71	120.80
36	1	2323	G	C5-C6-O6	-8.41	123.56	128.60
36	5	948	C	N3-C4-C5	8.41	125.26	121.90
36	5	2126	A	C6-N1-C2	-8.41	113.56	118.60
36	5	2886	U	C4-C5-C6	8.41	124.75	119.70
36	5	1330	A	N3-C4-C5	8.41	132.68	126.80
36	1	1884	A	N1-C6-N6	-8.40	113.56	118.60
36	1	2779	A	C2-N3-C4	-8.40	106.40	110.60
36	5	2842	U	C2-N1-C1'	8.40	127.79	117.70
36	5	645	A	C6-N1-C2	-8.40	113.56	118.60
36	5	1377	G	N9-C4-C5	8.40	108.76	105.40
36	5	1884	A	C4-C5-C6	8.40	121.20	117.00
36	5	3211	C	C6-N1-C2	8.40	123.66	120.30
36	1	3383	G	N3-C4-C5	8.40	132.80	128.60
36	5	1107	C	C5-C6-N1	-8.40	116.80	121.00
36	1	1316	C	N3-C4-N4	8.40	123.88	118.00
36	1	1429	G	N3-C4-N9	8.40	131.04	126.00
36	1	2655	U	N1-C2-N3	8.40	119.94	114.90
1	6	922	G	N1-C6-O6	8.40	124.94	119.90
36	5	971	G	N1-C2-N2	-8.40	108.64	116.20
36	5	1165	A	C2-N3-C4	-8.40	106.40	110.60
36	5	1447	G	O5'-P-OP1	-8.40	98.14	105.70
36	5	2991	A	C5-C6-N1	8.40	121.90	117.70
36	5	3374	U	C5-C6-N1	-8.40	118.50	122.70
1	2	103	A	N1-C6-N6	8.40	123.64	118.60
38	4	53	A	N9-C4-C5	8.40	109.16	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	650	C	N3-C4-N4	-8.40	112.12	118.00
36	5	1848	G	N9-C4-C5	-8.40	102.04	105.40
36	5	3329	U	C4-C5-C6	8.40	124.74	119.70
38	8	26	U	C6-N1-C2	-8.40	115.96	121.00
36	1	198	A	N9-C4-C5	8.39	109.16	105.80
36	1	981	U	C6-N1-C2	-8.39	115.96	121.00
36	1	1141	C	O5'-P-OP1	-8.39	98.14	105.70
36	1	2192	C	N3-C2-O2	-8.39	116.03	121.90
1	6	315	A	N7-C8-N9	-8.39	109.60	113.80
1	6	1626	U	C5-C6-N1	-8.39	118.50	122.70
36	5	3137	C	C5-C4-N4	-8.39	114.32	120.20
36	1	87	U	N1-C2-N3	8.39	119.93	114.90
36	1	2311	G	C6-C5-N7	-8.39	125.37	130.40
1	6	1083	G	C8-N9-C4	-8.39	103.04	106.40
1	2	1479	A	N1-C6-N6	8.39	123.63	118.60
36	1	1304	A	N1-C2-N3	-8.39	125.11	129.30
36	1	1508	C	N3-C4-C5	-8.39	118.55	121.90
36	1	3150	A	C4-C5-N7	8.39	114.89	110.70
36	1	1057	A	N1-C6-N6	8.39	123.63	118.60
1	6	1145	U	N1-C2-O2	-8.39	116.93	122.80
1	6	1456	C	O5'-P-OP2	8.39	120.76	110.70
36	5	2155	G	N1-C2-N3	8.39	128.93	123.90
36	5	2212	C	O5'-P-OP1	8.39	120.76	110.70
36	1	205	C	C4-C5-C6	8.38	121.59	117.40
36	1	938	C	OP1-P-O3'	8.38	123.64	105.20
36	5	802	C	C2-N3-C4	-8.38	115.71	119.90
36	5	1364	C	OP2-P-O3'	8.38	123.64	105.20
36	1	506	U	C4-C5-C6	8.38	124.73	119.70
36	1	2864	A	O5'-P-OP1	-8.38	98.16	105.70
36	5	188	U	N3-C2-O2	-8.38	116.33	122.20
36	5	1400	G	N3-C4-C5	-8.38	124.41	128.60
36	5	2844	C	C6-N1-C2	-8.38	116.95	120.30
36	5	3179	U	N1-C2-N3	8.38	119.93	114.90
36	5	1599	G	C8-N9-C4	8.38	109.75	106.40
36	5	3309	G	C8-N9-C1'	-8.38	116.10	127.00
1	6	41	A	C8-N9-C4	-8.38	102.45	105.80
1	6	1086	A	C8-N9-C4	-8.38	102.45	105.80
1	6	1542	G	C4-C5-N7	-8.38	107.45	110.80
36	5	3377	G	C5-C6-O6	-8.38	123.57	128.60
38	8	61	A	N1-C6-N6	-8.38	113.57	118.60
1	2	1190	C	C5-C6-N1	-8.38	116.81	121.00
36	1	424	G	C5-C6-N1	8.38	115.69	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	496	C	C5-C6-N1	8.38	125.19	121.00
36	1	585	A	C4-C5-C6	8.38	121.19	117.00
36	1	1328	C	C5-C4-N4	-8.38	114.34	120.20
36	1	2296	A	C5-C6-N1	-8.38	113.51	117.70
36	1	2378	C	O5'-P-OP2	8.38	120.75	110.70
36	1	2618	G	O5'-P-OP2	-8.38	98.16	105.70
36	1	3318	G	C4-N9-C1'	8.38	137.39	126.50
36	1	3390	G	O5'-P-OP1	-8.38	98.16	105.70
38	4	30	C	N3-C4-C5	8.38	125.25	121.90
1	6	1004	U	N1-C2-N3	8.38	119.92	114.90
36	1	1520	G	C6-C5-N7	-8.37	125.38	130.40
36	1	2872	A	O5'-P-OP2	8.37	120.75	110.70
36	1	2187	G	N9-C4-C5	8.37	108.75	105.40
36	1	2908	G	N7-C8-N9	8.37	117.29	113.10
36	1	2937	G	N3-C2-N2	-8.37	114.04	119.90
36	5	1307	G	C4-C5-N7	8.37	114.15	110.80
36	1	1432	C	N3-C4-C5	-8.37	118.55	121.90
36	5	931	C	N3-C4-C5	-8.37	118.55	121.90
36	5	2632	G	N1-C6-O6	8.37	124.92	119.90
36	1	3006	A	N1-C2-N3	8.37	133.48	129.30
36	5	1924	U	N3-C2-O2	8.37	128.06	122.20
36	5	2667	A	N1-C6-N6	-8.37	113.58	118.60
36	1	2364	G	O5'-P-OP1	-8.37	98.17	105.70
36	1	798	G	N1-C6-O6	8.36	124.92	119.90
36	1	2314	U	N1-C2-N3	-8.37	109.88	114.90
1	6	442	C	N1-C2-O2	-8.37	113.88	118.90
36	1	2874	G	C8-N9-C4	-8.36	103.05	106.40
36	5	1482	A	C5-C6-N6	-8.37	117.01	123.70
36	5	2923	U	OP1-P-O3'	8.37	123.60	105.20
37	7	84	A	C6-N1-C2	-8.37	113.58	118.60
37	7	92	A	C4-C5-N7	8.37	114.88	110.70
36	1	223	U	O5'-P-OP2	-8.36	98.17	105.70
36	1	2605	G	C5-C6-N1	-8.36	107.32	111.50
36	5	1150	A	C8-N9-C4	-8.36	102.45	105.80
36	5	2872	A	O5'-P-OP1	-8.36	98.17	105.70
37	7	35	C	C6-N1-C2	8.36	123.64	120.30
36	1	1466	G	N1-C6-O6	8.36	124.92	119.90
37	3	82	G	C6-N1-C2	-8.36	120.08	125.10
36	5	1418	A	O5'-P-OP1	-8.36	98.18	105.70
36	5	3218	A	C6-C5-N7	-8.36	126.45	132.30
36	1	229	G	C8-N9-C4	-8.36	103.06	106.40
36	1	1503	A	N1-C2-N3	8.36	133.48	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	998	A	C6-N1-C2	-8.36	113.58	118.60
38	8	27	U	O5'-P-OP1	-8.36	98.18	105.70
1	6	402	C	C2-N3-C4	-8.36	115.72	119.90
36	1	1556	C	C6-N1-C2	-8.35	116.96	120.30
36	1	1658	G	N1-C2-N2	8.35	123.72	116.20
36	1	2877	G	C8-N9-C1'	8.35	137.86	127.00
1	6	1540	G	N1-C6-O6	-8.35	114.89	119.90
36	5	433	A	N1-C6-N6	8.35	123.61	118.60
36	5	1114	U	OP2-P-O3'	8.35	123.57	105.20
36	1	2843	U	N1-C2-O2	8.35	128.64	122.80
36	1	3106	A	O5'-P-OP1	-8.35	98.19	105.70
37	3	36	C	C6-N1-C2	-8.35	116.96	120.30
36	5	867	G	C6-C5-N7	-8.35	125.39	130.40
36	5	1149	G	C8-N9-C4	-8.35	103.06	106.40
36	5	1923	C	N1-C2-O2	-8.35	113.89	118.90
37	7	58	C	O5'-P-OP2	-8.35	98.19	105.70
36	1	37	U	C5-C6-N1	-8.35	118.53	122.70
36	1	1160	C	N3-C4-C5	-8.35	118.56	121.90
36	1	2115	G	C5-C6-O6	-8.35	123.59	128.60
36	1	3216	G	C8-N9-C4	8.35	109.74	106.40
36	5	1181	U	N3-C2-O2	-8.35	116.36	122.20
36	5	3062	G	N1-C6-O6	8.35	124.91	119.90
36	1	2417	U	C2-N3-C4	-8.34	121.99	127.00
38	4	4	C	O5'-P-OP2	-8.34	98.19	105.70
1	6	1614	A	C5-N7-C8	-8.34	99.73	103.90
36	5	1847	A	N3-C4-N9	-8.34	120.72	127.40
36	1	628	A	OP2-P-O3'	8.34	123.55	105.20
36	1	1542	G	N9-C4-C5	-8.34	102.06	105.40
1	6	776	G	N1-C6-O6	8.34	124.90	119.90
1	6	1542	G	C5-N7-C8	8.34	108.47	104.30
36	5	1099	A	N9-C4-C5	-8.34	102.46	105.80
36	5	1292	C	N3-C2-O2	8.34	127.74	121.90
36	5	2703	A	C6-C5-N7	-8.34	126.46	132.30
36	5	2968	G	N3-C2-N2	-8.34	114.06	119.90
1	6	300	A	N1-C6-N6	-8.34	113.60	118.60
1	6	1112	G	N9-C4-C5	8.34	108.73	105.40
36	1	372	A	N7-C8-N9	8.34	117.97	113.80
36	1	608	A	N9-C4-C5	-8.34	102.47	105.80
36	1	651	G	C4-N9-C1'	8.34	137.34	126.50
36	1	1457	U	O5'-P-OP1	-8.34	98.20	105.70
36	1	2910	A	C2-N3-C4	-8.34	106.43	110.60
36	5	2190	U	N1-C2-N3	8.34	119.90	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2243	A	C2-N3-C4	8.34	114.77	110.60
36	1	1937	U	C5-C6-N1	-8.34	118.53	122.70
1	6	1107	G	N1-C6-O6	-8.34	114.90	119.90
36	5	595	G	N3-C2-N2	8.34	125.73	119.90
36	5	3088	G	N3-C2-N2	-8.34	114.06	119.90
36	1	719	U	O4'-C1'-N1	-8.33	101.53	108.20
36	1	2339	C	C6-N1-C2	-8.33	116.97	120.30
1	6	402	C	C5-C4-N4	-8.33	114.37	120.20
36	5	651	G	N3-C4-C5	-8.33	124.43	128.60
36	5	3144	G	O5'-P-OP2	8.33	120.70	110.70
36	5	3129	A	N3-C4-N9	-8.33	120.73	127.40
36	1	41	G	C8-N9-C1'	8.33	137.83	127.00
36	1	806	A	O5'-P-OP1	-8.33	98.20	105.70
36	1	1003	A	O5'-P-OP1	-8.33	98.20	105.70
36	1	2901	G	C4-C5-N7	-8.33	107.47	110.80
36	5	339	C	C5-C6-N1	-8.33	116.84	121.00
36	5	1834	U	N3-C4-C5	-8.33	109.60	114.60
36	5	2397	A	N1-C6-N6	8.33	123.60	118.60
38	8	53	A	C5-C6-N1	8.33	121.86	117.70
36	1	329	U	N1-C2-N3	8.33	119.90	114.90
36	1	1104	G	C8-N9-C4	-8.33	103.07	106.40
36	1	2331	C	C2-N1-C1'	8.33	127.96	118.80
36	1	2420	C	O5'-P-OP1	-8.33	98.20	105.70
36	1	2794	G	N3-C4-C5	-8.33	124.44	128.60
38	4	41	A	N3-C4-C5	-8.33	120.97	126.80
1	6	1003	A	C8-N9-C4	8.33	109.13	105.80
36	5	842	G	C4-C5-C6	-8.33	113.80	118.80
36	5	3146	G	N3-C4-N9	8.33	131.00	126.00
36	5	1319	G	C5-N7-C8	8.33	108.46	104.30
36	1	1349	G	N3-C4-C5	-8.32	124.44	128.60
36	1	1406	A	C5-C6-N6	-8.32	117.04	123.70
36	1	3219	G	O5'-P-OP2	-8.32	98.21	105.70
36	5	1422	G	C4-C5-N7	8.32	114.13	110.80
36	1	331	G	N3-C2-N2	-8.32	114.08	119.90
1	6	420	A	N1-C6-N6	8.32	123.59	118.60
36	5	2278	C	C2-N1-C1'	8.32	127.95	118.80
36	5	2902	A	C6-N1-C2	-8.32	113.61	118.60
36	5	2920	U	N3-C2-O2	-8.32	116.38	122.20
36	5	3147	G	C2-N3-C4	-8.32	107.74	111.90
38	8	133	G	N7-C8-N9	-8.32	108.94	113.10
36	1	1191	U	C5-C6-N1	-8.32	118.54	122.70
36	1	2419	A	C5-N7-C8	-8.32	99.74	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2887	A	C5-C6-N1	8.32	121.86	117.70
36	1	2139	A	N1-C2-N3	8.32	133.46	129.30
36	1	2912	G	C8-N9-C4	-8.32	103.07	106.40
36	5	961	C	C6-N1-C2	-8.32	116.97	120.30
1	2	334	G	C8-N9-C4	8.31	109.73	106.40
1	2	1077	C	C5-C6-N1	8.31	125.16	121.00
36	1	324	A	O5'-P-OP2	8.31	120.68	110.70
36	1	596	C	N1-C2-N3	8.31	125.02	119.20
36	1	2823	G	C2-N3-C4	-8.31	107.74	111.90
1	6	552	G	C5-C6-O6	-8.31	123.61	128.60
36	5	633	C	N3-C4-C5	8.31	125.23	121.90
36	5	992	A	C2-N3-C4	-8.31	106.44	110.60
36	5	3329	U	N3-C4-C5	-8.31	109.61	114.60
36	1	916	G	C6-N1-C2	-8.31	120.11	125.10
36	1	1488	G	N1-C6-O6	8.31	124.89	119.90
1	6	913	G	N1-C6-O6	8.31	124.89	119.90
1	6	1594	G	C5-C6-O6	-8.31	123.61	128.60
36	5	429	U	O5'-P-OP2	-8.31	98.22	105.70
36	5	1408	G	C4-C5-C6	8.31	123.79	118.80
36	5	2572	C	N1-C2-O2	8.31	123.89	118.90
36	1	1010	G	C8-N9-C4	8.31	109.72	106.40
36	1	2187	G	N1-C2-N3	8.31	128.88	123.90
1	6	608	U	N1-C2-O2	8.31	128.62	122.80
36	5	643	U	N1-C2-O2	8.31	128.62	122.80
36	1	2729	U	C5-C6-N1	-8.30	118.55	122.70
36	5	588	G	N3-C4-C5	-8.30	124.45	128.60
36	1	50	U	C6-N1-C2	-8.30	116.02	121.00
36	1	2895	G	C4-N9-C1'	8.30	137.29	126.50
36	5	2359	C	O5'-P-OP2	-8.30	98.23	105.70
36	1	2883	U	N1-C2-O2	8.30	128.61	122.80
1	6	983	A	C8-N9-C4	-8.30	102.48	105.80
36	5	555	U	N1-C2-O2	-8.30	116.99	122.80
36	5	639	G	C4-C5-C6	8.30	123.78	118.80
36	1	1046	A	C2-N3-C4	-8.30	106.45	110.60
36	1	2286	U	C5-C6-N1	-8.30	118.55	122.70
36	1	1446	A	N9-C4-C5	8.29	109.12	105.80
36	1	817	A	O5'-P-OP1	-8.29	98.24	105.70
36	1	943	U	O5'-P-OP1	-8.29	98.24	105.70
1	6	100	A	N1-C2-N3	8.29	133.45	129.30
1	6	765	G	N9-C4-C5	-8.29	102.08	105.40
36	5	555	U	N3-C2-O2	8.29	128.00	122.20
36	5	1085	A	C8-N9-C4	-8.29	102.48	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1139	G	C5-C6-O6	8.29	133.58	128.60
36	1	1507	G	C8-N9-C4	8.29	109.72	106.40
36	1	2185	G	N1-C6-O6	8.29	124.87	119.90
1	6	326	G	C4-C5-C6	8.29	123.77	118.80
36	5	588	G	C6-N1-C2	-8.29	120.13	125.10
36	5	636	C	C4-C5-C6	8.29	121.54	117.40
36	5	1138	U	C5-C6-N1	-8.29	118.56	122.70
36	1	1369	A	N1-C2-N3	8.29	133.44	129.30
1	6	967	A	N9-C4-C5	-8.29	102.49	105.80
1	6	1768	G	N3-C4-N9	-8.29	121.03	126.00
36	5	1212	A	C6-N1-C2	-8.29	113.63	118.60
36	1	1432	C	C6-N1-C2	-8.28	116.99	120.30
36	1	1720	U	C5-C4-O4	8.28	130.87	125.90
36	1	3209	A	C5-C6-N1	-8.28	113.56	117.70
1	6	678	A	C8-N9-C4	-8.28	102.49	105.80
36	5	3103	A	C2-N3-C4	-8.28	106.46	110.60
1	2	1082	C	C6-N1-C2	-8.28	116.99	120.30
36	1	2811	A	C5-C6-N1	8.28	121.84	117.70
36	5	367	A	C2-N3-C4	-8.28	106.46	110.60
36	5	1044	U	N1-C2-N3	8.28	119.87	114.90
36	5	1943	C	C6-N1-C2	-8.28	116.99	120.30
36	5	2626	A	N1-C2-N3	8.28	133.44	129.30
36	1	2334	U	OP1-P-O3'	8.28	123.41	105.20
36	1	2344	U	C5-C4-O4	8.28	130.87	125.90
36	1	25	U	N3-C4-O4	8.28	125.19	119.40
36	1	1840	U	N1-C2-N3	8.28	119.86	114.90
36	1	2182	A	C5-C6-N6	-8.28	117.08	123.70
1	6	106	U	C5-C4-O4	8.28	130.87	125.90
36	5	1080	A	C8-N9-C4	8.28	109.11	105.80
36	5	2136	C	C6-N1-C2	-8.28	116.99	120.30
36	5	2656	A	N1-C2-N3	8.28	133.44	129.30
36	5	1586	G	N1-C6-O6	-8.28	114.94	119.90
36	1	2241	U	C2-N1-C1'	-8.27	107.77	117.70
1	6	1420	C	N3-C2-O2	-8.27	116.11	121.90
37	3	30	G	C8-N9-C4	-8.27	103.09	106.40
36	5	3024	A	C2-N3-C4	-8.27	106.46	110.60
36	5	3055	U	C2-N3-C4	-8.27	122.04	127.00
36	5	3139	A	C6-N1-C2	-8.27	113.64	118.60
1	2	1146	G	N3-C4-N9	8.27	130.96	126.00
1	6	301	A	C5-C6-N1	8.27	121.83	117.70
1	2	1787	C	N3-C4-C5	8.27	125.21	121.90
36	1	1547	G	C6-C5-N7	-8.27	125.44	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3227	A	C4-C5-N7	8.27	114.83	110.70
36	1	2772	C	N1-C1'-C2'	8.27	124.75	114.00
36	5	647	A	C5-C6-N6	8.27	130.31	123.70
1	2	529	A	C8-N9-C4	8.27	109.11	105.80
36	5	676	G	O5'-P-OP1	-8.27	98.26	105.70
36	5	2174	G	O5'-P-OP1	-8.27	98.26	105.70
1	2	1143	A	O5'-P-OP2	-8.26	98.26	105.70
38	4	51	G	C5-C6-N1	-8.26	107.37	111.50
1	6	352	A	O5'-P-OP2	-8.26	98.26	105.70
36	5	2638	C	C5-C6-N1	8.26	125.13	121.00
36	5	3216	G	N1-C6-O6	-8.26	114.94	119.90
36	1	1412	G	C5-C6-N1	-8.26	107.37	111.50
36	1	289	A	O5'-P-OP1	-8.26	98.27	105.70
38	4	144	G	C8-N9-C4	8.26	109.70	106.40
1	6	335	U	C2-N1-C1'	8.26	127.61	117.70
36	5	2710	C	N1-C2-O2	-8.26	113.94	118.90
36	1	780	A	C5-C6-N6	8.26	130.31	123.70
38	4	40	A	C2-N3-C4	8.26	114.73	110.60
36	5	86	G	O4'-C1'-N9	8.26	114.81	108.20
36	5	1786	G	N7-C8-N9	8.26	117.23	113.10
36	5	2397	A	N3-C4-C5	8.26	132.58	126.80
37	7	24	A	N1-C6-N6	-8.26	113.64	118.60
36	1	2870	C	N3-C2-O2	8.26	127.68	121.90
37	3	26	C	N3-C2-O2	-8.26	116.12	121.90
1	6	1765	A	N1-C2-N3	8.26	133.43	129.30
36	5	209	A	C5-C6-N6	-8.26	117.09	123.70
36	1	85	A	C2-N3-C4	-8.26	106.47	110.60
36	1	2162	U	C5-C6-N1	-8.26	118.57	122.70
36	5	2136	C	N3-C4-N4	8.26	123.78	118.00
36	5	2673	A	N7-C8-N9	-8.26	109.67	113.80
36	5	3195	U	P-O3'-C3'	8.26	129.61	119.70
36	5	89	A	C2-N3-C4	-8.25	106.47	110.60
36	1	40	A	N9-C4-C5	8.25	109.10	105.80
36	1	975	C	N3-C4-C5	-8.25	118.60	121.90
37	3	97	A	N1-C6-N6	8.25	123.55	118.60
36	5	1186	G	O5'-P-OP2	-8.25	98.27	105.70
36	5	2631	U	OP2-P-O3'	8.25	123.35	105.20
36	1	1139	G	C4-N9-C1'	-8.25	115.77	126.50
36	1	693	A	O5'-P-OP2	8.25	120.60	110.70
36	1	3388	C	N3-C4-C5	8.25	125.20	121.90
36	5	1373	A	C5-N7-C8	-8.25	99.77	103.90
36	5	404	G	N1-C6-O6	8.25	124.85	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2377	G	C6-C5-N7	8.25	135.35	130.40
36	1	522	A	C2-N3-C4	-8.25	106.48	110.60
36	1	2899	C	C2-N3-C4	-8.25	115.78	119.90
1	6	922	G	C6-C5-N7	-8.25	125.45	130.40
36	1	3121	U	N3-C2-O2	-8.25	116.43	122.20
36	5	339	C	C2-N1-C1'	-8.25	109.73	118.80
36	5	2979	U	C5-C6-N1	-8.25	118.58	122.70
36	1	1127	G	OP1-P-OP2	8.24	131.97	119.60
36	1	1897	G	N7-C8-N9	8.24	117.22	113.10
36	5	868	C	N1-C2-O2	-8.24	113.95	118.90
36	1	1516	C	C4-C5-C6	8.24	121.52	117.40
36	1	2722	U	N3-C4-O4	8.24	125.17	119.40
1	6	962	C	N1-C2-O2	-8.24	113.95	118.90
1	6	1536	G	C4-N9-C1'	8.24	137.22	126.50
36	1	2120	A	N1-C6-N6	-8.24	113.66	118.60
36	1	2572	C	C6-N1-C2	-8.24	117.00	120.30
36	5	1840	U	C2-N3-C4	-8.24	122.05	127.00
37	7	88	G	C6-N1-C2	-8.24	120.15	125.10
1	2	1761	U	C6-N1-C2	-8.24	116.06	121.00
38	4	38	U	N3-C2-O2	-8.24	116.43	122.20
36	5	394	G	C4-C5-N7	-8.24	107.50	110.80
36	1	2813	A	N9-C4-C5	8.24	109.10	105.80
1	6	1143	A	N1-C6-N6	8.24	123.54	118.60
36	5	874	U	N1-C2-O2	-8.24	117.03	122.80
36	5	2197	C	C5-C4-N4	-8.24	114.43	120.20
36	1	1346	G	O5'-P-OP2	-8.24	98.29	105.70
36	1	3344	A	C2-N3-C4	-8.24	106.48	110.60
37	3	87	G	N3-C2-N2	-8.24	114.13	119.90
36	1	424	G	N3-C4-N9	8.24	130.94	126.00
1	6	1070	C	N3-C4-C5	8.24	125.19	121.90
36	5	71	A	C5-N7-C8	8.24	108.02	103.90
36	5	1373	A	C4-C5-N7	8.24	114.82	110.70
36	1	52	A	C4-C5-N7	-8.23	106.58	110.70
36	1	1313	G	N3-C4-C5	8.23	132.72	128.60
36	1	2376	G	OP1-P-OP2	8.23	131.95	119.60
36	1	3050	U	C5-C4-O4	8.23	130.84	125.90
36	1	3311	C	C6-N1-C2	8.23	123.59	120.30
36	5	433	A	C6-C5-N7	-8.23	126.54	132.30
36	5	2187	G	N1-C2-N3	8.23	128.84	123.90
36	1	227	G	C4-N9-C1'	8.23	137.20	126.50
1	6	946	U	C5-C6-N1	8.23	126.82	122.70
71	o5	36	LEU	CA-CB-CG	8.23	134.24	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	322	U	N3-C2-O2	-8.23	116.44	122.20
36	1	1166	G	C2-N3-C4	-8.23	107.78	111.90
38	4	20	U	C2-N3-C4	-8.23	122.06	127.00
1	6	1655	A	C8-N9-C4	-8.23	102.51	105.80
36	5	1593	A	O5'-P-OP2	-8.23	98.30	105.70
36	5	2303	A	C4-C5-N7	8.23	114.81	110.70
37	3	92	A	N1-C6-N6	8.23	123.54	118.60
1	6	1663	G	N3-C4-C5	8.23	132.71	128.60
36	1	357	A	C6-N1-C2	-8.22	113.67	118.60
36	1	1408	G	C4-C5-N7	8.22	114.09	110.80
36	1	304	G	N1-C6-O6	-8.22	114.97	119.90
36	1	357	A	N1-C6-N6	-8.22	113.67	118.60
36	1	676	G	N3-C4-N9	8.22	130.94	126.00
36	1	1533	U	N1-C2-N3	8.22	119.83	114.90
36	1	2772	C	O4'-C1'-N1	8.22	114.78	108.20
36	5	760	G	N1-C6-O6	8.22	124.83	119.90
1	6	473	A	N1-C6-N6	-8.22	113.67	118.60
36	5	644	G	C5-N7-C8	8.22	108.41	104.30
36	5	3387	U	C4-C5-C6	8.22	124.64	119.70
36	5	645	A	O5'-P-OP1	-8.22	98.30	105.70
36	5	707	U	C6-N1-C2	-8.22	116.07	121.00
36	5	2149	A	C8-N9-C4	8.22	109.09	105.80
36	1	40	A	C5-C6-N6	8.22	130.28	123.70
1	6	427	C	C6-N1-C2	8.22	123.59	120.30
36	1	92	G	C5-C6-O6	-8.22	123.67	128.60
36	1	2639	G	N1-C2-N2	8.22	123.60	116.20
36	1	2916	U	N1-C2-N3	-8.22	109.97	114.90
36	5	371	G	N3-C4-C5	8.22	132.71	128.60
36	5	531	G	C4-N9-C1'	8.22	137.19	126.50
36	5	3177	G	N1-C2-N2	-8.22	108.80	116.20
36	1	1136	A	C5-N7-C8	8.22	108.01	103.90
37	7	52	G	C8-N9-C4	8.22	109.69	106.40
1	6	424	C	O5'-P-OP2	-8.22	98.31	105.70
1	6	1284	C	C4-C5-C6	8.22	121.51	117.40
36	5	609	G	C6-N1-C2	8.22	130.03	125.10
36	5	2610	G	C8-N9-C1'	8.22	137.68	127.00
36	1	667	C	C2-N3-C4	8.22	124.01	119.90
36	1	780	A	C6-N1-C2	-8.21	113.67	118.60
36	1	857	G	C8-N9-C4	-8.21	103.11	106.40
36	1	3181	C	N1-C2-N3	8.21	124.95	119.20
1	6	1137	A	O4'-C1'-N9	-8.21	101.63	108.20
1	6	1409	G	O5'-P-OP1	-8.21	98.31	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2428	U	C2-N3-C4	-8.21	122.07	127.00
36	5	2656	A	C5-C6-N6	8.22	130.27	123.70
36	5	2659	G	C2-N3-C4	-8.21	107.79	111.90
1	2	515	A	C8-N9-C4	-8.21	102.52	105.80
1	2	1782	A	N7-C8-N9	8.21	117.91	113.80
1	6	1645	G	C2-N3-C4	8.21	116.01	111.90
36	5	1514	G	N3-C4-N9	8.21	130.93	126.00
36	5	1694	U	N1-C2-O2	-8.21	117.05	122.80
36	5	1874	A	C5-C6-N1	-8.21	113.59	117.70
36	5	2993	G	N7-C8-N9	8.21	117.21	113.10
36	1	375	A	N1-C6-N6	8.21	123.53	118.60
36	1	643	U	O5'-P-OP2	-8.21	98.31	105.70
1	6	1556	A	N9-C4-C5	-8.21	102.52	105.80
36	5	672	A	O5'-P-OP2	-8.21	98.31	105.70
36	5	1608	C	C2-N1-C1'	8.21	127.83	118.80
36	5	3216	G	C5-C6-N1	8.21	115.60	111.50
1	6	1000	C	N3-C2-O2	-8.21	116.16	121.90
36	5	1224	C	C6-N1-C2	-8.21	117.02	120.30
36	5	2393	G	C5-N7-C8	-8.21	100.20	104.30
36	1	1607	U	P-O3'-C3'	8.20	129.54	119.70
36	5	2632	G	C4-C5-N7	8.21	114.08	110.80
36	1	2377	G	C5-C6-N1	8.20	115.60	111.50
38	4	40	A	C8-N9-C4	-8.20	102.52	105.80
36	5	649	A	C5-C6-N6	-8.20	117.14	123.70
36	1	2879	C	N3-C4-N4	8.20	123.74	118.00
1	6	349	U	N3-C2-O2	-8.20	116.46	122.20
36	5	2908	G	N7-C8-N9	8.20	117.20	113.10
36	5	1172	G	C4-N9-C1'	8.20	137.16	126.50
36	5	1695	U	O5'-P-OP1	-8.20	98.32	105.70
36	5	2720	G	OP2-P-O3'	8.20	123.24	105.20
36	5	595	G	N3-C4-N9	8.20	130.92	126.00
36	5	1333	C	C2-N1-C1'	8.20	127.82	118.80
36	5	2105	G	C5-C6-O6	-8.20	123.68	128.60
36	5	2741	C	C2-N3-C4	8.20	124.00	119.90
36	1	2641	U	N3-C4-O4	-8.20	113.66	119.40
1	6	1540	G	C5-C6-O6	8.20	133.52	128.60
36	1	1514	G	C8-N9-C4	-8.20	103.12	106.40
36	1	2969	A	C2-N3-C4	-8.20	106.50	110.60
36	1	3307	A	O5'-P-OP1	8.20	120.53	110.70
1	6	1590	G	C5-C6-N1	8.20	115.60	111.50
36	1	1585	C	N1-C2-N3	-8.19	113.46	119.20
36	5	2400	G	C5-N7-C8	-8.20	100.20	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2662	G	C4-C5-C6	8.20	123.72	118.80
1	2	1337	A	O5'-P-OP2	-8.19	98.33	105.70
36	1	2129	U	N1-C2-O2	8.19	128.53	122.80
36	5	2280	A	C4-C5-N7	8.19	114.80	110.70
36	1	19	U	N1-C2-N3	8.19	119.81	114.90
36	1	1339	C	N1-C2-O2	-8.19	113.99	118.90
37	7	43	U	N3-C4-O4	-8.19	113.67	119.40
36	5	91	G	C4-C5-N7	8.19	114.08	110.80
36	5	864	G	N3-C4-N9	8.19	130.91	126.00
36	5	916	G	N3-C4-N9	8.19	130.91	126.00
36	1	1146	C	C2-N3-C4	8.19	123.99	119.90
36	5	2638	C	C2-N3-C4	8.19	123.99	119.90
36	5	2653	C	N1-C2-O2	-8.19	113.99	118.90
36	5	2887	A	C2-N3-C4	8.19	114.69	110.60
36	5	3208	G	C6-C5-N7	-8.19	125.49	130.40
1	6	1642	G	O5'-P-OP2	-8.19	98.33	105.70
36	5	2893	C	C2-N3-C4	8.19	123.99	119.90
36	1	2121	G	C5-C6-O6	8.18	133.51	128.60
36	5	644	G	N1-C6-O6	-8.18	114.99	119.90
36	5	2855	U	N1-C2-O2	-8.18	117.07	122.80
36	5	3209	A	O4'-C1'-N9	8.18	114.75	108.20
1	2	1654	G	N3-C4-C5	-8.18	124.51	128.60
36	1	326	U	N3-C4-O4	8.18	125.12	119.40
38	4	94	C	N1-C2-N3	-8.18	113.47	119.20
37	3	99	G	N9-C4-C5	8.18	108.67	105.40
36	5	1530	U	N3-C2-O2	8.18	127.92	122.20
36	1	622	A	C5-N7-C8	-8.18	99.81	103.90
36	1	913	A	C6-C5-N7	-8.18	126.58	132.30
36	1	929	A	C4-C5-N7	8.18	114.79	110.70
36	1	3055	U	C5-C4-O4	-8.18	120.99	125.90
69	O3	21	ARG	NE-CZ-NH1	8.18	124.39	120.30
36	5	2623	G	N9-C4-C5	-8.18	102.13	105.40
36	1	1136	A	C6-N1-C2	-8.17	113.69	118.60
36	1	1559	A	N1-C6-N6	8.17	123.50	118.60
36	1	2855	U	C5-C6-N1	-8.17	118.61	122.70
38	8	31	G	N1-C6-O6	-8.17	115.00	119.90
36	1	3135	U	C2-N3-C4	-8.17	122.10	127.00
1	6	453	U	N3-C2-O2	-8.17	116.48	122.20
36	5	585	A	OP2-P-O3'	8.17	123.18	105.20
36	5	2934	A	C4-C5-N7	8.17	114.79	110.70
36	5	2952	G	C6-C5-N7	-8.17	125.50	130.40
36	1	813	G	C4-C5-N7	8.17	114.07	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1525	G	C4-N9-C1'	8.17	137.12	126.50
1	6	453	U	N1-C2-O2	8.17	128.52	122.80
36	5	1301	A	C8-N9-C4	-8.17	102.53	105.80
36	5	1408	G	N1-C2-N3	8.17	128.80	123.90
36	5	2793	G	N3-C4-N9	-8.17	121.10	126.00
36	5	2808	A	C8-N9-C4	-8.17	102.53	105.80
36	5	3393	U	C2-N3-C4	-8.17	122.10	127.00
36	5	3268	A	O4'-C1'-N9	-8.17	101.67	108.20
36	1	276	U	O5'-P-OP1	-8.17	98.35	105.70
36	1	1487	G	N9-C4-C5	8.17	108.67	105.40
36	5	1059	G	C4-C5-N7	-8.17	107.53	110.80
36	5	1185	C	OP1-P-OP2	-8.17	107.35	119.60
36	1	2418	G	C2-N3-C4	8.16	115.98	111.90
1	2	1438	G	C2-N3-C4	-8.16	107.82	111.90
36	1	1217	A	O5'-P-OP2	-8.16	98.35	105.70
36	1	2867	C	C5-C6-N1	8.16	125.08	121.00
37	3	92	A	C5-C6-N1	-8.16	113.62	117.70
36	5	1902	G	C5-C6-O6	-8.16	123.70	128.60
36	5	2122	G	C5-C6-O6	-8.16	123.70	128.60
36	5	2854	U	N3-C2-O2	-8.16	116.48	122.20
36	1	644	G	N9-C4-C5	8.16	108.67	105.40
36	1	2764	C	C5-C6-N1	8.16	125.08	121.00
36	5	561	C	N3-C4-C5	-8.16	118.64	121.90
36	5	1408	G	C8-N9-C1'	-8.16	116.39	127.00
36	1	960	U	C2-N3-C4	-8.16	122.10	127.00
36	5	831	G	N1-C6-O6	8.16	124.80	119.90
37	7	45	A	O5'-P-OP2	-8.16	98.36	105.70
37	7	92	A	C5-N7-C8	-8.16	99.82	103.90
36	1	1425	U	C5-C6-N1	-8.16	118.62	122.70
36	1	2132	C	N1-C2-O2	-8.16	114.00	118.90
1	6	1542	G	C5-C6-O6	8.16	133.50	128.60
36	5	1495	U	N3-C2-O2	-8.16	116.49	122.20
36	1	1508	C	C4-C5-C6	8.16	121.48	117.40
36	1	2394	G	N9-C4-C5	8.16	108.66	105.40
36	5	2199	G	C8-N9-C1'	-8.16	116.40	127.00
36	5	2422	C	C5-C6-N1	-8.16	116.92	121.00
36	1	922	U	O5'-P-OP1	-8.15	98.36	105.70
36	1	1307	G	N1-C6-O6	-8.15	115.01	119.90
36	1	2828	G	N1-C6-O6	-8.15	115.01	119.90
36	1	2790	A	O5'-P-OP2	-8.15	98.36	105.70
1	6	1624	C	C6-N1-C2	8.15	123.56	120.30
36	5	423	A	C4-C5-C6	8.15	121.08	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1514	G	C8-N9-C1'	-8.15	116.40	127.00
36	1	3293	U	C2-N1-C1'	-8.15	107.92	117.70
36	5	2377	G	C4-C5-C6	-8.15	113.91	118.80
36	5	3102	G	O5'-P-OP1	-8.15	98.36	105.70
36	1	866	A	C2-N3-C4	-8.15	106.53	110.60
36	1	1442	U	C5-C4-O4	-8.15	121.01	125.90
36	5	3322	A	N1-C6-N6	8.15	123.49	118.60
36	1	2639	G	C8-N9-C4	-8.15	103.14	106.40
1	6	1278	G	C4-C5-C6	8.15	123.69	118.80
36	1	796	U	C5-C4-O4	-8.15	121.01	125.90
36	1	2639	G	C5-N7-C8	-8.15	100.23	104.30
1	6	341	A	N1-C6-N6	-8.15	113.71	118.60
36	5	2382	G	N3-C4-C5	8.15	132.67	128.60
36	5	2632	G	O5'-P-OP2	-8.15	98.37	105.70
36	1	979	U	P-O3'-C3'	8.14	129.47	119.70
36	5	971	G	N1-C2-N3	8.14	128.79	123.90
36	1	2193	U	C5-C6-N1	-8.14	118.63	122.70
1	6	1787	C	N1-C2-N3	8.14	124.90	119.20
36	5	1912	U	C6-N1-C2	8.14	125.89	121.00
36	5	2392	C	C6-N1-C2	8.14	123.56	120.30
36	1	1604	G	C4-N9-C1'	8.14	137.09	126.50
38	4	18	U	N3-C2-O2	-8.14	116.50	122.20
1	6	1668	G	N1-C6-O6	8.14	124.78	119.90
1	2	1413	U	C5-C6-N1	8.14	126.77	122.70
36	1	495	G	N3-C4-C5	8.14	132.67	128.60
1	6	971	A	C2-N3-C4	-8.14	106.53	110.60
36	1	802	C	N3-C2-O2	-8.14	116.20	121.90
36	1	904	A	C2-N3-C4	-8.14	106.53	110.60
36	1	1210	U	N3-C2-O2	-8.14	116.50	122.20
36	1	1905	G	C2-N3-C4	-8.14	107.83	111.90
36	1	2197	C	N1-C2-N3	-8.14	113.50	119.20
36	1	2760	C	O5'-P-OP2	-8.14	98.38	105.70
36	1	856	G	N3-C4-C5	-8.13	124.53	128.60
36	5	910	G	O5'-P-OP2	-8.13	98.38	105.70
36	5	920	A	C5-C6-N1	-8.13	113.63	117.70
36	5	2665	U	N3-C4-C5	8.14	119.48	114.60
36	1	1178	G	C5-C6-N1	8.13	115.57	111.50
36	1	1883	A	C8-N9-C4	8.13	109.05	105.80
1	6	554	C	N3-C4-C5	8.13	125.15	121.90
36	5	404	G	C4-C5-C6	8.13	123.68	118.80
36	1	2403	G	OP2-P-O3'	8.13	123.09	105.20
37	7	1	G	N7-C8-N9	8.13	117.17	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1321	G	C2-N3-C4	-8.13	107.83	111.90
36	1	1482	A	C5-C6-N6	-8.13	117.20	123.70
36	5	965	A	C5-C6-N6	-8.13	117.20	123.70
36	5	2824	G	C4-C5-N7	8.13	114.05	110.80
36	1	2376	G	C5-N7-C8	-8.13	100.24	104.30
36	1	2628	A	N7-C8-N9	8.13	117.86	113.80
36	1	3142	A	N9-C4-C5	8.13	109.05	105.80
36	5	2684	C	N3-C2-O2	-8.13	116.21	121.90
37	7	1	G	C4-N9-C1'	8.13	137.07	126.50
36	1	517	G	C8-N9-C4	-8.13	103.15	106.40
36	1	609	G	C5-C6-O6	-8.13	123.72	128.60
36	1	907	G	N3-C4-C5	-8.12	124.54	128.60
36	5	927	C	O5'-P-OP1	-8.13	98.39	105.70
36	5	1353	U	O4'-C1'-N1	8.12	114.70	108.20
36	5	2411	U	O5'-P-OP2	-8.12	98.39	105.70
36	5	2895	G	C6-C5-N7	-8.12	125.53	130.40
36	1	229	G	N9-C4-C5	8.12	108.65	105.40
36	1	1144	U	N3-C4-O4	8.12	125.08	119.40
36	1	2150	G	C5-C6-N1	-8.12	107.44	111.50
36	5	728	G	OP2-P-O3'	8.12	123.07	105.20
36	5	2352	A	O5'-P-OP2	-8.12	98.39	105.70
1	2	49	C	N3-C4-C5	-8.12	118.65	121.90
36	5	372	A	C5-C6-N6	8.12	130.20	123.70
36	5	1408	G	N9-C4-C5	-8.12	102.15	105.40
36	1	2332	A	N1-C6-N6	8.12	123.47	118.60
1	6	356	G	N3-C4-N9	8.12	130.87	126.00
36	5	1408	G	N1-C6-O6	8.12	124.77	119.90
36	1	639	G	N1-C6-O6	8.12	124.77	119.90
36	1	887	G	C5-C6-O6	-8.11	123.73	128.60
36	1	1448	U	N1-C2-O2	-8.12	117.12	122.80
36	1	1894	U	N1-C2-O2	-8.12	117.12	122.80
36	1	2827	U	C6-N1-C1'	8.11	132.56	121.20
1	6	251	A	N1-C6-N6	8.11	123.47	118.60
36	5	776	U	C5-C6-N1	-8.11	118.64	122.70
36	5	1330	A	N9-C4-C5	-8.11	102.56	105.80
36	5	1408	G	N1-C2-N2	-8.11	108.90	116.20
36	5	2615	G	N3-C2-N2	-8.11	114.22	119.90
36	5	2897	A	C6-C5-N7	-8.11	126.62	132.30
36	1	906	A	C8-N9-C4	-8.11	102.56	105.80
36	1	1495	U	C2-N1-C1'	-8.11	107.97	117.70
36	5	1150	A	C5-C6-N1	8.11	121.75	117.70
36	5	2991	A	N3-C4-C5	-8.11	121.12	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1537	C	C4-C5-C6	-8.11	113.35	117.40
36	1	2889	C	C2-N3-C4	8.11	123.95	119.90
1	6	1112	G	N3-C4-N9	-8.11	121.14	126.00
36	5	1370	G	C6-N1-C2	-8.11	120.23	125.10
36	1	838	G	C2-N3-C4	-8.11	107.85	111.90
36	1	2122	G	C5-N7-C8	-8.11	100.25	104.30
36	1	1898	G	C2-N3-C4	8.11	115.95	111.90
36	1	2198	A	N1-C2-N3	8.11	133.35	129.30
36	1	2874	G	N3-C4-N9	8.11	130.86	126.00
1	6	316	A	O5'-P-OP1	-8.11	98.41	105.70
1	6	1524	A	N9-C4-C5	8.10	109.04	105.80
36	5	2983	C	O5'-P-OP1	-8.10	98.41	105.70
1	2	1778	G	C2-N3-C4	8.10	115.95	111.90
36	1	419	G	C6-N1-C2	-8.10	120.24	125.10
36	1	2353	G	C4-C5-N7	8.10	114.04	110.80
36	1	2572	C	N3-C2-O2	-8.10	116.23	121.90
36	1	2756	C	C6-N1-C2	-8.10	117.06	120.30
38	4	12	A	O5'-P-OP1	-8.10	98.41	105.70
36	5	562	C	N3-C4-C5	8.10	125.14	121.90
36	5	3271	G	C8-N9-C1'	-8.10	116.46	127.00
36	5	1898	G	C6-C5-N7	8.10	135.26	130.40
36	5	881	C	C2-N3-C4	8.10	123.95	119.90
1	6	6	G	N1-C6-O6	8.10	124.76	119.90
1	6	1101	G	N1-C2-N3	8.10	128.76	123.90
36	5	1905	G	C4-C5-N7	-8.10	107.56	110.80
36	5	3314	A	N1-C2-N3	8.10	133.35	129.30
37	7	56	A	C5-N7-C8	-8.10	99.85	103.90
36	1	978	G	C5-C6-O6	-8.10	123.74	128.60
36	1	1439	U	N3-C2-O2	-8.10	116.53	122.20
36	1	3262	U	C6-N1-C2	-8.10	116.14	121.00
1	6	566	C	C5-C6-N1	-8.10	116.95	121.00
36	5	651	G	N3-C4-N9	8.10	130.86	126.00
36	5	2181	C	N3-C2-O2	8.10	127.57	121.90
36	1	591	G	N3-C4-N9	8.09	130.86	126.00
1	6	597	G	C5-C6-O6	-8.09	123.74	128.60
1	6	636	A	C5-N7-C8	8.09	107.95	103.90
46	19	129	ARG	NE-CZ-NH1	8.09	124.35	120.30
36	5	1852	G	C5-N7-C8	-8.09	100.25	104.30
36	1	292	U	C5-C6-N1	-8.09	118.66	122.70
36	5	679	U	C5-C4-O4	8.09	130.75	125.90
36	5	1148	G	C4-C5-C6	8.09	123.65	118.80
36	1	2956	A	C8-N9-C4	-8.09	102.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3208	G	N9-C4-C5	-8.09	102.16	105.40
37	3	91	G	C8-N9-C4	-8.09	103.16	106.40
1	6	321	C	C2-N1-C1'	8.09	127.70	118.80
36	1	2875	U	N3-C4-C5	-8.09	109.75	114.60
38	4	20	U	C5-C6-N1	-8.09	118.66	122.70
36	5	1755	C	C5-C6-N1	8.09	125.04	121.00
36	5	3050	U	C4-C5-C6	8.09	124.55	119.70
36	5	656	A	C6-N1-C2	-8.09	113.75	118.60
36	5	2698	G	N3-C4-C5	8.09	132.64	128.60
36	1	41	G	O4'-C1'-N9	8.08	114.67	108.20
36	1	2610	G	O5'-P-OP1	8.08	120.40	110.70
36	1	30	G	C5-C6-N1	8.08	115.54	111.50
36	1	57	A	C4-C5-C6	8.08	121.04	117.00
36	1	2172	A	N1-C6-N6	8.08	123.45	118.60
36	1	2624	G	N1-C6-O6	8.08	124.75	119.90
36	1	2819	A	C5-C6-N1	8.08	121.74	117.70
36	1	2827	U	N3-C4-C5	-8.08	109.75	114.60
1	6	388	G	C2-N3-C4	-8.08	107.86	111.90
1	6	1778	G	C6-N1-C2	-8.08	120.25	125.10
7	s5	92	ARG	NE-CZ-NH1	8.08	124.34	120.30
36	5	51	A	C6-C5-N7	-8.08	126.64	132.30
36	5	1386	A	C8-N9-C4	-8.08	102.57	105.80
36	5	2837	A	C8-N9-C4	8.08	109.03	105.80
36	5	3376	A	C6-N1-C2	-8.08	113.75	118.60
37	7	10	C	N1-C2-O2	8.08	123.75	118.90
1	6	1019	A	C8-N9-C4	8.08	109.03	105.80
1	6	1580	C	O5'-P-OP1	-8.08	98.43	105.70
36	5	591	G	N3-C4-N9	8.08	130.85	126.00
37	7	102	A	C4-C5-N7	8.08	114.74	110.70
36	1	399	A	C4-C5-C6	-8.08	112.96	117.00
36	1	1449	A	C2-N3-C4	8.08	114.64	110.60
1	6	583	C	C5-C6-N1	8.08	125.04	121.00
36	5	1903	U	OP1-P-OP2	-8.08	107.48	119.60
36	1	697	A	N7-C8-N9	-8.08	109.76	113.80
36	1	2606	G	N1-C2-N2	-8.08	108.93	116.20
36	1	1905	G	OP2-P-O3'	8.08	122.97	105.20
36	1	2811	A	C8-N9-C4	-8.08	102.57	105.80
36	5	651	G	C4-C5-C6	8.08	123.65	118.80
36	5	1592	G	C4-C5-C6	8.08	123.65	118.80
36	5	3387	U	N3-C4-C5	-8.08	109.75	114.60
46	19	129	ARG	NE-CZ-NH2	-8.08	116.26	120.30
36	1	264	G	C4-C5-N7	-8.07	107.57	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2605	G	N3-C4-N9	-8.07	121.16	126.00
1	6	1476	C	C6-N1-C2	-8.07	117.07	120.30
1	6	1650	U	N3-C4-O4	8.07	125.05	119.40
36	1	2702	A	O4'-C1'-N9	-8.07	101.74	108.20
1	6	1145	U	N3-C4-O4	8.07	125.05	119.40
36	5	2635	A	C8-N9-C4	-8.07	102.57	105.80
36	5	371	G	C6-C5-N7	8.07	135.24	130.40
36	5	2858	U	N3-C4-C5	-8.07	109.76	114.60
36	5	1375	G	N3-C4-N9	8.07	130.84	126.00
36	5	1434	G	C5-N7-C8	-8.07	100.27	104.30
36	5	1080	A	N7-C8-N9	-8.07	109.77	113.80
36	5	2597	U	N3-C2-O2	-8.07	116.55	122.20
1	2	1490	C	C2-N1-C1'	8.07	127.67	118.80
36	1	939	U	N3-C4-O4	8.07	125.05	119.40
36	1	1907	C	C5-C6-N1	-8.07	116.97	121.00
36	5	1120	A	N1-C2-N3	8.07	133.33	129.30
36	5	2350	C	O5'-P-OP2	-8.07	98.44	105.70
36	1	102	C	OP2-P-O3'	8.06	122.94	105.20
36	1	583	G	C6-C5-N7	8.06	135.24	130.40
1	6	779	U	N1-C2-O2	8.06	128.45	122.80
1	6	1479	A	N1-C6-N6	8.06	123.44	118.60
36	1	93	C	C5-C6-N1	8.06	125.03	121.00
36	1	421	G	N3-C4-C5	-8.06	124.57	128.60
36	1	1119	C	N3-C4-C5	-8.06	118.67	121.90
36	5	2635	A	C2-N3-C4	8.06	114.63	110.60
38	8	19	C	O5'-P-OP2	-8.06	98.44	105.70
36	1	592	A	C4-C5-N7	8.06	114.73	110.70
1	6	804	A	N1-C6-N6	8.06	123.44	118.60
36	5	860	G	C5-C6-O6	-8.06	123.76	128.60
36	5	2423	U	O5'-P-OP2	-8.06	98.44	105.70
1	2	49	C	C6-N1-C2	-8.06	117.08	120.30
1	2	1272	U	N3-C4-C5	-8.06	109.76	114.60
36	1	2289	U	N3-C2-O2	-8.06	116.56	122.20
36	1	2939	G	C6-N1-C2	-8.06	120.26	125.10
36	1	3145	C	N3-C4-C5	-8.06	118.68	121.90
1	6	765	G	C8-N9-C4	8.06	109.62	106.40
1	6	1004	U	C5-C6-N1	-8.06	118.67	122.70
1	6	1525	A	C5-C6-N1	8.06	121.73	117.70
1	6	1584	G	N1-C6-O6	8.06	124.74	119.90
1	6	1753	A	C5-C6-N1	8.06	121.73	117.70
36	1	1610	G	N1-C6-O6	8.06	124.73	119.90
36	1	2908	G	C5-N7-C8	-8.06	100.27	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3062	G	C5-C6-O6	-8.06	123.77	128.60
36	5	339	C	N1-C2-O2	-8.06	114.06	118.90
36	5	569	A	N1-C6-N6	8.06	123.43	118.60
36	5	877	C	C6-N1-C2	8.06	123.52	120.30
36	5	1099	A	C8-N9-C4	8.06	109.02	105.80
36	1	2423	U	N3-C4-C5	-8.06	109.77	114.60
36	5	430	U	C5-C6-N1	-8.05	118.67	122.70
36	5	2876	C	N3-C2-O2	-8.05	116.26	121.90
36	1	193	C	N3-C4-N4	8.05	123.64	118.00
36	1	710	A	N1-C6-N6	8.05	123.43	118.60
36	1	1333	C	N1-C2-O2	-8.05	114.07	118.90
36	1	2257	C	C6-N1-C2	-8.05	117.08	120.30
36	5	3314	A	C4-C5-C6	8.05	121.03	117.00
36	5	1148	G	C8-N9-C1'	-8.05	116.53	127.00
36	5	1148	G	N9-C4-C5	-8.05	102.18	105.40
36	5	3050	U	N1-C2-N3	8.05	119.73	114.90
36	1	2899	C	N3-C2-O2	-8.05	116.27	121.90
36	5	1910	A	N1-C6-N6	8.05	123.43	118.60
36	5	2303	A	N9-C4-C5	-8.05	102.58	105.80
36	5	2318	U	C6-N1-C2	8.05	125.83	121.00
36	1	394	G	C4-C5-N7	-8.05	107.58	110.80
36	1	1450	G	N3-C2-N2	-8.04	114.27	119.90
1	6	449	C	N1-C2-O2	8.05	123.73	118.90
36	5	3111	U	N1-C2-O2	8.05	128.43	122.80
36	1	2701	U	C4-C5-C6	8.04	124.53	119.70
36	1	2826	U	N3-C4-O4	-8.04	113.77	119.40
36	5	2309	A	N1-C2-N3	8.04	133.32	129.30
36	5	2602	G	N1-C6-O6	8.04	124.73	119.90
36	5	2828	G	OP2-P-O3'	8.04	122.90	105.20
36	5	2836	C	C4-C5-C6	8.04	121.42	117.40
37	7	5	G	C5-C6-N1	8.05	115.52	111.50
37	7	14	U	C5-C6-N1	-8.04	118.68	122.70
38	8	138	A	N1-C2-N3	8.04	133.32	129.30
1	2	577	G	C5-C6-O6	-8.04	123.78	128.60
36	1	927	C	OP2-P-O3'	8.04	122.90	105.20
36	1	609	G	C8-N9-C1'	-8.04	116.55	127.00
36	1	2696	A	O5'-P-OP2	-8.04	98.46	105.70
36	1	2979	U	O4'-C1'-N1	8.04	114.63	108.20
38	4	28	C	C6-N1-C2	-8.04	117.08	120.30
1	6	1456	C	C6-N1-C2	-8.04	117.08	120.30
36	5	877	C	N3-C4-C5	8.04	125.12	121.90
36	5	1124	U	OP2-P-O3'	8.04	122.89	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1368	U	N3-C2-O2	8.04	127.83	122.20
36	5	1374	G	C2-N3-C4	-8.04	107.88	111.90
36	5	2908	G	C8-N9-C4	-8.04	103.18	106.40
1	6	175	G	C6-C5-N7	-8.04	125.58	130.40
1	2	311	U	N3-C2-O2	-8.04	116.57	122.20
36	1	1431	G	C5-C6-N1	8.04	115.52	111.50
36	5	3024	A	N3-C4-C5	8.04	132.43	126.80
36	5	3144	G	C6-C5-N7	-8.04	125.58	130.40
36	1	2802	A	C2-N3-C4	-8.04	106.58	110.60
38	4	9	A	O5'-P-OP1	8.04	120.34	110.70
1	6	1284	C	N3-C4-C5	-8.03	118.69	121.90
36	5	645	A	C5-C6-N1	8.04	121.72	117.70
36	5	2799	A	C8-N9-C4	-8.04	102.59	105.80
36	5	3124	G	N7-C8-N9	8.04	117.12	113.10
36	1	2953	U	C4-C5-C6	8.03	124.52	119.70
36	1	70	A	C6-N1-C2	-8.03	113.78	118.60
36	1	1192	C	C2-N3-C4	8.03	123.92	119.90
36	1	1194	G	C8-N9-C4	-8.03	103.19	106.40
1	2	1584	G	C8-N9-C4	8.03	109.61	106.40
36	1	680	G	N1-C6-O6	8.03	124.72	119.90
36	1	797	U	OP1-P-OP2	8.03	131.65	119.60
36	1	88	A	C8-N9-C4	8.03	109.01	105.80
36	1	1116	G	C8-N9-C4	-8.03	103.19	106.40
36	1	1345	G	N7-C8-N9	8.03	117.11	113.10
36	5	710	A	C8-N9-C4	-8.03	102.59	105.80
36	1	2331	C	N3-C2-O2	-8.03	116.28	121.90
36	1	3288	G	N3-C4-C5	8.03	132.61	128.60
38	4	52	A	N1-C2-N3	8.03	133.31	129.30
36	5	1793	C	C6-N1-C1'	-8.03	111.17	120.80
36	5	2927	C	C5-C4-N4	-8.03	114.58	120.20
36	5	3308	C	N3-C2-O2	-8.03	116.28	121.90
36	5	3382	U	N1-C2-O2	8.03	128.42	122.80
36	1	38	U	O5'-P-OP1	-8.02	98.48	105.70
36	1	1417	G	C4-C5-N7	8.02	114.01	110.80
36	5	565	U	C5-C6-N1	-8.02	118.69	122.70
36	5	1546	A	C6-N1-C2	-8.02	113.79	118.60
36	1	669	U	O5'-P-OP2	-8.02	98.48	105.70
36	1	2112	U	P-O3'-C3'	8.02	129.33	119.70
36	1	2406	C	N3-C4-C5	-8.02	118.69	121.90
36	1	3188	G	C8-N9-C4	8.02	109.61	106.40
1	6	940	A	N1-C6-N6	-8.02	113.79	118.60
1	6	1212	G	N1-C6-O6	-8.02	115.09	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	353	G	N3-C4-N9	-8.02	121.19	126.00
36	5	2774	C	C6-N1-C2	-8.02	117.09	120.30
36	5	2757	U	N1-C2-N3	8.02	119.71	114.90
1	2	1212	G	C5-C6-O6	-8.02	123.79	128.60
36	1	2288	G	O5'-P-OP1	-8.02	98.48	105.70
36	1	2325	G	C4-C5-C6	8.02	123.61	118.80
1	6	140	A	N7-C8-N9	8.02	117.81	113.80
1	6	423	G	N3-C4-N9	-8.02	121.19	126.00
1	6	633	U	N1-C2-N3	8.02	119.71	114.90
36	5	816	A	C5-N7-C8	8.02	107.91	103.90
36	5	1152	G	O5'-P-OP1	-8.02	98.48	105.70
36	5	3227	A	C6-C5-N7	-8.02	126.69	132.30
36	1	595	G	C8-N9-C1'	-8.02	116.58	127.00
36	1	2330	C	N3-C2-O2	-8.02	116.29	121.90
36	5	2404	A	C8-N9-C4	-8.02	102.59	105.80
36	1	1500	G	C8-N9-C4	8.02	109.61	106.40
36	5	3172	A	N1-C6-N6	8.02	123.41	118.60
36	1	637	C	P-O3'-C3'	8.01	129.31	119.70
36	5	631	U	O5'-P-OP1	8.01	120.32	110.70
36	5	874	U	C4-C5-C6	8.01	124.51	119.70
36	5	2778	G	N1-C2-N2	8.01	123.41	116.20
1	6	14	C	C6-N1-C2	-8.01	117.09	120.30
36	5	1535	A	N1-C6-N6	-8.01	113.79	118.60
36	5	1894	U	C2-N3-C4	-8.01	122.19	127.00
1	2	969	C	C6-N1-C2	-8.01	117.10	120.30
1	6	1178	G	N1-C6-O6	-8.01	115.09	119.90
36	5	1128	U	C2-N3-C4	-8.01	122.19	127.00
38	8	142	C	C6-N1-C2	-8.01	117.09	120.30
36	1	356	C	N3-C4-N4	8.01	123.61	118.00
36	1	2994	A	N1-C2-N3	8.01	133.30	129.30
38	4	31	G	C8-N9-C4	8.01	109.60	106.40
36	5	1473	G	C8-N9-C4	8.01	109.60	106.40
36	5	2692	A	N1-C6-N6	-8.01	113.80	118.60
36	5	2703	A	O5'-P-OP1	-8.01	98.49	105.70
36	5	2741	C	N3-C4-C5	-8.01	118.70	121.90
36	5	3335	A	C2-N3-C4	-8.01	106.59	110.60
37	7	99	G	N9-C4-C5	8.01	108.60	105.40
36	1	2772	C	N1-C2-O2	8.01	123.70	118.90
36	1	3228	C	O5'-P-OP2	-8.01	98.49	105.70
1	6	1191	U	C6-N1-C2	-8.01	116.19	121.00
36	1	594	U	C5-C6-N1	-8.01	118.70	122.70
36	1	1313	G	N3-C4-N9	-8.01	121.20	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1453	A	C4-C5-C6	8.01	121.00	117.00
36	1	2399	A	C5-C6-N1	8.01	121.70	117.70
36	5	677	A	C5-N7-C8	-8.01	99.90	103.90
36	5	1116	G	OP1-P-OP2	8.01	131.61	119.60
36	5	1182	A	O5'-P-OP2	-8.01	98.49	105.70
36	5	1851	G	N7-C8-N9	8.01	117.10	113.10
36	5	1900	A	C5-N7-C8	-8.01	99.90	103.90
36	5	2333	C	C6-N1-C2	8.01	123.50	120.30
36	5	2334	U	C2-N3-C4	-8.01	122.20	127.00
36	1	1139	G	C8-N9-C1'	8.00	137.41	127.00
36	1	1202	A	N1-C6-N6	8.00	123.40	118.60
37	3	88	G	C5-C6-N1	8.00	115.50	111.50
1	2	615	A	N1-C6-N6	-8.00	113.80	118.60
36	1	1807	G	C5-C6-O6	-8.00	123.80	128.60
36	1	1926	C	O5'-P-OP2	-8.00	98.50	105.70
1	6	359	A	N1-C2-N3	-8.00	125.30	129.30
1	6	1498	G	C6-C5-N7	-8.00	125.60	130.40
36	5	321	C	C2-N1-C1'	8.00	127.60	118.80
36	5	935	U	C2-N1-C1'	8.00	127.30	117.70
36	5	1902	G	C8-N9-C1'	-8.00	116.60	127.00
36	5	2944	U	N1-C2-N3	8.00	119.70	114.90
36	1	1169	A	N1-C6-N6	-8.00	113.80	118.60
36	1	1180	A	N7-C8-N9	-8.00	109.80	113.80
36	1	1358	C	C6-N1-C2	-8.00	117.10	120.30
36	1	1789	G	N1-C6-O6	-8.00	115.10	119.90
36	5	507	U	N3-C4-C5	-8.00	109.80	114.60
36	5	646	A	C5-C6-N6	8.00	130.10	123.70
36	5	2863	G	C2-N3-C4	-8.00	107.90	111.90
36	1	92	G	N9-C4-C5	-8.00	102.20	105.40
1	6	1577	A	C2-N3-C4	-8.00	106.60	110.60
36	5	1010	G	C4-C5-N7	8.00	114.00	110.80
36	5	2929	C	N3-C4-C5	8.00	125.10	121.90
37	7	49	G	C5-C6-O6	-8.00	123.80	128.60
36	1	1497	C	N3-C4-C5	-7.99	118.70	121.90
36	5	1050	U	C4-C5-C6	7.99	124.50	119.70
36	5	1111	U	C6-N1-C2	7.99	125.80	121.00
36	5	3285	C	C6-N1-C1'	-7.99	111.21	120.80
38	8	4	C	N1-C2-N3	7.99	124.80	119.20
1	6	1025	A	C5-C6-N6	-7.99	117.31	123.70
36	5	2926	A	N1-C2-N3	7.99	133.30	129.30
36	1	981	U	C5-C6-N1	7.99	126.70	122.70
1	6	1445	G	N3-C4-C5	7.99	132.59	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2978	U	N3-C2-O2	-7.99	116.61	122.20
36	5	3265	C	N1-C2-O2	-7.99	114.11	118.90
36	1	1306	G	C5-N7-C8	-7.99	100.31	104.30
36	1	3260	G	C6-C5-N7	-7.99	125.61	130.40
1	6	866	G	C5-C6-O6	-7.99	123.81	128.60
1	6	1536	G	C8-N9-C1'	-7.99	116.61	127.00
36	5	1194	G	C5-N7-C8	-7.99	100.31	104.30
1	6	1614	A	C4-C5-N7	7.99	114.69	110.70
36	1	2391	G	C8-N9-C4	7.99	109.59	106.40
36	5	45	A	C2-N3-C4	-7.99	106.61	110.60
36	5	2352	A	C5-C6-N1	7.99	121.69	117.70
37	7	101	G	C5-C6-N1	-7.99	107.51	111.50
36	1	1153	A	C4-C5-C6	7.98	120.99	117.00
36	1	3172	A	O5'-P-OP2	-7.98	98.52	105.70
1	6	1768	G	N1-C6-O6	7.98	124.69	119.90
36	5	2122	G	N3-C4-C5	7.98	132.59	128.60
36	5	2793	G	N3-C4-C5	7.98	132.59	128.60
36	5	2936	A	C5-C6-N6	-7.98	117.31	123.70
36	1	936	A	N1-C2-N3	-7.98	125.31	129.30
36	5	874	U	C5-C4-O4	7.98	130.69	125.90
36	5	1344	G	N3-C2-N2	-7.98	114.31	119.90
36	5	1433	A	C4-C5-C6	7.98	120.99	117.00
36	5	1914	G	C8-N9-C4	-7.98	103.21	106.40
37	7	45	A	C5-C6-N6	7.98	130.08	123.70
36	1	2421	U	N1-C2-N3	7.98	119.69	114.90
1	6	1592	A	C2-N3-C4	-7.98	106.61	110.60
36	5	2940	A	N1-C6-N6	7.98	123.39	118.60
1	2	1761	U	C5-C4-O4	7.98	130.69	125.90
36	1	1148	G	C5-C6-N1	7.98	115.49	111.50
36	1	2780	A	C8-N9-C4	7.98	108.99	105.80
1	6	864	U	C6-N1-C2	-7.98	116.21	121.00
36	1	18	G	N3-C2-N2	-7.97	114.32	119.90
37	3	69	C	C6-N1-C2	-7.97	117.11	120.30
38	4	110	C	C6-N1-C2	7.97	123.49	120.30
1	6	1523	G	N3-C4-C5	-7.97	124.61	128.60
36	5	1613	A	O5'-P-OP2	-7.97	98.52	105.70
36	1	1177	G	N3-C4-N9	7.97	130.78	126.00
38	4	46	G	N3-C4-N9	7.97	130.78	126.00
36	5	2872	A	C6-C5-N7	7.97	137.88	132.30
37	7	10	C	C6-N1-C1'	-7.97	111.23	120.80
36	5	2351	U	N3-C2-O2	-7.97	116.62	122.20
36	1	1161	G	N3-C4-C5	-7.97	124.61	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2190	U	N1-C2-N3	7.97	119.68	114.90
36	1	2940	A	N1-C6-N6	-7.97	113.82	118.60
1	6	120	U	N1-C2-N3	7.97	119.68	114.90
1	6	431	C	C2-N1-C1'	-7.97	110.03	118.80
36	5	206	G	C2-N3-C4	7.97	115.89	111.90
36	5	728	G	C4-C5-N7	7.97	113.99	110.80
36	5	796	U	C2-N1-C1'	7.97	127.26	117.70
36	5	2166	A	C2-N3-C4	-7.97	106.61	110.60
36	5	3004	C	N1-C2-O2	-7.97	114.12	118.90
36	5	1523	U	C5-C4-O4	-7.97	121.12	125.90
36	1	349	A	N9-C4-C5	7.97	108.99	105.80
36	1	1325	U	O5'-P-OP2	-7.97	98.53	105.70
36	1	2371	G	C6-N1-C2	-7.97	120.32	125.10
36	5	957	C	N3-C4-C5	-7.97	118.71	121.90
36	5	1374	G	N3-C4-N9	-7.97	121.22	126.00
36	5	2905	U	OP2-P-O3'	7.97	122.72	105.20
36	5	3026	G	C4-C5-C6	7.97	123.58	118.80
36	1	645	A	N1-C6-N6	-7.96	113.82	118.60
36	1	714	G	C8-N9-C4	7.96	109.59	106.40
36	1	2703	A	C4-C5-N7	-7.96	106.72	110.70
36	1	3060	C	C6-N1-C2	7.96	123.48	120.30
38	4	1	A	C8-N9-C4	7.96	108.99	105.80
1	6	1604	U	C6-N1-C2	-7.96	116.22	121.00
1	6	1750	A	O5'-P-OP2	-7.96	98.53	105.70
36	5	845	G	C5-C6-O6	7.96	133.38	128.60
36	5	1147	G	C6-C5-N7	-7.96	125.62	130.40
36	5	2971	A	N9-C4-C5	7.96	108.99	105.80
38	8	122	U	C6-N1-C2	-7.96	116.22	121.00
36	1	1379	G	N1-C2-N3	7.96	128.68	123.90
36	5	2986	U	N3-C4-O4	7.96	124.97	119.40
1	2	1615	C	C2-N1-C1'	7.96	127.56	118.80
36	1	2659	G	N1-C6-O6	7.96	124.68	119.90
36	1	2811	A	C4-N9-C1'	7.96	140.63	126.30
1	6	1623	C	C6-N1-C2	-7.96	117.12	120.30
36	5	529	A	O5'-P-OP2	7.96	120.25	110.70
36	5	755	A	O5'-P-OP1	-7.96	98.53	105.70
36	5	803	C	C2-N1-C1'	7.96	127.56	118.80
36	5	2684	C	N1-C2-N3	7.96	124.77	119.20
36	5	3229	G	N3-C2-N2	7.96	125.47	119.90
38	8	31	G	C4-C5-N7	-7.96	107.61	110.80
36	1	873	C	N3-C4-N4	7.96	123.57	118.00
36	5	2644	C	N3-C4-C5	-7.96	118.72	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	57	A	C2-N3-C4	-7.96	106.62	110.60
1	6	1027	A	N1-C2-N3	7.96	133.28	129.30
36	5	3124	G	C2-N3-C4	-7.96	107.92	111.90
36	1	1505	C	OP2-P-O3'	7.96	122.70	105.20
36	1	2871	G	N7-C8-N9	7.96	117.08	113.10
36	5	1303	A	C5-N7-C8	-7.96	99.92	103.90
37	7	26	C	N3-C4-N4	7.96	123.57	118.00
1	2	453	U	C2-N1-C1'	7.96	127.25	117.70
36	5	2116	G	N7-C8-N9	7.96	117.08	113.10
36	5	3067	C	C2-N3-C4	-7.96	115.92	119.90
37	7	85	G	C5-N7-C8	-7.96	100.32	104.30
1	2	1460	A	N1-C6-N6	-7.95	113.83	118.60
36	1	2121	G	C6-C5-N7	7.95	135.17	130.40
36	1	2138	A	C4-C5-C6	7.95	120.98	117.00
1	6	1121	C	N1-C2-O2	7.95	123.67	118.90
1	6	1351	G	N1-C6-O6	-7.95	115.13	119.90
36	5	776	U	N3-C2-O2	-7.95	116.63	122.20
36	1	1313	G	C5-N7-C8	-7.95	100.33	104.30
36	1	3328	G	C5-C6-O6	-7.95	123.83	128.60
36	5	1506	A	N1-C6-N6	-7.95	113.83	118.60
36	5	2789	U	N3-C2-O2	7.95	127.77	122.20
36	1	236	G	O5'-P-OP2	-7.95	98.55	105.70
36	1	342	A	C5-C6-N1	-7.95	113.72	117.70
36	1	1725	C	N3-C4-C5	-7.95	118.72	121.90
36	5	2283	G	C8-N9-C4	7.95	109.58	106.40
37	7	40	C	C6-N1-C2	7.95	123.48	120.30
36	5	884	A	C4-C5-C6	7.95	120.97	117.00
36	5	2874	G	C4-C5-N7	-7.95	107.62	110.80
36	5	3122	A	OP2-P-O3'	7.95	122.68	105.20
36	1	719	U	N3-C2-O2	7.95	127.76	122.20
36	5	1001	G	O5'-P-OP2	7.95	120.23	110.70
1	2	342	C	C4-C5-C6	7.94	121.37	117.40
1	2	1299	G	N3-C4-N9	7.94	130.76	126.00
36	1	1115	G	O5'-P-OP2	-7.94	98.55	105.70
36	1	1145	G	O5'-P-OP2	-7.94	98.55	105.70
36	1	1412	G	C6-C5-N7	-7.94	125.63	130.40
36	1	1803	C	C6-N1-C2	7.94	123.48	120.30
52	M6	125	ARG	NE-CZ-NH1	-7.94	116.33	120.30
36	5	507	U	N3-C4-O4	7.94	124.96	119.40
36	5	2665	U	C4-C5-C6	-7.94	114.94	119.70
36	1	639	G	C6-C5-N7	-7.94	125.64	130.40
36	1	1196	C	O5'-P-OP1	-7.94	98.55	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2887	A	OP2-P-O3'	7.94	122.67	105.20
36	5	1054	A	N7-C8-N9	-7.94	109.83	113.80
36	1	645	A	O5'-P-OP1	-7.94	98.56	105.70
36	1	2422	C	N3-C4-N4	-7.94	112.44	118.00
36	1	2950	G	O4'-C1'-N9	7.94	114.55	108.20
36	1	3001	C	C6-N1-C2	7.94	123.48	120.30
1	6	789	A	N1-C6-N6	-7.94	113.84	118.60
36	5	371	G	C8-N9-C1'	7.94	137.32	127.00
65	n9	23	LYS	C-N-CD	7.94	145.07	128.40
1	2	111	U	C2-N1-C1'	7.94	127.22	117.70
36	1	1377	G	C6-C5-N7	-7.94	125.64	130.40
36	1	1907	C	C4-C5-C6	7.94	121.37	117.40
36	1	2634	U	N3-C2-O2	-7.94	116.64	122.20
36	5	798	G	C5-C6-N1	-7.94	107.53	111.50
36	5	2702	A	N1-C2-N3	7.94	133.27	129.30
36	1	86	G	O5'-P-OP1	7.94	120.22	110.70
36	1	1635	G	C6-C5-N7	-7.94	125.64	130.40
37	3	93	C	C5-C6-N1	-7.94	117.03	121.00
36	5	1130	A	C2-N3-C4	7.94	114.57	110.60
36	5	2411	U	C2-N3-C4	-7.94	122.24	127.00
36	1	104	G	C4-C5-N7	7.93	113.97	110.80
36	1	766	U	C6-N1-C2	-7.93	116.24	121.00
36	1	888	A	O5'-P-OP1	-7.93	98.56	105.70
36	1	1604	G	C8-N9-C4	-7.93	103.23	106.40
36	1	3208	G	N1-C2-N2	-7.93	109.06	116.20
36	5	595	G	C4-C5-C6	7.93	123.56	118.80
36	5	934	G	C6-C5-N7	-7.93	125.64	130.40
36	5	1049	C	C5-C6-N1	7.93	124.97	121.00
36	5	3096	C	OP2-P-O3'	7.93	122.66	105.20
36	1	860	G	C4-C5-N7	7.93	113.97	110.80
36	5	200	C	C6-N1-C1'	-7.93	111.28	120.80
1	6	1107	G	C5-C6-O6	7.93	133.36	128.60
36	1	955	U	O5'-P-OP2	-7.93	98.56	105.70
1	6	142	G	N1-C6-O6	-7.93	115.14	119.90
1	6	1572	G	O5'-P-OP2	-7.93	98.56	105.70
37	7	35	C	N3-C4-C5	7.93	125.07	121.90
36	1	2819	A	O5'-P-OP2	-7.93	98.56	105.70
36	5	776	U	C4-C5-C6	7.93	124.46	119.70
36	5	1608	C	O5'-P-OP1	-7.93	98.56	105.70
36	1	1168	U	OP2-P-O3'	7.93	122.64	105.20
36	1	1393	A	N9-C4-C5	7.93	108.97	105.80
36	5	832	G	C4-C5-N7	-7.93	107.63	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1840	U	N3-C4-C5	7.93	119.36	114.60
36	5	2893	C	O5'-P-OP1	-7.93	98.56	105.70
36	1	585	A	N9-C4-C5	7.92	108.97	105.80
36	1	1115	G	C4-N9-C1'	7.92	136.80	126.50
36	1	1725	C	C6-N1-C2	-7.92	117.13	120.30
37	3	78	U	C6-N1-C2	-7.92	116.25	121.00
1	6	1050	G	N3-C4-N9	-7.92	121.25	126.00
1	6	1524	A	N7-C8-N9	7.92	117.76	113.80
1	6	1537	C	C2-N3-C4	7.92	123.86	119.90
1	6	1604	U	N3-C4-C5	-7.92	109.84	114.60
36	5	1453	A	N1-C2-N3	7.92	133.26	129.30
36	5	3078	U	N3-C2-O2	-7.92	116.65	122.20
36	1	718	G	N3-C4-C5	7.92	132.56	128.60
1	6	405	C	C6-N1-C2	-7.92	117.13	120.30
36	5	2986	U	N1-C2-O2	-7.92	117.25	122.80
1	2	50	C	N1-C2-O2	7.92	123.65	118.90
36	1	2874	G	C8-N9-C1'	-7.92	116.70	127.00
1	6	1594	G	N1-C6-O6	7.92	124.65	119.90
36	5	920	A	C2-N3-C4	-7.92	106.64	110.60
36	5	1537	A	C5-C6-N1	-7.92	113.74	117.70
36	5	3207	U	C6-N1-C1'	7.92	132.29	121.20
36	1	838	G	N3-C4-C5	7.92	132.56	128.60
36	1	1385	C	C2-N1-C1'	-7.92	110.09	118.80
36	1	2633	U	C5-C4-O4	7.92	130.65	125.90
36	5	1136	A	C6-N1-C2	-7.92	113.85	118.60
36	5	2981	U	N1-C2-N3	7.92	119.65	114.90
36	1	1880	U	C5-C6-N1	-7.92	118.74	122.70
36	1	1149	G	C4-N9-C1'	7.92	136.79	126.50
36	1	1720	U	C6-N1-C2	-7.92	116.25	121.00
38	4	12	A	C6-C5-N7	-7.92	126.76	132.30
1	6	1002	G	N3-C4-N9	-7.92	121.25	126.00
36	5	2895	G	N3-C4-C5	-7.92	124.64	128.60
36	5	3009	G	O5'-P-OP2	-7.92	98.58	105.70
36	1	587	U	N1-C2-O2	-7.92	117.26	122.80
36	5	3115	C	C2-N1-C1'	-7.92	110.09	118.80
1	2	561	G	N1-C6-O6	7.91	124.65	119.90
36	1	913	A	N1-C6-N6	7.91	123.35	118.60
38	4	53	A	N3-C4-C5	-7.91	121.26	126.80
36	5	2746	A	C2-N3-C4	-7.91	106.64	110.60
36	5	2841	G	C5-C6-O6	7.91	133.35	128.60
36	1	877	C	N1-C2-O2	7.91	123.65	118.90
1	6	209	U	N1-C2-O2	-7.91	117.26	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	35	A	N1-C2-N3	7.91	133.26	129.30
36	5	71	A	C4-C5-N7	-7.91	106.74	110.70
36	5	2877	G	N3-C4-N9	7.91	130.75	126.00
36	1	331	G	C4-C5-N7	-7.91	107.64	110.80
36	1	1363	A	N1-C6-N6	7.91	123.35	118.60
36	1	1413	G	C8-N9-C4	7.91	109.56	106.40
1	6	1528	U	N3-C2-O2	-7.91	116.66	122.20
36	5	588	G	N3-C4-N9	7.91	130.75	126.00
36	1	224	C	C5-C6-N1	7.91	124.95	121.00
36	1	979	U	C5-C4-O4	7.91	130.65	125.90
36	1	1501	U	C2-N1-C1'	7.91	127.19	117.70
36	1	3278	C	N3-C2-O2	-7.91	116.36	121.90
36	5	1134	G	C4-C5-N7	-7.91	107.64	110.80
1	6	1753	A	C6-N1-C2	-7.91	113.86	118.60
36	5	2388	U	C6-N1-C2	7.91	125.74	121.00
36	1	2759	U	N1-C2-O2	7.91	128.33	122.80
36	5	755	A	C2-N3-C4	-7.91	106.65	110.60
36	5	1845	G	N3-C4-N9	7.91	130.74	126.00
1	6	1393	C	N3-C4-C5	-7.90	118.74	121.90
36	5	848	A	C6-C5-N7	-7.90	126.77	132.30
37	7	84	A	O5'-P-OP1	-7.90	98.59	105.70
36	1	3127	A	N1-C2-N3	7.90	133.25	129.30
36	1	3176	G	C5-C6-O6	-7.90	123.86	128.60
52	m6	28	LEU	CB-CG-CD1	-7.90	97.56	111.00
36	1	41	G	C2-N3-C4	7.90	115.85	111.90
1	6	1129	U	C5-C4-O4	7.90	130.64	125.90
36	5	714	G	O5'-P-OP1	-7.90	98.59	105.70
36	5	2199	G	N3-C2-N2	-7.90	114.37	119.90
36	5	1924	U	N1-C2-O2	-7.90	117.27	122.80
36	1	2607	G	O5'-P-OP1	-7.90	98.59	105.70
36	5	857	G	N3-C2-N2	-7.90	114.37	119.90
36	1	1371	G	C8-N9-C4	7.89	109.56	106.40
36	1	2362	C	N1-C2-O2	7.89	123.64	118.90
36	1	2661	G	N1-C6-O6	7.89	124.64	119.90
36	1	2838	A	C2-N3-C4	-7.89	106.65	110.60
36	1	2882	U	N3-C4-O4	-7.89	113.87	119.40
1	6	43	A	N9-C4-C5	-7.89	102.64	105.80
1	6	96	G	C6-C5-N7	-7.89	125.66	130.40
1	6	1158	C	C2-N1-C1'	7.89	127.48	118.80
36	5	1399	A	C5-N7-C8	-7.89	99.95	103.90
36	5	2409	G	OP1-P-OP2	7.89	131.44	119.60
36	5	3020	U	N1-C2-O2	-7.89	117.27	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3344	A	N1-C6-N6	7.89	123.33	118.60
1	6	233	C	C6-N1-C2	-7.89	117.14	120.30
1	6	415	C	N3-C4-N4	-7.89	112.48	118.00
36	5	1198	C	N1-C2-O2	7.89	123.64	118.90
36	5	1295	G	C5-N7-C8	-7.89	100.35	104.30
36	1	1608	C	C6-N1-C2	-7.89	117.14	120.30
36	1	2283	G	C4-C5-N7	7.89	113.96	110.80
36	1	2811	A	N3-C4-N9	7.89	133.71	127.40
36	1	2823	G	OP1-P-O3'	7.89	122.56	105.20
36	1	3186	A	N9-C4-C5	7.89	108.96	105.80
36	1	1120	A	N1-C2-N3	7.89	133.24	129.30
1	6	1212	G	C5-C6-N1	7.89	115.44	111.50
36	5	643	U	N3-C2-O2	-7.89	116.68	122.20
36	5	973	A	N1-C6-N6	7.89	123.33	118.60
36	5	1158	A	O5'-P-OP1	7.89	120.17	110.70
36	5	2908	G	C4-C5-N7	7.89	113.95	110.80
38	8	13	A	C8-N9-C4	7.89	108.95	105.80
1	2	1757	G	C4-N9-C1'	7.89	136.75	126.50
36	1	419	G	N7-C8-N9	-7.89	109.16	113.10
36	1	2167	A	C5-C6-N1	-7.89	113.76	117.70
36	1	3098	G	C6-N1-C2	-7.89	120.37	125.10
36	5	1325	U	C5-C6-N1	-7.89	118.76	122.70
36	5	2572	C	C2-N1-C1'	7.89	127.48	118.80
1	2	415	C	C6-N1-C2	7.88	123.45	120.30
36	1	226	C	N3-C2-O2	7.88	127.42	121.90
36	1	351	A	C2-N3-C4	-7.88	106.66	110.60
36	5	2635	A	C5-C6-N1	7.88	121.64	117.70
36	5	3044	G	N1-C6-O6	7.88	124.63	119.90
36	5	3223	A	N1-C6-N6	-7.88	113.87	118.60
38	8	119	C	C6-N1-C2	7.88	123.45	120.30
1	6	876	G	N3-C2-N2	-7.88	114.38	119.90
36	5	703	G	N1-C6-O6	7.88	124.63	119.90
36	5	1152	G	C8-N9-C4	-7.88	103.25	106.40
36	5	2400	G	C8-N9-C4	-7.88	103.25	106.40
1	6	126	A	C8-N9-C4	7.88	108.95	105.80
1	6	575	C	C5-C6-N1	-7.88	117.06	121.00
36	5	2382	G	C4-N9-C1'	-7.88	116.25	126.50
1	2	830	U	N3-C2-O2	-7.88	116.68	122.20
1	6	1090	C	N3-C4-N4	-7.88	112.48	118.00
36	1	1099	A	N1-C6-N6	7.88	123.33	118.60
36	5	1300	G	C8-N9-C4	7.88	109.55	106.40
36	5	2838	A	N1-C6-N6	-7.88	113.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	15	U	N1-C2-O2	7.88	128.31	122.80
36	1	751	A	N9-C4-C5	7.88	108.95	105.80
36	1	1607	U	N3-C4-O4	-7.88	113.89	119.40
36	5	585	A	OP1-P-O3'	-7.88	87.87	105.20
36	5	1386	A	C2-N3-C4	-7.88	106.66	110.60
37	7	92	A	C5-C6-N6	-7.88	117.40	123.70
1	6	1758	U	N3-C4-O4	7.88	124.91	119.40
1	6	1537	C	C6-N1-C1'	7.87	130.25	120.80
36	5	57	A	O5'-P-OP1	7.87	120.15	110.70
36	5	503	C	C5-C6-N1	-7.87	117.06	121.00
1	2	1215	C	N3-C2-O2	-7.87	116.39	121.90
36	1	1624	G	C4-C5-N7	7.87	113.95	110.80
36	5	640	U	N3-C4-O4	7.87	124.91	119.40
36	5	2852	C	N1-C2-O2	7.87	123.62	118.90
36	5	1108	U	N1-C2-N3	7.87	119.62	114.90
36	5	2123	G	N1-C6-O6	-7.87	115.18	119.90
36	5	3049	A	C5-C6-N1	-7.87	113.77	117.70
36	1	983	A	N1-C6-N6	7.87	123.32	118.60
36	1	2987	A	C2-N3-C4	7.87	114.53	110.60
36	1	3172	A	C8-N9-C4	-7.87	102.65	105.80
36	1	3319	U	C2-N1-C1'	7.87	127.14	117.70
1	6	1661	U	C5-C6-N1	-7.87	118.77	122.70
36	5	345	G	C4-N9-C1'	7.87	136.73	126.50
36	5	405	U	O5'-P-OP1	-7.87	98.62	105.70
36	5	1871	U	C5-C6-N1	7.87	126.63	122.70
36	5	2942	C	C6-N1-C1'	7.87	130.24	120.80
36	1	580	C	N3-C4-C5	7.87	125.05	121.90
1	2	551	G	N3-C4-N9	-7.87	121.28	126.00
1	2	1774	G	N3-C4-N9	7.87	130.72	126.00
36	1	1907	C	N3-C2-O2	-7.87	116.39	121.90
36	1	2944	U	O5'-P-OP2	7.87	120.14	110.70
37	3	75	G	N3-C4-N9	-7.87	121.28	126.00
36	5	2939	G	N3-C2-N2	-7.87	114.39	119.90
36	1	3246	G	C8-N9-C4	-7.86	103.25	106.40
36	5	1166	G	C5-C6-O6	-7.86	123.88	128.60
36	5	1433	A	C6-C5-N7	-7.86	126.80	132.30
36	1	1887	A	N9-C4-C5	-7.86	102.66	105.80
36	1	2762	A	C5-C6-N1	7.86	121.63	117.70
36	1	2765	C	N3-C2-O2	-7.86	116.40	121.90
36	5	795	G	N1-C6-O6	-7.86	115.18	119.90
36	1	1337	A	C5-C6-N6	-7.86	117.41	123.70
36	1	2199	G	O5'-P-OP1	-7.86	98.63	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3188	G	C2-N3-C4	7.86	115.83	111.90
1	2	1148	C	C6-N1-C2	-7.86	117.16	120.30
36	1	696	C	C5-C6-N1	7.86	124.93	121.00
36	1	2736	A	C2-N3-C4	-7.86	106.67	110.60
36	5	423	A	C6-N1-C2	-7.86	113.89	118.60
36	5	3025	C	C5-C6-N1	-7.86	117.07	121.00
1	2	18	C	C6-N1-C2	-7.86	117.16	120.30
1	2	1600	A	N9-C4-C5	-7.86	102.66	105.80
36	1	1224	C	C2-N1-C1'	7.86	127.44	118.80
36	5	788	C	C6-N1-C2	-7.86	117.16	120.30
36	1	932	U	N3-C4-C5	7.85	119.31	114.60
36	1	2664	C	C5-C6-N1	7.85	124.93	121.00
36	5	521	A	N9-C4-C5	7.85	108.94	105.80
36	1	394	G	C5-C6-O6	7.85	133.31	128.60
36	1	2572	C	C2-N1-C1'	7.85	127.44	118.80
36	1	2808	A	N1-C6-N6	7.85	123.31	118.60
36	5	2816	G	C5-C6-O6	-7.85	123.89	128.60
36	5	2857	C	N3-C2-O2	-7.85	116.40	121.90
36	1	400	G	N3-C4-N9	-7.85	121.29	126.00
36	1	3086	A	N1-C2-N3	7.85	133.22	129.30
36	5	2139	A	C4-C5-N7	-7.85	106.78	110.70
1	2	351	C	N3-C4-N4	-7.85	112.51	118.00
36	1	395	A	C8-N9-C4	-7.85	102.66	105.80
36	1	936	A	O5'-P-OP2	-7.85	98.64	105.70
36	1	1307	G	C6-N1-C2	-7.85	120.39	125.10
36	5	1931	U	C5-C6-N1	-7.85	118.78	122.70
36	5	3124	G	N3-C2-N2	-7.85	114.41	119.90
36	5	3171	U	C5-C6-N1	-7.85	118.78	122.70
1	6	1673	G	C8-N9-C4	7.84	109.54	106.40
36	5	986	U	C6-N1-C2	-7.84	116.29	121.00
36	1	906	A	C6-N1-C2	-7.84	113.89	118.60
36	1	2978	U	OP1-P-O3'	7.84	122.45	105.20
36	5	2262	A	N1-C6-N6	7.84	123.31	118.60
36	5	3144	G	C8-N9-C1'	-7.84	116.80	127.00
37	7	56	A	N7-C8-N9	7.84	117.72	113.80
36	1	350	C	C6-N1-C1'	-7.84	111.39	120.80
36	1	2147	A	C5-C6-N6	-7.84	117.43	123.70
36	1	3306	U	N3-C2-O2	-7.84	116.71	122.20
1	6	1114	G	C5-C6-O6	7.84	133.30	128.60
36	5	2122	G	C4-C5-N7	7.84	113.94	110.80
36	5	3032	A	N9-C4-C5	7.84	108.94	105.80
36	5	588	G	C5-C6-N1	7.84	115.42	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1665	C	O5'-P-OP1	-7.84	98.64	105.70
36	1	3137	C	C6-N1-C2	7.84	123.44	120.30
1	6	33	U	C5-C4-O4	-7.84	121.20	125.90
1	6	1546	G	N1-C6-O6	7.84	124.60	119.90
36	1	2997	G	C5-N7-C8	-7.83	100.38	104.30
1	6	458	G	O5'-P-OP1	7.83	120.10	110.70
1	6	1414	U	N1-C2-O2	7.83	128.28	122.80
36	5	1506	A	O5'-P-OP2	-7.83	98.65	105.70
36	5	1785	U	O5'-P-OP1	-7.83	98.65	105.70
36	5	2966	G	C5-C6-O6	7.83	133.30	128.60
36	5	679	U	N3-C4-O4	-7.83	113.92	119.40
36	5	908	G	C8-N9-C4	-7.83	103.27	106.40
36	5	2851	A	C5-C6-N6	7.83	129.97	123.70
36	1	887	G	N3-C4-C5	-7.83	124.68	128.60
36	5	75	G	O5'-P-OP1	7.83	120.10	110.70
36	5	974	G	N3-C4-C5	-7.83	124.68	128.60
36	5	1870	C	N3-C2-O2	7.83	127.38	121.90
36	5	2246	G	C4-C5-N7	7.83	113.93	110.80
38	4	109	A	C4-C5-N7	7.83	114.61	110.70
36	1	1392	G	C2-N3-C4	7.83	115.81	111.90
36	1	1905	G	C4-C5-N7	-7.83	107.67	110.80
36	1	2199	G	C4-N9-C1'	7.83	136.68	126.50
52	m6	78	ARG	NE-CZ-NH1	-7.83	116.39	120.30
1	2	1788	G	C5-C6-N1	7.83	115.41	111.50
36	1	1594	A	C6-N1-C2	-7.83	113.90	118.60
36	1	397	A	N9-C4-C5	7.83	108.93	105.80
36	1	1607	U	N3-C2-O2	-7.83	116.72	122.20
36	1	2378	C	C4-C5-C6	-7.83	113.49	117.40
1	6	151	G	N9-C4-C5	7.83	108.53	105.40
36	1	2404	A	O4'-C1'-N9	7.82	114.46	108.20
18	C6	28	LEU	CA-CB-CG	7.82	133.29	115.30
36	1	2873	U	N3-C4-O4	-7.82	113.93	119.40
36	1	3216	G	N1-C2-N3	7.82	128.59	123.90
36	1	3216	G	N9-C4-C5	-7.82	102.27	105.40
1	6	388	G	C6-C5-N7	-7.82	125.71	130.40
36	5	785	G	C8-N9-C4	-7.82	103.27	106.40
36	5	2168	A	C6-C5-N7	-7.82	126.83	132.30
36	5	2392	C	C5-C6-N1	-7.82	117.09	121.00
36	5	3229	G	N3-C4-N9	7.82	130.69	126.00
36	1	14	U	O5'-P-OP2	-7.82	98.66	105.70
36	1	2315	G	N9-C4-C5	7.82	108.53	105.40
36	1	2955	U	N3-C2-O2	-7.82	116.73	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	L3	275	ARG	NE-CZ-NH1	-7.82	116.39	120.30
1	6	1483	A	N1-C6-N6	-7.82	113.91	118.60
36	5	718	G	O4'-C1'-N9	7.82	114.46	108.20
36	5	2877	G	C4-C5-C6	7.82	123.49	118.80
1	2	1490	C	O5'-P-OP1	-7.82	98.66	105.70
36	1	506	U	OP2-P-O3'	7.82	122.40	105.20
36	1	1907	C	N1-C2-N3	7.82	124.67	119.20
36	5	1926	C	N1-C2-O2	7.82	123.59	118.90
36	5	2379	U	N1-C2-N3	7.82	119.59	114.90
36	1	1113	G	C2-N3-C4	-7.82	107.99	111.90
1	6	441	A	O5'-P-OP2	-7.82	98.67	105.70
36	5	1514	G	C4-N9-C1'	7.82	136.66	126.50
36	1	655	C	N3-C4-N4	7.81	123.47	118.00
36	1	2856	G	N3-C4-C5	7.81	132.51	128.60
36	5	667	C	C6-N1-C2	-7.81	117.17	120.30
36	5	2672	G	O5'-P-OP1	-7.81	98.67	105.70
36	5	2918	G	N1-C6-O6	-7.81	115.21	119.90
44	17	232	ARG	NE-CZ-NH2	-7.81	116.39	120.30
36	1	889	U	C4-C5-C6	7.81	124.39	119.70
36	5	3226	A	C2-N3-C4	-7.81	106.69	110.60
1	2	1085	G	N1-C6-O6	-7.81	115.21	119.90
36	1	2940	A	N3-C4-C5	-7.81	121.33	126.80
36	5	1085	A	N7-C8-N9	7.81	117.70	113.80
36	5	3193	C	C6-N1-C2	-7.81	117.18	120.30
36	1	2722	U	C6-N1-C2	-7.81	116.31	121.00
36	1	3388	C	N3-C4-N4	-7.81	112.53	118.00
1	6	65	A	C2-N3-C4	-7.81	106.70	110.60
36	5	1181	U	N3-C4-C5	-7.81	109.92	114.60
36	5	2915	U	C5-C4-O4	-7.81	121.22	125.90
36	1	877	C	N3-C2-O2	-7.81	116.44	121.90
36	5	2129	U	O5'-P-OP1	-7.81	98.67	105.70
36	1	1403	C	N3-C4-C5	7.80	125.02	121.90
36	1	2186	U	C5-C6-N1	-7.80	118.80	122.70
36	1	2409	G	N3-C4-C5	-7.80	124.70	128.60
36	5	1340	G	C8-N9-C4	-7.80	103.28	106.40
36	5	1794	G	O5'-P-OP1	-7.80	98.67	105.70
36	5	2737	C	O5'-P-OP2	-7.80	98.68	105.70
36	1	393	U	O5'-P-OP1	-7.80	98.68	105.70
36	1	650	C	N3-C4-N4	7.80	123.46	118.00
36	1	1151	U	C2-N3-C4	7.80	131.68	127.00
1	6	1271	G	C5-C6-N1	-7.80	107.60	111.50
36	5	1178	G	C8-N9-C4	-7.80	103.28	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1378	U	N3-C4-O4	7.80	124.86	119.40
36	1	3082	C	OP1-P-O3'	7.80	122.36	105.20
1	6	573	C	C5-C4-N4	-7.80	114.74	120.20
1	6	1470	C	N3-C2-O2	-7.80	116.44	121.90
36	5	183	G	C4-C5-N7	-7.80	107.68	110.80
36	5	2427	U	N3-C4-O4	-7.80	113.94	119.40
36	5	2826	U	C5-C6-N1	-7.80	118.80	122.70
1	2	6	G	N3-C4-C5	-7.80	124.70	128.60
36	1	335	G	C4-C5-N7	7.80	113.92	110.80
36	1	1329	U	N3-C2-O2	-7.80	116.74	122.20
1	6	58	U	O5'-P-OP1	-7.80	98.68	105.70
1	6	1183	A	C4-C5-C6	7.80	120.90	117.00
36	5	287	G	N7-C8-N9	7.80	117.00	113.10
36	1	279	U	OP1-P-O3'	7.79	122.35	105.20
36	1	1362	G	N7-C8-N9	-7.79	109.20	113.10
36	1	3172	A	N1-C2-N3	7.79	133.20	129.30
1	6	1127	G	C5-C6-O6	-7.79	123.92	128.60
36	5	3076	C	N3-C4-C5	-7.79	118.78	121.90
1	2	342	C	C6-N1-C2	7.79	123.42	120.30
1	2	1291	G	C4-N9-C1'	7.79	136.63	126.50
36	1	2510	U	O4'-C1'-N1	7.79	114.43	108.20
1	6	1535	U	C5-C6-N1	-7.79	118.80	122.70
36	5	115	A	N1-C6-N6	-7.79	113.92	118.60
36	5	1592	G	C2-N3-C4	7.79	115.80	111.90
36	5	2287	C	C5-C6-N1	-7.79	117.10	121.00
36	5	2926	A	C6-N1-C2	-7.79	113.92	118.60
36	5	2246	G	C5-C6-O6	-7.79	123.93	128.60
36	1	651	G	O5'-P-OP2	-7.79	98.69	105.70
65	N9	20	GLY	N-CA-C	7.79	132.57	113.10
1	2	1025	A	C4-N9-C1'	7.79	140.32	126.30
36	5	1637	A	N9-C4-C5	7.79	108.92	105.80
36	5	2302	G	OP1-P-OP2	-7.79	107.92	119.60
37	7	44	C	C5-C6-N1	-7.79	117.11	121.00
36	1	545	U	C5-C6-N1	7.79	126.59	122.70
36	1	2353	G	C2-N3-C4	-7.79	108.01	111.90
36	1	2707	C	C4-C5-C6	7.79	121.29	117.40
36	5	433	A	C2-N3-C4	-7.79	106.71	110.60
36	5	994	G	OP1-P-O3'	7.79	122.33	105.20
36	5	2362	C	N3-C4-C5	7.78	125.01	121.90
36	5	2879	C	C5-C4-N4	-7.78	114.75	120.20
36	1	416	A	C2-N3-C4	-7.78	106.71	110.60
36	1	3316	A	C5-N7-C8	-7.78	100.01	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	43	A	N1-C6-N6	7.78	123.27	118.60
1	2	1198	G	C8-N9-C4	-7.78	103.29	106.40
36	1	207	U	C5-C6-N1	7.78	126.59	122.70
36	1	636	C	C6-N1-C2	-7.78	117.19	120.30
36	1	2703	A	N3-C4-C5	-7.78	121.35	126.80
36	1	2940	A	C6-N1-C2	-7.78	113.93	118.60
36	1	2137	U	C5-C6-N1	-7.78	118.81	122.70
36	1	3055	U	C6-N1-C1'	-7.78	110.31	121.20
36	5	2302	G	C5-C6-O6	7.78	133.27	128.60
36	5	2692	A	O5'-P-OP1	-7.78	98.70	105.70
36	1	656	A	C5-C6-N6	-7.78	117.48	123.70
36	1	1422	G	N1-C6-O6	7.78	124.57	119.90
36	1	2356	A	O5'-P-OP1	7.78	120.03	110.70
1	6	351	C	C5-C4-N4	-7.78	114.75	120.20
36	5	1755	C	C4-C5-C6	-7.78	113.51	117.40
36	5	3298	C	C6-N1-C2	7.78	123.41	120.30
1	2	1654	G	N1-C2-N2	-7.78	109.20	116.20
36	1	2175	U	N1-C2-N3	7.78	119.57	114.90
36	1	3031	G	N3-C4-N9	-7.78	121.33	126.00
1	6	194	U	C2-N1-C1'	7.78	127.03	117.70
36	5	25	U	N3-C4-O4	7.78	124.84	119.40
36	5	71	A	N7-C8-N9	-7.78	109.91	113.80
36	5	131	C	C6-N1-C2	-7.78	117.19	120.30
36	5	3088	G	C5-C6-N1	-7.78	107.61	111.50
36	1	1191	U	C2-N1-C1'	-7.77	108.37	117.70
36	1	1361	U	N3-C4-O4	7.77	124.84	119.40
36	1	121	A	O5'-P-OP2	-7.77	98.70	105.70
1	6	901	G	O4'-C1'-N9	7.77	114.42	108.20
1	6	1024	U	O5'-P-OP2	-7.77	98.70	105.70
36	5	692	A	C6-C5-N7	-7.77	126.86	132.30
36	5	978	G	O5'-P-OP1	-7.77	98.70	105.70
36	5	1052	U	C5-C6-N1	7.77	126.59	122.70
1	6	1100	G	N1-C6-O6	7.77	124.56	119.90
1	2	424	C	C2-N1-C1'	7.77	127.35	118.80
36	1	1428	A	C4-C5-N7	7.77	114.58	110.70
36	1	3093	C	C4-C5-C6	7.77	121.28	117.40
36	1	3325	G	N9-C4-C5	-7.77	102.29	105.40
1	6	1648	A	C8-N9-C4	7.77	108.91	105.80
36	5	1537	A	N1-C6-N6	7.77	123.26	118.60
36	5	2608	G	OP2-P-O3'	7.77	122.30	105.20
40	13	356	LEU	CA-CB-CG	-7.77	97.43	115.30
36	1	1126	G	N1-C6-O6	7.77	124.56	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1393	A	N1-C6-N6	-7.77	113.94	118.60
36	5	2375	G	N3-C4-N9	-7.77	121.34	126.00
1	6	1050	G	N3-C4-C5	7.77	132.48	128.60
36	5	345	G	N3-C4-N9	7.77	130.66	126.00
36	5	1318	A	N1-C2-N3	7.77	133.18	129.30
36	5	1851	G	C8-N9-C4	-7.77	103.29	106.40
36	5	3099	C	C6-N1-C2	7.77	123.41	120.30
36	1	38	U	C6-N1-C2	7.76	125.66	121.00
36	1	93	C	C6-N1-C2	7.76	123.41	120.30
1	6	553	G	C4-C5-N7	7.76	113.91	110.80
36	5	3038	U	C2-N3-C4	-7.76	122.34	127.00
36	1	422	A	C6-N1-C2	-7.76	113.94	118.60
36	1	652	G	C6-N1-C2	-7.76	120.44	125.10
36	1	2770	G	C8-N9-C4	-7.76	103.30	106.40
1	6	36	C	O5'-P-OP2	-7.76	98.71	105.70
1	6	1000	C	N1-C2-N3	7.76	124.63	119.20
36	5	776	U	N1-C2-N3	7.76	119.56	114.90
36	5	943	U	C5-C6-N1	-7.76	118.82	122.70
36	5	983	A	N1-C2-N3	7.76	133.18	129.30
36	5	2611	U	C4-C5-C6	7.76	124.36	119.70
36	5	2743	A	C2-N3-C4	-7.76	106.72	110.60
36	5	3050	U	N3-C2-O2	-7.76	116.77	122.20
36	1	697	A	C6-N1-C2	7.76	123.25	118.60
36	1	1438	U	N1-C2-O2	-7.76	117.37	122.80
36	1	2371	G	N3-C4-C5	-7.76	124.72	128.60
1	6	1029	U	O5'-P-OP2	-7.76	98.72	105.70
36	5	365	A	N1-C6-N6	7.76	123.26	118.60
36	5	1370	G	C5-C6-N1	7.76	115.38	111.50
36	5	2290	C	C5-C4-N4	7.76	125.63	120.20
36	5	3136	G	C5-C6-O6	-7.76	123.94	128.60
36	1	624	G	C6-C5-N7	-7.76	125.75	130.40
36	1	965	A	N1-C2-N3	7.76	133.18	129.30
1	6	1243	G	C4-N9-C1'	7.76	136.59	126.50
36	5	1063	G	O5'-P-OP1	-7.76	98.72	105.70
36	5	131	C	C5-C6-N1	7.76	124.88	121.00
36	5	2302	G	N1-C2-N3	7.76	128.55	123.90
36	5	2851	A	C6-C5-N7	7.76	137.73	132.30
36	1	2939	G	C4-C5-C6	7.75	123.45	118.80
36	1	277	G	N1-C2-N2	7.75	123.18	116.20
36	1	2380	U	C6-N1-C2	7.75	125.65	121.00
36	1	2708	C	C6-N1-C2	-7.75	117.20	120.30
37	3	25	G	N3-C4-N9	7.75	130.65	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	331	A	C8-N9-C4	-7.75	102.70	105.80
1	6	420	A	C4-C5-N7	7.75	114.58	110.70
1	6	1022	C	O5'-P-OP1	-7.75	98.72	105.70
36	5	2403	G	N9-C4-C5	-7.75	102.30	105.40
36	5	3245	A	N3-C4-C5	7.75	132.23	126.80
37	7	47	C	N3-C4-C5	7.75	125.00	121.90
36	1	2985	C	C6-N1-C1'	7.75	130.10	120.80
37	3	102	A	C5-N7-C8	-7.75	100.02	103.90
43	L6	159	LEU	CA-CB-CG	-7.75	97.47	115.30
1	6	1038	U	N3-C2-O2	7.75	127.63	122.20
36	5	559	A	C6-C5-N7	-7.75	126.87	132.30
36	5	2910	A	OP1-P-OP2	-7.75	107.97	119.60
36	5	2936	A	N3-C4-N9	7.75	133.60	127.40
37	7	104	A	N1-C6-N6	7.75	123.25	118.60
36	1	2703	A	N1-C2-N3	7.75	133.18	129.30
1	6	402	C	C4-C5-C6	7.75	121.28	117.40
36	5	2368	A	N1-C2-N3	7.75	133.18	129.30
1	6	1610	G	C5-C6-O6	-7.75	123.95	128.60
36	5	200	C	C2-N1-C1'	7.75	127.32	118.80
1	2	1426	C	C5-C6-N1	7.75	124.87	121.00
36	1	1344	G	C8-N9-C4	7.75	109.50	106.40
36	1	1412	G	N1-C6-O6	7.75	124.55	119.90
36	1	1414	G	C6-C5-N7	-7.75	125.75	130.40
36	1	3289	G	C8-N9-C4	-7.75	103.30	106.40
37	3	87	G	OP2-P-O3'	7.75	122.24	105.20
1	6	370	A	N1-C6-N6	-7.75	113.95	118.60
36	5	40	A	C2-N3-C4	-7.75	106.73	110.60
36	5	818	C	C5-C6-N1	-7.75	117.13	121.00
36	5	2172	A	C2-N3-C4	-7.75	106.73	110.60
36	1	3034	C	N3-C2-O2	-7.75	116.48	121.90
36	5	197	G	C5-N7-C8	-7.75	100.43	104.30
36	5	713	U	N3-C4-O4	-7.75	113.98	119.40
1	2	583	C	N1-C2-O2	-7.74	114.25	118.90
36	1	1387	G	N1-C6-O6	-7.74	115.25	119.90
36	1	2181	C	C6-N1-C2	-7.74	117.20	120.30
36	1	2778	G	N1-C6-O6	-7.74	115.25	119.90
36	5	971	G	C4-C5-N7	-7.74	107.70	110.80
36	5	1403	C	C2-N3-C4	-7.74	116.03	119.90
37	7	40	C	N3-C4-C5	7.74	125.00	121.90
36	1	269	G	N1-C6-O6	-7.74	115.25	119.90
36	1	342	A	C6-N1-C2	7.74	123.24	118.60
36	1	942	U	C2-N1-C1'	7.74	126.99	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1201	C	N3-C4-C5	7.74	125.00	121.90
36	1	3344	A	C4-C5-N7	7.74	114.57	110.70
36	1	3390	G	C6-C5-N7	-7.74	125.75	130.40
1	6	466	U	N1-C2-N3	7.74	119.55	114.90
1	6	998	A	C6-N1-C2	-7.74	113.96	118.60
1	6	1490	C	C6-N1-C2	-7.74	117.20	120.30
36	5	937	G	OP1-P-OP2	7.74	131.21	119.60
36	5	1172	G	C4-C5-C6	7.74	123.44	118.80
36	5	2674	A	N1-C6-N6	-7.74	113.96	118.60
36	5	2955	U	N1-C2-O2	-7.74	117.38	122.80
36	1	1917	C	C5-C6-N1	-7.74	117.13	121.00
36	1	2138	A	C6-C5-N7	-7.74	126.88	132.30
36	1	2387	A	C8-N9-C4	-7.74	102.70	105.80
36	5	707	U	N3-C2-O2	-7.74	116.78	122.20
36	5	919	U	O5'-P-OP1	7.74	119.99	110.70
1	2	1029	U	C2-N1-C1'	-7.74	108.42	117.70
36	1	2887	A	C5-N7-C8	-7.74	100.03	103.90
37	3	91	G	C6-C5-N7	-7.74	125.76	130.40
36	1	358	G	C5-N7-C8	-7.74	100.43	104.30
36	1	2633	U	O5'-P-OP2	7.74	119.98	110.70
1	2	1596	C	C2-N1-C1'	7.73	127.31	118.80
36	1	1475	A	C8-N9-C4	7.73	108.89	105.80
36	5	2984	C	C2-N3-C4	-7.73	116.03	119.90
36	1	2119	A	N1-C6-N6	7.73	123.24	118.60
36	1	3109	G	C2-N3-C4	7.73	115.77	111.90
1	6	47	A	O5'-P-OP1	-7.73	98.74	105.70
36	5	2644	C	C4-C5-C6	7.73	121.27	117.40
36	1	1401	A	C6-N1-C2	-7.73	113.96	118.60
36	5	899	U	C5-C6-N1	-7.73	118.84	122.70
36	1	1207	G	C4-C5-N7	7.73	113.89	110.80
1	6	1169	G	N3-C4-C5	-7.73	124.74	128.60
36	5	1473	G	N3-C2-N2	7.73	125.31	119.90
36	1	792	G	N3-C4-N9	-7.73	121.36	126.00
36	1	1180	A	N3-C4-N9	-7.72	121.22	127.40
36	1	2322	C	C6-N1-C2	-7.72	117.21	120.30
1	6	576	G	C6-C5-N7	-7.72	125.77	130.40
36	5	668	G	N1-C6-O6	-7.72	115.27	119.90
36	5	2937	G	C8-N9-C4	7.72	109.49	106.40
36	1	909	G	C5-N7-C8	-7.72	100.44	104.30
36	5	2885	C	O5'-P-OP2	-7.72	98.75	105.70
1	2	414	C	N3-C4-N4	7.72	123.41	118.00
36	1	718	G	C5-C6-O6	-7.72	123.97	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	20	U	O5'-P-OP1	7.72	119.97	110.70
36	5	2988	C	C2-N1-C1'	7.72	127.29	118.80
36	1	1323	G	O5'-P-OP1	7.72	119.96	110.70
36	1	1422	G	C6-C5-N7	-7.72	125.77	130.40
38	4	85	G	N3-C4-C5	-7.72	124.74	128.60
1	6	998	A	N9-C4-C5	7.72	108.89	105.80
36	5	788	C	C4-C5-C6	7.72	121.26	117.40
36	5	2934	A	C6-C5-N7	-7.72	126.90	132.30
36	5	267	G	N1-C6-O6	-7.72	115.27	119.90
1	2	353	A	C4-C5-C6	7.72	120.86	117.00
1	2	468	A	C8-N9-C4	7.72	108.89	105.80
36	1	3361	G	N1-C6-O6	-7.72	115.27	119.90
1	6	1645	G	N3-C4-C5	-7.72	124.74	128.60
36	5	923	C	N3-C4-C5	7.72	124.99	121.90
36	5	1139	G	C4-N9-C1'	-7.72	116.47	126.50
36	5	2295	A	C8-N9-C4	-7.72	102.71	105.80
36	5	3256	G	N1-C6-O6	7.72	124.53	119.90
36	1	2919	A	C6-N1-C2	7.71	123.23	118.60
36	1	3244	A	OP2-P-O3'	7.71	122.17	105.20
1	6	1421	A	C8-N9-C4	7.71	108.89	105.80
37	7	97	A	C5-C6-N6	-7.71	117.53	123.70
36	1	192	C	C6-N1-C2	-7.71	117.22	120.30
36	1	277	G	N9-C4-C5	7.71	108.48	105.40
36	1	3136	G	C8-N9-C4	-7.71	103.31	106.40
37	7	80	G	N7-C8-N9	-7.71	109.24	113.10
1	2	1555	A	N9-C4-C5	7.71	108.89	105.80
36	1	324	A	O5'-P-OP1	-7.71	98.76	105.70
36	1	2633	U	O5'-P-OP1	-7.71	98.76	105.70
36	5	895	A	C2-N3-C4	-7.71	106.74	110.60
36	5	1085	A	N1-C6-N6	7.71	123.23	118.60
36	5	1406	A	N1-C2-N3	7.71	133.16	129.30
36	5	2919	A	C2-N3-C4	-7.71	106.74	110.60
36	5	3374	U	N3-C4-C5	7.71	119.23	114.60
36	1	1498	A	C6-N1-C2	-7.71	113.97	118.60
36	1	2250	G	O5'-P-OP1	-7.71	98.76	105.70
36	5	324	A	O4'-C1'-N9	-7.71	102.03	108.20
36	5	1211	U	N3-C2-O2	7.71	127.60	122.20
36	5	1389	G	N3-C4-N9	7.71	130.62	126.00
36	5	1913	A	C5-C6-N6	-7.71	117.53	123.70
36	5	2678	A	C2-N3-C4	-7.71	106.75	110.60
36	1	797	U	C5-C6-N1	-7.71	118.85	122.70
36	1	1070	U	C6-N1-C2	-7.71	116.38	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1208	U	N3-C2-O2	-7.71	116.81	122.20
36	1	1422	G	C4-N9-C1'	7.71	136.52	126.50
36	5	591	G	C5-N7-C8	7.71	108.15	104.30
36	5	2584	G	N3-C4-C5	-7.71	124.75	128.60
36	1	887	G	C5-C6-N1	7.71	115.35	111.50
36	5	2287	C	C5-C4-N4	7.71	125.59	120.20
36	5	2690	G	N3-C4-C5	7.71	132.45	128.60
36	1	2298	U	O4'-C1'-N1	7.70	114.36	108.20
36	1	3042	U	C2-N1-C1'	-7.70	108.45	117.70
36	5	3383	G	N9-C4-C5	-7.70	102.32	105.40
1	2	1587	A	N7-C8-N9	7.70	117.65	113.80
36	1	971	G	C8-N9-C1'	-7.70	116.99	127.00
36	1	1115	G	C8-N9-C4	-7.70	103.32	106.40
36	1	1311	G	C5-N7-C8	7.70	108.15	104.30
36	1	1541	G	C6-C5-N7	-7.70	125.78	130.40
36	1	2814	G	N3-C4-C5	-7.70	124.75	128.60
1	2	1422	A	C8-N9-C4	7.70	108.88	105.80
36	1	2186	U	N3-C4-O4	-7.70	114.01	119.40
36	5	780	A	N1-C6-N6	-7.70	113.98	118.60
36	5	2925	C	N3-C2-O2	7.70	127.29	121.90
36	1	872	U	C4-C5-C6	7.70	124.32	119.70
36	1	2132	C	N3-C4-C5	-7.70	118.82	121.90
1	6	34	G	C8-N9-C4	7.70	109.48	106.40
1	6	48	G	C4-C5-N7	-7.70	107.72	110.80
1	6	630	A	N1-C6-N6	7.70	123.22	118.60
1	6	1124	A	C2-N3-C4	-7.70	106.75	110.60
36	5	2935	U	C2-N3-C4	7.70	131.62	127.00
36	5	3343	G	C6-C5-N7	-7.70	125.78	130.40
36	1	1137	C	N3-C4-C5	-7.70	118.82	121.90
36	5	1370	G	N9-C4-C5	7.70	108.48	105.40
36	5	2847	A	C6-C5-N7	-7.70	126.91	132.30
36	5	3309	G	N9-C4-C5	-7.70	102.32	105.40
1	2	386	G	N1-C6-O6	-7.70	115.28	119.90
1	2	1591	C	N3-C4-N4	-7.70	112.61	118.00
36	1	499	G	N3-C2-N2	-7.70	114.51	119.90
1	6	1112	G	C6-C5-N7	7.70	135.02	130.40
36	5	211	A	C8-N9-C4	7.70	108.88	105.80
37	3	17	A	C8-N9-C4	-7.69	102.72	105.80
1	6	1580	C	C6-N1-C2	7.69	123.38	120.30
38	8	35	C	N3-C2-O2	-7.69	116.51	121.90
36	1	872	U	C6-N1-C2	-7.69	116.39	121.00
36	5	2303	A	C2-N3-C4	-7.69	106.75	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2602	G	C5-C6-N1	-7.69	107.65	111.50
36	5	2925	C	N1-C2-O2	-7.69	114.28	118.90
36	5	2932	U	N3-C4-C5	7.69	119.22	114.60
36	5	3309	G	N1-C2-N2	-7.69	109.28	116.20
36	1	370	U	C5-C4-O4	-7.69	121.29	125.90
36	1	1057	A	C6-N1-C2	7.69	123.21	118.60
36	1	1323	G	N3-C4-N9	7.69	130.61	126.00
36	1	1369	A	C2-N3-C4	-7.69	106.75	110.60
36	1	1434	G	C8-N9-C4	-7.69	103.32	106.40
36	1	2335	G	N1-C6-O6	-7.69	115.29	119.90
36	1	2896	A	C4-C5-C6	7.69	120.84	117.00
36	1	3180	A	N9-C4-C5	7.69	108.88	105.80
1	6	457	G	N9-C4-C5	-7.69	102.32	105.40
36	5	2131	A	C8-N9-C4	7.69	108.88	105.80
36	5	2617	U	C5-C6-N1	7.69	126.55	122.70
36	5	2735	U	O5'-P-OP2	-7.69	98.78	105.70
36	1	2738	A	C6-N1-C2	-7.69	113.99	118.60
1	2	601	A	N1-C6-N6	7.69	123.21	118.60
36	1	796	U	N1-C2-N3	-7.69	110.29	114.90
36	1	2911	A	C8-N9-C4	7.69	108.88	105.80
1	6	402	C	N3-C4-N4	7.69	123.38	118.00
1	6	1270	G	N1-C6-O6	7.69	124.51	119.90
36	5	610	G	C8-N9-C4	-7.69	103.33	106.40
36	5	2821	C	C6-N1-C1'	-7.69	111.58	120.80
36	5	3067	C	C2-N1-C1'	-7.69	110.34	118.80
36	5	3147	G	C8-N9-C4	7.69	109.47	106.40
1	6	609	U	N1-C2-N3	7.68	119.51	114.90
36	5	640	U	C5-C6-N1	7.68	126.54	122.70
36	5	1116	G	C4-C5-C6	7.68	123.41	118.80
36	5	1441	G	O5'-P-OP2	7.68	119.92	110.70
36	5	2683	U	C4-C5-C6	-7.68	115.09	119.70
36	5	3214	U	N3-C4-O4	-7.68	114.02	119.40
36	1	744	A	N3-C4-C5	7.68	132.18	126.80
36	1	1373	A	OP2-P-O3'	7.68	122.10	105.20
36	1	1782	U	C5-C4-O4	7.68	130.51	125.90
36	5	867	G	O5'-P-OP1	-7.68	98.79	105.70
36	5	3343	G	N3-C4-N9	7.68	130.61	126.00
1	2	1006	C	C2-N1-C1'	7.68	127.25	118.80
36	1	93	C	C2-N3-C4	7.68	123.74	119.90
5	s3	198	GLY	N-CA-C	-7.68	93.90	113.10
36	5	1148	G	N1-C2-N2	-7.68	109.29	116.20
36	1	1316	C	N1-C2-N3	7.68	124.58	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2284	C	C2-N1-C1'	7.68	127.25	118.80
1	6	639	U	O5'-P-OP2	-7.68	98.79	105.70
1	6	1753	A	C4-C5-C6	7.68	120.84	117.00
36	5	425	G	N3-C4-N9	-7.68	121.39	126.00
36	5	1429	G	N3-C4-C5	-7.68	124.76	128.60
36	5	2234	G	N9-C4-C5	-7.68	102.33	105.40
36	5	2816	G	C8-N9-C1'	7.68	136.98	127.00
36	1	2813	A	N1-C2-N3	7.68	133.14	129.30
36	5	2412	G	N7-C8-N9	7.68	116.94	113.10
1	2	1179	G	N1-C6-O6	-7.68	115.29	119.90
1	6	96	G	N7-C8-N9	7.68	116.94	113.10
36	5	1165	A	C6-C5-N7	-7.68	126.93	132.30
36	5	1905	G	C6-C5-N7	7.68	135.01	130.40
36	5	2193	U	C6-N1-C1'	-7.68	110.45	121.20
36	5	2387	A	N1-C2-N3	7.68	133.14	129.30
36	1	2649	A	N1-C6-N6	7.67	123.20	118.60
36	5	2197	C	N1-C2-N3	-7.67	113.83	119.20
36	5	3093	C	N1-C2-O2	-7.67	114.30	118.90
36	1	585	A	N1-C6-N6	-7.67	114.00	118.60
36	1	2849	C	N1-C2-O2	-7.67	114.30	118.90
1	6	1355	C	C6-N1-C2	-7.67	117.23	120.30
1	6	1704	U	C2-N1-C1'	7.67	126.91	117.70
36	5	1127	G	N9-C4-C5	7.67	108.47	105.40
36	5	2813	A	C6-C5-N7	-7.67	126.93	132.30
36	1	80	G	C6-N1-C2	-7.67	120.50	125.10
36	1	1495	U	C6-N1-C1'	7.67	131.94	121.20
36	1	1783	U	N3-C2-O2	-7.67	116.83	122.20
36	5	1056	U	N3-C4-O4	-7.67	114.03	119.40
36	5	1900	A	C6-N1-C2	-7.67	114.00	118.60
36	5	2403	G	C4-C5-N7	7.67	113.87	110.80
52	m6	27	LEU	CA-CB-CG	-7.67	97.66	115.30
36	1	914	A	C5-C6-N1	7.67	121.53	117.70
36	1	953	G	N1-C6-O6	-7.67	115.30	119.90
36	1	2368	A	C4-C5-N7	7.67	114.53	110.70
36	5	647	A	OP1-P-O3'	7.67	122.07	105.20
36	5	1007	U	C6-N1-C2	7.67	125.60	121.00
36	5	1044	U	C6-N1-C2	-7.67	116.40	121.00
36	5	1518	U	N3-C4-O4	7.67	124.77	119.40
36	1	386	A	N1-C6-N6	7.66	123.20	118.60
36	5	345	G	C4-C5-C6	7.66	123.40	118.80
36	5	3377	G	C4-C5-N7	7.66	113.87	110.80
1	2	1753	A	N1-C6-N6	7.66	123.20	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	91	G	N3-C4-C5	-7.66	124.77	128.60
1	6	1643	U	C5-C6-N1	-7.66	118.87	122.70
36	5	3067	C	N3-C4-N4	-7.66	112.64	118.00
36	1	1525	G	C8-N9-C1'	-7.66	117.04	127.00
1	6	876	G	N1-C2-N2	7.66	123.09	116.20
36	5	1163	A	N1-C6-N6	-7.66	114.00	118.60
36	5	1794	G	C4-N9-C1'	-7.66	116.54	126.50
36	1	76	G	N1-C6-O6	7.66	124.50	119.90
36	1	3055	U	N3-C4-O4	7.66	124.76	119.40
1	6	339	C	N1-C2-O2	-7.66	114.31	118.90
1	6	1372	U	N3-C2-O2	-7.66	116.84	122.20
36	1	404	G	O5'-P-OP2	-7.66	98.81	105.70
36	1	2937	G	C8-N9-C4	7.66	109.46	106.40
36	5	1496	C	C6-N1-C2	-7.66	117.24	120.30
36	5	2212	C	O5'-P-OP2	-7.66	98.81	105.70
36	5	3203	U	C5-C6-N1	-7.66	118.87	122.70
1	2	377	G	C8-N9-C1'	7.66	136.95	127.00
36	1	914	A	C2-N3-C4	7.66	114.43	110.60
36	1	917	A	C6-C5-N7	7.66	137.66	132.30
36	1	1926	C	N3-C4-C5	-7.66	118.84	121.90
1	6	1525	A	C6-N1-C2	-7.66	114.01	118.60
1	6	1768	G	C8-N9-C4	-7.66	103.34	106.40
36	5	3004	C	N3-C4-N4	7.66	123.36	118.00
24	D2	104	LEU	CA-CB-CG	7.65	132.91	115.30
36	5	36	C	C6-N1-C2	-7.65	117.24	120.30
36	5	1164	G	C6-C5-N7	7.65	134.99	130.40
36	5	3271	G	C4-N9-C1'	7.65	136.45	126.50
1	2	1789	G	C8-N9-C1'	-7.65	117.05	127.00
36	1	345	G	N3-C4-C5	-7.65	124.77	128.60
36	5	371	G	C4-C5-C6	-7.65	114.21	118.80
36	5	396	A	N1-C2-N3	7.65	133.13	129.30
36	5	2614	G	N9-C4-C5	-7.65	102.34	105.40
1	2	1438	G	N3-C4-C5	7.65	132.43	128.60
36	1	1880	U	O5'-P-OP2	-7.65	98.81	105.70
36	5	1049	C	C6-N1-C2	-7.65	117.24	120.30
36	5	2969	A	N1-C2-N3	7.65	133.12	129.30
36	1	639	G	N3-C4-N9	-7.65	121.41	126.00
36	1	1872	C	N1-C2-O2	-7.65	114.31	118.90
36	5	1399	A	C2-N3-C4	-7.65	106.78	110.60
36	1	38	U	N1-C2-N3	-7.65	110.31	114.90
36	1	752	C	N3-C2-O2	-7.65	116.55	121.90
36	1	866	A	N1-C2-N3	7.65	133.12	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2872	A	N1-C2-N3	-7.65	125.48	129.30
36	5	2966	G	C5-C6-N1	-7.65	107.68	111.50
1	6	1117	U	N1-C2-O2	-7.64	117.45	122.80
36	5	2120	A	C2-N3-C4	-7.64	106.78	110.60
36	5	2191	U	C6-N1-C2	-7.64	116.41	121.00
36	5	868	C	N3-C4-N4	7.64	123.35	118.00
36	5	2391	G	C6-C5-N7	7.64	134.99	130.40
36	5	2673	A	N1-C2-N3	7.64	133.12	129.30
1	2	597	G	C6-C5-N7	-7.64	125.81	130.40
36	5	404	G	C4-N9-C1'	7.64	136.43	126.50
36	1	649	A	C5-C6-N6	7.64	129.81	123.70
36	1	650	C	C5-C4-N4	-7.64	114.85	120.20
36	1	1113	G	N3-C4-C5	7.64	132.42	128.60
36	1	3261	C	O5'-P-OP1	7.64	119.87	110.70
1	6	1740	A	N1-C2-N3	7.64	133.12	129.30
36	5	978	G	N3-C2-N2	-7.64	114.55	119.90
36	5	1175	C	N1-C2-N3	7.64	124.55	119.20
36	5	2851	A	N1-C2-N3	7.64	133.12	129.30
36	5	2924	U	C6-N1-C1'	-7.64	110.50	121.20
36	1	2351	U	C6-N1-C2	-7.64	116.42	121.00
36	1	212	G	N3-C4-C5	-7.64	124.78	128.60
36	5	677	A	C5-C6-N6	-7.64	117.59	123.70
36	5	976	U	C6-N1-C2	-7.64	116.42	121.00
36	5	1323	G	N7-C8-N9	7.64	116.92	113.10
1	2	394	C	N1-C2-O2	7.63	123.48	118.90
36	1	1444	G	C8-N9-C4	-7.63	103.35	106.40
1	6	35	U	N3-C2-O2	-7.63	116.86	122.20
36	5	3092	C	N3-C4-C5	7.63	124.95	121.90
36	1	637	C	N1-C2-O2	7.63	123.48	118.90
36	1	2385	G	C6-C5-N7	-7.63	125.82	130.40
36	1	2756	C	N1-C2-N3	7.63	124.54	119.20
36	5	366	A	OP1-P-OP2	-7.63	108.15	119.60
36	5	3044	G	OP2-P-O3'	7.63	121.99	105.20
36	1	1419	A	C6-N1-C2	-7.63	114.02	118.60
36	1	3323	A	N1-C2-N3	7.63	133.12	129.30
36	5	2352	A	N1-C2-N3	7.63	133.12	129.30
36	5	3076	C	N1-C2-O2	-7.63	114.32	118.90
1	2	382	C	C6-N1-C2	-7.63	117.25	120.30
36	1	424	G	OP1-P-O3'	7.63	121.98	105.20
36	1	1880	U	N3-C2-O2	-7.63	116.86	122.20
36	1	2229	A	N1-C6-N6	7.63	123.18	118.60
36	1	2329	C	N3-C4-C5	-7.63	118.85	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	947	G	N1-C6-O6	7.63	124.48	119.90
36	5	1903	U	O5'-P-OP2	7.63	119.85	110.70
36	5	3314	A	C6-N1-C2	-7.63	114.02	118.60
36	1	358	G	C6-C5-N7	-7.63	125.82	130.40
36	1	688	G	C6-C5-N7	-7.63	125.82	130.40
36	5	646	A	C2-N3-C4	-7.63	106.79	110.60
36	5	2524	A	O4'-C1'-N9	7.63	114.30	108.20
36	5	2854	U	C4-C5-C6	7.63	124.28	119.70
36	5	3148	U	C5-C4-O4	7.63	130.48	125.90
36	1	2418	G	OP1-P-O3'	7.62	121.97	105.20
36	5	2607	G	C6-C5-N7	-7.62	125.83	130.40
36	1	627	U	N1-C2-O2	-7.62	117.46	122.80
36	1	2213	A	OP1-P-OP2	7.62	131.03	119.60
36	5	883	A	C5-C6-N1	7.62	121.51	117.70
36	5	2297	U	C5-C6-N1	7.62	126.51	122.70
1	2	403	G	C8-N9-C4	-7.62	103.35	106.40
36	1	80	G	N3-C4-C5	-7.62	124.79	128.60
1	6	577	G	N7-C8-N9	7.62	116.91	113.10
36	5	2332	A	C2-N3-C4	7.62	114.41	110.60
36	5	2932	U	N1-C2-N3	7.62	119.47	114.90
36	5	3322	A	C4-C5-C6	7.62	120.81	117.00
36	1	209	A	C5-C6-N6	7.62	129.80	123.70
36	5	1901	A	C4-C5-C6	-7.62	113.19	117.00
1	2	438	A	N1-C6-N6	-7.62	114.03	118.60
36	1	2317	A	O5'-P-OP2	-7.62	98.84	105.70
36	1	3054	U	C4-C5-C6	7.62	124.27	119.70
1	6	402	C	C5-C6-N1	-7.62	117.19	121.00
36	5	666	A	C4-C5-N7	-7.62	106.89	110.70
36	5	709	A	N1-C6-N6	7.62	123.17	118.60
36	5	1310	G	N7-C8-N9	7.62	116.91	113.10
36	1	1434	G	C5-N7-C8	-7.62	100.49	104.30
36	1	1792	C	C6-N1-C2	-7.62	117.25	120.30
36	1	2257	C	C6-N1-C1'	-7.62	111.66	120.80
36	5	1434	G	C4-C5-N7	7.62	113.85	110.80
36	1	709	A	C5-C6-N6	-7.62	117.61	123.70
36	1	963	G	C5-N7-C8	-7.62	100.49	104.30
36	1	2827	U	C2-N1-C1'	-7.62	108.56	117.70
36	5	645	A	N3-C4-C5	-7.62	121.47	126.80
36	5	969	C	C5-C6-N1	-7.62	117.19	121.00
36	5	2322	C	N3-C4-C5	-7.62	118.85	121.90
36	5	2621	G	C6-C5-N7	-7.62	125.83	130.40
36	5	2691	A	C5-C6-N1	7.62	121.51	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2358	A	N3-C4-N9	-7.61	121.31	127.40
1	2	1148	C	N3-C2-O2	-7.61	116.57	121.90
36	1	790	U	N3-C4-C5	-7.61	110.03	114.60
36	1	408	A	N9-C4-C5	7.61	108.84	105.80
36	1	2603	G	C6-C5-N7	-7.61	125.83	130.40
36	1	2856	G	C5-C6-N1	-7.61	107.69	111.50
36	5	2727	A	C4-C5-N7	-7.61	106.89	110.70
36	5	2897	A	N3-C4-N9	7.61	133.49	127.40
1	6	1777	G	C4-N9-C1'	7.61	136.39	126.50
36	5	1062	A	C2-N3-C4	-7.61	106.80	110.60
36	1	651	G	C8-N9-C4	7.61	109.44	106.40
36	1	1344	G	O5'-P-OP2	-7.61	98.85	105.70
36	1	2329	C	O5'-P-OP1	7.61	119.83	110.70
38	4	51	G	C5-C6-O6	7.61	133.16	128.60
38	4	86	U	C2-N1-C1'	7.61	126.83	117.70
36	5	64	G	C5-C6-N1	-7.61	107.70	111.50
36	5	1195	A	C8-N9-C4	-7.61	102.76	105.80
36	5	1495	U	C2-N1-C1'	7.61	126.83	117.70
36	5	2262	A	N9-C4-C5	-7.61	102.76	105.80
36	5	3327	G	C5-C6-N1	-7.61	107.70	111.50
1	2	1541	G	N1-C6-O6	7.61	124.46	119.90
36	1	612	U	C2-N3-C4	-7.61	122.44	127.00
36	1	2332	A	N9-C4-C5	-7.61	102.76	105.80
36	1	3150	A	N1-C6-N6	7.61	123.16	118.60
1	6	100	A	C2-N3-C4	-7.61	106.80	110.60
36	1	654	C	O5'-P-OP2	-7.60	98.86	105.70
36	5	957	C	N3-C4-N4	7.60	123.32	118.00
36	5	1429	G	N3-C4-N9	7.60	130.56	126.00
36	5	2934	A	C5-N7-C8	-7.60	100.10	103.90
1	2	1462	G	C8-N9-C4	7.60	109.44	106.40
36	1	2306	C	C6-N1-C2	-7.60	117.26	120.30
36	5	512	U	N3-C4-O4	-7.60	114.08	119.40
36	5	973	A	C4-C5-N7	7.60	114.50	110.70
36	5	2938	G	C5-C6-O6	-7.60	124.04	128.60
37	7	50	U	N3-C2-O2	-7.60	116.88	122.20
1	2	1756	A	N1-C6-N6	7.60	123.16	118.60
36	1	3260	G	C5-C6-N1	-7.60	107.70	111.50
1	6	999	U	N3-C4-C5	7.60	119.16	114.60
36	5	2397	A	C4-C5-N7	7.60	114.50	110.70
36	1	240	U	C6-N1-C2	-7.60	116.44	121.00
36	1	1144	U	N1-C2-O2	-7.60	117.48	122.80
36	1	1411	C	N1-C2-O2	7.60	123.46	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	585	A	N1-C6-N6	7.60	123.16	118.60
1	6	595	G	O5'-P-OP1	-7.60	98.86	105.70
1	6	1235	C	C6-N1-C2	-7.60	117.26	120.30
36	5	1253	U	N3-C2-O2	-7.60	116.88	122.20
36	5	1500	G	N9-C4-C5	-7.60	102.36	105.40
36	5	1884	A	O5'-P-OP1	-7.60	98.86	105.70
37	7	85	G	N3-C2-N2	-7.60	114.58	119.90
36	1	798	G	C8-N9-C4	-7.60	103.36	106.40
36	1	2631	U	C5-C6-N1	-7.60	118.90	122.70
1	6	26	A	C6-N1-C2	-7.60	114.04	118.60
1	6	1542	G	N3-C4-C5	-7.60	124.80	128.60
36	5	1213	G	O5'-P-OP2	-7.60	98.86	105.70
36	5	2129	U	C5-C6-N1	7.60	126.50	122.70
36	5	2808	A	OP1-P-O3'	7.60	121.91	105.20
36	5	3144	G	C4-N9-C1'	7.60	136.38	126.50
36	1	1828	A	N1-C6-N6	7.60	123.16	118.60
36	1	3248	C	N1-C2-O2	-7.60	114.34	118.90
1	6	316	A	C4-C5-N7	7.60	114.50	110.70
36	5	1461	A	N7-C8-N9	-7.60	110.00	113.80
36	1	2659	G	C5-C6-O6	-7.59	124.04	128.60
36	5	564	G	O5'-P-OP1	-7.59	98.86	105.70
36	5	2847	A	C5-C6-N1	-7.59	113.90	117.70
38	8	30	C	O5'-P-OP2	-7.59	98.86	105.70
36	1	2635	A	N7-C8-N9	7.59	117.60	113.80
36	5	437	G	C4-C5-C6	7.59	123.36	118.80
36	5	3032	A	C5-C6-N6	7.59	129.78	123.70
1	2	378	A	C2-N3-C4	-7.59	106.81	110.60
36	1	2826	U	C5-C4-O4	7.59	130.45	125.90
36	1	3000	A	O5'-P-OP2	-7.59	98.87	105.70
36	5	943	U	N1-C2-O2	-7.59	117.48	122.80
36	5	2619	G	N1-C2-N3	7.59	128.46	123.90
37	7	94	C	N3-C4-C5	7.59	124.94	121.90
1	2	1651	A	N3-C4-C5	7.59	132.11	126.80
36	1	281	G	C2-N3-C4	7.59	115.69	111.90
36	1	931	C	C5-C4-N4	-7.59	114.89	120.20
36	1	2814	G	C6-N1-C2	-7.59	120.55	125.10
36	5	1059	G	C5-C6-O6	7.59	133.15	128.60
36	5	1934	G	N7-C8-N9	-7.59	109.31	113.10
36	5	3208	G	N3-C4-N9	7.59	130.55	126.00
1	2	825	U	C5-C6-N1	7.59	126.49	122.70
36	1	1316	C	N3-C2-O2	-7.59	116.59	121.90
52	M6	141	LEU	CB-CG-CD2	-7.59	98.10	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	35	A	C5-N7-C8	7.59	107.69	103.90
36	5	62	A	N1-C6-N6	7.59	123.15	118.60
36	5	1379	G	C8-N9-C1'	-7.59	117.14	127.00
36	1	400	G	C8-N9-C1'	7.58	136.86	127.00
36	1	1924	U	N3-C4-O4	-7.58	114.09	119.40
36	1	3099	C	N1-C2-O2	-7.58	114.35	118.90
1	6	1634	C	C6-N1-C1'	-7.58	111.70	120.80
1	6	1777	G	C5-C6-O6	-7.58	124.05	128.60
36	5	2110	G	C6-N1-C2	-7.58	120.55	125.10
36	5	2118	C	N3-C2-O2	-7.58	116.59	121.90
36	5	2830	G	C5-C6-N1	-7.58	107.71	111.50
36	1	3206	C	N3-C4-N4	7.58	123.31	118.00
36	5	1211	U	N3-C4-C5	7.58	119.15	114.60
36	5	1455	U	O5'-P-OP2	7.58	119.80	110.70
36	5	3118	C	C6-N1-C2	-7.58	117.27	120.30
1	6	1668	G	O5'-P-OP2	-7.58	98.88	105.70
36	5	398	A	N7-C8-N9	-7.58	110.01	113.80
36	1	917	A	C5-N7-C8	7.58	107.69	103.90
36	1	2175	U	C6-N1-C2	-7.58	116.45	121.00
1	6	75	U	N1-C2-O2	7.58	128.10	122.80
36	1	1404	G	C8-N9-C4	7.58	109.43	106.40
36	1	1713	G	C8-N9-C4	7.58	109.43	106.40
1	6	322	G	N7-C8-N9	7.58	116.89	113.10
1	2	377	G	C4-N9-C1'	-7.58	116.65	126.50
36	1	632	G	C5-C6-N1	7.58	115.29	111.50
36	1	2353	G	C4-C5-C6	7.58	123.34	118.80
1	6	309	C	C6-N1-C2	7.58	123.33	120.30
36	5	899	U	C2-N3-C4	-7.58	122.45	127.00
36	5	3001	C	C6-N1-C2	7.58	123.33	120.30
36	5	3099	C	C2-N1-C1'	-7.58	110.47	118.80
36	1	1690	C	N3-C2-O2	-7.57	116.60	121.90
36	1	1937	U	C6-N1-C2	7.57	125.54	121.00
36	1	2654	C	C5-C4-N4	-7.57	114.90	120.20
36	1	3132	C	C5-C6-N1	-7.57	117.21	121.00
38	4	59	A	C8-N9-C4	-7.57	102.77	105.80
1	6	876	G	C4-N9-C1'	-7.57	116.65	126.50
36	5	921	A	N9-C4-C5	7.57	108.83	105.80
36	5	1381	A	N1-C2-N3	7.57	133.09	129.30
36	5	1486	G	O5'-P-OP1	-7.57	98.88	105.70
36	5	3029	A	N3-C4-N9	-7.57	121.34	127.40
36	5	423	A	O5'-P-OP2	7.57	119.79	110.70
1	2	696	C	C6-N1-C2	-7.57	117.27	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1462	G	C4-N9-C1'	-7.57	116.66	126.50
7	s5	165	LEU	CA-CB-CG	-7.57	97.89	115.30
36	5	884	A	N3-C4-N9	7.57	133.46	127.40
37	7	75	G	C8-N9-C4	7.57	109.43	106.40
37	7	105	C	C2-N1-C1'	7.57	127.13	118.80
36	1	3276	G	C5-N7-C8	-7.57	100.52	104.30
36	5	1885	U	N3-C4-C5	-7.57	110.06	114.60
36	1	1417	G	C5-C6-O6	-7.57	124.06	128.60
36	1	1505	C	C6-N1-C2	7.57	123.33	120.30
36	1	2839	G	C8-N9-C4	-7.57	103.37	106.40
1	6	1777	G	N3-C4-N9	7.57	130.54	126.00
36	5	1335	C	C6-N1-C2	-7.57	117.27	120.30
36	5	1379	G	C4-N9-C1'	7.57	136.34	126.50
36	5	2134	G	N3-C4-C5	-7.57	124.82	128.60
36	5	3172	A	C5-C6-N6	-7.57	117.65	123.70
36	5	3288	G	O4'-C1'-N9	7.57	114.25	108.20
36	1	770	G	C8-N9-C4	-7.57	103.37	106.40
36	1	1112	A	N1-C6-N6	-7.57	114.06	118.60
36	1	2801	A	C5-C6-N6	-7.57	117.65	123.70
36	5	3124	G	C5-N7-C8	-7.57	100.52	104.30
36	5	3174	A	N7-C8-N9	7.57	117.58	113.80
36	1	1156	C	C5-C6-N1	-7.56	117.22	121.00
36	5	2193	U	C2-N1-C1'	7.56	126.78	117.70
37	7	92	A	N9-C4-C5	-7.56	102.77	105.80
1	2	332	U	C5-C6-N1	-7.56	118.92	122.70
36	1	593	C	C6-N1-C2	-7.56	117.28	120.30
38	4	14	C	O5'-P-OP2	-7.56	98.89	105.70
1	6	876	G	N3-C4-N9	-7.56	121.46	126.00
36	5	652	G	N3-C4-N9	7.56	130.54	126.00
36	5	787	G	O5'-P-OP1	-7.56	98.89	105.70
36	5	3323	A	N9-C4-C5	7.56	108.83	105.80
36	1	2312	A	C2-N3-C4	7.56	114.38	110.60
37	7	14	U	C6-N1-C2	7.56	125.54	121.00
36	1	1194	G	C5-C6-N1	7.56	115.28	111.50
36	1	1360	C	C6-N1-C2	7.56	123.32	120.30
36	1	2150	G	N1-C6-O6	7.56	124.44	119.90
36	1	2609	A	N1-C2-N3	7.56	133.08	129.30
36	5	66	A	N7-C8-N9	-7.56	110.02	113.80
36	5	720	A	N1-C6-N6	-7.56	114.06	118.60
36	5	1059	G	N1-C6-O6	-7.56	115.36	119.90
37	7	68	C	N3-C2-O2	-7.56	116.61	121.90
1	2	967	A	C5-C6-N6	-7.56	117.66	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	608	A	C4-C5-N7	7.56	114.48	110.70
36	1	2426	U	C5-C4-O4	7.56	130.44	125.90
36	5	400	G	C5-N7-C8	-7.56	100.52	104.30
36	5	2168	A	C4-C5-N7	7.56	114.48	110.70
36	5	2932	U	C5-C4-O4	7.56	130.43	125.90
38	8	12	A	N1-C6-N6	7.56	123.14	118.60
36	1	668	G	N1-C6-O6	-7.56	115.37	119.90
36	1	2813	A	C5-C6-N6	7.56	129.75	123.70
36	1	1376	C	C4-C5-C6	7.55	121.18	117.40
36	5	300	G	C5-C6-O6	7.55	133.13	128.60
36	5	320	G	OP1-P-O3'	7.55	121.82	105.20
36	1	1419	A	N3-C4-C5	-7.55	121.51	126.80
36	1	2906	C	C2-N3-C4	-7.55	116.12	119.90
36	5	692	A	N1-C6-N6	7.55	123.13	118.60
36	1	2856	G	N1-C6-O6	7.55	124.43	119.90
36	1	3085	G	N9-C4-C5	-7.55	102.38	105.40
1	6	797	G	C6-C5-N7	7.55	134.93	130.40
1	6	815	G	C4-C5-N7	7.55	113.82	110.80
1	6	1560	U	N3-C2-O2	-7.55	116.92	122.20
36	5	577	C	C2-N3-C4	-7.55	116.12	119.90
36	5	1316	C	C2-N3-C4	-7.55	116.12	119.90
36	5	1496	C	C2-N1-C1'	7.55	127.11	118.80
36	5	2624	G	C6-C5-N7	-7.55	125.87	130.40
36	5	2870	C	C2-N3-C4	-7.55	116.12	119.90
36	5	2886	U	N3-C2-O2	-7.55	116.91	122.20
37	7	93	C	N1-C2-N3	7.55	124.49	119.20
36	1	67	A	N7-C8-N9	-7.55	110.03	113.80
36	5	263	C	C6-N1-C2	7.55	123.32	120.30
36	5	400	G	N3-C4-C5	7.55	132.38	128.60
36	5	424	G	OP2-P-O3'	7.55	121.81	105.20
36	5	986	U	N1-C2-O2	7.55	128.09	122.80
36	5	1010	G	C6-C5-N7	-7.55	125.87	130.40
1	2	103	A	C5-C6-N6	-7.55	117.66	123.70
36	5	2130	G	O5'-P-OP2	-7.55	98.91	105.70
36	5	2675	C	O5'-P-OP1	-7.55	98.91	105.70
1	6	1007	C	C6-N1-C2	7.55	123.32	120.30
36	5	1632	A	C5-N7-C8	7.55	107.67	103.90
1	6	943	C	N3-C4-C5	7.54	124.92	121.90
1	6	1572	G	N3-C4-C5	7.54	132.37	128.60
36	5	1453	A	C8-N9-C4	7.54	108.82	105.80
36	5	2108	C	C4-C5-C6	7.54	121.17	117.40
37	7	29	C	N1-C2-O2	-7.54	114.37	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2647	A	C6-C5-N7	-7.54	127.02	132.30
36	1	3085	G	C8-N9-C4	7.54	109.42	106.40
36	5	591	G	C8-N9-C1'	-7.54	117.19	127.00
36	5	2121	G	C8-N9-C4	-7.54	103.38	106.40
36	5	2991	A	N9-C4-C5	7.54	108.82	105.80
38	8	33	A	O5'-P-OP2	7.54	119.75	110.70
36	1	345	G	C5-C6-N1	-7.54	107.73	111.50
1	6	358	U	N3-C2-O2	-7.54	116.92	122.20
36	5	89	A	N1-C2-N3	7.54	133.07	129.30
36	5	131	C	N1-C2-O2	7.54	123.42	118.90
36	5	2357	A	C6-N1-C2	-7.54	114.08	118.60
1	6	1484	G	C8-N9-C4	-7.54	103.38	106.40
36	5	2388	U	C5-C6-N1	-7.54	118.93	122.70
1	2	1632	C	N3-C2-O2	7.54	127.18	121.90
36	1	1501	U	N3-C4-O4	7.54	124.68	119.40
36	1	2400	G	C5-N7-C8	-7.54	100.53	104.30
36	1	2701	U	N3-C4-C5	-7.54	110.08	114.60
36	1	3272	C	N1-C2-O2	-7.54	114.38	118.90
36	5	12	A	O5'-P-OP1	-7.54	98.92	105.70
36	5	431	U	N1-C2-N3	7.54	119.42	114.90
36	5	1351	U	C6-N1-C2	-7.54	116.48	121.00
36	5	1673	G	C5-C6-O6	-7.54	124.08	128.60
36	5	1904	C	C6-N1-C2	7.54	123.32	120.30
36	5	2160	G	C5-C6-O6	-7.54	124.08	128.60
36	5	2874	G	C5-C6-O6	7.54	133.12	128.60
36	5	3012	A	C4-C5-N7	7.54	114.47	110.70
38	8	107	G	C4-C5-C6	7.54	123.32	118.80
36	1	653	A	O5'-P-OP2	-7.54	98.92	105.70
1	6	75	U	C2-N1-C1'	7.54	126.74	117.70
36	5	1306	G	C5-N7-C8	-7.54	100.53	104.30
36	5	1370	G	N1-C2-N3	7.54	128.42	123.90
36	5	1389	G	C6-C5-N7	-7.54	125.88	130.40
36	5	3343	G	N3-C4-C5	-7.54	124.83	128.60
1	2	771	A	C8-N9-C4	-7.53	102.79	105.80
36	1	721	G	C4-C5-N7	7.53	113.81	110.80
36	1	2877	G	N1-C2-N2	7.53	122.98	116.20
38	4	10	A	O5'-P-OP1	7.53	119.74	110.70
37	7	89	G	C8-N9-C1'	-7.53	117.21	127.00
36	1	1144	U	N3-C2-O2	7.53	127.47	122.20
36	5	817	A	O5'-P-OP2	7.53	119.74	110.70
36	5	1382	G	N1-C6-O6	7.53	124.42	119.90
36	5	1886	A	C5-C6-N6	7.53	129.73	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1200	G	C4-C5-C6	7.53	123.32	118.80
36	1	3018	C	OP2-P-O3'	7.53	121.77	105.20
1	6	1783	C	N1-C2-O2	-7.53	114.38	118.90
36	5	1918	C	N3-C4-C5	-7.53	118.89	121.90
36	1	968	G	N1-C2-N2	-7.53	109.42	116.20
36	1	2218	G	C8-N9-C4	7.53	109.41	106.40
36	1	3235	C	O5'-P-OP1	-7.53	98.92	105.70
36	5	330	G	N7-C8-N9	-7.53	109.33	113.10
1	2	424	C	C6-N1-C2	-7.53	117.29	120.30
1	2	1004	U	N3-C2-O2	-7.53	116.93	122.20
36	1	924	G	O4'-C1'-N9	-7.53	102.18	108.20
36	1	2994	A	C2-N3-C4	-7.53	106.84	110.60
1	6	1113	A	O5'-P-OP1	-7.53	98.92	105.70
1	6	1271	G	C8-N9-C1'	-7.53	117.21	127.00
36	5	321	C	N1-C2-O2	7.53	123.42	118.90
36	5	659	G	O5'-P-OP2	-7.53	98.92	105.70
36	5	3044	G	O5'-P-OP2	-7.53	98.92	105.70
36	1	87	U	C6-N1-C2	-7.53	116.48	121.00
36	1	1308	A	C5-C6-N1	-7.53	113.94	117.70
36	1	2843	U	C2-N1-C1'	7.53	126.73	117.70
38	4	38	U	C5-C6-N1	7.53	126.46	122.70
38	4	104	A	N9-C4-C5	7.53	108.81	105.80
36	5	787	G	N3-C2-N2	-7.53	114.63	119.90
36	5	2116	G	N3-C4-N9	-7.53	121.48	126.00
36	5	2689	A	C5-N7-C8	-7.53	100.14	103.90
36	5	3188	G	N3-C4-N9	7.53	130.51	126.00
36	1	2952	G	N3-C2-N2	-7.52	114.63	119.90
36	1	277	G	C5-C6-N1	7.52	115.26	111.50
36	1	2394	G	C5-C6-O6	7.52	133.11	128.60
36	1	2611	U	C6-N1-C2	-7.52	116.49	121.00
1	6	638	U	N1-C2-O2	-7.52	117.53	122.80
36	5	1395	G	OP2-P-O3'	7.52	121.75	105.20
36	5	3179	U	N3-C4-O4	7.52	124.67	119.40
37	7	101	G	N3-C2-N2	-7.52	114.63	119.90
36	5	61	A	C4-C5-N7	-7.52	106.94	110.70
36	5	1419	A	N1-C2-N3	7.52	133.06	129.30
36	1	1487	G	N3-C2-N2	-7.52	114.64	119.90
38	4	5	U	N3-C2-O2	7.52	127.46	122.20
36	5	214	G	N1-C2-N2	7.52	122.97	116.20
36	5	875	G	O5'-P-OP2	-7.52	98.93	105.70
36	5	1931	U	N3-C4-O4	-7.52	114.14	119.40
36	5	2661	G	N1-C2-N2	-7.52	109.43	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3037	U	C6-N1-C2	7.52	125.51	121.00
36	5	3129	A	C5-C6-N6	7.52	129.72	123.70
36	5	3296	A	C8-N9-C4	7.52	108.81	105.80
36	1	368	G	C2-N3-C4	-7.52	108.14	111.90
36	1	1120	A	C5-C6-N1	7.52	121.46	117.70
25	d3	54	LEU	CA-CB-CG	-7.52	98.01	115.30
36	5	734	C	N1-C2-O2	7.52	123.41	118.90
36	5	1159	A	N1-C2-N3	7.52	133.06	129.30
36	5	1551	C	C4-C5-C6	7.52	121.16	117.40
36	5	2151	C	C6-N1-C2	7.52	123.31	120.30
36	5	2919	A	C5-C6-N6	7.52	129.72	123.70
36	5	3061	G	C2-N3-C4	-7.52	108.14	111.90
1	6	1466	G	C5-C6-O6	-7.52	124.09	128.60
36	5	1166	G	O5'-P-OP2	-7.52	98.94	105.70
36	5	2244	A	C5-N7-C8	7.52	107.66	103.90
36	5	3049	A	N1-C6-N6	7.52	123.11	118.60
36	1	1170	A	N1-C2-N3	-7.51	125.54	129.30
36	1	1335	C	C6-N1-C2	-7.51	117.29	120.30
36	1	2199	G	C6-N1-C2	-7.51	120.59	125.10
36	1	2858	U	N3-C2-O2	-7.51	116.94	122.20
36	5	1891	A	C8-N9-C4	7.51	108.81	105.80
36	5	2130	G	N3-C2-N2	-7.51	114.64	119.90
36	5	2372	A	P-O3'-C3'	7.51	128.72	119.70
36	1	983	A	C5-C6-N1	-7.51	113.94	117.70
1	6	1108	G	N7-C8-N9	7.51	116.86	113.10
36	5	369	A	C8-N9-C4	-7.51	102.80	105.80
36	5	3079	U	C4-C5-C6	7.51	124.21	119.70
36	1	1482	A	C4-C5-N7	7.51	114.46	110.70
36	1	3031	G	C4-N9-C1'	-7.51	116.73	126.50
37	3	6	C	C5-C4-N4	-7.51	114.94	120.20
38	4	61	A	O5'-P-OP1	-7.51	98.94	105.70
1	6	600	U	C5-C4-O4	-7.51	121.39	125.90
36	5	115	A	C5-C6-N6	7.51	129.71	123.70
36	5	1523	U	C5-C6-N1	7.51	126.46	122.70
36	5	3029	A	N3-C4-C5	7.51	132.06	126.80
36	5	3308	C	C4-C5-C6	7.51	121.16	117.40
1	2	883	C	C5-C6-N1	7.51	124.75	121.00
36	1	293	C	C5-C6-N1	-7.51	117.25	121.00
36	1	611	A	O5'-P-OP2	-7.51	98.94	105.70
36	1	1381	A	C2-N3-C4	-7.51	106.84	110.60
36	1	2289	U	O5'-P-OP1	-7.51	98.94	105.70
36	1	3217	C	N3-C4-C5	-7.51	118.90	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	922	U	N3-C2-O2	7.51	127.46	122.20
36	5	2263	C	C5-C6-N1	7.51	124.75	121.00
36	5	2973	G	C5-C6-N1	-7.51	107.75	111.50
1	6	1323	C	O5'-P-OP1	-7.51	98.94	105.70
1	6	1525	A	N1-C6-N6	-7.51	114.09	118.60
36	5	110	G	N3-C4-N9	7.51	130.50	126.00
36	1	935	U	O5'-P-OP1	-7.51	98.94	105.70
36	1	1116	G	OP1-P-O3'	-7.51	88.69	105.20
36	1	2424	A	C5-C6-N1	-7.51	113.95	117.70
38	4	125	U	O4'-C1'-N1	7.51	114.21	108.20
1	6	1614	A	O4'-C1'-N9	7.51	114.20	108.20
36	5	56	G	C8-N9-C4	7.51	109.40	106.40
36	5	659	G	C8-N9-C4	-7.51	103.40	106.40
1	2	110	U	N1-C2-O2	-7.50	117.55	122.80
36	1	856	G	C4-C5-N7	-7.50	107.80	110.80
36	1	917	A	N9-C4-C5	7.50	108.80	105.80
1	6	1498	G	C4-N9-C1'	7.50	136.25	126.50
36	5	976	U	N3-C2-O2	-7.50	116.95	122.20
36	5	1892	G	N1-C2-N3	7.50	128.40	123.90
36	5	2839	G	N1-C6-O6	-7.50	115.40	119.90
37	7	88	G	N9-C4-C5	7.50	108.40	105.40
37	7	89	G	C4-C5-C6	7.50	123.30	118.80
1	2	1127	G	N1-C2-N3	7.50	128.40	123.90
1	2	1773	C	C5-C6-N1	7.50	124.75	121.00
36	1	335	G	C5-N7-C8	-7.50	100.55	104.30
36	1	1602	A	O5'-P-OP1	-7.50	98.95	105.70
36	1	2127	U	C5-C6-N1	7.50	126.45	122.70
36	1	2979	U	C5-C4-O4	7.50	130.40	125.90
36	1	2993	G	C8-N9-C1'	-7.50	117.25	127.00
1	6	917	U	C6-N1-C2	-7.50	116.50	121.00
36	5	895	A	N1-C2-N3	7.50	133.05	129.30
36	5	1310	G	N3-C4-C5	-7.50	124.85	128.60
1	2	632	U	N3-C2-O2	-7.50	116.95	122.20
36	1	2298	U	O5'-P-OP2	-7.50	98.95	105.70
1	6	1769	U	O5'-P-OP2	-7.50	98.95	105.70
36	1	614	C	C6-N1-C2	-7.50	117.30	120.30
36	1	2359	C	N1-C2-O2	-7.50	114.40	118.90
1	6	797	G	C5-C6-N1	7.50	115.25	111.50
1	6	1518	C	N3-C4-C5	7.50	124.90	121.90
36	5	659	G	N7-C8-N9	7.50	116.85	113.10
36	5	871	U	N1-C2-O2	7.50	128.05	122.80
36	5	1001	G	N1-C6-O6	-7.50	115.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1887	A	C6-N1-C2	-7.50	114.10	118.60
36	1	1053	A	O5'-P-OP2	-7.50	98.95	105.70
36	1	2824	G	C5-C6-N1	-7.50	107.75	111.50
1	6	98	U	C4-C5-C6	7.50	124.20	119.70
38	8	80	A	C2-N3-C4	7.50	114.35	110.60
36	5	1006	A	C6-N1-C2	-7.50	114.10	118.60
36	5	1330	A	N7-C8-N9	-7.50	110.05	113.80
36	1	2113	A	N1-C6-N6	-7.49	114.10	118.60
36	1	3390	G	C8-N9-C1'	-7.49	117.26	127.00
1	6	301	A	N9-C4-C5	7.49	108.80	105.80
1	6	1592	A	C8-N9-C4	-7.49	102.80	105.80
1	6	1796	C	C2-N1-C1'	7.49	127.04	118.80
36	5	35	A	N9-C4-C5	7.49	108.80	105.80
36	5	3393	U	N3-C4-O4	-7.49	114.16	119.40
1	2	1150	G	N9-C4-C5	7.49	108.40	105.40
1	2	1749	A	C2-N3-C4	-7.49	106.85	110.60
36	1	3151	U	C5-C4-O4	7.49	130.40	125.90
36	5	935	U	C5-C6-N1	7.49	126.45	122.70
36	5	2155	G	C4-C5-C6	7.49	123.30	118.80
36	1	376	G	C4-C5-N7	-7.49	107.80	110.80
36	1	892	U	O5'-P-OP2	-7.49	98.96	105.70
36	1	962	A	C4-C5-C6	7.49	120.75	117.00
37	3	75	G	C2-N3-C4	-7.49	108.15	111.90
36	5	264	G	N3-C4-N9	7.49	130.49	126.00
36	5	667	C	N3-C2-O2	-7.49	116.66	121.90
36	5	696	C	N3-C2-O2	-7.49	116.66	121.90
36	5	1115	G	N1-C2-N2	-7.49	109.46	116.20
36	5	1594	A	N1-C2-N3	7.49	133.05	129.30
36	1	2916	U	N1-C2-O2	7.49	128.04	122.80
1	6	139	C	N1-C2-N3	7.49	124.44	119.20
1	6	561	G	C8-N9-C4	-7.49	103.40	106.40
36	5	1451	C	C6-N1-C2	-7.49	117.31	120.30
36	5	2421	U	N1-C2-N3	7.49	119.39	114.90
36	5	2877	G	C4-N9-C1'	7.49	136.24	126.50
37	7	21	G	N3-C2-N2	-7.49	114.66	119.90
36	5	1170	A	N1-C2-N3	7.49	133.04	129.30
36	5	1482	A	C5-C6-N1	7.49	121.44	117.70
36	5	2910	A	N1-C2-N3	-7.49	125.56	129.30
36	1	1143	A	N1-C2-N3	7.49	133.04	129.30
36	1	1174	G	C4-N9-C1'	7.49	136.23	126.50
36	1	1307	G	C2'-C3'-O3'	7.49	125.97	109.50
36	1	2614	G	N1-C2-N3	7.49	128.39	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1165	A	C4-C5-C6	7.49	120.74	117.00
36	5	1435	A	N9-C4-C5	7.49	108.79	105.80
36	5	2375	G	C8-N9-C4	-7.49	103.41	106.40
36	5	3214	U	N1-C2-N3	7.49	119.39	114.90
37	7	112	G	N3-C4-C5	-7.49	124.86	128.60
1	6	548	G	N1-C6-O6	7.48	124.39	119.90
36	5	1484	U	C6-N1-C1'	7.48	131.68	121.20
37	7	75	G	C2-N3-C4	-7.48	108.16	111.90
1	2	421	A	C8-N9-C4	7.48	108.79	105.80
1	2	1420	C	N1-C2-O2	7.48	123.39	118.90
1	2	1433	G	N3-C4-N9	7.48	130.49	126.00
36	1	148	G	C6-C5-N7	-7.48	125.91	130.40
36	5	1175	C	O5'-P-OP1	-7.48	98.97	105.70
36	5	2566	C	C6-N1-C2	-7.48	117.31	120.30
36	5	3376	A	C8-N9-C4	-7.48	102.81	105.80
36	1	50	U	N3-C4-C5	-7.48	110.11	114.60
36	1	612	U	C4-C5-C6	7.48	124.19	119.70
36	1	1791	C	C2-N1-C1'	-7.48	110.57	118.80
36	1	2186	U	O5'-P-OP1	7.48	119.68	110.70
1	6	1651	A	C5-N7-C8	-7.48	100.16	103.90
36	5	911	C	N3-C2-O2	-7.48	116.66	121.90
36	5	941	G	C6-N1-C2	-7.48	120.61	125.10
36	1	2628	A	C4-C5-C6	7.48	120.74	117.00
36	5	2727	A	O5'-P-OP1	-7.48	98.97	105.70
52	m6	141	LEU	CB-CG-CD2	-7.48	98.28	111.00
36	1	1483	G	N3-C4-N9	7.48	130.49	126.00
36	1	1881	A	N1-C2-N3	7.48	133.04	129.30
1	6	432	G	N3-C4-C5	-7.48	124.86	128.60
1	6	608	U	N3-C4-O4	-7.48	114.17	119.40
1	6	1197	C	C6-N1-C2	7.48	123.29	120.30
29	d7	7	LEU	CA-CB-CG	-7.48	98.10	115.30
36	5	232	G	N3-C4-N9	-7.48	121.51	126.00
36	5	976	U	N1-C2-N3	7.48	119.39	114.90
36	5	998	A	C4-C5-N7	-7.48	106.96	110.70
36	5	1013	G	N1-C6-O6	-7.48	115.41	119.90
36	5	1407	A	C8-N9-C4	7.48	108.79	105.80
36	1	3326	G	N7-C8-N9	-7.48	109.36	113.10
1	2	334	G	N3-C2-N2	-7.47	114.67	119.90
1	2	1125	A	N1-C6-N6	-7.47	114.12	118.60
36	1	939	U	OP2-P-O3'	7.47	121.64	105.20
38	4	104	A	N3-C4-N9	-7.47	121.42	127.40
1	6	1330	G	C5-C6-N1	-7.47	107.76	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2690	G	N3-C2-N2	-7.47	114.67	119.90
38	8	76	C	N3-C4-C5	-7.47	118.91	121.90
1	2	373	G	C8-N9-C4	-7.47	103.41	106.40
36	1	512	U	N3-C4-C5	-7.47	110.12	114.60
36	1	1435	A	N7-C8-N9	7.47	117.54	113.80
36	1	1547	G	N1-C2-N2	-7.47	109.47	116.20
36	1	2400	G	OP2-P-O3'	7.47	121.64	105.20
36	5	889	U	C5-C6-N1	-7.47	118.96	122.70
36	5	2829	U	OP1-P-O3'	-7.47	88.76	105.20
1	6	636	A	C4-C5-N7	-7.47	106.97	110.70
36	1	281	G	N1-C6-O6	-7.47	115.42	119.90
36	1	1898	G	N1-C6-O6	-7.47	115.42	119.90
36	1	2263	C	O5'-P-OP2	-7.47	98.98	105.70
36	1	2837	A	C2-N3-C4	-7.47	106.87	110.60
36	1	2940	A	C8-N9-C4	-7.47	102.81	105.80
36	1	3222	U	C5-C4-O4	7.47	130.38	125.90
1	6	264	G	C5-C6-O6	-7.47	124.12	128.60
36	5	227	G	C4-C5-N7	-7.47	107.81	110.80
37	7	45	A	N9-C4-C5	7.47	108.79	105.80
36	1	148	G	N3-C4-N9	7.47	130.48	126.00
38	4	12	A	N7-C8-N9	7.47	117.53	113.80
1	2	360	A	C4-C5-N7	7.47	114.43	110.70
36	1	2283	G	N1-C6-O6	7.47	124.38	119.90
36	1	2930	A	N7-C8-N9	-7.47	110.07	113.80
36	5	421	G	N3-C4-C5	-7.47	124.87	128.60
36	5	2286	U	C2-N3-C4	-7.47	122.52	127.00
36	1	1362	G	N3-C4-N9	-7.46	121.52	126.00
36	1	3157	U	N3-C4-O4	-7.46	114.17	119.40
36	5	1374	G	C5-N7-C8	-7.46	100.57	104.30
36	1	823	C	N1-C2-O2	-7.46	114.42	118.90
36	1	2172	A	C5-C6-N6	-7.46	117.73	123.70
36	1	2647	A	C4-C5-C6	7.46	120.73	117.00
36	5	1338	C	N1-C2-O2	-7.46	114.42	118.90
36	1	3305	A	C8-N9-C4	-7.46	102.81	105.80
36	1	3393	U	N1-C2-O2	-7.46	117.58	122.80
36	5	2698	G	N7-C8-N9	-7.46	109.37	113.10
37	7	42	A	C6-N1-C2	-7.46	114.12	118.60
36	1	1490	A	N1-C2-N3	7.46	133.03	129.30
1	6	905	A	N9-C4-C5	7.46	108.78	105.80
36	5	405	U	N1-C2-N3	-7.46	110.42	114.90
36	1	1064	A	N1-C6-N6	-7.46	114.12	118.60
36	1	2662	G	O5'-P-OP2	-7.46	98.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2785	A	N1-C2-N3	7.46	133.03	129.30
1	6	1146	G	N7-C8-N9	7.46	116.83	113.10
36	5	520	U	N1-C2-O2	7.46	128.02	122.80
36	5	636	C	N3-C4-C5	-7.46	118.92	121.90
36	5	3052	G	N3-C2-N2	7.46	125.12	119.90
37	7	97	A	C4-C5-C6	7.46	120.73	117.00
36	1	523	A	C8-N9-C4	7.46	108.78	105.80
36	1	3316	A	C4-C5-N7	7.46	114.43	110.70
1	6	565	C	N3-C4-C5	7.46	124.88	121.90
36	5	1498	A	N1-C2-N3	7.46	133.03	129.30
36	5	1740	U	C5-C6-N1	-7.46	118.97	122.70
36	5	2313	A	C6-N1-C2	-7.46	114.13	118.60
37	7	38	U	C5-C4-O4	-7.46	121.43	125.90
36	1	1210	U	C5-C4-O4	7.46	130.37	125.90
36	5	595	G	C5-C6-N1	-7.46	107.77	111.50
37	7	56	A	O5'-P-OP2	7.46	119.65	110.70
36	1	1867	A	N1-C2-N3	7.45	133.03	129.30
36	1	2400	G	C4-C5-N7	7.45	113.78	110.80
36	1	2606	G	N7-C8-N9	7.45	116.83	113.10
36	1	2826	U	C2-N1-C1'	-7.45	108.75	117.70
36	5	330	G	C5-C6-O6	-7.45	124.13	128.60
36	5	512	U	C5-C4-O4	7.45	130.37	125.90
36	5	798	G	C2-N3-C4	-7.45	108.17	111.90
36	1	939	U	N1-C2-O2	-7.45	117.58	122.80
1	6	1278	G	C4-N9-C1'	7.45	136.19	126.50
36	5	718	G	C4-N9-C1'	7.45	136.19	126.50
36	1	316	U	N3-C4-C5	-7.45	110.13	114.60
36	1	2239	G	N1-C6-O6	-7.45	115.43	119.90
1	6	1664	C	O5'-P-OP1	-7.45	98.99	105.70
36	5	1203	A	C4-C5-N7	7.45	114.42	110.70
57	n1	17	ARG	NE-CZ-NH2	-7.45	116.58	120.30
36	1	2610	G	N1-C6-O6	7.45	124.37	119.90
36	5	1737	U	N1-C2-O2	-7.45	117.59	122.80
36	5	1881	A	C5-C6-N6	-7.45	117.74	123.70
36	5	2895	G	C4-N9-C1'	7.45	136.18	126.50
36	1	2168	A	N1-C2-N3	7.45	133.02	129.30
36	5	507	U	N3-C2-O2	-7.45	116.99	122.20
36	1	1377	G	N9-C4-C5	-7.45	102.42	105.40
36	1	3209	A	N9-C4-C5	-7.45	102.82	105.80
36	1	312	C	C6-N1-C2	7.44	123.28	120.30
36	1	1007	U	C6-N1-C2	7.44	125.47	121.00
36	1	1512	U	O5'-P-OP1	-7.44	99.00	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2984	C	N3-C2-O2	-7.44	116.69	121.90
36	5	699	A	C8-N9-C4	-7.44	102.82	105.80
36	5	2297	U	C6-N1-C2	-7.44	116.53	121.00
36	5	2327	U	O5'-P-OP2	-7.44	99.00	105.70
36	1	925	A	O5'-P-OP2	7.44	119.63	110.70
36	1	1136	A	N7-C8-N9	-7.44	110.08	113.80
36	1	1499	C	N3-C4-N4	7.44	123.21	118.00
36	1	2572	C	N1-C2-O2	7.44	123.36	118.90
1	6	1498	G	N3-C4-N9	7.44	130.46	126.00
1	6	1653	C	C6-N1-C2	7.44	123.28	120.30
36	5	591	G	N3-C4-C5	-7.44	124.88	128.60
36	5	2524	A	C5-N7-C8	-7.44	100.18	103.90
36	5	2995	A	C8-N9-C4	7.44	108.78	105.80
36	1	1702	U	N3-C2-O2	7.44	127.41	122.20
36	1	2589	G	C6-C5-N7	-7.44	125.94	130.40
36	1	1863	G	C5-C6-O6	-7.44	124.14	128.60
36	1	2956	A	C6-C5-N7	-7.44	127.09	132.30
36	5	863	C	O5'-P-OP1	-7.44	99.01	105.70
36	5	1045	C	O5'-P-OP1	-7.44	99.01	105.70
36	5	1200	A	N1-C6-N6	7.44	123.06	118.60
36	1	345	G	C6-C5-N7	-7.44	125.94	130.40
1	6	922	G	C4-N9-C1'	7.44	136.17	126.50
36	1	382	U	N1-C2-O2	-7.43	117.60	122.80
36	1	414	U	C5-C6-N1	-7.43	118.98	122.70
36	1	1546	A	C8-N9-C4	-7.43	102.83	105.80
36	1	2824	G	N9-C4-C5	-7.43	102.43	105.40
36	1	2892	A	C6-N1-C2	-7.43	114.14	118.60
36	1	2909	U	C6-N1-C2	7.43	125.46	121.00
36	1	3034	C	O5'-P-OP2	-7.43	99.01	105.70
37	3	102	A	C4-C5-N7	7.43	114.42	110.70
38	4	110	C	C2-N1-C1'	-7.43	110.62	118.80
1	6	1534	G	O4'-C1'-N9	7.43	114.15	108.20
36	5	523	A	C2-N3-C4	-7.43	106.88	110.60
36	5	669	U	C6-N1-C1'	-7.43	110.79	121.20
36	5	851	C	C5-C4-N4	-7.43	115.00	120.20
36	5	1665	C	N3-C4-N4	-7.43	112.80	118.00
38	8	12	A	C5-C6-N6	-7.43	117.75	123.70
36	1	2941	A	C2-N3-C4	7.43	114.32	110.60
36	1	3153	U	C5-C4-O4	7.43	130.36	125.90
36	5	2282	U	C6-N1-C2	7.43	125.46	121.00
36	5	2728	G	C8-N9-C1'	-7.43	117.34	127.00
36	5	2901	G	O5'-P-OP2	-7.43	99.01	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1750	A	N1-C2-N3	7.43	133.02	129.30
36	1	3263	G	C8-N9-C1'	-7.43	117.34	127.00
36	5	2190	U	C5-C4-O4	7.43	130.36	125.90
1	2	414	C	C5-C6-N1	7.43	124.72	121.00
36	1	806	A	N3-C4-C5	7.43	132.00	126.80
36	1	1180	A	N9-C4-C5	7.43	108.77	105.80
36	5	1838	G	N1-C6-O6	7.43	124.36	119.90
36	5	2675	C	N3-C4-C5	7.43	124.87	121.90
36	1	38	U	N3-C2-O2	7.43	127.40	122.20
36	1	1936	A	N1-C6-N6	-7.43	114.14	118.60
36	1	2375	G	C2-N3-C4	-7.43	108.19	111.90
36	1	2738	A	C8-N9-C4	-7.43	102.83	105.80
36	5	522	A	C8-N9-C4	7.43	108.77	105.80
36	5	1407	A	O5'-P-OP1	7.43	119.61	110.70
36	5	1919	G	C6-C5-N7	-7.43	125.94	130.40
1	2	1108	G	N1-C6-O6	-7.43	115.44	119.90
1	6	1033	C	O5'-P-OP1	-7.43	99.02	105.70
1	6	1272	U	N1-C2-N3	7.43	119.36	114.90
36	5	329	U	N1-C2-O2	7.43	128.00	122.80
36	5	1477	A	C6-N1-C2	-7.43	114.14	118.60
37	7	43	U	C5-C4-O4	7.43	130.36	125.90
57	n1	10	ARG	NE-CZ-NH1	7.43	124.01	120.30
36	1	1317	A	C5-N7-C8	-7.42	100.19	103.90
36	1	2623	G	N3-C4-C5	7.42	132.31	128.60
1	6	384	G	C8-N9-C4	-7.42	103.43	106.40
36	5	1480	G	C8-N9-C4	7.42	109.37	106.40
36	5	2907	G	N1-C2-N3	7.42	128.35	123.90
36	5	3154	C	N3-C2-O2	-7.42	116.70	121.90
36	5	3346	U	N1-C2-O2	7.42	128.00	122.80
36	1	1117	G	C5-C6-O6	-7.42	124.15	128.60
36	1	1578	C	C2-N1-C1'	7.42	126.97	118.80
36	5	216	G	O5'-P-OP1	-7.42	99.02	105.70
36	5	578	A	C4-C5-N7	-7.42	106.99	110.70
36	5	1185	C	C5-C6-N1	-7.42	117.29	121.00
36	5	2375	G	O5'-P-OP1	-7.42	99.02	105.70
36	1	41	G	C8-N9-C4	-7.42	103.43	106.40
36	1	406	G	N1-C6-O6	-7.42	115.45	119.90
36	1	933	A	C4-N9-C1'	7.42	139.66	126.30
36	1	1897	G	C8-N9-C4	-7.42	103.43	106.40
36	1	2632	G	O5'-P-OP2	-7.42	99.02	105.70
36	1	2995	A	C8-N9-C4	7.42	108.77	105.80
36	1	3139	A	C8-N9-C4	-7.42	102.83	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1011	A	C8-N9-C4	-7.42	102.83	105.80
36	5	3218	A	C4-C5-C6	7.42	120.71	117.00
76	q0	102	ARG	NE-CZ-NH1	-7.42	116.59	120.30
36	1	585	A	C4-C5-N7	-7.42	106.99	110.70
36	5	514	G	O5'-P-OP1	7.42	119.60	110.70
36	5	959	C	N1-C2-N3	7.42	124.39	119.20
36	5	3069	G	C5-N7-C8	-7.42	100.59	104.30
37	7	13	A	C6-C5-N7	-7.42	127.11	132.30
1	2	1782	A	C2-N3-C4	-7.42	106.89	110.60
36	1	227	G	N3-C4-C5	-7.42	124.89	128.60
36	5	511	G	C2-N3-C4	-7.42	108.19	111.90
36	5	787	G	C8-N9-C4	7.42	109.37	106.40
36	5	2327	U	OP2-P-O3'	7.42	121.52	105.20
36	1	2777	G	C8-N9-C4	-7.42	103.43	106.40
1	6	1139	A	C5-N7-C8	-7.42	100.19	103.90
36	5	577	C	N3-C4-C5	7.42	124.87	121.90
36	5	1047	A	C6-N1-C2	-7.42	114.15	118.60
36	5	1604	G	C2-N3-C4	7.42	115.61	111.90
36	1	1955	U	C5-C6-N1	7.42	126.41	122.70
1	6	330	G	N1-C6-O6	7.42	124.35	119.90
36	5	1894	U	N1-C2-O2	-7.42	117.61	122.80
36	5	2613	U	N3-C4-O4	7.42	124.59	119.40
36	5	2957	G	N1-C6-O6	7.42	124.35	119.90
36	1	231	G	C5-C6-O6	-7.41	124.15	128.60
36	1	2849	C	N3-C4-C5	-7.41	118.94	121.90
1	6	866	G	N1-C6-O6	7.41	124.35	119.90
36	5	437	G	C4-N9-C1'	7.41	136.14	126.50
36	5	919	U	O5'-P-OP2	-7.41	99.03	105.70
36	5	1453	A	C6-N1-C2	-7.41	114.15	118.60
36	5	2414	G	C5-C6-N1	-7.41	107.79	111.50
36	1	2179	C	N3-C4-C5	-7.41	118.94	121.90
1	6	142	G	N9-C4-C5	7.41	108.36	105.40
40	l3	266	ARG	NE-CZ-NH2	7.41	124.01	120.30
1	2	1757	G	N3-C4-N9	7.41	130.45	126.00
36	1	425	G	N1-C2-N2	-7.41	109.53	116.20
36	1	793	C	N3-C4-N4	7.41	123.19	118.00
36	1	2918	G	N3-C4-N9	7.41	130.45	126.00
36	5	696	C	N1-C2-O2	7.41	123.35	118.90
36	5	1863	G	C5-C6-N1	7.41	115.20	111.50
36	5	2661	G	N9-C4-C5	-7.41	102.44	105.40
36	1	818	C	C4-C5-C6	7.41	121.10	117.40
36	1	1124	U	N3-C2-O2	-7.41	117.02	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2288	G	C8-N9-C1'	-7.41	117.37	127.00
36	1	2614	G	N3-C4-N9	7.41	130.44	126.00
36	5	1283	C	C6-N1-C2	7.41	123.26	120.30
36	5	1383	G	C5-C6-N1	-7.41	107.80	111.50
36	1	2364	G	C5-C6-N1	7.41	115.20	111.50
36	5	406	G	N3-C4-N9	-7.41	121.56	126.00
36	5	3262	U	N1-C2-N3	7.41	119.34	114.90
37	7	49	G	C2-N3-C4	-7.41	108.20	111.90
1	2	1572	G	N9-C4-C5	-7.41	102.44	105.40
36	1	662	U	C5-C6-N1	-7.41	119.00	122.70
36	1	697	A	N1-C2-N3	-7.41	125.60	129.30
36	1	1136	A	N1-C2-N3	7.41	133.00	129.30
36	1	3266	G	N1-C2-N3	7.41	128.34	123.90
37	3	85	G	N1-C6-O6	7.41	124.34	119.90
1	6	1480	G	N1-C6-O6	7.41	124.34	119.90
36	5	517	G	C6-C5-N7	-7.41	125.96	130.40
36	5	640	U	N3-C4-C5	-7.41	110.16	114.60
36	5	2643	A	C8-N9-C4	7.41	108.76	105.80
36	5	2715	A	OP2-P-O3'	7.41	121.49	105.20
36	5	422	A	C6-N1-C2	-7.40	114.16	118.60
36	5	1201	C	C2-N3-C4	7.40	123.60	119.90
36	5	1486	G	C4-N9-C1'	-7.40	116.88	126.50
36	1	2705	A	OP1-P-OP2	-7.40	108.50	119.60
36	1	2856	G	C8-N9-C4	7.40	109.36	106.40
1	6	1542	G	N1-C6-O6	-7.40	115.46	119.90
36	5	1344	G	C2-N3-C4	-7.40	108.20	111.90
36	1	1113	G	OP2-P-O3'	7.40	121.48	105.20
36	1	1380	G	N1-C6-O6	7.40	124.34	119.90
36	1	2981	U	C6-N1-C2	-7.40	116.56	121.00
1	6	922	G	C5-C6-O6	-7.40	124.16	128.60
1	6	950	C	C6-N1-C2	-7.40	117.34	120.30
36	5	41	G	C8-N9-C4	-7.40	103.44	106.40
36	5	1332	A	C8-N9-C4	7.40	108.76	105.80
36	5	1364	C	OP1-P-O3'	-7.40	88.93	105.20
36	5	1847	A	C2-N3-C4	-7.40	106.90	110.60
36	5	2288	G	N1-C6-O6	7.40	124.34	119.90
36	5	2937	G	O5'-P-OP1	7.40	119.58	110.70
1	2	19	A	N1-C6-N6	7.40	123.04	118.60
1	2	348	U	O5'-P-OP2	-7.40	99.04	105.70
36	1	2160	G	C8-N9-C4	7.40	109.36	106.40
36	1	2606	G	C6-N1-C2	-7.40	120.66	125.10
36	5	806	A	N3-C4-C5	7.40	131.98	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2948	C	C6-N1-C2	-7.40	117.34	120.30
36	5	3125	U	N3-C4-O4	-7.40	114.22	119.40
36	1	38	U	C2-N1-C1'	-7.39	108.83	117.70
36	5	1715	A	OP1-P-O3'	7.39	121.47	105.20
36	1	1131	G	C5-C6-O6	-7.39	124.17	128.60
36	1	1329	U	P-O3'-C3'	7.39	128.57	119.70
36	1	1928	G	C2-N3-C4	-7.39	108.20	111.90
36	1	2756	C	N1-C2-O2	-7.39	114.46	118.90
36	1	3050	U	C4-C5-C6	7.39	124.14	119.70
36	5	1324	U	O5'-P-OP2	-7.39	99.05	105.70
36	1	2121	G	N1-C6-O6	-7.39	115.47	119.90
1	6	695	U	N3-C2-O2	-7.39	117.03	122.20
36	5	871	U	N3-C2-O2	-7.39	117.03	122.20
36	1	351	A	C8-N9-C4	7.39	108.75	105.80
36	1	396	A	C6-N1-C2	-7.39	114.17	118.60
36	1	1001	G	N1-C6-O6	7.39	124.33	119.90
36	1	1372	C	C6-N1-C2	7.39	123.26	120.30
37	3	88	G	N1-C2-N3	7.39	128.33	123.90
39	L2	25	GLY	N-CA-C	-7.39	94.62	113.10
36	5	657	A	C5-C6-N1	7.39	121.39	117.70
36	5	858	A	N9-C4-C5	7.39	108.76	105.80
36	5	1926	C	N3-C2-O2	-7.39	116.73	121.90
36	5	2302	G	N1-C6-O6	-7.39	115.47	119.90
1	2	415	C	C5-C6-N1	-7.39	117.31	121.00
36	1	714	G	C6-C5-N7	-7.39	125.97	130.40
36	1	1792	C	C4-C5-C6	7.39	121.09	117.40
36	5	2428	U	C2-N1-C1'	-7.39	108.83	117.70
36	5	1148	G	N3-C4-N9	7.39	130.43	126.00
36	5	1438	U	N1-C2-N3	7.39	119.33	114.90
36	1	213	A	C4-C5-N7	7.38	114.39	110.70
36	1	2879	C	N3-C2-O2	7.38	127.07	121.90
1	6	1465	C	N3-C4-C5	-7.38	118.95	121.90
36	5	1113	G	C5-C6-N1	-7.38	107.81	111.50
36	5	3004	C	N3-C2-O2	7.38	127.07	121.90
36	1	2309	A	C6-C5-N7	-7.38	127.13	132.30
36	5	388	G	N3-C2-N2	-7.38	114.73	119.90
36	5	1422	G	C6-C5-N7	-7.38	125.97	130.40
1	2	310	C	N3-C4-C5	-7.38	118.95	121.90
1	2	458	G	N3-C4-C5	7.38	132.29	128.60
36	5	93	C	N1-C2-O2	7.38	123.33	118.90
36	5	1399	A	C4-C5-N7	7.38	114.39	110.70
36	5	2191	U	C5-C4-O4	7.38	130.33	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2243	A	C6-N1-C2	-7.38	114.17	118.60
1	2	1006	C	N3-C2-O2	-7.38	116.73	121.90
1	2	1436	A	C8-N9-C4	7.38	108.75	105.80
1	2	1748	G	C2-N3-C4	-7.38	108.21	111.90
36	1	1103	A	N1-C6-N6	-7.38	114.17	118.60
36	1	2904	U	C5-C6-N1	-7.38	119.01	122.70
1	6	425	A	N1-C6-N6	-7.38	114.17	118.60
1	6	1029	U	C2-N1-C1'	-7.38	108.84	117.70
36	1	523	A	O5'-P-OP2	-7.38	99.06	105.70
36	1	567	G	C8-N9-C4	-7.38	103.45	106.40
36	1	2139	A	N1-C6-N6	7.38	123.03	118.60
36	1	2153	U	C6-N1-C2	-7.38	116.57	121.00
36	1	2378	C	N3-C2-O2	7.38	127.06	121.90
36	1	2403	G	C4-C5-N7	7.38	113.75	110.80
36	1	2614	G	O5'-P-OP2	-7.38	99.06	105.70
36	1	2964	G	O5'-P-OP2	-7.38	99.06	105.70
36	1	3390	G	N1-C6-O6	7.38	124.33	119.90
1	6	480	G	C4-N9-C1'	7.38	136.09	126.50
36	5	1083	G	N1-C6-O6	-7.38	115.47	119.90
36	5	1345	G	C5-C6-N1	-7.38	107.81	111.50
36	5	2700	G	N3-C4-N9	7.38	130.43	126.00
36	1	885	U	C6-N1-C2	7.38	125.43	121.00
36	1	2331	C	N1-C2-O2	7.38	123.33	118.90
36	1	3003	G	C5-C6-O6	-7.38	124.17	128.60
1	6	1135	U	C5-C6-N1	-7.38	119.01	122.70
36	5	1085	A	C5-N7-C8	-7.38	100.21	103.90
1	2	1558	U	C2-N1-C1'	7.38	126.55	117.70
36	1	1408	G	N9-C4-C5	-7.38	102.45	105.40
36	1	1433	A	N1-C2-N3	7.38	132.99	129.30
1	6	1209	C	O5'-P-OP1	-7.38	99.06	105.70
36	5	2190	U	C4-C5-C6	7.38	124.12	119.70
36	5	2848	G	N3-C4-N9	-7.38	121.58	126.00
36	5	3329	U	C6-N1-C2	-7.38	116.58	121.00
37	7	103	A	OP2-P-O3'	7.38	121.42	105.20
36	1	105	C	C2-N3-C4	-7.37	116.21	119.90
36	1	1884	A	C2-N3-C4	-7.37	106.91	110.60
36	1	2238	G	C2-N3-C4	7.37	115.59	111.90
36	5	2132	C	O5'-P-OP2	-7.37	99.06	105.70
37	3	82	G	C6-C5-N7	-7.37	125.98	130.40
1	6	1091	A	O4'-C1'-N9	7.37	114.10	108.20
36	5	333	G	C8-N9-C4	7.37	109.35	106.40
36	5	377	A	N1-C6-N6	-7.37	114.18	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	880	G	O4'-C1'-N9	7.37	114.10	108.20
36	5	965	A	N1-C6-N6	7.37	123.02	118.60
37	7	109	G	C5-N7-C8	-7.37	100.61	104.30
1	2	1177	C	C6-N1-C2	7.37	123.25	120.30
36	1	718	G	N7-C8-N9	7.37	116.78	113.10
36	1	2413	A	C2-N3-C4	-7.37	106.92	110.60
36	5	979	U	C5-C4-O4	7.37	130.32	125.90
36	1	2379	U	N1-C2-N3	7.37	119.32	114.90
1	6	78	A	C5-C6-N6	7.37	129.59	123.70
36	5	395	A	O5'-P-OP2	-7.37	99.07	105.70
36	5	1017	C	C5-C6-N1	7.37	124.68	121.00
36	5	1403	C	C5-C6-N1	-7.37	117.31	121.00
36	5	1878	G	C2-N3-C4	7.37	115.58	111.90
36	1	1371	G	N7-C8-N9	-7.37	109.42	113.10
36	5	2838	A	C6-N1-C2	-7.37	114.18	118.60
36	1	416	A	C5-C6-N1	-7.36	114.02	117.70
36	1	2144	A	O4'-C1'-N9	7.36	114.09	108.20
37	3	115	G	C4-C5-N7	7.36	113.75	110.80
1	6	1109	G	O5'-P-OP1	-7.36	99.07	105.70
36	5	582	G	N1-C6-O6	-7.36	115.48	119.90
36	5	651	G	C4-N9-C1'	7.36	136.07	126.50
36	5	1101	G	N3-C2-N2	7.36	125.05	119.90
36	5	2694	A	O5'-P-OP2	7.36	119.54	110.70
36	5	3085	G	C6-C5-N7	7.36	134.82	130.40
36	1	1375	G	O5'-P-OP2	-7.36	99.07	105.70
36	1	1429	G	C5-N7-C8	7.36	107.98	104.30
36	5	673	U	N1-C2-O2	-7.36	117.65	122.80
36	1	802	C	C2-N3-C4	-7.36	116.22	119.90
36	1	1328	C	N3-C4-N4	7.36	123.15	118.00
36	1	2165	G	C6-C5-N7	-7.36	125.98	130.40
36	1	3107	U	C2-N1-C1'	-7.36	108.87	117.70
36	5	424	G	N9-C4-C5	-7.36	102.46	105.40
36	5	864	G	N1-C2-N2	-7.36	109.58	116.20
36	5	941	G	OP1-P-O3'	7.36	121.39	105.20
36	5	3036	G	O5'-P-OP1	7.36	119.53	110.70
1	2	398	G	N3-C4-C5	-7.36	124.92	128.60
36	1	750	G	O5'-P-OP2	-7.36	99.08	105.70
1	6	1758	U	C5-C6-N1	7.36	126.38	122.70
36	5	1897	G	N7-C8-N9	7.36	116.78	113.10
36	1	233	C	C2-N3-C4	-7.36	116.22	119.90
36	5	253	A	O4'-C1'-N9	7.36	114.09	108.20
36	5	1417	G	N3-C4-C5	-7.36	124.92	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	113	U	C6-N1-C2	-7.36	116.58	121.00
36	1	62	A	N1-C6-N6	7.36	123.01	118.60
36	1	386	A	C4-C5-C6	7.36	120.68	117.00
36	1	628	A	C2-N3-C4	-7.36	106.92	110.60
36	1	2813	A	C4-C5-N7	-7.36	107.02	110.70
36	5	869	G	N1-C2-N3	7.36	128.31	123.90
36	5	1131	G	C5-C6-N1	-7.36	107.82	111.50
36	5	3022	G	O4'-C1'-N9	7.36	114.08	108.20
36	1	1192	C	C5-C6-N1	7.35	124.68	121.00
1	6	1313	A	C5-N7-C8	-7.35	100.22	103.90
1	6	1412	G	N1-C6-O6	-7.35	115.49	119.90
1	6	1572	G	C5-N7-C8	-7.35	100.62	104.30
36	5	937	G	O5'-P-OP2	-7.35	99.08	105.70
36	5	2936	A	C2-N3-C4	7.35	114.28	110.60
36	1	2520	A	C5-N7-C8	-7.35	100.22	103.90
1	6	1787	C	O5'-P-OP1	-7.35	99.08	105.70
36	5	2726	C	N3-C4-N4	-7.35	112.85	118.00
36	1	1116	G	N7-C8-N9	7.35	116.78	113.10
36	1	1725	C	C4-C5-C6	7.35	121.08	117.40
36	5	723	U	N3-C2-O2	-7.35	117.05	122.20
36	1	788	C	C5-C6-N1	-7.35	117.33	121.00
36	1	790	U	C5-C4-O4	7.35	130.31	125.90
36	1	1424	C	N3-C4-N4	7.35	123.14	118.00
36	1	3106	A	N1-C6-N6	-7.35	114.19	118.60
36	5	718	G	C8-N9-C1'	-7.35	117.44	127.00
36	5	1437	C	C6-N1-C2	-7.35	117.36	120.30
36	5	1550	C	C6-N1-C2	-7.35	117.36	120.30
36	5	2363	A	C8-N9-C4	-7.35	102.86	105.80
36	5	3050	U	C2-N3-C4	-7.35	122.59	127.00
37	7	97	A	N1-C2-N3	7.35	132.97	129.30
36	1	1376	C	N3-C4-C5	-7.35	118.96	121.90
36	1	2122	G	C4-C5-C6	-7.35	114.39	118.80
36	5	1450	G	C4-N9-C1'	7.35	136.05	126.50
1	2	1172	G	O5'-P-OP1	-7.35	99.09	105.70
36	1	627	U	N3-C2-O2	7.35	127.34	122.20
36	1	2353	G	N9-C4-C5	-7.35	102.46	105.40
38	4	5	U	C2-N1-C1'	-7.35	108.89	117.70
36	5	1714	A	C8-N9-C4	7.35	108.74	105.80
1	2	1654	G	C8-N9-C1'	-7.34	117.45	127.00
36	1	835	G	C5-C6-O6	-7.34	124.19	128.60
1	6	578	U	O4'-C1'-N1	7.34	114.08	108.20
36	5	1332	A	O5'-P-OP1	-7.34	99.09	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2996	U	C2-N3-C4	7.34	131.41	127.00
36	5	3003	G	C4-C5-C6	-7.34	114.39	118.80
36	1	25	U	N1-C2-O2	-7.34	117.66	122.80
36	1	721	G	C5-C6-O6	-7.34	124.19	128.60
36	1	908	G	C6-N1-C2	-7.34	120.69	125.10
36	1	1311	G	C4-C5-N7	-7.34	107.86	110.80
37	7	84	A	N9-C4-C5	7.34	108.74	105.80
1	6	378	A	N1-C6-N6	-7.34	114.19	118.60
1	6	1002	G	C8-N9-C1'	7.34	136.54	127.00
1	6	1124	A	C4-C5-N7	7.34	114.37	110.70
1	6	1512	G	C6-C5-N7	-7.34	126.00	130.40
36	5	614	C	N3-C4-C5	7.34	124.84	121.90
36	5	1477	A	N1-C6-N6	-7.34	114.19	118.60
1	2	1141	G	C5-C6-O6	-7.34	124.20	128.60
36	1	73	C	N3-C4-C5	-7.34	118.96	121.90
36	1	1791	C	C6-N1-C1'	7.34	129.61	120.80
36	1	2193	U	C2-N3-C4	-7.34	122.60	127.00
36	1	2300	G	C5-C6-N1	-7.34	107.83	111.50
36	1	2984	C	C6-N1-C2	-7.34	117.36	120.30
1	6	440	U	C5-C6-N1	-7.34	119.03	122.70
36	5	515	C	N3-C4-C5	7.34	124.84	121.90
36	5	1147	G	N9-C4-C5	-7.34	102.46	105.40
36	5	3080	G	C5-C6-N1	7.34	115.17	111.50
36	1	2363	A	C5-C6-N1	-7.34	114.03	117.70
36	1	421	G	N3-C2-N2	7.34	125.03	119.90
36	1	496	C	C6-N1-C2	-7.34	117.36	120.30
37	3	88	G	N9-C4-C5	7.34	108.33	105.40
1	6	1474	G	N1-C6-O6	7.34	124.30	119.90
36	5	1709	C	C6-N1-C2	7.34	123.23	120.30
36	1	1851	G	N3-C2-N2	-7.33	114.77	119.90
37	3	115	G	C5-C6-N1	7.33	115.17	111.50
36	5	2282	U	N3-C4-C5	7.33	119.00	114.60
1	2	420	A	N1-C6-N6	7.33	123.00	118.60
36	1	649	A	C4-C5-N7	-7.33	107.03	110.70
1	6	389	G	C4-C5-N7	7.33	113.73	110.80
1	6	432	G	N3-C4-N9	7.33	130.40	126.00
1	6	868	G	N1-C6-O6	7.33	124.30	119.90
36	5	330	G	N3-C4-C5	7.33	132.27	128.60
36	5	421	G	N1-C2-N3	7.33	128.30	123.90
36	5	731	U	N1-C2-N3	7.33	119.30	114.90
36	5	1444	G	C6-C5-N7	-7.33	126.00	130.40
36	5	1601	U	N3-C2-O2	-7.33	117.07	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2294	U	N3-C4-O4	-7.33	114.27	119.40
36	5	2610	G	N3-C4-N9	-7.33	121.60	126.00
1	2	1602	C	C6-N1-C2	-7.33	117.37	120.30
36	1	3134	A	C8-N9-C4	-7.33	102.87	105.80
36	5	2873	U	N3-C4-C5	-7.33	110.20	114.60
36	1	2733	A	C5-C6-N1	7.33	121.36	117.70
36	5	1138	U	C4-C5-C6	7.33	124.10	119.70
36	1	424	G	C6-N1-C2	-7.33	120.70	125.10
36	1	652	G	C5-N7-C8	7.33	107.96	104.30
36	1	654	C	C5-C6-N1	-7.33	117.33	121.00
36	1	883	A	N9-C4-C5	7.33	108.73	105.80
36	1	1495	U	C5-C4-O4	7.33	130.30	125.90
36	1	2624	G	C4-C5-N7	7.33	113.73	110.80
36	5	27	C	C6-N1-C2	-7.33	117.37	120.30
36	5	530	G	O5'-P-OP1	-7.33	99.11	105.70
36	5	973	A	C5-C6-N6	-7.33	117.84	123.70
36	5	2817	A	N9-C4-C5	7.33	108.73	105.80
36	5	3025	C	C5-C4-N4	7.33	125.33	120.20
38	8	139	U	N3-C4-O4	-7.33	114.27	119.40
36	1	2311	G	C8-N9-C4	-7.33	103.47	106.40
36	1	3211	C	OP1-P-O3'	7.33	121.32	105.20
1	6	1749	A	N1-C2-N3	7.33	132.96	129.30
36	5	1085	A	C2-N3-C4	-7.33	106.94	110.60
36	1	1321	G	C5-C6-O6	-7.33	124.20	128.60
4	s2	229	LEU	CA-CB-CG	7.33	132.15	115.30
36	1	3174	A	C6-N1-C2	7.32	122.99	118.60
1	6	1002	G	C4-N9-C1'	-7.32	116.98	126.50
36	5	2130	G	C4-N9-C1'	-7.32	116.98	126.50
36	1	1632	A	C8-N9-C4	-7.32	102.87	105.80
36	1	1880	U	N1-C2-N3	7.32	119.29	114.90
36	1	2651	G	C6-C5-N7	-7.32	126.01	130.40
36	5	909	G	C5-C6-N1	-7.32	107.84	111.50
1	2	287	G	O4'-C1'-N9	7.32	114.06	108.20
36	1	2841	G	N3-C4-C5	-7.32	124.94	128.60
36	1	2981	U	N1-C2-O2	7.32	127.92	122.80
1	6	289	U	C6-N1-C2	-7.32	116.61	121.00
1	6	1058	U	P-O3'-C3'	7.32	128.49	119.70
1	6	1101	G	N3-C4-C5	-7.32	124.94	128.60
36	5	1213	G	N1-C2-N3	7.32	128.29	123.90
36	5	3182	G	C4-C5-N7	-7.32	107.87	110.80
1	2	598	U	C5-C6-N1	7.32	126.36	122.70
36	1	2664	C	C4-C5-C6	-7.32	113.74	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	52	A	N1-C2-N3	7.32	132.96	129.30
36	1	519	A	C5-N7-C8	-7.32	100.24	103.90
1	6	27	U	C6-N1-C2	-7.32	116.61	121.00
1	6	565	C	C6-N1-C2	7.32	123.23	120.30
1	6	794	U	C6-N1-C2	-7.32	116.61	121.00
36	5	760	G	C8-N9-C4	7.32	109.33	106.40
36	5	1408	G	C5-C6-N1	-7.32	107.84	111.50
36	5	3028	G	N1-C2-N2	-7.32	109.61	116.20
1	2	1572	G	C4-C5-N7	7.32	113.73	110.80
36	1	2241	U	N1-C2-N3	7.32	119.29	114.90
36	5	183	G	N3-C4-C5	-7.32	124.94	128.60
36	5	926	A	N1-C6-N6	-7.32	114.21	118.60
37	7	99	G	C6-C5-N7	7.32	134.79	130.40
1	6	1408	G	C2-N3-C4	-7.31	108.24	111.90
36	5	640	U	N1-C2-N3	7.31	119.29	114.90
36	5	1298	C	N3-C4-N4	7.31	123.12	118.00
36	1	707	U	N3-C4-C5	-7.31	110.21	114.60
36	1	909	G	C6-C5-N7	-7.31	126.01	130.40
36	1	2691	A	N1-C6-N6	-7.31	114.21	118.60
36	1	2707	C	N3-C4-C5	-7.31	118.97	121.90
36	1	2955	U	OP2-P-O3'	7.31	121.29	105.20
1	6	313	U	N1-C2-N3	7.31	119.29	114.90
36	5	1589	A	C4-C5-C6	7.31	120.66	117.00
36	5	2876	C	C5-C6-N1	7.31	124.66	121.00
36	5	2938	G	C4-C5-N7	7.31	113.72	110.80
37	7	84	A	OP1-P-O3'	7.31	121.29	105.20
36	1	3122	A	N1-C2-N3	-7.31	125.64	129.30
36	5	2817	A	C8-N9-C4	-7.31	102.88	105.80
38	8	2	A	C8-N9-C4	-7.31	102.88	105.80
1	2	1651	A	C6-N1-C2	7.31	122.98	118.60
36	5	421	G	C4-N9-C1'	7.31	136.00	126.50
36	5	1368	U	C5-C4-O4	-7.31	121.51	125.90
36	5	1411	C	N3-C2-O2	-7.31	116.78	121.90
36	5	2288	G	C8-N9-C1'	-7.31	117.50	127.00
36	5	2611	U	N3-C4-O4	7.31	124.52	119.40
36	5	2778	G	N3-C2-N2	-7.31	114.78	119.90
37	7	76	A	N7-C8-N9	-7.31	110.14	113.80
36	1	601	U	N1-C2-O2	7.31	127.92	122.80
36	1	1319	G	N1-C6-O6	-7.31	115.52	119.90
36	1	1406	A	C4-C5-N7	7.31	114.35	110.70
36	1	2610	G	C6-C5-N7	-7.31	126.02	130.40
36	1	2934	A	C6-N1-C2	7.31	122.98	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	93	C	N1-C2-N3	-7.31	114.08	119.20
36	5	2151	C	C2-N1-C1'	-7.31	110.76	118.80
36	5	2833	A	C5-C6-N1	7.31	121.35	117.70
36	5	2965	U	N3-C2-O2	7.31	127.31	122.20
36	1	693	A	C5-C6-N1	-7.30	114.05	117.70
36	1	1192	C	C6-N1-C1'	-7.30	112.03	120.80
36	1	1592	G	C4-N9-C1'	7.30	136.00	126.50
36	1	2382	G	C5-C6-N1	7.30	115.15	111.50
36	1	2803	A	C5-C6-N1	7.30	121.35	117.70
36	1	3326	G	C8-N9-C4	7.30	109.32	106.40
38	4	20	U	OP2-P-O3'	7.30	121.27	105.20
36	5	1010	G	N1-C6-O6	7.30	124.28	119.90
36	5	1443	G	N7-C8-N9	7.30	116.75	113.10
36	5	2754	G	C5-C6-N1	7.30	115.15	111.50
36	5	2993	G	C5-N7-C8	-7.30	100.65	104.30
36	5	3294	A	N9-C4-C5	7.30	108.72	105.80
36	1	1122	U	N3-C2-O2	-7.30	117.09	122.20
36	5	941	G	O5'-P-OP2	-7.30	99.13	105.70
36	5	1277	C	C6-N1-C2	-7.30	117.38	120.30
36	5	2130	G	N1-C2-N2	7.30	122.77	116.20
36	1	813	G	C2-N3-C4	-7.30	108.25	111.90
36	1	3197	G	C2-N3-C4	-7.30	108.25	111.90
1	6	324	U	N3-C2-O2	7.30	127.31	122.20
1	6	634	G	N9-C4-C5	7.30	108.32	105.40
1	6	1557	U	N3-C2-O2	-7.30	117.09	122.20
1	6	1616	G	OP2-P-O3'	7.30	121.26	105.20
1	2	793	A	C8-N9-C4	-7.30	102.88	105.80
36	1	92	G	C5-C6-N1	-7.30	107.85	111.50
36	1	1150	A	N1-C6-N6	-7.30	114.22	118.60
36	1	1420	C	OP2-P-O3'	7.30	121.26	105.20
36	1	1556	C	C5-C4-N4	7.30	125.31	120.20
36	1	2644	C	N1-C2-N3	7.30	124.31	119.20
36	5	1357	G	C8-N9-C4	-7.30	103.48	106.40
36	5	1473	G	C5-C6-O6	-7.30	124.22	128.60
36	5	2108	C	C5-C4-N4	7.30	125.31	120.20
36	5	2869	U	O5'-P-OP1	-7.30	99.13	105.70
36	5	3092	C	C6-N1-C1'	-7.30	112.04	120.80
1	2	49	C	N3-C4-N4	7.30	123.11	118.00
36	1	2651	G	O5'-P-OP1	-7.30	99.13	105.70
1	6	1636	C	O5'-P-OP1	-7.30	99.13	105.70
36	5	2126	A	N3-C4-C5	-7.30	121.69	126.80
36	5	3036	G	N1-C2-N3	7.30	128.28	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3131	U	C5-C6-N1	-7.30	119.05	122.70
1	2	572	C	N1-C2-O2	-7.30	114.52	118.90
36	1	908	G	C6-C5-N7	-7.30	126.02	130.40
36	1	2634	U	C2-N1-C1'	7.30	126.45	117.70
36	5	1319	G	C4-C5-N7	-7.30	107.88	110.80
36	5	2835	U	N1-C2-N3	7.30	119.28	114.90
36	5	3148	U	C5-C6-N1	-7.30	119.05	122.70
36	1	659	G	OP2-P-O3'	7.29	121.25	105.20
36	1	2897	A	C5-C6-N1	7.29	121.35	117.70
1	6	1093	A	N1-C6-N6	-7.29	114.22	118.60
36	5	688	G	N1-C6-O6	7.29	124.28	119.90
1	6	1214	U	N3-C4-O4	7.29	124.51	119.40
36	5	1938	U	C5-C6-N1	-7.29	119.05	122.70
36	1	691	A	C4-C5-N7	7.29	114.35	110.70
1	6	326	G	N1-C6-O6	7.29	124.28	119.90
1	6	995	A	C5-C6-N1	7.29	121.35	117.70
36	5	3214	U	C5-C4-O4	7.29	130.28	125.90
36	1	1176	C	C2-N3-C4	-7.29	116.25	119.90
36	5	1142	G	N7-C8-N9	7.29	116.75	113.10
36	5	2979	U	C2-N1-C1'	-7.29	108.95	117.70
1	2	1460	A	C5-C6-N6	7.29	129.53	123.70
36	1	2895	G	N1-C2-N2	-7.29	109.64	116.20
36	1	1111	U	C2-N3-C4	-7.29	122.63	127.00
36	1	3084	C	C6-N1-C2	-7.29	117.39	120.30
1	6	3	U	C6-N1-C2	7.29	125.37	121.00
1	6	1618	C	N1-C2-O2	7.29	123.27	118.90
36	5	1120	A	C2-N3-C4	-7.29	106.96	110.60
41	14	244	LEU	CA-CB-CG	-7.29	98.54	115.30
1	2	1363	U	C2-N1-C1'	7.29	126.44	117.70
36	1	2956	A	OP1-P-OP2	-7.29	108.67	119.60
36	1	3182	G	N9-C4-C5	-7.29	102.49	105.40
36	1	3252	G	C8-N9-C4	7.29	109.31	106.40
36	5	607	A	N1-C2-N3	7.29	132.94	129.30
36	5	1008	U	N1-C2-N3	-7.29	110.53	114.90
36	5	1850	A	C8-N9-C4	7.29	108.71	105.80
36	5	2826	U	N1-C2-N3	7.29	119.27	114.90
36	1	1330	A	O5'-P-OP1	-7.28	99.14	105.70
36	1	1410	U	O5'-P-OP1	7.28	119.44	110.70
36	1	3046	A	N1-C6-N6	7.28	122.97	118.60
1	6	862	A	C5-C6-N1	7.28	121.34	117.70
36	5	531	G	C8-N9-C1'	-7.28	117.53	127.00
36	5	1178	G	N1-C2-N3	7.28	128.27	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2715	A	C6-N1-C2	-7.28	114.23	118.60
36	1	223	U	O5'-P-OP1	7.28	119.44	110.70
36	1	1520	G	N9-C4-C5	-7.28	102.49	105.40
36	1	1594	A	N3-C4-C5	-7.28	121.70	126.80
36	5	900	G	N9-C4-C5	7.28	108.31	105.40
36	5	3013	U	OP2-P-O3'	7.28	121.22	105.20
36	1	966	U	C6-N1-C2	-7.28	116.63	121.00
36	1	2821	C	C5-C6-N1	7.28	124.64	121.00
1	6	1543	A	N1-C2-N3	7.28	132.94	129.30
1	2	1109	G	C4-C5-N7	7.28	113.71	110.80
36	1	89	A	C6-N1-C2	-7.28	114.23	118.60
36	1	1402	C	C5-C6-N1	-7.28	117.36	121.00
36	1	936	A	C4-N9-C1'	-7.28	113.20	126.30
36	1	1209	G	N3-C4-C5	-7.28	124.96	128.60
36	1	2238	G	N1-C2-N3	-7.28	119.53	123.90
36	1	3216	G	C8-N9-C1'	-7.28	117.54	127.00
1	6	1787	C	N3-C4-C5	-7.28	118.99	121.90
1	2	360	A	C5-N7-C8	-7.28	100.26	103.90
36	1	903	U	N1-C2-N3	7.28	119.27	114.90
1	6	1308	G	O5'-P-OP2	-7.28	99.15	105.70
36	5	631	U	N3-C4-O4	7.28	124.49	119.40
36	5	2808	A	C5-N7-C8	-7.28	100.26	103.90
1	2	1245	G	C2-N3-C4	7.27	115.54	111.90
1	2	1463	C	C6-N1-C2	7.27	123.21	120.30
36	1	1364	C	OP2-P-O3'	7.27	121.20	105.20
36	1	2715	A	O5'-P-OP1	-7.27	99.15	105.70
36	1	3263	G	C4-N9-C1'	7.27	135.96	126.50
1	6	1478	G	C8-N9-C1'	-7.27	117.54	127.00
36	5	187	A	N7-C8-N9	7.27	117.44	113.80
36	5	567	G	C5-N7-C8	-7.27	100.66	104.30
36	5	2991	A	C2-N3-C4	7.27	114.24	110.60
36	5	3373	U	N1-C2-O2	-7.27	117.71	122.80
36	1	833	G	N9-C4-C5	7.27	108.31	105.40
36	5	2952	G	C5-C6-O6	-7.27	124.24	128.60
36	1	427	C	C5-C6-N1	7.27	124.64	121.00
36	1	1393	A	C6-N1-C2	-7.27	114.24	118.60
36	1	2311	G	N7-C8-N9	7.27	116.73	113.10
36	1	2968	G	OP1-P-OP2	-7.27	108.70	119.60
36	1	3197	G	N3-C4-N9	-7.27	121.64	126.00
1	6	526	A	C2-N3-C4	-7.27	106.97	110.60
36	5	406	G	N3-C4-C5	7.27	132.24	128.60
36	5	1365	G	N1-C2-N3	7.27	128.26	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1870	C	N3-C4-N4	7.27	123.09	118.00
36	5	2135	U	O5'-P-OP2	-7.27	99.16	105.70
36	5	2874	G	N7-C8-N9	7.27	116.73	113.10
36	5	3196	U	O5'-P-OP1	7.27	119.42	110.70
36	1	2376	G	C8-N9-C4	-7.27	103.49	106.40
38	4	19	C	C4-C5-C6	7.27	121.03	117.40
36	5	771	A	C8-N9-C4	7.27	108.71	105.80
36	5	1136	A	C4-C5-C6	7.27	120.63	117.00
36	5	1444	G	C4-N9-C1'	7.27	135.95	126.50
36	5	2312	A	C5-C6-N6	7.27	129.51	123.70
36	5	2401	A	O4'-C1'-N9	7.27	114.01	108.20
36	1	948	C	N3-C4-C5	-7.27	118.99	121.90
36	5	404	G	C6-C5-N7	-7.27	126.04	130.40
36	1	787	G	N3-C4-C5	-7.26	124.97	128.60
1	6	606	A	O5'-P-OP1	-7.26	99.16	105.70
1	6	1083	G	N7-C8-N9	7.26	116.73	113.10
36	5	217	U	OP1-P-O3'	7.26	121.18	105.20
36	5	905	U	O5'-P-OP1	-7.26	99.16	105.70
36	5	1143	A	O5'-P-OP1	-7.26	99.16	105.70
36	5	1160	C	O5'-P-OP2	-7.26	99.16	105.70
36	5	1918	C	C4-C5-C6	7.26	121.03	117.40
36	5	2726	C	N3-C4-C5	-7.26	119.00	121.90
36	1	1125	U	C6-N1-C2	-7.26	116.64	121.00
36	5	3217	C	C5-C6-N1	-7.26	117.37	121.00
36	1	1429	G	O4'-C1'-N9	-7.26	102.39	108.20
36	5	396	A	N1-C6-N6	-7.26	114.24	118.60
36	5	3081	C	C6-N1-C2	7.26	123.20	120.30
36	5	3245	A	O5'-P-OP2	7.26	119.41	110.70
40	l3	196	ARG	NE-CZ-NH1	7.26	123.93	120.30
46	l9	184	LYS	CD-CE-NZ	7.26	128.40	111.70
36	1	537	A	C2-N3-C4	-7.26	106.97	110.60
1	6	925	G	C8-N9-C4	-7.26	103.50	106.40
1	6	1002	G	O5'-P-OP1	-7.26	99.17	105.70
36	5	2409	G	N1-C6-O6	7.26	124.26	119.90
19	C7	85	VAL	C-N-CD	-7.26	104.63	120.60
36	1	1361	U	N1-C2-O2	-7.26	117.72	122.80
1	6	1271	G	C6-C5-N7	-7.26	126.05	130.40
1	6	1465	C	C4-C5-C6	7.26	121.03	117.40
1	6	1552	U	C5-C6-N1	7.26	126.33	122.70
36	5	1302	A	N9-C4-C5	7.26	108.70	105.80
36	5	2856	G	N1-C6-O6	7.26	124.25	119.90
36	5	2911	A	C6-N1-C2	-7.26	114.25	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3054	U	C6-N1-C1'	7.26	131.36	121.20
36	1	656	A	C6-N1-C2	-7.26	114.25	118.60
36	1	1514	G	N3-C4-C5	-7.26	124.97	128.60
36	1	1870	C	C6-N1-C2	7.26	123.20	120.30
1	6	1019	A	N7-C8-N9	-7.26	110.17	113.80
36	5	61	A	N9-C4-C5	7.26	108.70	105.80
36	5	132	C	N3-C4-C5	-7.26	119.00	121.90
36	5	298	U	O5'-P-OP2	-7.26	99.17	105.70
36	5	521	A	N3-C4-N9	-7.26	121.59	127.40
36	5	1043	C	C6-N1-C2	7.26	123.20	120.30
36	1	2196	C	N3-C4-C5	7.25	124.80	121.90
36	1	2748	A	C2-N3-C4	-7.25	106.97	110.60
36	1	2939	G	C4-N9-C1'	7.25	135.93	126.50
1	6	1139	A	C2-N3-C4	7.25	114.23	110.60
36	1	45	A	C5-N7-C8	-7.25	100.27	103.90
36	1	944	C	N1-C2-O2	-7.25	114.55	118.90
36	1	1482	A	C5-N7-C8	-7.25	100.27	103.90
36	1	2326	A	N1-C2-N3	7.25	132.93	129.30
36	1	3181	C	N3-C4-C5	-7.25	119.00	121.90
38	4	53	A	C2-N3-C4	7.25	114.23	110.60
1	6	1639	C	C5-C4-N4	-7.25	115.12	120.20
36	5	2764	C	C4-C5-C6	-7.25	113.77	117.40
36	1	57	A	C5-C6-N1	-7.25	114.08	117.70
36	1	348	A	C2-N3-C4	-7.25	106.97	110.60
36	1	828	A	C8-N9-C4	-7.25	102.90	105.80
36	1	952	A	N3-C4-N9	-7.25	121.60	127.40
1	6	419	G	C5-C6-O6	-7.25	124.25	128.60
1	6	616	G	C8-N9-C4	-7.25	103.50	106.40
36	5	2629	U	C5-C6-N1	-7.25	119.08	122.70
36	5	3326	G	N9-C4-C5	-7.25	102.50	105.40
36	1	344	A	N3-C4-N9	-7.25	121.60	127.40
36	1	578	A	OP1-P-OP2	7.25	130.47	119.60
36	1	978	G	N3-C4-C5	7.25	132.22	128.60
36	5	925	A	O5'-P-OP1	-7.25	99.17	105.70
36	1	878	G	N9-C4-C5	7.25	108.30	105.40
36	1	2918	G	C5-C6-O6	-7.25	124.25	128.60
1	6	1672	G	O5'-P-OP2	-7.25	99.18	105.70
36	5	356	C	N1-C2-N3	7.25	124.28	119.20
36	5	934	G	C4-C5-N7	7.25	113.70	110.80
36	5	1478	C	C4-C5-C6	-7.25	113.78	117.40
36	5	3337	G	C6-C5-N7	-7.25	126.05	130.40
1	2	1291	G	N1-C2-N3	7.25	128.25	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1292	C	C6-N1-C2	7.25	123.20	120.30
36	1	1306	G	N7-C8-N9	7.25	116.72	113.10
36	1	1365	G	OP1-P-OP2	-7.25	108.73	119.60
36	1	2788	C	O5'-P-OP1	-7.25	99.18	105.70
1	6	1547	A	C2-N3-C4	-7.25	106.98	110.60
36	5	888	A	N1-C2-N3	7.25	132.92	129.30
36	5	2765	C	C6-N1-C2	-7.25	117.40	120.30
36	5	2972	G	C8-N9-C4	7.25	109.30	106.40
36	5	3180	A	C8-N9-C4	7.25	108.70	105.80
37	7	15	C	N3-C4-C5	-7.25	119.00	121.90
36	1	2851	A	O4'-C1'-N9	7.25	114.00	108.20
36	1	3076	C	C5-C6-N1	7.25	124.62	121.00
36	5	610	G	N1-C6-O6	-7.25	115.55	119.90
36	5	1049	C	C2-N3-C4	7.25	123.52	119.90
36	5	1164	G	N9-C4-C5	7.25	108.30	105.40
36	5	3235	C	C6-N1-C2	7.25	123.20	120.30
36	1	794	U	O5'-P-OP2	-7.24	99.18	105.70
36	1	3328	G	C4-C5-N7	7.24	113.70	110.80
36	5	878	G	C8-N9-C4	-7.24	103.50	106.40
36	5	916	G	O5'-P-OP1	-7.24	99.18	105.70
36	5	1845	G	C6-N1-C2	-7.24	120.75	125.10
36	5	3142	A	N1-C2-N3	7.24	132.92	129.30
36	1	904	A	N1-C2-N3	7.24	132.92	129.30
36	1	949	C	N3-C4-C5	-7.24	119.00	121.90
36	5	1389	G	C5-C6-O6	-7.24	124.25	128.60
36	5	2993	G	O5'-P-OP1	-7.24	99.18	105.70
36	1	1102	A	C2-N3-C4	-7.24	106.98	110.60
36	1	1316	C	N3-C4-C5	-7.24	119.00	121.90
36	1	1547	G	C8-N9-C1'	-7.24	117.59	127.00
1	6	1539	G	O4'-C1'-N9	-7.24	102.41	108.20
36	5	801	A	O4'-C1'-N9	-7.24	102.41	108.20
36	5	1385	C	C5-C6-N1	7.24	124.62	121.00
36	5	2283	G	N3-C4-C5	7.24	132.22	128.60
36	5	2929	C	N3-C4-N4	7.24	123.07	118.00
36	1	206	G	N9-C4-C5	-7.24	102.50	105.40
36	1	853	G	N1-C6-O6	-7.24	115.56	119.90
36	1	1466	G	N3-C4-N9	7.24	130.34	126.00
36	1	2838	A	N1-C2-N3	7.24	132.92	129.30
36	5	972	A	C8-N9-C4	-7.24	102.90	105.80
36	1	105	C	N3-C4-C5	7.24	124.80	121.90
36	1	215	G	C8-N9-C4	-7.24	103.50	106.40
36	1	2801	A	N1-C6-N6	7.24	122.94	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	65	G	OP2-P-O3'	7.24	121.12	105.20
36	1	636	C	C5-C4-N4	-7.24	115.13	120.20
36	1	937	G	C2-N3-C4	-7.24	108.28	111.90
36	1	2983	C	N3-C4-N4	-7.24	112.94	118.00
36	1	3216	G	N1-C6-O6	7.23	124.24	119.90
36	1	67	A	N1-C6-N6	-7.23	114.26	118.60
36	1	1794	G	C4-C5-N7	-7.23	107.91	110.80
36	5	41	G	C5-N7-C8	-7.23	100.68	104.30
36	5	992	A	C5-C6-N1	-7.23	114.08	117.70
36	5	3119	U	C6-N1-C2	-7.23	116.66	121.00
38	8	107	G	C5-C6-O6	-7.23	124.26	128.60
36	1	1435	A	O5'-P-OP1	-7.23	99.19	105.70
1	6	1099	U	N3-C2-O2	-7.23	117.14	122.20
36	5	1517	G	C2-N3-C4	-7.23	108.28	111.90
36	5	3330	A	N3-C4-C5	-7.23	121.74	126.80
36	1	2847	A	N1-C6-N6	7.23	122.94	118.60
1	6	448	C	N1-C2-O2	-7.23	114.56	118.90
36	5	641	C	C2-N3-C4	-7.23	116.28	119.90
36	5	1765	U	C6-N1-C2	-7.23	116.66	121.00
37	7	102	A	C5-C6-N6	-7.23	117.92	123.70
36	1	2300	G	C2-N3-C4	-7.23	108.29	111.90
36	1	2345	A	O5'-P-OP2	-7.23	99.20	105.70
36	1	2877	G	N3-C2-N2	-7.23	114.84	119.90
36	5	613	G	C2-N3-C4	-7.23	108.29	111.90
36	5	2396	G	N1-C6-O6	-7.23	115.56	119.90
36	5	2850	G	N7-C8-N9	-7.23	109.49	113.10
36	5	3232	G	O5'-P-OP1	7.23	119.37	110.70
36	1	1321	G	O5'-P-OP2	-7.23	99.20	105.70
38	4	109	A	C5-C6-N6	-7.23	117.92	123.70
36	1	875	G	N1-C2-N3	7.22	128.24	123.90
36	1	954	U	OP2-P-O3'	7.22	121.09	105.20
36	1	973	A	N3-C4-N9	-7.22	121.62	127.40
36	1	2647	A	C5-C6-N6	-7.22	117.92	123.70
36	1	2799	A	C8-N9-C4	-7.22	102.91	105.80
36	1	517	G	N7-C8-N9	7.22	116.71	113.10
36	1	2257	C	O4'-C1'-N1	7.22	113.98	108.20
36	1	2394	G	C6-C5-N7	7.22	134.73	130.40
36	1	2606	G	C8-N9-C4	-7.22	103.51	106.40
1	6	511	A	C8-N9-C4	7.22	108.69	105.80
1	6	752	A	N9-C4-C5	-7.22	102.91	105.80
1	6	1596	C	C6-N1-C2	7.22	123.19	120.30
36	5	2617	U	N1-C2-N3	7.22	119.23	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2887	A	N3-C4-C5	-7.22	121.74	126.80
1	2	111	U	C6-N1-C1'	-7.22	111.09	121.20
36	1	3046	A	C5-C6-N6	-7.22	117.92	123.70
36	5	560	G	N9-C4-C5	7.22	108.29	105.40
36	5	2916	U	N3-C4-C5	7.22	118.93	114.60
1	2	1272	U	C5-C4-O4	7.22	130.23	125.90
36	1	1137	C	C2-N1-C1'	7.22	126.74	118.80
36	1	1651	U	OP1-P-OP2	-7.22	108.77	119.60
36	1	2661	G	N9-C4-C5	-7.22	102.51	105.40
36	1	3262	U	N1-C2-N3	7.22	119.23	114.90
36	5	751	A	O5'-P-OP2	-7.22	99.20	105.70
36	5	1156	C	C2-N1-C1'	7.22	126.74	118.80
36	5	1389	G	C4-C5-N7	7.22	113.69	110.80
36	1	701	G	C5-C6-N1	-7.22	107.89	111.50
36	1	1152	G	N3-C4-C5	-7.22	124.99	128.60
1	6	16	G	C5-C6-O6	-7.22	124.27	128.60
1	6	884	A	N1-C6-N6	7.22	122.93	118.60
36	5	3103	A	N1-C2-N3	7.22	132.91	129.30
36	1	1312	C	C2-N3-C4	7.22	123.51	119.90
1	6	144	U	O5'-P-OP1	-7.22	99.20	105.70
1	6	1426	C	N3-C2-O2	7.22	126.95	121.90
36	5	2847	A	C4-C5-N7	7.22	114.31	110.70
1	2	18	C	N3-C4-N4	7.21	123.05	118.00
36	1	81	C	N3-C4-C5	-7.21	119.01	121.90
36	1	89	A	C4-C5-C6	7.21	120.61	117.00
36	1	594	U	C4-C5-C6	7.21	124.03	119.70
38	4	16	G	C6-C5-N7	-7.21	126.07	130.40
1	6	393	C	C4-C5-C6	-7.21	113.79	117.40
36	5	217	U	N1-C2-N3	7.21	119.23	114.90
36	5	869	G	C2-N3-C4	-7.21	108.29	111.90
36	5	942	U	C4-C5-C6	7.21	124.03	119.70
36	5	1786	G	C4-C5-N7	7.21	113.69	110.80
36	5	2735	U	C6-N1-C2	-7.21	116.67	121.00
36	5	2757	U	N3-C2-O2	-7.21	117.15	122.20
36	1	39	A	C5-C6-N6	-7.21	117.93	123.70
36	1	2982	A	C5-C6-N6	-7.21	117.93	123.70
1	6	919	A	N1-C6-N6	7.21	122.93	118.60
36	5	856	G	N3-C4-C5	-7.21	124.99	128.60
36	5	1379	G	N3-C4-N9	7.21	130.33	126.00
36	5	3060	C	C5-C4-N4	-7.21	115.15	120.20
37	7	22	A	N1-C2-N3	7.21	132.91	129.30
1	2	1270	G	C8-N9-C4	-7.21	103.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	751	A	N7-C8-N9	7.21	117.41	113.80
36	1	856	G	N1-C6-O6	-7.21	115.57	119.90
36	1	908	G	C8-N9-C1'	-7.21	117.62	127.00
36	1	2760	C	N1-C2-O2	-7.21	114.57	118.90
36	1	2870	C	C6-N1-C2	7.21	123.19	120.30
36	5	2864	A	O5'-P-OP2	7.21	119.35	110.70
36	1	1305	U	N3-C4-C5	-7.21	110.27	114.60
36	1	2704	A	N9-C4-C5	7.21	108.68	105.80
36	5	2237	C	C6-N1-C2	-7.21	117.42	120.30
36	5	2284	C	O5'-P-OP2	7.21	119.35	110.70
1	2	116	U	N3-C2-O2	-7.21	117.16	122.20
36	1	221	A	O5'-P-OP2	-7.21	99.21	105.70
36	1	721	G	N1-C6-O6	7.21	124.22	119.90
36	1	953	G	C8-N9-C4	7.21	109.28	106.40
36	1	962	A	C6-N1-C2	-7.21	114.27	118.60
36	1	1491	A	C4-C5-C6	7.21	120.61	117.00
36	1	3201	C	O5'-P-OP1	-7.21	99.21	105.70
36	1	3208	G	C5-C6-N1	7.21	115.10	111.50
15	c3	149	LEU	CA-CB-CG	7.21	131.88	115.30
36	5	2401	A	C5-C6-N1	-7.21	114.10	117.70
36	5	2728	G	OP1-P-OP2	7.21	130.41	119.60
36	5	3175	U	C5-C4-O4	7.21	130.23	125.90
36	1	1398	U	C5-C6-N1	-7.21	119.10	122.70
36	1	2872	A	C2-N3-C4	7.21	114.20	110.60
1	6	313	U	C4-C5-C6	7.21	124.02	119.70
1	6	1074	G	C5-C6-N1	-7.21	107.90	111.50
36	5	2298	U	OP1-P-OP2	7.21	130.41	119.60
36	5	2390	A	OP1-P-OP2	7.21	130.41	119.60
36	1	705	A	C8-N9-C4	7.21	108.68	105.80
1	6	797	G	C8-N9-C4	7.21	109.28	106.40
36	1	439	C	C6-N1-C1'	-7.20	112.16	120.80
36	1	1834	U	C2-N1-C1'	-7.20	109.06	117.70
36	1	2291	A	N7-C8-N9	7.20	117.40	113.80
36	1	2346	C	N3-C4-C5	-7.20	119.02	121.90
36	5	1162	U	O5'-P-OP2	-7.20	99.22	105.70
36	5	1165	A	O5'-P-OP1	-7.20	99.22	105.70
36	5	2710	C	N3-C2-O2	7.20	126.94	121.90
1	2	610	G	N3-C4-N9	7.20	130.32	126.00
1	6	980	G	N9-C4-C5	-7.20	102.52	105.40
36	5	55	G	C6-C5-N7	-7.20	126.08	130.40
36	5	1308	A	N1-C2-N3	-7.20	125.70	129.30
1	2	1565	C	N1-C2-O2	-7.20	114.58	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	628	A	C6-N1-C2	-7.20	114.28	118.60
36	5	2403	G	C6-C5-N7	-7.20	126.08	130.40
36	5	2853	A	N9-C4-C5	-7.20	102.92	105.80
36	5	2967	A	N1-C2-N3	7.20	132.90	129.30
36	5	3062	G	C5-C6-O6	-7.20	124.28	128.60
38	8	138	A	C6-N1-C2	-7.20	114.28	118.60
1	2	1279	C	C6-N1-C2	-7.20	117.42	120.30
36	1	1876	U	C2-N1-C1'	7.20	126.34	117.70
36	1	2646	C	O5'-P-OP2	-7.20	99.22	105.70
38	4	44	A	C8-N9-C4	-7.20	102.92	105.80
1	6	1271	G	C4-N9-C1'	7.20	135.86	126.50
36	5	35	A	C5-C6-N6	7.20	129.46	123.70
36	5	96	G	N3-C4-N9	-7.20	121.68	126.00
36	5	1327	C	C2-N3-C4	-7.20	116.30	119.90
36	5	1378	U	N3-C2-O2	7.20	127.24	122.20
36	5	1923	C	C6-N1-C2	-7.20	117.42	120.30
36	5	2757	U	C6-N1-C2	-7.20	116.68	121.00
36	5	3390	G	C5-C6-N1	-7.20	107.90	111.50
36	1	635	G	C6-N1-C2	-7.20	120.78	125.10
36	1	1307	G	O5'-P-OP2	-7.20	99.22	105.70
36	1	2963	C	C2-N1-C1'	7.20	126.72	118.80
1	6	858	G	C4-N9-C1'	7.20	135.86	126.50
36	5	1102	A	N1-C2-N3	7.20	132.90	129.30
36	5	1422	G	C5-N7-C8	-7.20	100.70	104.30
36	1	416	A	C4-C5-C6	7.20	120.60	117.00
36	1	1456	A	N1-C6-N6	-7.20	114.28	118.60
36	1	1547	G	N3-C2-N2	7.20	124.94	119.90
36	1	1549	U	N1-C2-O2	-7.20	117.76	122.80
36	1	2923	U	C2-N1-C1'	-7.20	109.07	117.70
1	6	431	C	C6-N1-C1'	7.20	129.44	120.80
36	5	1478	C	N3-C2-O2	7.19	126.94	121.90
36	5	2391	G	N7-C8-N9	-7.19	109.50	113.10
37	7	37	G	C6-C5-N7	-7.19	126.08	130.40
1	2	1594	G	C5-C6-O6	-7.19	124.28	128.60
36	1	1049	C	N3-C4-C5	7.19	124.78	121.90
36	1	1225	A	C8-N9-C4	7.19	108.68	105.80
1	6	1368	G	N9-C4-C5	-7.19	102.52	105.40
36	5	1884	A	N1-C2-N3	7.19	132.90	129.30
36	5	3219	G	C5-C6-N1	7.19	115.10	111.50
1	2	1462	G	N3-C4-C5	7.19	132.19	128.60
36	1	1431	G	C5-N7-C8	7.19	107.89	104.30
36	1	2940	A	C2-N3-C4	7.19	114.20	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	23	U	N3-C4-C5	-7.19	110.29	114.60
1	6	294	C	C4-C5-C6	7.19	121.00	117.40
36	5	1598	G	C5-C6-N1	7.19	115.09	111.50
36	5	2549	G	N1-C6-O6	7.19	124.21	119.90
36	5	2670	G	N1-C6-O6	7.19	124.21	119.90
36	5	3322	A	C5-C6-N1	-7.19	114.11	117.70
36	1	1442	U	C5-C6-N1	7.19	126.29	122.70
36	5	1114	U	N1-C2-O2	-7.19	117.77	122.80
36	5	3177	G	N1-C6-O6	-7.19	115.59	119.90
36	1	425	G	OP1-P-OP2	-7.19	108.82	119.60
36	1	3220	G	N1-C6-O6	-7.19	115.59	119.90
1	6	1572	G	C4-C5-N7	7.19	113.67	110.80
36	5	520	U	N3-C2-O2	-7.19	117.17	122.20
36	5	864	G	N3-C2-N2	7.19	124.93	119.90
36	5	3221	C	N3-C2-O2	-7.19	116.87	121.90
36	1	3086	A	C4-C5-C6	7.19	120.59	117.00
36	5	95	A	N3-C4-C5	7.19	131.83	126.80
36	5	646	A	N1-C6-N6	-7.19	114.29	118.60
36	5	2396	G	C6-N1-C2	-7.19	120.79	125.10
1	2	1745	G	C5-C6-N1	7.18	115.09	111.50
36	1	688	G	N3-C4-C5	-7.18	125.01	128.60
36	1	1397	C	C2-N3-C4	-7.18	116.31	119.90
36	1	1411	C	OP1-P-O3'	7.18	121.00	105.20
36	5	2690	G	N3-C4-N9	-7.18	121.69	126.00
36	1	421	G	N1-C2-N2	-7.18	109.74	116.20
36	1	1104	G	O5'-P-OP1	-7.18	99.24	105.70
36	1	1881	A	C6-N1-C2	-7.18	114.29	118.60
36	1	2400	G	C5-C6-N1	-7.18	107.91	111.50
36	1	2979	U	N1-C1'-C2'	7.18	123.34	114.00
1	6	1111	G	C6-N1-C2	-7.18	120.79	125.10
1	6	1478	G	C6-C5-N7	-7.18	126.09	130.40
36	5	1107	C	N1-C2-N3	7.18	124.23	119.20
36	5	2817	A	N3-C4-C5	-7.18	121.77	126.80
36	1	2108	C	C6-N1-C2	7.18	123.17	120.30
36	1	3144	G	OP2-P-O3'	7.18	121.00	105.20
36	5	1291	A	N1-C6-N6	-7.18	114.29	118.60
36	1	615	U	N1-C2-N3	7.18	119.21	114.90
36	1	709	A	C8-N9-C4	7.18	108.67	105.80
36	1	1411	C	N3-C4-C5	7.18	124.77	121.90
36	1	2914	G	C5-C6-N1	-7.18	107.91	111.50
1	6	1375	A	C2-N3-C4	-7.18	107.01	110.60
36	5	935	U	O5'-P-OP2	-7.18	99.24	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2115	G	C5-C6-O6	-7.18	124.29	128.60
36	5	3320	A	C4-C5-C6	7.18	120.59	117.00
36	1	751	A	C6-N1-C2	-7.18	114.29	118.60
36	1	3256	G	N1-C6-O6	7.18	124.21	119.90
36	5	426	G	C5-C6-N1	7.18	115.09	111.50
36	5	1048	A	C8-N9-C4	-7.18	102.93	105.80
36	5	1196	C	O4'-C1'-N1	7.18	113.94	108.20
36	5	1332	A	N1-C2-N3	7.18	132.89	129.30
36	5	2386	A	C6-C5-N7	-7.18	127.28	132.30
36	1	999	G	C5-C6-O6	-7.18	124.29	128.60
36	1	1552	G	N9-C4-C5	-7.18	102.53	105.40
36	5	2816	G	N1-C2-N2	7.18	122.66	116.20
36	5	2897	A	C8-N9-C1'	-7.18	114.78	127.70
1	2	1085	G	N3-C2-N2	7.17	124.92	119.90
36	1	696	C	C4-C5-C6	-7.17	113.81	117.40
36	1	952	A	C2-N3-C4	-7.17	107.01	110.60
36	1	1157	G	C2-N3-C4	-7.17	108.31	111.90
36	1	1400	G	C4-C5-C6	7.17	123.11	118.80
1	6	977	A	N1-C6-N6	7.17	122.91	118.60
36	5	321	C	C6-N1-C1'	-7.17	112.19	120.80
36	5	331	G	N1-C6-O6	7.17	124.20	119.90
36	5	425	G	N9-C4-C5	7.17	108.27	105.40
36	5	691	A	N1-C6-N6	-7.17	114.30	118.60
38	8	101	U	N1-C2-N3	7.17	119.20	114.90
36	1	838	G	C5-C6-N1	-7.17	107.91	111.50
36	1	2841	G	N3-C4-N9	7.17	130.30	126.00
1	6	275	C	C6-N1-C2	-7.17	117.43	120.30
1	6	1123	C	C5-C4-N4	-7.17	115.18	120.20
1	6	1201	G	N3-C4-N9	-7.17	121.70	126.00
36	5	3332	U	N1-C2-O2	-7.17	117.78	122.80
36	1	2225	U	O5'-P-OP2	-7.17	99.25	105.70
1	6	397	A	C2-N3-C4	-7.17	107.01	110.60
1	6	583	C	N3-C4-C5	-7.17	119.03	121.90
1	6	1605	G	OP2-P-O3'	7.17	120.98	105.20
1	6	1780	G	N3-C4-N9	7.17	130.30	126.00
36	5	403	C	N1-C2-O2	-7.17	114.60	118.90
36	5	519	A	C4-C5-C6	7.17	120.58	117.00
36	5	1061	A	C5-C6-N1	7.17	121.28	117.70
36	5	1293	U	O5'-P-OP2	7.17	119.31	110.70
36	5	1433	A	C5-C6-N6	-7.17	117.96	123.70
36	5	2207	A	C2-N3-C4	-7.17	107.01	110.60
36	1	287	G	C6-C5-N7	-7.17	126.10	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	725	G	C8-N9-C4	7.17	109.27	106.40
36	1	2185	G	N9-C4-C5	-7.17	102.53	105.40
36	1	2931	C	C5-C6-N1	-7.17	117.42	121.00
1	6	48	G	C5-C6-O6	7.17	132.90	128.60
1	6	595	G	C8-N9-C4	-7.17	103.53	106.40
1	6	595	G	N7-C8-N9	7.17	116.68	113.10
36	5	1443	G	C8-N9-C4	-7.17	103.53	106.40
36	5	1452	A	O5'-P-OP1	-7.17	99.25	105.70
37	7	75	G	C5-C6-N1	-7.17	107.92	111.50
36	1	385	A	N1-C6-N6	-7.17	114.30	118.60
36	1	838	G	N1-C6-O6	7.17	124.20	119.90
36	1	2803	A	C6-N1-C2	-7.17	114.30	118.60
1	6	460	A	C8-N9-C4	-7.17	102.93	105.80
1	6	1610	G	C6-C5-N7	-7.17	126.10	130.40
36	1	313	A	N1-C6-N6	7.17	122.90	118.60
36	1	660	A	C8-N9-C4	-7.17	102.93	105.80
36	5	507	U	N1-C2-N3	7.17	119.20	114.90
36	5	1590	G	N7-C8-N9	-7.17	109.52	113.10
36	5	3366	G	C8-N9-C4	-7.17	103.53	106.40
36	1	1552	G	C5-C6-O6	-7.16	124.30	128.60
36	1	2799	A	C2-N3-C4	-7.16	107.02	110.60
1	6	175	G	N9-C4-C5	-7.16	102.53	105.40
1	6	611	U	C2-N1-C1'	7.16	126.30	117.70
1	6	788	A	N7-C8-N9	-7.16	110.22	113.80
36	5	1148	G	N1-C6-O6	7.16	124.20	119.90
36	5	1408	G	C4-N9-C1'	7.16	135.81	126.50
36	5	1592	G	C4-N9-C1'	7.16	135.81	126.50
36	5	3115	C	C2-N3-C4	-7.16	116.32	119.90
36	5	3220	G	C5-C6-O6	7.16	132.90	128.60
36	5	3303	G	N9-C4-C5	7.16	108.27	105.40
37	7	37	G	N3-C4-C5	-7.16	125.02	128.60
36	1	3100	U	N1-C2-N3	-7.16	110.60	114.90
1	6	389	G	C5-C6-O6	-7.16	124.30	128.60
36	5	1906	G	N1-C2-N2	-7.16	109.75	116.20
36	5	2917	G	O5'-P-OP2	-7.16	99.25	105.70
1	2	577	G	C5-N7-C8	-7.16	100.72	104.30
1	2	1454	G	N7-C8-N9	-7.16	109.52	113.10
36	1	1482	A	C6-C5-N7	-7.16	127.29	132.30
36	1	2315	G	C8-N9-C4	-7.16	103.54	106.40
36	1	2398	A	C5-N7-C8	7.16	107.48	103.90
1	6	1023	A	C8-N9-C4	-7.16	102.94	105.80
1	6	1340	U	N3-C4-O4	-7.16	114.39	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	517	G	C2-N3-C4	-7.16	108.32	111.90
36	5	675	C	C5-C6-N1	7.16	124.58	121.00
36	5	1367	G	N3-C4-C5	-7.16	125.02	128.60
36	5	1922	A	C8-N9-C4	7.16	108.66	105.80
36	5	2742	C	O5'-P-OP2	-7.16	99.26	105.70
1	2	554	C	N3-C2-O2	-7.16	116.89	121.90
36	1	1592	G	C4-C5-N7	-7.16	107.94	110.80
36	1	2981	U	O5'-P-OP2	-7.16	99.26	105.70
1	6	342	C	N3-C4-C5	-7.16	119.04	121.90
36	5	2110	G	C5-C6-N1	7.16	115.08	111.50
36	5	2150	G	C8-N9-C4	-7.16	103.54	106.40
36	5	2419	A	OP1-P-OP2	-7.16	108.86	119.60
36	5	2664	C	C5-C4-N4	-7.16	115.19	120.20
36	5	2896	A	N1-C6-N6	7.16	122.89	118.60
36	1	640	U	N3-C2-O2	7.16	127.21	122.20
36	1	1166	G	C8-N9-C4	7.16	109.26	106.40
36	1	426	G	C8-N9-C4	7.16	109.26	106.40
36	1	1365	G	C8-N9-C4	-7.16	103.54	106.40
36	1	1547	G	N9-C4-C5	-7.16	102.54	105.40
36	1	1607	U	N1-C2-O2	7.16	127.81	122.80
37	3	25	G	C4-N9-C1'	7.16	135.80	126.50
1	6	119	A	N1-C2-N3	7.16	132.88	129.30
36	5	2964	G	N1-C6-O6	-7.16	115.61	119.90
36	1	1508	C	N1-C2-N3	7.15	124.21	119.20
36	1	2887	A	C2-N3-C4	7.15	114.18	110.60
36	1	3319	U	N1-C2-O2	7.15	127.81	122.80
36	5	3308	C	O5'-P-OP2	-7.15	99.26	105.70
36	1	643	U	N3-C4-O4	7.15	124.41	119.40
36	1	1191	U	N3-C2-O2	7.15	127.21	122.20
36	1	1337	A	C5-C6-N1	7.15	121.28	117.70
36	1	3383	G	N3-C2-N2	-7.15	114.89	119.90
1	6	337	G	C8-N9-C4	-7.15	103.54	106.40
1	6	630	A	C6-C5-N7	-7.15	127.29	132.30
36	5	1203	A	C6-C5-N7	-7.15	127.29	132.30
36	1	301	G	C8-N9-C4	-7.15	103.54	106.40
36	1	2179	C	N1-C2-O2	7.15	123.19	118.90
36	1	2211	U	O5'-P-OP1	-7.15	99.26	105.70
36	1	2368	A	C2-N3-C4	7.15	114.17	110.60
1	6	1012	U	N3-C2-O2	-7.15	117.19	122.20
36	5	1159	A	N1-C6-N6	7.15	122.89	118.60
1	6	1112	G	C4-C5-N7	-7.15	107.94	110.80
36	1	2839	G	N7-C8-N9	7.15	116.67	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	49	C	OP1-P-OP2	-7.15	108.88	119.60
1	6	423	G	N1-C2-N2	7.15	122.63	116.20
1	6	1660	A	N1-C2-N3	7.15	132.87	129.30
36	5	1052	U	C2-N3-C4	7.15	131.29	127.00
65	n9	54	LEU	CA-CB-CG	-7.15	98.86	115.30
36	5	725	G	N1-C6-O6	-7.15	115.61	119.90
36	5	1411	C	O5'-P-OP1	7.15	119.28	110.70
36	1	2419	A	N1-C6-N6	7.14	122.89	118.60
38	4	56	G	N3-C4-C5	-7.14	125.03	128.60
1	6	879	G	N9-C4-C5	-7.14	102.54	105.40
36	5	2830	G	N3-C4-N9	-7.14	121.71	126.00
36	5	3044	G	C5-C6-N1	-7.14	107.93	111.50
52	m6	101	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	2	1426	C	C5-C4-N4	-7.14	115.20	120.20
36	1	982	C	N3-C2-O2	-7.14	116.90	121.90
36	1	1431	G	C2-N3-C4	7.14	115.47	111.90
36	5	1902	G	C4-N9-C1'	7.14	135.79	126.50
36	1	680	G	C5-C6-N1	-7.14	107.93	111.50
1	6	1171	A	N1-C6-N6	-7.14	114.31	118.60
1	6	1490	C	O5'-P-OP1	-7.14	99.27	105.70
36	5	3098	G	C6-N1-C2	-7.14	120.81	125.10
36	1	146	U	C2-N1-C1'	7.14	126.27	117.70
36	1	2187	G	C5-C6-N1	-7.14	107.93	111.50
36	1	2407	C	N3-C4-N4	7.14	123.00	118.00
36	1	2952	G	C5-C6-N1	-7.14	107.93	111.50
1	6	371	G	N1-C6-O6	7.14	124.18	119.90
1	6	1007	C	N3-C4-N4	-7.14	113.00	118.00
36	5	957	C	OP1-P-O3'	7.14	120.91	105.20
36	5	2850	G	C8-N9-C4	7.14	109.26	106.40
36	5	3322	A	N1-C2-N3	7.14	132.87	129.30
37	3	89	G	N7-C8-N9	-7.14	109.53	113.10
1	6	246	G	C8-N9-C4	-7.14	103.55	106.40
36	5	1149	G	N3-C2-N2	-7.14	114.90	119.90
36	5	3078	U	N1-C2-N3	7.14	119.18	114.90
36	1	607	A	C4-C5-C6	7.14	120.57	117.00
36	1	3269	U	P-O3'-C3'	7.14	128.26	119.70
36	1	3387	U	N1-C2-O2	-7.14	117.81	122.80
36	5	606	C	C6-N1-C2	-7.14	117.44	120.30
36	5	922	U	N1-C2-O2	-7.14	117.80	122.80
36	5	1838	G	N9-C4-C5	-7.14	102.55	105.40
36	5	1944	U	N3-C4-O4	7.14	124.40	119.40
1	2	1631	A	N9-C4-C5	7.13	108.65	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	609	G	C4-C5-N7	7.13	113.65	110.80
36	1	2664	C	C5-C4-N4	-7.13	115.20	120.20
36	1	2939	G	N1-C6-O6	-7.13	115.62	119.90
1	6	51	A	N1-C2-N3	7.13	132.87	129.30
36	5	2858	U	N3-C2-O2	-7.13	117.21	122.20
36	1	934	G	N7-C8-N9	7.13	116.67	113.10
36	1	1865	A	C2-N3-C4	-7.13	107.03	110.60
1	6	1566	U	C5-C6-N1	-7.13	119.13	122.70
36	5	866	A	C8-N9-C4	7.13	108.65	105.80
1	2	1728	A	C6-N1-C2	-7.13	114.32	118.60
36	1	1299	U	N1-C2-O2	-7.13	117.81	122.80
37	3	7	G	C5-C6-O6	7.13	132.88	128.60
36	5	1902	G	N3-C4-N9	7.13	130.28	126.00
36	5	2768	U	N3-C4-O4	-7.13	114.41	119.40
1	2	334	G	N3-C4-C5	7.13	132.16	128.60
1	2	1486	G	C6-C5-N7	-7.13	126.12	130.40
1	2	1623	C	O5'-P-OP1	-7.13	99.28	105.70
36	1	3245	A	OP1-P-OP2	-7.13	108.91	119.60
1	6	3	U	N3-C4-C5	7.13	118.88	114.60
36	5	1139	G	C8-N9-C1'	7.13	136.27	127.00
1	2	993	A	N1-C6-N6	7.13	122.88	118.60
36	1	591	G	N3-C4-C5	-7.13	125.04	128.60
36	1	2606	G	C4-N9-C1'	7.13	135.76	126.50
1	6	1304	G	C8-N9-C4	7.13	109.25	106.40
36	5	1102	A	N9-C4-C5	7.13	108.65	105.80
36	5	1130	A	C4-C5-C6	-7.13	113.44	117.00
36	5	1176	C	N3-C4-N4	-7.13	113.01	118.00
36	5	2380	U	N1-C2-O2	-7.13	117.81	122.80
36	5	2979	U	C6-N1-C2	7.13	125.28	121.00
1	2	566	C	C5-C6-N1	-7.12	117.44	121.00
36	1	973	A	C5-C6-N6	7.12	129.40	123.70
36	1	1398	U	C5-C4-O4	7.12	130.18	125.90
36	5	41	G	N7-C8-N9	7.12	116.66	113.10
36	5	2334	U	C4-C5-C6	7.12	123.97	119.70
36	5	3093	C	C4-C5-C6	7.12	120.96	117.40
1	2	1029	U	C5-C4-O4	7.12	130.18	125.90
36	1	1614	C	N3-C2-O2	-7.12	116.91	121.90
36	1	2192	C	C6-N1-C2	-7.12	117.45	120.30
36	1	2415	C	O5'-P-OP2	-7.12	99.29	105.70
36	1	2802	A	N1-C2-N3	7.12	132.86	129.30
1	6	1	U	N3-C2-O2	-7.12	117.21	122.20
1	6	57	G	C4-N9-C1'	7.12	135.76	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3177	G	C5-C6-O6	7.12	132.87	128.60
36	1	145	G	N1-C6-O6	7.12	124.17	119.90
1	6	19	A	N1-C6-N6	7.12	122.87	118.60
1	6	1124	A	C5-N7-C8	-7.12	100.34	103.90
1	6	1586	A	N1-C6-N6	-7.12	114.33	118.60
36	5	774	G	N9-C4-C5	-7.12	102.55	105.40
36	5	1160	C	N1-C2-O2	-7.12	114.63	118.90
36	5	1172	G	N1-C6-O6	7.12	124.17	119.90
36	5	2784	G	N1-C6-O6	7.12	124.17	119.90
36	5	3043	C	N3-C4-C5	7.12	124.75	121.90
36	5	3304	U	N3-C4-O4	7.12	124.39	119.40
37	7	37	G	C4-N9-C1'	7.12	135.76	126.50
37	3	6	C	N3-C4-C5	7.12	124.75	121.90
1	6	142	G	C6-C5-N7	7.12	134.67	130.40
36	1	346	C	C6-N1-C2	-7.12	117.45	120.30
36	1	1317	A	O5'-P-OP1	-7.12	99.29	105.70
36	1	2521	U	C5-C6-N1	-7.12	119.14	122.70
38	4	24	G	C8-N9-C1'	-7.12	117.75	127.00
36	5	1782	U	C6-N1-C2	-7.12	116.73	121.00
36	1	942	U	C6-N1-C2	-7.12	116.73	121.00
1	6	337	G	C6-C5-N7	-7.12	126.13	130.40
1	6	1271	G	C4-C5-C6	7.12	123.07	118.80
36	5	1379	G	C4-C5-C6	7.12	123.07	118.80
36	1	93	C	N3-C4-N4	7.12	122.98	118.00
36	1	2830	G	N3-C4-C5	7.12	132.16	128.60
1	6	1003	A	N1-C6-N6	7.12	122.87	118.60
36	5	641	C	N3-C4-C5	7.12	124.75	121.90
36	5	1316	C	N1-C2-N3	7.12	124.18	119.20
36	5	2693	C	N3-C4-C5	7.12	124.75	121.90
37	7	117	A	N1-C2-N3	7.12	132.86	129.30
1	2	552	G	C4-C5-N7	7.11	113.65	110.80
36	1	917	A	C5-C6-N6	7.11	129.39	123.70
36	1	1179	A	C8-N9-C4	7.11	108.64	105.80
36	1	1581	C	N3-C4-C5	-7.11	119.06	121.90
36	5	1665	C	OP2-P-O3'	7.11	120.85	105.20
36	5	1680	G	C8-N9-C1'	-7.11	117.75	127.00
1	2	1272	U	N1-C2-N3	7.11	119.17	114.90
36	1	2950	G	C8-N9-C4	-7.11	103.56	106.40
36	5	1673	G	N1-C6-O6	7.11	124.17	119.90
36	5	3026	G	C2-N3-C4	-7.11	108.34	111.90
36	1	95	A	C5-C6-N6	7.11	129.39	123.70
36	1	721	G	C5-N7-C8	-7.11	100.74	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	784	A	C2-N3-C4	-7.11	107.05	110.60
36	1	2873	U	N3-C2-O2	-7.11	117.22	122.20
1	6	1628	U	N3-C2-O2	-7.11	117.22	122.20
36	5	816	A	C4-C5-N7	-7.11	107.14	110.70
36	5	1148	G	C4-N9-C1'	7.11	135.74	126.50
36	5	2280	A	N9-C4-C5	-7.11	102.96	105.80
36	5	2770	G	N7-C8-N9	7.11	116.66	113.10
36	5	3366	G	N3-C4-C5	-7.11	125.05	128.60
36	1	3050	U	N3-C4-C5	-7.11	110.33	114.60
1	6	415	C	C5-C4-N4	7.11	125.18	120.20
1	6	1418	G	C6-C5-N7	-7.11	126.14	130.40
36	5	1405	U	C6-N1-C1'	7.11	131.15	121.20
36	5	1514	G	C4-C5-N7	7.11	113.64	110.80
36	5	3120	C	N3-C2-O2	-7.11	116.92	121.90
36	1	2131	A	N1-C2-N3	7.11	132.85	129.30
36	1	2772	C	C3'-C2'-C1'	-7.11	95.81	101.50
36	1	2940	A	C5-C6-N1	7.11	121.25	117.70
38	4	2	A	C8-N9-C4	-7.11	102.96	105.80
38	4	9	A	C8-N9-C4	7.11	108.64	105.80
36	5	1194	G	N7-C8-N9	7.11	116.65	113.10
38	8	99	C	C6-N1-C1'	-7.11	112.27	120.80
1	2	620	A	N1-C6-N6	-7.11	114.34	118.60
1	2	1127	G	N9-C4-C5	7.11	108.24	105.40
36	1	345	G	C4-N9-C1'	7.11	135.74	126.50
36	1	2846	U	N3-C2-O2	-7.11	117.23	122.20
1	6	982	U	N3-C4-O4	-7.11	114.43	119.40
1	6	1480	G	C6-C5-N7	-7.11	126.14	130.40
36	5	687	U	N3-C4-O4	-7.11	114.43	119.40
36	5	752	C	N3-C4-C5	-7.11	119.06	121.90
36	5	1194	G	C4-C5-N7	7.11	113.64	110.80
1	2	419	G	C4-C5-N7	7.10	113.64	110.80
36	1	1165	A	N9-C4-C5	7.10	108.64	105.80
36	1	2638	C	C6-N1-C2	-7.10	117.46	120.30
36	1	2875	U	C5-C6-N1	7.10	126.25	122.70
36	1	3029	A	C2-N3-C4	-7.10	107.05	110.60
1	6	963	A	N1-C6-N6	7.10	122.86	118.60
36	5	2706	G	N1-C6-O6	-7.10	115.64	119.90
36	5	2863	G	C8-N9-C4	-7.10	103.56	106.40
1	2	350	U	C5-C4-O4	7.10	130.16	125.90
36	1	108	A	N9-C4-C5	-7.10	102.96	105.80
36	1	1773	C	C6-N1-C2	7.10	123.14	120.30
36	1	3215	A	C8-N9-C4	7.10	108.64	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	948	C	C2-N3-C4	-7.10	116.35	119.90
36	5	1177	G	C6-N1-C2	-7.10	120.84	125.10
36	5	2592	G	N1-C6-O6	7.10	124.16	119.90
36	1	2922	G	OP1-P-O3'	7.10	120.82	105.20
36	1	2953	U	OP1-P-OP2	-7.10	108.95	119.60
1	6	410	A	C6-N1-C2	-7.10	114.34	118.60
36	5	3232	G	N3-C4-C5	7.10	132.15	128.60
36	1	2661	G	C5-N7-C8	-7.10	100.75	104.30
1	6	811	A	C4-C5-C6	7.10	120.55	117.00
36	5	521	A	N7-C8-N9	7.10	117.35	113.80
36	5	973	A	N7-C8-N9	7.10	117.35	113.80
36	5	1481	A	C6-C5-N7	-7.10	127.33	132.30
36	5	2180	G	C8-N9-C4	7.10	109.24	106.40
36	1	861	C	N3-C4-C5	-7.10	119.06	121.90
52	M6	27	LEU	CB-CG-CD1	-7.10	98.94	111.00
1	6	1477	G	C2-N3-C4	7.10	115.45	111.90
36	1	321	C	C6-N1-C2	-7.09	117.46	120.30
36	1	1007	U	N1-C2-N3	-7.09	110.64	114.90
36	1	1843	C	C6-N1-C2	-7.09	117.46	120.30
1	6	1655	A	C2-N3-C4	-7.09	107.05	110.60
37	7	13	A	O5'-P-OP1	-7.09	99.31	105.70
36	1	183	G	N3-C4-C5	-7.09	125.05	128.60
36	1	2704	A	C5-C6-N6	7.09	129.37	123.70
36	5	1100	U	C5-C6-N1	-7.09	119.15	122.70
1	2	909	U	C5-C6-N1	-7.09	119.15	122.70
36	1	589	A	N1-C6-N6	-7.09	114.34	118.60
36	1	1728	G	C4-N9-C1'	7.09	135.72	126.50
36	1	2641	U	N3-C2-O2	-7.09	117.24	122.20
1	6	811	A	C6-C5-N7	-7.09	127.33	132.30
36	5	396	A	N7-C8-N9	-7.09	110.25	113.80
36	5	944	C	N1-C2-O2	7.09	123.16	118.90
38	8	47	C	N3-C2-O2	-7.09	116.94	121.90
1	2	1025	A	C4-C5-C6	7.09	120.55	117.00
1	2	1200	G	C4-N9-C1'	7.09	135.72	126.50
36	1	2618	G	N1-C2-N3	7.09	128.15	123.90
36	1	2624	G	C6-C5-N7	-7.09	126.15	130.40
1	6	1106	U	C5-C6-N1	7.09	126.25	122.70
36	5	728	G	N1-C6-O6	7.09	124.15	119.90
36	5	1367	G	N3-C4-N9	7.09	130.25	126.00
36	1	1511	U	C5-C6-N1	-7.09	119.16	122.70
36	1	3226	A	N1-C6-N6	-7.09	114.35	118.60
36	5	1492	G	C2-N3-C4	-7.09	108.36	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1898	G	C5-C6-N1	7.09	115.04	111.50
1	2	1241	G	C4-N9-C1'	7.09	135.71	126.50
36	1	872	U	N3-C4-O4	7.09	124.36	119.40
36	1	1094	U	O4'-C1'-N1	7.09	113.87	108.20
36	1	2919	A	N3-C4-C5	7.09	131.76	126.80
36	1	2919	A	O5'-P-OP2	-7.09	99.32	105.70
1	6	1176	G	N9-C4-C5	-7.09	102.56	105.40
36	5	1131	G	O5'-P-OP2	-7.09	99.32	105.70
36	5	1400	G	C8-N9-C4	-7.09	103.57	106.40
36	5	2268	U	N3-C4-O4	-7.09	114.44	119.40
36	5	2864	A	O5'-P-OP1	-7.09	99.32	105.70
36	5	2886	U	O5'-P-OP2	-7.09	99.32	105.70
36	5	3125	U	C2-N1-C1'	-7.09	109.20	117.70
36	5	913	A	N1-C2-N3	7.08	132.84	129.30
36	5	2294	U	C5-C4-O4	7.08	130.15	125.90
36	1	499	G	N3-C4-N9	-7.08	121.75	126.00
36	1	1155	C	C2-N3-C4	-7.08	116.36	119.90
1	6	396	G	N9-C4-C5	7.08	108.23	105.40
1	6	902	G	N1-C6-O6	7.08	124.15	119.90
1	6	1041	G	C2-N3-C4	-7.08	108.36	111.90
15	c3	42	ARG	NE-CZ-NH1	7.08	123.84	120.30
36	5	1299	U	O5'-P-OP2	-7.08	99.33	105.70
36	5	2172	A	C6-C5-N7	-7.08	127.34	132.30
36	5	2337	C	N3-C2-O2	-7.08	116.94	121.90
36	5	2385	G	C2-N3-C4	-7.08	108.36	111.90
36	5	3227	A	N9-C4-C5	-7.08	102.97	105.80
37	7	116	C	C4-C5-C6	-7.08	113.86	117.40
36	1	2641	U	N3-C4-C5	7.08	118.85	114.60
1	6	1150	G	C5-C6-O6	-7.08	124.35	128.60
1	6	1193	A	C8-N9-C4	-7.08	102.97	105.80
36	5	927	C	C6-N1-C2	-7.08	117.47	120.30
36	5	1471	U	C4-C5-C6	7.08	123.95	119.70
36	5	1865	A	N1-C6-N6	7.08	122.85	118.60
36	5	2791	G	N3-C2-N2	-7.08	114.94	119.90
38	8	94	C	C6-N1-C2	7.08	123.13	120.30
36	1	2326	A	N3-C4-N9	-7.08	121.74	127.40
36	5	856	G	C8-N9-C1'	-7.08	117.80	127.00
36	5	1010	G	C5-C6-O6	-7.08	124.35	128.60
36	1	22	G	N1-C2-N3	7.08	128.15	123.90
36	1	396	A	N1-C2-N3	7.08	132.84	129.30
36	1	972	A	C2-N3-C4	-7.08	107.06	110.60
36	1	1511	U	N3-C4-O4	-7.08	114.44	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3142	A	N7-C8-N9	-7.08	110.26	113.80
38	4	24	G	N1-C2-N3	7.08	128.15	123.90
1	6	156	A	C8-N9-C4	7.08	108.63	105.80
1	6	923	A	N1-C6-N6	-7.08	114.35	118.60
1	6	1295	G	C5-C6-O6	-7.08	124.35	128.60
1	6	1730	A	C6-N1-C2	-7.08	114.35	118.60
36	5	1924	U	O5'-P-OP2	-7.08	99.33	105.70
36	5	3006	A	C8-N9-C4	-7.08	102.97	105.80
36	5	3208	G	C8-N9-C1'	-7.08	117.80	127.00
1	2	615	A	C2-N3-C4	7.08	114.14	110.60
1	2	1484	G	N1-C6-O6	-7.08	115.65	119.90
36	1	1466	G	C4-C5-N7	7.08	113.63	110.80
1	6	1512	G	C5-C6-O6	-7.08	124.35	128.60
36	5	1198	C	C2-N1-C1'	7.08	126.58	118.80
36	5	1365	G	N3-C4-N9	-7.08	121.75	126.00
36	1	628	A	C4-C5-C6	7.08	120.54	117.00
36	1	821	U	N3-C2-O2	-7.08	117.25	122.20
36	1	2606	G	N3-C4-C5	-7.08	125.06	128.60
36	1	3330	A	C4-C5-N7	-7.08	107.16	110.70
37	3	91	G	N7-C8-N9	7.08	116.64	113.10
1	6	356	G	C2-N3-C4	7.08	115.44	111.90
36	5	504	A	C2-N3-C4	-7.08	107.06	110.60
36	5	1115	G	N3-C2-N2	7.08	124.85	119.90
36	5	2293	C	C5-C4-N4	-7.08	115.25	120.20
37	7	101	G	C5-C6-O6	-7.08	124.36	128.60
36	1	705	A	OP1-P-O3'	7.07	120.76	105.20
36	1	1514	G	C8-N9-C1'	-7.07	117.81	127.00
37	3	103	A	N1-C6-N6	-7.07	114.36	118.60
1	6	1420	C	N1-C2-O2	7.07	123.14	118.90
1	6	1583	A	C5-C6-N6	7.07	129.36	123.70
1	6	1781	A	C4-C5-C6	7.07	120.54	117.00
36	5	326	U	N3-C4-C5	-7.07	110.36	114.60
36	5	1113	G	OP2-P-O3'	7.07	120.76	105.20
36	5	1147	G	N1-C2-N2	-7.07	109.83	116.20
36	1	1906	G	N1-C6-O6	7.07	124.14	119.90
37	3	88	G	O5'-P-OP1	-7.07	99.33	105.70
1	2	597	G	N1-C6-O6	7.07	124.14	119.90
36	1	2862	U	OP1-P-OP2	-7.07	109.00	119.60
36	1	2993	G	N3-C4-N9	7.07	130.24	126.00
38	4	15	G	C8-N9-C4	-7.07	103.57	106.40
43	L6	154	LEU	CB-CG-CD1	-7.07	98.98	111.00
1	6	1145	U	O5'-P-OP2	-7.07	99.34	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	610	G	N9-C4-C5	7.07	108.23	105.40
36	5	2387	A	C6-N1-C2	-7.07	114.36	118.60
36	5	3024	A	O5'-P-OP1	-7.07	99.34	105.70
36	5	3202	G	N9-C4-C5	7.07	108.23	105.40
36	1	1308	A	C6-N1-C2	7.07	122.84	118.60
36	1	2956	A	C5-N7-C8	-7.07	100.36	103.90
1	6	325	G	C2-N3-C4	-7.07	108.37	111.90
36	5	891	G	N7-C8-N9	7.07	116.63	113.10
36	5	1101	G	C6-N1-C2	-7.07	120.86	125.10
36	5	2301	U	N3-C4-C5	-7.07	110.36	114.60
36	1	680	G	C8-N9-C4	7.07	109.23	106.40
36	1	1380	G	O5'-P-OP1	7.07	119.18	110.70
36	1	2772	C	N3-C4-N4	7.07	122.95	118.00
1	6	1645	G	N9-C4-C5	-7.07	102.57	105.40
36	5	574	U	OP2-P-O3'	7.07	120.75	105.20
36	5	1902	G	N9-C4-C5	-7.07	102.57	105.40
36	5	2661	G	N3-C4-C5	-7.07	125.07	128.60
36	5	2973	G	OP1-P-OP2	-7.07	109.00	119.60
36	1	218	G	C8-N9-C1'	7.07	136.18	127.00
36	1	970	A	N9-C1'-C2'	-7.07	104.23	112.00
36	1	1362	G	C8-N9-C4	7.07	109.23	106.40
36	1	1633	C	C5-C6-N1	7.07	124.53	121.00
36	1	3307	A	N1-C6-N6	7.07	122.84	118.60
1	6	407	A	C5-C6-N6	-7.07	118.05	123.70
1	6	480	G	C8-N9-C1'	-7.07	117.82	127.00
1	6	1272	U	N3-C4-C5	-7.07	110.36	114.60
36	5	60	A	N1-C6-N6	7.07	122.84	118.60
36	5	422	A	O4'-C1'-N9	-7.07	102.55	108.20
36	5	1838	G	C6-C5-N7	-7.07	126.16	130.40
36	1	93	C	N3-C2-O2	7.06	126.84	121.90
36	1	1884	A	N3-C4-N9	-7.06	121.75	127.40
36	1	2818	U	N3-C2-O2	7.06	127.14	122.20
36	5	756	U	N1-C2-N3	7.06	119.14	114.90
36	5	1151	U	N1-C2-O2	7.06	127.75	122.80
36	1	2408	U	N1-C2-N3	7.06	119.14	114.90
36	1	2427	U	N3-C4-C5	7.06	118.84	114.60
36	1	2877	G	C4-N9-C1'	-7.06	117.32	126.50
36	1	3045	G	C2-N3-C4	7.06	115.43	111.90
37	3	99	G	N3-C4-N9	-7.06	121.76	126.00
1	6	325	G	C8-N9-C4	7.06	109.22	106.40
36	5	2750	U	N3-C2-O2	-7.06	117.26	122.20
36	5	2796	G	N3-C4-N9	7.06	130.24	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	70	A	C8-N9-C4	-7.06	102.98	105.80
36	5	2777	G	C4-C5-N7	-7.06	107.98	110.80
36	1	895	A	N7-C8-N9	7.06	117.33	113.80
36	1	2745	G	N3-C4-C5	-7.06	125.07	128.60
1	6	1447	C	C2-N1-C1'	7.06	126.56	118.80
36	5	383	G	N7-C8-N9	-7.06	109.57	113.10
36	5	811	U	C2-N3-C4	-7.06	122.77	127.00
36	5	1537	A	C4-C5-C6	7.06	120.53	117.00
36	5	2645	G	N3-C2-N2	-7.06	114.96	119.90
36	1	154	U	O5'-P-OP1	-7.06	99.35	105.70
36	1	593	C	N3-C2-O2	-7.06	116.96	121.90
36	1	2715	A	C8-N9-C4	-7.06	102.98	105.80
37	3	82	G	C8-N9-C4	-7.06	103.58	106.40
36	5	1205	A	N7-C8-N9	-7.06	110.27	113.80
36	5	1774	C	C6-N1-C2	7.06	123.12	120.30
36	5	2623	G	C8-N9-C1'	-7.06	117.83	127.00
36	5	3366	G	C6-C5-N7	-7.06	126.17	130.40
36	1	2213	A	O5'-P-OP1	-7.06	99.35	105.70
36	1	3179	U	C5-C6-N1	-7.06	119.17	122.70
36	5	2183	A	C2-N3-C4	-7.06	107.07	110.60
36	1	358	G	N1-C6-O6	7.05	124.13	119.90
36	1	3049	A	C5-N7-C8	7.05	107.43	103.90
36	5	750	G	O5'-P-OP2	-7.05	99.35	105.70
36	5	1443	G	C5-N7-C8	-7.05	100.77	104.30
36	5	1733	G	C6-C5-N7	-7.05	126.17	130.40
36	5	2194	G	N3-C4-C5	-7.05	125.07	128.60
36	5	2400	G	C4-C5-N7	7.05	113.62	110.80
36	5	2659	G	C8-N9-C4	7.05	109.22	106.40
36	5	2856	G	C8-N9-C4	-7.05	103.58	106.40
36	5	1142	G	C4-C5-N7	7.05	113.62	110.80
36	1	27	C	N3-C2-O2	-7.05	116.96	121.90
36	1	3383	G	N1-C2-N2	7.05	122.55	116.20
37	3	58	C	N3-C4-C5	7.05	124.72	121.90
38	4	17	A	N1-C6-N6	7.05	122.83	118.60
38	4	31	G	N7-C8-N9	-7.05	109.57	113.10
1	6	1781	A	N7-C8-N9	7.05	117.33	113.80
36	5	760	G	N9-C4-C5	-7.05	102.58	105.40
36	5	2764	C	OP1-P-OP2	-7.05	109.02	119.60
37	7	105	C	C5-C6-N1	7.05	124.53	121.00
1	2	1127	G	C2-N3-C4	-7.05	108.38	111.90
36	1	45	A	N3-C4-N9	-7.05	121.76	127.40
36	1	3320	A	N1-C2-N3	7.05	132.82	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	672	A	C6-N1-C2	-7.05	114.37	118.60
36	5	709	A	C5-C6-N6	-7.05	118.06	123.70
36	5	927	C	C5-C6-N1	7.05	124.53	121.00
36	5	1597	C	C6-N1-C2	-7.05	117.48	120.30
36	5	2827	U	N1-C2-N3	-7.05	110.67	114.90
36	1	879	U	N3-C2-O2	7.05	127.13	122.20
36	1	2131	A	C6-N1-C2	-7.05	114.37	118.60
1	6	34	G	N3-C4-C5	7.05	132.12	128.60
1	6	1673	G	C4-C5-N7	7.05	113.62	110.80
1	2	1453	G	O5'-P-OP1	-7.05	99.36	105.70
36	1	41	G	N9-C4-C5	7.05	108.22	105.40
36	1	194	U	O5'-P-OP1	-7.05	99.36	105.70
36	1	655	C	C6-N1-C2	-7.05	117.48	120.30
36	1	1284	C	C6-N1-C2	-7.05	117.48	120.30
36	1	1363	A	C5-C6-N6	-7.05	118.06	123.70
36	1	2870	C	C2-N1-C1'	-7.05	111.05	118.80
1	6	1537	C	N1-C2-O2	-7.05	114.67	118.90
36	5	1327	C	N3-C4-C5	7.05	124.72	121.90
36	5	2215	A	C8-N9-C4	7.05	108.62	105.80
36	1	1446	A	C6-N1-C2	-7.04	114.37	118.60
1	6	120	U	C5-C4-O4	7.04	130.13	125.90
37	7	59	U	O5'-P-OP2	-7.04	99.36	105.70
36	1	662	U	OP2-P-O3'	7.04	120.69	105.20
36	1	2712	U	C6-N1-C2	7.04	125.23	121.00
1	6	93	A	N1-C6-N6	-7.04	114.37	118.60
1	6	1201	G	C4-N9-C1'	-7.04	117.34	126.50
36	5	1300	G	C8-N9-C1'	-7.04	117.84	127.00
36	5	1172	G	C8-N9-C4	-7.04	103.58	106.40
36	5	2625	C	N1-C2-O2	-7.04	114.67	118.90
1	2	378	A	C6-C5-N7	-7.04	127.37	132.30
36	5	1323	G	N3-C4-C5	-7.04	125.08	128.60
1	2	351	C	C5-C6-N1	-7.04	117.48	121.00
1	2	1454	G	C8-N9-C4	7.04	109.22	106.40
36	1	671	U	OP2-P-O3'	7.04	120.68	105.20
36	5	155	G	N3-C2-N2	7.04	124.83	119.90
36	5	521	A	C5-C6-N6	7.04	129.33	123.70
36	5	2357	A	N1-C2-N3	7.04	132.82	129.30
36	5	2370	G	C2-N3-C4	-7.04	108.38	111.90
37	7	107	C	O5'-P-OP1	7.04	119.14	110.70
1	6	1158	C	N3-C4-N4	7.04	122.93	118.00
36	5	1483	G	C6-C5-N7	-7.04	126.18	130.40
36	1	23	A	C4-C5-C6	7.04	120.52	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	399	A	N1-C2-N3	-7.04	125.78	129.30
36	1	2339	C	C2-N1-C1'	7.04	126.54	118.80
36	1	2393	G	C4-C5-N7	7.04	113.61	110.80
36	5	808	A	N1-C6-N6	-7.04	114.38	118.60
36	5	1152	G	C5-C6-N1	-7.04	107.98	111.50
36	1	821	U	C6-N1-C2	-7.03	116.78	121.00
1	6	621	A	C5-C6-N6	7.03	129.33	123.70
1	6	1297	G	O5'-P-OP1	-7.03	99.37	105.70
1	6	1332	C	C4-C5-C6	7.03	120.92	117.40
36	5	653	A	N1-C6-N6	7.03	122.82	118.60
38	8	45	C	O5'-P-OP1	-7.03	99.37	105.70
36	5	1506	A	O5'-P-OP1	7.03	119.14	110.70
36	5	2140	U	C4-C5-C6	7.03	123.92	119.70
36	5	2362	C	N1-C2-O2	7.03	123.12	118.90
36	1	256	G	N1-C6-O6	-7.03	115.68	119.90
36	1	385	A	C8-N9-C4	-7.03	102.99	105.80
36	1	688	G	C4-N9-C1'	7.03	135.64	126.50
36	1	709	A	N1-C6-N6	7.03	122.82	118.60
38	4	54	A	N9-C4-C5	7.03	108.61	105.80
36	5	228	U	N3-C2-O2	-7.03	117.28	122.20
36	5	1092	C	C6-N1-C2	-7.03	117.49	120.30
36	5	2524	A	C4-C5-N7	7.03	114.22	110.70
36	5	2947	G	OP1-P-O3'	7.03	120.67	105.20
1	2	21	U	C2-N1-C1'	7.03	126.14	117.70
36	1	50	U	N1-C2-N3	7.03	119.12	114.90
36	1	2760	C	C2-N1-C1'	-7.03	111.07	118.80
1	6	771	A	C2-N3-C4	7.03	114.11	110.60
36	5	2125	A	N1-C2-N3	7.03	132.81	129.30
36	5	2351	U	O5'-P-OP2	-7.03	99.37	105.70
36	5	2713	U	C5-C6-N1	7.03	126.21	122.70
36	1	2601	A	O5'-P-OP2	-7.03	99.38	105.70
36	1	3327	G	C4-C5-N7	-7.03	107.99	110.80
38	4	99	C	N3-C4-C5	7.03	124.71	121.90
4	s2	61	LEU	CA-CB-CG	-7.03	99.14	115.30
36	5	1213	G	C4-C5-N7	-7.03	107.99	110.80
36	5	1848	G	N7-C8-N9	-7.03	109.59	113.10
36	5	2828	G	OP1-P-O3'	-7.03	89.74	105.20
36	5	2837	A	C5-C6-N1	7.03	121.21	117.70
36	1	2400	G	N7-C8-N9	7.03	116.61	113.10
36	1	3276	G	N7-C8-N9	7.03	116.61	113.10
1	6	29	U	C4-C5-C6	7.03	123.92	119.70
36	5	1465	A	N1-C6-N6	7.03	122.81	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	n3	48	ARG	NE-CZ-NH1	7.03	123.81	120.30
1	2	1218	G	O4'-C1'-N9	7.02	113.82	108.20
36	1	1076	C	C6-N1-C2	7.02	123.11	120.30
36	1	1164	G	N3-C4-N9	-7.02	121.79	126.00
36	1	1422	G	C8-N9-C1'	-7.02	117.87	127.00
36	1	1592	G	C4-C5-C6	7.02	123.02	118.80
36	1	2912	G	C5-C6-O6	7.02	132.81	128.60
36	5	787	G	N7-C8-N9	-7.02	109.59	113.10
36	5	2724	U	O5'-P-OP1	7.02	119.13	110.70
1	2	318	U	C5-C6-N1	-7.02	119.19	122.70
36	1	325	A	C5-C6-N1	7.02	121.21	117.70
36	1	625	G	C5-C6-N1	-7.02	107.99	111.50
36	1	2145	A	C5-C6-N6	-7.02	118.08	123.70
36	1	3344	A	C6-C5-N7	-7.02	127.38	132.30
48	M1	112	LEU	CA-CB-CG	7.02	131.45	115.30
36	5	424	G	C6-N1-C2	-7.02	120.89	125.10
36	5	784	A	N7-C8-N9	7.02	117.31	113.80
36	5	979	U	C6-N1-C2	-7.02	116.79	121.00
36	5	31	C	N3-C2-O2	-7.02	116.98	121.90
36	5	858	A	N3-C4-C5	-7.02	121.89	126.80
37	7	50	U	N1-C2-O2	7.02	127.72	122.80
1	2	1025	A	C8-N9-C1'	-7.02	115.07	127.70
1	2	1165	G	N3-C4-N9	7.02	130.21	126.00
1	6	158	U	C2-N1-C1'	7.02	126.12	117.70
1	6	1047	G	N3-C4-C5	-7.02	125.09	128.60
36	5	676	G	C8-N9-C4	-7.02	103.59	106.40
36	5	3107	U	OP2-P-O3'	7.02	120.64	105.20
36	1	1374	G	N3-C4-N9	7.02	130.21	126.00
36	1	2381	G	C5-C6-O6	-7.02	124.39	128.60
36	1	2606	G	N1-C2-N3	7.02	128.11	123.90
1	6	335	U	N3-C2-O2	-7.02	117.29	122.20
1	6	1030	A	C2-N3-C4	-7.02	107.09	110.60
36	5	1003	A	C4-C5-N7	7.02	114.21	110.70
36	5	3174	A	C8-N9-C4	-7.02	102.99	105.80
36	5	3261	C	C6-N1-C2	7.02	123.11	120.30
36	1	293	C	C6-N1-C2	7.02	123.11	120.30
36	1	826	G	C4-C5-N7	7.02	113.61	110.80
36	5	210	U	C5-C6-N1	-7.02	119.19	122.70
36	5	1108	U	N3-C4-C5	-7.02	110.39	114.60
36	5	1896	A	C5-C6-N6	7.02	129.31	123.70
1	2	574	G	N1-C6-O6	-7.01	115.69	119.90
1	2	1600	A	C6-C5-N7	-7.01	127.39	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	815	G	C8-N9-C4	-7.01	103.59	106.40
36	1	1443	G	O5'-P-OP2	7.01	119.12	110.70
36	1	1488	G	C5-C6-O6	-7.01	124.39	128.60
36	1	1587	A	N1-C6-N6	-7.01	114.39	118.60
36	1	2363	A	C4-C5-N7	-7.01	107.19	110.70
1	6	1050	G	C2-N3-C4	-7.01	108.39	111.90
1	6	1600	A	O4'-C1'-N9	7.01	113.81	108.20
36	5	1762	C	C6-N1-C2	-7.01	117.49	120.30
36	5	2733	A	N1-C6-N6	7.01	122.81	118.60
36	1	1924	U	C5-C6-N1	-7.01	119.19	122.70
36	5	436	A	N1-C2-N3	7.01	132.81	129.30
36	5	960	U	OP2-P-O3'	7.01	120.63	105.20
1	2	373	G	C4-N9-C1'	7.01	135.62	126.50
1	2	513	U	C6-N1-C2	-7.01	116.79	121.00
1	2	1774	G	N3-C4-C5	-7.01	125.09	128.60
36	1	212	G	C4-N9-C1'	7.01	135.62	126.50
36	1	917	A	C2-N3-C4	7.01	114.11	110.60
36	1	1905	G	C4-N9-C1'	-7.01	117.39	126.50
36	1	2277	C	C4-C5-C6	7.01	120.91	117.40
36	1	2844	C	C6-N1-C2	7.01	123.11	120.30
36	1	2893	C	O5'-P-OP2	-7.01	99.39	105.70
36	1	2940	A	N9-C4-C5	7.01	108.61	105.80
36	1	3373	U	C5-C6-N1	-7.01	119.19	122.70
1	6	464	A	N1-C6-N6	7.01	122.81	118.60
36	5	586	C	N3-C4-C5	-7.01	119.09	121.90
36	5	1127	G	N3-C4-N9	7.01	130.21	126.00
36	5	1604	G	C5-C6-N1	7.01	115.00	111.50
36	5	2549	G	C4-N9-C1'	7.01	135.62	126.50
36	5	2963	C	C4-C5-C6	-7.01	113.89	117.40
36	5	3119	U	O5'-P-OP2	-7.01	99.39	105.70
59	n3	120	LYS	CD-CE-NZ	7.01	127.83	111.70
1	2	104	A	C2-N3-C4	7.01	114.11	110.60
36	1	218	G	N9-C4-C5	7.01	108.20	105.40
36	1	1106	G	O5'-P-OP1	7.01	119.11	110.70
36	1	1433	A	N3-C4-C5	-7.01	121.89	126.80
36	1	2192	C	C4-C5-C6	7.01	120.90	117.40
36	1	2392	C	C6-N1-C2	7.01	123.10	120.30
1	6	810	G	O5'-P-OP2	-7.01	99.39	105.70
36	5	15	C	N3-C4-C5	7.01	124.70	121.90
36	5	1444	G	N3-C4-N9	7.01	130.21	126.00
37	7	26	C	N3-C4-C5	-7.01	119.10	121.90
38	8	4	C	O5'-P-OP2	-7.01	99.39	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1537	C	C5-C6-N1	7.01	124.50	121.00
52	M6	78	ARG	NE-CZ-NH1	7.01	123.80	120.30
1	6	13	C	N3-C2-O2	-7.01	117.00	121.90
1	6	619	A	N1-C6-N6	-7.01	114.39	118.60
1	2	1526	A	C8-N9-C4	7.01	108.60	105.80
1	6	864	U	N3-C4-C5	-7.01	110.40	114.60
36	5	858	A	C6-N1-C2	-7.01	114.40	118.60
36	5	3122	A	C4-C5-N7	7.01	114.20	110.70
1	2	1782	A	C5-C6-N1	-7.00	114.20	117.70
36	1	2323	G	C6-C5-N7	-7.00	126.20	130.40
1	6	884	A	N9-C4-C5	-7.00	103.00	105.80
36	5	1116	G	OP2-P-O3'	7.00	120.61	105.20
1	2	18	C	C5-C6-N1	7.00	124.50	121.00
1	2	1486	G	N3-C4-N9	7.00	130.20	126.00
36	1	2363	A	N3-C4-N9	-7.00	121.80	127.40
1	6	264	G	C8-N9-C4	7.00	109.20	106.40
36	5	613	G	N3-C4-C5	7.00	132.10	128.60
36	5	2244	A	C8-N9-C4	7.00	108.60	105.80
36	5	2280	A	C5-N7-C8	-7.00	100.40	103.90
36	5	2371	G	C5-C6-O6	-7.00	124.40	128.60
1	2	378	A	N9-C4-C5	-7.00	103.00	105.80
36	1	644	G	C2-N3-C4	-7.00	108.40	111.90
1	6	1034	C	C6-N1-C2	-7.00	117.50	120.30
36	5	528	U	N3-C4-C5	-7.00	110.40	114.60
36	5	1142	G	C5-N7-C8	-7.00	100.80	104.30
36	5	1407	A	C5-N7-C8	7.00	107.40	103.90
36	5	2412	G	C6-C5-N7	-7.00	126.20	130.40
36	5	2662	G	C5-N7-C8	7.00	107.80	104.30
36	5	2666	C	C6-N1-C2	7.00	123.10	120.30
36	5	3244	A	O4'-C1'-N9	-7.00	102.60	108.20
36	1	1172	G	N3-C4-C5	-7.00	125.10	128.60
36	1	2241	U	N1-C2-O2	-7.00	117.90	122.80
1	6	1362	U	C6-N1-C2	-7.00	116.80	121.00
36	1	105	C	C6-N1-C2	7.00	123.10	120.30
36	1	108	A	C8-N9-C4	7.00	108.60	105.80
36	1	589	A	C4-C5-N7	-7.00	107.20	110.70
36	1	1833	G	C5-C6-N1	-7.00	108.00	111.50
36	1	2779	A	N1-C2-N3	7.00	132.80	129.30
36	1	2804	A	C5-C6-N1	7.00	121.20	117.70
36	1	3376	A	N1-C6-N6	-7.00	114.40	118.60
37	3	89	G	C8-N9-C4	7.00	109.20	106.40
1	6	686	C	C6-N1-C2	-7.00	117.50	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	789	A	C6-N1-C2	-7.00	114.40	118.60
36	5	2969	A	C2-N3-C4	-7.00	107.10	110.60
36	5	3124	G	N3-C4-N9	-7.00	121.80	126.00
36	5	3362	A	O4'-C1'-N9	7.00	113.80	108.20
37	7	44	C	C2-N1-C1'	-7.00	111.10	118.80
36	1	537	A	N3-C4-C5	7.00	131.70	126.80
36	1	942	U	N3-C2-O2	-7.00	117.30	122.20
36	1	2885	C	N3-C4-N4	7.00	122.90	118.00
36	5	639	G	C8-N9-C1'	-7.00	117.91	127.00
36	5	940	G	C4-N9-C1'	-7.00	117.40	126.50
36	5	1192	C	C2-N3-C4	7.00	123.40	119.90
36	5	2661	G	C4-C5-C6	7.00	123.00	118.80
36	5	3335	A	N1-C2-N3	7.00	132.80	129.30
36	1	104	G	C5-C6-O6	-7.00	124.40	128.60
36	1	1306	G	C4-C5-N7	7.00	113.60	110.80
36	1	2274	U	N3-C4-O4	-7.00	114.50	119.40
36	5	422	A	N9-C4-C5	7.00	108.60	105.80
36	5	1303	A	C4-C5-C6	-7.00	113.50	117.00
1	2	162	A	C2-N3-C4	6.99	114.10	110.60
1	6	533	U	O5'-P-OP1	-6.99	99.41	105.70
1	6	600	U	N3-C4-O4	6.99	124.30	119.40
1	6	1653	C	N1-C2-O2	6.99	123.10	118.90
36	5	278	U	N1-C2-N3	6.99	119.10	114.90
36	5	1682	U	O5'-P-OP1	-6.99	99.41	105.70
36	5	2902	A	C2-N3-C4	-6.99	107.10	110.60
36	5	3207	U	C2-N1-C1'	-6.99	109.31	117.70
1	6	421	A	N9-C4-C5	-6.99	103.00	105.80
36	5	1499	C	N1-C2-O2	-6.99	114.70	118.90
36	5	2552	C	C6-N1-C2	6.99	123.10	120.30
36	5	2689	A	N3-C4-N9	-6.99	121.81	127.40
36	1	947	G	C5-C6-O6	6.99	132.79	128.60
36	1	2243	A	C4-C5-C6	6.99	120.50	117.00
36	1	2377	G	OP1-P-OP2	-6.99	109.11	119.60
36	1	2918	G	C6-N1-C2	-6.99	120.91	125.10
37	3	115	G	N9-C4-C5	-6.99	102.60	105.40
1	6	1132	A	N7-C8-N9	-6.99	110.31	113.80
36	5	2902	A	N9-C4-C5	6.99	108.60	105.80
36	5	3079	U	N3-C2-O2	-6.99	117.31	122.20
36	5	3315	G	N7-C8-N9	6.99	116.59	113.10
1	2	411	C	C6-N1-C2	6.99	123.10	120.30
1	2	581	U	C2-N1-C1'	6.99	126.08	117.70
36	1	864	G	N3-C2-N2	6.99	124.79	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	O2	115	LEU	CA-CB-CG	-6.99	99.23	115.30
1	6	316	A	N1-C6-N6	6.99	122.79	118.60
1	6	411	C	N3-C4-C5	-6.99	119.11	121.90
36	5	400	G	N3-C4-N9	-6.99	121.81	126.00
36	5	728	G	N9-C4-C5	-6.99	102.60	105.40
1	2	1737	G	C2-N3-C4	-6.99	108.41	111.90
36	1	2657	A	N1-C6-N6	-6.99	114.41	118.60
36	5	228	U	N1-C2-O2	6.99	127.69	122.80
36	5	497	C	C6-N1-C2	-6.99	117.50	120.30
36	5	1802	C	C6-N1-C2	-6.99	117.50	120.30
1	2	555	A	C8-N9-C4	-6.99	103.01	105.80
36	1	372	A	C6-C5-N7	-6.99	127.41	132.30
36	1	2999	U	C5-C6-N1	-6.99	119.21	122.70
36	1	3009	G	C6-C5-N7	-6.99	126.21	130.40
1	6	1504	G	C2-N3-C4	-6.99	108.41	111.90
36	5	774	G	C5-C6-O6	-6.99	124.41	128.60
36	5	1461	A	C8-N9-C4	6.99	108.59	105.80
36	5	920	A	OP1-P-OP2	-6.98	109.12	119.60
36	5	2601	A	C8-N9-C4	6.98	108.59	105.80
1	2	401	A	C8-N9-C4	6.98	108.59	105.80
36	1	1382	G	OP2-P-O3'	6.98	120.56	105.20
36	1	2550	U	N3-C2-O2	-6.98	117.31	122.20
37	3	82	G	N3-C4-C5	-6.98	125.11	128.60
1	6	758	U	O5'-P-OP1	-6.98	99.42	105.70
1	6	1138	A	C6-N1-C2	6.98	122.79	118.60
36	5	932	U	C2-N3-C4	-6.98	122.81	127.00
36	5	989	A	C5-C6-N6	-6.98	118.11	123.70
36	5	1119	C	O5'-P-OP2	-6.98	99.42	105.70
36	5	3366	G	C4-N9-C1'	6.98	135.58	126.50
38	8	15	G	N7-C8-N9	-6.98	109.61	113.10
36	1	62	A	C6-N1-C2	6.98	122.79	118.60
36	1	2611	U	C4-C5-C6	6.98	123.89	119.70
44	L7	108	LEU	CA-CB-CG	-6.98	99.24	115.30
1	6	1027	A	C2-N3-C4	-6.98	107.11	110.60
36	5	291	C	N3-C4-N4	-6.98	113.11	118.00
36	5	296	A	C8-N9-C4	-6.98	103.01	105.80
36	5	421	G	C8-N9-C1'	-6.98	117.92	127.00
36	5	1213	G	C8-N9-C4	-6.98	103.61	106.40
36	5	1453	A	N7-C8-N9	-6.98	110.31	113.80
36	5	1455	U	N3-C4-O4	6.98	124.29	119.40
36	1	3278	C	O5'-P-OP1	-6.98	99.42	105.70
1	6	607	G	C8-N9-C4	-6.98	103.61	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1599	C	N3-C2-O2	-6.98	117.02	121.90
36	5	1317	A	C5-C6-N6	-6.98	118.12	123.70
36	5	2396	G	C5-C6-N1	6.98	114.99	111.50
1	2	332	U	N3-C4-O4	-6.98	114.52	119.40
1	2	1127	G	C5-C6-N1	-6.98	108.01	111.50
36	1	104	G	C6-C5-N7	-6.98	126.21	130.40
36	1	1323	G	C5-C6-O6	-6.98	124.41	128.60
36	1	1895	A	O5'-P-OP1	6.98	119.07	110.70
36	1	3197	G	N3-C2-N2	-6.98	115.02	119.90
1	6	382	C	N1-C2-O2	-6.98	114.71	118.90
1	6	423	G	N3-C2-N2	-6.98	115.02	119.90
36	5	61	A	N1-C2-N3	6.98	132.79	129.30
36	5	1892	G	C6-N1-C2	-6.98	120.91	125.10
36	5	3020	U	N3-C2-O2	6.98	127.08	122.20
36	1	365	A	C8-N9-C4	-6.98	103.01	105.80
1	6	1480	G	C5-N7-C8	-6.98	100.81	104.30
36	5	804	C	C4-C5-C6	6.98	120.89	117.40
36	5	1615	C	N3-C4-N4	-6.98	113.12	118.00
36	5	2656	A	C4-C5-N7	-6.98	107.21	110.70
36	1	311	C	C5-C4-N4	-6.97	115.32	120.20
36	1	733	G	C4-C5-N7	6.97	113.59	110.80
36	5	198	A	C8-N9-C4	-6.97	103.01	105.80
36	5	432	G	C5-C6-N1	-6.97	108.01	111.50
36	5	1113	G	N1-C2-N3	6.97	128.09	123.90
36	5	1716	U	P-O3'-C3'	6.97	128.07	119.70
36	1	2117	A	C6-N1-C2	-6.97	114.42	118.60
36	1	2340	U	C5-C4-O4	-6.97	121.72	125.90
38	4	18	U	O5'-P-OP2	6.97	119.07	110.70
1	6	610	G	C8-N9-C1'	-6.97	117.94	127.00
36	5	937	G	N3-C2-N2	6.97	124.78	119.90
36	5	2853	A	C5-C6-N6	-6.97	118.12	123.70
36	5	3003	G	C5-C6-N1	6.97	114.99	111.50
36	1	24	G	C8-N9-C4	6.97	109.19	106.40
36	5	2650	U	O5'-P-OP2	-6.97	99.43	105.70
1	2	1206	U	N3-C4-C5	-6.97	110.42	114.60
36	1	4	U	N3-C4-O4	-6.97	114.52	119.40
36	1	87	U	N3-C2-O2	-6.97	117.32	122.20
36	1	2895	G	C8-N9-C1'	-6.97	117.94	127.00
36	1	3107	U	OP2-P-O3'	6.97	120.53	105.20
37	3	85	G	O5'-P-OP2	-6.97	99.43	105.70
36	5	851	C	C6-N1-C2	6.97	123.09	120.30
36	5	1502	C	N3-C4-C5	6.97	124.69	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2850	G	C5-N7-C8	6.97	107.78	104.30
36	5	2855	U	N1-C2-N3	6.97	119.08	114.90
1	2	1789	G	C4-N9-C1'	6.97	135.56	126.50
36	1	702	C	N1-C2-O2	6.97	123.08	118.90
36	1	860	G	N9-C4-C5	-6.97	102.61	105.40
36	1	1311	G	N7-C8-N9	-6.97	109.62	113.10
36	5	424	G	C6-C5-N7	-6.97	126.22	130.40
36	5	2194	G	N1-C2-N3	6.97	128.08	123.90
36	5	3392	U	N3-C2-O2	-6.97	117.32	122.20
1	2	639	U	N1-C2-O2	6.97	127.68	122.80
36	1	1477	A	C5-C6-N1	6.97	121.18	117.70
36	1	2655	U	N3-C4-C5	-6.97	110.42	114.60
1	6	371	G	C6-C5-N7	-6.97	126.22	130.40
36	5	1184	A	C4-C5-C6	-6.97	113.52	117.00
1	6	1026	A	O5'-P-OP1	-6.96	99.43	105.70
36	5	1115	G	C4-C5-C6	6.96	122.98	118.80
37	7	67	G	C5-C6-N1	-6.96	108.02	111.50
38	8	15	G	C5-C6-O6	6.96	132.78	128.60
1	2	419	G	N1-C6-O6	6.96	124.08	119.90
36	5	1318	A	C8-N9-C4	6.96	108.58	105.80
36	5	2922	G	OP1-P-O3'	6.96	120.52	105.20
1	2	1625	C	C2-N1-C1'	-6.96	111.14	118.80
36	1	913	A	C4-C5-C6	6.96	120.48	117.00
1	6	400	A	N1-C6-N6	6.96	122.78	118.60
1	6	1396	U	C5-C4-O4	6.96	130.08	125.90
1	6	1671	A	N1-C2-N3	6.96	132.78	129.30
36	5	515	C	N3-C4-N4	-6.96	113.13	118.00
36	5	1004	U	C6-N1-C2	-6.96	116.82	121.00
36	5	1300	G	C5-C6-N1	-6.96	108.02	111.50
40	13	5	LYS	CD-CE-NZ	6.96	127.71	111.70
36	1	14	U	N3-C2-O2	-6.96	117.33	122.20
36	1	394	G	C2-N3-C4	6.96	115.38	111.90
36	1	495	G	C2-N3-C4	-6.96	108.42	111.90
36	1	3271	G	N3-C2-N2	6.96	124.77	119.90
1	6	1730	A	N1-C2-N3	6.96	132.78	129.30
36	5	1065	A	O5'-P-OP1	-6.96	99.44	105.70
36	5	2662	G	C6-N1-C2	-6.96	120.92	125.10
36	5	2714	G	OP1-P-O3'	6.96	120.51	105.20
36	5	3005	A	C6-C5-N7	-6.96	127.43	132.30
1	2	377	G	N3-C2-N2	-6.96	115.03	119.90
1	2	1147	A	C8-N9-C4	-6.96	103.02	105.80
36	1	63	A	N1-C6-N6	6.96	122.78	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	197	G	O5'-P-OP1	-6.96	99.44	105.70
36	1	1544	G	O5'-P-OP2	-6.96	99.44	105.70
36	1	1665	C	C6-N1-C2	6.96	123.08	120.30
36	1	2720	G	OP2-P-O3'	6.96	120.51	105.20
36	1	3083	G	N7-C8-N9	-6.96	109.62	113.10
1	6	609	U	C5-C6-N1	-6.96	119.22	122.70
36	5	3129	A	OP2-P-O3'	6.96	120.51	105.20
36	1	1920	U	N1-C2-N3	6.96	119.07	114.90
36	1	3009	G	C2-N3-C4	-6.96	108.42	111.90
1	6	175	G	C5-C6-O6	-6.96	124.43	128.60
1	6	578	U	C2-N1-C1'	-6.96	109.35	117.70
1	6	1354	G	N7-C8-N9	6.96	116.58	113.10
1	6	1525	A	N9-C4-C5	6.96	108.58	105.80
1	6	1663	G	O5'-P-OP1	6.96	119.05	110.70
1	6	1730	A	C5-C6-N6	6.96	129.27	123.70
36	5	940	G	C2-N3-C4	6.96	115.38	111.90
36	5	1544	G	N1-C2-N3	6.96	128.07	123.90
36	5	2698	G	N1-C6-O6	6.96	124.07	119.90
36	5	2988	C	N3-C4-N4	6.96	122.87	118.00
36	5	3172	A	C8-N9-C4	6.96	108.58	105.80
36	5	3295	A	N1-C6-N6	-6.96	114.43	118.60
1	2	1143	A	C4-C5-C6	-6.96	113.52	117.00
36	1	339	C	N1-C2-N3	6.96	124.07	119.20
36	1	754	G	C8-N9-C4	6.96	109.18	106.40
36	1	1898	G	C5-C6-N1	6.95	114.98	111.50
36	1	2866	U	N3-C4-O4	-6.95	114.53	119.40
36	1	2881	C	C2-N1-C1'	-6.95	111.15	118.80
36	1	2997	G	C6-C5-N7	-6.95	126.23	130.40
1	6	392	G	C5-C6-O6	-6.95	124.43	128.60
1	6	1448	G	O5'-P-OP2	-6.95	99.44	105.70
1	6	1527	C	O5'-P-OP2	-6.95	99.44	105.70
36	5	2391	G	C4-C5-N7	-6.95	108.02	110.80
37	7	46	A	C5-C6-N1	6.95	121.18	117.70
3	s1	115	ARG	NE-CZ-NH1	6.95	123.78	120.30
36	5	2743	A	C6-N1-C2	-6.95	114.43	118.60
37	7	45	A	O5'-P-OP1	6.95	119.04	110.70
36	1	61	A	C5-N7-C8	-6.95	100.42	103.90
36	1	1936	A	C5-C6-N1	6.95	121.17	117.70
1	6	789	A	N9-C4-C5	6.95	108.58	105.80
1	6	1484	G	N1-C6-O6	-6.95	115.73	119.90
36	5	375	A	OP1-P-O3'	6.95	120.49	105.20
36	5	2204	C	C6-N1-C2	-6.95	117.52	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	133	G	N3-C4-C5	6.95	132.08	128.60
36	1	215	G	O5'-P-OP2	-6.95	99.45	105.70
36	1	1399	A	C5-C6-N1	-6.95	114.23	117.70
36	1	2299	A	C8-N9-C4	-6.95	103.02	105.80
36	1	2935	U	N3-C4-C5	-6.95	110.43	114.60
1	6	1074	G	C2-N3-C4	-6.95	108.42	111.90
1	6	1622	G	C6-C5-N7	-6.95	126.23	130.40
36	5	553	U	N3-C2-O2	-6.95	117.34	122.20
36	5	2279	A	N1-C6-N6	6.95	122.77	118.60
36	5	2851	A	N7-C8-N9	-6.95	110.33	113.80
36	5	3197	G	N1-C6-O6	6.95	124.07	119.90
36	1	208	C	C5-C4-N4	-6.95	115.34	120.20
36	1	1155	C	OP1-P-O3'	6.95	120.48	105.20
36	1	1213	G	C5-C6-O6	-6.95	124.43	128.60
36	5	2722	U	P-O3'-C3'	6.95	128.04	119.70
1	2	458	G	N3-C4-N9	-6.95	121.83	126.00
38	4	104	A	N1-C6-N6	-6.95	114.43	118.60
1	6	58	U	C6-N1-C2	-6.95	116.83	121.00
1	6	942	G	N9-C4-C5	6.95	108.18	105.40
1	6	971	A	N3-C4-C5	6.95	131.66	126.80
36	5	910	G	N3-C4-C5	6.95	132.07	128.60
36	5	969	C	N1-C2-N3	6.95	124.06	119.20
36	5	3084	C	OP2-P-O3'	6.95	120.48	105.20
36	1	1396	C	N3-C4-N4	6.94	122.86	118.00
1	6	1498	G	N9-C4-C5	-6.94	102.62	105.40
36	5	1135	A	O5'-P-OP2	-6.94	99.45	105.70
36	5	2764	C	C5-C6-N1	6.94	124.47	121.00
36	1	225	C	C2-N1-C1'	6.94	126.44	118.80
36	1	699	A	N3-C4-N9	-6.94	121.85	127.40
36	1	963	G	N9-C4-C5	-6.94	102.62	105.40
36	1	2306	C	C6-N1-C1'	-6.94	112.47	120.80
36	5	2937	G	C5-C6-O6	-6.94	124.43	128.60
36	5	3136	G	N1-C6-O6	6.94	124.07	119.90
38	8	100	U	C2-N1-C1'	6.94	126.03	117.70
1	2	515	A	N7-C8-N9	6.94	117.27	113.80
1	2	990	C	C6-N1-C2	-6.94	117.52	120.30
36	1	39	A	C5-N7-C8	-6.94	100.43	103.90
36	1	889	U	C5-C6-N1	-6.94	119.23	122.70
36	1	1355	A	N1-C6-N6	6.94	122.76	118.60
36	1	1893	A	N1-C2-N3	6.94	132.77	129.30
36	1	2423	U	C5-C6-N1	6.94	126.17	122.70
36	5	1342	C	OP1-P-OP2	6.94	130.01	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1498	A	N9-C4-C5	6.94	108.58	105.80
36	1	404	G	N9-C4-C5	-6.94	102.62	105.40
36	1	2182	A	O5'-P-OP2	6.94	119.03	110.70
36	1	2983	C	C5-C4-N4	6.94	125.06	120.20
36	1	3230	G	N3-C4-N9	-6.94	121.84	126.00
36	1	3305	A	C4-C5-C6	6.94	120.47	117.00
1	6	1586	A	C5-C6-N1	6.94	121.17	117.70
36	5	951	A	N9-C4-C5	6.94	108.58	105.80
37	3	79	A	C5-C6-N1	-6.94	114.23	117.70
1	6	752	A	N1-C6-N6	6.94	122.76	118.60
36	5	197	G	N7-C8-N9	6.94	116.57	113.10
36	5	3366	G	C4-C5-C6	6.94	122.96	118.80
1	2	1572	G	N1-C6-O6	6.94	124.06	119.90
36	1	1127	G	N1-C2-N3	6.94	128.06	123.90
36	1	1783	U	C5-C4-O4	6.94	130.06	125.90
36	1	2627	C	N1-C2-N3	6.94	124.06	119.20
36	1	3362	A	C8-N9-C4	-6.94	103.03	105.80
36	5	1386	A	N7-C8-N9	6.94	117.27	113.80
1	2	1186	U	C5-C4-O4	6.93	130.06	125.90
1	2	1558	U	N1-C2-O2	6.93	127.65	122.80
1	2	1610	G	N3-C4-N9	6.93	130.16	126.00
36	1	26	A	C8-N9-C4	-6.93	103.03	105.80
36	1	112	U	C5-C6-N1	-6.93	119.23	122.70
36	1	594	U	C5-C4-O4	6.93	130.06	125.90
36	1	712	G	C8-N9-C4	6.93	109.17	106.40
36	1	2880	U	N3-C2-O2	-6.93	117.35	122.20
36	1	2974	U	N1-C2-O2	-6.93	117.95	122.80
36	1	3085	G	C4-C5-N7	6.93	113.57	110.80
53	M7	138	LYS	CD-CE-NZ	6.93	127.65	111.70
36	5	2244	A	C5-C6-N1	6.93	121.17	117.70
37	7	67	G	N1-C6-O6	6.93	124.06	119.90
36	1	53	G	C8-N9-C1'	-6.93	117.99	127.00
36	1	873	C	N1-C2-O2	-6.93	114.74	118.90
36	1	1443	G	N9-C4-C5	-6.93	102.63	105.40
36	1	2698	G	N1-C6-O6	6.93	124.06	119.90
1	6	1025	A	C2-N3-C4	-6.93	107.13	110.60
36	5	1899	G	C8-N9-C4	6.93	109.17	106.40
36	5	2613	U	C6-N1-C2	-6.93	116.84	121.00
36	5	2706	G	C5-C6-N1	6.93	114.97	111.50
36	5	3052	G	N1-C2-N2	-6.93	109.96	116.20
37	7	25	G	C5-C6-N1	6.93	114.97	111.50
38	8	80	A	N7-C8-N9	6.93	117.27	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	921	A	C6-N1-C2	-6.93	114.44	118.60
36	5	927	C	C2-N1-C1'	6.93	126.42	118.80
36	5	1060	U	N1-C2-N3	6.93	119.06	114.90
36	5	1582	C	C5-C4-N4	-6.93	115.35	120.20
36	5	2164	A	N9-C4-C5	6.93	108.57	105.80
36	5	2375	G	N1-C2-N3	6.93	128.06	123.90
36	5	2984	C	N1-C2-N3	6.93	124.05	119.20
38	8	47	C	N3-C4-N4	-6.93	113.15	118.00
36	1	700	C	C2-N1-C1'	-6.93	111.18	118.80
36	1	865	U	N3-C4-O4	-6.93	114.55	119.40
38	4	39	G	C5-C6-O6	-6.93	124.44	128.60
36	5	817	A	OP2-P-O3'	6.93	120.45	105.20
36	5	2677	G	N1-C6-O6	6.93	124.06	119.90
36	1	369	A	C8-N9-C4	-6.93	103.03	105.80
36	1	1204	A	N1-C2-N3	6.93	132.76	129.30
36	1	2405	C	N3-C4-C5	-6.93	119.13	121.90
1	2	1217	A	C5-N7-C8	-6.93	100.44	103.90
1	2	1558	U	C6-N1-C1'	-6.93	111.50	121.20
36	5	718	G	C4-C5-N7	6.93	113.57	110.80
36	5	2905	U	C5-C6-N1	-6.93	119.24	122.70
36	5	2930	A	O4'-C1'-N9	6.93	113.74	108.20
36	1	1313	G	C4-C5-N7	6.92	113.57	110.80
36	1	3178	A	C2-N3-C4	-6.92	107.14	110.60
75	O9	13	MET	CB-CG-SD	-6.92	91.62	112.40
1	6	553	G	C5-C6-O6	-6.92	124.45	128.60
1	6	876	G	C8-N9-C1'	6.92	136.00	127.00
36	5	1332	A	N1-C6-N6	6.92	122.75	118.60
36	5	2368	A	C8-N9-C4	-6.92	103.03	105.80
36	5	3337	G	O5'-P-OP2	-6.92	99.47	105.70
1	2	1631	A	C8-N9-C4	-6.92	103.03	105.80
36	1	978	G	C8-N9-C4	6.92	109.17	106.40
36	5	3052	G	OP2-P-O3'	6.92	120.43	105.20
36	1	1667	A	C8-N9-C4	-6.92	103.03	105.80
36	1	2775	U	N3-C4-O4	-6.92	114.56	119.40
38	4	10	A	C5-N7-C8	6.92	107.36	103.90
1	6	1108	G	N1-C6-O6	-6.92	115.75	119.90
36	5	421	G	C6-N1-C2	-6.92	120.95	125.10
36	5	779	G	C8-N9-C4	-6.92	103.63	106.40
36	5	821	U	N3-C4-C5	-6.92	110.45	114.60
36	5	1046	A	N9-C4-C5	6.92	108.57	105.80
36	1	2322	C	C5-C6-N1	6.92	124.46	121.00
38	4	30	C	C6-N1-C2	6.92	123.07	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	138	A	C4-C5-N7	-6.92	107.24	110.70
36	1	386	A	C6-C5-N7	-6.92	127.46	132.30
36	1	953	G	C6-C5-N7	6.92	134.55	130.40
1	6	410	A	N1-C2-N3	6.92	132.76	129.30
1	6	1350	U	C5-C6-N1	-6.92	119.24	122.70
1	6	1673	G	N9-C4-C5	-6.92	102.63	105.40
1	6	1774	G	N3-C2-N2	-6.92	115.06	119.90
36	5	2939	G	N1-C6-O6	6.92	124.05	119.90
37	7	56	A	C6-C5-N7	-6.92	127.46	132.30
37	7	68	C	N1-C2-N3	6.92	124.04	119.20
37	7	104	A	O5'-P-OP2	-6.92	99.47	105.70
1	2	48	G	C8-N9-C4	-6.92	103.63	106.40
36	1	75	G	N1-C6-O6	6.92	124.05	119.90
36	1	802	C	N1-C2-N3	6.92	124.04	119.20
36	1	1365	G	N7-C8-N9	6.92	116.56	113.10
36	1	2635	A	C5-C6-N6	6.92	129.23	123.70
36	1	3013	U	O5'-P-OP2	-6.92	99.48	105.70
36	5	2354	C	C6-N1-C2	-6.92	117.53	120.30
36	5	3188	G	C5-C6-N1	6.92	114.96	111.50
36	1	2941	A	OP1-P-O3'	6.92	120.41	105.20
36	1	2964	G	C2-N3-C4	-6.92	108.44	111.90
36	5	1160	C	OP2-P-O3'	6.92	120.41	105.20
36	5	3346	U	C2-N1-C1'	6.92	126.00	117.70
1	2	1152	A	C8-N9-C4	6.91	108.56	105.80
36	1	512	U	N3-C4-O4	6.91	124.24	119.40
36	1	885	U	OP1-P-O3'	6.91	120.41	105.20
36	1	1134	G	N9-C4-C5	6.91	108.17	105.40
36	1	1170	A	C4-C5-N7	6.91	114.16	110.70
36	1	1670	C	N1-C2-O2	-6.91	114.75	118.90
36	1	3319	U	C6-N1-C1'	-6.91	111.52	121.20
1	6	144	U	C6-N1-C1'	-6.91	111.52	121.20
1	6	1572	G	N3-C2-N2	-6.91	115.06	119.90
1	6	1604	U	N3-C4-O4	6.91	124.24	119.40
36	5	364	G	N1-C2-N2	-6.91	109.98	116.20
36	5	726	G	N7-C8-N9	6.91	116.56	113.10
36	5	1321	G	C4-C5-C6	6.91	122.95	118.80
36	5	2636	A	N1-C2-N3	6.91	132.76	129.30
36	1	3266	G	N7-C8-N9	6.91	116.56	113.10
37	3	82	G	N1-C2-N2	-6.91	109.98	116.20
36	5	968	G	C8-N9-C4	6.91	109.17	106.40
36	5	1508	C	C6-N1-C2	-6.91	117.53	120.30
36	1	2884	C	N3-C4-C5	6.91	124.66	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3203	U	N3-C4-C5	-6.91	110.45	114.60
36	5	1582	C	C4-C5-C6	-6.91	113.94	117.40
1	2	551	G	C5-C6-N1	-6.91	108.05	111.50
36	1	233	C	C5-C6-N1	-6.91	117.55	121.00
36	1	601	U	N3-C2-O2	-6.91	117.36	122.20
36	1	1432	C	N3-C2-O2	-6.91	117.06	121.90
36	1	2808	A	O4'-C1'-N9	-6.91	102.67	108.20
1	6	448	C	C6-N1-C1'	6.91	129.09	120.80
1	6	461	G	N3-C4-N9	6.91	130.15	126.00
1	6	549	G	N1-C6-O6	6.91	124.05	119.90
36	5	805	G	N3-C4-N9	6.91	130.15	126.00
36	5	1205	A	C2-N3-C4	-6.91	107.15	110.60
36	5	1886	A	N9-C4-C5	6.91	108.56	105.80
36	5	2225	U	N3-C2-O2	-6.91	117.36	122.20
36	5	3246	G	C5-N7-C8	-6.91	100.85	104.30
36	5	3389	U	C5-C6-N1	6.91	126.16	122.70
37	7	2	G	C5-C6-O6	6.91	132.75	128.60
36	1	2961	G	N1-C2-N2	-6.91	109.98	116.20
36	5	1076	C	C2-N3-C4	-6.91	116.45	119.90
36	5	1834	U	C4-C5-C6	6.91	123.84	119.70
36	5	2116	G	N3-C2-N2	-6.91	115.06	119.90
36	5	2729	U	C5-C4-O4	6.91	130.04	125.90
36	5	3010	U	C5-C4-O4	6.91	130.04	125.90
36	1	199	A	O4'-C1'-N9	6.91	113.72	108.20
36	1	1190	A	C2-N3-C4	6.91	114.05	110.60
36	1	1317	A	N7-C8-N9	6.91	117.25	113.80
36	1	1880	U	O5'-P-OP1	6.91	118.99	110.70
36	1	2839	G	C5-N7-C8	-6.91	100.85	104.30
36	1	2932	U	N3-C4-O4	-6.91	114.57	119.40
36	5	32	U	N3-C2-O2	-6.91	117.37	122.20
36	5	56	G	N7-C8-N9	-6.91	109.65	113.10
36	5	65	A	P-O3'-C3'	6.91	127.99	119.70
36	5	2288	G	C4-C5-N7	6.91	113.56	110.80
1	2	1339	C	N3-C4-C5	6.90	124.66	121.90
36	1	2210	G	N1-C6-O6	-6.90	115.76	119.90
36	1	2326	A	C5-N7-C8	-6.90	100.45	103.90
1	6	55	A	N1-C6-N6	-6.90	114.46	118.60
1	6	427	C	N3-C4-N4	-6.90	113.17	118.00
36	5	584	G	N7-C8-N9	6.90	116.55	113.10
36	5	2524	A	N7-C8-N9	6.90	117.25	113.80
36	5	3315	G	N1-C2-N2	-6.90	109.99	116.20
37	7	56	A	C2-N3-C4	-6.90	107.15	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1208	A	C2-N3-C4	-6.90	107.15	110.60
1	2	1214	U	N3-C2-O2	-6.90	117.37	122.20
36	1	2802	A	OP2-P-O3'	6.90	120.38	105.20
36	5	2906	C	N3-C2-O2	6.90	126.73	121.90
38	8	15	G	N1-C6-O6	-6.90	115.76	119.90
1	2	1579	U	N1-C2-O2	6.90	127.63	122.80
36	5	3096	C	OP1-P-O3'	-6.90	90.02	105.20
1	2	1745	G	C8-N9-C4	6.90	109.16	106.40
36	1	640	U	OP1-P-OP2	-6.90	109.25	119.60
36	1	2296	A	O5'-P-OP1	-6.90	99.49	105.70
36	1	2857	C	C6-N1-C2	-6.90	117.54	120.30
36	1	2994	A	C4-C5-C6	6.90	120.45	117.00
36	1	3137	C	C2-N1-C1'	-6.90	111.21	118.80
1	6	1535	U	C2-N3-C4	-6.90	122.86	127.00
36	5	139	G	O5'-P-OP1	-6.90	99.49	105.70
1	2	60	U	C5-C6-N1	6.90	126.15	122.70
36	1	345	G	N1-C6-O6	6.90	124.04	119.90
36	1	1530	U	C6-N1-C2	6.90	125.14	121.00
1	6	1207	C	P-O3'-C3'	6.90	127.97	119.70
36	5	1040	A	C8-N9-C4	6.90	108.56	105.80
36	5	3298	C	C5-C6-N1	-6.90	117.55	121.00
36	1	183	G	N3-C4-N9	6.89	130.14	126.00
36	1	803	C	C5-C4-N4	-6.89	115.37	120.20
36	1	1166	G	N9-C4-C5	-6.89	102.64	105.40
36	1	1658	G	N9-C4-C5	6.89	108.16	105.40
36	1	1920	U	C6-N1-C2	-6.89	116.86	121.00
36	1	2380	U	N3-C4-O4	-6.89	114.57	119.40
1	6	107	C	N3-C4-C5	-6.89	119.14	121.90
36	5	1439	U	N1-C2-O2	-6.89	117.97	122.80
36	5	1725	C	N3-C4-N4	6.89	122.83	118.00
1	2	1541	G	C6-C5-N7	-6.89	126.27	130.40
36	1	622	A	N9-C4-C5	-6.89	103.04	105.80
36	1	949	C	C4-C5-C6	6.89	120.85	117.40
36	1	2605	G	N1-C6-O6	6.89	124.03	119.90
36	1	2946	A	C8-N9-C4	-6.89	103.04	105.80
36	5	2821	C	C2-N1-C1'	6.89	126.38	118.80
36	5	2878	G	C8-N9-C4	-6.89	103.64	106.40
36	5	3063	C	C5-C6-N1	-6.89	117.55	121.00
36	1	1556	C	N1-C2-N3	6.89	124.02	119.20
36	1	2236	G	C6-C5-N7	-6.89	126.27	130.40
73	O7	5	THR	C-N-CD	6.89	142.87	128.40
1	6	816	G	C8-N9-C4	6.89	109.16	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1486	G	N3-C4-N9	-6.89	121.87	126.00
36	5	2898	G	OP2-P-O3'	6.89	120.36	105.20
36	1	1365	G	C5-N7-C8	-6.89	100.86	104.30
36	1	1885	U	C5-C6-N1	-6.89	119.25	122.70
36	5	2161	G	N3-C4-C5	-6.89	125.16	128.60
36	5	2386	A	N7-C8-N9	6.89	117.25	113.80
36	5	2870	C	N3-C4-C5	6.89	124.66	121.90
36	5	2934	A	C2-N3-C4	-6.89	107.16	110.60
1	2	507	U	C2-N1-C1'	6.89	125.97	117.70
36	1	2787	G	C5-C6-O6	-6.89	124.47	128.60
36	1	2993	G	C4-N9-C1'	6.89	135.45	126.50
38	4	17	A	OP2-P-O3'	6.89	120.35	105.20
36	5	2403	G	O5'-P-OP2	-6.89	99.50	105.70
36	5	2614	G	C4-C5-N7	6.89	113.56	110.80
36	5	2926	A	C4-C5-C6	6.89	120.44	117.00
36	1	285	A	C5-C6-N6	-6.89	118.19	123.70
36	1	574	U	N1-C2-O2	-6.89	117.98	122.80
36	1	1893	A	O5'-P-OP2	-6.89	99.50	105.70
36	1	3361	G	N3-C4-C5	-6.89	125.16	128.60
1	6	542	A	C8-N9-C4	-6.89	103.05	105.80
36	5	1381	A	O5'-P-OP2	6.89	118.97	110.70
36	5	2247	G	N1-C2-N2	-6.89	110.00	116.20
36	5	2977	G	C5-N7-C8	-6.89	100.86	104.30
1	2	1498	G	C8-N9-C1'	-6.88	118.05	127.00
38	4	46	G	C4-N9-C1'	6.88	135.45	126.50
36	5	744	A	N1-C6-N6	6.88	122.73	118.60
36	5	874	U	C6-N1-C1'	6.88	130.84	121.20
36	5	1355	A	C5-C6-N6	6.88	129.21	123.70
36	5	2851	A	N9-C4-C5	6.88	108.55	105.80
36	1	41	G	N1-C2-N3	-6.88	119.77	123.90
36	1	2957	G	C5-N7-C8	-6.88	100.86	104.30
1	6	1241	G	C6-C5-N7	-6.88	126.27	130.40
36	5	1272	C	C6-N1-C2	-6.88	117.55	120.30
36	1	284	A	C4-C5-C6	6.88	120.44	117.00
36	1	750	G	OP2-P-O3'	6.88	120.34	105.20
1	6	1086	A	N3-C4-N9	-6.88	121.89	127.40
36	5	1311	G	C4-C5-C6	6.88	122.93	118.80
36	5	1422	G	N1-C6-O6	6.88	124.03	119.90
36	5	2966	G	N1-C2-N3	6.88	128.03	123.90
36	5	3148	U	N3-C2-O2	-6.88	117.38	122.20
37	7	1	G	N3-C4-N9	6.88	130.13	126.00
37	7	69	C	C5-C4-N4	-6.88	115.38	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	N0	115	ARG	NE-CZ-NH1	6.88	123.74	120.30
36	5	724	U	N1-C2-N3	6.88	119.03	114.90
36	5	1206	G	N3-C4-C5	-6.88	125.16	128.60
36	5	2274	U	N3-C2-O2	6.88	127.02	122.20
36	1	272	G	C4-N9-C1'	-6.88	117.56	126.50
36	1	3374	U	C6-N1-C2	6.88	125.13	121.00
1	6	54	C	C2-N3-C4	-6.88	116.46	119.90
1	6	1028	C	C2-N3-C4	-6.88	116.46	119.90
36	5	349	A	N9-C4-C5	6.88	108.55	105.80
36	5	569	A	C5-C6-N6	-6.88	118.20	123.70
36	5	2673	A	C5-N7-C8	6.88	107.34	103.90
36	5	2828	G	C5-C6-N1	6.88	114.94	111.50
1	2	51	A	C8-N9-C4	6.88	108.55	105.80
36	1	33	G	N3-C4-N9	-6.88	121.87	126.00
38	4	27	U	C5-C6-N1	6.88	126.14	122.70
36	5	842	G	N7-C8-N9	-6.88	109.66	113.10
36	5	1239	C	C5-C6-N1	6.88	124.44	121.00
37	7	10	C	C2-N1-C1'	6.88	126.36	118.80
37	7	47	C	C2-N3-C4	-6.88	116.46	119.90
36	1	1148	G	C4-C5-N7	6.88	113.55	110.80
36	5	718	G	N1-C6-O6	6.88	124.03	119.90
1	2	1358	G	C8-N9-C4	6.87	109.15	106.40
36	1	131	C	C6-N1-C2	-6.87	117.55	120.30
36	1	655	C	N3-C2-O2	-6.87	117.09	121.90
36	1	1157	G	OP2-P-O3'	6.87	120.32	105.20
36	1	2196	C	C6-N1-C2	6.87	123.05	120.30
36	1	2934	A	C2-N3-C4	-6.87	107.16	110.60
1	6	403	G	N3-C2-N2	-6.87	115.09	119.90
36	5	404	G	C8-N9-C1'	-6.87	118.06	127.00
36	5	689	U	OP2-P-O3'	6.87	120.32	105.20
36	5	1005	G	N3-C4-C5	6.87	132.04	128.60
36	5	1178	G	OP1-P-OP2	6.87	129.91	119.60
36	5	2135	U	N1-C2-O2	6.87	127.61	122.80
36	5	2392	C	N3-C2-O2	6.87	126.71	121.90
36	5	2410	U	C4-C5-C6	-6.87	115.58	119.70
36	5	2613	U	N1-C2-N3	6.87	119.02	114.90
1	2	1200	G	C6-C5-N7	-6.87	126.28	130.40
36	1	1337	A	N1-C2-N3	6.87	132.74	129.30
36	1	1345	G	C6-C5-N7	-6.87	126.28	130.40
36	1	1407	A	C5-C6-N1	6.87	121.14	117.70
36	1	1501	U	C5-C6-N1	6.87	126.14	122.70
36	1	2824	G	C8-N9-C1'	-6.87	118.07	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1197	C	O5'-P-OP2	-6.87	99.52	105.70
36	5	2919	A	N1-C6-N6	-6.87	114.48	118.60
36	5	2955	U	N3-C4-O4	6.87	124.21	119.40
37	7	101	G	C2-N3-C4	-6.87	108.47	111.90
37	7	102	A	N9-C4-C5	-6.87	103.05	105.80
36	1	48	A	N1-C2-N3	6.87	132.74	129.30
38	4	53	A	O5'-P-OP2	-6.87	99.52	105.70
1	6	779	U	N3-C2-O2	-6.87	117.39	122.20
36	5	2855	U	C4-C5-C6	6.87	123.82	119.70
1	2	111	U	N3-C4-O4	6.87	124.21	119.40
36	1	84	U	C5-C6-N1	-6.87	119.27	122.70
36	1	1154	A	C8-N9-C4	-6.87	103.05	105.80
36	1	1177	G	N1-C6-O6	6.87	124.02	119.90
36	1	1449	A	C8-N9-C4	-6.87	103.05	105.80
36	1	1661	G	N1-C2-N2	-6.87	110.02	116.20
36	5	1045	C	C2-N3-C4	-6.87	116.47	119.90
36	5	1931	U	C5-C4-O4	6.87	130.02	125.90
36	5	3197	G	N3-C2-N2	-6.87	115.09	119.90
36	5	3212	C	C2-N1-C1'	-6.87	111.24	118.80
36	1	3031	G	N3-C4-C5	6.87	132.03	128.60
1	6	746	A	C6-C5-N7	-6.87	127.49	132.30
1	6	1346	A	O4'-C1'-N9	6.87	113.69	108.20
36	5	1364	C	N3-C2-O2	-6.87	117.09	121.90
1	2	1135	U	C5-C4-O4	6.87	130.02	125.90
36	5	2617	U	N3-C4-C5	-6.87	110.48	114.60
36	5	2633	U	N3-C4-C5	-6.87	110.48	114.60
36	1	707	U	C4-C5-C6	6.86	123.82	119.70
36	1	907	G	N3-C4-N9	6.86	130.12	126.00
36	5	1199	C	C4-C5-C6	6.86	120.83	117.40
38	8	38	U	N1-C2-O2	6.86	127.60	122.80
36	1	223	U	N3-C4-O4	-6.86	114.60	119.40
36	1	2240	G	C5-C6-N1	-6.86	108.07	111.50
1	6	1546	G	N3-C4-N9	6.86	130.12	126.00
36	5	189	G	C5-C6-O6	6.86	132.72	128.60
36	5	1508	C	N3-C4-C5	-6.86	119.16	121.90
36	5	2637	A	C6-N1-C2	-6.86	114.48	118.60
36	5	3322	A	C6-C5-N7	-6.86	127.50	132.30
1	2	1150	G	C8-N9-C4	-6.86	103.66	106.40
36	1	112	U	O4'-C1'-N1	6.86	113.69	108.20
36	1	1493	G	N3-C4-N9	-6.86	121.88	126.00
36	1	2613	U	N3-C4-O4	6.86	124.20	119.40
38	4	4	C	C2-N1-C1'	6.86	126.35	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	359	A	C4-N9-C1'	-6.86	113.95	126.30
1	6	1735	U	N1-C2-N3	6.86	119.02	114.90
1	2	1271	G	C8-N9-C4	6.86	109.14	106.40
36	1	2787	G	C4-C5-N7	6.86	113.54	110.80
1	6	1282	U	C6-N1-C2	-6.86	116.88	121.00
36	5	1510	G	O5'-P-OP1	-6.86	99.53	105.70
36	5	2756	C	N3-C4-C5	6.86	124.64	121.90
36	5	3040	A	N7-C8-N9	-6.86	110.37	113.80
36	5	342	A	C2-N3-C4	6.86	114.03	110.60
36	5	432	G	N1-C6-O6	6.86	124.01	119.90
36	5	712	G	C5-C6-O6	-6.86	124.48	128.60
36	5	2190	U	N3-C4-C5	-6.86	110.48	114.60
36	5	2276	G	N1-C6-O6	-6.86	115.78	119.90
36	1	2112	U	O5'-P-OP2	-6.86	99.53	105.70
36	1	2304	C	C6-N1-C2	6.86	123.04	120.30
36	1	2368	A	O5'-P-OP1	6.86	118.93	110.70
36	1	2812	C	O5'-P-OP2	6.86	118.93	110.70
36	5	1126	G	N1-C6-O6	6.86	124.01	119.90
36	5	3013	U	C2-N1-C1'	6.86	125.93	117.70
36	5	3219	G	N1-C6-O6	-6.86	115.79	119.90
1	6	569	C	N3-C2-O2	-6.85	117.10	121.90
1	6	1512	G	N1-C6-O6	6.85	124.01	119.90
36	1	881	C	N3-C2-O2	-6.85	117.10	121.90
36	1	1886	A	C5-N7-C8	-6.85	100.47	103.90
1	6	160	C	C6-N1-C2	6.85	123.04	120.30
36	5	1101	G	C5-C6-N1	6.85	114.93	111.50
36	5	1192	C	C4-C5-C6	6.85	120.83	117.40
36	5	2330	C	C2-N1-C1'	6.85	126.34	118.80
36	1	2278	C	C4-C5-C6	-6.85	113.97	117.40
36	1	2418	G	N3-C4-C5	-6.85	125.17	128.60
36	5	962	A	C2-N3-C4	-6.85	107.17	110.60
36	5	3129	A	N9-C4-C5	6.85	108.54	105.80
36	5	3226	A	C5-C6-N6	6.85	129.18	123.70
38	8	2	A	C5-N7-C8	-6.85	100.47	103.90
1	2	1212	G	C4-C5-N7	6.85	113.54	110.80
36	1	1224	C	N1-C2-O2	6.85	123.01	118.90
36	1	2608	G	C5-C6-O6	-6.85	124.49	128.60
36	1	3256	G	C6-C5-N7	-6.85	126.29	130.40
1	6	797	G	C4-N9-C1'	-6.85	117.59	126.50
36	5	407	A	O4'-C1'-N9	-6.85	102.72	108.20
36	5	1794	G	N3-C4-N9	-6.85	121.89	126.00
36	5	2285	C	N3-C2-O2	-6.85	117.11	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2404	A	C5-C6-N6	6.85	129.18	123.70
36	5	3201	C	N3-C4-C5	-6.85	119.16	121.90
1	2	1515	A	N1-C6-N6	-6.85	114.49	118.60
36	1	102	C	C6-N1-C1'	-6.85	112.58	120.80
36	1	3117	C	C6-N1-C2	-6.85	117.56	120.30
1	6	1110	G	C4-N9-C1'	6.85	135.40	126.50
1	6	1274	C	N3-C4-C5	-6.85	119.16	121.90
36	5	913	A	C4-C5-N7	-6.85	107.28	110.70
36	5	1150	A	C5-N7-C8	-6.85	100.48	103.90
36	5	1485	G	N3-C2-N2	6.85	124.69	119.90
36	5	2290	C	C5-C6-N1	-6.85	117.58	121.00
36	5	2296	A	N9-C4-C5	-6.85	103.06	105.80
36	5	2830	G	N1-C2-N3	6.85	128.01	123.90
36	5	2921	U	C5-C6-N1	-6.85	119.28	122.70
1	2	111	U	N1-C2-N3	-6.85	110.79	114.90
1	2	433	C	C6-N1-C2	6.85	123.04	120.30
1	2	1517	U	N3-C4-C5	-6.85	110.49	114.60
36	1	1436	U	OP1-P-OP2	-6.85	109.33	119.60
36	1	2315	G	C5-C6-N1	-6.85	108.08	111.50
36	1	2887	A	C6-N1-C2	-6.85	114.49	118.60
36	1	3055	U	C6-N1-C2	6.85	125.11	121.00
36	5	345	G	C8-N9-C4	6.85	109.14	106.40
36	5	1139	G	OP2-P-O3'	6.85	120.26	105.20
1	2	119	A	C8-N9-C4	6.84	108.54	105.80
36	1	952	A	N1-C6-N6	-6.84	114.49	118.60
36	1	1209	G	C8-N9-C1'	-6.84	118.10	127.00
36	1	1282	G	C5-C6-O6	-6.84	124.49	128.60
36	1	1525	G	O5'-P-OP2	-6.84	99.54	105.70
36	1	2179	C	OP2-P-O3'	6.84	120.26	105.20
36	1	2964	G	OP1-P-OP2	6.84	129.87	119.60
1	6	1168	U	C5-C6-N1	6.84	126.12	122.70
36	5	1376	C	C5-C6-N1	6.84	124.42	121.00
36	5	2914	G	C8-N9-C4	-6.84	103.66	106.40
36	5	3045	G	N7-C8-N9	6.84	116.52	113.10
36	5	3099	C	N1-C2-O2	-6.84	114.79	118.90
36	5	3218	A	N1-C2-N3	6.84	132.72	129.30
36	1	1001	G	O5'-P-OP2	6.84	118.91	110.70
36	1	1547	G	N3-C4-C5	-6.84	125.18	128.60
1	6	27	U	O5'-P-OP2	-6.84	99.54	105.70
36	5	3174	A	C5-N7-C8	-6.84	100.48	103.90
1	2	1000	C	C2-N1-C1'	6.84	126.33	118.80
1	2	1757	G	N1-C6-O6	-6.84	115.80	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1431	G	C8-N9-C4	6.84	109.14	106.40
36	1	1446	A	N1-C2-N3	6.84	132.72	129.30
36	1	1534	A	C6-C5-N7	-6.84	127.51	132.30
36	5	223	U	N1-C2-N3	6.84	119.00	114.90
36	5	1340	G	N7-C8-N9	6.84	116.52	113.10
1	2	307	G	C5-C6-N1	6.84	114.92	111.50
36	1	50	U	N3-C2-O2	-6.84	117.41	122.20
36	1	1366	A	C6-C5-N7	-6.84	127.51	132.30
36	1	2669	G	N3-C4-N9	-6.84	121.90	126.00
36	1	2697	A	O5'-P-OP1	-6.84	99.54	105.70
36	5	192	C	N3-C2-O2	-6.84	117.11	121.90
36	5	845	G	N3-C2-N2	6.84	124.69	119.90
36	5	1900	A	C8-N9-C4	-6.84	103.06	105.80
36	5	2727	A	C5-N7-C8	6.84	107.32	103.90
36	5	3367	C	C2-N1-C1'	-6.84	111.28	118.80
36	5	3388	C	C6-N1-C2	6.84	123.04	120.30
1	2	1426	C	C4-C5-C6	-6.84	113.98	117.40
36	1	1168	U	O5'-P-OP2	6.84	118.91	110.70
1	6	1539	G	C8-N9-C1'	-6.84	118.11	127.00
1	6	1644	C	C4-C5-C6	6.84	120.82	117.40
36	5	1402	C	O5'-P-OP1	-6.84	99.55	105.70
36	5	2420	C	O5'-P-OP1	-6.84	99.55	105.70
1	2	29	U	C5-C6-N1	-6.84	119.28	122.70
36	1	335	G	N7-C8-N9	6.84	116.52	113.10
36	1	385	A	N9-C4-C5	6.84	108.53	105.80
36	1	688	G	C5-C6-O6	-6.84	124.50	128.60
36	1	878	G	C4-C5-N7	-6.84	108.07	110.80
36	1	1125	U	N1-C2-N3	6.84	119.00	114.90
37	3	36	C	N1-C2-O2	6.84	123.00	118.90
37	3	50	U	C2-N1-C1'	6.84	125.90	117.70
1	6	1527	C	N1-C2-O2	-6.84	114.80	118.90
36	5	802	C	C6-N1-C2	6.84	123.03	120.30
36	5	920	A	C5-N7-C8	-6.84	100.48	103.90
36	5	1784	G	N3-C4-N9	6.84	130.10	126.00
36	5	2256	A	C8-N9-C4	6.84	108.53	105.80
36	5	3054	U	C2-N1-C1'	-6.84	109.50	117.70
1	2	1274	C	N1-C2-O2	6.83	123.00	118.90
1	2	1481	C	C6-N1-C2	-6.83	117.57	120.30
1	2	1610	G	N3-C4-C5	-6.83	125.18	128.60
36	1	1046	A	C4-C5-N7	6.83	114.12	110.70
38	4	12	A	C5-C6-N6	-6.83	118.23	123.70
1	2	1270	G	C4-N9-C1'	6.83	135.38	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1537	C	C5-C4-N4	-6.83	115.42	120.20
36	1	184	U	C5-C6-N1	-6.83	119.28	122.70
36	1	2951	G	C5-C6-O6	6.83	132.70	128.60
36	1	3305	A	OP2-P-O3'	6.83	120.23	105.20
36	5	201	A	C8-N9-C4	6.83	108.53	105.80
36	5	1333	C	C6-N1-C2	-6.83	117.57	120.30
36	1	1084	A	O5'-P-OP1	-6.83	99.55	105.70
36	1	2861	U	N3-C2-O2	-6.83	117.42	122.20
36	1	3112	G	C8-N9-C4	6.83	109.13	106.40
1	6	371	G	C4-N9-C1'	6.83	135.38	126.50
1	6	1111	G	C8-N9-C4	-6.83	103.67	106.40
1	6	1111	G	N3-C4-C5	-6.83	125.18	128.60
36	5	969	C	C4-C5-C6	6.83	120.82	117.40
36	5	3038	U	N3-C4-C5	6.83	118.70	114.60
36	5	3171	U	N3-C4-O4	-6.83	114.62	119.40
38	8	8	C	C5-C6-N1	6.83	124.42	121.00
36	1	3081	C	N3-C2-O2	-6.83	117.12	121.90
37	3	7	G	C5-C6-N1	6.83	114.92	111.50
1	6	1000	C	C4-C5-C6	6.83	120.81	117.40
36	5	501	A	N1-C6-N6	-6.83	114.50	118.60
1	2	334	G	C8-N9-C1'	6.83	135.88	127.00
36	1	911	C	N3-C4-C5	6.83	124.63	121.90
36	1	1293	U	N3-C4-C5	6.83	118.70	114.60
36	1	1365	G	C4-C5-N7	6.83	113.53	110.80
36	1	2289	U	C2-N1-C1'	6.83	125.89	117.70
36	1	3052	G	O5'-P-OP2	6.83	118.89	110.70
38	4	3	A	C6-N1-C2	-6.83	114.50	118.60
38	4	18	U	N3-C4-C5	-6.83	110.50	114.60
1	6	338	C	C5-C6-N1	6.83	124.41	121.00
36	5	810	A	N1-C6-N6	6.83	122.70	118.60
36	5	857	G	C6-C5-N7	-6.83	126.30	130.40
36	5	3115	C	N1-C2-N3	6.83	123.98	119.20
1	2	600	U	C6-N1-C2	-6.83	116.90	121.00
1	6	1490	C	C5-C6-N1	6.83	124.41	121.00
36	5	3111	U	C2-N1-C1'	6.83	125.89	117.70
36	1	908	G	N3-C4-N9	6.82	130.09	126.00
36	1	2238	G	C4-C5-C6	-6.82	114.71	118.80
36	1	2419	A	C4-C5-N7	6.82	114.11	110.70
36	1	2738	A	C5-N7-C8	-6.82	100.49	103.90
1	6	1117	U	N3-C2-O2	6.82	126.98	122.20
36	5	648	C	OP1-P-O3'	6.82	120.21	105.20
37	7	102	A	C8-N9-C4	6.82	108.53	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1116	G	N3-C4-N9	6.82	130.09	126.00
38	4	57	C	OP2-P-O3'	6.82	120.21	105.20
36	5	2845	A	N7-C8-N9	6.82	117.21	113.80
1	2	994	G	C4-C5-N7	-6.82	108.07	110.80
36	1	1049	C	C5-C4-N4	-6.82	115.42	120.20
36	1	1472	U	C6-N1-C2	6.82	125.09	121.00
36	1	2863	G	N1-C2-N2	-6.82	110.06	116.20
36	1	2930	A	C5-C6-N1	6.82	121.11	117.70
1	6	385	A	C5-C6-N6	6.82	129.16	123.70
1	6	402	C	OP1-P-OP2	-6.82	109.37	119.60
1	6	1700	C	C6-N1-C1'	-6.82	112.61	120.80
36	5	1006	A	N1-C2-N3	6.82	132.71	129.30
36	5	3036	G	C5-C6-O6	6.82	132.69	128.60
36	5	3390	G	O5'-P-OP2	6.82	118.88	110.70
36	5	227	G	C5-N7-C8	6.82	107.71	104.30
36	5	1376	C	C2-N1-C1'	6.82	126.30	118.80
36	5	2161	G	N3-C2-N2	-6.82	115.13	119.90
36	5	2720	G	N3-C4-N9	6.82	130.09	126.00
36	5	3026	G	C4-C5-N7	6.82	113.53	110.80
36	1	14	U	C6-N1-C2	-6.82	116.91	121.00
36	1	392	G	N7-C8-N9	6.82	116.51	113.10
36	1	644	G	N1-C2-N2	-6.82	110.06	116.20
36	1	1146	C	C6-N1-C2	6.82	123.03	120.30
36	1	1362	G	N3-C4-C5	6.82	132.01	128.60
36	1	2122	G	C8-N9-C1'	6.82	135.86	127.00
36	1	2414	G	N3-C4-C5	6.82	132.01	128.60
1	6	811	A	N1-C6-N6	6.82	122.69	118.60
1	6	1768	G	N7-C8-N9	6.82	116.51	113.10
36	5	192	C	O5'-P-OP2	-6.82	99.56	105.70
36	5	400	G	C4-C5-N7	6.82	113.53	110.80
36	5	531	G	N3-C4-N9	6.82	130.09	126.00
36	5	998	A	N9-C4-C5	6.82	108.53	105.80
36	5	1348	U	N1-C2-O2	6.82	127.57	122.80
36	5	1551	C	N3-C4-C5	-6.82	119.17	121.90
36	5	2182	A	O5'-P-OP1	-6.82	99.56	105.70
36	5	2922	G	C5-N7-C8	-6.82	100.89	104.30
36	1	1466	G	C5-C6-O6	-6.82	124.51	128.60
36	1	2658	G	N3-C4-N9	6.82	130.09	126.00
36	1	3087	A	N1-C2-N3	6.82	132.71	129.30
36	1	3204	C	N1-C2-O2	6.82	122.99	118.90
1	6	1090	C	N3-C4-C5	6.82	124.63	121.90
36	5	1439	U	N3-C2-O2	6.82	126.97	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2178	A	C5-C6-N1	6.82	121.11	117.70
36	5	3024	A	O5'-P-OP2	6.82	118.88	110.70
36	1	1442	U	O5'-P-OP1	-6.81	99.57	105.70
36	1	2167	A	N1-C6-N6	6.81	122.69	118.60
36	1	2830	G	C4-N9-C1'	-6.81	117.64	126.50
1	6	751	G	C8-N9-C4	6.81	109.13	106.40
36	5	1554	U	N1-C2-N3	-6.81	110.81	114.90
36	5	1917	C	N3-C4-C5	6.81	124.63	121.90
1	2	17	C	C2-N3-C4	-6.81	116.49	119.90
36	1	583	G	C5-N7-C8	6.81	107.71	104.30
36	1	1713	G	C4-N9-C1'	-6.81	117.64	126.50
36	1	2664	C	N3-C4-C5	6.81	124.62	121.90
1	6	1622	G	N9-C4-C5	-6.81	102.67	105.40
36	5	2306	C	N1-C2-O2	6.81	122.99	118.90
36	5	3136	G	C5-N7-C8	-6.81	100.89	104.30
36	1	798	G	C5-C6-O6	-6.81	124.51	128.60
36	1	2303	A	N9-C4-C5	6.81	108.52	105.80
36	1	2629	U	C4-C5-C6	6.81	123.79	119.70
1	6	396	G	C5-C6-O6	6.81	132.69	128.60
36	5	3046	A	N9-C4-C5	6.81	108.52	105.80
36	1	1122	U	C6-N1-C2	-6.81	116.91	121.00
36	1	2918	G	C2-N3-C4	6.81	115.31	111.90
1	6	1038	U	C5-C4-O4	-6.81	121.81	125.90
36	5	1293	U	N1-C2-O2	-6.81	118.03	122.80
36	5	1344	G	N3-C4-N9	-6.81	121.91	126.00
36	1	213	A	C5-N7-C8	-6.81	100.50	103.90
36	1	273	A	C8-N9-C4	6.81	108.52	105.80
36	1	305	U	C2-N3-C4	-6.81	122.92	127.00
36	1	392	G	C8-N9-C4	-6.81	103.68	106.40
1	6	1271	G	N1-C6-O6	6.81	123.98	119.90
36	5	94	G	C2-N3-C4	-6.81	108.50	111.90
36	5	978	G	N1-C2-N2	6.81	122.33	116.20
36	5	1220	U	C2-N3-C4	-6.81	122.92	127.00
36	5	1293	U	C2-N3-C4	-6.81	122.92	127.00
36	5	2325	G	N1-C6-O6	6.81	123.98	119.90
36	5	2573	G	C5-C6-O6	-6.81	124.52	128.60
36	1	67	A	C2-N3-C4	6.81	114.00	110.60
36	1	375	A	C4-C5-N7	6.81	114.10	110.70
36	5	2316	G	N1-C2-N2	-6.81	110.08	116.20
36	1	344	A	OP2-P-O3'	6.80	120.17	105.20
36	1	865	U	C2-N1-C1'	-6.80	109.53	117.70
36	1	2669	G	C4-C5-N7	-6.80	108.08	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2967	A	C5-C6-N6	-6.80	118.26	123.70
36	1	2983	C	C4-C5-C6	6.80	120.80	117.40
37	3	93	C	C2-N3-C4	-6.80	116.50	119.90
38	4	24	G	C4-N9-C1'	6.80	135.35	126.50
38	4	55	U	C6-N1-C2	-6.80	116.92	121.00
36	5	835	G	O4'-C1'-N9	6.80	113.64	108.20
36	5	1604	G	C6-N1-C2	-6.80	121.02	125.10
36	5	2608	G	N1-C6-O6	6.80	123.98	119.90
36	1	1408	G	N3-C4-N9	6.80	130.08	126.00
1	2	1423	U	N3-C2-O2	-6.80	117.44	122.20
36	1	1045	C	N1-C2-O2	-6.80	114.82	118.90
36	1	1551	C	N1-C2-O2	-6.80	114.82	118.90
36	1	3326	G	C5-N7-C8	6.80	107.70	104.30
1	6	621	A	N9-C4-C5	6.80	108.52	105.80
1	6	1679	G	N3-C4-C5	-6.80	125.20	128.60
36	5	34	A	C8-N9-C4	-6.80	103.08	105.80
36	5	1847	A	C6-N1-C2	6.80	122.68	118.60
36	5	2129	U	C6-N1-C2	-6.80	116.92	121.00
36	1	983	A	O4'-C1'-N9	-6.80	102.76	108.20
36	1	1483	G	C2-N3-C4	6.80	115.30	111.90
36	1	1507	G	C4-C5-N7	6.80	113.52	110.80
36	1	1894	U	C2-N1-C1'	-6.80	109.54	117.70
36	1	2199	G	N7-C8-N9	6.80	116.50	113.10
36	1	2773	C	C6-N1-C2	6.80	123.02	120.30
1	6	1093	A	C5-C6-N1	6.80	121.10	117.70
36	5	608	A	N3-C4-N9	6.80	132.84	127.40
36	5	1473	G	N1-C2-N2	-6.80	110.08	116.20
37	7	113	C	O5'-P-OP1	-6.80	99.58	105.70
1	2	1007	C	C6-N1-C2	6.80	123.02	120.30
36	1	939	U	C5'-C4'-O4'	6.80	117.26	109.10
36	1	1522	U	N1-C2-O2	6.80	127.56	122.80
38	4	40	A	N7-C8-N9	6.80	117.20	113.80
36	5	428	A	OP2-P-O3'	6.80	120.16	105.20
36	5	531	G	C6-C5-N7	-6.80	126.32	130.40
36	5	2334	U	C2-N1-C1'	6.80	125.86	117.70
36	5	2833	A	N1-C2-N3	6.80	132.70	129.30
36	1	1523	U	N1-C2-O2	6.80	127.56	122.80
36	1	2777	G	N9-C4-C5	6.80	108.12	105.40
36	5	1155	C	OP1-P-OP2	6.80	129.79	119.60
36	5	1158	A	N7-C8-N9	-6.80	110.40	113.80
36	5	3164	C	C5-C4-N4	-6.80	115.44	120.20
36	1	1373	A	OP1-P-O3'	-6.79	90.25	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1505	C	C5-C6-N1	-6.79	117.60	121.00
36	5	2397	A	N1-C2-N3	6.79	132.70	129.30
38	8	66	A	C5-C6-N1	-6.79	114.30	117.70
36	1	197	G	C4-C5-N7	6.79	113.52	110.80
36	1	353	G	N1-C6-O6	-6.79	115.82	119.90
1	6	1006	C	C2-N3-C4	-6.79	116.50	119.90
36	5	2341	A	C6-N1-C2	-6.79	114.52	118.60
36	5	2754	G	N3-C4-N9	6.79	130.08	126.00
36	5	2895	G	C4-C5-C6	6.79	122.88	118.80
36	5	2935	U	C4-C5-C6	-6.79	115.62	119.70
36	5	3045	G	C2-N3-C4	-6.79	108.50	111.90
1	2	377	G	N1-C2-N2	6.79	122.31	116.20
36	1	349	A	C8-N9-C4	-6.79	103.08	105.80
36	1	2622	C	C2-N1-C1'	6.79	126.27	118.80
36	1	3090	U	O5'-P-OP2	-6.79	99.59	105.70
38	4	63	G	O5'-P-OP2	-6.79	99.59	105.70
1	6	1206	U	N3-C4-O4	6.79	124.15	119.40
36	5	129	U	C6-N1-C2	-6.79	116.93	121.00
36	5	425	G	N1-C2-N3	6.79	127.97	123.90
36	5	1296	C	N1-C2-N3	6.79	123.95	119.20
38	8	15	G	C5-N7-C8	6.79	107.70	104.30
36	1	2871	G	C4-C5-C6	-6.79	114.73	118.80
36	1	2922	G	C5-C6-N1	6.79	114.89	111.50
36	1	3271	G	O5'-P-OP1	6.79	118.85	110.70
36	5	1142	G	O5'-P-OP2	-6.79	99.59	105.70
36	5	1664	G	OP2-P-O3'	6.79	120.14	105.20
1	2	157	A	C8-N9-C4	6.79	108.52	105.80
36	1	696	C	O4'-C1'-N1	6.79	113.63	108.20
36	1	2828	G	C5-C6-O6	6.79	132.67	128.60
36	1	3083	G	O5'-P-OP2	-6.79	99.59	105.70
1	6	1086	A	C2-N3-C4	-6.79	107.21	110.60
1	6	1503	A	O5'-P-OP1	-6.79	99.59	105.70
36	5	315	C	C6-N1-C2	6.79	123.02	120.30
36	5	1126	G	C4-C5-C6	6.79	122.87	118.80
36	1	940	G	C5-C6-N1	6.79	114.89	111.50
38	4	10	A	O5'-P-OP2	-6.79	99.59	105.70
40	L3	244	ARG	NE-CZ-NH2	-6.79	116.91	120.30
36	5	2895	G	N3-C4-N9	6.79	130.07	126.00
36	1	366	A	C4-C5-C6	6.79	120.39	117.00
36	1	1052	U	N3-C4-O4	-6.79	114.65	119.40
36	1	2651	G	C5-C6-O6	-6.79	124.53	128.60
1	6	759	U	N3-C2-O2	-6.79	117.45	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1668	G	N3-C2-N2	-6.79	115.15	119.90
36	5	1367	G	O5'-P-OP1	-6.79	99.59	105.70
36	5	1468	A	C2-N3-C4	-6.79	107.21	110.60
36	5	2763	U	OP2-P-O3'	6.79	120.13	105.20
1	2	582	U	N3-C2-O2	-6.78	117.45	122.20
36	1	1594	A	C5-C6-N6	6.78	129.13	123.70
1	6	396	G	N1-C6-O6	-6.78	115.83	119.90
36	5	608	A	C6-C5-N7	-6.78	127.55	132.30
36	5	1669	C	C6-N1-C2	-6.78	117.59	120.30
36	5	2188	A	C8-N9-C4	6.78	108.51	105.80
37	7	99	G	N1-C6-O6	-6.78	115.83	119.90
38	8	28	C	N3-C4-N4	6.78	122.75	118.00
36	1	697	A	C4-C5-C6	-6.78	113.61	117.00
36	1	813	G	C5-N7-C8	-6.78	100.91	104.30
36	1	3104	U	O5'-P-OP1	-6.78	99.60	105.70
1	6	1528	U	C5-C6-N1	-6.78	119.31	122.70
36	5	857	G	N9-C4-C5	6.78	108.11	105.40
36	5	1060	U	N3-C4-C5	6.78	118.67	114.60
36	5	1498	A	C8-N9-C4	-6.78	103.09	105.80
36	5	2752	U	N3-C4-C5	6.78	118.67	114.60
1	2	1658	G	O5'-P-OP1	-6.78	99.60	105.70
36	1	50	U	C4-C5-C6	6.78	123.77	119.70
36	1	121	A	C8-N9-C4	6.78	108.51	105.80
36	1	637	C	N3-C2-O2	-6.78	117.15	121.90
1	6	555	A	C8-N9-C4	-6.78	103.09	105.80
1	6	1580	C	C2-N1-C1'	-6.78	111.34	118.80
36	5	1914	G	N1-C6-O6	-6.78	115.83	119.90
36	5	2285	C	C4-C5-C6	6.78	120.79	117.40
36	5	3246	G	OP1-P-OP2	-6.78	109.43	119.60
36	5	3312	U	C6-N1-C2	6.78	125.07	121.00
36	1	2107	A	N1-C2-N3	6.78	132.69	129.30
36	1	2156	C	C2-N3-C4	-6.78	116.51	119.90
36	1	2738	A	C5-C6-N1	6.78	121.09	117.70
37	3	7	G	C6-C5-N7	6.78	134.47	130.40
36	5	2890	A	N9-C4-C5	6.78	108.51	105.80
1	2	1212	G	C4-C5-C6	6.78	122.87	118.80
36	1	344	A	O5'-P-OP1	-6.78	99.60	105.70
36	1	714	G	C4-C5-N7	6.78	113.51	110.80
36	1	2102	U	C6-N1-C2	6.78	125.07	121.00
36	1	2121	G	N3-C4-N9	-6.78	121.93	126.00
36	1	3309	G	N9-C1'-C2'	-6.78	104.55	112.00
1	6	1639	C	C4-C5-C6	-6.78	114.01	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1670	G	N3-C4-C5	-6.78	125.21	128.60
1	6	1747	G	C2-N3-C4	-6.78	108.51	111.90
36	5	62	A	C5-N7-C8	-6.78	100.51	103.90
36	5	187	A	N9-C4-C5	6.78	108.51	105.80
36	5	517	G	C5-C6-O6	-6.78	124.53	128.60
36	5	787	G	C5-N7-C8	6.78	107.69	104.30
36	5	1150	A	N7-C8-N9	6.78	117.19	113.80
36	5	1316	C	C5-C6-N1	-6.78	117.61	121.00
1	2	1412	G	N3-C4-N9	-6.78	121.93	126.00
36	1	222	A	OP2-P-O3'	6.78	120.10	105.20
36	1	2199	G	C8-N9-C4	-6.78	103.69	106.40
1	6	576	G	C5-C6-O6	-6.78	124.53	128.60
36	5	298	U	C5-C6-N1	6.78	126.09	122.70
36	5	833	G	O5'-P-OP2	-6.78	99.60	105.70
36	5	2993	G	C6-C5-N7	-6.78	126.33	130.40
36	1	691	A	N3-C4-C5	6.77	131.54	126.80
36	1	2557	A	N1-C6-N6	-6.77	114.53	118.60
36	1	2894	C	O5'-P-OP2	-6.77	99.60	105.70
1	6	1696	G	P-O3'-C3'	6.77	127.83	119.70
36	5	3275	U	C5-C6-N1	6.77	126.09	122.70
1	2	390	G	N3-C4-N9	-6.77	121.94	126.00
36	1	220	G	C4-C5-C6	6.77	122.86	118.80
37	3	38	U	O5'-P-OP2	-6.77	99.60	105.70
1	6	996	U	N3-C4-O4	6.77	124.14	119.40
36	5	860	G	N9-C4-C5	-6.77	102.69	105.40
36	5	891	G	N9-C4-C5	6.77	108.11	105.40
36	5	1525	G	C4-N9-C1'	6.77	135.31	126.50
36	5	1870	C	N1-C2-O2	-6.77	114.84	118.90
36	5	2796	G	C8-N9-C4	6.77	109.11	106.40
36	5	2957	G	N9-C1'-C2'	-6.77	104.55	112.00
36	5	2980	U	C5-C4-O4	6.77	129.96	125.90
38	8	17	A	N9-C4-C5	-6.77	103.09	105.80
38	8	48	A	N1-C2-N3	-6.77	125.91	129.30
1	6	315	A	C5-N7-C8	6.77	107.29	103.90
1	6	1418	G	C2-N3-C4	-6.77	108.51	111.90
36	5	1905	G	C5-N7-C8	6.77	107.69	104.30
1	2	568	G	N1-C6-O6	-6.77	115.84	119.90
36	1	689	U	C5-C4-O4	-6.77	121.84	125.90
36	1	1878	G	N3-C2-N2	-6.77	115.16	119.90
36	1	2122	G	C5-C6-N1	6.77	114.89	111.50
1	6	466	U	C6-N1-C2	-6.77	116.94	121.00
36	5	744	A	C4-C5-N7	6.77	114.08	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	860	G	N1-C6-O6	6.77	123.96	119.90
36	5	2522	G	N1-C6-O6	6.77	123.96	119.90
36	1	1440	G	OP2-P-O3'	6.77	120.09	105.20
36	1	3285	C	C6-N1-C2	6.77	123.01	120.30
36	1	3306	U	C2-N1-C1'	6.77	125.82	117.70
1	6	1393	C	C6-N1-C2	-6.77	117.59	120.30
36	5	1122	U	N1-C2-N3	6.77	118.96	114.90
36	5	1282	G	N3-C4-C5	6.77	131.98	128.60
36	5	2132	C	C6-N1-C2	-6.77	117.59	120.30
36	5	2824	G	N3-C2-N2	6.77	124.64	119.90
36	1	683	U	C5-C6-N1	-6.77	119.32	122.70
36	1	2956	A	N1-C6-N6	6.77	122.66	118.60
36	1	3184	A	C8-N9-C4	-6.77	103.09	105.80
1	6	506	A	C8-N9-C4	-6.77	103.09	105.80
1	6	1087	A	N1-C6-N6	-6.77	114.54	118.60
36	5	1461	A	N1-C6-N6	-6.77	114.54	118.60
36	5	1481	A	C4-C5-C6	6.77	120.38	117.00
36	5	2584	G	OP2-P-O3'	6.77	120.08	105.20
37	7	102	A	C5-N7-C8	-6.77	100.52	103.90
36	1	802	C	N3-C4-N4	-6.76	113.27	118.00
36	1	1177	G	C6-C5-N7	-6.76	126.34	130.40
36	1	3263	G	N3-C4-C5	-6.76	125.22	128.60
36	5	1236	G	N3-C4-N9	6.76	130.06	126.00
36	5	1861	G	N1-C2-N2	-6.76	110.11	116.20
36	5	2872	A	N1-C6-N6	-6.76	114.54	118.60
37	7	15	C	N3-C2-O2	-6.76	117.17	121.90
36	1	96	G	N3-C4-C5	6.76	131.98	128.60
36	5	567	G	C5-C6-N1	-6.76	108.12	111.50
36	5	1149	G	C4-N9-C1'	6.76	135.29	126.50
36	5	1536	G	C2-N3-C4	-6.76	108.52	111.90
36	5	2371	G	N1-C6-O6	6.76	123.96	119.90
36	5	3271	G	N3-C4-N9	6.76	130.06	126.00
36	1	432	G	C2-N3-C4	-6.76	108.52	111.90
36	1	1114	U	OP1-P-O3'	6.76	120.07	105.20
36	1	1151	U	OP1-P-OP2	-6.76	109.46	119.60
36	1	3318	G	C4-C5-N7	6.76	113.50	110.80
1	6	543	C	N3-C4-N4	-6.76	113.27	118.00
1	6	1156	C	C6-N1-C2	-6.76	117.59	120.30
1	6	1470	C	C2-N1-C1'	6.76	126.24	118.80
36	5	155	G	C5-C6-N1	6.76	114.88	111.50
36	5	1490	A	N9-C4-C5	6.76	108.50	105.80
36	5	2341	A	C8-N9-C4	6.76	108.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2610	G	C8-N9-C4	-6.76	103.69	106.40
36	5	3075	G	C5-C6-N1	-6.76	108.12	111.50
36	1	1527	C	C5-C6-N1	6.76	124.38	121.00
36	1	2333	C	N3-C4-N4	-6.76	113.27	118.00
36	1	2730	G	N1-C6-O6	6.76	123.96	119.90
1	6	420	A	N7-C8-N9	6.76	117.18	113.80
1	6	1272	U	C6-N1-C2	-6.76	116.94	121.00
36	5	38	U	C6-N1-C2	6.76	125.06	121.00
36	5	1399	A	N3-C4-C5	6.76	131.53	126.80
36	5	1868	G	C4-C5-N7	6.76	113.50	110.80
36	5	2873	U	C4-C5-C6	6.76	123.76	119.70
1	2	1737	G	C5-C6-N1	-6.76	108.12	111.50
36	1	676	G	C8-N9-C4	-6.76	103.70	106.40
36	1	2967	A	N1-C6-N6	6.76	122.66	118.60
36	5	3194	C	N3-C4-N4	6.76	122.73	118.00
1	2	1631	A	N3-C4-N9	-6.76	121.99	127.40
36	1	616	G	N9-C4-C5	-6.76	102.70	105.40
36	1	660	A	C5-C6-N6	6.76	129.11	123.70
36	1	664	U	N3-C4-C5	-6.76	110.55	114.60
36	1	2888	U	O5'-P-OP1	-6.76	99.62	105.70
1	6	1650	U	N3-C4-C5	-6.76	110.55	114.60
12	c0	83	PRO	N-CA-CB	6.76	111.41	103.30
36	5	209	A	N1-C6-N6	6.76	122.65	118.60
36	5	1366	A	C5-C6-N6	-6.76	118.29	123.70
36	5	1845	G	OP1-P-O3'	6.76	120.06	105.20
36	1	691	A	C6-C5-N7	-6.75	127.57	132.30
36	1	2411	U	C2-N3-C4	-6.75	122.95	127.00
36	1	3316	A	N3-C4-C5	6.75	131.53	126.80
36	5	97	U	N3-C4-O4	6.75	124.13	119.40
36	5	808	A	N9-C4-C5	6.75	108.50	105.80
36	5	2288	G	C4-N9-C1'	6.75	135.28	126.50
36	1	668	G	OP1-P-OP2	6.75	129.73	119.60
36	1	1858	A	N3-C4-N9	6.75	132.80	127.40
36	1	2847	A	N3-C4-C5	6.75	131.53	126.80
36	1	3305	A	N3-C4-C5	-6.75	122.07	126.80
36	5	713	U	C2-N3-C4	-6.75	122.95	127.00
36	5	3092	C	N3-C4-N4	6.75	122.73	118.00
36	1	2305	G	C2-N3-C4	6.75	115.28	111.90
38	4	46	G	C6-C5-N7	-6.75	126.35	130.40
1	6	1100	G	C5-C6-O6	-6.75	124.55	128.60
36	5	306	A	O5'-P-OP1	6.75	118.80	110.70
36	5	421	G	N3-C4-N9	6.75	130.05	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	560	G	C4-C5-N7	-6.75	108.10	110.80
36	5	803	C	N3-C4-C5	6.75	124.60	121.90
36	5	832	G	C5-N7-C8	6.75	107.68	104.30
36	5	1162	U	N1-C2-N3	6.75	118.95	114.90
1	6	316	A	C5-N7-C8	-6.75	100.53	103.90
1	6	1409	G	N3-C4-N9	6.75	130.05	126.00
1	6	1546	G	C4-N9-C1'	6.75	135.27	126.50
36	5	52	A	C2-N3-C4	-6.75	107.22	110.60
36	5	2421	U	C5-C6-N1	-6.75	119.33	122.70
36	1	3122	A	C5-N7-C8	-6.75	100.53	103.90
1	6	1368	G	C4-C5-N7	6.75	113.50	110.80
36	5	897	U	N1-C2-O2	-6.75	118.08	122.80
36	5	3329	U	N1-C2-N3	6.75	118.95	114.90
36	1	1393	A	C4-C5-C6	6.75	120.37	117.00
36	1	2241	U	C4-C5-C6	6.75	123.75	119.70
1	6	635	A	N1-C6-N6	-6.75	114.55	118.60
36	5	2796	G	N9-C4-C5	-6.75	102.70	105.40
1	2	1418	G	C4-C5-N7	6.74	113.50	110.80
36	1	1920	U	C4-C5-C6	6.74	123.75	119.70
36	1	2413	A	C5-N7-C8	-6.74	100.53	103.90
1	6	312	A	C8-N9-C4	-6.74	103.10	105.80
36	5	155	G	N9-C4-C5	-6.74	102.70	105.40
36	5	956	U	N1-C2-O2	-6.74	118.08	122.80
36	5	1868	G	C6-C5-N7	-6.74	126.35	130.40
36	5	2620	G	C4-C5-N7	-6.74	108.10	110.80
36	5	2940	A	C6-N1-C2	-6.74	114.55	118.60
1	2	1486	G	N3-C4-C5	-6.74	125.23	128.60
36	1	54	C	C6-N1-C2	6.74	123.00	120.30
36	1	2395	G	N7-C8-N9	6.74	116.47	113.10
37	3	78	U	N3-C4-O4	6.74	124.12	119.40
36	1	649	A	N1-C6-N6	-6.74	114.56	118.60
36	1	2303	A	C8-N9-C4	-6.74	103.10	105.80
36	1	2917	G	N7-C8-N9	-6.74	109.73	113.10
36	1	3208	G	N3-C4-C5	-6.74	125.23	128.60
36	5	91	G	C5-C6-O6	-6.74	124.56	128.60
36	5	1422	G	N7-C8-N9	6.74	116.47	113.10
36	5	2658	G	O5'-P-OP2	-6.74	99.63	105.70
1	2	1011	G	C8-N9-C4	-6.74	103.70	106.40
1	2	1195	C	C2-N1-C1'	6.74	126.21	118.80
36	1	334	A	C2-N3-C4	6.74	113.97	110.60
36	1	2199	G	C5-C6-N1	6.74	114.87	111.50
36	1	2816	G	N3-C2-N2	6.74	124.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	761	G	C5-C6-O6	6.74	132.64	128.60
1	6	960	U	N1-C2-O2	6.74	127.52	122.80
36	5	866	A	N1-C6-N6	6.74	122.64	118.60
36	5	1051	U	O5'-P-OP1	-6.74	99.64	105.70
36	5	2358	A	N7-C8-N9	-6.74	110.43	113.80
36	5	2389	C	C5-C4-N4	-6.74	115.48	120.20
36	1	52	A	C5-N7-C8	6.74	107.27	103.90
36	1	1929	G	N9-C4-C5	-6.74	102.71	105.40
36	1	1951	C	N1-C2-O2	6.74	122.94	118.90
36	1	2193	U	C2-N1-C1'	-6.74	109.62	117.70
37	3	7	G	N9-C4-C5	6.74	108.09	105.40
1	6	11	A	N1-C6-N6	-6.74	114.56	118.60
1	6	357	G	N1-C6-O6	6.74	123.94	119.90
1	6	630	A	C4-C5-C6	6.74	120.37	117.00
1	6	1111	G	N1-C2-N2	-6.74	110.14	116.20
36	5	266	A	N1-C6-N6	6.74	122.64	118.60
36	5	1400	G	N3-C4-N9	6.74	130.04	126.00
36	5	1546	A	N9-C4-C5	6.74	108.50	105.80
36	5	2420	C	OP1-P-O3'	6.74	120.02	105.20
36	5	2942	C	C6-N1-C2	-6.74	117.61	120.30
36	5	3091	A	C5-N7-C8	-6.74	100.53	103.90
37	7	111	U	C4-C5-C6	6.74	123.74	119.70
36	1	1190	A	C8-N9-C4	-6.73	103.11	105.80
36	1	3137	C	C5-C6-N1	-6.73	117.63	121.00
1	6	800	U	N1-C2-O2	-6.73	118.09	122.80
36	5	2339	C	C5-C4-N4	-6.73	115.49	120.20
1	2	1140	G	N1-C6-O6	6.73	123.94	119.90
36	1	3053	G	C5-C6-N1	-6.73	108.13	111.50
1	6	383	G	C4-C5-N7	6.73	113.49	110.80
1	6	1477	G	C5-C6-N1	6.73	114.87	111.50
36	5	1139	G	C6-C5-N7	6.73	134.44	130.40
36	5	1793	C	C2-N1-C1'	6.73	126.20	118.80
36	5	2243	A	C4-C5-N7	-6.73	107.33	110.70
36	5	2623	G	N7-C8-N9	-6.73	109.73	113.10
37	7	121	U	C2-N1-C1'	6.73	125.78	117.70
38	8	111	A	N9-C4-C5	-6.73	103.11	105.80
1	2	1728	A	N1-C6-N6	-6.73	114.56	118.60
36	1	352	A	O4'-C1'-N9	6.73	113.58	108.20
36	1	787	G	C4-N9-C1'	6.73	135.25	126.50
1	6	1535	U	OP2-P-O3'	6.73	120.01	105.20
36	5	424	G	O5'-P-OP2	-6.73	99.64	105.70
36	5	2335	G	C2-N3-C4	6.73	115.27	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	76	A	C5-N7-C8	6.73	107.27	103.90
36	1	642	U	N3-C4-C5	-6.73	110.56	114.60
36	1	1049	C	C2-N3-C4	-6.73	116.53	119.90
1	6	597	G	C5-N7-C8	-6.73	100.94	104.30
36	5	2159	U	N1-C2-O2	6.73	127.51	122.80
36	5	2282	U	O5'-P-OP1	-6.73	99.64	105.70
1	2	261	U	N1-C2-O2	6.73	127.51	122.80
36	1	651	G	C4-C5-C6	6.73	122.84	118.80
36	1	2402	A	C6-N1-C2	-6.73	114.56	118.60
36	1	2627	C	OP1-P-OP2	-6.73	109.51	119.60
36	1	3251	U	C5-C6-N1	-6.73	119.34	122.70
36	1	3318	G	C8-N9-C1'	-6.73	118.25	127.00
37	3	52	G	C8-N9-C4	-6.73	103.71	106.40
1	6	209	U	N3-C2-O2	6.73	126.91	122.20
1	6	1774	G	N9-C4-C5	6.73	108.09	105.40
36	5	996	A	OP2-P-O3'	6.73	120.00	105.20
36	5	2168	A	C5-N7-C8	-6.73	100.54	103.90
36	5	2888	U	C5-C6-N1	-6.73	119.34	122.70
1	2	432	G	N1-C6-O6	-6.73	115.86	119.90
36	1	108	A	N1-C6-N6	6.73	122.64	118.60
36	1	329	U	C4-C5-C6	6.73	123.73	119.70
1	6	1651	A	C2-N3-C4	-6.73	107.24	110.60
36	5	2409	G	O5'-P-OP2	-6.73	99.65	105.70
36	1	1594	A	C4-C5-N7	-6.72	107.34	110.70
36	1	2113	A	C5-C6-N6	6.72	129.08	123.70
36	5	877	C	C5-C4-N4	-6.72	115.49	120.20
36	5	1126	G	C6-C5-N7	-6.72	126.36	130.40
36	5	1897	G	N3-C4-N9	6.72	130.03	126.00
36	5	2614	G	N3-C4-N9	6.72	130.03	126.00
36	5	2961	G	C4-N9-C1'	6.72	135.24	126.50
47	m0	182	LEU	CA-CB-CG	-6.72	99.83	115.30
36	1	1167	U	N1-C2-N3	6.72	118.93	114.90
36	1	1930	A	N1-C6-N6	6.72	122.63	118.60
36	1	2937	G	C6-C5-N7	6.72	134.43	130.40
37	3	118	A	N1-C6-N6	-6.72	114.57	118.60
1	6	326	G	C4-N9-C1'	6.72	135.24	126.50
1	6	608	U	C6-N1-C2	-6.72	116.97	121.00
1	6	1145	U	N3-C2-O2	6.72	126.91	122.20
36	5	1500	G	C8-N9-C4	6.72	109.09	106.40
36	5	1548	C	C5-C6-N1	6.72	124.36	121.00
37	7	37	G	N9-C4-C5	-6.72	102.71	105.40
36	1	1307	G	N1-C2-N3	6.72	127.93	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	648	C	OP1-P-OP2	6.72	129.68	119.60
36	1	693	A	C8-N9-C4	-6.72	103.11	105.80
36	1	2190	U	C4-C5-C6	6.72	123.73	119.70
1	6	923	A	N9-C4-C5	6.72	108.49	105.80
1	6	1013	A	N9-C4-C5	6.72	108.49	105.80
36	5	649	A	N9-C4-C5	-6.72	103.11	105.80
36	5	1592	G	C5-N7-C8	6.72	107.66	104.30
36	5	2618	G	O5'-P-OP2	-6.72	99.65	105.70
36	5	2699	G	C5-C6-N1	6.72	114.86	111.50
36	5	3315	G	C6-C5-N7	-6.72	126.37	130.40
1	2	1555	A	C5-C6-N6	6.72	129.07	123.70
36	1	1147	G	O5'-P-OP2	6.72	118.76	110.70
1	6	310	C	O5'-P-OP1	-6.72	99.65	105.70
1	6	1028	C	C5-C6-N1	-6.72	117.64	121.00
1	6	1527	C	C2-N1-C1'	-6.72	111.41	118.80
36	5	1671	C	N3-C4-C5	-6.72	119.21	121.90
37	7	51	A	C8-N9-C4	-6.72	103.11	105.80
1	2	75	U	C2-N1-C1'	6.72	125.76	117.70
1	2	1632	C	N1-C2-O2	-6.72	114.87	118.90
36	1	1097	G	O5'-P-OP2	-6.72	99.66	105.70
36	1	1901	A	C2-N3-C4	6.72	113.96	110.60
36	1	2288	G	N3-C4-N9	6.72	130.03	126.00
36	1	2692	A	N7-C8-N9	6.72	117.16	113.80
36	1	3180	A	N3-C4-N9	-6.72	122.03	127.40
1	6	33	U	N3-C4-O4	6.72	124.10	119.40
1	6	825	U	N3-C2-O2	6.72	126.90	122.20
1	6	1171	A	C8-N9-C4	-6.72	103.11	105.80
36	5	578	A	N1-C2-N3	6.72	132.66	129.30
36	5	2373	A	O5'-P-OP2	6.72	118.76	110.70
36	1	305	U	N3-C4-O4	-6.71	114.70	119.40
36	1	779	G	OP2-P-O3'	6.71	119.97	105.20
36	1	2184	U	N3-C4-O4	6.71	124.10	119.40
36	5	1210	U	C5-C4-O4	6.71	129.93	125.90
36	5	2893	C	N3-C2-O2	6.71	126.60	121.90
36	5	2930	A	OP2-P-O3'	6.71	119.97	105.20
36	1	39	A	C4-C5-C6	-6.71	113.64	117.00
36	1	2344	U	C2-N1-C1'	-6.71	109.64	117.70
36	1	3331	U	O5'-P-OP2	-6.71	99.66	105.70
36	5	428	A	C5-C6-N6	-6.71	118.33	123.70
1	2	1197	C	O5'-P-OP2	-6.71	99.66	105.70
36	1	27	C	N1-C2-N3	6.71	123.90	119.20
36	1	1459	C	N3-C2-O2	-6.71	117.20	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2704	A	N1-C2-N3	6.71	132.66	129.30
1	6	163	G	N1-C2-N3	6.71	127.93	123.90
1	6	1773	C	C6-N1-C2	-6.71	117.62	120.30
36	5	609	G	C5-C6-N1	-6.71	108.14	111.50
36	5	657	A	OP1-P-OP2	-6.71	109.53	119.60
36	5	3215	A	N9-C4-C5	-6.71	103.12	105.80
1	2	1324	G	N1-C2-N2	6.71	122.24	116.20
36	1	677	A	N7-C8-N9	-6.71	110.44	113.80
36	1	3101	G	C5-C6-N1	6.71	114.86	111.50
36	1	1792	C	N3-C2-O2	-6.71	117.20	121.90
36	1	2174	G	C6-C5-N7	-6.71	126.37	130.40
36	1	2393	G	N1-C6-O6	6.71	123.92	119.90
1	6	1476	C	N3-C4-C5	-6.71	119.22	121.90
36	5	1788	C	N1-C2-O2	-6.71	114.87	118.90
36	5	2364	G	C5-C6-O6	-6.71	124.58	128.60
37	7	82	G	C5-C6-O6	-6.71	124.58	128.60
37	7	85	G	C4-C5-N7	6.71	113.48	110.80
36	1	662	U	OP1-P-O3'	-6.71	90.44	105.20
36	1	2119	A	C5-C6-N6	-6.71	118.33	123.70
1	6	917	U	N3-C4-C5	-6.71	110.58	114.60
1	6	1418	G	O5'-P-OP2	6.71	118.75	110.70
36	5	1156	C	C5-C4-N4	-6.71	115.51	120.20
36	5	3032	A	C5-C6-N1	6.71	121.05	117.70
36	1	1124	U	C6-N1-C2	-6.71	116.98	121.00
36	1	2933	A	C5-C6-N6	-6.71	118.34	123.70
1	6	610	G	C4-N9-C1'	6.71	135.22	126.50
36	5	27	C	OP1-P-OP2	6.71	129.66	119.60
36	5	1612	A	C4-C5-C6	6.71	120.35	117.00
36	5	2291	A	C5-N7-C8	-6.71	100.55	103.90
36	1	123	A	N1-C6-N6	-6.70	114.58	118.60
36	1	2368	A	N9-C4-C5	-6.70	103.12	105.80
1	6	35	U	C5-C4-O4	6.70	129.92	125.90
36	5	248	U	C5-C6-N1	6.70	126.05	122.70
36	5	2756	C	C2-N3-C4	-6.70	116.55	119.90
36	1	1109	U	C2-N1-C1'	6.70	125.74	117.70
36	1	1269	U	N1-C2-O2	6.70	127.49	122.80
36	5	697	A	C8-N9-C4	6.70	108.48	105.80
36	5	974	G	C6-N1-C2	-6.70	121.08	125.10
36	5	1319	G	N3-C2-N2	-6.70	115.21	119.90
36	5	1433	A	O4'-C1'-N9	-6.70	102.84	108.20
36	5	2796	G	N3-C2-N2	6.70	124.59	119.90
36	5	3219	G	N7-C8-N9	6.70	116.45	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	322	U	N1-C2-O2	6.70	127.49	122.80
36	1	518	G	N3-C4-C5	6.70	131.95	128.60
36	1	651	G	N3-C4-C5	-6.70	125.25	128.60
36	1	2889	C	C6-N1-C2	6.70	122.98	120.30
38	4	30	C	C2-N3-C4	-6.70	116.55	119.90
1	6	1573	A	C6-N1-C2	-6.70	114.58	118.60
36	5	1209	G	C5-C6-N1	-6.70	108.15	111.50
36	5	2116	G	C5-N7-C8	-6.70	100.95	104.30
1	2	89	G	N3-C4-C5	6.70	131.95	128.60
36	1	796	U	N3-C2-O2	6.70	126.89	122.20
36	1	1065	A	N9-C4-C5	6.70	108.48	105.80
36	1	1269	U	C2-N1-C1'	6.70	125.74	117.70
36	1	2998	U	N1-C2-O2	-6.70	118.11	122.80
36	5	900	G	N3-C4-C5	-6.70	125.25	128.60
36	5	2187	G	N3-C4-N9	-6.70	121.98	126.00
36	5	2290	C	N3-C4-N4	-6.70	113.31	118.00
36	5	3292	A	O5'-P-OP2	-6.70	99.67	105.70
36	1	2847	A	C4-C5-N7	6.70	114.05	110.70
36	5	629	U	C5-C4-O4	6.70	129.92	125.90
36	5	3005	A	N1-C6-N6	6.70	122.62	118.60
36	1	583	G	O5'-P-OP1	-6.70	99.67	105.70
36	1	1137	C	OP2-P-O3'	6.70	119.93	105.20
36	1	1695	U	C5-C6-N1	-6.70	119.35	122.70
36	1	2305	G	C5-C6-N1	6.70	114.85	111.50
37	3	79	A	N3-C4-C5	6.70	131.49	126.80
36	5	3026	G	C5-C6-N1	-6.70	108.15	111.50
36	5	3089	C	N3-C4-N4	6.70	122.69	118.00
36	1	1419	A	N7-C8-N9	6.69	117.15	113.80
36	1	1520	G	C5-C6-N1	-6.69	108.15	111.50
36	1	1522	U	C5-C6-N1	-6.69	119.35	122.70
36	5	973	A	C6-C5-N7	-6.69	127.61	132.30
36	5	2893	C	N1-C2-N3	-6.69	114.51	119.20
36	1	1046	A	O4'-C1'-N9	-6.69	102.85	108.20
36	1	1326	A	O5'-P-OP1	6.69	118.73	110.70
1	6	1150	G	N1-C6-O6	6.69	123.92	119.90
36	5	362	U	N1-C2-N3	6.69	118.92	114.90
36	5	1323	G	O5'-P-OP1	6.69	118.73	110.70
36	5	2120	A	C5-C6-N1	-6.69	114.35	117.70
36	5	2735	U	N3-C2-O2	-6.69	117.52	122.20
36	1	1490	A	C8-N9-C4	-6.69	103.12	105.80
36	1	1906	G	C5-C6-O6	-6.69	124.59	128.60
36	1	2210	G	C6-C5-N7	6.69	134.41	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2641	U	O5'-P-OP1	6.69	118.73	110.70
38	4	51	G	C2-N3-C4	-6.69	108.56	111.90
1	6	1472	C	C2-N3-C4	-6.69	116.56	119.90
36	5	264	G	N3-C4-C5	-6.69	125.25	128.60
36	5	1113	G	N3-C4-N9	-6.69	121.99	126.00
36	5	2278	C	C2-N3-C4	6.69	123.25	119.90
36	5	2285	C	C2-N3-C4	-6.69	116.56	119.90
1	2	12	U	N1-C2-O2	-6.69	118.12	122.80
1	2	424	C	C5-C6-N1	6.69	124.34	121.00
36	1	372	A	O5'-P-OP2	-6.69	99.68	105.70
36	1	796	U	C4-C5-C6	-6.69	115.69	119.70
36	1	1323	G	N1-C6-O6	6.69	123.91	119.90
36	1	3032	A	N1-C6-N6	-6.69	114.59	118.60
1	6	1288	G	C8-N9-C4	6.69	109.08	106.40
1	6	1517	U	O5'-P-OP2	-6.69	99.68	105.70
1	6	1582	U	O5'-P-OP1	-6.69	99.68	105.70
1	6	1619	C	N1-C2-O2	6.69	122.91	118.90
36	1	2743	A	C8-N9-C4	6.69	108.47	105.80
1	6	1456	C	C5-C4-N4	6.69	124.88	120.20
12	c0	97	PRO	N-CA-CB	6.69	111.33	103.30
36	5	1038	C	C6-N1-C2	-6.69	117.62	120.30
36	5	1073	U	N3-C4-O4	-6.69	114.72	119.40
36	5	1096	U	C5-C4-O4	-6.69	121.89	125.90
36	5	2652	U	N3-C4-O4	6.69	124.08	119.40
37	7	29	C	C4-C5-C6	6.69	120.74	117.40
1	2	1789	G	O4'-C1'-N9	-6.69	102.85	108.20
1	6	1735	U	N3-C2-O2	-6.68	117.52	122.20
36	5	2291	A	N3-C4-C5	6.68	131.48	126.80
36	5	3031	G	O5'-P-OP2	-6.68	99.68	105.70
36	1	350	C	N3-C2-O2	-6.68	117.22	121.90
36	1	580	C	N1-C2-O2	-6.68	114.89	118.90
36	1	957	C	O5'-P-OP2	-6.68	99.69	105.70
36	1	998	A	C5-C6-N6	-6.68	118.35	123.70
36	1	1311	G	C5-C6-N1	-6.68	108.16	111.50
36	1	3144	G	N1-C6-O6	6.68	123.91	119.90
36	1	3295	A	C8-N9-C4	-6.68	103.13	105.80
37	3	92	A	C6-N1-C2	6.68	122.61	118.60
38	4	34	U	C5-C6-N1	-6.68	119.36	122.70
1	6	1055	U	C6-N1-C2	-6.68	116.99	121.00
1	6	1654	G	N3-C2-N2	-6.68	115.22	119.90
36	1	1434	G	N7-C8-N9	6.68	116.44	113.10
36	1	2641	U	C5-C6-N1	-6.68	119.36	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	745	C	N3-C4-N4	6.68	122.68	118.00
36	5	952	A	N3-C4-N9	-6.68	122.06	127.40
36	5	2995	A	O5'-P-OP2	-6.68	99.69	105.70
36	1	406	G	C5-C6-O6	6.68	132.61	128.60
36	1	705	A	N1-C6-N6	6.68	122.61	118.60
36	1	1908	A	C4-C5-C6	6.68	120.34	117.00
36	1	2946	A	N7-C8-N9	6.68	117.14	113.80
1	6	6	G	C5-C6-O6	-6.68	124.59	128.60
1	6	98	U	N3-C4-C5	-6.68	110.59	114.60
1	6	1189	A	N7-C8-N9	-6.68	110.46	113.80
1	6	1226	A	C8-N9-C4	-6.68	103.13	105.80
36	5	1838	G	N3-C4-N9	6.68	130.01	126.00
36	5	2363	A	N3-C4-N9	-6.68	122.06	127.40
36	5	2898	G	C4-C5-N7	-6.68	108.13	110.80
38	4	109	A	N9-C4-C5	-6.68	103.13	105.80
36	5	581	U	C6-N1-C2	-6.68	116.99	121.00
36	5	947	G	C8-N9-C1'	-6.68	118.32	127.00
36	5	1144	U	C5-C6-N1	-6.68	119.36	122.70
36	1	1605	A	P-O3'-C3'	6.68	127.71	119.70
1	6	29	U	C5-C4-O4	6.68	129.91	125.90
1	6	577	G	C5-N7-C8	-6.68	100.96	104.30
36	5	269	G	C4-C5-N7	6.68	113.47	110.80
36	5	504	A	N1-C6-N6	6.68	122.61	118.60
36	5	845	G	N1-C2-N2	-6.68	110.19	116.20
36	5	1770	G	C8-N9-C1'	-6.68	118.32	127.00
37	7	65	G	N1-C6-O6	6.68	123.91	119.90
36	5	182	U	C5-C4-O4	6.67	129.91	125.90
36	5	1108	U	C5-C4-O4	6.67	129.91	125.90
36	5	3041	U	N3-C4-O4	-6.67	114.73	119.40
37	7	104	A	N3-C4-C5	6.67	131.47	126.80
36	1	189	G	C5-C6-O6	6.67	132.60	128.60
36	5	706	A	C8-N9-C4	6.67	108.47	105.80
36	5	2369	G	C5-C6-O6	-6.67	124.60	128.60
1	2	1096	C	C6-N1-C2	-6.67	117.63	120.30
36	1	966	U	N3-C2-O2	-6.67	117.53	122.20
36	1	1499	C	OP1-P-OP2	-6.67	109.59	119.60
1	6	40	A	N1-C2-N3	6.67	132.64	129.30
1	6	1778	G	N1-C6-O6	6.67	123.90	119.90
36	5	878	G	N3-C4-N9	6.67	130.00	126.00
36	5	2706	G	C6-N1-C2	-6.67	121.10	125.10
37	7	37	G	C8-N9-C1'	-6.67	118.33	127.00
1	2	934	C	C2-N1-C1'	6.67	126.14	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	798	G	C6-C5-N7	-6.67	126.40	130.40
36	1	2611	U	N1-C2-N3	6.67	118.90	114.90
54	M8	178	ARG	NE-CZ-NH1	-6.67	116.97	120.30
1	6	678	A	P-O3'-C3'	6.67	127.70	119.70
36	5	913	A	N1-C6-N6	-6.67	114.60	118.60
36	5	3057	U	N1-C2-O2	6.67	127.47	122.80
36	5	3195	U	N3-C4-O4	6.67	124.07	119.40
36	1	2207	A	C2-N3-C4	6.67	113.93	110.60
36	1	2386	A	C6-N1-C2	-6.67	114.60	118.60
36	1	2609	A	OP2-P-O3'	-6.67	90.53	105.20
1	6	294	C	N3-C4-C5	-6.67	119.23	121.90
1	6	606	A	N1-C6-N6	6.67	122.60	118.60
1	6	1172	G	C4-C5-N7	-6.67	108.13	110.80
1	6	1732	A	N3-C4-C5	6.67	131.47	126.80
36	5	1199	C	N3-C4-N4	6.67	122.67	118.00
36	5	1326	A	OP2-P-O3'	6.67	119.87	105.20
36	5	1330	A	N1-C2-N3	6.67	132.63	129.30
36	5	2715	A	C5-N7-C8	6.67	107.23	103.90
36	5	3309	G	C6-N1-C2	-6.67	121.10	125.10
1	2	240	U	C5-C6-N1	6.67	126.03	122.70
36	1	689	U	C6-N1-C2	6.67	125.00	121.00
36	1	1624	G	C5-C6-O6	-6.67	124.60	128.60
36	1	2147	A	C5-C6-N1	6.67	121.03	117.70
36	1	2299	A	N1-C6-N6	6.67	122.60	118.60
36	1	2314	U	N3-C2-O2	6.67	126.87	122.20
36	1	2395	G	C8-N9-C4	-6.67	103.73	106.40
36	1	2821	C	C2-N3-C4	6.67	123.23	119.90
36	1	2883	U	C5-C6-N1	6.67	126.03	122.70
37	3	61	G	O5'-P-OP1	-6.67	99.70	105.70
1	6	1324	G	C8-N9-C4	-6.67	103.73	106.40
36	5	210	U	N3-C4-O4	-6.67	114.73	119.40
36	5	3327	G	N1-C6-O6	6.67	123.90	119.90
1	2	98	U	C5-C6-N1	6.67	126.03	122.70
36	1	1152	G	O5'-P-OP1	-6.67	99.70	105.70
36	1	1257	C	C6-N1-C2	-6.67	117.63	120.30
1	6	970	A	O5'-P-OP1	-6.67	99.70	105.70
1	6	1780	G	C8-N9-C1'	-6.67	118.34	127.00
1	2	1659	A	N1-C6-N6	-6.66	114.60	118.60
36	1	23	A	C6-N1-C2	-6.66	114.60	118.60
36	1	587	U	C5-C4-O4	-6.66	121.90	125.90
36	1	641	C	C5-C6-N1	6.66	124.33	121.00
36	1	1141	C	C2-N1-C1'	6.66	126.13	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2323	G	N9-C4-C5	-6.66	102.73	105.40
36	1	3293	U	O4'-C1'-N1	6.66	113.53	108.20
1	6	1550	A	C5-N7-C8	-6.66	100.57	103.90
36	5	283	G	C5-C6-N1	6.66	114.83	111.50
36	5	1492	G	O5'-P-OP1	-6.66	99.70	105.70
36	5	2165	G	N3-C4-N9	6.66	130.00	126.00
36	5	2914	G	C4-C5-N7	6.66	113.47	110.80
36	5	3270	U	N1-C2-O2	6.66	127.47	122.80
1	2	311	U	N1-C2-N3	6.66	118.90	114.90
36	1	872	U	N3-C4-C5	-6.66	110.60	114.60
37	7	118	A	O5'-P-OP2	-6.66	99.70	105.70
1	2	375	U	C5-C6-N1	-6.66	119.37	122.70
36	1	353	G	C5-C6-O6	6.66	132.60	128.60
36	1	499	G	N9-C4-C5	6.66	108.06	105.40
36	1	1482	A	N9-C4-C5	-6.66	103.14	105.80
36	1	3216	G	N3-C4-N9	6.66	130.00	126.00
1	6	1732	A	N1-C2-N3	6.66	132.63	129.30
36	5	809	G	C5-C6-N1	-6.66	108.17	111.50
36	5	2648	G	OP1-P-O3'	6.66	119.85	105.20
36	5	2732	G	N9-C4-C5	6.66	108.06	105.40
36	5	3213	A	N7-C8-N9	-6.66	110.47	113.80
36	1	349	A	C5-C6-N6	6.66	129.03	123.70
36	1	1311	G	N1-C6-O6	6.66	123.89	119.90
36	5	619	A	C8-N9-C4	6.66	108.46	105.80
36	5	1545	A	C8-N9-C4	-6.66	103.14	105.80
36	5	3208	G	C4-N9-C1'	6.66	135.16	126.50
36	5	790	U	C5-C6-N1	-6.66	119.37	122.70
38	8	111	A	N1-C6-N6	6.66	122.59	118.60
1	2	240	U	OP2-P-O3'	6.66	119.84	105.20
36	1	147	U	N1-C2-N3	6.66	118.89	114.90
36	1	1726	C	N3-C4-C5	-6.66	119.24	121.90
36	1	2153	U	O5'-P-OP2	-6.66	99.71	105.70
36	1	2904	U	C6-N1-C2	6.66	124.99	121.00
1	6	1095	U	O5'-P-OP1	-6.66	99.71	105.70
1	6	1538	U	O5'-P-OP2	-6.66	99.71	105.70
36	5	749	C	O5'-P-OP1	-6.66	99.71	105.70
36	5	1112	A	C4-C5-C6	6.66	120.33	117.00
36	5	1289	G	N7-C8-N9	-6.66	109.77	113.10
36	5	1900	A	N7-C8-N9	6.66	117.13	113.80
36	5	1907	C	C4-C5-C6	6.66	120.73	117.40
36	5	2362	C	N3-C2-O2	-6.66	117.24	121.90
37	7	75	G	N3-C4-C5	6.66	131.93	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	112	U	C4-C5-C6	6.65	123.69	119.70
36	1	1197	A	C4-C5-N7	6.65	114.03	110.70
36	1	2374	C	O5'-P-OP1	6.65	118.69	110.70
36	5	282	G	C5-C6-N1	-6.65	108.17	111.50
36	5	1157	G	N3-C2-N2	-6.65	115.24	119.90
36	5	2130	G	N1-C6-O6	6.65	123.89	119.90
36	1	699	A	O5'-P-OP1	-6.65	99.71	105.70
36	1	716	A	C8-N9-C4	6.65	108.46	105.80
36	1	871	U	C5-C6-N1	-6.65	119.37	122.70
36	1	1150	A	OP1-P-OP2	-6.65	109.62	119.60
36	1	2305	G	C6-C5-N7	6.65	134.39	130.40
36	1	2818	U	C5'-C4'-O4'	-6.65	101.12	109.10
38	4	13	A	O4'-C1'-N9	6.65	113.52	108.20
36	5	1120	A	C8-N9-C4	-6.65	103.14	105.80
36	5	1861	G	N1-C2-N3	6.65	127.89	123.90
36	5	2914	G	C6-C5-N7	-6.65	126.41	130.40
36	5	3099	C	C5-C6-N1	-6.65	117.67	121.00
36	5	3303	G	N3-C4-N9	-6.65	122.01	126.00
1	2	1550	A	N1-C6-N6	6.65	122.59	118.60
36	1	21	G	N1-C6-O6	-6.65	115.91	119.90
36	1	910	G	O5'-P-OP2	-6.65	99.71	105.70
36	1	1393	A	C5-C6-N6	6.65	129.02	123.70
1	6	1763	A	C6-N1-C2	-6.65	114.61	118.60
36	5	907	G	N9-C4-C5	-6.65	102.74	105.40
36	5	1120	A	N9-C4-C5	6.65	108.46	105.80
36	5	1148	G	C5-C6-N1	-6.65	108.17	111.50
36	5	2344	U	O5'-P-OP2	-6.65	99.71	105.70
36	5	2596	U	C2-N1-C1'	6.65	125.68	117.70
36	1	1114	U	N3-C2-O2	-6.65	117.55	122.20
36	1	2618	G	C8-N9-C4	-6.65	103.74	106.40
36	1	2794	G	N1-C6-O6	-6.65	115.91	119.90
1	6	65	A	C8-N9-C4	6.65	108.46	105.80
36	5	1195	A	C5-N7-C8	-6.65	100.58	103.90
36	1	438	A	N1-C6-N6	6.65	122.59	118.60
36	1	2620	G	N1-C2-N3	6.65	127.89	123.90
37	3	91	G	N1-C2-N3	6.65	127.89	123.90
1	6	1278	G	N9-C4-C5	6.65	108.06	105.40
36	5	773	G	C8-N9-C4	-6.65	103.74	106.40
36	5	1292	C	O4'-C1'-N1	-6.65	102.88	108.20
36	5	2334	U	N1-C2-O2	6.65	127.45	122.80
36	5	2767	U	N1-C2-N3	6.65	118.89	114.90
36	5	2916	U	N3-C4-O4	-6.65	114.75	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	765	G	O4'-C1'-N9	-6.65	102.88	108.20
1	2	1029	U	O4'-C1'-N1	6.65	113.52	108.20
36	1	286	U	C6-N1-C2	-6.65	117.01	121.00
36	1	3150	A	C5-N7-C8	-6.65	100.58	103.90
1	6	794	U	C5-C6-N1	6.65	126.02	122.70
1	6	1147	A	N1-C2-N3	6.65	132.62	129.30
7	s5	92	ARG	NE-CZ-NH2	-6.65	116.98	120.30
36	5	2550	U	C5-C4-O4	6.65	129.89	125.90
36	1	1405	U	N1-C2-N3	6.64	118.89	114.90
36	1	1552	G	C4-C5-C6	6.64	122.79	118.80
37	3	56	A	C8-N9-C4	6.64	108.46	105.80
38	4	97	A	N1-C2-N3	6.64	132.62	129.30
1	6	752	A	C8-N9-C4	6.64	108.46	105.80
36	5	732	C	N3-C2-O2	-6.64	117.25	121.90
36	5	1322	U	N1-C2-O2	-6.64	118.15	122.80
36	5	1403	C	C5-C4-N4	-6.64	115.55	120.20
36	5	2155	G	C6-C5-N7	-6.64	126.41	130.40
36	5	2420	C	N3-C4-N4	6.64	122.65	118.00
36	5	3115	C	O5'-P-OP1	-6.64	99.72	105.70
36	1	277	G	N1-C2-N3	-6.64	119.92	123.90
36	1	901	G	C6-C5-N7	6.64	134.38	130.40
36	1	2703	A	O4'-C1'-N9	-6.64	102.89	108.20
36	1	2877	G	O4'-C1'-N9	6.64	113.51	108.20
1	6	1640	C	N3-C4-C5	6.64	124.56	121.90
36	5	189	G	C4-C5-N7	-6.64	108.14	110.80
36	5	328	U	N1-C2-O2	6.64	127.45	122.80
36	5	860	G	C6-C5-N7	-6.64	126.42	130.40
36	5	1465	A	C6-C5-N7	-6.64	127.65	132.30
36	5	2694	A	C8-N9-C4	6.64	108.46	105.80
36	1	372	A	C5-N7-C8	-6.64	100.58	103.90
36	1	864	G	N3-C4-N9	6.64	129.98	126.00
36	1	3367	C	N3-C4-C5	6.64	124.56	121.90
36	5	827	A	N7-C8-N9	6.64	117.12	113.80
36	5	951	A	C5-C6-N6	6.64	129.01	123.70
36	5	1592	G	C5-C6-O6	6.64	132.59	128.60
36	1	2865	U	C5-C6-N1	-6.64	119.38	122.70
1	6	35	U	N1-C2-N3	6.64	118.88	114.90
1	6	1473	U	N3-C4-O4	-6.64	114.75	119.40
36	1	676	G	C8-N9-C1'	-6.64	118.37	127.00
36	1	2631	U	C2-N3-C4	-6.64	123.02	127.00
36	1	3322	A	C8-N9-C4	6.64	108.45	105.80
38	8	13	A	N9-C4-C5	-6.64	103.14	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	874	U	O5'-P-OP2	6.64	118.66	110.70
36	1	1414	G	N3-C4-C5	6.64	131.92	128.60
36	1	1449	A	N9-C4-C5	6.64	108.45	105.80
36	1	1908	A	N1-C2-N3	6.64	132.62	129.30
36	1	2746	A	C4-C5-C6	-6.64	113.68	117.00
36	1	2896	A	N1-C6-N6	6.64	122.58	118.60
36	1	3139	A	O5'-P-OP1	-6.64	99.73	105.70
36	5	2235	C	C6-N1-C2	-6.64	117.64	120.30
36	1	2093	A	N3-C4-C5	-6.63	122.16	126.80
36	1	2196	C	N3-C4-N4	-6.63	113.36	118.00
1	6	1631	A	N1-C2-N3	-6.63	125.98	129.30
36	5	1137	C	C4-C5-C6	6.63	120.72	117.40
36	5	1166	G	N1-C6-O6	6.63	123.88	119.90
36	1	834	U	C2-N1-C1'	-6.63	109.74	117.70
36	5	848	A	N1-C6-N6	6.63	122.58	118.60
36	1	198	A	N7-C8-N9	6.63	117.11	113.80
36	1	1713	G	N3-C4-C5	6.63	131.92	128.60
1	6	777	C	C5-C4-N4	-6.63	115.56	120.20
1	6	1392	U	C6-N1-C2	6.63	124.98	121.00
36	5	358	G	N9-C1'-C2'	-6.63	104.70	112.00
36	5	633	C	C6-N1-C2	6.63	122.95	120.30
36	5	1185	C	C2-N3-C4	-6.63	116.58	119.90
36	1	880	G	C8-N9-C1'	6.63	135.62	127.00
36	1	3266	G	C5-C6-O6	6.63	132.58	128.60
1	6	1642	G	C5-C6-N1	6.63	114.81	111.50
36	5	917	A	N3-C4-N9	-6.63	122.10	127.40
36	5	1144	U	C6-N1-C2	6.63	124.98	121.00
36	5	2824	G	N1-C2-N2	-6.63	110.23	116.20
36	1	337	G	C5-C6-O6	-6.63	124.62	128.60
36	1	945	C	C4-C5-C6	6.63	120.71	117.40
36	1	1556	C	N1-C2-O2	6.63	122.88	118.90
36	1	3142	A	N3-C4-C5	6.63	131.44	126.80
36	5	110	G	N3-C4-C5	-6.63	125.29	128.60
36	5	2401	A	N7-C8-N9	6.63	117.11	113.80
37	7	93	C	O5'-P-OP1	6.63	118.65	110.70
1	2	1750	A	C2-N3-C4	-6.63	107.29	110.60
36	1	2190	U	N3-C4-C5	-6.63	110.62	114.60
37	3	84	A	O5'-P-OP2	6.63	118.65	110.70
1	6	397	A	N1-C6-N6	6.63	122.58	118.60
36	5	664	U	C6-N1-C2	-6.63	117.02	121.00
36	5	730	C	C4-C5-C6	6.63	120.71	117.40
36	5	1709	C	C5-C6-N1	-6.63	117.69	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2237	C	N3-C4-C5	-6.63	119.25	121.90
36	5	2313	A	N1-C2-N3	6.63	132.61	129.30
36	5	3012	A	C5-C6-N1	6.63	121.01	117.70
36	5	3099	C	OP1-P-OP2	6.63	129.54	119.60
36	1	2807	U	N3-C4-O4	6.62	124.04	119.40
36	1	3256	G	C4-N9-C1'	6.62	135.11	126.50
1	6	1142	A	N9-C4-C5	6.62	108.45	105.80
36	5	1394	A	C5-C6-N6	-6.62	118.40	123.70
38	8	115	C	C6-N1-C2	6.62	122.95	120.30
36	1	1329	U	OP1-P-OP2	6.62	129.54	119.60
36	1	1366	A	C6-N1-C2	-6.62	114.63	118.60
36	1	3226	A	N9-C4-C5	6.62	108.45	105.80
36	5	831	G	N3-C4-C5	6.62	131.91	128.60
36	5	963	G	N1-C6-O6	-6.62	115.92	119.90
36	5	3110	C	O5'-P-OP1	-6.62	99.74	105.70
37	7	42	A	N3-C4-C5	-6.62	122.16	126.80
36	1	188	U	N3-C4-O4	6.62	124.03	119.40
36	1	496	C	C4-C5-C6	-6.62	114.09	117.40
36	1	586	C	N3-C4-N4	6.62	122.64	118.00
36	1	1139	G	C2-N3-C4	-6.62	108.59	111.90
36	1	1503	A	C2-N3-C4	-6.62	107.29	110.60
36	1	3009	G	C4-C5-N7	6.62	113.45	110.80
1	6	1454	G	N1-C6-O6	6.62	123.87	119.90
1	6	1637	C	C6-N1-C2	6.62	122.95	120.30
36	5	1096	U	C6-N1-C2	6.62	124.97	121.00
36	5	2573	G	N1-C6-O6	6.62	123.87	119.90
36	5	3098	G	N1-C6-O6	-6.62	115.93	119.90
36	5	3111	U	N3-C2-O2	-6.62	117.56	122.20
36	1	2777	G	N3-C4-N9	-6.62	122.03	126.00
1	6	420	A	C6-C5-N7	-6.62	127.67	132.30
1	6	1602	C	OP1-P-OP2	-6.62	109.67	119.60
36	5	2702	A	O5'-P-OP1	-6.62	99.74	105.70
36	5	2829	U	C5-C4-O4	-6.62	121.93	125.90
36	5	2995	A	C2-N3-C4	-6.62	107.29	110.60
36	5	3218	A	C4-N9-C1'	6.62	138.22	126.30
1	2	1103	U	N3-C4-O4	-6.62	114.77	119.40
1	2	1589	C	N3-C4-C5	6.62	124.55	121.90
36	1	1168	U	N3-C2-O2	-6.62	117.57	122.20
1	6	934	C	C5-C4-N4	6.62	124.83	120.20
36	5	937	G	O5'-P-OP1	-6.62	99.74	105.70
36	5	1055	A	C5-N7-C8	6.62	107.21	103.90
36	5	2386	A	C8-N9-C4	-6.62	103.15	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1374	C	C6-N1-C2	6.62	122.95	120.30
36	1	925	A	C4-C5-C6	6.62	120.31	117.00
36	1	2403	G	C8-N9-C4	-6.62	103.75	106.40
37	3	88	G	N1-C2-N2	-6.62	110.25	116.20
1	6	382	C	N3-C2-O2	6.62	126.53	121.90
1	6	584	C	C4-C5-C6	6.62	120.71	117.40
36	5	1872	C	N1-C2-N3	6.62	123.83	119.20
36	1	592	A	C5-N7-C8	-6.62	100.59	103.90
36	1	609	G	O5'-P-OP2	-6.62	99.75	105.70
36	1	928	C	N3-C2-O2	6.62	126.53	121.90
36	1	2384	A	C4-C5-C6	6.62	120.31	117.00
36	1	2720	G	C4-C5-N7	6.62	113.45	110.80
36	1	3327	G	C5-C6-N1	-6.62	108.19	111.50
1	6	1135	U	N3-C2-O2	-6.62	117.57	122.20
1	6	1235	C	C5-C6-N1	6.62	124.31	121.00
36	5	568	G	N9-C4-C5	-6.62	102.75	105.40
36	5	890	C	C4-C5-C6	6.62	120.71	117.40
36	5	1190	A	C8-N9-C1'	-6.62	115.79	127.70
36	5	3304	U	N3-C4-C5	-6.62	110.63	114.60
1	2	470	A	N7-C8-N9	-6.61	110.49	113.80
1	2	1386	G	C8-N9-C4	6.61	109.05	106.40
36	1	2633	U	N1-C2-O2	-6.61	118.17	122.80
36	1	3070	A	N1-C2-N3	6.61	132.61	129.30
36	5	2713	U	N3-C4-O4	6.61	124.03	119.40
36	5	2829	U	OP2-P-O3'	6.61	119.75	105.20
37	7	101	G	C6-C5-N7	-6.61	126.43	130.40
36	1	2669	G	C5-C6-O6	6.61	132.57	128.60
36	1	2955	U	N1-C2-O2	6.61	127.43	122.80
1	6	310	C	C5-C6-N1	6.61	124.31	121.00
1	6	1599	C	N1-C2-O2	6.61	122.87	118.90
36	5	3346	U	N3-C2-O2	-6.61	117.57	122.20
1	2	1004	U	C5-C4-O4	6.61	129.87	125.90
36	1	264	G	C5-N7-C8	6.61	107.61	104.30
36	1	3051	U	C5-C6-N1	6.61	126.00	122.70
37	3	97	A	C5-N7-C8	6.61	107.20	103.90
1	6	301	A	C2-N3-C4	6.61	113.91	110.60
1	6	1169	G	N1-C2-N2	-6.61	110.25	116.20
36	5	2312	A	C6-C5-N7	6.61	136.93	132.30
36	1	2598	G	C2-N3-C4	6.61	115.20	111.90
70	O4	51	LEU	CA-CB-CG	6.61	130.50	115.30
36	5	404	G	C2-N3-C4	-6.61	108.60	111.90
36	5	945	C	C4-C5-C6	6.61	120.70	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2699	G	N1-C2-N2	6.61	122.15	116.20
36	5	2848	G	N3-C4-C5	6.61	131.91	128.60
38	8	24	G	N1-C6-O6	-6.61	115.94	119.90
1	2	1274	C	C2-N1-C1'	6.61	126.07	118.80
1	6	1041	G	N3-C2-N2	-6.61	115.28	119.90
1	6	1452	U	N3-C4-O4	6.61	124.03	119.40
1	6	1766	A	N1-C6-N6	6.61	122.56	118.60
36	5	214	G	C4-N9-C1'	-6.61	117.91	126.50
36	5	424	G	C5-N7-C8	-6.61	101.00	104.30
36	5	821	U	C5-C6-N1	6.61	126.00	122.70
36	5	1513	G	C5-C6-O6	-6.61	124.64	128.60
36	5	2896	A	C8-N9-C4	6.61	108.44	105.80
1	2	1747	G	N1-C6-O6	-6.61	115.94	119.90
36	1	978	G	N1-C2-N2	6.61	122.14	116.20
36	1	1508	C	N3-C2-O2	-6.61	117.28	121.90
36	1	3130	A	C2-N3-C4	-6.61	107.30	110.60
1	6	1001	A	OP1-P-O3'	6.61	119.73	105.20
36	5	1373	A	N7-C8-N9	6.61	117.10	113.80
36	5	2192	C	N3-C4-N4	6.61	122.62	118.00
36	5	2404	A	N9-C4-C5	6.61	108.44	105.80
36	5	2630	C	N3-C4-C5	6.61	124.54	121.90
36	5	3044	G	C2-N3-C4	-6.61	108.60	111.90
1	2	453	U	C5-C6-N1	6.60	126.00	122.70
36	1	414	U	N3-C4-O4	-6.60	114.78	119.40
36	1	2999	U	N3-C4-O4	-6.60	114.78	119.40
36	5	127	G	N3-C2-N2	-6.60	115.28	119.90
36	1	55	G	N3-C4-N9	6.60	129.96	126.00
36	1	982	C	N1-C2-O2	6.60	122.86	118.90
40	L3	233	TRP	CA-CB-CG	-6.60	101.16	113.70
1	6	149	C	C5-C6-N1	-6.60	117.70	121.00
1	6	440	U	N1-C2-O2	-6.60	118.18	122.80
37	7	37	G	C5-C6-O6	-6.60	124.64	128.60
36	1	1020	G	C5-C6-O6	-6.60	124.64	128.60
36	1	3087	A	C4-C5-C6	6.60	120.30	117.00
36	5	363	G	O5'-P-OP1	-6.60	99.76	105.70
36	5	2629	U	N3-C4-C5	-6.60	110.64	114.60
36	5	3036	G	C2-N3-C4	-6.60	108.60	111.90
1	2	550	A	C8-N9-C4	-6.60	103.16	105.80
36	1	345	G	N7-C8-N9	6.60	116.40	113.10
36	1	608	A	C4-N9-C1'	6.60	138.18	126.30
36	1	1761	C	C6-N1-C2	6.60	122.94	120.30
38	4	34	U	N1-C2-N3	6.60	118.86	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	104	A	N1-C6-N6	6.60	122.56	118.60
36	5	314	U	C5-C4-O4	6.60	129.86	125.90
36	5	416	A	N3-C4-C5	6.60	131.42	126.80
36	5	1490	A	N1-C6-N6	-6.60	114.64	118.60
36	5	1931	U	C6-N1-C1'	6.60	130.44	121.20
36	5	2656	A	C6-N1-C2	-6.60	114.64	118.60
36	5	3102	G	C2-N3-C4	-6.60	108.60	111.90
1	2	360	A	N1-C6-N6	6.60	122.56	118.60
36	1	70	A	N1-C2-N3	6.60	132.60	129.30
36	1	338	A	C6-N1-C2	-6.60	114.64	118.60
36	1	2284	C	C6-N1-C1'	-6.60	112.88	120.80
36	1	2375	G	N1-C2-N3	6.60	127.86	123.90
36	1	2644	C	N1-C2-O2	-6.60	114.94	118.90
36	5	1834	U	N1-C2-O2	-6.60	118.18	122.80
36	5	2099	A	C8-N9-C4	-6.60	103.16	105.80
36	5	2414	G	C2-N3-C4	-6.60	108.60	111.90
36	5	2719	U	N1-C2-O2	-6.60	118.18	122.80
36	5	3177	G	N1-C2-N3	6.60	127.86	123.90
36	1	384	A	C8-N9-C4	-6.60	103.16	105.80
36	1	973	A	C2-N3-C4	-6.60	107.30	110.60
36	1	2862	U	C6-N1-C2	6.60	124.96	121.00
36	5	805	G	C5-C6-N1	6.60	114.80	111.50
36	5	1206	G	N3-C4-N9	6.60	129.96	126.00
36	5	1440	G	OP2-P-O3'	6.60	119.71	105.20
36	1	504	A	C6-N1-C2	-6.59	114.64	118.60
36	1	1196	C	C6-N1-C1'	-6.59	112.89	120.80
36	1	2696	A	C2-N3-C4	6.59	113.90	110.60
36	1	2894	C	C6-N1-C2	6.59	122.94	120.30
36	1	2897	A	O4'-C1'-N9	6.59	113.47	108.20
1	6	1728	A	N1-C6-N6	6.59	122.56	118.60
36	5	346	C	N3-C2-O2	-6.59	117.28	121.90
36	5	388	G	N9-C4-C5	6.59	108.04	105.40
36	5	1093	A	C8-N9-C4	-6.59	103.16	105.80
36	5	1113	G	N1-C6-O6	6.59	123.86	119.90
36	5	1293	U	C5-C6-N1	-6.59	119.40	122.70
36	5	1393	A	N1-C2-N3	6.59	132.60	129.30
36	5	1401	A	C6-N1-C2	-6.59	114.64	118.60
36	5	1406	A	C4-C5-C6	6.59	120.30	117.00
36	5	1699	A	C8-N9-C4	6.59	108.44	105.80
36	5	3172	A	N9-C4-C5	-6.59	103.16	105.80
36	5	3361	G	C6-C5-N7	-6.59	126.44	130.40
36	1	727	G	O5'-P-OP1	-6.59	99.77	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3375	A	N1-C6-N6	-6.59	114.64	118.60
36	5	1005	G	N3-C4-N9	-6.59	122.04	126.00
36	5	2614	G	N1-C2-N2	-6.59	110.27	116.20
36	1	815	G	N9-C4-C5	6.59	108.04	105.40
1	6	1645	G	C5-C6-N1	6.59	114.80	111.50
36	5	1203	A	C2-N3-C4	-6.59	107.31	110.60
1	2	1751	C	C5-C6-N1	-6.59	117.71	121.00
36	1	92	G	C2-N3-C4	-6.59	108.61	111.90
36	1	1020	G	N9-C4-C5	-6.59	102.76	105.40
38	4	50	C	C6-N1-C2	6.59	122.94	120.30
36	5	867	G	C5-C6-O6	-6.59	124.65	128.60
36	5	902	G	N3-C4-C5	6.59	131.90	128.60
36	5	1436	U	N1-C2-O2	6.59	127.41	122.80
36	5	2249	G	C8-N9-C4	-6.59	103.76	106.40
36	5	2746	A	OP2-P-O3'	6.59	119.70	105.20
36	5	2911	A	N9-C4-C5	6.59	108.44	105.80
36	1	961	C	C5-C6-N1	6.59	124.29	121.00
36	1	1544	G	N1-C6-O6	6.59	123.85	119.90
36	1	2869	U	C5-C6-N1	6.59	125.99	122.70
1	6	876	G	N3-C4-C5	6.59	131.89	128.60
36	5	233	C	C2-N1-C1'	-6.59	111.55	118.80
36	5	2383	C	N1-C2-O2	6.59	122.85	118.90
36	5	3026	G	C5-C6-O6	-6.59	124.65	128.60
1	2	1345	A	C2-N3-C4	-6.59	107.31	110.60
36	1	1885	U	C4-C5-C6	6.59	123.65	119.70
38	4	16	G	C5-C6-O6	-6.59	124.65	128.60
55	M9	129	GLY	N-CA-C	-6.59	96.63	113.10
1	6	575	C	O5'-P-OP1	-6.59	99.77	105.70
1	6	858	G	N7-C8-N9	6.59	116.39	113.10
1	6	1149	G	N1-C2-N3	6.59	127.85	123.90
36	5	937	G	N1-C6-O6	-6.59	115.95	119.90
36	5	1849	C	N1-C2-O2	-6.59	114.95	118.90
36	1	211	A	O5'-P-OP2	6.58	118.60	110.70
36	1	1524	A	C4-C5-N7	-6.58	107.41	110.70
36	1	1665	C	C2-N1-C1'	-6.58	111.56	118.80
36	1	2357	A	C8-N9-C4	-6.58	103.17	105.80
36	1	2983	C	C2-N3-C4	-6.58	116.61	119.90
36	1	3362	A	O4'-C1'-N9	6.58	113.47	108.20
38	8	99	C	C6-N1-C2	6.58	122.93	120.30
1	2	694	U	C2-N1-C1'	6.58	125.60	117.70
1	2	1177	C	N3-C2-O2	6.58	126.51	121.90
36	1	662	U	C6-N1-C2	6.58	124.95	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	103	A	C5-N7-C8	-6.58	100.61	103.90
1	6	1196	A	C8-N9-C4	-6.58	103.17	105.80
1	6	1614	A	C5-C6-N1	-6.58	114.41	117.70
36	5	884	A	OP1-P-O3'	6.58	119.68	105.20
36	5	968	G	N3-C4-N9	6.58	129.95	126.00
36	5	1883	A	C4-C5-C6	6.58	120.29	117.00
38	8	66	A	C4-C5-C6	6.58	120.29	117.00
1	2	618	U	O5'-P-OP1	-6.58	99.78	105.70
36	1	65	A	OP1-P-O3'	6.58	119.68	105.20
36	1	357	A	N9-C4-C5	6.58	108.43	105.80
36	1	1169	A	C8-N9-C4	-6.58	103.17	105.80
36	1	1656	A	C8-N9-C4	6.58	108.43	105.80
36	1	1869	C	N3-C4-C5	-6.58	119.27	121.90
36	1	2238	G	C6-C5-N7	6.58	134.35	130.40
36	1	2651	G	N9-C4-C5	-6.58	102.77	105.40
1	6	60	U	N1-C2-O2	6.58	127.41	122.80
36	5	924	G	C5-C6-N1	-6.58	108.21	111.50
36	5	2122	G	C5-N7-C8	-6.58	101.01	104.30
44	17	83	LEU	CA-CB-CG	6.58	130.44	115.30
36	1	3280	U	O4'-C1'-N1	6.58	113.46	108.20
36	1	3375	A	C5'-C4'-O4'	-6.58	101.20	109.10
38	4	46	G	C8-N9-C1'	-6.58	118.45	127.00
36	5	101	G	O5'-P-OP1	6.58	118.60	110.70
36	5	1603	A	C5-N7-C8	6.58	107.19	103.90
36	5	1847	A	C4-C5-C6	-6.58	113.71	117.00
36	5	2894	C	C2-N3-C4	-6.58	116.61	119.90
36	5	2950	G	N9-C4-C5	-6.58	102.77	105.40
1	2	1271	G	N3-C4-C5	6.58	131.89	128.60
1	2	1758	U	N1-C2-O2	6.58	127.41	122.80
36	1	324	A	OP2-P-O3'	6.58	119.67	105.20
36	1	1429	G	N9-C4-C5	-6.58	102.77	105.40
36	1	1488	G	C6-C5-N7	-6.58	126.45	130.40
36	1	2257	C	N3-C2-O2	-6.58	117.30	121.90
36	1	2395	G	C5-N7-C8	-6.58	101.01	104.30
36	1	3322	A	N1-C6-N6	6.58	122.55	118.60
1	6	423	G	C8-N9-C1'	6.58	135.55	127.00
1	6	1141	G	C5-C6-O6	-6.58	124.65	128.60
36	5	210	U	C6-N1-C2	6.58	124.95	121.00
36	5	792	G	N1-C6-O6	-6.58	115.95	119.90
36	1	909	G	N7-C8-N9	6.58	116.39	113.10
36	1	2597	U	N1-C2-O2	-6.58	118.20	122.80
36	5	643	U	C2-N1-C1'	6.58	125.59	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3188	G	C6-N1-C2	-6.58	121.15	125.10
36	1	1505	C	C2-N1-C1'	-6.58	111.57	118.80
37	3	32	U	N3-C4-O4	6.58	124.00	119.40
38	4	30	C	C5-C6-N1	-6.58	117.71	121.00
36	5	1530	U	N1-C2-N3	-6.58	110.95	114.90
36	5	2393	G	C8-N9-C1'	-6.58	118.45	127.00
36	5	2899	C	C2-N3-C4	-6.58	116.61	119.90
36	1	102	C	N3-C2-O2	-6.57	117.30	121.90
36	1	196	G	N7-C8-N9	-6.57	109.81	113.10
36	1	1515	A	N1-C6-N6	6.57	122.54	118.60
36	1	1755	C	C6-N1-C2	-6.57	117.67	120.30
36	1	2614	G	C6-C5-N7	-6.57	126.46	130.40
36	1	2981	U	C2-N1-C1'	6.57	125.59	117.70
36	1	3277	U	C5-C4-O4	6.57	129.84	125.90
41	L4	259	ASP	CB-CG-OD1	-6.57	112.38	118.30
36	5	1915	A	C8-N9-C4	-6.57	103.17	105.80
36	5	2392	C	C2-N3-C4	-6.57	116.61	119.90
38	8	139	U	C2-N3-C4	-6.57	123.06	127.00
36	1	240	U	C5-C6-N1	6.57	125.99	122.70
36	1	632	G	N3-C4-N9	6.57	129.94	126.00
36	1	2241	U	C6-N1-C2	-6.57	117.06	121.00
36	5	1321	G	C5-C6-O6	-6.57	124.66	128.60
36	1	358	G	C2-N3-C4	-6.57	108.61	111.90
36	1	2176	U	N3-C4-O4	6.57	124.00	119.40
36	1	2867	C	C4-C5-C6	-6.57	114.11	117.40
36	1	2956	A	N7-C8-N9	6.57	117.08	113.80
1	6	555	A	N1-C6-N6	-6.57	114.66	118.60
1	6	770	A	O5'-P-OP2	-6.57	99.79	105.70
1	6	972	G	C8-N9-C1'	-6.57	118.46	127.00
36	5	514	G	C6-N1-C2	-6.57	121.16	125.10
36	5	866	A	C5-C6-N6	-6.57	118.44	123.70
36	5	2615	G	C8-N9-C4	6.57	109.03	106.40
36	1	187	A	C8-N9-C4	-6.57	103.17	105.80
36	1	1130	A	N1-C6-N6	-6.57	114.66	118.60
36	1	1305	U	C5-C4-O4	6.57	129.84	125.90
36	1	3182	G	N1-C2-N3	6.57	127.84	123.90
36	1	3270	U	C6-N1-C2	6.57	124.94	121.00
36	5	397	A	C5-N7-C8	6.57	107.19	103.90
36	5	1198	C	OP1-P-OP2	-6.57	109.75	119.60
36	5	2395	G	O5'-P-OP1	6.57	118.58	110.70
36	1	760	G	N3-C4-N9	-6.57	122.06	126.00
36	1	1431	G	N3-C4-N9	6.57	129.94	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1607	U	C5-C6-N1	-6.57	119.42	122.70
36	1	3378	C	O5'-P-OP1	-6.57	99.79	105.70
1	6	435	C	OP1-P-OP2	6.57	129.45	119.60
36	5	1199	C	N3-C4-C5	-6.57	119.27	121.90
36	5	1450	G	N3-C4-C5	-6.57	125.32	128.60
36	5	2417	U	N1-C2-O2	-6.57	118.20	122.80
36	5	2522	G	C5-C6-O6	-6.57	124.66	128.60
36	5	3189	G	OP1-P-OP2	-6.57	109.75	119.60
1	2	628	G	C5-C6-N1	-6.57	108.22	111.50
36	1	1156	C	C2-N3-C4	-6.57	116.62	119.90
36	1	1411	C	C6-N1-C2	-6.57	117.67	120.30
36	1	2516	U	C5-C4-O4	6.57	129.84	125.90
36	1	2818	U	C5-C4-O4	-6.57	121.96	125.90
38	4	19	C	C5-C6-N1	-6.57	117.72	121.00
44	L7	100	ARG	NE-CZ-NH2	-6.57	117.02	120.30
1	6	452	A	C8-N9-C4	6.57	108.43	105.80
1	6	616	G	N7-C8-N9	6.57	116.38	113.10
36	5	1476	G	C4-C5-N7	6.57	113.43	110.80
36	1	1353	U	O4'-C1'-N1	6.56	113.45	108.20
36	1	1905	G	N1-C2-N2	6.56	122.11	116.20
36	1	2269	U	N3-C2-O2	-6.56	117.61	122.20
36	5	2188	A	C4-C5-C6	6.56	120.28	117.00
36	1	1154	A	N9-C4-C5	6.56	108.42	105.80
36	1	2637	A	O4'-C1'-N9	6.56	113.45	108.20
1	6	328	A	O5'-P-OP2	-6.56	99.79	105.70
1	6	1008	G	C5-C6-O6	-6.56	124.66	128.60
1	6	1649	G	O5'-P-OP2	-6.56	99.79	105.70
36	5	511	G	N1-C2-N2	-6.56	110.29	116.20
36	5	2922	G	N7-C8-N9	6.56	116.38	113.10
37	7	45	A	C6-N1-C2	-6.56	114.66	118.60
1	2	1466	G	C5-N7-C8	-6.56	101.02	104.30
36	1	2296	A	O5'-P-OP2	6.56	118.57	110.70
36	1	2911	A	N7-C8-N9	-6.56	110.52	113.80
36	1	3231	U	C5-C4-O4	6.56	129.84	125.90
36	1	3372	A	C5-N7-C8	6.56	107.18	103.90
36	5	3194	C	C4-C5-C6	6.56	120.68	117.40
36	1	156	G	N3-C4-N9	6.56	129.94	126.00
36	1	2982	A	C8-N9-C4	6.56	108.42	105.80
36	5	162	G	N1-C6-O6	-6.56	115.96	119.90
36	5	1581	C	N1-C2-O2	6.56	122.83	118.90
36	5	2371	G	N3-C4-N9	6.56	129.94	126.00
36	5	3082	C	N3-C4-C5	6.56	124.52	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	905	U	C6-N1-C1'	6.56	130.38	121.20
36	1	1152	G	N1-C2-N3	-6.56	119.97	123.90
36	1	1316	C	C2-N3-C4	-6.56	116.62	119.90
36	1	2627	C	OP2-P-O3'	6.56	119.63	105.20
38	4	28	C	N1-C2-O2	-6.56	114.97	118.90
1	6	1110	G	C4-C5-C6	6.56	122.73	118.80
1	6	1566	U	C2-N1-C1'	-6.56	109.83	117.70
36	5	1526	U	N1-C2-O2	-6.56	118.21	122.80
37	7	82	G	C5-C6-N1	6.56	114.78	111.50
37	7	87	G	N3-C2-N2	-6.56	115.31	119.90
1	2	758	U	N3-C2-O2	-6.56	117.61	122.20
36	1	556	U	N3-C2-O2	6.56	126.79	122.20
36	1	1916	U	N1-C2-N3	6.56	118.83	114.90
1	6	969	C	O5'-P-OP1	6.56	118.57	110.70
36	5	1317	A	C8-N9-C4	-6.56	103.18	105.80
36	5	3038	U	C5-C6-N1	-6.56	119.42	122.70
37	7	65	G	N3-C2-N2	-6.56	115.31	119.90
1	2	1096	C	C6-N1-C1'	-6.55	112.93	120.80
1	2	1363	U	N3-C2-O2	-6.55	117.61	122.20
36	1	761	A	C5-N7-C8	-6.55	100.62	103.90
36	1	1330	A	C2-N3-C4	-6.55	107.32	110.60
36	1	1345	G	C8-N9-C4	-6.55	103.78	106.40
36	1	1553	U	C4-C5-C6	6.55	123.63	119.70
36	1	1704	A	C2-N3-C4	-6.55	107.32	110.60
36	1	2315	G	C4-C5-C6	6.55	122.73	118.80
36	1	2343	C	N1-C2-O2	6.55	122.83	118.90
36	1	2409	G	N1-C6-O6	6.55	123.83	119.90
38	4	55	U	N3-C2-O2	-6.55	117.61	122.20
1	6	440	U	O5'-P-OP2	-6.55	99.80	105.70
1	6	444	C	N3-C2-O2	6.55	126.49	121.90
36	5	425	G	C2-N3-C4	-6.55	108.62	111.90
36	5	502	U	O5'-P-OP1	6.55	118.57	110.70
36	5	3209	A	C8-N9-C4	-6.55	103.18	105.80
1	2	320	U	N1-C2-O2	6.55	127.39	122.80
36	1	1858	A	N3-C4-C5	-6.55	122.21	126.80
1	6	1257	U	N3-C2-O2	-6.55	117.61	122.20
36	5	569	A	O5'-P-OP2	-6.55	99.80	105.70
36	5	750	G	OP1-P-O3'	6.55	119.62	105.20
36	1	968	G	N3-C2-N2	6.55	124.49	119.90
36	1	1296	C	C6-N1-C2	-6.55	117.68	120.30
36	1	2778	G	N1-C2-N2	-6.55	110.30	116.20
36	1	2885	C	C5-C4-N4	-6.55	115.61	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2931	C	O5'-P-OP2	-6.55	99.81	105.70
36	1	2959	C	C6-N1-C2	6.55	122.92	120.30
41	L4	182	LEU	CB-CG-CD2	-6.55	99.86	111.00
1	6	301	A	C6-C5-N7	6.55	136.89	132.30
1	6	776	G	C5-C6-O6	-6.55	124.67	128.60
36	5	1116	G	N1-C2-N3	6.55	127.83	123.90
36	5	3061	G	N9-C4-C5	-6.55	102.78	105.40
38	8	44	A	C5-C6-N6	-6.55	118.46	123.70
36	1	909	G	C8-N9-C4	-6.55	103.78	106.40
36	1	1331	U	O5'-P-OP2	-6.55	99.81	105.70
36	1	1546	A	N7-C8-N9	6.55	117.07	113.80
36	5	848	A	C8-N9-C4	-6.55	103.18	105.80
36	5	1041	U	N1-C2-O2	-6.55	118.22	122.80
36	5	1459	C	C6-N1-C2	6.55	122.92	120.30
36	5	1542	G	N7-C8-N9	6.55	116.38	113.10
36	5	2163	C	C6-N1-C2	-6.55	117.68	120.30
36	5	2305	G	N3-C2-N2	-6.55	115.32	119.90
36	5	2388	U	N3-C4-O4	6.55	123.98	119.40
36	5	3217	C	C6-N1-C2	6.55	122.92	120.30
38	8	8	C	N3-C4-N4	6.55	122.58	118.00
1	6	1186	U	N3-C4-O4	-6.55	114.82	119.40
36	5	1889	G	C4-C5-N7	6.55	113.42	110.80
1	2	346	G	N3-C4-N9	-6.55	122.07	126.00
1	2	1484	G	N1-C2-N3	6.55	127.83	123.90
36	1	1305	U	C6-N1-C1'	6.55	130.37	121.20
36	1	2827	U	N1-C2-O2	-6.55	118.22	122.80
36	1	2961	G	N1-C2-N3	6.55	127.83	123.90
36	5	592	A	N1-C2-N3	-6.55	126.03	129.30
36	5	1329	U	P-O3'-C3'	6.55	127.56	119.70
36	5	1894	U	C5-C6-N1	-6.55	119.43	122.70
36	5	2172	A	C4-C5-C6	6.55	120.27	117.00
36	5	2682	C	O5'-P-OP1	6.55	118.56	110.70
36	5	3337	G	N3-C4-N9	6.55	129.93	126.00
36	1	55	G	N9-C4-C5	-6.54	102.78	105.40
36	5	827	A	C6-N1-C2	-6.54	114.67	118.60
36	5	877	C	N1-C2-O2	6.54	122.83	118.90
36	1	790	U	C5-C6-N1	-6.54	119.43	122.70
36	1	3180	A	C5-C6-N6	6.54	128.94	123.70
36	1	3307	A	C5-C6-N6	-6.54	118.47	123.70
1	6	16	G	C5-N7-C8	-6.54	101.03	104.30
1	6	936	G	C8-N9-C4	-6.54	103.78	106.40
1	6	1498	G	C4-C5-C6	6.54	122.73	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1056	U	N3-C2-O2	-6.54	117.62	122.20
36	5	2801	A	C5-N7-C8	-6.54	100.63	103.90
36	5	2883	U	C5-C6-N1	-6.54	119.43	122.70
36	1	2872	A	OP2-P-O3'	6.54	119.59	105.20
1	6	429	G	OP2-P-O3'	6.54	119.59	105.20
1	6	1621	U	N3-C2-O2	6.54	126.78	122.20
36	5	3243	A	O4'-C1'-N9	-6.54	102.97	108.20
37	7	28	C	C4-C5-C6	6.54	120.67	117.40
36	1	202	G	O5'-P-OP1	-6.54	99.81	105.70
36	1	1853	U	C5-C6-N1	6.54	125.97	122.70
1	6	1246	C	N1-C2-O2	6.54	122.82	118.90
1	2	262	U	O5'-P-OP2	-6.54	99.82	105.70
36	1	832	G	C8-N9-C4	6.54	109.02	106.40
36	1	2188	A	OP2-P-O3'	6.54	119.59	105.20
1	6	54	C	N1-C2-N3	6.54	123.78	119.20
36	5	656	A	C5-C6-N1	6.54	120.97	117.70
36	5	2902	A	C4-C5-C6	6.54	120.27	117.00
1	2	6	G	C5-C6-N1	6.54	114.77	111.50
36	1	703	G	N3-C4-N9	-6.54	122.08	126.00
36	1	3308	C	N3-C4-N4	-6.54	113.42	118.00
36	5	2130	G	C5-C6-O6	-6.54	124.68	128.60
1	2	47	A	N7-C8-N9	6.54	117.07	113.80
1	2	976	G	N1-C6-O6	-6.54	115.98	119.90
1	2	1201	G	C4-C5-N7	-6.54	108.19	110.80
1	2	1749	A	N1-C2-N3	6.54	132.57	129.30
36	1	23	A	C2-N3-C4	6.54	113.87	110.60
36	1	3361	G	C8-N9-C4	-6.54	103.79	106.40
1	6	998	A	N1-C2-N3	6.54	132.57	129.30
1	6	1645	G	N3-C2-N2	6.54	124.47	119.90
36	5	503	C	C2-N3-C4	-6.54	116.63	119.90
36	5	1175	C	C2-N3-C4	-6.54	116.63	119.90
36	5	1200	A	C5-C6-N6	-6.54	118.47	123.70
36	5	3057	U	C2-N1-C1'	6.54	125.54	117.70
1	2	1413	U	C2-N1-C1'	6.53	125.54	117.70
36	1	1136	A	C4-C5-N7	-6.53	107.43	110.70
36	1	1879	A	O5'-P-OP1	6.53	118.54	110.70
54	M8	138	LEU	CA-CB-CG	6.53	130.33	115.30
1	6	1132	A	C8-N9-C4	6.53	108.41	105.80
1	6	1641	C	C2-N3-C4	-6.53	116.63	119.90
36	5	27	C	N3-C4-C5	-6.53	119.29	121.90
36	5	1429	G	C8-N9-C1'	-6.53	118.51	127.00
36	5	1473	G	N3-C4-N9	6.53	129.92	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3337	G	C4-N9-C1'	6.53	134.99	126.50
37	7	93	C	C5-C4-N4	-6.53	115.63	120.20
38	8	136	G	OP1-P-OP2	-6.53	109.80	119.60
38	8	144	G	N3-C4-C5	-6.53	125.33	128.60
1	2	1086	A	N1-C6-N6	-6.53	114.68	118.60
36	1	1338	C	C4-C5-C6	-6.53	114.13	117.40
36	5	760	G	C2-N3-C4	-6.53	108.63	111.90
36	5	795	G	C5-C6-O6	6.53	132.52	128.60
37	7	38	U	C5-C6-N1	6.53	125.97	122.70
1	2	1029	U	C6-N1-C1'	6.53	130.34	121.20
1	2	1435	G	N3-C4-C5	-6.53	125.33	128.60
1	2	1789	G	N3-C4-N9	6.53	129.92	126.00
36	1	596	C	C2-N3-C4	-6.53	116.64	119.90
36	1	619	A	N1-C6-N6	6.53	122.52	118.60
36	1	1127	G	N3-C4-C5	6.53	131.87	128.60
36	1	1633	C	C6-N1-C2	-6.53	117.69	120.30
36	1	2276	G	N1-C6-O6	-6.53	115.98	119.90
36	1	2327	U	C6-N1-C2	6.53	124.92	121.00
36	1	2799	A	N1-C6-N6	-6.53	114.68	118.60
1	6	1027	A	C4-C5-C6	6.53	120.27	117.00
36	5	673	U	N1-C2-N3	6.53	118.82	114.90
36	5	2342	U	OP2-P-O3'	6.53	119.56	105.20
36	5	2864	A	OP2-P-O3'	6.53	119.57	105.20
38	8	93	U	C5-C6-N1	-6.53	119.44	122.70
36	1	3209	A	C6-C5-N7	-6.53	127.73	132.30
1	6	1034	C	N1-C2-O2	-6.53	114.98	118.90
36	5	720	A	C8-N9-C4	-6.53	103.19	105.80
36	5	2300	G	OP1-P-O3'	6.53	119.56	105.20
36	5	2699	G	C6-N1-C2	-6.53	121.18	125.10
36	1	659	G	N3-C4-C5	-6.53	125.34	128.60
36	1	693	A	C4-C5-C6	6.53	120.26	117.00
36	1	835	G	N9-C4-C5	-6.53	102.79	105.40
36	1	2153	U	N1-C2-N3	6.53	118.82	114.90
36	5	2136	C	C4-C5-C6	6.53	120.66	117.40
36	5	2614	G	C6-C5-N7	-6.53	126.48	130.40
36	5	3040	A	C2-N3-C4	-6.53	107.34	110.60
36	1	421	G	C6-N1-C2	-6.53	121.19	125.10
36	1	571	U	N1-C2-N3	6.53	118.81	114.90
36	1	1311	G	C8-N9-C4	6.53	109.01	106.40
36	5	1124	U	N3-C4-C5	6.53	118.52	114.60
36	5	2706	G	N3-C4-C5	-6.53	125.34	128.60
36	5	2869	U	OP2-P-O3'	6.53	119.56	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2943	G	N7-C8-N9	6.53	116.36	113.10
36	5	3055	U	N3-C4-C5	6.53	118.52	114.60
37	7	1	G	C8-N9-C4	-6.53	103.79	106.40
37	7	59	U	N1-C2-N3	6.53	118.82	114.90
36	1	1602	A	C8-N9-C4	6.52	108.41	105.80
36	1	1907	C	O5'-P-OP2	-6.52	99.83	105.70
36	1	3109	G	N3-C4-C5	-6.52	125.34	128.60
1	6	351	C	C6-N1-C1'	-6.52	112.97	120.80
1	6	1598	U	N1-C2-O2	6.52	127.37	122.80
1	6	1609	U	C2-N1-C1'	-6.52	109.87	117.70
36	5	1485	G	N1-C2-N2	-6.52	110.33	116.20
36	1	47	C	N1-C2-O2	-6.52	114.99	118.90
36	1	897	U	N3-C2-O2	-6.52	117.63	122.20
36	1	2178	A	C8-N9-C4	6.52	108.41	105.80
36	1	2370	G	N1-C6-O6	-6.52	115.99	119.90
36	1	2384	A	C5-N7-C8	6.52	107.16	103.90
1	6	552	G	N1-C6-O6	6.52	123.81	119.90
36	5	131	C	N3-C2-O2	-6.52	117.33	121.90
36	5	1166	G	O5'-P-OP1	6.52	118.53	110.70
36	5	2108	C	C6-N1-C2	6.52	122.91	120.30
36	5	2376	G	C6-C5-N7	-6.52	126.49	130.40
36	5	2761	G	C4-C5-N7	-6.52	108.19	110.80
6	S4	20	LEU	CA-CB-CG	-6.52	100.30	115.30
36	1	2424	A	C2-N3-C4	-6.52	107.34	110.60
36	5	788	C	N3-C4-C5	-6.52	119.29	121.90
36	5	2825	C	OP2-P-O3'	6.52	119.55	105.20
37	7	52	G	N7-C8-N9	-6.52	109.84	113.10
36	1	979	U	O5'-P-OP1	6.52	118.52	110.70
36	1	1754	G	N1-C6-O6	6.52	123.81	119.90
36	1	2199	G	C2-N3-C4	6.52	115.16	111.90
36	1	2336	U	N3-C2-O2	-6.52	117.64	122.20
36	1	2344	U	C5-C6-N1	-6.52	119.44	122.70
1	6	154	G	C5-C6-O6	-6.52	124.69	128.60
1	6	466	U	N3-C4-C5	-6.52	110.69	114.60
1	6	1142	A	C6-N1-C2	-6.52	114.69	118.60
1	6	1533	C	N3-C4-C5	6.52	124.51	121.90
1	6	1748	G	O5'-P-OP1	6.52	118.52	110.70
30	d8	16	LEU	CA-CB-CG	-6.52	100.31	115.30
36	5	214	G	C8-N9-C4	6.52	109.01	106.40
36	5	2181	C	N1-C2-O2	-6.52	114.99	118.90
36	5	2313	A	OP1-P-OP2	-6.52	109.82	119.60
36	5	2418	G	C5-C6-N1	-6.52	108.24	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2982	A	C8-N9-C4	6.52	108.41	105.80
1	2	1390	U	O4'-C1'-N1	6.52	113.41	108.20
36	1	776	U	C4-C5-C6	6.52	123.61	119.70
36	1	1899	G	C8-N9-C4	-6.52	103.79	106.40
38	4	73	U	N1-C2-O2	6.52	127.36	122.80
1	6	397	A	N9-C4-C5	-6.52	103.19	105.80
1	6	608	U	C5-C4-O4	6.52	129.81	125.90
1	6	1409	G	C4-N9-C1'	6.52	134.97	126.50
1	6	1485	C	N1-C2-O2	-6.52	114.99	118.90
36	5	526	C	N3-C4-C5	6.52	124.51	121.90
36	5	1011	A	C4-C5-C6	6.52	120.26	117.00
36	5	1017	C	C6-N1-C2	-6.52	117.69	120.30
36	5	2117	A	C6-N1-C2	-6.52	114.69	118.60
36	5	3350	C	C6-N1-C2	-6.52	117.69	120.30
36	5	3383	G	C5-N7-C8	-6.52	101.04	104.30
36	1	961	C	C2-N1-C1'	6.52	125.97	118.80
36	1	1854	C	C4-C5-C6	6.52	120.66	117.40
36	1	2209	U	C5-C6-N1	6.52	125.96	122.70
36	1	3031	G	N3-C2-N2	-6.52	115.34	119.90
36	5	2125	A	C8-N9-C4	6.52	108.41	105.80
36	5	2797	C	C4-C5-C6	6.52	120.66	117.40
36	5	2876	C	N1-C2-O2	6.52	122.81	118.90
36	5	3229	G	C8-N9-C1'	-6.52	118.53	127.00
36	1	420	G	O5'-P-OP2	-6.51	99.84	105.70
36	1	1472	U	C5-C6-N1	-6.51	119.44	122.70
36	1	2168	A	C6-C5-N7	6.51	136.86	132.30
36	1	2847	A	N9-C4-C5	-6.51	103.19	105.80
1	6	754	A	C5-C6-N6	-6.51	118.49	123.70
36	5	2624	G	C5-N7-C8	-6.51	101.04	104.30
36	5	2715	A	C6-C5-N7	6.51	136.86	132.30
36	1	518	G	N3-C2-N2	-6.51	115.34	119.90
36	1	2423	U	C6-N1-C2	-6.51	117.09	121.00
1	6	68	A	C5-N7-C8	-6.51	100.64	103.90
1	6	1673	G	N3-C4-C5	6.51	131.86	128.60
36	5	999	G	C2-N3-C4	6.51	115.16	111.90
36	5	1658	G	N1-C2-N3	6.51	127.81	123.90
36	5	2645	G	C5-C6-O6	-6.51	124.69	128.60
36	1	731	U	C4-C5-C6	6.51	123.61	119.70
36	1	736	A	N1-C6-N6	-6.51	114.69	118.60
36	1	3091	A	O5'-P-OP2	-6.51	99.84	105.70
36	5	651	G	C8-N9-C1'	-6.51	118.54	127.00
36	5	1112	A	OP1-P-O3'	6.51	119.53	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1909	A	C4-C5-C6	-6.51	113.74	117.00
36	5	3164	C	O4'-C1'-N1	6.51	113.41	108.20
36	5	3316	A	OP1-P-O3'	6.51	119.53	105.20
36	1	997	A	C6-N1-C2	-6.51	114.69	118.60
36	1	2105	G	C5-C6-O6	-6.51	124.69	128.60
36	1	3054	U	C5-C4-O4	6.51	129.81	125.90
52	M6	33	ILE	CG1-CB-CG2	-6.51	97.08	111.40
1	6	913	G	N7-C8-N9	6.51	116.36	113.10
1	6	1536	G	C6-C5-N7	-6.51	126.49	130.40
36	5	388	G	C4-C5-N7	-6.51	108.20	110.80
36	5	642	U	N1-C1'-C2'	-6.51	104.84	112.00
36	1	2167	A	C2-N3-C4	-6.51	107.35	110.60
36	1	2871	G	C8-N9-C1'	6.51	135.46	127.00
1	6	165	G	C6-C5-N7	-6.51	126.50	130.40
36	5	1164	G	N1-C6-O6	-6.51	116.00	119.90
36	5	1209	G	N1-C2-N2	6.51	122.06	116.20
36	1	2677	G	C4-C5-N7	6.51	113.40	110.80
1	6	334	G	C8-N9-C4	-6.51	103.80	106.40
1	6	967	A	C4-C5-N7	6.51	113.95	110.70
36	5	650	C	C2-N1-C1'	-6.51	111.64	118.80
36	5	1010	G	C5-N7-C8	-6.51	101.05	104.30
36	5	1050	U	C5-C4-O4	6.51	129.80	125.90
36	5	2431	C	N3-C4-C5	6.51	124.50	121.90
1	2	1553	G	C8-N9-C4	6.50	109.00	106.40
36	1	2799	A	N1-C2-N3	6.50	132.55	129.30
1	6	1149	G	C2-N3-C4	-6.50	108.65	111.90
36	5	1353	U	C6-N1-C2	-6.50	117.10	121.00
1	2	1673	G	C6-C5-N7	-6.50	126.50	130.40
1	2	1773	C	N3-C4-C5	-6.50	119.30	121.90
36	1	930	U	N1-C2-O2	-6.50	118.25	122.80
36	1	1444	G	N9-C4-C5	6.50	108.00	105.40
36	1	2325	G	C5-C6-O6	-6.50	124.70	128.60
36	1	3295	A	C2-N3-C4	-6.50	107.35	110.60
37	3	75	G	N9-C4-C5	6.50	108.00	105.40
1	6	90	C	C6-N1-C2	-6.50	117.70	120.30
1	6	1128	C	OP2-P-O3'	6.50	119.51	105.20
36	5	1149	G	C4-C5-N7	6.50	113.40	110.80
36	5	1220	U	N3-C2-O2	-6.50	117.65	122.20
36	5	1372	C	C2-N3-C4	-6.50	116.65	119.90
36	5	3274	A	OP1-P-O3'	-6.50	90.89	105.20
36	5	3308	C	N1-C2-O2	6.50	122.80	118.90
37	7	43	U	C5-C6-N1	-6.50	119.45	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	33	A	O5'-P-OP1	-6.50	99.85	105.70
1	2	575	C	N3-C4-C5	6.50	124.50	121.90
1	2	1302	U	C6-N1-C2	6.50	124.90	121.00
36	1	643	U	O5'-P-OP1	6.50	118.50	110.70
36	1	2143	A	C5-C6-N6	-6.50	118.50	123.70
36	1	2511	A	C8-N9-C4	6.50	108.40	105.80
36	1	2982	A	C5-C6-N1	6.50	120.95	117.70
1	6	1471	A	C8-N9-C4	-6.50	103.20	105.80
1	6	1600	A	C5-N7-C8	-6.50	100.65	103.90
1	6	1658	G	N3-C4-C5	6.50	131.85	128.60
36	5	920	A	C4-C5-N7	6.50	113.95	110.70
36	5	2613	U	C4-C5-C6	6.50	123.60	119.70
36	5	3166	C	C2-N3-C4	6.50	123.15	119.90
36	1	3182	G	C8-N9-C4	6.50	109.00	106.40
36	5	74	G	C4-C5-N7	6.50	113.40	110.80
36	5	269	G	N3-C4-C5	6.50	131.85	128.60
36	5	322	U	C6-N1-C2	6.50	124.90	121.00
36	5	1765	U	C5-C6-N1	6.50	125.95	122.70
36	5	1887	A	N1-C2-N3	6.50	132.55	129.30
1	2	1291	G	C4-C5-C6	6.50	122.70	118.80
36	1	33	G	N9-C1'-C2'	-6.50	104.85	112.00
36	1	2714	G	N3-C4-C5	6.50	131.85	128.60
36	1	2746	A	N1-C6-N6	-6.50	114.70	118.60
1	6	1487	A	N1-C6-N6	6.50	122.50	118.60
36	5	824	C	N3-C4-C5	-6.50	119.30	121.90
36	5	2330	C	C6-N1-C2	-6.50	117.70	120.30
36	5	2391	G	C5-C6-O6	6.50	132.50	128.60
36	5	2584	G	C8-N9-C1'	-6.50	118.55	127.00
36	5	2623	G	N3-C4-N9	6.50	129.90	126.00
38	8	122	U	N3-C2-O2	-6.50	117.65	122.20
1	2	19	A	C5-N7-C8	-6.50	100.65	103.90
1	2	1654	G	C4-N9-C1'	6.50	134.94	126.50
36	1	1902	G	C5-C6-O6	6.50	132.50	128.60
36	1	2355	G	C6-C5-N7	-6.50	126.50	130.40
1	6	1160	A	N1-C6-N6	-6.50	114.70	118.60
36	5	115	A	N9-C4-C5	6.50	108.40	105.80
36	5	371	G	C5-C6-O6	6.50	132.50	128.60
36	5	783	A	C4-C5-N7	6.50	113.95	110.70
36	5	1379	G	N9-C4-C5	-6.50	102.80	105.40
36	5	2367	A	N1-C2-N3	6.50	132.55	129.30
36	5	2400	G	N3-C2-N2	-6.50	115.35	119.90
36	5	3179	U	N3-C4-C5	-6.50	110.70	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	45	C	N3-C4-C5	6.50	124.50	121.90
38	8	138	A	C5-C6-N6	6.50	128.90	123.70
36	1	2191	U	C5-C4-O4	6.50	129.80	125.90
38	4	38	U	N3-C4-O4	6.50	123.95	119.40
1	6	797	G	N7-C8-N9	-6.50	109.85	113.10
36	5	1507	G	C4-C5-N7	6.50	113.40	110.80
36	5	1695	U	O5'-P-OP2	6.50	118.49	110.70
36	5	3125	U	C6-N1-C1'	6.50	130.29	121.20
36	1	681	U	N3-C4-O4	6.49	123.95	119.40
36	1	2179	C	C2-N1-C1'	6.49	125.94	118.80
36	1	2935	U	O5'-P-OP2	-6.49	99.86	105.70
36	1	3256	G	C8-N9-C1'	-6.49	118.56	127.00
1	6	1582	U	C2-N1-C1'	6.49	125.49	117.70
36	5	1852	G	C6-C5-N7	-6.49	126.50	130.40
36	5	3069	G	C6-C5-N7	-6.49	126.50	130.40
1	2	1655	A	N3-C4-C5	6.49	131.34	126.80
36	1	608	A	C4-C5-C6	6.49	120.25	117.00
36	1	636	C	C4-C5-C6	6.49	120.65	117.40
36	1	3147	G	C6-N1-C2	-6.49	121.20	125.10
1	6	634	G	C2-N3-C4	6.49	115.15	111.90
36	5	1496	C	N3-C2-O2	-6.49	117.36	121.90
36	5	1634	G	N3-C4-C5	-6.49	125.35	128.60
36	1	316	U	C5-C6-N1	6.49	125.94	122.70
36	1	426	G	O5'-P-OP1	-6.49	99.86	105.70
36	1	1171	G	N1-C2-N3	6.49	127.79	123.90
36	1	2810	C	C2-N3-C4	6.49	123.14	119.90
36	1	2937	G	C4-N9-C1'	-6.49	118.06	126.50
36	1	3144	G	C4-C5-N7	6.49	113.40	110.80
38	4	28	C	C5-C4-N4	-6.49	115.66	120.20
1	6	96	G	C4-C5-C6	6.49	122.69	118.80
1	6	955	A	O5'-P-OP2	-6.49	99.86	105.70
1	6	1406	A	N1-C6-N6	-6.49	114.70	118.60
36	5	2110	G	N3-C4-C5	-6.49	125.36	128.60
36	5	2703	A	N3-C4-C5	-6.49	122.26	126.80
36	5	2896	A	C2-N3-C4	-6.49	107.36	110.60
44	17	151	ARG	NE-CZ-NH1	-6.49	117.06	120.30
1	2	627	C	C2-N1-C1'	6.49	125.94	118.80
1	2	1206	U	C4-C5-C6	6.49	123.59	119.70
36	1	231	G	N1-C6-O6	6.49	123.79	119.90
36	1	1795	U	C2-N1-C1'	-6.49	109.91	117.70
36	1	3131	U	OP2-P-O3'	6.49	119.47	105.20
36	1	3269	U	O5'-P-OP2	-6.49	99.86	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	989	A	C5-C6-N1	6.49	120.94	117.70
36	5	1284	C	O5'-P-OP1	-6.49	99.86	105.70
36	5	2312	A	C4-C5-N7	-6.49	107.46	110.70
18	C6	40	GLU	C-N-CA	6.49	149.24	122.00
1	6	349	U	N1-C2-O2	6.49	127.34	122.80
1	6	1546	G	C8-N9-C1'	-6.49	118.57	127.00
36	5	2772	C	OP1-P-O3'	-6.49	90.93	105.20
36	5	2937	G	N1-C6-O6	6.49	123.79	119.90
36	1	317	A	N1-C6-N6	-6.49	114.71	118.60
36	1	2368	A	N3-C4-N9	6.49	132.59	127.40
36	1	3186	A	C6-N1-C2	-6.49	114.71	118.60
36	1	3372	A	C4-C5-N7	-6.49	107.46	110.70
1	6	930	A	N1-C6-N6	-6.49	114.71	118.60
36	5	2125	A	C5-C6-N1	-6.49	114.46	117.70
36	5	2618	G	N3-C4-C5	-6.49	125.36	128.60
36	5	3026	G	N3-C4-N9	6.49	129.89	126.00
36	5	3208	G	N1-C2-N2	-6.49	110.36	116.20
36	5	3335	A	C4-C5-C6	6.49	120.24	117.00
36	1	1120	A	N3-C4-C5	-6.48	122.26	126.80
36	1	1920	U	O5'-P-OP2	-6.48	99.86	105.70
36	1	2302	G	N1-C6-O6	-6.48	116.01	119.90
36	1	2836	C	OP2-P-O3'	6.48	119.46	105.20
36	5	344	A	O5'-P-OP1	-6.48	99.86	105.70
36	5	1377	G	C4-C5-N7	-6.48	108.21	110.80
1	2	1113	A	O4'-C1'-N9	6.48	113.39	108.20
1	2	1643	U	C2-N3-C4	-6.48	123.11	127.00
36	1	635	G	OP1-P-OP2	6.48	129.32	119.60
36	1	875	G	C5-C6-N1	-6.48	108.26	111.50
36	1	2925	C	C6-N1-C1'	6.48	128.58	120.80
36	1	3277	U	C4-C5-C6	6.48	123.59	119.70
38	4	53	A	O5'-P-OP1	6.48	118.48	110.70
1	6	1546	G	C4-C5-C6	6.48	122.69	118.80
1	6	1650	U	C4-C5-C6	6.48	123.59	119.70
36	5	399	A	C8-N9-C4	-6.48	103.21	105.80
36	5	610	G	N3-C4-C5	-6.48	125.36	128.60
36	5	2395	G	N1-C2-N3	6.48	127.79	123.90
36	5	2434	U	C5-C4-O4	6.48	129.79	125.90
36	5	3136	G	C6-C5-N7	-6.48	126.51	130.40
38	8	102	U	N1-C2-O2	6.48	127.34	122.80
1	2	548	G	C8-N9-C4	-6.48	103.81	106.40
1	2	968	U	N3-C2-O2	-6.48	117.66	122.20
36	1	45	A	C8-N9-C4	-6.48	103.21	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2895	G	C6-C5-N7	-6.48	126.51	130.40
36	1	3086	A	C6-N1-C2	-6.48	114.71	118.60
36	5	1405	U	C2-N1-C1'	-6.48	109.92	117.70
36	5	1405	U	N1-C2-N3	6.48	118.79	114.90
36	5	3381	U	C5-C6-N1	-6.48	119.46	122.70
36	1	647	A	C4-C5-C6	6.48	120.24	117.00
36	1	969	C	C4-C5-C6	6.48	120.64	117.40
36	5	1114	U	N1-C2-N3	6.48	118.79	114.90
36	5	1597	C	C5-C6-N1	6.48	124.24	121.00
36	5	1620	U	N3-C2-O2	-6.48	117.67	122.20
1	2	930	A	N1-C6-N6	-6.48	114.71	118.60
36	1	419	G	C5-N7-C8	6.48	107.54	104.30
36	1	1297	C	C6-N1-C2	-6.48	117.71	120.30
36	1	1344	G	C4-N9-C1'	-6.48	118.08	126.50
36	1	2875	U	N3-C4-O4	6.48	123.93	119.40
1	6	1759	C	C4-C5-C6	6.48	120.64	117.40
36	5	2364	G	C6-C5-N7	-6.48	126.51	130.40
36	5	2621	G	O5'-P-OP1	6.48	118.47	110.70
36	5	2693	C	C5-C6-N1	-6.48	117.76	121.00
36	5	3078	U	C6-N1-C2	-6.48	117.11	121.00
37	7	113	C	C5-C6-N1	-6.48	117.76	121.00
70	o4	78	GLY	N-CA-C	-6.48	96.91	113.10
1	2	555	A	C6-N1-C2	-6.48	114.72	118.60
36	1	344	A	C2-N3-C4	-6.48	107.36	110.60
1	6	1473	U	C5-C6-N1	-6.48	119.46	122.70
36	5	1350	A	N7-C8-N9	6.48	117.04	113.80
36	5	2794	G	O5'-P-OP1	-6.48	99.87	105.70
1	2	1142	A	N1-C6-N6	-6.47	114.72	118.60
36	1	113	C	N3-C2-O2	6.47	126.43	121.90
36	1	953	G	N3-C4-C5	6.47	131.84	128.60
36	1	2274	U	N3-C2-O2	-6.47	117.67	122.20
36	1	2627	C	C4-C5-C6	6.47	120.64	117.40
36	1	2922	G	C6-N1-C2	-6.47	121.22	125.10
1	6	359	A	C8-N9-C1'	6.47	139.35	127.70
1	6	1616	G	C8-N9-C4	-6.47	103.81	106.40
17	c5	124	THR	C-N-CD	-6.47	106.36	120.60
36	5	1101	G	N1-C6-O6	-6.47	116.02	119.90
36	5	1289	G	C5-C6-N1	6.47	114.74	111.50
36	5	1507	G	C6-C5-N7	-6.47	126.52	130.40
36	5	2829	U	N3-C2-O2	6.47	126.73	122.20
36	5	3254	G	C5-C6-N1	-6.47	108.26	111.50
1	2	331	A	C4-C5-N7	-6.47	107.46	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	969	C	N3-C2-O2	-6.47	117.37	121.90
1	2	1273	G	OP1-P-O3'	6.47	119.44	105.20
36	1	715	A	O4'-C1'-N9	6.47	113.38	108.20
36	1	2185	G	C4-C5-C6	6.47	122.68	118.80
36	1	2368	A	OP2-P-O3'	6.47	119.44	105.20
36	1	2619	G	C5-C6-N1	6.47	114.74	111.50
36	1	3031	G	C6-C5-N7	6.47	134.28	130.40
36	5	558	U	C5-C6-N1	-6.47	119.46	122.70
36	5	1487	G	C4-C5-C6	6.47	122.68	118.80
36	5	1846	C	OP1-P-OP2	-6.47	109.89	119.60
36	5	2793	G	C8-N9-C1'	6.47	135.41	127.00
36	5	2864	A	N9-C4-C5	-6.47	103.21	105.80
36	5	3015	G	N3-C4-C5	6.47	131.84	128.60
36	1	427	C	C2-N1-C1'	6.47	125.92	118.80
36	1	818	C	OP1-P-OP2	-6.47	109.89	119.60
36	1	1695	U	N1-C2-O2	6.47	127.33	122.80
36	5	1239	C	C2-N1-C1'	6.47	125.92	118.80
36	5	1387	G	OP1-P-OP2	6.47	129.31	119.60
36	5	2199	G	N3-C4-N9	6.47	129.88	126.00
36	1	1050	U	N1-C2-O2	6.47	127.33	122.80
36	1	1161	G	N3-C4-N9	6.47	129.88	126.00
36	1	2814	G	N9-C4-C5	6.47	107.99	105.40
38	4	33	A	O5'-P-OP2	6.47	118.46	110.70
1	6	120	U	C6-N1-C2	-6.47	117.12	121.00
1	6	973	A	N7-C8-N9	-6.47	110.56	113.80
1	6	1630	U	OP1-P-O3'	6.47	119.43	105.20
1	6	1668	G	O5'-P-OP1	6.47	118.46	110.70
36	5	2303	A	C5-N7-C8	-6.47	100.67	103.90
36	5	2363	A	C4-C5-N7	-6.47	107.47	110.70
36	5	2401	A	C8-N9-C4	-6.47	103.21	105.80
36	5	2609	A	N1-C6-N6	6.47	122.48	118.60
36	5	2659	G	N9-C4-C5	-6.47	102.81	105.40
36	5	3307	A	N9-C4-C5	-6.47	103.21	105.80
36	1	614	C	O4'-C1'-N1	6.47	113.37	108.20
36	1	857	G	C5-C6-N1	-6.47	108.27	111.50
36	1	3009	G	N1-C6-O6	6.47	123.78	119.90
36	1	3176	G	C6-C5-N7	-6.47	126.52	130.40
1	6	1223	A	C8-N9-C4	-6.47	103.21	105.80
1	6	1547	A	C5-N7-C8	-6.47	100.67	103.90
1	6	1765	A	N1-C6-N6	-6.47	114.72	118.60
36	5	2186	U	N3-C2-O2	-6.47	117.67	122.20
37	7	84	A	O5'-P-OP2	6.47	118.46	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	377	A	C5-C6-N6	-6.47	118.53	123.70
36	1	935	U	N3-C2-O2	-6.47	117.67	122.20
36	1	1170	A	N9-C4-C5	-6.47	103.21	105.80
36	1	2933	A	N1-C6-N6	6.47	122.48	118.60
36	1	3172	A	N3-C4-C5	-6.47	122.27	126.80
37	3	89	G	C5-C6-O6	-6.47	124.72	128.60
1	6	1029	U	C5-C6-N1	-6.47	119.47	122.70
36	5	136	G	N1-C6-O6	6.47	123.78	119.90
36	5	868	C	N3-C2-O2	6.47	126.43	121.90
36	5	922	U	C5-C4-O4	6.47	129.78	125.90
36	5	2911	A	N1-C2-N3	6.47	132.53	129.30
36	5	2954	U	OP1-P-O3'	6.47	119.42	105.20
37	7	1	G	N3-C4-C5	-6.47	125.37	128.60
38	8	115	C	C5-C6-N1	-6.47	117.77	121.00
36	1	217	U	C5-C6-N1	6.46	125.93	122.70
36	1	1180	A	C5-C6-N6	6.46	128.87	123.70
36	1	1798	A	N1-C2-N3	6.46	132.53	129.30
36	1	1858	A	C5-C6-N1	6.46	120.93	117.70
36	1	3142	A	C6-C5-N7	6.46	136.82	132.30
36	5	1038	C	N3-C2-O2	-6.46	117.38	121.90
36	5	3126	C	O5'-P-OP2	-6.46	99.88	105.70
36	1	9	U	C5-C6-N1	-6.46	119.47	122.70
36	1	906	A	N3-C4-C5	-6.46	122.28	126.80
36	1	1380	G	O5'-P-OP2	-6.46	99.88	105.70
36	1	2172	A	C4-C5-N7	6.46	113.93	110.70
36	5	2849	C	OP2-P-O3'	6.46	119.42	105.20
36	1	1142	G	C4-C5-N7	6.46	113.39	110.80
1	6	163	G	C8-N9-C1'	6.46	135.40	127.00
36	5	1152	G	N1-C6-O6	6.46	123.78	119.90
36	5	2248	C	C2-N1-C1'	-6.46	111.69	118.80
52	m6	4	GLU	N-CA-C	-6.46	93.56	111.00
1	6	1380	U	N3-C4-O4	6.46	123.92	119.40
36	5	1851	G	C4-C5-N7	6.46	113.38	110.80
36	5	3030	G	C8-N9-C4	6.46	108.98	106.40
1	2	1200	G	N3-C4-C5	-6.46	125.37	128.60
36	1	95	A	N1-C6-N6	-6.46	114.72	118.60
36	1	662	U	C6-N1-C1'	-6.46	112.16	121.20
36	1	953	G	C4-C5-C6	-6.46	114.92	118.80
36	1	1794	G	C5-N7-C8	6.46	107.53	104.30
36	1	2399	A	C6-N1-C2	-6.46	114.72	118.60
36	1	2402	A	N1-C6-N6	-6.46	114.72	118.60
36	1	3040	A	C4-C5-N7	-6.46	107.47	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3270	U	C5-C6-N1	-6.46	119.47	122.70
1	6	1157	A	C8-N9-C4	-6.46	103.22	105.80
1	6	1523	G	N3-C4-N9	6.46	129.88	126.00
1	6	1537	C	OP1-P-OP2	-6.46	109.91	119.60
36	5	559	A	C4-C5-C6	6.46	120.23	117.00
36	5	777	U	O5'-P-OP1	-6.46	99.89	105.70
36	5	1947	G	N3-C4-N9	6.46	129.88	126.00
36	1	1182	A	O5'-P-OP1	-6.46	99.89	105.70
36	1	1306	G	C4-C5-C6	6.46	122.67	118.80
36	1	1547	G	C4-N9-C1'	6.46	134.89	126.50
1	6	58	U	O5'-P-OP2	6.46	118.45	110.70
1	6	1048	G	C8-N9-C4	6.46	108.98	106.40
1	6	1403	C	C5-C6-N1	-6.46	117.77	121.00
1	6	1792	G	C5-C6-N1	6.46	114.73	111.50
36	5	609	G	N1-C6-O6	6.46	123.77	119.90
36	5	651	G	N1-C2-N2	-6.46	110.39	116.20
36	5	1137	C	C2-N1-C1'	6.46	125.90	118.80
36	5	1158	A	C8-N9-C4	6.46	108.38	105.80
36	5	1377	G	N1-C6-O6	-6.46	116.03	119.90
36	5	2880	U	N3-C4-O4	-6.46	114.88	119.40
36	5	3077	A	C2-N3-C4	-6.46	107.37	110.60
36	5	3136	G	N9-C4-C5	-6.46	102.82	105.40
38	8	52	A	C6-N1-C2	-6.46	114.73	118.60
1	2	579	A	C5-C6-N1	6.46	120.93	117.70
37	3	99	G	C6-C5-N7	6.46	134.27	130.40
1	6	170	U	N3-C2-O2	-6.46	117.68	122.20
36	5	1183	C	C5-C4-N4	-6.46	115.68	120.20
36	5	1953	G	C8-N9-C4	6.46	108.98	106.40
36	5	2173	U	OP2-P-O3'	6.46	119.40	105.20
36	5	2945	G	O4'-C1'-N9	6.46	113.36	108.20
36	5	3379	C	C6-N1-C2	6.46	122.88	120.30
1	2	1281	G	O5'-P-OP1	-6.45	99.89	105.70
36	1	1920	U	N3-C2-O2	-6.45	117.68	122.20
36	1	2289	U	N1-C2-N3	6.45	118.77	114.90
36	1	2352	A	C5-C6-N1	6.45	120.93	117.70
36	1	2405	C	C4-C5-C6	6.45	120.63	117.40
1	6	1765	A	C2-N3-C4	-6.45	107.37	110.60
36	5	92	G	N9-C4-C5	-6.45	102.82	105.40
36	5	608	A	C4-C5-C6	6.45	120.23	117.00
36	5	1484	U	N3-C2-O2	6.45	126.72	122.20
36	5	2395	G	C2-N3-C4	-6.45	108.67	111.90
36	5	2940	A	C5-C6-N6	-6.45	118.54	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1650	U	N1-C2-O2	-6.45	118.28	122.80
36	5	752	C	C4-C5-C6	6.45	120.63	117.40
36	5	822	G	C6-C5-N7	-6.45	126.53	130.40
36	5	888	A	C2-N3-C4	-6.45	107.37	110.60
36	5	1910	A	C6-C5-N7	-6.45	127.78	132.30
36	1	222	A	O5'-P-OP2	-6.45	99.89	105.70
36	1	970	A	OP2-P-O3'	6.45	119.39	105.20
36	1	2315	G	N3-C2-N2	-6.45	115.39	119.90
36	1	2720	G	C5-C6-O6	-6.45	124.73	128.60
36	1	3180	A	C2-N3-C4	-6.45	107.38	110.60
36	1	3391	A	OP1-P-OP2	6.45	129.28	119.60
36	5	923	C	C2-N3-C4	-6.45	116.67	119.90
36	5	1867	A	N1-C2-N3	6.45	132.53	129.30
36	5	2955	U	OP2-P-O3'	6.45	119.39	105.20
36	1	2641	U	C6-N1-C2	6.45	124.87	121.00
36	1	3123	A	C5-C6-N1	6.45	120.92	117.70
57	N1	20	ARG	NE-CZ-NH1	-6.45	117.08	120.30
1	6	1201	G	C8-N9-C4	6.45	108.98	106.40
36	5	1172	G	N1-C2-N3	6.45	127.77	123.90
36	5	1175	C	OP1-P-OP2	6.45	129.27	119.60
36	5	2119	A	C5-C6-N6	-6.45	118.54	123.70
36	5	2874	G	C6-C5-N7	-6.45	126.53	130.40
36	5	3150	A	C6-C5-N7	-6.45	127.79	132.30
37	7	115	G	C5-C6-N1	6.45	114.72	111.50
36	1	2978	U	N1-C2-N3	6.45	118.77	114.90
36	1	3202	G	N9-C4-C5	-6.45	102.82	105.40
36	5	346	C	OP2-P-O3'	6.45	119.38	105.20
36	5	2308	C	N3-C2-O2	6.45	126.41	121.90
36	1	1834	U	N1-C2-O2	-6.45	118.29	122.80
36	1	2339	C	O5'-P-OP2	-6.45	99.90	105.70
36	1	2351	U	N1-C2-N3	6.45	118.77	114.90
36	1	2794	G	C2-N3-C4	6.45	115.12	111.90
1	6	21	U	C4-C5-C6	6.45	123.57	119.70
1	6	179	A	N3-C4-C5	-6.45	122.29	126.80
36	5	61	A	C2-N3-C4	-6.45	107.38	110.60
36	5	851	C	N1-C2-N3	-6.45	114.69	119.20
36	5	1114	U	C5-C4-O4	6.45	129.77	125.90
36	5	2689	A	O4'-C1'-N9	6.45	113.36	108.20
36	5	3269	U	N3-C2-O2	6.45	126.71	122.20
1	2	424	C	N1-C2-O2	6.44	122.77	118.90
1	2	1670	G	C4-C5-C6	6.44	122.67	118.80
36	1	1440	G	C2-N3-C4	-6.44	108.68	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	36	C	N1-C2-N3	-6.44	114.69	119.20
1	6	1331	A	N9-C4-C5	6.44	108.38	105.80
36	5	1437	C	C2-N1-C1'	6.44	125.89	118.80
36	5	2358	A	C4-N9-C1'	-6.44	114.70	126.30
36	5	2420	C	C5-C4-N4	-6.44	115.69	120.20
36	1	1602	A	N7-C8-N9	-6.44	110.58	113.80
36	1	2174	G	C4-C5-N7	6.44	113.38	110.80
36	1	2403	G	C6-C5-N7	-6.44	126.53	130.40
36	1	2840	C	C4-C5-C6	6.44	120.62	117.40
1	6	1272	U	C4-C5-C6	6.44	123.56	119.70
36	5	890	C	C6-N1-C1'	-6.44	113.07	120.80
36	5	1680	G	C4-N9-C1'	6.44	134.88	126.50
36	5	2354	C	C6-N1-C1'	6.44	128.53	120.80
36	5	2988	C	C6-N1-C1'	-6.44	113.07	120.80
36	5	3280	U	N3-C4-C5	6.44	118.47	114.60
1	2	402	C	OP1-P-OP2	-6.44	109.94	119.60
1	6	1099	U	C2-N1-C1'	6.44	125.43	117.70
36	5	423	A	C6-C5-N7	-6.44	127.79	132.30
36	5	938	C	N1-C2-N3	-6.44	114.69	119.20
36	5	947	G	C6-C5-N7	-6.44	126.53	130.40
36	5	1386	A	C5-N7-C8	-6.44	100.68	103.90
36	5	2235	C	N3-C4-C5	-6.44	119.32	121.90
36	5	2856	G	C6-C5-N7	-6.44	126.54	130.40
36	5	3041	U	O5'-P-OP2	-6.44	99.90	105.70
36	5	3081	C	N3-C2-O2	6.44	126.41	121.90
36	5	3271	G	N9-C4-C5	-6.44	102.82	105.40
38	8	109	A	O5'-P-OP2	-6.44	99.90	105.70
36	1	371	G	N1-C6-O6	-6.44	116.04	119.90
36	1	1853	U	C6-N1-C2	-6.44	117.14	121.00
36	5	1857	C	O5'-P-OP2	-6.44	99.91	105.70
36	1	148	G	N3-C4-C5	-6.44	125.38	128.60
36	1	1166	G	C6-C5-N7	-6.44	126.54	130.40
38	4	103	G	C4-N9-C1'	6.44	134.87	126.50
1	6	26	A	C5-C6-N6	-6.44	118.55	123.70
36	5	682	U	C2-N1-C1'	-6.44	109.97	117.70
36	5	1435	A	C8-N9-C4	-6.44	103.22	105.80
36	5	2666	C	O5'-P-OP2	-6.44	99.91	105.70
38	8	12	A	N3-C4-N9	6.44	132.55	127.40
1	6	1037	C	C4-C5-C6	6.44	120.62	117.40
36	5	953	G	N1-C6-O6	-6.44	116.04	119.90
36	5	1666	G	N1-C6-O6	6.44	123.76	119.90
1	2	1757	G	C8-N9-C1'	-6.43	118.64	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1534	A	C5-N7-C8	-6.43	100.68	103.90
36	1	2620	G	N3-C2-N2	-6.43	115.40	119.90
36	1	2804	A	C6-N1-C2	-6.43	114.74	118.60
36	1	2812	C	OP1-P-O3'	6.43	119.36	105.20
1	6	297	U	C6-N1-C2	-6.43	117.14	121.00
1	6	797	G	C4-C5-C6	-6.43	114.94	118.80
36	5	40	A	OP1-P-OP2	6.43	129.25	119.60
36	5	994	G	N7-C8-N9	-6.43	109.88	113.10
36	5	1470	U	C5-C6-N1	6.43	125.92	122.70
36	5	1607	U	N3-C4-C5	-6.43	110.74	114.60
36	5	2384	A	C2-N3-C4	6.43	113.82	110.60
1	2	1302	U	C5-C4-O4	-6.43	122.04	125.90
36	1	747	A	O5'-P-OP1	-6.43	99.91	105.70
36	1	2406	C	O5'-P-OP2	-6.43	99.91	105.70
1	6	57	G	N3-C4-C5	-6.43	125.38	128.60
1	6	1138	A	C8-N9-C4	6.43	108.37	105.80
1	6	1796	C	C6-N1-C1'	-6.43	113.08	120.80
36	5	353	G	N3-C4-C5	6.43	131.82	128.60
36	5	503	C	C4-C5-C6	6.43	120.62	117.40
36	5	1124	U	N3-C2-O2	-6.43	117.70	122.20
36	5	1881	A	N1-C2-N3	6.43	132.52	129.30
36	1	595	G	N3-C4-C5	-6.43	125.39	128.60
36	1	2238	G	C8-N9-C1'	6.43	135.36	127.00
36	1	3288	G	N3-C4-N9	-6.43	122.14	126.00
1	6	1408	G	C5-C6-N1	-6.43	108.28	111.50
36	5	1653	G	N3-C4-N9	-6.43	122.14	126.00
36	5	1654	A	N1-C6-N6	-6.43	114.74	118.60
36	5	2754	G	C6-N1-C2	-6.43	121.24	125.10
36	5	3315	G	C8-N9-C4	-6.43	103.83	106.40
36	5	3385	U	C4-C5-C6	6.43	123.56	119.70
36	1	1328	C	N3-C2-O2	6.43	126.40	121.90
36	1	1484	U	P-O3'-C3'	6.43	127.42	119.70
36	1	2917	G	C5-N7-C8	6.43	107.51	104.30
36	1	3214	U	C6-N1-C2	-6.43	117.14	121.00
1	6	1414	U	C2-N1-C1'	6.43	125.42	117.70
36	5	607	A	C6-N1-C2	-6.43	114.74	118.60
36	5	728	G	C6-C5-N7	-6.43	126.54	130.40
36	5	742	G	N3-C4-C5	-6.43	125.39	128.60
36	5	1127	G	C4-C5-C6	6.43	122.66	118.80
36	5	1219	C	C6-N1-C2	6.43	122.87	120.30
36	5	3085	G	C5-N7-C8	6.43	107.52	104.30
37	7	57	G	C5-C6-N1	6.43	114.72	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	82	U	N1-C2-O2	6.43	127.30	122.80
1	2	1141	G	C8-N9-C4	6.43	108.97	106.40
36	1	224	C	N3-C4-N4	6.43	122.50	118.00
36	1	2811	A	N7-C8-N9	6.43	117.01	113.80
1	6	1122	G	N3-C4-N9	6.43	129.86	126.00
36	5	1043	C	C5-C6-N1	-6.43	117.79	121.00
36	5	1103	A	O5'-P-OP1	6.43	118.41	110.70
36	5	3332	U	C2-N1-C1'	-6.43	109.99	117.70
36	1	2681	U	N3-C2-O2	-6.43	117.70	122.20
36	1	2714	G	C8-N9-C1'	6.43	135.35	127.00
36	1	3221	C	C6-N1-C2	-6.43	117.73	120.30
1	6	43	A	C5-C6-N6	-6.43	118.56	123.70
1	6	1172	G	C6-C5-N7	6.43	134.26	130.40
36	5	644	G	N9-C4-C5	6.43	107.97	105.40
36	5	3030	G	N7-C8-N9	-6.43	109.89	113.10
36	1	365	A	N9-C4-C5	6.42	108.37	105.80
36	1	870	G	C4-C5-N7	-6.42	108.23	110.80
36	1	936	A	C4-C5-C6	-6.42	113.79	117.00
36	1	1107	C	C5-C4-N4	-6.42	115.70	120.20
36	1	2433	U	C2-N1-C1'	6.42	125.41	117.70
36	1	2962	U	N1-C2-O2	6.42	127.30	122.80
38	4	74	U	C5-C4-O4	-6.42	122.05	125.90
1	6	1512	G	C4-C5-N7	6.42	113.37	110.80
1	6	1727	G	C8-N9-C4	6.42	108.97	106.40
1	6	1777	G	N1-C6-O6	6.42	123.75	119.90
36	5	512	U	C2-N1-C1'	-6.42	109.99	117.70
36	5	523	A	N1-C2-N3	6.42	132.51	129.30
36	5	1608	C	C6-N1-C1'	-6.42	113.09	120.80
36	5	1917	C	O5'-P-OP1	6.42	118.41	110.70
36	5	2288	G	C6-C5-N7	-6.42	126.55	130.40
36	5	2855	U	C5-C6-N1	-6.42	119.49	122.70
36	1	360	G	C8-N9-C4	-6.42	103.83	106.40
36	1	1222	G	C8-N9-C4	6.42	108.97	106.40
36	1	2377	G	C6-N1-C2	-6.42	121.25	125.10
1	6	1140	G	N3-C4-N9	6.42	129.85	126.00
36	5	788	C	N1-C2-O2	-6.42	115.05	118.90
36	5	1284	C	C6-N1-C2	-6.42	117.73	120.30
1	2	1729	C	O5'-P-OP2	-6.42	99.92	105.70
36	1	664	U	N3-C4-O4	6.42	123.89	119.40
36	1	1204	A	N3-C4-N9	-6.42	122.26	127.40
36	1	1357	G	C6-C5-N7	-6.42	126.55	130.40
36	1	2634	U	C4-C5-C6	6.42	123.55	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2672	G	C5-C6-N1	6.42	114.71	111.50
1	6	78	A	C8-N9-C4	-6.42	103.23	105.80
1	6	781	U	C2-N1-C1'	6.42	125.41	117.70
1	6	1070	C	C6-N1-C2	6.42	122.87	120.30
1	6	1142	A	C5-C6-N1	6.42	120.91	117.70
36	5	586	C	C6-N1-C2	-6.42	117.73	120.30
36	5	1603	A	C8-N9-C1'	-6.42	116.14	127.70
36	5	1792	C	O5'-P-OP1	-6.42	99.92	105.70
36	5	2916	U	OP1-P-O3'	6.42	119.33	105.20
36	1	880	G	N3-C4-C5	6.42	131.81	128.60
36	1	2154	U	N1-C2-O2	-6.42	118.31	122.80
36	1	2659	G	C4-C5-N7	6.42	113.37	110.80
38	4	98	U	C4-C5-C6	6.42	123.55	119.70
1	6	913	G	C6-C5-N7	-6.42	126.55	130.40
36	5	420	G	C5-C6-N1	-6.42	108.29	111.50
36	5	2382	G	N9-C4-C5	6.42	107.97	105.40
36	5	2856	G	C4-C5-C6	6.42	122.65	118.80
36	5	3074	G	C8-N9-C4	6.42	108.97	106.40
37	7	13	A	C5-N7-C8	-6.42	100.69	103.90
38	8	15	G	N1-C2-N3	6.42	127.75	123.90
36	1	712	G	N7-C8-N9	-6.42	109.89	113.10
36	1	1140	G	C6-C5-N7	-6.42	126.55	130.40
36	1	1534	A	N1-C6-N6	6.42	122.45	118.60
36	1	2162	U	C2-N3-C4	-6.42	123.15	127.00
36	1	3079	U	C5-C4-O4	6.42	129.75	125.90
1	6	999	U	C5-C4-O4	-6.42	122.05	125.90
1	6	1127	G	N9-C4-C5	-6.42	102.83	105.40
1	6	1610	G	OP1-P-OP2	6.42	129.23	119.60
36	5	675	C	N3-C4-N4	6.42	122.49	118.00
36	5	1507	G	O4'-C1'-N9	-6.42	103.06	108.20
36	5	2355	G	C4-C5-N7	6.42	113.37	110.80
36	5	3187	A	N7-C8-N9	-6.42	110.59	113.80
36	5	3310	A	C6-C5-N7	-6.42	127.81	132.30
37	7	9	C	C5-C6-N1	6.42	124.21	121.00
37	7	85	G	C6-C5-N7	-6.42	126.55	130.40
36	1	650	C	O4'-C1'-N1	-6.42	103.07	108.20
36	1	1059	G	O5'-P-OP1	-6.42	99.93	105.70
1	6	1633	A	C2-N3-C4	-6.42	107.39	110.60
2	s0	146	LEU	CA-CB-CG	6.42	130.06	115.30
36	5	968	G	N9-C4-C5	-6.42	102.83	105.40
36	5	2285	C	N3-C4-N4	-6.42	113.51	118.00
36	5	2728	G	O4'-C1'-N9	6.42	113.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1436	A	O5'-P-OP1	-6.42	99.93	105.70
1	2	1550	A	C4-C5-N7	6.42	113.91	110.70
36	1	1377	G	C8-N9-C4	6.42	108.97	106.40
36	5	2242	A	N1-C2-N3	6.42	132.51	129.30
36	5	3053	G	C4-C5-N7	-6.42	108.23	110.80
36	1	663	C	N1-C2-O2	-6.41	115.05	118.90
36	1	675	C	N3-C2-O2	-6.41	117.41	121.90
36	1	965	A	C6-N1-C2	-6.41	114.75	118.60
36	1	1392	G	C6-C5-N7	6.41	134.25	130.40
36	1	2156	C	N3-C4-C5	6.41	124.47	121.90
36	1	2372	A	N3-C4-C5	-6.41	122.31	126.80
36	1	3110	C	O5'-P-OP2	6.41	118.40	110.70
1	6	72	A	C2-N3-C4	6.41	113.81	110.60
1	6	469	C	N1-C2-O2	6.41	122.75	118.90
1	6	761	G	C4-C5-N7	-6.41	108.23	110.80
1	6	943	C	C4-C5-C6	-6.41	114.19	117.40
36	5	974	G	C4-N9-C1'	6.41	134.84	126.50
36	5	3337	G	N3-C4-C5	-6.41	125.39	128.60
36	1	376	G	N9-C4-C5	6.41	107.97	105.40
36	1	645	A	N9-C4-C5	6.41	108.36	105.80
1	6	1753	A	N7-C8-N9	6.41	117.01	113.80
36	5	827	A	C5-C6-N1	6.41	120.91	117.70
1	2	1119	G	N1-C2-N3	6.41	127.75	123.90
35	SM	167	PRO	N-CA-CB	6.41	110.99	103.30
36	1	691	A	C5-C6-N1	-6.41	114.50	117.70
36	1	962	A	N9-C4-C5	6.41	108.36	105.80
36	1	1493	G	C6-C5-N7	6.41	134.25	130.40
36	1	1867	A	N1-C6-N6	6.41	122.45	118.60
36	1	2406	C	N3-C4-N4	6.41	122.49	118.00
37	3	82	G	C4-N9-C1'	6.41	134.84	126.50
1	6	340	U	N3-C4-C5	-6.41	110.75	114.60
1	6	1116	A	C6-C5-N7	-6.41	127.81	132.30
36	5	56	G	N1-C6-O6	-6.41	116.05	119.90
36	5	350	C	C2-N1-C1'	6.41	125.85	118.80
36	5	1658	G	C8-N9-C4	-6.41	103.84	106.40
36	5	2166	A	C8-N9-C4	6.41	108.36	105.80
36	5	2426	U	N1-C2-N3	6.41	118.75	114.90
36	5	3332	U	OP2-P-O3'	6.41	119.31	105.20
37	7	97	A	N3-C4-C5	-6.41	122.31	126.80
36	1	978	G	C4-N9-C1'	-6.41	118.17	126.50
36	1	2270	A	C4-C5-N7	6.41	113.90	110.70
36	5	1146	C	C5-C4-N4	-6.41	115.72	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1300	G	C4-C5-C6	6.41	122.64	118.80
36	5	1654	A	C4-C5-N7	-6.41	107.50	110.70
36	5	2149	A	N7-C8-N9	-6.41	110.59	113.80
36	5	3092	C	O5'-P-OP2	-6.41	99.93	105.70
1	2	1399	C	N1-C2-O2	6.41	122.74	118.90
1	2	1579	U	N3-C2-O2	-6.41	117.72	122.20
36	1	1716	U	P-O3'-C3'	6.41	127.39	119.70
1	6	1148	C	N3-C4-N4	-6.41	113.52	118.00
1	2	756	A	C8-N9-C4	-6.41	103.24	105.80
1	2	1011	G	N3-C4-C5	-6.41	125.40	128.60
36	1	674	G	OP1-P-OP2	-6.41	109.99	119.60
36	1	1377	G	C4-C5-N7	6.41	113.36	110.80
1	6	794	U	N1-C1'-C2'	6.41	122.33	114.00
1	6	1449	U	N3-C4-C5	-6.41	110.76	114.60
36	5	2621	G	N1-C6-O6	6.41	123.74	119.90
57	n1	151	LEU	CB-CG-CD2	-6.41	100.11	111.00
36	1	2381	G	N1-C2-N3	6.40	127.74	123.90
1	6	617	U	C6-N1-C2	-6.40	117.16	121.00
36	5	384	A	C6-C5-N7	-6.40	127.82	132.30
36	5	994	G	OP2-P-O3'	-6.40	91.11	105.20
36	5	3268	A	N1-C2-N3	6.40	132.50	129.30
36	5	3329	U	N3-C2-O2	-6.40	117.72	122.20
47	m0	90	ARG	NE-CZ-NH1	-6.40	117.10	120.30
1	2	344	A	C8-N9-C4	6.40	108.36	105.80
36	1	293	C	C4-C5-C6	6.40	120.60	117.40
36	1	577	C	C4-C5-C6	6.40	120.60	117.40
36	1	2285	C	C6-N1-C2	6.40	122.86	120.30
36	1	2517	U	OP1-P-O3'	6.40	119.29	105.20
1	6	808	U	N3-C4-C5	-6.40	110.76	114.60
36	5	2645	G	C6-N1-C2	-6.40	121.26	125.10
36	5	3390	G	C2-N3-C4	-6.40	108.70	111.90
37	7	39	C	C2-N1-C1'	6.40	125.84	118.80
37	7	73	C	O5'-P-OP1	-6.40	99.94	105.70
1	2	298	C	C4-C5-C6	-6.40	114.20	117.40
1	2	1245	G	N3-C4-C5	-6.40	125.40	128.60
36	1	573	C	C5-C6-N1	-6.40	117.80	121.00
36	1	637	C	C5'-C4'-O4'	-6.40	101.42	109.10
36	1	1499	C	O5'-P-OP1	6.40	118.38	110.70
36	1	2851	A	C5-C6-N1	-6.40	114.50	117.70
36	1	2941	A	O4'-C1'-N9	-6.40	103.08	108.20
36	1	3060	C	N3-C4-C5	6.40	124.46	121.90
37	3	55	A	C4-C5-C6	6.40	120.20	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	2	A	C8-N9-C4	-6.40	103.24	105.80
1	6	1000	C	C2-N3-C4	-6.40	116.70	119.90
36	5	1487	G	C4-N9-C1'	6.40	134.82	126.50
36	5	1882	G	C5-N7-C8	-6.40	101.10	104.30
36	5	2288	G	N9-C4-C5	-6.40	102.84	105.40
36	5	2818	U	OP2-P-O3'	6.40	119.28	105.20
36	5	2923	U	C5-C4-O4	-6.40	122.06	125.90
36	5	3011	A	N1-C6-N6	6.40	122.44	118.60
38	4	24	G	C4-C5-C6	6.40	122.64	118.80
1	6	1182	U	N3-C2-O2	-6.40	117.72	122.20
36	5	826	G	C8-N9-C4	6.40	108.96	106.40
36	5	3009	G	O4'-C1'-N9	6.40	113.32	108.20
38	8	1	A	N9-C4-C5	6.40	108.36	105.80
1	2	206	A	C2-N3-C4	-6.40	107.40	110.60
36	1	120	G	N3-C4-C5	-6.40	125.40	128.60
36	1	1121	U	C5-C6-N1	-6.40	119.50	122.70
36	1	1212	A	C5-C6-N1	6.40	120.90	117.70
1	6	389	G	N1-C2-N2	6.40	121.96	116.20
1	6	864	U	N1-C2-N3	6.40	118.74	114.90
1	6	1139	A	C4-C5-N7	6.40	113.90	110.70
1	6	1303	U	C2-N1-C1'	-6.40	110.02	117.70
1	6	1523	G	C4-N9-C1'	6.40	134.82	126.50
1	6	1655	A	N7-C8-N9	6.40	117.00	113.80
36	5	1848	G	C5-C6-O6	-6.40	124.76	128.60
1	2	994	G	C5-N7-C8	6.40	107.50	104.30
49	M3	172	LEU	CA-CB-CG	-6.40	100.59	115.30
36	5	423	A	N3-C4-C5	-6.40	122.32	126.80
36	5	658	G	O5'-P-OP1	-6.40	99.94	105.70
36	5	1443	G	N3-C4-N9	-6.40	122.16	126.00
36	5	2931	C	N1-C2-N3	-6.40	114.72	119.20
1	2	1600	A	C5-C6-N6	-6.39	118.58	123.70
36	1	416	A	N1-C6-N6	6.39	122.44	118.60
36	1	869	G	C8-N9-C4	6.39	108.96	106.40
36	1	1001	G	N9-C4-C5	-6.39	102.84	105.40
36	1	1349	G	N3-C4-N9	6.39	129.84	126.00
36	1	2843	U	N3-C2-O2	-6.39	117.72	122.20
38	4	26	U	C2-N3-C4	6.39	130.84	127.00
1	6	136	C	C2-N1-C1'	6.39	125.83	118.80
1	6	267	U	N3-C4-C5	-6.39	110.76	114.60
1	6	437	A	C8-N9-C4	6.39	108.36	105.80
1	6	583	C	C2-N3-C4	6.39	123.10	119.90
36	5	1939	G	N1-C2-N2	-6.39	110.44	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2978	U	OP1-P-O3'	6.39	119.27	105.20
1	2	827	C	C6-N1-C2	-6.39	117.74	120.30
36	1	513	G	O5'-P-OP1	6.39	118.37	110.70
36	1	1367	G	N3-C2-N2	-6.39	115.42	119.90
36	1	2904	U	C2-N3-C4	-6.39	123.17	127.00
36	1	3331	U	C5-C4-O4	6.39	129.74	125.90
38	4	55	U	N3-C4-C5	-6.39	110.77	114.60
36	5	1203	A	C5-C6-N6	-6.39	118.59	123.70
36	5	1933	A	N1-C2-N3	6.39	132.50	129.30
36	5	2115	G	O4'-C1'-N9	-6.39	103.09	108.20
36	5	2737	C	OP1-P-OP2	6.39	129.19	119.60
1	6	147	A	C5-N7-C8	-6.39	100.70	103.90
1	6	330	G	O5'-P-OP1	-6.39	99.95	105.70
1	6	440	U	C2-N1-C1'	-6.39	110.03	117.70
36	5	1510	G	C8-N9-C4	-6.39	103.84	106.40
36	5	2842	U	C5-C6-N1	6.39	125.90	122.70
36	5	2977	G	C4-C5-N7	6.39	113.36	110.80
36	5	3056	U	O5'-P-OP2	6.39	118.37	110.70
36	1	32	U	C5-C4-O4	-6.39	122.07	125.90
36	1	521	A	OP2-P-O3'	6.39	119.26	105.20
36	1	1320	C	N1-C2-N3	6.39	123.67	119.20
36	1	3354	U	O5'-P-OP2	-6.39	99.95	105.70
1	6	815	G	C5-N7-C8	-6.39	101.11	104.30
1	6	1168	U	N3-C4-O4	6.39	123.87	119.40
36	5	378	A	C2-N3-C4	-6.39	107.41	110.60
36	5	1376	C	C2-N3-C4	6.39	123.09	119.90
36	5	1446	A	OP1-P-O3'	6.39	119.26	105.20
36	5	1450	G	C5-N7-C8	-6.39	101.11	104.30
36	5	2374	C	C6-N1-C2	6.39	122.86	120.30
36	5	2891	U	N3-C2-O2	-6.39	117.73	122.20
36	5	3073	A	N1-C2-N3	6.39	132.50	129.30
1	2	163	G	C4-N9-C1'	6.39	134.80	126.50
1	2	1466	G	C4-C5-N7	6.39	113.36	110.80
1	2	1728	A	C5-C6-N1	6.39	120.89	117.70
36	1	585	A	O5'-P-OP2	-6.39	99.95	105.70
36	5	222	A	N1-C6-N6	-6.39	114.77	118.60
36	5	2186	U	C4-C5-C6	6.39	123.53	119.70
68	o2	128	LEU	CA-CB-CG	6.39	129.99	115.30
1	2	317	C	C2-N1-C1'	6.39	125.83	118.80
1	2	1774	G	C4-N9-C1'	6.39	134.80	126.50
36	1	342	A	C2-N3-C4	-6.39	107.41	110.60
36	1	1422	G	C4-C5-C6	6.39	122.63	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	54	A	O5'-P-OP1	-6.39	99.95	105.70
1	6	121	U	C2-N1-C1'	6.39	125.36	117.70
1	6	371	G	C8-N9-C1'	-6.39	118.70	127.00
36	5	364	G	N3-C2-N2	6.39	124.37	119.90
36	5	793	C	OP2-P-O3'	6.39	119.25	105.20
36	5	938	C	OP1-P-O3'	6.39	119.25	105.20
36	5	1486	G	C8-N9-C4	6.39	108.95	106.40
36	5	2239	G	N1-C6-O6	6.39	123.73	119.90
36	1	39	A	C4-C5-N7	6.38	113.89	110.70
36	1	1926	C	C6-N1-C2	-6.38	117.75	120.30
1	6	1280	C	C6-N1-C2	-6.38	117.75	120.30
1	6	1777	G	C8-N9-C4	-6.38	103.85	106.40
36	5	359	U	O5'-P-OP2	6.38	118.36	110.70
36	5	590	G	C6-C5-N7	6.38	134.23	130.40
36	5	1005	G	C5-C6-N1	-6.38	108.31	111.50
36	5	2846	U	C5-C6-N1	6.38	125.89	122.70
36	5	2916	U	N1-C2-N3	-6.38	111.07	114.90
36	5	3382	U	C5-C6-N1	6.38	125.89	122.70
36	1	1635	G	N3-C4-N9	6.38	129.83	126.00
36	1	3206	C	N3-C4-C5	-6.38	119.35	121.90
36	1	3253	G	N1-C2-N2	6.38	121.94	116.20
36	1	3375	A	N9-C4-C5	6.38	108.35	105.80
1	6	318	U	N1-C2-O2	-6.38	118.33	122.80
1	6	1027	A	C5-C6-N1	-6.38	114.51	117.70
36	5	1835	A	C8-N9-C4	-6.38	103.25	105.80
36	5	2925	C	OP1-P-OP2	-6.38	110.03	119.60
36	1	311	C	C5-C6-N1	6.38	124.19	121.00
36	1	797	U	C6-N1-C2	6.38	124.83	121.00
36	1	901	G	C2-N3-C4	6.38	115.09	111.90
36	1	2705	A	C5-C6-N1	6.38	120.89	117.70
36	1	2863	G	C5-C6-O6	6.38	132.43	128.60
1	6	275	C	C2-N1-C1'	6.38	125.82	118.80
1	6	394	C	N1-C2-O2	6.38	122.73	118.90
36	5	39	A	C2-N3-C4	-6.38	107.41	110.60
36	5	642	U	C5-C6-N1	-6.38	119.51	122.70
38	8	26	U	N1-C2-N3	6.38	118.73	114.90
36	1	516	A	OP2-P-O3'	6.38	119.24	105.20
36	1	1307	G	C8-N9-C1'	6.38	135.29	127.00
1	6	474	A	C4-C5-N7	6.38	113.89	110.70
1	6	1785	U	N3-C4-O4	6.38	123.87	119.40
36	5	499	G	O5'-P-OP1	-6.38	99.96	105.70
36	5	590	G	N1-C6-O6	-6.38	116.07	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2606	G	O4'-C1'-N9	-6.38	103.10	108.20
37	7	39	C	C6-N1-C1'	-6.38	113.14	120.80
36	1	407	A	N3-C4-C5	-6.38	122.33	126.80
36	1	1410	U	C6-N1-C2	-6.38	117.17	121.00
36	1	2713	U	C6-N1-C2	6.38	124.83	121.00
36	1	2958	A	N1-C6-N6	-6.38	114.77	118.60
36	5	423	A	C4-N9-C1'	6.38	137.78	126.30
36	5	744	A	N9-C4-C5	-6.38	103.25	105.80
36	5	1885	U	N1-C2-N3	6.38	118.73	114.90
36	1	585	A	N3-C4-C5	-6.38	122.34	126.80
36	1	589	A	C2-N3-C4	6.38	113.79	110.60
36	1	700	C	N3-C2-O2	6.38	126.36	121.90
36	1	1951	C	C2-N1-C1'	6.38	125.81	118.80
36	1	2419	A	O5'-P-OP1	-6.38	99.96	105.70
36	1	2956	A	N1-C2-N3	6.38	132.49	129.30
38	4	40	A	C5-C6-N1	6.38	120.89	117.70
38	4	104	A	C5-C6-N6	6.38	128.80	123.70
1	6	1655	A	C5-N7-C8	-6.38	100.71	103.90
36	5	639	G	C4-N9-C1'	6.38	134.79	126.50
36	1	28	C	C4-C5-C6	6.38	120.59	117.40
1	6	1116	A	C4-C5-C6	6.38	120.19	117.00
1	6	1158	C	C6-N1-C1'	-6.38	113.15	120.80
36	5	227	G	C5-C6-O6	6.38	132.43	128.60
36	5	635	G	OP1-P-OP2	6.38	129.16	119.60
36	5	902	G	N3-C4-N9	-6.38	122.17	126.00
36	1	655	C	N1-C2-O2	6.37	122.72	118.90
36	1	1084	A	C8-N9-C4	-6.37	103.25	105.80
36	1	2992	U	N3-C4-O4	6.37	123.86	119.40
36	1	3187	A	N1-C6-N6	-6.37	114.78	118.60
1	6	474	A	C5-C6-N6	-6.37	118.60	123.70
36	5	573	C	N3-C4-C5	6.37	124.45	121.90
36	5	806	A	N9-C4-C5	6.37	108.35	105.80
36	5	1495	U	C4-C5-C6	6.37	123.52	119.70
36	5	2355	G	N7-C8-N9	6.37	116.29	113.10
36	5	2957	G	C4-C5-N7	6.37	113.35	110.80
36	5	3264	G	C5-C6-O6	6.37	132.42	128.60
38	8	31	G	C5-N7-C8	6.37	107.49	104.30
1	2	111	U	C5-C6-N1	6.37	125.89	122.70
1	2	310	C	C4-C5-C6	6.37	120.59	117.40
1	2	1489	U	C6-N1-C2	-6.37	117.18	121.00
36	1	99	A	N1-C6-N6	-6.37	114.78	118.60
36	1	629	U	OP2-P-O3'	6.37	119.22	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	998	A	N1-C6-N6	6.37	122.42	118.60
36	1	1631	C	N3-C2-O2	-6.37	117.44	121.90
1	6	323	A	C8-N9-C4	-6.37	103.25	105.80
36	5	51	A	C4-C5-N7	6.37	113.89	110.70
36	5	647	A	N9-C4-C5	6.37	108.35	105.80
36	1	1096	U	P-O3'-C3'	6.37	127.34	119.70
36	5	242	C	C6-N1-C2	-6.37	117.75	120.30
36	5	851	C	C4-C5-C6	-6.37	114.22	117.40
36	5	2996	U	N1-C2-O2	6.37	127.26	122.80
36	5	3343	G	C4-C5-C6	6.37	122.62	118.80
36	1	631	U	C4-C5-C6	6.37	123.52	119.70
36	1	3267	A	N1-C2-N3	6.37	132.48	129.30
1	6	824	G	C4-N9-C1'	6.37	134.78	126.50
36	5	3218	A	C8-N9-C1'	-6.37	116.24	127.70
36	5	3332	U	C6-N1-C1'	6.37	130.12	121.20
38	8	1	A	C5-C6-N6	6.37	128.79	123.70
1	2	942	G	N1-C6-O6	-6.37	116.08	119.90
36	1	795	G	OP2-P-O3'	6.37	119.21	105.20
36	1	2663	G	N1-C6-O6	-6.37	116.08	119.90
37	3	82	G	C4-C5-C6	6.37	122.62	118.80
1	6	750	U	N3-C2-O2	6.37	126.66	122.20
36	5	2370	G	C5-C6-O6	6.37	132.42	128.60
36	5	2675	C	N1-C2-O2	6.37	122.72	118.90
36	5	3208	G	N3-C4-C5	-6.37	125.42	128.60
36	1	590	G	C2-N3-C4	-6.37	108.72	111.90
36	1	1149	G	N7-C8-N9	6.37	116.28	113.10
36	1	1907	C	C5-C4-N4	6.37	124.66	120.20
36	1	2655	U	N1-C2-O2	-6.37	118.34	122.80
36	1	3100	U	N3-C2-O2	6.37	126.66	122.20
1	6	98	U	N1-C2-N3	6.37	118.72	114.90
1	6	1663	G	C4-N9-C1'	-6.37	118.22	126.50
36	5	353	G	C8-N9-C1'	6.37	135.28	127.00
36	5	524	U	O5'-P-OP2	-6.37	99.97	105.70
36	5	920	A	C6-C5-N7	-6.37	127.84	132.30
36	5	1379	G	C4-C5-N7	6.37	113.35	110.80
36	5	2221	G	N3-C4-C5	6.37	131.78	128.60
36	1	166	C	N1-C2-O2	6.36	122.72	118.90
36	1	2427	U	C6-N1-C2	6.36	124.82	121.00
36	1	2825	C	C5-C4-N4	-6.36	115.75	120.20
36	1	3208	G	C8-N9-C1'	-6.36	118.73	127.00
36	1	3274	A	N7-C8-N9	6.36	116.98	113.80
1	6	957	G	N3-C2-N2	-6.36	115.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1244	A	C8-N9-C4	-6.36	103.25	105.80
36	5	132	C	C6-N1-C2	-6.36	117.75	120.30
36	5	367	A	N3-C4-N9	-6.36	122.31	127.40
36	5	894	G	N9-C4-C5	6.36	107.95	105.40
36	5	1843	C	C6-N1-C2	-6.36	117.75	120.30
36	5	1902	G	C4-C5-C6	6.36	122.62	118.80
36	5	1909	A	N1-C6-N6	-6.36	114.78	118.60
36	5	2892	A	N1-C2-N3	6.36	132.48	129.30
36	1	2804	A	N9-C4-C5	6.36	108.34	105.80
36	1	3125	U	C5-C4-O4	6.36	129.72	125.90
1	6	1768	G	C4-C5-N7	6.36	113.34	110.80
36	5	675	C	N1-C2-O2	-6.36	115.08	118.90
36	5	2161	G	C4-C5-N7	-6.36	108.25	110.80
1	2	316	A	C8-N9-C4	6.36	108.34	105.80
36	1	1296	C	O5'-P-OP2	-6.36	99.97	105.70
36	1	1551	C	N3-C2-O2	6.36	126.35	121.90
36	1	2407	C	N3-C2-O2	6.36	126.35	121.90
1	6	21	U	N3-C2-O2	-6.36	117.75	122.20
1	6	1758	U	C2-N1-C1'	6.36	125.33	117.70
1	6	1768	G	N3-C4-C5	6.36	131.78	128.60
36	5	425	G	C4-C5-N7	-6.36	108.25	110.80
36	5	3127	A	O5'-P-OP2	-6.36	99.97	105.70
38	8	55	U	C6-N1-C2	-6.36	117.18	121.00
36	1	76	G	N3-C2-N2	-6.36	115.45	119.90
36	1	851	C	C5-C6-N1	6.36	124.18	121.00
36	5	726	G	C6-C5-N7	-6.36	126.58	130.40
36	5	2258	U	N3-C2-O2	-6.36	117.75	122.20
37	7	82	G	C4-C5-N7	6.36	113.34	110.80
1	2	1006	C	C6-N1-C1'	-6.36	113.17	120.80
36	1	355	A	OP1-P-O3'	6.36	119.19	105.20
36	1	2425	G	N9-C4-C5	6.36	107.94	105.40
36	1	3263	G	C6-C5-N7	-6.36	126.58	130.40
38	4	41	A	N1-C2-N3	6.36	132.48	129.30
1	6	609	U	C4-C5-C6	6.36	123.52	119.70
1	6	1556	A	N3-C4-C5	6.36	131.25	126.80
36	5	536	U	N1-C2-O2	6.36	127.25	122.80
36	5	659	G	C5-N7-C8	-6.36	101.12	104.30
36	5	687	U	C5-C6-N1	-6.36	119.52	122.70
36	5	1396	C	O5'-P-OP2	-6.36	99.98	105.70
36	5	2823	G	N1-C6-O6	6.36	123.72	119.90
36	5	2865	U	N3-C4-O4	-6.36	114.95	119.40
36	5	3039	C	N1-C2-O2	-6.36	115.08	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3202	G	C4-C5-N7	-6.36	108.26	110.80
1	2	512	A	C8-N9-C4	-6.36	103.26	105.80
36	1	1929	G	C6-C5-N7	-6.36	126.59	130.40
36	1	2859	U	C5-C6-N1	-6.36	119.52	122.70
36	1	2963	C	N1-C2-N3	6.36	123.65	119.20
1	6	1145	U	N3-C4-C5	-6.36	110.79	114.60
36	5	1376	C	N3-C4-C5	-6.36	119.36	121.90
36	5	2284	C	C6-N1-C2	-6.36	117.76	120.30
36	5	2929	C	C4-C5-C6	-6.36	114.22	117.40
36	5	3308	C	N3-C4-N4	6.36	122.45	118.00
61	n5	133	LEU	CA-CB-CG	6.36	129.92	115.30
36	1	1773	C	C5-C6-N1	-6.35	117.82	121.00
36	1	2409	G	C6-N1-C2	-6.35	121.29	125.10
36	1	3368	U	C2-N1-C1'	-6.35	110.08	117.70
1	6	695	U	N1-C2-N3	6.35	118.71	114.90
36	5	213	A	C5-C6-N6	-6.35	118.62	123.70
36	5	1929	G	N3-C4-N9	-6.35	122.19	126.00
36	5	3216	G	C6-N1-C2	-6.35	121.29	125.10
1	2	1146	G	C5-C6-O6	-6.35	124.79	128.60
1	2	1299	G	C4-N9-C1'	6.35	134.76	126.50
36	1	656	A	C2-N3-C4	6.35	113.78	110.60
36	1	797	U	C2-N3-C4	-6.35	123.19	127.00
36	1	3318	G	N7-C8-N9	6.35	116.28	113.10
1	6	1659	A	N1-C2-N3	6.35	132.48	129.30
36	5	367	A	C5-C6-N6	6.35	128.78	123.70
36	5	594	U	C2-N1-C1'	6.35	125.32	117.70
36	5	1331	U	C2-N3-C4	-6.35	123.19	127.00
36	5	1599	G	N7-C8-N9	-6.35	109.92	113.10
36	5	1719	G	C2-N3-C4	-6.35	108.72	111.90
36	5	2610	G	C4-N9-C1'	-6.35	118.24	126.50
37	7	44	C	C5-C4-N4	-6.35	115.75	120.20
36	1	929	A	N9-C4-C5	-6.35	103.26	105.80
36	5	298	U	N3-C4-O4	6.35	123.85	119.40
36	5	954	U	C5-C6-N1	-6.35	119.52	122.70
36	5	1733	G	O5'-P-OP2	-6.35	99.98	105.70
36	5	3025	C	C2-N1-C1'	-6.35	111.81	118.80
36	5	3329	U	C5-C4-O4	6.35	129.71	125.90
1	2	1611	A	C2-N3-C4	-6.35	107.43	110.60
36	1	225	C	C6-N1-C2	-6.35	117.76	120.30
36	1	2352	A	N9-C4-C5	-6.35	103.26	105.80
36	5	1892	G	C6-C5-N7	-6.35	126.59	130.40
36	5	3195	U	O4'-C1'-N1	6.35	113.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	172	G	N3-C4-N9	6.35	129.81	126.00
36	1	404	G	C8-N9-C1'	-6.35	118.75	127.00
36	1	1138	U	N3-C2-O2	-6.35	117.76	122.20
36	1	1713	G	C6-C5-N7	6.35	134.21	130.40
36	1	2109	U	N3-C4-C5	-6.35	110.79	114.60
36	1	2877	G	C6-C5-N7	6.35	134.21	130.40
38	4	58	G	C8-N9-C4	-6.35	103.86	106.40
1	6	422	G	O5'-P-OP2	-6.35	99.99	105.70
1	6	1479	A	C5-C6-N6	-6.35	118.62	123.70
36	5	104	G	C5-C6-O6	-6.35	124.79	128.60
36	5	2373	A	N9-C4-C5	6.35	108.34	105.80
36	5	2957	G	C5-N7-C8	-6.35	101.13	104.30
36	1	1883	A	N7-C8-N9	-6.35	110.63	113.80
36	1	3210	A	C5-C6-N1	6.35	120.87	117.70
1	2	1600	A	C4-C5-N7	6.34	113.87	110.70
36	1	657	A	C4-C5-N7	6.34	113.87	110.70
36	1	1554	U	N1-C2-N3	-6.34	111.09	114.90
36	1	1592	G	N3-C4-N9	6.34	129.81	126.00
36	1	1911	A	O5'-P-OP2	-6.34	99.99	105.70
36	1	2287	C	N3-C2-O2	-6.34	117.46	121.90
36	1	2605	G	C6-C5-N7	-6.34	126.59	130.40
36	1	2789	U	N1-C2-N3	6.34	118.71	114.90
36	1	2814	G	C5-N7-C8	6.34	107.47	104.30
38	4	28	C	N3-C4-C5	-6.34	119.36	121.90
1	6	45	U	C5-C4-O4	-6.34	122.09	125.90
1	6	891	A	N1-C6-N6	6.34	122.41	118.60
1	6	1347	U	C5-C4-O4	6.34	129.71	125.90
1	6	1603	U	C5-C6-N1	6.34	125.87	122.70
36	5	1311	G	C5-C6-N1	-6.34	108.33	111.50
37	7	74	C	C6-N1-C2	6.34	122.84	120.30
36	1	132	C	N3-C4-C5	-6.34	119.36	121.90
36	1	2385	G	C8-N9-C4	6.34	108.94	106.40
36	5	935	U	C5-C4-O4	-6.34	122.09	125.90
36	5	2705	A	C6-N1-C2	-6.34	114.79	118.60
36	5	3269	U	N1-C2-N3	-6.34	111.09	114.90
36	1	1306	G	C5-C6-O6	-6.34	124.80	128.60
36	1	3267	A	C4-C5-C6	6.34	120.17	117.00
36	5	96	G	O4'-C1'-N9	-6.34	103.13	108.20
36	5	1532	C	N1-C2-O2	-6.34	115.09	118.90
36	5	1822	C	N3-C4-C5	-6.34	119.36	121.90
1	2	95	G	N1-C6-O6	-6.34	116.10	119.90
1	2	191	C	N1-C2-O2	-6.34	115.10	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	187	A	C5-C6-N6	6.34	128.77	123.70
36	1	1846	C	O5'-P-OP2	-6.34	100.00	105.70
36	1	2311	G	N1-C6-O6	6.34	123.70	119.90
36	1	3043	C	C5-C4-N4	-6.34	115.76	120.20
1	6	330	G	N3-C2-N2	-6.34	115.46	119.90
1	6	1148	C	N1-C2-N3	6.34	123.64	119.20
36	5	426	G	C5-N7-C8	6.34	107.47	104.30
36	5	568	G	N1-C6-O6	6.34	123.70	119.90
36	5	2126	A	C5-C6-N6	-6.34	118.63	123.70
36	5	2977	G	C5-C6-O6	-6.34	124.80	128.60
38	8	21	C	C4-C5-C6	-6.34	114.23	117.40
36	1	145	G	C8-N9-C4	-6.34	103.86	106.40
36	5	2185	G	N3-C2-N2	-6.34	115.46	119.90
36	5	2988	C	C2-N3-C4	-6.34	116.73	119.90
1	2	576	G	C5-C6-O6	-6.34	124.80	128.60
1	2	1786	G	N9-C4-C5	6.34	107.94	105.40
36	1	423	A	OP1-P-OP2	6.34	129.10	119.60
36	1	2355	G	C2-N3-C4	-6.34	108.73	111.90
36	1	3255	U	C2-N1-C1'	-6.34	110.10	117.70
1	6	1178	G	N3-C4-N9	6.34	129.80	126.00
1	6	1662	G	O5'-P-OP1	6.34	118.30	110.70
36	5	1852	G	C5-C6-N1	6.34	114.67	111.50
36	5	2386	A	C5-C6-N6	-6.34	118.63	123.70
36	5	3262	U	C6-N1-C2	-6.34	117.20	121.00
36	1	2300	G	N1-C2-N3	6.33	127.70	123.90
1	6	1440	C	C6-N1-C2	6.33	122.83	120.30
36	5	3295	A	C5-C6-N1	6.33	120.87	117.70
36	1	272	G	C2-N3-C4	-6.33	108.73	111.90
36	1	1359	C	N1-C2-O2	-6.33	115.10	118.90
36	1	1952	G	C8-N9-C4	-6.33	103.87	106.40
38	4	85	G	C8-N9-C4	-6.33	103.87	106.40
1	6	461	G	N3-C4-C5	-6.33	125.43	128.60
1	6	1023	A	N9-C4-C5	6.33	108.33	105.80
1	6	1425	A	C2-N3-C4	-6.33	107.43	110.60
1	6	1610	G	C2-N3-C4	6.33	115.07	111.90
1	6	1697	G	N3-C4-N9	6.33	129.80	126.00
36	5	1391	C	C2-N3-C4	-6.33	116.73	119.90
36	5	1514	G	N3-C2-N2	6.33	124.33	119.90
36	5	2922	G	OP1-P-OP2	-6.33	110.10	119.60
1	2	315	A	O4'-C1'-N9	6.33	113.27	108.20
36	1	19	U	N1-C2-O2	-6.33	118.37	122.80
36	1	67	A	C6-N1-C2	-6.33	114.80	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	326	U	O5'-P-OP2	-6.33	100.00	105.70
36	1	677	A	C2-N3-C4	6.33	113.77	110.60
36	1	1439	U	OP1-P-O3'	6.33	119.13	105.20
36	1	1887	A	C5-C6-N1	-6.33	114.53	117.70
1	6	462	G	O5'-P-OP1	-6.33	100.00	105.70
1	6	1774	G	N7-C8-N9	6.33	116.27	113.10
36	5	46	U	OP2-P-O3'	6.33	119.13	105.20
36	5	90	C	C6-N1-C2	-6.33	117.77	120.30
36	5	708	G	N3-C4-N9	6.33	129.80	126.00
36	5	1138	U	N1-C2-N3	6.33	118.70	114.90
36	5	1432	C	OP1-P-O3'	6.33	119.13	105.20
36	5	2116	G	N1-C6-O6	6.33	123.70	119.90
36	5	2275	A	N9-C4-C5	6.33	108.33	105.80
36	5	2319	U	N1-C2-O2	6.33	127.23	122.80
36	5	2772	C	P-O3'-C3'	6.33	127.30	119.70
36	5	3055	U	C5-C6-N1	-6.33	119.53	122.70
36	1	1552	G	C8-N9-C1'	-6.33	118.77	127.00
36	1	1928	G	N3-C4-N9	-6.33	122.20	126.00
38	4	81	U	N1-C2-O2	6.33	127.23	122.80
1	6	623	A	O5'-P-OP1	-6.33	100.00	105.70
36	5	990	U	C2-N1-C1'	6.33	125.30	117.70
36	5	3045	G	N9-C4-C5	6.33	107.93	105.40
70	o4	4	ARG	NE-CZ-NH2	-6.33	117.14	120.30
1	2	1786	G	N3-C4-N9	-6.33	122.20	126.00
36	1	311	C	C6-N1-C2	-6.33	117.77	120.30
36	1	397	A	N1-C2-N3	6.33	132.47	129.30
36	1	783	A	N1-C6-N6	6.33	122.40	118.60
36	1	939	U	C6-N1-C2	-6.33	117.20	121.00
36	1	2188	A	C5-C6-N1	6.33	120.86	117.70
36	1	2229	A	C4-C5-N7	6.33	113.86	110.70
36	1	2550	U	C6-N1-C2	-6.33	117.20	121.00
36	1	2881	C	N1-C2-N3	-6.33	114.77	119.20
36	5	64	G	N3-C4-C5	-6.33	125.44	128.60
36	5	360	G	N1-C2-N3	6.33	127.70	123.90
36	5	383	G	N1-C6-O6	-6.33	116.10	119.90
36	5	1485	G	C5-C6-O6	6.33	132.40	128.60
36	5	3143	C	OP1-P-O3'	6.33	119.12	105.20
36	1	2962	U	C4-C5-C6	-6.33	115.90	119.70
36	5	962	A	C8-N9-C4	-6.33	103.27	105.80
36	5	1443	G	OP1-P-O3'	6.33	119.12	105.20
36	5	2884	C	N1-C2-O2	-6.33	115.10	118.90
36	5	3303	G	C5-C6-O6	6.33	132.40	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	611	A	O5'-P-OP1	6.33	118.29	110.70
36	1	1519	G	N1-C6-O6	6.33	123.70	119.90
36	1	2820	A	C4-C5-C6	-6.33	113.84	117.00
1	6	286	C	N3-C4-C5	6.33	124.43	121.90
36	5	1011	A	N1-C2-N3	6.33	132.46	129.30
36	5	1101	G	C8-N9-C1'	-6.33	118.78	127.00
36	5	1899	G	N7-C8-N9	-6.33	109.94	113.10
36	5	2871	G	OP1-P-O3'	6.33	119.11	105.20
36	1	706	A	O5'-P-OP1	-6.32	100.01	105.70
36	1	2329	C	O5'-P-OP2	-6.32	100.01	105.70
36	1	2396	G	N9-C4-C5	6.32	107.93	105.40
36	1	2796	G	N1-C6-O6	-6.32	116.11	119.90
38	4	18	U	N1-C2-O2	6.32	127.23	122.80
36	5	413	U	N3-C2-O2	6.32	126.63	122.20
36	5	714	G	OP1-P-O3'	-6.32	91.29	105.20
36	5	2584	G	N3-C4-N9	6.32	129.79	126.00
36	5	3015	G	C2-N3-C4	-6.32	108.74	111.90
36	5	3088	G	C4-C5-C6	6.32	122.59	118.80
38	4	144	G	N7-C8-N9	-6.32	109.94	113.10
36	5	2727	A	OP1-P-OP2	6.32	129.08	119.60
36	5	2849	C	N1-C2-O2	-6.32	115.11	118.90
1	2	6	G	C8-N9-C4	-6.32	103.87	106.40
36	1	560	G	C2-N3-C4	6.32	115.06	111.90
36	1	2661	G	C6-C5-N7	-6.32	126.61	130.40
36	1	2816	G	C4-C5-C6	6.32	122.59	118.80
71	O5	21	LEU	CA-CB-CG	6.32	129.84	115.30
1	6	778	G	N1-C6-O6	-6.32	116.11	119.90
1	6	904	G	N1-C6-O6	-6.32	116.11	119.90
1	6	1304	G	N7-C8-N9	-6.32	109.94	113.10
36	5	1004	U	C5-C6-N1	6.32	125.86	122.70
36	5	1177	G	N1-C2-N3	6.32	127.69	123.90
36	5	1892	G	C2-N3-C4	-6.32	108.74	111.90
36	5	2416	U	N1-C2-N3	6.32	118.69	114.90
38	8	93	U	C2-N1-C1'	-6.32	110.12	117.70
36	1	2421	U	C2-N3-C4	-6.32	123.21	127.00
36	1	2640	A	O4'-C1'-N9	-6.32	103.14	108.20
36	1	2899	C	N3-C4-N4	-6.32	113.58	118.00
37	3	33	U	C5-C4-O4	-6.32	122.11	125.90
1	6	1600	A	C4-C5-N7	6.32	113.86	110.70
36	5	978	G	N3-C4-N9	-6.32	122.21	126.00
36	5	1177	G	N1-C6-O6	-6.32	116.11	119.90
36	5	1366	A	N1-C6-N6	6.32	122.39	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1548	C	C6-N1-C2	-6.32	117.77	120.30
36	5	2412	G	C4-N9-C1'	6.32	134.72	126.50
36	5	3330	A	C2-N3-C4	6.32	113.76	110.60
36	5	3362	A	O5'-P-OP2	-6.32	100.01	105.70
1	2	1435	G	N3-C4-N9	6.32	129.79	126.00
36	1	905	U	N1-C2-N3	6.32	118.69	114.90
36	1	1303	A	C8-N9-C4	6.32	108.33	105.80
36	1	3130	A	C8-N9-C4	-6.32	103.27	105.80
56	N0	82	ASP	CB-CG-OD2	-6.32	112.61	118.30
36	5	832	G	N3-C4-N9	6.32	129.79	126.00
36	5	2836	C	N3-C4-C5	-6.32	119.37	121.90
36	5	2931	C	C6-N1-C2	6.32	122.83	120.30
1	2	144	U	N3-C4-O4	-6.32	114.98	119.40
1	2	390	G	N3-C2-N2	-6.32	115.48	119.90
1	2	399	A	C4-C5-N7	-6.32	107.54	110.70
36	1	1576	G	N3-C4-C5	-6.32	125.44	128.60
36	1	1876	U	C6-N1-C2	-6.32	117.21	121.00
36	1	2272	G	N1-C2-N3	6.32	127.69	123.90
36	1	2285	C	C2-N1-C1'	-6.32	111.85	118.80
36	1	2833	A	N1-C2-N3	6.32	132.46	129.30
36	1	2863	G	N1-C2-N3	6.32	127.69	123.90
36	1	2958	A	N9-C4-C5	6.32	108.33	105.80
36	1	3007	U	C2-N3-C4	-6.32	123.21	127.00
36	1	3273	A	N9-C4-C5	6.32	108.33	105.80
1	6	417	A	N1-C2-N3	6.32	132.46	129.30
1	6	569	C	C2-N3-C4	-6.32	116.74	119.90
36	5	1099	A	C4-C5-N7	6.32	113.86	110.70
36	5	2662	G	N1-C2-N2	-6.32	110.52	116.20
37	7	29	C	C2-N3-C4	-6.32	116.74	119.90
40	l3	4	ARG	NE-CZ-NH1	6.32	123.46	120.30
1	2	574	G	C5-N7-C8	6.31	107.46	104.30
36	1	424	G	N3-C4-C5	-6.31	125.44	128.60
36	1	2375	G	O4'-C1'-N9	6.31	113.25	108.20
38	4	91	C	N3-C4-C5	-6.31	119.38	121.90
1	6	1498	G	C5-C6-O6	-6.31	124.81	128.60
36	5	606	C	N1-C2-O2	-6.31	115.11	118.90
36	5	1236	G	C8-N9-C1'	-6.31	118.79	127.00
1	2	1466	G	N7-C8-N9	6.31	116.26	113.10
36	1	189	G	O5'-P-OP2	-6.31	100.02	105.70
36	1	360	G	N9-C4-C5	6.31	107.92	105.40
36	1	2617	U	C6-N1-C2	-6.31	117.21	121.00
1	6	298	C	C5-C4-N4	-6.31	115.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	291	C	N3-C4-C5	6.31	124.42	121.90
36	5	433	A	C5-N7-C8	-6.31	100.74	103.90
36	5	1102	A	C8-N9-C4	-6.31	103.28	105.80
36	5	1860	G	N1-C6-O6	-6.31	116.11	119.90
1	2	767	U	C5-C4-O4	6.31	129.69	125.90
36	5	1748	G	C4-C5-N7	6.31	113.32	110.80
36	5	2325	G	C6-C5-N7	-6.31	126.61	130.40
36	5	2422	C	C2-N1-C1'	-6.31	111.86	118.80
36	5	2876	C	C6-N1-C2	-6.31	117.78	120.30
1	2	1673	G	N3-C4-C5	-6.31	125.44	128.60
36	1	696	C	C6-N1-C2	-6.31	117.78	120.30
36	1	2388	U	OP2-P-O3'	6.31	119.08	105.20
36	1	3092	C	O5'-P-OP1	-6.31	100.02	105.70
36	1	3269	U	N1-C2-N3	6.31	118.69	114.90
36	5	1926	C	N3-C4-C5	6.31	124.42	121.90
36	5	2812	C	N3-C4-C5	6.31	124.42	121.90
36	5	2830	G	C4-C5-N7	-6.31	108.28	110.80
36	5	2982	A	N1-C6-N6	6.31	122.39	118.60
68	o2	45	ARG	NE-CZ-NH1	-6.31	117.14	120.30
1	2	1177	C	N3-C4-N4	6.31	122.42	118.00
1	2	1255	G	N9-C4-C5	6.31	107.92	105.40
1	2	1655	A	N7-C8-N9	-6.31	110.65	113.80
36	1	705	A	N9-C4-C5	-6.31	103.28	105.80
36	1	1589	A	C6-N1-C2	-6.31	114.82	118.60
36	1	1758	G	O5'-P-OP2	-6.31	100.02	105.70
36	1	2332	A	C2-N3-C4	-6.31	107.45	110.60
36	1	2696	A	C4-C5-C6	-6.31	113.85	117.00
36	1	2891	U	N3-C4-O4	6.31	123.82	119.40
36	1	3060	C	N1-C2-O2	6.31	122.68	118.90
1	6	1491	U	OP1-P-O3'	6.31	119.08	105.20
1	6	1592	A	N3-C4-N9	-6.31	122.36	127.40
1	6	1780	G	C2-N3-C4	6.31	115.05	111.90
36	5	926	A	C5-C6-N6	6.31	128.75	123.70
36	5	1632	A	C4-C5-N7	-6.31	107.55	110.70
36	5	2105	G	N1-C6-O6	6.31	123.68	119.90
36	1	1413	G	N9-C4-C5	-6.31	102.88	105.40
36	5	1468	A	C6-N1-C2	-6.31	114.82	118.60
36	5	2666	C	C5-C4-N4	-6.31	115.79	120.20
36	5	3131	U	C6-N1-C2	6.31	124.78	121.00
1	2	399	A	N9-C4-C5	6.30	108.32	105.80
36	1	1955	U	C6-N1-C2	-6.30	117.22	121.00
36	1	2616	C	N3-C4-C5	-6.30	119.38	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3361	G	C5-C6-O6	6.30	132.38	128.60
38	4	32	C	N3-C2-O2	-6.30	117.49	121.90
1	6	194	U	C5-C6-N1	6.30	125.85	122.70
1	6	1293	U	C5-C6-N1	-6.30	119.55	122.70
36	5	39	A	N3-C4-N9	-6.30	122.36	127.40
36	5	82	C	C5-C6-N1	-6.30	117.85	121.00
36	5	842	G	C4-N9-C1'	-6.30	118.30	126.50
36	5	987	U	N3-C4-C5	-6.30	110.82	114.60
36	5	1190	A	C4-N9-C1'	6.30	137.65	126.30
36	5	1840	U	OP2-P-O3'	6.30	119.07	105.20
36	5	2718	U	N3-C2-O2	-6.30	117.79	122.20
36	1	23	A	C8-N9-C4	-6.30	103.28	105.80
36	1	590	G	C8-N9-C4	6.30	108.92	106.40
36	1	1307	G	C4-C5-N7	-6.30	108.28	110.80
36	5	1157	G	OP2-P-O3'	6.30	119.07	105.20
36	5	1375	G	C2-N3-C4	6.30	115.05	111.90
36	5	2221	G	N3-C4-N9	-6.30	122.22	126.00
36	5	3189	G	N1-C2-N3	6.30	127.68	123.90
1	2	1177	C	C5-C4-N4	-6.30	115.79	120.20
1	2	1336	A	C8-N9-C4	6.30	108.32	105.80
1	2	1795	U	N3-C2-O2	-6.30	117.79	122.20
36	1	404	G	C4-C5-C6	6.30	122.58	118.80
36	1	1477	A	C6-N1-C2	-6.30	114.82	118.60
36	1	1689	U	O5'-P-OP1	-6.30	100.03	105.70
36	1	1926	C	N3-C2-O2	-6.30	117.49	121.90
37	3	93	C	N3-C4-C5	6.30	124.42	121.90
1	6	621	A	C4-C5-C6	-6.30	113.85	117.00
1	6	1395	G	N1-C6-O6	6.30	123.68	119.90
36	5	226	C	N1-C2-O2	6.30	122.68	118.90
36	5	2884	C	C6-N1-C2	6.30	122.82	120.30
36	5	3229	G	C4-N9-C1'	6.30	134.69	126.50
36	5	3309	G	N3-C4-C5	-6.30	125.45	128.60
36	1	335	G	O5'-P-OP2	6.30	118.26	110.70
36	1	498	A	C5-C6-N6	-6.30	118.66	123.70
36	1	589	A	C5-N7-C8	6.30	107.05	103.90
36	1	616	G	N1-C6-O6	6.30	123.68	119.90
36	1	796	U	C5-C6-N1	6.30	125.85	122.70
36	1	834	U	C6-N1-C2	6.30	124.78	121.00
36	1	1095	U	O5'-P-OP2	-6.30	100.03	105.70
36	1	1865	A	C5-C6-N1	-6.30	114.55	117.70
36	1	2315	G	N1-C2-N3	6.30	127.68	123.90
1	6	163	G	N7-C8-N9	6.30	116.25	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	714	G	N1-C6-O6	6.30	123.68	119.90
36	5	2346	C	C2-N3-C4	6.30	123.05	119.90
36	5	2911	A	C8-N9-C4	-6.30	103.28	105.80
36	5	3053	G	O5'-P-OP2	6.30	118.26	110.70
36	5	3173	G	N1-C6-O6	-6.30	116.12	119.90
36	5	3220	G	N9-C4-C5	6.30	107.92	105.40
36	1	686	G	N9-C4-C5	6.30	107.92	105.40
36	1	1269	U	N3-C2-O2	-6.30	117.79	122.20
36	1	2860	U	N1-C2-N3	-6.30	111.12	114.90
1	6	1517	U	N1-C2-N3	6.30	118.68	114.90
36	5	1329	U	N1-C1'-C2'	-6.30	105.07	112.00
36	5	2702	A	N7-C8-N9	6.30	116.95	113.80
36	1	25	U	N3-C2-O2	6.30	126.61	122.20
36	1	62	A	OP2-P-O3'	6.30	119.05	105.20
36	1	416	A	N1-C2-N3	6.30	132.45	129.30
36	1	793	C	N1-C2-N3	6.30	123.61	119.20
36	1	1046	A	N1-C6-N6	6.30	122.38	118.60
36	1	1297	C	O5'-P-OP1	-6.30	100.03	105.70
36	1	1635	G	C4-N9-C1'	6.30	134.68	126.50
36	1	2941	A	C5-C6-N6	-6.30	118.66	123.70
1	6	794	U	C6-N1-C1'	-6.30	112.39	121.20
1	6	1354	G	C4-C5-N7	6.30	113.32	110.80
1	6	1642	G	C4-C5-N7	6.30	113.32	110.80
36	5	1589	A	N3-C4-N9	6.30	132.44	127.40
36	5	2205	U	C2-N1-C1'	6.30	125.26	117.70
36	5	3129	A	C5-C6-N1	-6.30	114.55	117.70
37	7	52	G	O5'-P-OP1	-6.30	100.03	105.70
36	1	3087	A	C6-N1-C2	-6.29	114.82	118.60
1	6	1527	C	C5-C6-N1	-6.29	117.85	121.00
36	5	43	A	C5-N7-C8	-6.29	100.75	103.90
36	5	500	C	N3-C4-C5	-6.29	119.38	121.90
36	5	3117	C	N1-C2-O2	6.29	122.68	118.90
36	5	3303	G	C8-N9-C4	-6.29	103.88	106.40
36	1	375	A	N9-C4-C5	-6.29	103.28	105.80
36	1	608	A	C8-N9-C1'	-6.29	116.37	127.70
36	1	803	C	C2-N1-C1'	6.29	125.72	118.80
36	1	1043	C	C2-N3-C4	-6.29	116.75	119.90
36	1	2172	A	C5-N7-C8	-6.29	100.75	103.90
36	1	2365	C	C6-N1-C2	6.29	122.82	120.30
36	1	2410	U	OP2-P-O3'	6.29	119.05	105.20
1	6	1028	C	C4-C5-C6	6.29	120.55	117.40
1	6	1183	A	O5'-P-OP1	-6.29	100.03	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1546	G	N1-C2-N3	6.29	127.68	123.90
36	5	129	U	N1-C2-N3	6.29	118.68	114.90
36	5	1163	A	C5-C6-N6	6.29	128.74	123.70
36	5	1906	G	C6-N1-C2	-6.29	121.32	125.10
36	1	659	G	O5'-P-OP2	-6.29	100.04	105.70
36	1	2549	G	C4-C5-N7	-6.29	108.28	110.80
36	1	2880	U	O4'-C1'-N1	6.29	113.23	108.20
36	1	2901	G	C5-C6-O6	6.29	132.38	128.60
1	6	1106	U	C6-N1-C2	-6.29	117.22	121.00
36	5	2387	A	C5-N7-C8	-6.29	100.75	103.90
36	1	2566	C	C6-N1-C2	-6.29	117.78	120.30
36	5	2335	G	C8-N9-C1'	-6.29	118.82	127.00
36	5	3172	A	O5'-P-OP2	-6.29	100.04	105.70
1	2	1771	U	C6-N1-C2	6.29	124.77	121.00
36	1	880	G	C8-N9-C4	6.29	108.92	106.40
36	1	1334	U	N1-C2-O2	-6.29	118.40	122.80
36	1	2280	A	C6-C5-N7	-6.29	127.90	132.30
1	6	1150	G	C4-C5-N7	6.29	113.32	110.80
1	6	1564	U	C6-N1-C2	6.29	124.77	121.00
36	5	229	G	C8-N9-C4	-6.29	103.89	106.40
36	5	421	G	N1-C2-N2	-6.29	110.54	116.20
36	5	580	C	C4-C5-C6	6.29	120.54	117.40
36	5	644	G	C8-N9-C4	-6.29	103.89	106.40
36	5	2365	C	C5-C6-N1	-6.29	117.86	121.00
36	5	2670	G	N3-C2-N2	-6.29	115.50	119.90
1	2	1210	C	C5-C6-N1	6.29	124.14	121.00
36	1	3066	U	C5-C6-N1	-6.29	119.56	122.70
36	1	3117	C	N3-C2-O2	-6.29	117.50	121.90
36	5	363	G	C4-C5-C6	6.29	122.57	118.80
36	5	1201	C	C5-C6-N1	6.29	124.14	121.00
36	5	3062	G	C4-C5-N7	6.29	113.31	110.80
36	5	3289	G	N9-C1'-C2'	-6.29	105.08	112.00
36	1	1095	U	O4'-C1'-N1	-6.29	103.17	108.20
36	1	2182	A	C6-C5-N7	-6.29	127.90	132.30
1	6	338	C	N3-C4-C5	-6.29	119.39	121.90
36	5	356	C	C5-C6-N1	-6.29	117.86	121.00
36	5	630	A	C5-C6-N1	-6.29	114.56	117.70
36	5	808	A	C2-N3-C4	6.29	113.74	110.60
36	5	2835	U	N3-C4-C5	-6.29	110.83	114.60
36	5	3029	A	C2-N3-C4	-6.29	107.46	110.60
36	1	81	C	C6-N1-C2	-6.28	117.79	120.30
36	1	1201	C	C6-N1-C2	6.28	122.81	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2122	G	C8-N9-C4	-6.28	103.89	106.40
36	1	2177	G	N1-C6-O6	-6.28	116.13	119.90
36	1	2609	A	OP1-P-O3'	6.28	119.02	105.20
36	1	3190	C	N3-C4-C5	6.28	124.41	121.90
36	1	3197	G	C5-C6-O6	-6.28	124.83	128.60
1	6	308	C	O4'-C1'-N1	-6.28	103.17	108.20
1	6	392	G	N3-C2-N2	-6.28	115.50	119.90
36	5	864	G	OP1-P-OP2	-6.28	110.17	119.60
36	5	1480	G	N9-C4-C5	-6.28	102.89	105.40
36	5	2279	A	N9-C4-C5	-6.28	103.29	105.80
37	7	80	G	C5-N7-C8	6.28	107.44	104.30
1	2	1665	U	N1-C2-N3	6.28	118.67	114.90
36	1	1180	A	C4-N9-C1'	-6.28	114.99	126.30
36	1	2192	C	N1-C2-N3	6.28	123.60	119.20
36	1	2856	G	C2-N3-C4	-6.28	108.76	111.90
36	1	3054	U	C6-N1-C2	-6.28	117.23	121.00
36	1	3368	U	C5-C4-O4	6.28	129.67	125.90
1	6	1565	C	N3-C4-C5	6.28	124.41	121.90
36	5	1916	U	N3-C2-O2	-6.28	117.80	122.20
36	5	2549	G	C4-C5-C6	6.28	122.57	118.80
36	5	2796	G	C8-N9-C1'	-6.28	118.83	127.00
36	5	3383	G	C6-C5-N7	-6.28	126.63	130.40
1	2	620	A	C5-C6-N6	6.28	128.72	123.70
1	2	1008	G	N1-C6-O6	6.28	123.67	119.90
36	1	419	G	N1-C2-N3	6.28	127.67	123.90
36	1	616	G	C8-N9-C4	6.28	108.91	106.40
36	1	2360	C	OP2-P-O3'	6.28	119.02	105.20
36	1	2944	U	OP1-P-OP2	-6.28	110.18	119.60
36	1	3309	G	O5'-P-OP1	-6.28	100.05	105.70
1	6	1148	C	C5-C4-N4	6.28	124.60	120.20
1	6	1524	A	N1-C2-N3	6.28	132.44	129.30
36	5	376	G	N3-C4-C5	-6.28	125.46	128.60
36	5	1138	U	C5-C4-O4	6.28	129.67	125.90
36	5	1772	U	C5-C6-N1	-6.28	119.56	122.70
36	5	2371	G	C8-N9-C1'	-6.28	118.84	127.00
36	5	2399	A	C5-N7-C8	-6.28	100.76	103.90
36	5	2611	U	OP2-P-O3'	6.28	119.02	105.20
36	5	2613	U	N3-C4-C5	-6.28	110.83	114.60
36	5	2865	U	OP2-P-O3'	6.28	119.02	105.20
37	7	99	G	N3-C2-N2	-6.28	115.50	119.90
36	1	1514	G	N7-C8-N9	6.28	116.24	113.10
36	5	2309	A	O5'-P-OP2	-6.28	100.05	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2644	C	N1-C2-N3	6.28	123.59	119.20
36	5	2687	G	C6-C5-N7	-6.28	126.63	130.40
36	5	3335	A	O4'-C1'-N9	-6.28	103.18	108.20
36	1	219	A	O5'-P-OP1	-6.28	100.05	105.70
36	1	615	U	C4-C5-C6	6.28	123.47	119.70
36	1	1437	C	N3-C2-O2	-6.28	117.51	121.90
36	1	2121	G	C4-N9-C1'	-6.28	118.34	126.50
36	1	2207	A	O4'-C1'-N9	6.28	113.22	108.20
36	1	2874	G	C4-C5-N7	-6.28	108.29	110.80
36	1	2910	A	N1-C2-N3	6.28	132.44	129.30
36	5	787	G	C4-C5-N7	-6.28	108.29	110.80
36	5	857	G	N7-C8-N9	6.28	116.24	113.10
36	5	1429	G	C4-N9-C1'	6.28	134.66	126.50
36	5	1737	U	N3-C2-O2	6.28	126.59	122.20
36	5	1922	A	O5'-P-OP2	-6.28	100.05	105.70
36	5	2433	U	N1-C2-O2	6.28	127.19	122.80
36	5	2669	G	O5'-P-OP1	6.28	118.23	110.70
37	7	42	A	O5'-P-OP2	6.28	118.23	110.70
36	1	1101	G	N9-C4-C5	6.28	107.91	105.40
36	1	1758	G	N1-C6-O6	-6.28	116.13	119.90
36	1	2313	A	OP1-P-OP2	-6.28	110.19	119.60
36	1	3100	U	N3-C4-C5	6.28	118.36	114.60
1	6	1027	A	C5-C6-N6	6.28	128.72	123.70
1	6	1698	G	N1-C6-O6	-6.28	116.14	119.90
36	5	803	C	C6-N1-C1'	-6.28	113.27	120.80
36	5	804	C	C5-C4-N4	-6.28	115.81	120.20
36	5	1133	A	C8-N9-C4	-6.28	103.29	105.80
36	5	1241	U	C5-C6-N1	6.28	125.84	122.70
36	5	2140	U	N3-C4-C5	-6.28	110.83	114.60
36	5	2316	G	N1-C2-N3	6.28	127.67	123.90
36	5	2377	G	C2-N3-C4	6.28	115.04	111.90
36	5	2640	A	C8-N9-C4	6.28	108.31	105.80
1	6	1150	G	C6-C5-N7	-6.27	126.64	130.40
36	1	413	U	C2-N3-C4	-6.27	123.24	127.00
36	1	807	A	OP1-P-O3'	6.27	119.00	105.20
36	1	1466	G	N9-C4-C5	-6.27	102.89	105.40
1	6	1748	G	OP2-P-O3'	6.27	119.00	105.20
36	5	105	C	C6-N1-C2	6.27	122.81	120.30
36	5	405	U	C4-C5-C6	-6.27	115.94	119.70
36	5	2815	G	C5-C6-N1	-6.27	108.36	111.50
36	1	1058	U	N1-C2-O2	6.27	127.19	122.80
36	1	1134	G	C5-N7-C8	6.27	107.44	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1420	C	N1-C2-N3	6.27	123.59	119.20
36	1	2145	A	C6-N1-C2	-6.27	114.84	118.60
1	6	1278	G	N7-C8-N9	6.27	116.24	113.10
36	5	1046	A	N1-C6-N6	-6.27	114.84	118.60
36	5	2689	A	C2-N3-C4	-6.27	107.47	110.60
36	5	3022	G	C8-N9-C4	6.27	108.91	106.40
1	2	50	C	N3-C2-O2	-6.27	117.51	121.90
36	1	648	C	C4-C5-C6	6.27	120.53	117.40
36	1	2287	C	C2-N1-C1'	6.27	125.70	118.80
1	6	140	A	N9-C4-C5	6.27	108.31	105.80
36	5	202	G	N1-C6-O6	-6.27	116.14	119.90
36	5	902	G	C8-N9-C1'	6.27	135.15	127.00
36	5	1345	G	N1-C6-O6	6.27	123.66	119.90
36	5	2515	A	N1-C6-N6	-6.27	114.84	118.60
36	5	3132	C	C2-N3-C4	-6.27	116.77	119.90
37	7	28	C	C5-C6-N1	-6.27	117.87	121.00
44	17	179	LEU	CA-CB-CG	6.27	129.72	115.30
1	2	1140	G	C6-C5-N7	-6.27	126.64	130.40
36	1	389	A	C2-N3-C4	-6.27	107.47	110.60
36	1	521	A	O5'-P-OP1	-6.27	100.06	105.70
36	1	1528	G	C8-N9-C4	-6.27	103.89	106.40
36	1	2384	A	C4-C5-N7	-6.27	107.57	110.70
36	1	2399	A	N3-C4-N9	6.27	132.41	127.40
36	1	2410	U	N1-C2-O2	-6.27	118.41	122.80
1	6	616	G	C5-N7-C8	-6.27	101.17	104.30
1	6	1504	G	C5-C6-N1	-6.27	108.37	111.50
36	5	497	C	N1-C2-O2	-6.27	115.14	118.90
36	5	676	G	N7-C8-N9	6.27	116.23	113.10
36	5	891	G	C5-N7-C8	-6.27	101.17	104.30
36	5	2105	G	O5'-P-OP1	-6.27	100.06	105.70
36	1	1516	C	N3-C4-C5	-6.27	119.39	121.90
36	5	819	U	N3-C4-C5	-6.27	110.84	114.60
36	5	2277	C	C2-N3-C4	-6.27	116.77	119.90
36	5	2717	U	N1-C2-O2	-6.27	118.41	122.80
36	1	905	U	N3-C4-C5	-6.26	110.84	114.60
36	1	2215	A	C8-N9-C4	6.26	108.31	105.80
36	1	3271	G	N3-C4-C5	-6.26	125.47	128.60
1	6	1013	A	C5-C6-N1	6.26	120.83	117.70
1	6	1113	A	C5-C6-N1	6.26	120.83	117.70
1	6	1663	G	C8-N9-C4	6.26	108.91	106.40
36	5	1333	C	C4-C5-C6	6.26	120.53	117.40
36	5	1343	A	C2-N3-C4	-6.26	107.47	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2246	G	C6-C5-N7	-6.26	126.64	130.40
36	5	2897	A	C4-N9-C1'	6.26	137.57	126.30
36	1	34	A	C5-N7-C8	-6.26	100.77	103.90
1	2	734	A	OP1-P-O3'	6.26	118.98	105.20
1	2	1050	G	N3-C4-C5	6.26	131.73	128.60
1	2	1419	G	N1-C6-O6	6.26	123.66	119.90
36	1	854	G	N3-C2-N2	-6.26	115.52	119.90
36	1	936	A	N1-C6-N6	-6.26	114.84	118.60
36	1	977	C	C6-N1-C2	-6.26	117.80	120.30
36	1	1432	C	OP2-P-O3'	6.26	118.97	105.20
36	1	2908	G	C4-C5-N7	6.26	113.30	110.80
1	6	400	A	OP2-P-O3'	6.26	118.98	105.20
36	5	297	G	C6-C5-N7	-6.26	126.64	130.40
36	5	2157	G	N9-C4-C5	-6.26	102.89	105.40
36	5	2371	G	C6-C5-N7	-6.26	126.64	130.40
1	2	444	C	C6-N1-C2	6.26	122.80	120.30
36	1	2799	A	N9-C4-C5	6.26	108.30	105.80
36	1	2927	C	C2-N1-C1'	-6.26	111.92	118.80
38	4	53	A	N1-C2-N3	6.26	132.43	129.30
1	6	577	G	C8-N9-C4	-6.26	103.90	106.40
1	6	1491	U	C5-C6-N1	6.26	125.83	122.70
21	c9	68	ARG	NE-CZ-NH1	-6.26	117.17	120.30
36	5	1321	G	C6-C5-N7	-6.26	126.64	130.40
36	5	2427	U	C2-N1-C1'	-6.26	110.19	117.70
36	5	2762	A	C2-N3-C4	-6.26	107.47	110.60
1	2	1132	A	N1-C6-N6	-6.26	114.84	118.60
36	1	1416	C	N1-C2-O2	-6.26	115.14	118.90
36	1	1796	G	O5'-P-OP2	-6.26	100.07	105.70
36	5	1172	G	C8-N9-C1'	-6.26	118.86	127.00
36	5	1347	U	N1-C2-O2	-6.26	118.42	122.80
36	5	2242	A	C6-N1-C2	-6.26	114.84	118.60
1	2	734	A	P-O3'-C3'	6.26	127.21	119.70
36	1	1126	G	C6-C5-N7	-6.26	126.65	130.40
36	1	2823	G	OP2-P-O3'	-6.26	91.43	105.20
36	5	1162	U	C2-N3-C4	-6.26	123.25	127.00
36	5	1766	G	C4-N9-C1'	6.26	134.63	126.50
36	5	2838	A	O5'-P-OP1	6.26	118.21	110.70
36	5	3045	G	O5'-P-OP1	-6.26	100.07	105.70
1	2	1324	G	N3-C4-N9	-6.25	122.25	126.00
36	1	884	A	C2-N3-C4	6.25	113.73	110.60
36	1	2799	A	O5'-P-OP2	-6.25	100.07	105.70
36	1	2909	U	C5-C6-N1	-6.25	119.57	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	320	U	C5-C4-O4	6.25	129.65	125.90
1	6	1770	U	N1-C2-N3	-6.25	111.15	114.90
36	5	1471	U	C5-C6-N1	-6.25	119.57	122.70
36	5	2170	U	N1-C2-N3	6.25	118.65	114.90
36	5	2900	A	C2-N3-C4	-6.25	107.47	110.60
1	2	376	C	C4-C5-C6	6.25	120.53	117.40
1	2	1591	C	C6-N1-C2	-6.25	117.80	120.30
36	1	431	U	OP1-P-OP2	6.25	128.98	119.60
36	1	609	G	C4-N9-C1'	6.25	134.63	126.50
36	1	934	G	C4-C5-N7	6.25	113.30	110.80
36	1	1344	G	N3-C4-C5	6.25	131.73	128.60
36	1	1554	U	N3-C4-O4	6.25	123.78	119.40
36	1	2753	G	C5-C6-O6	6.25	132.35	128.60
1	6	103	A	C4-C5-N7	6.25	113.83	110.70
1	6	1789	G	C4-N9-C1'	6.25	134.63	126.50
36	5	2395	G	O5'-P-OP2	-6.25	100.07	105.70
36	5	2825	C	C5-C6-N1	6.25	124.13	121.00
36	5	3342	A	C5-C6-N6	-6.25	118.70	123.70
38	8	107	G	C8-N9-C4	-6.25	103.90	106.40
36	1	1165	A	C8-N9-C4	-6.25	103.30	105.80
36	1	2516	U	N1-C2-N3	6.25	118.65	114.90
36	1	2549	G	N1-C6-O6	-6.25	116.15	119.90
36	1	2996	U	N1-C2-N3	-6.25	111.15	114.90
36	1	3050	U	OP1-P-O3'	6.25	118.95	105.20
36	1	3063	C	N3-C2-O2	-6.25	117.52	121.90
1	6	48	G	N9-C4-C5	6.25	107.90	105.40
1	6	1601	G	N1-C6-O6	-6.25	116.15	119.90
36	5	566	G	N1-C2-N2	-6.25	110.57	116.20
36	5	1305	U	C6-N1-C2	6.25	124.75	121.00
36	5	1365	G	C2-N3-C4	-6.25	108.77	111.90
36	5	2420	C	C6-N1-C2	-6.25	117.80	120.30
36	5	3128	G	N1-C2-N3	6.25	127.65	123.90
36	5	3380	U	C5-C4-O4	6.25	129.65	125.90
36	1	400	G	N1-C6-O6	-6.25	116.15	119.90
36	1	415	G	C2-N3-C4	-6.25	108.78	111.90
36	1	552	G	C8-N9-C4	-6.25	103.90	106.40
36	1	780	A	C4-C5-N7	-6.25	107.58	110.70
36	1	2694	A	N1-C6-N6	-6.25	114.85	118.60
36	1	2813	A	C6-N1-C2	-6.25	114.85	118.60
36	1	3216	G	C6-C5-N7	-6.25	126.65	130.40
1	6	389	G	C5-N7-C8	-6.25	101.17	104.30
36	5	707	U	C5-C4-O4	6.25	129.65	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1332	A	C6-C5-N7	-6.25	127.92	132.30
36	5	1375	G	C4-N9-C1'	6.25	134.62	126.50
36	5	2126	A	N3-C4-N9	6.25	132.40	127.40
36	5	3065	G	N3-C4-C5	6.25	131.72	128.60
36	5	3127	A	C8-N9-C4	-6.25	103.30	105.80
1	2	1737	G	C5-N7-C8	-6.25	101.18	104.30
36	1	1399	A	C2-N3-C4	-6.25	107.48	110.60
36	1	1715	A	N1-C6-N6	6.25	122.35	118.60
36	1	2648	G	C5-C6-N1	6.25	114.62	111.50
1	6	1180	C	C6-N1-C2	-6.25	117.80	120.30
1	6	1245	G	C8-N9-C4	-6.25	103.90	106.40
36	5	1332	A	C4-C5-C6	6.25	120.12	117.00
36	5	1456	A	OP2-P-O3'	6.25	118.95	105.20
36	5	2434	U	N3-C2-O2	-6.25	117.83	122.20
37	7	53	U	N1-C2-O2	-6.25	118.43	122.80
40	13	342	LEU	CA-CB-CG	-6.25	100.93	115.30
36	1	283	G	C4-C5-N7	6.25	113.30	110.80
36	1	912	G	C4-C5-N7	-6.25	108.30	110.80
36	1	1316	C	C2-N1-C1'	6.25	125.67	118.80
36	1	2212	C	N3-C4-C5	6.25	124.40	121.90
36	1	2807	U	C6-N1-C2	-6.25	117.25	121.00
36	1	2895	G	C4-C5-C6	6.25	122.55	118.80
36	1	3050	U	C6-N1-C2	-6.25	117.25	121.00
38	4	145	U	C5-C6-N1	-6.25	119.58	122.70
1	6	1286	U	C4-C5-C6	6.25	123.45	119.70
36	5	94	G	C4-N9-C1'	-6.25	118.38	126.50
36	5	2111	G	N1-C6-O6	6.25	123.65	119.90
36	5	2863	G	C8-N9-C1'	6.25	135.12	127.00
36	5	3157	U	C2-N1-C1'	6.25	125.20	117.70
36	5	3157	U	N1-C2-O2	6.25	127.17	122.80
36	1	359	U	N1-C2-N3	6.25	118.65	114.90
36	1	1003	A	C8-N9-C4	-6.25	103.30	105.80
36	1	2380	U	C2-N1-C1'	-6.25	110.21	117.70
73	O7	65	ARG	NE-CZ-NH1	6.25	123.42	120.30
36	5	798	G	C4-C5-C6	6.25	122.55	118.80
36	5	994	G	C4-N9-C1'	6.25	134.62	126.50
36	5	1537	A	C6-C5-N7	-6.25	127.93	132.30
36	5	2702	A	C4-C5-C6	6.25	120.12	117.00
36	5	3054	U	C5-C4-O4	6.25	129.65	125.90
36	5	3342	A	N1-C6-N6	6.25	122.35	118.60
36	1	350	C	N3-C4-C5	-6.24	119.40	121.90
36	1	911	C	C5-C6-N1	-6.24	117.88	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	964	G	N7-C8-N9	6.24	116.22	113.10
36	1	1346	G	OP2-P-O3'	6.24	118.94	105.20
36	1	2601	A	N9-C4-C5	6.24	108.30	105.80
36	5	894	G	N3-C4-N9	-6.24	122.25	126.00
36	5	907	G	N7-C8-N9	-6.24	109.98	113.10
36	5	1535	A	O5'-P-OP1	-6.24	100.08	105.70
36	5	2370	G	N3-C4-N9	-6.24	122.25	126.00
36	5	3203	U	N3-C4-O4	-6.24	115.03	119.40
36	5	3324	C	C4-C5-C6	6.24	120.52	117.40
1	2	115	G	N9-C4-C5	-6.24	102.90	105.40
36	5	364	G	C6-C5-N7	-6.24	126.66	130.40
36	5	1168	U	C4-C5-C6	-6.24	115.95	119.70
1	2	1375	A	C8-N9-C4	6.24	108.30	105.80
36	1	120	G	N3-C4-N9	6.24	129.74	126.00
36	1	676	G	C6-C5-N7	-6.24	126.66	130.40
36	1	1157	G	N7-C8-N9	6.24	116.22	113.10
36	1	2926	A	N1-C2-N3	6.24	132.42	129.30
1	6	1303	U	N1-C2-O2	-6.24	118.43	122.80
36	5	590	G	N3-C4-N9	-6.24	122.26	126.00
36	5	961	C	C2-N1-C1'	6.24	125.66	118.80
36	5	3134	A	N1-C2-N3	6.24	132.42	129.30
36	5	3309	G	C4-N9-C1'	6.24	134.61	126.50
36	1	632	G	N9-C4-C5	-6.24	102.91	105.40
36	1	810	A	N1-C6-N6	-6.24	114.86	118.60
37	3	42	A	C2-N3-C4	-6.24	107.48	110.60
1	6	389	G	N1-C2-N3	-6.24	120.16	123.90
1	6	425	A	OP2-P-O3'	6.24	118.93	105.20
1	6	611	U	N3-C4-C5	-6.24	110.86	114.60
36	5	1304	A	C5-C6-N1	6.24	120.82	117.70
1	2	1775	U	O5'-P-OP2	-6.24	100.09	105.70
36	1	1500	G	C4-C5-C6	-6.24	115.06	118.80
36	5	1408	G	N3-C4-N9	6.24	129.74	126.00
38	8	66	A	N1-C2-N3	6.24	132.42	129.30
1	2	309	C	N1-C2-O2	-6.24	115.16	118.90
36	1	1312	C	N3-C4-N4	6.24	122.36	118.00
36	1	3060	C	C5-C6-N1	-6.24	117.88	121.00
1	6	788	A	N1-C2-N3	6.24	132.42	129.30
1	6	1147	A	O5'-P-OP1	-6.24	100.09	105.70
36	5	71	A	C5-C6-N6	6.24	128.69	123.70
36	5	675	C	N3-C2-O2	6.24	126.27	121.90
36	1	21	G	N7-C8-N9	6.23	116.22	113.10
36	5	717	C	C5-C4-N4	-6.23	115.84	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	944	C	N3-C4-N4	-6.23	113.64	118.00
36	5	2156	C	N3-C4-C5	-6.23	119.41	121.90
36	5	2965	U	C5-C6-N1	6.23	125.82	122.70
1	2	1539	G	O4'-C1'-N9	-6.23	103.21	108.20
1	2	1742	U	C6-N1-C2	-6.23	117.26	121.00
36	1	1141	C	N3-C2-O2	-6.23	117.54	121.90
36	1	1149	G	C8-N9-C1'	-6.23	118.90	127.00
36	1	1888	U	C2-N1-C1'	6.23	125.18	117.70
36	1	2521	U	N3-C4-O4	-6.23	115.04	119.40
36	1	2966	G	O5'-P-OP2	-6.23	100.09	105.70
37	3	77	G	C8-N9-C4	6.23	108.89	106.40
37	3	93	C	C6-N1-C2	6.23	122.79	120.30
37	3	95	A	C5-C6-N1	-6.23	114.58	117.70
1	6	308	C	C6-N1-C2	6.23	122.79	120.30
1	6	396	G	C4-C5-N7	-6.23	108.31	110.80
1	6	710	U	C2-N1-C1'	6.23	125.18	117.70
1	6	751	G	C5-C6-O6	-6.23	124.86	128.60
36	5	431	U	N3-C2-O2	-6.23	117.84	122.20
36	5	1338	C	N3-C2-O2	6.23	126.26	121.90
36	5	3096	C	C4-C5-C6	6.23	120.52	117.40
36	1	885	U	C2-N3-C4	-6.23	123.26	127.00
36	1	1101	G	C4-C5-N7	-6.23	108.31	110.80
36	1	1220	U	C6-N1-C2	-6.23	117.26	121.00
1	6	415	C	C2-N1-C1'	-6.23	111.95	118.80
1	6	1085	G	C8-N9-C4	6.23	108.89	106.40
1	6	1563	C	N1-C2-O2	6.23	122.64	118.90
1	6	1580	C	C5-C6-N1	-6.23	117.88	121.00
36	5	192	C	C2-N1-C1'	6.23	125.65	118.80
36	5	816	A	N9-C4-C5	6.23	108.29	105.80
36	5	980	A	C8-N9-C4	6.23	108.29	105.80
36	5	1654	A	C5-N7-C8	6.23	107.02	103.90
36	5	1719	G	N3-C2-N2	-6.23	115.54	119.90
36	5	2246	G	N1-C6-O6	6.23	123.64	119.90
36	5	2549	G	N7-C8-N9	6.23	116.22	113.10
37	7	105	C	C2-N3-C4	6.23	123.02	119.90
1	2	1541	G	C5-C6-N1	-6.23	108.39	111.50
36	1	1173	U	N1-C2-O2	6.23	127.16	122.80
36	1	2850	G	C5-C6-N1	6.23	114.61	111.50
36	1	3330	A	OP2-P-O3'	6.23	118.90	105.20
1	6	1509	C	N3-C2-O2	-6.23	117.54	121.90
36	5	637	C	C6-N1-C1'	-6.23	113.33	120.80
36	5	2793	G	N3-C2-N2	-6.23	115.54	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	810	G	C6-C5-N7	-6.23	126.66	130.40
36	1	722	G	N3-C4-C5	-6.23	125.49	128.60
36	1	2365	C	C5-C6-N1	-6.23	117.89	121.00
36	1	2420	C	C2-N3-C4	-6.23	116.79	119.90
36	1	2821	C	N1-C2-O2	6.23	122.64	118.90
36	1	3244	A	N1-C2-N3	6.23	132.41	129.30
38	4	4	C	C4-C5-C6	6.23	120.51	117.40
1	6	1550	A	C4-C5-C6	-6.23	113.89	117.00
36	5	856	G	N1-C6-O6	-6.23	116.16	119.90
36	5	1186	G	C8-N9-C4	-6.23	103.91	106.40
36	5	2684	C	C4-C5-C6	6.23	120.51	117.40
36	5	2921	U	N3-C2-O2	6.23	126.56	122.20
36	1	209	A	N3-C4-N9	-6.23	122.42	127.40
36	1	936	A	O5'-P-OP1	6.23	118.17	110.70
36	1	1171	G	N1-C6-O6	-6.23	116.16	119.90
36	1	1408	G	C5-N7-C8	-6.23	101.19	104.30
36	1	2158	A	N1-C6-N6	-6.23	114.86	118.60
36	1	2837	A	N1-C2-N3	6.23	132.41	129.30
36	5	1375	G	C8-N9-C4	-6.23	103.91	106.40
36	5	2397	A	N3-C4-N9	-6.23	122.42	127.40
1	2	240	U	C2-N1-C1'	6.22	125.17	117.70
1	2	1297	G	N9-C1'-C2'	-6.22	105.15	112.00
36	1	1663	C	N3-C4-C5	6.22	124.39	121.90
36	1	2122	G	N7-C8-N9	6.22	116.21	113.10
36	1	2409	G	C8-N9-C4	6.22	108.89	106.40
36	1	2411	U	N1-C2-O2	-6.22	118.44	122.80
36	1	2909	U	N3-C4-C5	6.22	118.33	114.60
38	4	54	A	C4-C5-C6	6.22	120.11	117.00
1	6	617	U	C2-N1-C1'	6.22	125.17	117.70
1	6	1670	G	C4-C5-C6	6.22	122.53	118.80
36	5	359	U	O5'-P-OP1	-6.22	100.10	105.70
36	5	1578	C	C2-N1-C1'	6.22	125.65	118.80
36	5	2803	A	C2-N3-C4	-6.22	107.49	110.60
36	1	404	G	C5-C6-O6	-6.22	124.87	128.60
36	1	2280	A	C5-N7-C8	-6.22	100.79	103.90
36	1	2414	G	C5-C6-N1	-6.22	108.39	111.50
36	1	2831	G	N1-C2-N2	6.22	121.80	116.20
36	1	2981	U	OP2-P-O3'	6.22	118.89	105.20
1	6	1295	G	N3-C2-N2	-6.22	115.54	119.90
1	6	1361	U	C5-C6-N1	6.22	125.81	122.70
36	5	43	A	C2-N3-C4	-6.22	107.49	110.60
36	5	2135	U	N3-C4-O4	-6.22	115.04	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2733	A	C8-N9-C4	6.22	108.29	105.80
36	5	2837	A	N1-C2-N3	6.22	132.41	129.30
36	5	2871	G	N7-C8-N9	6.22	116.21	113.10
36	5	3122	A	N3-C4-N9	-6.22	122.42	127.40
37	7	111	U	N1-C2-N3	6.22	118.63	114.90
1	2	1430	U	N1-C2-N3	6.22	118.63	114.90
36	1	2431	C	C6-N1-C2	-6.22	117.81	120.30
36	1	2764	C	C6-N1-C2	-6.22	117.81	120.30
36	1	2881	C	N3-C4-C5	6.22	124.39	121.90
1	6	1744	A	C5-C6-N1	6.22	120.81	117.70
36	5	724	U	N3-C4-C5	-6.22	110.87	114.60
36	1	14	U	N1-C2-N3	6.22	118.63	114.90
36	1	582	G	N1-C6-O6	-6.22	116.17	119.90
36	1	2315	G	C5-C6-O6	6.22	132.33	128.60
1	6	298	C	C5-C6-N1	6.22	124.11	121.00
36	5	948	C	O5'-P-OP2	-6.22	100.10	105.70
36	5	1366	A	N1-C2-N3	6.22	132.41	129.30
36	5	2874	G	N9-C4-C5	6.22	107.89	105.40
36	5	2967	A	OP2-P-O3'	6.22	118.88	105.20
36	5	3301	U	C6-N1-C2	6.22	124.73	121.00
36	1	2374	C	C2-N1-C1'	6.22	125.64	118.80
36	1	3269	U	C4-C5-C6	6.22	123.43	119.70
36	5	530	G	C5-C6-N1	6.22	114.61	111.50
36	5	2895	G	C8-N9-C1'	-6.22	118.92	127.00
36	5	3139	A	C5-C6-N1	6.22	120.81	117.70
38	8	80	A	N3-C4-C5	-6.22	122.45	126.80
1	2	759	U	C2-N1-C1'	-6.22	110.24	117.70
1	2	883	C	C6-N1-C2	-6.22	117.81	120.30
36	1	357	A	C5-C6-N1	6.22	120.81	117.70
36	1	366	A	C6-C5-N7	-6.22	127.95	132.30
36	1	747	A	C8-N9-C4	-6.22	103.31	105.80
36	1	964	G	OP1-P-O3'	-6.22	91.52	105.20
36	1	2173	U	C6-N1-C2	-6.22	117.27	121.00
36	1	2331	C	C6-N1-C1'	-6.22	113.34	120.80
36	1	2949	U	C5-C6-N1	-6.22	119.59	122.70
36	1	3195	U	N1-C2-N3	-6.22	111.17	114.90
1	6	1117	U	N3-C4-O4	6.22	123.75	119.40
36	5	1055	A	OP1-P-O3'	6.22	118.88	105.20
36	5	1373	A	N9-C4-C5	-6.22	103.31	105.80
36	5	1810	A	N9-C4-C5	-6.22	103.31	105.80
36	5	3166	C	C2-N1-C1'	6.22	125.64	118.80
36	5	3272	C	C5-C4-N4	6.22	124.55	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3274	A	N1-C2-N3	-6.22	126.19	129.30
36	5	3391	A	OP2-P-O3'	6.22	118.88	105.20
1	2	1002	G	N1-C2-N2	-6.21	110.61	116.20
36	1	651	G	C6-N1-C2	-6.21	121.37	125.10
37	3	84	A	N7-C8-N9	6.21	116.91	113.80
1	6	158	U	N3-C2-O2	-6.21	117.85	122.20
1	6	170	U	C6-N1-C2	-6.21	117.27	121.00
36	5	580	C	N3-C4-C5	-6.21	119.41	121.90
36	5	1003	A	N9-C4-C5	-6.21	103.31	105.80
36	5	1377	G	C8-N9-C4	-6.21	103.91	106.40
36	5	2245	C	N3-C4-C5	-6.21	119.41	121.90
36	5	2368	A	C5-C6-N1	-6.21	114.59	117.70
36	5	3057	U	O5'-P-OP1	6.21	118.16	110.70
36	5	3310	A	C4-C5-C6	6.21	120.11	117.00
36	1	632	G	C4-C5-N7	6.21	113.28	110.80
36	1	2953	U	C5-C4-O4	6.21	129.63	125.90
39	L2	191	LEU	CA-CB-CG	-6.21	101.01	115.30
1	6	324	U	N1-C2-O2	-6.21	118.45	122.80
1	2	1420	C	N3-C2-O2	-6.21	117.55	121.90
36	1	669	U	N3-C4-O4	6.21	123.75	119.40
36	1	1169	A	N9-C4-C5	6.21	108.28	105.80
36	1	1330	A	N3-C4-C5	6.21	131.15	126.80
36	1	1549	U	OP2-P-O3'	6.21	118.86	105.20
36	1	1658	G	N3-C4-N9	-6.21	122.27	126.00
36	1	2978	U	N1-C1'-C2'	6.21	122.08	114.00
36	1	2983	C	O4'-C1'-N1	6.21	113.17	108.20
37	3	25	G	C6-N1-C2	-6.21	121.37	125.10
1	6	1477	G	N7-C8-N9	-6.21	109.99	113.10
36	5	526	C	C6-N1-C2	6.21	122.78	120.30
36	5	1772	U	C2-N1-C1'	-6.21	110.25	117.70
36	5	3129	A	O4'-C1'-N9	6.21	113.17	108.20
36	5	3391	A	OP1-P-O3'	-6.21	91.54	105.20
1	2	332	U	N3-C4-C5	6.21	118.33	114.60
36	1	52	A	N9-C4-C5	6.21	108.28	105.80
77	Q1	14	LYS	CD-CE-NZ	6.21	125.98	111.70
1	6	848	C	C6-N1-C2	-6.21	117.82	120.30
36	5	920	A	N1-C6-N6	6.21	122.33	118.60
36	5	1176	C	O4'-C1'-N1	6.21	113.17	108.20
36	5	1306	G	N9-C4-C5	6.21	107.88	105.40
36	5	2755	C	N3-C4-N4	6.21	122.35	118.00
1	2	571	G	N3-C4-N9	-6.21	122.28	126.00
1	2	936	G	N3-C4-C5	-6.21	125.50	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	297	G	C5-C6-N1	6.21	114.60	111.50
36	1	406	G	O5'-P-OP2	-6.21	100.11	105.70
36	1	1131	G	N1-C6-O6	6.21	123.63	119.90
36	1	3252	G	N7-C8-N9	-6.21	110.00	113.10
1	6	1019	A	C5-N7-C8	6.21	107.00	103.90
1	6	1159	C	C5-C6-N1	-6.21	117.90	121.00
1	6	1620	C	N3-C4-N4	6.21	122.35	118.00
36	5	523	A	C5-C6-N6	6.21	128.67	123.70
36	5	808	A	N3-C4-C5	-6.21	122.45	126.80
36	5	1368	U	N1-C2-O2	-6.21	118.45	122.80
36	5	2360	C	N3-C2-O2	6.21	126.25	121.90
1	2	1123	C	N3-C4-N4	6.21	122.34	118.00
1	2	1498	G	N3-C4-N9	6.21	129.72	126.00
1	2	1752	U	C5-C6-N1	-6.21	119.60	122.70
1	2	1780	G	N1-C6-O6	6.21	123.62	119.90
36	1	2640	A	C2-N3-C4	-6.21	107.50	110.60
36	1	2818	U	O4'-C1'-N1	-6.21	103.23	108.20
36	1	2963	C	N3-C4-C5	-6.21	119.42	121.90
1	6	57	G	C6-C5-N7	-6.21	126.68	130.40
1	6	972	G	C4-N9-C1'	6.21	134.57	126.50
36	5	1127	G	C8-N9-C1'	-6.21	118.93	127.00
36	5	1297	C	N3-C4-C5	6.21	124.38	121.90
36	5	2745	G	C5-C6-N1	6.21	114.60	111.50
36	5	2776	C	C5-C6-N1	6.21	124.10	121.00
36	5	3320	A	O5'-P-OP1	-6.21	100.11	105.70
36	1	887	G	C6-N1-C2	-6.21	121.38	125.10
36	1	2982	A	N1-C2-N3	6.21	132.40	129.30
36	5	404	G	OP1-P-OP2	6.21	128.91	119.60
36	5	922	U	C4-C5-C6	6.21	123.42	119.70
36	5	2253	G	C4-N9-C1'	6.21	134.57	126.50
36	5	2690	G	C5-N7-C8	-6.21	101.20	104.30
1	2	115	G	C2-N3-C4	-6.20	108.80	111.90
1	2	458	G	C2-N3-C4	-6.20	108.80	111.90
36	1	935	U	N1-C2-N3	6.20	118.62	114.90
36	1	1443	G	C5-C6-O6	-6.20	124.88	128.60
36	1	2695	A	O5'-P-OP1	-6.20	100.12	105.70
36	1	3182	G	C6-N1-C2	-6.20	121.38	125.10
1	6	1527	C	C6-N1-C2	6.20	122.78	120.30
1	6	1747	G	O5'-P-OP1	6.20	118.14	110.70
36	5	799	G	C5-N7-C8	-6.20	101.20	104.30
36	5	2132	C	N1-C2-N3	6.20	123.54	119.20
36	5	2917	G	N1-C2-N3	6.20	127.62	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2933	A	N1-C2-N3	6.20	132.40	129.30
36	1	212	G	OP2-P-O3'	6.20	118.84	105.20
36	1	2277	C	N3-C4-C5	-6.20	119.42	121.90
1	6	601	A	O5'-P-OP2	-6.20	100.12	105.70
1	6	1651	A	C4-C5-N7	6.20	113.80	110.70
36	5	1303	A	O4'-C1'-N9	-6.20	103.24	108.20
36	1	402	A	O5'-P-OP1	-6.20	100.12	105.70
36	1	563	U	N3-C2-O2	-6.20	117.86	122.20
36	1	2161	G	C5-C6-O6	-6.20	124.88	128.60
36	1	3133	C	O5'-P-OP2	-6.20	100.12	105.70
37	3	114	U	N1-C2-O2	6.20	127.14	122.80
1	6	751	G	N3-C4-C5	6.20	131.70	128.60
36	5	2247	G	N1-C6-O6	-6.20	116.18	119.90
36	5	2651	G	N1-C6-O6	6.20	123.62	119.90
37	7	102	A	N1-C6-N6	6.20	122.32	118.60
1	2	1668	G	C5-C6-N1	-6.20	108.40	111.50
36	1	1004	U	OP1-P-OP2	6.20	128.90	119.60
36	1	1301	A	N9-C4-C5	-6.20	103.32	105.80
36	5	363	G	OP1-P-O3'	6.20	118.84	105.20
36	5	2412	G	N3-C4-C5	-6.20	125.50	128.60
1	2	17	C	C2-N1-C1'	-6.20	111.98	118.80
36	1	826	G	C6-C5-N7	-6.20	126.68	130.40
1	6	558	U	N1-C2-N3	-6.20	111.18	114.90
36	5	875	G	N1-C2-N2	6.20	121.78	116.20
36	5	1115	G	OP1-P-OP2	-6.20	110.31	119.60
36	5	2670	G	OP2-P-O3'	6.20	118.83	105.20
36	5	3298	C	C4-C5-C6	6.20	120.50	117.40
1	2	126	A	C2-N3-C4	-6.20	107.50	110.60
1	2	795	U	N3-C2-O2	-6.20	117.86	122.20
1	2	1212	G	N7-C8-N9	6.20	116.20	113.10
36	1	681	U	OP2-P-O3'	6.20	118.83	105.20
36	1	960	U	OP2-P-O3'	6.20	118.83	105.20
36	1	1399	A	O5'-P-OP2	6.20	118.14	110.70
38	4	111	A	N7-C8-N9	-6.20	110.70	113.80
1	6	427	C	C2-N3-C4	-6.20	116.80	119.90
36	5	136	G	C5-C6-O6	-6.20	124.88	128.60
36	5	642	U	C6-N1-C2	6.20	124.72	121.00
36	5	1380	G	C8-N9-C1'	-6.20	118.95	127.00
36	5	1654	A	C6-N1-C2	-6.20	114.88	118.60
36	5	2111	G	C5-C6-N1	-6.20	108.40	111.50
36	5	2295	A	C2-N3-C4	6.20	113.70	110.60
36	5	3166	C	N1-C2-O2	6.20	122.62	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	65	A	N1-C6-N6	-6.20	114.88	118.60
36	5	3016	A	C8-N9-C4	-6.19	103.32	105.80
1	2	261	U	C2-N1-C1'	6.19	125.13	117.70
36	1	1423	C	C4-C5-C6	6.19	120.50	117.40
36	1	1526	U	N1-C2-O2	6.19	127.14	122.80
36	1	1762	C	C6-N1-C2	-6.19	117.82	120.30
36	1	2390	A	C6-N1-C2	-6.19	114.88	118.60
36	5	101	G	C5-C6-O6	-6.19	124.89	128.60
36	5	402	A	C8-N9-C4	-6.19	103.32	105.80
36	5	420	G	N3-C4-N9	-6.19	122.28	126.00
36	5	1317	A	C5-N7-C8	-6.19	100.80	103.90
36	5	2698	G	N3-C2-N2	-6.19	115.56	119.90
36	5	3119	U	N1-C2-N3	6.19	118.62	114.90
36	5	3209	A	N7-C8-N9	6.19	116.90	113.80
1	2	552	G	C5-N7-C8	-6.19	101.20	104.30
36	1	33	G	N3-C4-C5	6.19	131.69	128.60
36	1	277	G	C6-C5-N7	6.19	134.11	130.40
36	1	1850	A	C4-C5-C6	6.19	120.09	117.00
36	1	1929	G	C6-N1-C2	-6.19	121.39	125.10
36	1	2243	A	C6-C5-N7	-6.19	127.97	132.30
36	1	2381	G	C5-N7-C8	-6.19	101.20	104.30
36	1	2637	A	C6-N1-C2	-6.19	114.89	118.60
1	6	360	A	C8-N9-C4	6.19	108.28	105.80
1	6	1020	A	C8-N9-C4	-6.19	103.32	105.80
36	5	1613	A	C8-N9-C4	-6.19	103.32	105.80
36	5	2243	A	N9-C4-C5	6.19	108.28	105.80
36	5	2403	G	O5'-P-OP1	6.19	118.13	110.70
36	5	2414	G	N1-C2-N3	6.19	127.61	123.90
36	5	3254	G	C2-N3-C4	-6.19	108.81	111.90
1	2	875	G	N3-C4-N9	6.19	129.71	126.00
36	1	1351	U	C5-C6-N1	6.19	125.80	122.70
36	1	1411	C	C2-N3-C4	-6.19	116.81	119.90
1	6	1542	G	N1-C2-N2	-6.19	110.63	116.20
36	5	610	G	C5-C6-O6	6.19	132.31	128.60
36	5	1044	U	N1-C2-O2	-6.19	118.47	122.80
1	2	1572	G	C5-C6-O6	-6.19	124.89	128.60
36	1	1852	G	C5-C6-N1	-6.19	108.41	111.50
36	1	2402	A	C8-N9-C4	-6.19	103.33	105.80
36	1	2419	A	N7-C8-N9	6.19	116.89	113.80
36	1	2982	A	N3-C4-N9	6.19	132.35	127.40
36	1	2983	C	N1-C2-N3	6.19	123.53	119.20
36	1	3333	G	C8-N9-C4	6.19	108.88	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	565	U	O5'-P-OP1	6.19	118.12	110.70
36	5	1386	A	N3-C4-N9	-6.19	122.45	127.40
36	5	1395	G	C5-C6-N1	-6.19	108.41	111.50
36	5	1403	C	OP1-P-O3'	6.19	118.81	105.20
36	5	1483	G	OP1-P-O3'	6.19	118.81	105.20
36	5	1653	G	N3-C2-N2	-6.19	115.57	119.90
36	5	2339	C	N3-C2-O2	6.19	126.23	121.90
36	5	2703	A	C4-N9-C1'	6.19	137.44	126.30
37	7	65	G	C5-C6-O6	-6.19	124.89	128.60
38	8	20	U	C4-C5-C6	6.19	123.41	119.70
36	1	1114	U	N1-C2-O2	6.19	127.13	122.80
36	1	2187	G	N1-C2-N2	-6.19	110.63	116.20
38	4	85	G	N3-C4-N9	6.19	129.71	126.00
1	6	558	U	N1-C2-O2	6.19	127.13	122.80
36	5	3209	A	N9-C1'-C2'	6.19	122.04	114.00
59	n3	88	ARG	NE-CZ-NH2	-6.19	117.21	120.30
36	1	104	G	N9-C1'-C2'	-6.18	105.20	112.00
36	1	508	U	O5'-P-OP2	-6.18	100.14	105.70
36	1	1724	U	N1-C2-N3	6.18	118.61	114.90
36	1	2288	G	C4-N9-C1'	6.18	134.54	126.50
36	1	2362	C	OP1-P-O3'	6.18	118.80	105.20
1	6	39	A	C6-N1-C2	-6.18	114.89	118.60
1	6	68	A	N1-C6-N6	6.18	122.31	118.60
36	5	782	U	C5-C4-O4	-6.18	122.19	125.90
36	5	1085	A	N1-C2-N3	6.18	132.39	129.30
36	5	1258	U	C5-C4-O4	6.18	129.61	125.90
36	5	1878	G	C4-N9-C1'	6.18	134.54	126.50
36	5	2856	G	C2-N3-C4	-6.18	108.81	111.90
36	5	3022	G	OP2-P-O3'	6.18	118.81	105.20
36	5	3104	U	C5-C4-O4	-6.18	122.19	125.90
36	5	3189	G	C8-N9-C1'	-6.18	118.96	127.00
1	2	875	G	N3-C4-C5	-6.18	125.51	128.60
1	2	1092	A	N7-C8-N9	6.18	116.89	113.80
1	2	1215	C	O5'-P-OP2	-6.18	100.14	105.70
36	1	435	C	C2-N3-C4	-6.18	116.81	119.90
36	1	637	C	N3-C4-C5	6.18	124.37	121.90
36	1	683	U	C2-N3-C4	-6.18	123.29	127.00
36	1	917	A	C5-C6-N1	6.18	120.79	117.70
36	1	2271	A	C2-N3-C4	-6.18	107.51	110.60
36	1	2678	A	C2-N3-C4	6.18	113.69	110.60
36	1	3009	G	C5-N7-C8	-6.18	101.21	104.30
36	1	3362	A	C4-C5-N7	6.18	113.79	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	293	U	C5-C6-N1	-6.18	119.61	122.70
36	5	2556	C	N3-C2-O2	-6.18	117.57	121.90
36	5	2917	G	N3-C4-N9	-6.18	122.29	126.00
36	1	3172	A	C6-C5-N7	-6.18	127.97	132.30
1	6	624	G	C5-C6-O6	-6.18	124.89	128.60
36	5	1770	G	N3-C4-N9	6.18	129.71	126.00
36	5	1778	G	C8-N9-C4	6.18	108.87	106.40
36	5	2138	A	C5-C6-N1	-6.18	114.61	117.70
36	5	3391	A	C2-N3-C4	-6.18	107.51	110.60
1	2	632	U	N1-C2-O2	6.18	127.12	122.80
1	2	758	U	C5-C4-O4	6.18	129.61	125.90
1	2	1083	G	N9-C4-C5	-6.18	102.93	105.40
36	1	223	U	C5-C4-O4	6.18	129.61	125.90
36	1	1157	G	N1-C2-N3	6.18	127.61	123.90
36	1	1874	A	C4-C5-C6	6.18	120.09	117.00
36	1	2174	G	N7-C8-N9	6.18	116.19	113.10
36	1	2398	A	C6-N1-C2	-6.18	114.89	118.60
36	1	2617	U	N3-C4-C5	-6.18	110.89	114.60
36	1	2800	G	O5'-P-OP1	6.18	118.12	110.70
1	6	385	A	N9-C4-C5	6.18	108.27	105.80
36	5	363	G	C6-N1-C2	-6.18	121.39	125.10
36	5	568	G	C6-C5-N7	-6.18	126.69	130.40
36	5	1040	A	O5'-P-OP2	6.18	118.12	110.70
36	5	1476	G	N9-C4-C5	-6.18	102.93	105.40
38	4	42	G	O5'-P-OP1	6.18	118.11	110.70
1	6	1070	C	N3-C4-N4	-6.18	113.67	118.00
36	5	987	U	O5'-P-OP2	-6.18	100.14	105.70
36	5	1520	G	C4-C5-C6	6.18	122.51	118.80
36	5	2379	U	O5'-P-OP2	-6.18	100.14	105.70
36	5	2825	C	C5-C4-N4	-6.18	115.88	120.20
36	1	404	G	OP1-P-OP2	6.18	128.86	119.60
36	1	2261	G	N3-C4-N9	6.18	129.71	126.00
36	1	2678	A	C5-C6-N1	6.18	120.79	117.70
36	1	3308	C	OP2-P-O3'	6.18	118.79	105.20
1	6	1100	G	O5'-P-OP1	-6.18	100.14	105.70
1	6	1627	U	N3-C4-O4	6.18	123.72	119.40
36	5	1138	U	N3-C2-O2	-6.18	117.88	122.20
36	5	1313	G	N1-C6-O6	6.18	123.61	119.90
36	5	3089	C	C5-C6-N1	6.18	124.09	121.00
1	2	1789	G	C6-C5-N7	-6.17	126.70	130.40
36	1	290	G	N1-C2-N2	6.17	121.76	116.20
36	1	1098	A	C5-C6-N1	6.17	120.79	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1119	C	O5'-P-OP1	6.17	118.11	110.70
36	1	2637	A	C4-C5-N7	-6.17	107.61	110.70
36	1	2868	U	OP2-P-O3'	6.17	118.78	105.20
36	1	3217	C	C5-C6-N1	6.17	124.09	121.00
34	sR	59	ARG	NE-CZ-NH1	6.17	123.39	120.30
36	5	44	U	C5-C6-N1	6.17	125.79	122.70
36	5	283	G	C2-N3-C4	6.17	114.99	111.90
36	5	2116	G	C5-C6-N1	-6.17	108.41	111.50
36	5	2126	A	C2-N3-C4	6.17	113.69	110.60
36	5	2814	G	C8-N9-C4	6.17	108.87	106.40
36	1	835	G	N1-C6-O6	6.17	123.60	119.90
36	1	2639	G	N7-C8-N9	6.17	116.19	113.10
1	6	103	A	P-O3'-C3'	6.17	127.11	119.70
1	6	1199	G	C2-N3-C4	-6.17	108.81	111.90
1	6	1451	C	C6-N1-C2	6.17	122.77	120.30
36	5	685	G	N1-C2-N2	-6.17	110.64	116.20
1	2	1198	G	N7-C8-N9	6.17	116.19	113.10
1	2	1214	U	C5-C4-O4	6.17	129.60	125.90
36	1	1743	G	C4-N9-C1'	-6.17	118.48	126.50
36	1	1789	G	C5-C6-N1	6.17	114.59	111.50
36	1	1894	U	C6-N1-C1'	6.17	129.84	121.20
36	1	1924	U	C5-C4-O4	6.17	129.60	125.90
36	1	2335	G	C2-N3-C4	6.17	114.99	111.90
36	1	2925	C	C6-N1-C2	6.17	122.77	120.30
36	5	2657	A	N1-C6-N6	-6.17	114.90	118.60
36	5	2661	G	OP1-P-O3'	6.17	118.78	105.20
36	5	2842	U	C6-N1-C1'	-6.17	112.56	121.20
38	8	22	U	C5-C6-N1	-6.17	119.61	122.70
1	2	1654	G	N3-C2-N2	6.17	124.22	119.90
36	1	651	G	N1-C2-N3	6.17	127.60	123.90
36	1	2753	G	N3-C4-C5	-6.17	125.52	128.60
36	1	2959	C	P-O3'-C3'	-6.17	112.30	119.70
1	6	170	U	N1-C2-O2	6.17	127.12	122.80
1	6	1626	U	C6-N1-C2	6.17	124.70	121.00
36	5	1802	C	C5-C6-N1	6.17	124.08	121.00
36	5	2131	A	N7-C8-N9	-6.17	110.72	113.80
36	5	3120	C	N3-C4-C5	6.17	124.37	121.90
1	2	1418	G	C6-C5-N7	-6.17	126.70	130.40
36	1	1000	C	N1-C2-N3	-6.17	114.88	119.20
36	1	1627	U	O5'-P-OP1	-6.17	100.15	105.70
36	1	2659	G	C8-N9-C1'	-6.17	118.98	127.00
36	1	2817	A	C4-C5-N7	-6.17	107.61	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3007	U	N1-C2-N3	6.17	118.60	114.90
37	3	85	G	C5-C6-O6	-6.17	124.90	128.60
38	4	41	A	C4-C5-C6	6.17	120.08	117.00
1	6	377	G	C8-N9-C4	-6.17	103.93	106.40
1	6	469	C	C6-N1-C2	6.17	122.77	120.30
1	6	1474	G	C6-C5-N7	-6.17	126.70	130.40
36	5	50	U	C6-N1-C1'	-6.17	112.56	121.20
36	5	757	C	N3-C4-N4	6.17	122.32	118.00
36	5	890	C	OP1-P-O3'	6.17	118.77	105.20
36	5	1000	C	N1-C2-N3	-6.17	114.88	119.20
36	5	1441	G	N3-C2-N2	-6.17	115.58	119.90
36	5	2567	C	N1-C2-O2	6.17	122.60	118.90
36	5	2653	C	C4-C5-C6	-6.17	114.32	117.40
37	3	78	U	N1-C2-N3	6.17	118.60	114.90
1	6	65	A	N3-C4-C5	6.17	131.12	126.80
1	6	573	C	N3-C4-C5	6.17	124.37	121.90
1	6	636	A	N7-C8-N9	-6.17	110.72	113.80
1	6	781	U	C5-C6-N1	6.17	125.78	122.70
1	6	1700	C	C5-C6-N1	6.17	124.08	121.00
36	5	218	G	C5-C6-O6	6.17	132.30	128.60
36	5	638	C	N3-C2-O2	-6.17	117.58	121.90
36	5	832	G	C4-N9-C1'	6.17	134.52	126.50
36	5	1913	A	C6-C5-N7	-6.17	127.98	132.30
36	5	3003	G	C4-N9-C1'	-6.17	118.48	126.50
1	2	111	U	N1-C2-O2	6.17	127.12	122.80
1	2	1274	C	N3-C2-O2	-6.17	117.58	121.90
36	1	2373	A	C2-N3-C4	-6.17	107.52	110.60
36	1	2776	C	C6-N1-C2	6.17	122.77	120.30
1	6	764	U	C4-C5-C6	6.17	123.40	119.70
38	8	4	C	C4-C5-C6	6.17	120.48	117.40
1	2	390	G	N9-C4-C5	6.16	107.86	105.40
36	1	314	U	C5-C6-N1	-6.16	119.62	122.70
36	1	399	A	C5-C6-N1	6.16	120.78	117.70
36	1	835	G	C5-N7-C8	-6.16	101.22	104.30
36	1	936	A	C8-N9-C1'	6.16	138.79	127.70
36	1	942	U	N1-C2-N3	6.16	118.60	114.90
36	1	1115	G	C8-N9-C1'	-6.16	118.99	127.00
36	1	1702	U	N1-C2-O2	-6.16	118.49	122.80
1	6	761	G	N1-C6-O6	-6.16	116.20	119.90
36	5	1224	C	N3-C4-C5	-6.16	119.43	121.90
36	5	2652	U	C5-C4-O4	-6.16	122.20	125.90
36	5	3107	U	C5-C4-O4	-6.16	122.20	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1430	U	C5-C4-O4	6.16	129.60	125.90
36	1	1076	C	C6-N1-C1'	-6.16	113.41	120.80
36	1	1119	C	N1-C2-O2	-6.16	115.20	118.90
36	1	1386	A	N3-C4-N9	-6.16	122.47	127.40
38	4	34	U	C5-C4-O4	6.16	129.60	125.90
38	4	49	G	N1-C6-O6	6.16	123.60	119.90
36	5	660	A	C4-C5-C6	6.16	120.08	117.00
36	5	1896	A	C6-C5-N7	6.16	136.61	132.30
36	5	3296	A	N9-C4-C5	-6.16	103.33	105.80
1	6	142	G	C5-N7-C8	6.16	107.38	104.30
1	6	1143	A	C4-C5-C6	6.16	120.08	117.00
1	6	1777	G	N3-C4-C5	-6.16	125.52	128.60
36	5	506	U	N3-C2-O2	6.16	126.51	122.20
36	5	523	A	N3-C4-N9	-6.16	122.47	127.40
36	5	666	A	C5-N7-C8	6.16	106.98	103.90
36	5	880	G	N3-C4-N9	-6.16	122.30	126.00
36	5	1220	U	C6-N1-C1'	-6.16	112.58	121.20
38	8	99	C	N3-C2-O2	-6.16	117.59	121.90
1	2	110	U	N3-C2-O2	6.16	126.51	122.20
1	2	1757	G	N1-C2-N2	-6.16	110.66	116.20
36	1	815	G	N3-C2-N2	-6.16	115.59	119.90
36	1	1006	A	N9-C4-C5	-6.16	103.34	105.80
36	1	2240	G	OP1-P-O3'	6.16	118.75	105.20
36	1	2374	C	C6-N1-C1'	-6.16	113.41	120.80
36	1	2376	G	N7-C8-N9	6.16	116.18	113.10
36	1	2882	U	N3-C2-O2	-6.16	117.89	122.20
36	1	3318	G	C5-N7-C8	-6.16	101.22	104.30
37	3	69	C	C5-C6-N1	6.16	124.08	121.00
1	6	1025	A	N1-C2-N3	6.16	132.38	129.30
36	5	888	A	C6-N1-C2	-6.16	114.91	118.60
36	5	1157	G	C4-C5-N7	-6.16	108.34	110.80
36	5	1901	A	C5-C6-N6	-6.16	118.77	123.70
36	5	2915	U	O5'-P-OP1	6.16	118.09	110.70
37	7	89	G	C4-N9-C1'	6.16	134.50	126.50
36	1	622	A	C5-C6-N6	-6.16	118.77	123.70
36	1	3095	U	O5'-P-OP2	6.16	118.09	110.70
38	4	98	U	N1-C2-N3	6.16	118.59	114.90
1	6	1024	U	P-O3'-C3'	6.16	127.09	119.70
36	5	1180	A	C6-N1-C2	-6.16	114.91	118.60
36	5	1779	C	C6-N1-C2	-6.16	117.84	120.30
1	2	1146	G	C8-N9-C1'	-6.16	119.00	127.00
36	1	75	G	N9-C4-C5	-6.16	102.94	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	834	U	N3-C4-O4	-6.16	115.09	119.40
36	1	902	G	C4-C5-N7	6.16	113.26	110.80
36	1	2800	G	O5'-P-OP2	-6.16	100.16	105.70
36	1	2811	A	C8-N9-C1'	-6.16	116.62	127.70
36	1	2939	G	N1-C2-N3	6.16	127.59	123.90
1	6	50	C	C6-N1-C2	6.16	122.76	120.30
1	6	891	A	C5-C6-N6	-6.16	118.78	123.70
1	6	1800	A	N1-C6-N6	6.16	122.29	118.60
36	5	979	U	N1-C2-N3	6.16	118.59	114.90
36	5	2282	U	OP2-P-O3'	6.16	118.74	105.20
36	5	2743	A	O5'-P-OP2	-6.16	100.16	105.70
36	5	2950	G	O4'-C1'-N9	6.16	113.12	108.20
36	5	3068	U	N1-C2-N3	6.16	118.59	114.90
36	5	3173	G	C5-C6-O6	6.16	132.29	128.60
36	5	3325	G	N7-C8-N9	-6.16	110.02	113.10
1	6	1025	A	C5-N7-C8	-6.15	100.82	103.90
1	6	1765	A	C5-C6-N6	6.15	128.62	123.70
1	6	1780	G	N1-C2-N3	-6.15	120.21	123.90
36	5	3098	G	C5-C6-N1	6.15	114.58	111.50
36	5	3278	C	N1-C2-O2	-6.15	115.21	118.90
1	2	1155	G	C8-N9-C4	6.15	108.86	106.40
1	2	1774	G	C6-C5-N7	-6.15	126.71	130.40
36	1	964	G	OP2-P-O3'	6.15	118.74	105.20
36	1	1155	C	N3-C4-C5	6.15	124.36	121.90
36	1	1374	G	C6-C5-N7	-6.15	126.71	130.40
36	1	2335	G	C4-N9-C1'	6.15	134.50	126.50
1	6	922	G	N7-C8-N9	6.15	116.18	113.10
1	6	943	C	C5-C4-N4	-6.15	115.89	120.20
36	5	940	G	C8-N9-C1'	6.15	135.00	127.00
36	5	1085	A	C4-C5-N7	6.15	113.78	110.70
36	5	2107	A	C8-N9-C4	-6.15	103.34	105.80
36	5	2327	U	C6-N1-C2	6.15	124.69	121.00
1	2	1778	G	C5-C6-N1	6.15	114.58	111.50
36	1	423	A	C5-C6-N1	6.15	120.78	117.70
36	1	643	U	N3-C4-C5	-6.15	110.91	114.60
36	1	998	A	OP2-P-O3'	6.15	118.73	105.20
36	1	1116	G	C8-N9-C1'	-6.15	119.00	127.00
36	1	2250	G	N1-C6-O6	-6.15	116.21	119.90
36	1	3344	A	C5-C6-N1	-6.15	114.62	117.70
1	6	1383	G	N3-C4-C5	-6.15	125.52	128.60
1	6	1645	G	C4-C5-N7	6.15	113.26	110.80
36	5	70	A	N7-C8-N9	6.15	116.88	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	330	G	C4-C5-N7	6.15	113.26	110.80
36	5	1369	A	C5-N7-C8	-6.15	100.83	103.90
36	5	2393	G	C4-N9-C1'	6.15	134.50	126.50
36	5	3392	U	N1-C2-O2	6.15	127.11	122.80
1	6	1630	U	C5-C6-N1	6.15	125.77	122.70
36	5	3242	G	C5-C6-N1	6.15	114.57	111.50
38	8	87	G	N3-C4-N9	6.15	129.69	126.00
1	2	1280	C	N3-C4-C5	-6.15	119.44	121.90
36	1	206	G	N9-C1'-C2'	-6.15	105.24	112.00
36	1	612	U	N3-C2-O2	-6.15	117.90	122.20
36	1	638	C	C5-C6-N1	-6.15	117.93	121.00
36	1	1724	U	C5-C6-N1	-6.15	119.63	122.70
36	1	2394	G	N7-C8-N9	-6.15	110.03	113.10
36	1	2601	A	N1-C2-N3	6.15	132.37	129.30
37	3	25	G	C8-N9-C1'	-6.15	119.01	127.00
36	5	48	A	N1-C6-N6	-6.15	114.91	118.60
36	5	2851	A	C6-N1-C2	-6.15	114.91	118.60
36	1	3209	A	O5'-P-OP2	-6.15	100.17	105.70
1	6	457	G	N3-C4-N9	6.15	129.69	126.00
36	5	630	A	C2-N3-C4	-6.15	107.53	110.60
36	5	688	G	N7-C8-N9	6.15	116.17	113.10
36	5	1322	U	N3-C4-O4	6.15	123.70	119.40
36	5	2847	A	N3-C4-C5	6.15	131.10	126.80
36	5	3242	G	N3-C2-N2	6.15	124.20	119.90
36	1	372	A	C5-C6-N6	-6.14	118.78	123.70
36	1	619	A	P-O3'-C3'	6.14	127.07	119.70
36	1	1477	A	C5-C6-N6	-6.14	118.78	123.70
36	1	3313	U	C6-N1-C2	6.14	124.69	121.00
36	5	1008	U	C5-C6-N1	-6.14	119.63	122.70
36	5	2199	G	N7-C8-N9	6.14	116.17	113.10
36	5	2586	G	C4-N9-C1'	-6.14	118.51	126.50
36	5	2596	U	N3-C2-O2	-6.14	117.90	122.20
37	7	60	G	C8-N9-C4	-6.14	103.94	106.40
1	2	79	C	O4'-C1'-N1	6.14	113.11	108.20
36	1	710	A	N9-C4-C5	-6.14	103.34	105.80
36	1	897	U	C6-N1-C1'	-6.14	112.60	121.20
36	1	1003	A	N7-C8-N9	6.14	116.87	113.80
36	1	1039	U	C6-N1-C2	6.14	124.69	121.00
36	1	2121	G	C4-C5-N7	-6.14	108.34	110.80
36	1	2964	G	N1-C6-O6	6.14	123.59	119.90
57	N1	151	LEU	CA-CB-CG	-6.14	101.17	115.30
1	6	308	C	C6-N1-C1'	6.14	128.17	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	526	A	C5-C6-N1	-6.14	114.63	117.70
1	6	1003	A	C2-N3-C4	-6.14	107.53	110.60
1	6	1770	U	C6-N1-C2	6.14	124.69	121.00
36	5	2838	A	C4-C5-N7	-6.14	107.63	110.70
36	5	3315	G	C5-N7-C8	-6.14	101.23	104.30
36	1	2330	C	C2-N3-C4	-6.14	116.83	119.90
36	1	3094	A	C2-N3-C4	6.14	113.67	110.60
38	4	18	U	N3-C4-O4	6.14	123.70	119.40
1	6	999	U	C4-C5-C6	-6.14	116.02	119.70
73	o7	32	LYS	CD-CE-NZ	6.14	125.83	111.70
1	2	983	A	C2-N3-C4	6.14	113.67	110.60
1	2	1295	G	C5-C6-O6	-6.14	124.92	128.60
36	1	45	A	N7-C8-N9	6.14	116.87	113.80
36	1	875	G	C2-N3-C4	-6.14	108.83	111.90
36	1	1176	C	OP1-P-OP2	-6.14	110.39	119.60
36	1	1908	A	C6-C5-N7	-6.14	128.00	132.30
36	1	2311	G	C4-C5-N7	6.14	113.26	110.80
1	6	250	C	C2-N1-C1'	6.14	125.55	118.80
1	6	610	G	N3-C4-N9	6.14	129.68	126.00
36	5	660	A	N1-C2-N3	6.14	132.37	129.30
36	5	949	C	C4-C5-C6	6.14	120.47	117.40
36	5	1332	A	O4'-C1'-N9	-6.14	103.29	108.20
36	5	2159	U	O4'-C1'-N1	6.14	113.11	108.20
36	1	1104	G	N9-C4-C5	6.14	107.86	105.40
37	3	13	A	O5'-P-OP2	-6.14	100.18	105.70
38	4	32	C	OP2-P-O3'	6.14	118.70	105.20
36	5	3044	G	P-O3'-C3'	6.14	127.07	119.70
36	1	1545	A	N1-C6-N6	6.14	122.28	118.60
36	1	1695	U	N3-C2-O2	-6.14	117.91	122.20
36	1	2359	C	C4-C5-C6	6.14	120.47	117.40
36	1	3153	U	N3-C4-O4	-6.14	115.11	119.40
36	1	3230	G	N3-C2-N2	-6.14	115.61	119.90
1	6	1123	C	N3-C4-N4	6.14	122.30	118.00
1	6	1439	C	C5-C4-N4	-6.14	115.91	120.20
36	5	559	A	C5-C6-N6	-6.14	118.79	123.70
36	5	2297	U	N3-C4-C5	-6.14	110.92	114.60
36	5	2777	G	C6-C5-N7	6.14	134.08	130.40
36	5	2816	G	OP1-P-OP2	6.14	128.81	119.60
38	8	144	G	N3-C4-N9	6.14	129.68	126.00
1	2	1082	C	OP2-P-O3'	6.13	118.69	105.20
36	1	85	A	C5-C6-N1	-6.13	114.63	117.70
36	1	978	G	N1-C2-N3	-6.13	120.22	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2120	A	C6-N1-C2	-6.13	114.92	118.60
36	1	2352	A	C4-C5-N7	6.13	113.77	110.70
1	6	16	G	N1-C6-O6	6.13	123.58	119.90
1	6	425	A	C8-N9-C4	-6.13	103.35	105.80
1	6	1071	U	N3-C4-C5	-6.13	110.92	114.60
36	5	2601	A	C5-C6-N1	6.13	120.77	117.70
36	5	2782	U	N3-C2-O2	6.13	126.50	122.20
1	2	163	G	O4'-C1'-N9	6.13	113.11	108.20
1	2	1583	A	N1-C6-N6	-6.13	114.92	118.60
1	2	1631	A	N1-C6-N6	-6.13	114.92	118.60
36	1	754	G	N1-C6-O6	6.13	123.58	119.90
36	1	2246	G	OP1-P-O3'	6.13	118.69	105.20
36	1	3306	U	O5'-P-OP2	-6.13	100.18	105.70
1	6	1743	U	C5-C6-N1	-6.13	119.63	122.70
36	5	947	G	N1-C2-N3	6.13	127.58	123.90
36	5	1040	A	N7-C8-N9	-6.13	110.73	113.80
36	5	1843	C	N3-C4-N4	6.13	122.29	118.00
36	1	908	G	O4'-C1'-N9	-6.13	103.30	108.20
36	1	1808	G	C5-C6-O6	6.13	132.28	128.60
36	1	2649	A	C6-C5-N7	-6.13	128.01	132.30
1	6	1013	A	C6-C5-N7	6.13	136.59	132.30
1	6	1587	A	N1-C6-N6	6.13	122.28	118.60
36	5	842	G	N9-C4-C5	-6.13	102.95	105.40
36	5	1755	C	C2-N3-C4	6.13	122.97	119.90
67	o1	42	LEU	CA-CB-CG	-6.13	101.20	115.30
36	1	616	G	C5-C6-O6	-6.13	124.92	128.60
36	1	2095	G	N1-C6-O6	6.13	123.58	119.90
36	1	3361	G	N9-C4-C5	6.13	107.85	105.40
1	6	1025	A	C4-C5-N7	6.13	113.77	110.70
36	5	183	G	C4-C5-C6	6.13	122.48	118.80
36	5	1598	G	N1-C6-O6	-6.13	116.22	119.90
36	5	2932	U	C2-N1-C1'	-6.13	110.34	117.70
1	2	298	C	N3-C2-O2	6.13	126.19	121.90
36	1	1112	A	C6-N1-C2	-6.13	114.92	118.60
36	1	2706	G	C8-N9-C1'	-6.13	119.03	127.00
36	1	3230	G	N9-C4-C5	6.13	107.85	105.40
44	L7	215	GLY	N-CA-C	-6.13	97.78	113.10
1	6	418	G	O5'-P-OP1	-6.13	100.19	105.70
1	6	620	A	OP2-P-O3'	6.13	118.68	105.20
25	d3	121	ARG	NE-CZ-NH1	-6.13	117.24	120.30
36	5	54	C	C6-N1-C2	-6.13	117.85	120.30
36	5	911	C	C5-C6-N1	-6.13	117.94	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2215	A	O5'-P-OP2	-6.13	100.18	105.70
36	5	3102	G	N9-C4-C5	-6.13	102.95	105.40
36	5	3373	U	C5-C6-N1	-6.13	119.64	122.70
1	2	1764	C	N3-C4-C5	6.13	124.35	121.90
36	1	14	U	C4-C5-C6	6.13	123.38	119.70
36	1	2311	G	C5-N7-C8	-6.13	101.24	104.30
36	1	2762	A	C5-C6-N6	-6.13	118.80	123.70
36	1	2922	G	N1-C2-N2	-6.13	110.69	116.20
1	6	474	A	C8-N9-C4	6.13	108.25	105.80
36	5	351	A	C5-C6-N1	6.13	120.76	117.70
36	5	922	U	C6-N1-C1'	6.13	129.78	121.20
36	5	1688	U	N3-C4-O4	-6.13	115.11	119.40
36	5	2869	U	O5'-P-OP2	6.13	118.05	110.70
36	1	429	U	N1-C2-O2	6.12	127.09	122.80
36	1	2671	A	O5'-P-OP2	-6.12	100.19	105.70
71	O5	28	LEU	CA-CB-CG	6.12	129.39	115.30
1	6	40	A	C8-N9-C4	6.12	108.25	105.80
1	6	187	G	P-O3'-C3'	6.12	127.05	119.70
1	6	402	C	C6-N1-C1'	-6.12	113.45	120.80
1	6	1536	G	N3-C2-N2	6.12	124.19	119.90
36	5	1860	G	C8-N9-C4	-6.12	103.95	106.40
36	1	2111	G	N1-C6-O6	-6.12	116.23	119.90
36	1	2174	G	N1-C6-O6	6.12	123.57	119.90
38	4	98	U	N3-C4-C5	-6.12	110.93	114.60
1	6	1007	C	C5-C6-N1	-6.12	117.94	121.00
36	5	372	A	N9-C4-C5	6.12	108.25	105.80
36	5	394	G	C5-N7-C8	6.12	107.36	104.30
36	5	1620	U	O5'-P-OP2	-6.12	100.19	105.70
36	5	2987	A	C8-N9-C4	6.12	108.25	105.80
38	8	15	G	OP1-P-O3'	6.12	118.67	105.20
36	1	194	U	C6-N1-C2	-6.12	117.33	121.00
36	1	697	A	N3-C4-C5	6.12	131.09	126.80
36	1	1048	A	C6-C5-N7	6.12	136.59	132.30
36	1	2817	A	N1-C2-N3	6.12	132.36	129.30
36	1	2934	A	N9-C4-C5	-6.12	103.35	105.80
1	6	1610	G	C4-N9-C1'	6.12	134.46	126.50
36	5	64	G	N3-C4-N9	6.12	129.67	126.00
36	5	885	U	N1-C2-O2	-6.12	118.52	122.80
36	5	982	C	C4-C5-C6	-6.12	114.34	117.40
36	5	1929	G	C5-C6-N1	-6.12	108.44	111.50
36	5	3132	C	C4-C5-C6	6.12	120.46	117.40
36	5	3315	G	C4-C5-N7	6.12	113.25	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	549	G	N3-C2-N2	-6.12	115.62	119.90
36	5	281	G	C5-C6-O6	6.12	132.27	128.60
36	5	2377	G	O5'-P-OP2	-6.12	100.19	105.70
36	1	919	U	O5'-P-OP2	-6.12	100.19	105.70
36	1	1438	U	O5'-P-OP2	-6.12	100.19	105.70
36	1	1594	A	C5-C6-N1	6.12	120.76	117.70
36	1	2824	G	C4-N9-C1'	6.12	134.45	126.50
1	6	43	A	OP1-P-OP2	6.12	128.78	119.60
36	5	76	G	O5'-P-OP1	-6.12	100.19	105.70
36	5	349	A	C2-N3-C4	6.12	113.66	110.60
36	5	647	A	N1-C6-N6	-6.12	114.93	118.60
36	5	837	A	OP2-P-O3'	6.12	118.66	105.20
36	5	1164	G	C8-N9-C1'	6.12	134.95	127.00
36	5	1302	A	OP1-P-OP2	-6.12	110.42	119.60
36	5	1475	A	O5'-P-OP2	-6.12	100.19	105.70
36	5	1846	C	N3-C4-C5	6.12	124.35	121.90
38	8	3	A	O5'-P-OP1	-6.12	100.19	105.70
1	2	1464	G	C6-C5-N7	-6.12	126.73	130.40
36	1	657	A	C5-N7-C8	-6.12	100.84	103.90
36	1	1330	A	O5'-P-OP2	-6.12	100.19	105.70
36	1	1798	A	C2-N3-C4	-6.12	107.54	110.60
36	1	2826	U	C6-N1-C1'	6.12	129.76	121.20
36	5	584	G	C8-N9-C4	-6.12	103.95	106.40
36	5	1120	A	OP2-P-O3'	6.12	118.66	105.20
36	5	2247	G	N3-C2-N2	6.12	124.18	119.90
1	2	610	G	C6-C5-N7	-6.12	126.73	130.40
36	1	1521	G	C4-N9-C1'	-6.12	118.55	126.50
36	1	1819	U	C5-C6-N1	6.12	125.76	122.70
36	1	1929	G	N3-C4-N9	6.12	129.67	126.00
36	1	2966	G	C2-N3-C4	-6.12	108.84	111.90
36	1	3120	C	C6-N1-C2	6.12	122.75	120.30
42	L5	24	ARG	NE-CZ-NH1	-6.12	117.24	120.30
64	N8	56	VAL	CB-CA-C	-6.12	99.78	111.40
36	5	890	C	C2-N1-C1'	6.12	125.53	118.80
36	5	1477	A	N1-C2-N3	6.12	132.36	129.30
36	5	2379	U	N3-C2-O2	-6.12	117.92	122.20
36	5	3208	G	C2-N3-C4	-6.12	108.84	111.90
36	1	1306	G	C8-N9-C4	-6.11	103.95	106.40
36	1	1895	A	C8-N9-C4	6.11	108.25	105.80
36	1	1896	A	OP2-P-O3'	6.11	118.65	105.20
36	1	1937	U	C2-N1-C1'	-6.11	110.36	117.70
36	1	2420	C	N3-C4-C5	6.11	124.35	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3261	C	N1-C2-O2	-6.11	115.23	118.90
36	5	523	A	C5-C6-N1	-6.11	114.64	117.70
36	5	902	G	O5'-P-OP1	-6.11	100.20	105.70
36	5	976	U	O5'-P-OP2	-6.11	100.20	105.70
36	5	1681	U	N1-C2-N3	6.11	118.57	114.90
36	5	1884	A	N1-C6-N6	6.11	122.27	118.60
36	5	3063	C	N3-C4-C5	6.11	124.34	121.90
1	2	1523	G	C4-C5-N7	6.11	113.25	110.80
36	1	624	G	C4-C5-C6	6.11	122.47	118.80
36	1	660	A	N9-C4-C5	6.11	108.25	105.80
36	1	869	G	C6-N1-C2	-6.11	121.43	125.10
36	1	1394	A	N1-C6-N6	6.11	122.27	118.60
36	1	2980	U	OP1-P-O3'	6.11	118.65	105.20
36	1	3269	U	N3-C2-O2	-6.11	117.92	122.20
1	6	789	A	C8-N9-C4	-6.11	103.36	105.80
36	5	183	G	N1-C2-N3	6.11	127.57	123.90
36	5	3185	U	N3-C4-C5	-6.11	110.93	114.60
36	1	27	C	C4-C5-C6	6.11	120.46	117.40
36	1	401	U	N3-C2-O2	-6.11	117.92	122.20
36	1	2295	A	C8-N9-C4	-6.11	103.36	105.80
68	O2	8	LYS	CD-CE-NZ	6.11	125.75	111.70
1	6	753	A	C8-N9-C4	6.11	108.24	105.80
36	5	1296	C	O5'-P-OP1	6.11	118.03	110.70
36	5	1357	G	N7-C8-N9	6.11	116.16	113.10
36	5	2593	A	P-O3'-C3'	6.11	127.03	119.70
36	5	3019	U	N1-C2-N3	6.11	118.57	114.90
36	5	3053	G	C5-C6-N1	-6.11	108.44	111.50
1	2	389	G	C8-N9-C4	-6.11	103.96	106.40
1	2	1774	G	C8-N9-C1'	-6.11	119.06	127.00
36	1	1208	U	C5-C6-N1	6.11	125.75	122.70
36	1	2138	A	C5-C6-N6	-6.11	118.81	123.70
36	1	2185	G	C8-N9-C1'	-6.11	119.06	127.00
1	6	877	G	C8-N9-C4	6.11	108.84	106.40
1	6	1212	G	C2-N3-C4	6.11	114.95	111.90
1	6	1791	A	C8-N9-C4	6.11	108.24	105.80
36	5	306	A	O5'-P-OP2	-6.11	100.20	105.70
36	5	502	U	C6-N1-C2	6.11	124.67	121.00
36	5	921	A	C4-C5-C6	6.11	120.06	117.00
36	5	2572	C	C6-N1-C1'	-6.11	113.47	120.80
37	7	107	C	C6-N1-C2	6.11	122.74	120.30
1	2	323	A	O5'-P-OP2	-6.11	100.20	105.70
36	1	1112	A	C5-C6-N1	6.11	120.75	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1385	C	C6-N1-C1'	6.11	128.13	120.80
36	1	1524	A	N9-C4-C5	6.11	108.24	105.80
36	1	1818	U	N3-C2-O2	-6.11	117.92	122.20
36	1	2333	C	OP2-P-O3'	6.11	118.64	105.20
36	1	2881	C	N3-C2-O2	6.11	126.18	121.90
40	L3	270	ARG	NE-CZ-NH1	-6.11	117.25	120.30
1	6	750	U	N1-C2-O2	-6.11	118.53	122.80
1	6	1704	U	C5-C6-N1	6.11	125.75	122.70
7	s5	118	LEU	CA-CB-CG	-6.11	101.25	115.30
36	5	731	U	N3-C4-O4	-6.11	115.12	119.40
36	5	2640	A	N9-C4-C5	-6.11	103.36	105.80
36	5	2969	A	C4-C5-C6	6.11	120.05	117.00
1	2	260	U	C2-N1-C1'	6.11	125.03	117.70
36	1	1097	G	C6-C5-N7	-6.11	126.74	130.40
36	5	197	G	O5'-P-OP2	6.11	118.03	110.70
36	5	708	G	C6-C5-N7	-6.11	126.74	130.40
36	5	1370	G	C8-N9-C4	-6.11	103.96	106.40
36	5	2383	C	C2-N1-C1'	6.11	125.52	118.80
36	5	2896	A	N9-C4-C5	-6.11	103.36	105.80
36	1	521	A	O5'-P-OP2	6.10	118.02	110.70
36	5	922	U	C6-N1-C2	6.10	124.66	121.00
36	5	2877	G	C5-C6-O6	6.10	132.26	128.60
36	5	2943	G	O4'-C1'-N9	-6.10	103.32	108.20
36	5	2944	U	C4-C5-C6	6.10	123.36	119.70
36	5	3303	G	N1-C6-O6	-6.10	116.24	119.90
1	2	155	U	O4'-C1'-N1	6.10	113.08	108.20
1	2	577	G	N7-C8-N9	6.10	116.15	113.10
36	1	183	G	N1-C2-N2	-6.10	110.71	116.20
36	1	642	U	C2-N3-C4	6.10	130.66	127.00
36	1	652	G	N1-C6-O6	-6.10	116.24	119.90
36	1	918	C	N3-C4-C5	6.10	124.34	121.90
36	1	1400	G	OP2-P-O3'	6.10	118.62	105.20
36	1	2706	G	C4-N9-C1'	6.10	134.43	126.50
1	6	1463	C	C4-C5-C6	-6.10	114.35	117.40
1	6	1557	U	C5-C4-O4	6.10	129.56	125.90
1	6	1575	G	C4-N9-C1'	-6.10	118.57	126.50
36	5	1916	U	C5-C4-O4	6.10	129.56	125.90
36	5	2777	G	N7-C8-N9	-6.10	110.05	113.10
36	5	2898	G	N1-C2-N3	6.10	127.56	123.90
37	7	83	U	C6-N1-C2	-6.10	117.34	121.00
1	2	1148	C	C4-C5-C6	6.10	120.45	117.40
36	1	766	U	C5-C6-N1	6.10	125.75	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2701	U	N1-C2-O2	-6.10	118.53	122.80
36	1	3369	G	C4-N9-C1'	6.10	134.43	126.50
1	6	98	U	C5-C6-N1	-6.10	119.65	122.70
1	6	678	A	N7-C8-N9	6.10	116.85	113.80
1	6	1442	U	N3-C2-O2	-6.10	117.93	122.20
36	5	2414	G	C6-C5-N7	-6.10	126.74	130.40
25	D3	45	GLY	N-CA-C	-6.10	97.85	113.10
36	1	557	A	C2-N3-C4	-6.10	107.55	110.60
36	1	1197	A	C5-N7-C8	-6.10	100.85	103.90
36	1	2296	A	C6-C5-N7	-6.10	128.03	132.30
36	1	2325	G	C4-C5-N7	6.10	113.24	110.80
36	1	2900	A	N1-C6-N6	-6.10	114.94	118.60
36	1	2957	G	C4-C5-N7	6.10	113.24	110.80
36	1	3318	G	C6-C5-N7	-6.10	126.74	130.40
1	6	460	A	N7-C8-N9	6.10	116.85	113.80
36	5	513	G	C5-C6-N1	6.10	114.55	111.50
36	5	1205	A	C8-N9-C4	6.10	108.24	105.80
36	5	1637	A	C4-C5-N7	-6.10	107.65	110.70
36	5	2813	A	C4-C5-N7	6.10	113.75	110.70
36	5	2837	A	C5-N7-C8	6.10	106.95	103.90
37	7	1	G	C8-N9-C1'	-6.10	119.07	127.00
1	2	992	A	N1-C6-N6	6.10	122.26	118.60
36	1	102	C	OP1-P-OP2	-6.10	110.45	119.60
36	1	404	G	C4-C5-N7	6.10	113.24	110.80
36	1	2875	U	C2-N3-C4	6.10	130.66	127.00
36	1	2937	G	N3-C4-N9	-6.10	122.34	126.00
36	1	3120	C	C2-N1-C1'	-6.10	112.09	118.80
38	4	113	U	C5-C4-O4	6.10	129.56	125.90
1	6	1418	G	C4-C5-C6	6.10	122.46	118.80
1	6	1644	C	C5-C6-N1	-6.10	117.95	121.00
36	5	720	A	N9-C4-C5	6.10	108.24	105.80
36	5	1176	C	C6-N1-C1'	6.10	128.12	120.80
36	5	2145	A	C6-C5-N7	-6.10	128.03	132.30
1	2	19	A	C5-C6-N6	-6.10	118.82	123.70
1	2	25	C	N1-C2-N3	6.10	123.47	119.20
36	1	657	A	C5-C6-N6	-6.10	118.82	123.70
36	1	2374	C	C4-C5-C6	6.10	120.45	117.40
1	6	1002	G	N3-C4-C5	6.10	131.65	128.60
36	5	218	G	C8-N9-C4	-6.10	103.96	106.40
36	5	2769	A	C8-N9-C4	-6.10	103.36	105.80
36	1	1172	G	N7-C8-N9	6.09	116.15	113.10
36	1	1514	G	C6-C5-N7	-6.09	126.74	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2148	U	OP1-P-OP2	6.09	128.74	119.60
36	1	2866	U	C5-C4-O4	6.09	129.56	125.90
36	1	3232	G	C5-C6-N1	-6.09	108.45	111.50
37	3	104	A	C4-C5-N7	-6.09	107.65	110.70
44	L7	131	GLU	C-N-CD	6.09	141.20	128.40
1	6	1	U	N1-C2-O2	6.09	127.07	122.80
1	6	1243	G	N3-C4-C5	-6.09	125.55	128.60
1	6	1556	A	C5-C6-N6	-6.09	118.82	123.70
36	5	890	C	N1-C2-O2	6.09	122.56	118.90
36	5	960	U	OP1-P-O3'	-6.09	91.79	105.20
36	5	1433	A	OP1-P-OP2	-6.09	110.46	119.60
36	5	2355	G	C5-N7-C8	-6.09	101.25	104.30
36	5	2370	G	C5-C6-N1	-6.09	108.45	111.50
36	5	2794	G	C6-N1-C2	-6.09	121.44	125.10
36	5	2824	G	C5-N7-C8	-6.09	101.25	104.30
36	5	3067	C	N3-C4-C5	6.09	124.34	121.90
37	7	91	G	N1-C2-N2	-6.09	110.72	116.20
38	8	126	A	N1-C6-N6	-6.09	114.94	118.60
36	1	3061	G	C4-C5-N7	6.09	113.24	110.80
36	5	95	A	C2-N3-C4	-6.09	107.55	110.60
36	5	648	C	C2-N1-C1'	-6.09	112.10	118.80
36	5	1405	U	N1-C2-O2	-6.09	118.53	122.80
36	5	2945	G	C4-N9-C1'	6.09	134.42	126.50
36	5	3276	G	O5'-P-OP2	6.09	118.01	110.70
1	2	1029	U	C5-C6-N1	-6.09	119.65	122.70
1	2	1599	C	N3-C2-O2	-6.09	117.64	121.90
36	1	157	A	C6-N1-C2	-6.09	114.94	118.60
36	1	364	G	C5-N7-C8	-6.09	101.25	104.30
36	1	1374	G	C6-N1-C2	-6.09	121.44	125.10
36	1	1453	A	O5'-P-OP2	-6.09	100.22	105.70
36	1	3126	C	O5'-P-OP2	-6.09	100.22	105.70
1	6	922	G	C8-N9-C1'	-6.09	119.08	127.00
1	6	1362	U	N3-C2-O2	-6.09	117.94	122.20
1	6	1547	A	N3-C4-C5	6.09	131.06	126.80
36	5	504	A	C8-N9-C4	6.09	108.24	105.80
36	5	830	A	C2-N3-C4	-6.09	107.55	110.60
36	5	850	U	N3-C2-O2	6.09	126.46	122.20
36	5	943	U	N1-C2-N3	6.09	118.56	114.90
36	5	1113	G	N3-C4-C5	6.09	131.65	128.60
36	5	3019	U	N1-C2-O2	6.09	127.06	122.80
1	2	334	G	C5-N7-C8	6.09	107.34	104.30
1	2	1252	C	C6-N1-C2	6.09	122.74	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	278	U	N1-C2-N3	6.09	118.55	114.90
36	1	803	C	N3-C2-O2	-6.09	117.64	121.90
36	1	963	G	N1-C2-N2	-6.09	110.72	116.20
36	1	1098	A	C6-N1-C2	-6.09	114.95	118.60
36	1	1164	G	N1-C2-N2	6.09	121.68	116.20
36	1	1207	G	C5-N7-C8	-6.09	101.25	104.30
36	1	1301	A	O5'-P-OP1	-6.09	100.22	105.70
36	1	1329	U	OP1-P-O3'	6.09	118.59	105.20
36	1	1452	A	O5'-P-OP1	-6.09	100.22	105.70
36	1	1526	U	C6-N1-C1'	-6.09	112.67	121.20
36	1	2609	A	C4-C5-C6	6.09	120.05	117.00
36	1	3031	G	C8-N9-C1'	6.09	134.92	127.00
1	6	1026	A	OP2-P-O3'	6.09	118.60	105.20
1	6	1576	A	N1-C6-N6	6.09	122.25	118.60
1	6	1765	A	N9-C4-C5	6.09	108.24	105.80
36	5	333	G	OP2-P-O3'	6.09	118.60	105.20
36	5	1606	U	C5-C6-N1	-6.09	119.66	122.70
36	5	2347	U	C5-C4-O4	6.09	129.55	125.90
36	5	2682	C	OP1-P-OP2	-6.09	110.47	119.60
36	5	2881	C	O5'-P-OP2	6.09	118.01	110.70
36	5	3323	A	C6-N1-C2	-6.09	114.95	118.60
38	8	87	G	N3-C4-C5	-6.09	125.56	128.60
1	2	1784	C	C6-N1-C2	-6.09	117.86	120.30
36	1	789	A	O5'-P-OP2	-6.09	100.22	105.70
36	1	2175	U	C4-C5-C6	6.09	123.35	119.70
36	1	2652	U	N1-C2-O2	-6.09	118.54	122.80
50	M4	121	MET	CB-CG-SD	-6.09	94.14	112.40
1	6	1485	C	N3-C2-O2	6.09	126.16	121.90
36	5	2381	G	N7-C8-N9	-6.09	110.06	113.10
36	5	289	A	C6-C5-N7	-6.09	128.04	132.30
36	5	1798	A	N1-C6-N6	6.09	122.25	118.60
36	5	2845	A	C5-N7-C8	-6.09	100.86	103.90
36	5	2920	U	N1-C2-O2	6.09	127.06	122.80
36	1	1521	G	C8-N9-C1'	6.08	134.91	127.00
36	1	2376	G	C5-C6-N1	6.08	114.54	111.50
36	1	3053	G	N1-C2-N3	6.08	127.55	123.90
36	1	3147	G	N1-C6-O6	-6.08	116.25	119.90
36	1	3270	U	O5'-P-OP1	-6.08	100.22	105.70
38	4	42	G	OP1-P-OP2	-6.08	110.47	119.60
1	6	1106	U	N3-C4-O4	6.08	123.66	119.40
1	6	1513	G	C4-C5-C6	6.08	122.45	118.80
36	5	796	U	C5-C6-N1	6.08	125.74	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2861	U	N1-C2-N3	-6.08	111.25	114.90
1	2	880	C	N3-C4-C5	-6.08	119.47	121.90
1	2	1670	G	N3-C4-C5	-6.08	125.56	128.60
36	1	25	U	C4-C5-C6	6.08	123.35	119.70
36	1	503	C	O4'-C1'-N1	6.08	113.07	108.20
36	1	1429	G	N3-C2-N2	6.08	124.16	119.90
36	1	1542	G	N3-C4-C5	6.08	131.64	128.60
36	1	3243	A	N1-C2-N3	-6.08	126.26	129.30
1	6	115	G	C2-N3-C4	-6.08	108.86	111.90
1	6	1178	G	C8-N9-C1'	-6.08	119.09	127.00
1	6	1324	G	N7-C8-N9	6.08	116.14	113.10
36	5	217	U	N3-C2-O2	-6.08	117.94	122.20
36	5	1420	C	C2-N1-C1'	-6.08	112.11	118.80
36	5	2859	U	N3-C4-O4	-6.08	115.14	119.40
36	5	3046	A	C6-N1-C2	-6.08	114.95	118.60
1	2	730	G	C4-N9-C1'	6.08	134.41	126.50
36	1	383	G	N1-C6-O6	-6.08	116.25	119.90
36	1	1379	G	C2-N3-C4	-6.08	108.86	111.90
36	1	1399	A	N3-C4-N9	-6.08	122.53	127.40
38	4	40	A	N3-C4-C5	-6.08	122.54	126.80
1	6	1128	C	N1-C2-O2	-6.08	115.25	118.90
1	6	1176	G	N1-C6-O6	6.08	123.55	119.90
1	6	1534	G	N1-C2-N2	6.08	121.67	116.20
36	5	776	U	C5-C4-O4	6.08	129.55	125.90
36	5	963	G	OP1-P-OP2	-6.08	110.48	119.60
36	5	1260	A	C8-N9-C4	-6.08	103.37	105.80
36	5	1489	A	C4-N9-C1'	6.08	137.25	126.30
36	5	2628	A	C8-N9-C4	-6.08	103.37	105.80
36	5	2799	A	N1-C6-N6	-6.08	114.95	118.60
36	5	2932	U	C5-C6-N1	-6.08	119.66	122.70
44	17	100	ARG	NE-CZ-NH2	-6.08	117.26	120.30
36	1	372	A	N1-C6-N6	6.08	122.25	118.60
36	1	2910	A	C5-C6-N6	6.08	128.56	123.70
36	1	3142	A	C4-C5-N7	-6.08	107.66	110.70
38	4	13	A	N1-C2-N3	6.08	132.34	129.30
38	4	98	U	N3-C4-O4	6.08	123.66	119.40
36	5	1922	A	N3-C4-C5	6.08	131.06	126.80
36	5	2709	C	N3-C4-N4	6.08	122.26	118.00
1	2	1541	G	C4-C5-C6	6.08	122.45	118.80
36	1	1210	U	C5-C6-N1	-6.08	119.66	122.70
36	1	1858	A	C5-C6-N6	-6.08	118.84	123.70
36	1	2541	U	P-O3'-C3'	6.08	126.99	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2846	U	C2-N1-C1'	6.08	125.00	117.70
79	Q3	23	ARG	NE-CZ-NH2	-6.08	117.26	120.30
1	6	597	G	N9-C4-C5	-6.08	102.97	105.40
1	6	611	U	N3-C4-O4	6.08	123.65	119.40
1	6	858	G	C6-C5-N7	-6.08	126.75	130.40
1	6	1038	U	N3-C4-O4	6.08	123.66	119.40
1	6	1495	C	O5'-P-OP1	-6.08	100.23	105.70
36	5	675	C	C5-C4-N4	-6.08	115.94	120.20
36	5	2408	U	N3-C4-O4	6.08	123.65	119.40
36	5	3032	A	C6-C5-N7	6.08	136.56	132.30
37	7	118	A	N1-C2-N3	6.08	132.34	129.30
36	1	226	C	C2-N1-C1'	-6.08	112.11	118.80
36	1	3102	G	N1-C6-O6	-6.08	116.25	119.90
36	1	3266	G	C4-C5-C6	6.08	122.45	118.80
36	5	396	A	N3-C4-N9	-6.08	122.54	127.40
36	5	552	G	N3-C2-N2	-6.08	115.65	119.90
36	5	934	G	C5-N7-C8	-6.08	101.26	104.30
36	5	2727	A	C5-C6-N6	6.08	128.56	123.70
1	2	420	A	C5-C6-N6	-6.08	118.84	123.70
1	2	1277	G	N7-C8-N9	6.08	116.14	113.10
36	1	9	U	C6-N1-C2	6.08	124.65	121.00
36	1	1509	A	N9-C4-C5	-6.08	103.37	105.80
36	1	2743	A	N7-C8-N9	-6.08	110.76	113.80
36	1	2820	A	N3-C4-N9	-6.08	122.54	127.40
38	4	30	C	N3-C4-N4	-6.08	113.75	118.00
79	Q3	29	LEU	CA-CB-CG	-6.08	101.33	115.30
1	6	457	G	C6-C5-N7	-6.08	126.75	130.40
36	5	501	A	C6-N1-C2	-6.08	114.95	118.60
36	5	511	G	C5-C6-N1	-6.08	108.46	111.50
36	5	639	G	N1-C6-O6	6.08	123.55	119.90
36	5	688	G	C8-N9-C4	-6.08	103.97	106.40
36	5	822	G	C4-N9-C1'	6.08	134.40	126.50
36	5	1848	G	OP1-P-OP2	6.08	128.72	119.60
36	5	2434	U	C4-C5-C6	6.08	123.34	119.70
36	5	2672	G	OP1-P-OP2	6.08	128.71	119.60
1	2	1200	G	C5-C6-O6	-6.07	124.96	128.60
36	1	625	G	N7-C8-N9	-6.07	110.06	113.10
36	1	648	C	C2-N1-C1'	6.07	125.48	118.80
36	1	1478	C	N3-C4-C5	-6.07	119.47	121.90
36	5	234	G	O5'-P-OP2	-6.07	100.23	105.70
36	5	1056	U	N1-C2-O2	6.07	127.05	122.80
36	5	1382	G	C4-C5-N7	6.07	113.23	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1914	G	N9-C4-C5	6.07	107.83	105.40
77	q1	17	ARG	NE-CZ-NH1	-6.07	117.26	120.30
1	2	360	A	C6-N1-C2	6.07	122.24	118.60
36	1	30	G	C4-C5-C6	-6.07	115.16	118.80
36	1	2978	U	C6-N1-C2	-6.07	117.36	121.00
36	1	3156	U	C6-N1-C2	6.07	124.64	121.00
36	5	713	U	C5-C6-N1	-6.07	119.66	122.70
36	5	3310	A	C2-N3-C4	-6.07	107.56	110.60
1	2	167	U	C6-N1-C2	6.07	124.64	121.00
1	2	1112	G	N1-C6-O6	6.07	123.54	119.90
1	2	1191	U	N1-C2-N3	6.07	118.54	114.90
36	1	926	A	C4-C5-N7	6.07	113.74	110.70
36	1	3349	C	N1-C2-O2	6.07	122.54	118.90
1	6	1006	C	C5-C6-N1	-6.07	117.97	121.00
1	6	1199	G	O5'-P-OP2	-6.07	100.24	105.70
36	5	723	U	N1-C2-N3	6.07	118.54	114.90
36	5	854	G	N1-C2-N2	6.07	121.66	116.20
36	5	1385	C	N3-C4-C5	-6.07	119.47	121.90
36	5	1599	G	OP1-P-O3'	6.07	118.55	105.20
36	5	1807	G	C8-N9-C4	6.07	108.83	106.40
36	5	1873	U	C6-N1-C2	-6.07	117.36	121.00
36	5	2760	C	O5'-P-OP2	-6.07	100.24	105.70
37	7	9	C	OP1-P-OP2	-6.07	110.49	119.60
36	1	2622	C	N1-C2-N3	6.07	123.45	119.20
1	6	593	U	C6-N1-C2	-6.07	117.36	121.00
36	5	2413	A	O5'-P-OP2	6.07	117.98	110.70
36	5	2866	U	N3-C2-O2	-6.07	117.95	122.20
36	5	2947	G	C4-C5-N7	6.07	113.23	110.80
36	5	3044	G	C4-C5-C6	6.07	122.44	118.80
1	2	1647	U	N3-C2-O2	-6.07	117.95	122.20
36	1	80	G	OP2-P-O3'	6.07	118.55	105.20
36	1	1526	U	C2-N1-C1'	6.07	124.98	117.70
1	6	359	A	C6-C5-N7	6.07	136.55	132.30
1	6	457	G	N1-C6-O6	6.07	123.54	119.90
1	6	1759	C	N3-C4-N4	6.07	122.25	118.00
36	5	95	A	N3-C4-N9	-6.07	122.55	127.40
36	5	1389	G	O5'-P-OP2	6.07	117.98	110.70
36	5	2920	U	C2-N3-C4	-6.07	123.36	127.00
36	5	3105	U	OP1-P-O3'	-6.07	91.85	105.20
36	5	3272	C	N1-C2-N3	6.07	123.45	119.20
1	2	191	C	C2-N1-C1'	-6.07	112.13	118.80
1	2	1354	G	C8-N9-C4	-6.07	103.97	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	368	G	N1-C2-N3	6.07	127.54	123.90
36	1	981	U	N3-C4-C5	-6.07	110.96	114.60
36	1	2427	U	N3-C4-O4	-6.07	115.15	119.40
36	1	3011	A	N3-C4-N9	-6.07	122.55	127.40
36	1	3260	G	C4-C5-C6	6.07	122.44	118.80
36	1	3388	C	N1-C2-O2	6.07	122.54	118.90
69	O3	21	ARG	NE-CZ-NH2	-6.07	117.27	120.30
36	5	1423	C	C6-N1-C2	-6.07	117.87	120.30
36	5	2173	U	C6-N1-C2	-6.07	117.36	121.00
36	5	2428	U	N3-C4-C5	6.07	118.24	114.60
36	1	681	U	C2-N1-C1'	6.06	124.98	117.70
36	1	1439	U	OP2-P-O3'	-6.06	91.86	105.20
36	5	1177	G	C8-N9-C1'	-6.06	119.12	127.00
36	5	1236	G	C4-N9-C1'	6.06	134.38	126.50
36	5	1430	U	C2-N3-C4	-6.06	123.36	127.00
36	1	24	G	C5-C6-N1	-6.06	108.47	111.50
36	1	805	G	C5-C6-N1	-6.06	108.47	111.50
36	1	1519	G	N3-C4-C5	6.06	131.63	128.60
36	1	2755	C	N3-C4-C5	6.06	124.33	121.90
36	1	3059	G	C8-N9-C4	6.06	108.83	106.40
36	1	3184	A	C5-C6-N1	6.06	120.73	117.70
1	6	1	U	C6-N1-C2	-6.06	117.36	121.00
1	6	1031	U	C5-C4-O4	6.06	129.54	125.90
1	6	1121	C	C2-N1-C1'	6.06	125.47	118.80
1	6	1303	U	N3-C2-O2	6.06	126.44	122.20
1	6	1409	G	C8-N9-C1'	-6.06	119.12	127.00
36	5	712	G	C5-C6-N1	6.06	114.53	111.50
36	5	911	C	C4-C5-C6	6.06	120.43	117.40
36	5	1164	G	N3-C2-N2	-6.06	115.66	119.90
36	5	1448	U	C2-N3-C4	-6.06	123.36	127.00
36	5	1632	A	N7-C8-N9	-6.06	110.77	113.80
36	5	1719	G	N3-C4-N9	-6.06	122.36	126.00
36	5	2431	C	C4-C5-C6	-6.06	114.37	117.40
36	5	3040	A	O5'-P-OP1	-6.06	100.24	105.70
36	5	3143	C	C5-C6-N1	6.06	124.03	121.00
36	1	1439	U	C2-N1-C1'	6.06	124.97	117.70
36	1	3112	G	OP1-P-O3'	6.06	118.53	105.20
36	5	2195	C	N3-C2-O2	-6.06	117.66	121.90
42	15	15	ARG	NE-CZ-NH1	-6.06	117.27	120.30
1	2	967	A	C4-C5-N7	6.06	113.73	110.70
1	2	1438	G	C8-N9-C4	6.06	108.82	106.40
36	1	317	A	C8-N9-C4	-6.06	103.38	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1838	G	N1-C2-N3	6.06	127.54	123.90
36	1	3007	U	C5-C6-N1	-6.06	119.67	122.70
1	6	310	C	C5-C4-N4	-6.06	115.96	120.20
1	6	1000	C	C5-C4-N4	6.06	124.44	120.20
36	5	376	G	C4-C5-C6	6.06	122.44	118.80
36	5	865	U	N1-C2-N3	6.06	118.53	114.90
36	5	972	A	N9-C4-C5	6.06	108.22	105.80
36	5	1620	U	N1-C2-O2	6.06	127.04	122.80
36	5	1793	C	O4'-C1'-N1	-6.06	103.35	108.20
36	5	1830	G	OP1-P-O3'	6.06	118.53	105.20
36	5	3026	G	C8-N9-C1'	-6.06	119.12	127.00
1	2	1456	C	C6-N1-C2	-6.06	117.88	120.30
36	1	1209	G	N1-C2-N2	-6.06	110.75	116.20
37	3	92	A	C5-N7-C8	-6.06	100.87	103.90
1	6	1031	U	N1-C2-N3	6.06	118.53	114.90
1	6	1679	G	C8-N9-C4	-6.06	103.98	106.40
36	5	881	C	C2-N1-C1'	6.06	125.46	118.80
36	5	3304	U	C4-C5-C6	6.06	123.33	119.70
1	2	6	G	N3-C4-N9	6.06	129.63	126.00
36	1	2698	G	C5-C6-O6	-6.06	124.97	128.60
36	5	1879	A	O5'-P-OP2	-6.06	100.25	105.70
36	5	2200	U	N1-C2-N3	6.06	118.53	114.90
36	5	2381	G	O5'-P-OP1	6.06	117.97	110.70
36	5	2418	G	C8-N9-C4	6.06	108.82	106.40
37	7	28	C	C2-N3-C4	-6.06	116.87	119.90
1	2	163	G	C8-N9-C4	-6.05	103.98	106.40
36	1	78	U	O5'-P-OP2	6.05	117.97	110.70
36	1	1050	U	OP2-P-O3'	6.05	118.52	105.20
36	1	1153	A	C6-C5-N7	-6.05	128.06	132.30
36	1	1428	A	C5-N7-C8	-6.05	100.87	103.90
36	1	1939	G	N1-C2-N2	-6.05	110.75	116.20
36	1	2639	G	N9-C4-C5	6.05	107.82	105.40
36	1	2936	A	C4-C5-C6	-6.05	113.97	117.00
36	1	3226	A	N1-C2-N3	6.05	132.33	129.30
38	4	89	A	C8-N9-C4	6.05	108.22	105.80
1	6	764	U	N3-C4-C5	-6.05	110.97	114.60
36	5	355	A	N1-C2-N3	6.05	132.33	129.30
36	5	1518	U	C4-C5-C6	6.05	123.33	119.70
36	5	2839	G	C6-C5-N7	6.05	134.03	130.40
36	5	3171	U	OP2-P-O3'	6.05	118.52	105.20
37	7	97	A	C5-C6-N1	6.05	120.73	117.70
1	2	579	A	N1-C6-N6	-6.05	114.97	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	966	U	C6-N1-C2	-6.05	117.37	121.00
1	2	386	G	C5-C6-O6	6.05	132.23	128.60
1	2	1417	A	C8-N9-C4	6.05	108.22	105.80
1	2	1550	A	C5-N7-C8	-6.05	100.87	103.90
1	2	1749	A	O5'-P-OP1	-6.05	100.25	105.70
36	1	787	G	C4-C5-C6	6.05	122.43	118.80
36	1	1417	G	C5-N7-C8	-6.05	101.27	104.30
36	1	1835	A	O4'-C1'-N9	-6.05	103.36	108.20
36	1	2958	A	C8-N9-C4	-6.05	103.38	105.80
36	1	3032	A	C4-C5-N7	-6.05	107.67	110.70
37	3	36	C	C6-N1-C1'	-6.05	113.54	120.80
1	6	901	G	N1-C2-N3	-6.05	120.27	123.90
1	6	1340	U	C5-C4-O4	6.05	129.53	125.90
36	5	285	A	C8-N9-C4	-6.05	103.38	105.80
36	5	354	U	C6-N1-C1'	-6.05	112.73	121.20
36	5	2756	C	C2-N1-C1'	6.05	125.46	118.80
36	5	2942	C	C2-N1-C1'	-6.05	112.14	118.80
1	2	1455	G	C5-C6-O6	6.05	132.23	128.60
36	1	1180	A	C4-C5-N7	-6.05	107.68	110.70
36	1	2115	G	N1-C6-O6	6.05	123.53	119.90
1	6	555	A	N9-C4-C5	6.05	108.22	105.80
1	6	891	A	N7-C8-N9	-6.05	110.78	113.80
1	6	1207	C	C6-N1-C1'	-6.05	113.54	120.80
1	6	1615	C	C2-N3-C4	-6.05	116.88	119.90
36	5	42	C	C2-N1-C1'	6.05	125.45	118.80
36	5	196	G	C8-N9-C4	-6.05	103.98	106.40
36	5	752	C	OP1-P-O3'	6.05	118.51	105.20
36	5	3001	C	N3-C4-C5	6.05	124.32	121.90
36	5	3307	A	C2-N3-C4	-6.05	107.58	110.60
36	1	583	G	N7-C8-N9	-6.05	110.08	113.10
36	1	688	G	C8-N9-C1'	-6.05	119.14	127.00
36	1	865	U	C5-C4-O4	6.05	129.53	125.90
36	1	2278	C	OP1-P-O3'	6.05	118.50	105.20
55	M9	103	ARG	NE-CZ-NH1	-6.05	117.28	120.30
1	6	1746	A	OP1-P-OP2	-6.05	110.53	119.60
36	5	630	A	C5-N7-C8	6.05	106.92	103.90
36	5	690	A	C8-N9-C4	6.05	108.22	105.80
36	5	2647	A	C2-N3-C4	-6.05	107.58	110.60
1	2	61	A	N1-C6-N6	6.05	122.23	118.60
1	2	1777	G	C8-N9-C4	-6.05	103.98	106.40
36	1	99	A	C5-C6-N6	6.05	128.54	123.70
36	1	430	U	C2-N3-C4	-6.05	123.37	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	674	G	C6-C5-N7	-6.05	126.77	130.40
36	1	722	G	N3-C4-N9	6.05	129.63	126.00
36	1	2160	G	C2-N3-C4	-6.05	108.88	111.90
1	6	407	A	C6-C5-N7	-6.05	128.07	132.30
1	6	1136	U	O5'-P-OP2	6.05	117.96	110.70
1	6	1200	G	OP1-P-O3'	6.05	118.50	105.20
1	6	1523	G	C6-N1-C2	-6.05	121.47	125.10
36	5	788	C	OP2-P-O3'	6.05	118.50	105.20
36	5	935	U	N3-C4-O4	6.05	123.63	119.40
36	5	982	C	C5-C4-N4	-6.05	115.97	120.20
36	5	1186	G	OP1-P-OP2	6.05	128.67	119.60
36	5	1525	G	C8-N9-C1'	-6.05	119.14	127.00
36	5	3307	A	N1-C2-N3	6.05	132.32	129.30
37	7	89	G	N9-C4-C5	-6.05	102.98	105.40
66	o0	104	LEU	CA-CB-CG	6.05	129.21	115.30
36	1	100	A	C4-C5-C6	6.04	120.02	117.00
36	1	358	G	N9-C4-C5	-6.04	102.98	105.40
36	1	729	C	N1-C2-N3	6.04	123.43	119.20
36	1	1389	G	O5'-P-OP1	-6.04	100.26	105.70
36	5	2827	U	C6-N1-C2	6.04	124.63	121.00
36	5	3215	A	O4'-C1'-N9	-6.04	103.36	108.20
36	1	1179	A	N7-C8-N9	-6.04	110.78	113.80
36	1	1204	A	N3-C4-C5	6.04	131.03	126.80
36	1	1429	G	C4-N9-C1'	6.04	134.36	126.50
36	1	2223	A	N1-C2-N3	6.04	132.32	129.30
36	1	2679	A	O4'-C1'-N9	6.04	113.04	108.20
36	1	2813	A	C5-N7-C8	6.04	106.92	103.90
37	3	7	G	C4-C5-N7	-6.04	108.38	110.80
1	6	948	G	N9-C4-C5	-6.04	102.98	105.40
36	5	63	A	C4-C5-C6	6.04	120.02	117.00
36	5	297	G	C4-N9-C1'	6.04	134.35	126.50
36	5	646	A	O5'-P-OP1	-6.04	100.26	105.70
36	5	971	G	C6-N1-C2	-6.04	121.47	125.10
36	5	1434	G	N7-C8-N9	6.04	116.12	113.10
36	5	1884	A	C6-C5-N7	-6.04	128.07	132.30
38	8	2	A	C2-N3-C4	-6.04	107.58	110.60
36	1	1502	C	C6-N1-C2	-6.04	117.88	120.30
36	1	1548	C	C5-C4-N4	-6.04	115.97	120.20
1	6	800	U	N1-C2-N3	6.04	118.53	114.90
36	5	355	A	C5-C6-N1	-6.04	114.68	117.70
36	5	1333	C	N3-C4-N4	6.04	122.23	118.00
36	5	1856	C	N3-C4-N4	6.04	122.23	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3002	C	C5-C4-N4	-6.04	115.97	120.20
36	5	3207	U	O4'-C1'-N1	6.04	113.03	108.20
36	5	3232	G	N1-C6-O6	6.04	123.53	119.90
1	2	1456	C	O4'-C1'-N1	6.04	113.03	108.20
36	1	151	A	C8-N9-C4	-6.04	103.38	105.80
36	1	2906	C	O5'-P-OP1	-6.04	100.26	105.70
1	6	16	G	O5'-P-OP2	-6.04	100.26	105.70
1	6	542	A	N1-C2-N3	6.04	132.32	129.30
36	5	963	G	C6-N1-C2	-6.04	121.48	125.10
36	5	1465	A	N1-C2-N3	6.04	132.32	129.30
1	2	307	G	N1-C6-O6	-6.04	116.28	119.90
36	1	75	G	O5'-P-OP1	6.04	117.95	110.70
36	1	589	A	N7-C8-N9	-6.04	110.78	113.80
36	1	641	C	C4-C5-C6	-6.04	114.38	117.40
36	1	1195	A	N9-C4-C5	6.04	108.22	105.80
36	1	1323	G	C8-N9-C1'	-6.04	119.15	127.00
36	1	1482	A	N7-C8-N9	6.04	116.82	113.80
36	1	3363	U	N3-C2-O2	-6.04	117.97	122.20
38	4	38	U	N3-C4-C5	-6.04	110.98	114.60
36	5	1323	G	O5'-P-OP2	-6.04	100.27	105.70
36	5	2641	U	N3-C2-O2	-6.04	117.97	122.20
36	5	2919	A	N3-C4-N9	-6.04	122.57	127.40
36	5	3036	G	C4-C5-N7	-6.04	108.38	110.80
36	1	2234	G	C8-N9-C4	6.04	108.81	106.40
36	1	2753	G	C4-C5-N7	-6.04	108.39	110.80
36	1	2770	G	OP2-P-O3'	6.04	118.48	105.20
36	5	774	G	C6-C5-N7	-6.04	126.78	130.40
36	5	1777	U	O5'-P-OP1	-6.04	100.27	105.70
38	8	113	U	N3-C4-C5	-6.04	110.98	114.60
36	1	1414	G	C5-N7-C8	-6.04	101.28	104.30
36	1	2818	U	P-O3'-C3'	6.04	126.94	119.70
36	1	3075	G	C2-N3-C4	-6.04	108.88	111.90
37	3	26	C	N1-C2-O2	6.04	122.52	118.90
49	M3	21	ARG	NE-CZ-NH2	-6.04	117.28	120.30
1	6	319	U	P-O3'-C3'	-6.04	112.46	119.70
14	c2	58	LEU	CA-CB-CG	6.04	129.18	115.30
36	5	1465	A	N7-C8-N9	6.04	116.82	113.80
36	5	1535	A	C5-C6-N1	6.04	120.72	117.70
36	5	3159	C	C2-N3-C4	-6.04	116.88	119.90
1	2	360	A	N3-C4-C5	6.03	131.02	126.80
1	2	1002	G	N3-C4-N9	6.03	129.62	126.00
1	2	1757	G	C6-N1-C2	-6.03	121.48	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	156	G	C8-N9-C1'	-6.03	119.16	127.00
36	1	645	A	O5'-P-OP2	6.03	117.94	110.70
36	1	1084	A	N7-C8-N9	6.03	116.82	113.80
36	1	1388	U	C5-C6-N1	-6.03	119.68	122.70
36	1	2409	G	N9-C4-C5	-6.03	102.99	105.40
36	1	2555	G	C8-N9-C4	6.03	108.81	106.40
36	1	2626	A	O4'-C1'-N9	-6.03	103.37	108.20
36	1	2772	C	C2-N3-C4	6.03	122.92	119.90
1	6	1698	G	P-O3'-C3'	6.03	126.94	119.70
34	sR	274	LEU	CA-CB-CG	-6.03	101.42	115.30
36	5	592	A	N9-C4-C5	-6.03	103.39	105.80
36	5	922	U	O5'-P-OP1	-6.03	100.27	105.70
36	5	2426	U	C6-N1-C2	-6.03	117.38	121.00
36	5	2646	C	O5'-P-OP1	6.03	117.94	110.70
36	5	3091	A	N7-C8-N9	6.03	116.82	113.80
36	5	433	A	C4-C5-C6	6.03	120.02	117.00
36	5	3242	G	C5-C6-O6	6.03	132.22	128.60
37	7	25	G	N1-C6-O6	-6.03	116.28	119.90
36	1	1142	G	C5-N7-C8	-6.03	101.28	104.30
36	1	1385	C	N3-C4-N4	-6.03	113.78	118.00
36	1	1450	G	C5-N7-C8	-6.03	101.28	104.30
36	1	1520	G	C4-C5-N7	6.03	113.21	110.80
36	1	2174	G	OP1-P-O3'	6.03	118.47	105.20
36	1	2714	G	C8-N9-C4	-6.03	103.99	106.40
36	1	2834	G	N1-C2-N3	6.03	127.52	123.90
36	1	3103	A	N1-C6-N6	-6.03	114.98	118.60
1	6	103	A	C6-C5-N7	-6.03	128.08	132.30
1	6	176	C	C2-N1-C1'	6.03	125.43	118.80
1	6	880	C	N3-C2-O2	-6.03	117.68	121.90
1	6	1601	G	N7-C8-N9	6.03	116.12	113.10
1	6	1773	C	C2-N3-C4	6.03	122.92	119.90
36	5	39	A	N1-C6-N6	-6.03	114.98	118.60
36	5	588	G	C8-N9-C1'	-6.03	119.16	127.00
36	5	1670	C	N1-C2-O2	6.03	122.52	118.90
36	5	2185	G	N1-C2-N3	6.03	127.52	123.90
36	5	2908	G	C6-C5-N7	-6.03	126.78	130.40
36	5	3362	A	C6-C5-N7	-6.03	128.08	132.30
1	2	1186	U	N3-C4-O4	-6.03	115.18	119.40
36	1	227	G	C4-C5-C6	6.03	122.42	118.80
36	1	2602	G	N1-C6-O6	-6.03	116.28	119.90
36	1	2635	A	N1-C2-N3	6.03	132.31	129.30
1	6	1552	U	N3-C4-O4	6.03	123.62	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1439	U	C5-C4-O4	-6.03	122.28	125.90
36	1	1166	G	C5-C6-N1	-6.03	108.49	111.50
36	1	2891	U	N3-C2-O2	6.03	126.42	122.20
36	1	2943	G	OP1-P-O3'	6.03	118.46	105.20
36	1	2971	A	N1-C6-N6	6.03	122.22	118.60
1	6	1300	A	C5-C6-N6	-6.03	118.88	123.70
36	5	1303	A	C6-C5-N7	-6.03	128.08	132.30
36	1	96	G	C2-N3-C4	-6.03	108.89	111.90
36	1	3028	G	O5'-P-OP2	6.03	117.93	110.70
1	6	1311	U	N1-C2-N3	6.03	118.52	114.90
36	5	1751	G	C8-N9-C4	6.03	108.81	106.40
36	5	2243	A	N1-C6-N6	-6.03	114.98	118.60
36	5	2952	G	C8-N9-C1'	-6.03	119.17	127.00
1	2	316	A	C2-N3-C4	-6.02	107.59	110.60
1	2	566	C	N3-C2-O2	6.02	126.12	121.90
36	1	375	A	C5-N7-C8	-6.02	100.89	103.90
36	1	2352	A	C6-N1-C2	-6.02	114.98	118.60
36	5	3215	A	N7-C8-N9	-6.02	110.79	113.80
1	2	373	G	N3-C4-C5	-6.02	125.59	128.60
1	2	1423	U	C2-N1-C1'	6.02	124.93	117.70
1	2	1744	A	N1-C2-N3	6.02	132.31	129.30
36	1	269	G	C5-C6-O6	6.02	132.21	128.60
36	1	373	A	N1-C2-N3	6.02	132.31	129.30
36	1	652	G	C2-N3-C4	6.02	114.91	111.90
36	1	1323	G	C4-N9-C1'	6.02	134.33	126.50
36	1	2757	U	O4'-C1'-N1	6.02	113.02	108.20
36	1	2824	G	C4-C5-C6	6.02	122.41	118.80
36	1	3044	G	N3-C4-N9	-6.02	122.39	126.00
36	1	3295	A	N1-C2-N3	6.02	132.31	129.30
1	6	194	U	N1-C2-O2	6.02	127.02	122.80
1	6	627	C	N3-C4-C5	6.02	124.31	121.90
1	6	1474	G	C4-C5-C6	6.02	122.41	118.80
36	5	1188	U	N1-C2-O2	-6.02	118.58	122.80
36	5	3073	A	C6-N1-C2	-6.02	114.99	118.60
1	2	987	G	N3-C4-N9	6.02	129.61	126.00
1	2	1203	A	C8-N9-C4	-6.02	103.39	105.80
1	6	1610	G	C6-N1-C2	-6.02	121.49	125.10
1	2	790	U	O5'-P-OP2	-6.02	100.28	105.70
1	2	993	A	C5-C6-N6	-6.02	118.88	123.70
36	1	218	G	N3-C4-C5	6.02	131.61	128.60
36	1	580	C	C2-N1-C1'	-6.02	112.18	118.80
36	1	2276	G	O5'-P-OP2	-6.02	100.28	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2281	A	O4'-C1'-N9	6.02	113.02	108.20
36	1	2414	G	N1-C2-N3	6.02	127.51	123.90
36	1	2956	A	C2-N3-C4	-6.02	107.59	110.60
36	5	966	U	C5-C6-N1	6.02	125.71	122.70
36	5	1188	U	C4-C5-C6	6.02	123.31	119.70
36	5	1220	U	C2-N1-C1'	6.02	124.92	117.70
36	5	1447	G	O4'-C1'-N9	6.02	113.02	108.20
36	5	2952	G	C4-C5-C6	6.02	122.41	118.80
36	5	2990	G	C2-N3-C4	6.02	114.91	111.90
37	7	59	U	N3-C2-O2	-6.02	117.99	122.20
1	2	787	G	C8-N9-C4	-6.02	103.99	106.40
36	1	652	G	C5-C6-N1	6.02	114.51	111.50
36	1	2857	C	N3-C4-C5	-6.02	119.49	121.90
36	1	2979	U	OP1-P-O3'	-6.02	91.96	105.20
36	5	1675	G	N3-C4-N9	6.02	129.61	126.00
36	5	2620	G	C5-C6-N1	-6.02	108.49	111.50
36	5	2626	A	C8-N9-C4	6.02	108.21	105.80
36	5	2877	G	C8-N9-C1'	-6.02	119.18	127.00
36	5	3243	A	O5'-P-OP2	6.02	117.92	110.70
36	1	2248	C	OP1-P-O3'	6.02	118.44	105.20
1	6	1592	A	N1-C2-N3	6.02	132.31	129.30
36	5	396	A	C8-N9-C4	6.02	108.21	105.80
36	5	1171	G	N1-C2-N2	6.02	121.61	116.20
36	5	1668	G	C8-N9-C4	-6.02	103.99	106.40
52	m6	14	HIS	CB-CA-C	-6.02	98.37	110.40
1	2	417	A	P-O3'-C3'	6.01	126.92	119.70
1	2	1471	A	O5'-P-OP1	-6.01	100.29	105.70
36	1	592	A	C5-C6-N6	-6.01	118.89	123.70
36	1	1466	G	C8-N9-C1'	-6.01	119.18	127.00
36	1	2805	G	C5-C6-N1	6.01	114.51	111.50
36	1	2924	U	N1-C2-N3	6.01	118.51	114.90
1	6	798	C	N3-C4-C5	6.01	124.31	121.90
1	6	972	G	N9-C4-C5	-6.01	103.00	105.40
1	6	1090	C	N3-C2-O2	-6.01	117.69	121.90
36	5	1001	G	N3-C2-N2	6.01	124.11	119.90
36	5	2151	C	N3-C2-O2	6.01	126.11	121.90
36	5	2647	A	N9-C1'-C2'	-6.01	105.38	112.00
36	5	2914	G	C5-C6-N1	-6.01	108.49	111.50
36	1	1796	G	C4-C5-N7	-6.01	108.39	110.80
36	1	2923	U	C6-N1-C1'	6.01	129.62	121.20
37	3	45	A	O5'-P-OP2	-6.01	100.29	105.70
1	6	1114	G	C2-N3-C4	6.01	114.91	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	361	A	C4-C5-C6	6.01	120.01	117.00
36	5	1503	A	C8-N9-C4	6.01	108.20	105.80
1	2	1620	C	O5'-P-OP1	-6.01	100.29	105.70
36	1	218	G	C4-N9-C1'	-6.01	118.69	126.50
36	1	812	G	N1-C2-N2	-6.01	110.79	116.20
36	1	1005	G	N1-C2-N3	6.01	127.51	123.90
36	1	1137	C	N1-C2-O2	6.01	122.51	118.90
36	1	1180	A	C2-N3-C4	-6.01	107.59	110.60
36	1	1461	A	N1-C6-N6	6.01	122.21	118.60
36	1	1525	G	N3-C4-N9	6.01	129.61	126.00
36	1	1617	G	C8-N9-C4	6.01	108.81	106.40
36	1	2201	G	N3-C4-C5	-6.01	125.59	128.60
36	1	2349	U	N3-C2-O2	6.01	126.41	122.20
36	1	2414	G	N3-C4-N9	-6.01	122.39	126.00
36	1	3259	U	C6-N1-C2	-6.01	117.39	121.00
36	1	3344	A	O4'-C1'-N9	6.01	113.01	108.20
1	6	1243	G	C8-N9-C1'	-6.01	119.18	127.00
1	6	1422	A	O5'-P-OP1	-6.01	100.29	105.70
36	5	188	U	C2-N1-C1'	6.01	124.92	117.70
36	5	1005	G	N1-C2-N3	6.01	127.51	123.90
36	5	1149	G	O5'-P-OP1	6.01	117.92	110.70
36	5	1367	G	OP2-P-O3'	6.01	118.42	105.20
36	5	2654	C	C5-C6-N1	6.01	124.01	121.00
36	5	2947	G	N1-C2-N2	6.01	121.61	116.20
36	5	3373	U	C4-C5-C6	6.01	123.31	119.70
37	7	106	U	N3-C4-O4	-6.01	115.19	119.40
1	2	1146	G	N7-C8-N9	6.01	116.11	113.10
1	2	1217	A	N7-C8-N9	6.01	116.80	113.80
1	2	1765	A	N1-C6-N6	-6.01	115.00	118.60
36	1	1339	C	C6-N1-C1'	6.01	128.01	120.80
36	1	2287	C	OP2-P-O3'	6.01	118.42	105.20
37	3	8	G	N3-C4-N9	-6.01	122.39	126.00
1	6	102	U	OP1-P-O3'	6.01	118.42	105.20
1	6	1003	A	N3-C4-C5	6.01	131.01	126.80
1	6	1126	G	OP1-P-OP2	-6.01	110.59	119.60
1	6	1564	U	C2-N3-C4	-6.01	123.39	127.00
36	5	581	U	N3-C4-O4	6.01	123.61	119.40
36	5	1224	C	C5-C4-N4	6.01	124.41	120.20
36	5	1514	G	N1-C6-O6	6.01	123.51	119.90
36	5	1882	G	C8-N9-C4	-6.01	104.00	106.40
36	5	2686	A	C6-N1-C2	-6.01	115.00	118.60
36	5	2882	U	OP1-P-O3'	6.01	118.42	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3232	G	C4-C5-N7	6.01	113.20	110.80
36	5	3283	U	N3-C4-O4	6.01	123.61	119.40
36	1	2720	G	O5'-P-OP2	-6.01	100.29	105.70
36	1	2847	A	C5-N7-C8	-6.01	100.90	103.90
36	1	3185	U	N3-C4-O4	6.01	123.61	119.40
36	1	3316	A	C4-C5-C6	-6.01	114.00	117.00
1	6	288	A	O5'-P-OP1	-6.01	100.29	105.70
36	5	1017	C	N1-C2-O2	6.01	122.50	118.90
36	5	1061	A	C6-N1-C2	-6.01	115.00	118.60
36	5	2296	A	N3-C4-N9	6.01	132.21	127.40
43	16	175	LYS	CD-CE-NZ	6.01	125.52	111.70
1	2	1112	G	O5'-P-OP1	6.01	117.91	110.70
1	2	1197	C	C5-C6-N1	6.01	124.00	121.00
36	1	76	G	C4-C5-C6	6.01	122.40	118.80
36	1	934	G	C4-N9-C1'	6.01	134.31	126.50
36	1	1379	G	C8-N9-C1'	-6.01	119.19	127.00
36	1	3079	U	C2-N1-C1'	-6.01	110.49	117.70
36	1	3112	G	N7-C8-N9	-6.01	110.10	113.10
36	1	3186	A	C5-C6-N6	6.01	128.50	123.70
48	M1	30	LEU	CA-CB-CG	6.01	129.11	115.30
36	5	834	U	C5-C4-O4	6.01	129.50	125.90
36	5	2147	A	C5-C6-N6	-6.01	118.89	123.70
36	5	2573	G	C6-C5-N7	-6.01	126.80	130.40
36	5	3147	G	C6-C5-N7	-6.01	126.80	130.40
36	5	3328	G	C5-C6-N1	6.01	114.50	111.50
36	1	41	G	N3-C4-N9	-6.00	122.40	126.00
36	1	318	A	C5-N7-C8	-6.00	100.90	103.90
36	1	1500	G	C5-C6-N1	6.00	114.50	111.50
36	1	2431	C	N3-C2-O2	-6.00	117.70	121.90
36	5	1000	C	O5'-P-OP2	-6.00	100.30	105.70
36	5	3314	A	N1-C6-N6	6.00	122.20	118.60
36	1	1419	A	N1-C2-N3	6.00	132.30	129.30
36	1	2693	C	C6-N1-C2	6.00	122.70	120.30
36	1	2824	G	C4-C5-N7	6.00	113.20	110.80
36	1	3126	C	C4-C5-C6	6.00	120.40	117.40
1	6	356	G	C5-C6-O6	-6.00	125.00	128.60
1	6	867	G	N1-C6-O6	-6.00	116.30	119.90
1	6	1740	A	C4-C5-C6	6.00	120.00	117.00
36	5	3059	G	N1-C6-O6	-6.00	116.30	119.90
1	2	158	U	P-O3'-C3'	6.00	126.90	119.70
36	1	2202	C	N3-C2-O2	-6.00	117.70	121.90
36	1	2677	G	C5-N7-C8	-6.00	101.30	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2809	C	N1-C2-O2	-6.00	115.30	118.90
36	1	2863	G	C8-N9-C4	6.00	108.80	106.40
36	1	3320	A	C8-N9-C4	-6.00	103.40	105.80
37	3	25	G	N1-C2-N2	-6.00	110.80	116.20
1	6	884	A	C4-C5-N7	6.00	113.70	110.70
1	6	1478	G	N7-C8-N9	6.00	116.10	113.10
20	c8	131	LEU	CA-CB-CG	-6.00	101.50	115.30
36	5	102	C	C5-C6-N1	-6.00	118.00	121.00
36	5	1452	A	OP1-P-OP2	6.00	128.60	119.60
36	5	2243	A	C5-N7-C8	6.00	106.90	103.90
36	5	3173	G	N1-C2-N2	-6.00	110.80	116.20
37	7	29	C	C6-N1-C2	6.00	122.70	120.30
38	8	44	A	C6-C5-N7	-6.00	128.10	132.30
1	2	160	C	O5'-P-OP1	-6.00	100.30	105.70
1	2	1651	A	C5-C6-N1	-6.00	114.70	117.70
36	5	282	G	C2-N3-C4	-6.00	108.90	111.90
36	5	3045	G	N1-C2-N3	6.00	127.50	123.90
36	5	3307	A	C6-C5-N7	-6.00	128.10	132.30
38	8	116	G	C6-C5-N7	-6.00	126.80	130.40
1	2	1668	G	C8-N9-C4	6.00	108.80	106.40
36	1	59	G	C6-C5-N7	-6.00	126.80	130.40
36	1	425	G	C5-C6-O6	6.00	132.20	128.60
36	1	869	G	N1-C2-N3	6.00	127.50	123.90
36	5	596	C	C6-N1-C1'	6.00	128.00	120.80
36	5	1180	A	O4'-C1'-N9	-6.00	103.40	108.20
36	5	2635	A	N7-C8-N9	6.00	116.80	113.80
36	5	2715	A	N3-C4-C5	-6.00	122.60	126.80
36	5	3315	G	C6-N1-C2	-6.00	121.50	125.10
36	1	92	G	C5-N7-C8	-6.00	101.30	104.30
36	1	1820	U	P-O3'-C3'	6.00	126.89	119.70
36	1	2334	U	OP1-P-OP2	6.00	128.59	119.60
36	1	2754	G	N1-C2-N2	-6.00	110.80	116.20
36	1	2842	U	O5'-P-OP2	6.00	117.90	110.70
36	1	3305	A	C6-N1-C2	-6.00	115.00	118.60
1	6	1288	G	N7-C8-N9	-6.00	110.10	113.10
36	5	350	C	C5-C6-N1	6.00	124.00	121.00
36	5	518	G	C5-C6-O6	-6.00	125.00	128.60
36	5	588	G	C4-N9-C1'	6.00	134.29	126.50
36	5	595	G	N7-C8-N9	6.00	116.10	113.10
36	5	1783	U	N1-C2-N3	6.00	118.50	114.90
36	5	1793	C	N3-C2-O2	6.00	126.10	121.90
36	5	2164	A	C5-C6-N6	6.00	128.50	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2391	G	OP1-P-OP2	6.00	128.59	119.60
36	5	3088	G	C2-N3-C4	-6.00	108.90	111.90
36	5	3374	U	C2-N3-C4	-6.00	123.40	127.00
36	1	41	G	C4-N9-C1'	-6.00	118.71	126.50
36	1	1468	A	C2-N3-C4	-6.00	107.60	110.60
36	1	1838	G	C8-N9-C1'	-6.00	119.21	127.00
1	6	389	G	N1-C6-O6	6.00	123.50	119.90
9	s7	64	VAL	C-N-CD	6.00	140.99	128.40
36	5	1847	A	C4-N9-C1'	-6.00	115.51	126.30
36	5	2603	G	C6-C5-N7	-6.00	126.80	130.40
36	5	3185	U	N3-C4-O4	6.00	123.60	119.40
1	2	178	U	N3-C4-O4	5.99	123.60	119.40
1	2	1051	G	P-O3'-C3'	5.99	126.89	119.70
36	1	211	A	C5-C6-N6	5.99	128.50	123.70
36	1	624	G	N1-C2-N2	-5.99	110.81	116.20
36	1	1387	G	N3-C4-C5	-5.99	125.60	128.60
1	6	921	U	O5'-P-OP1	5.99	117.89	110.70
1	6	1504	G	N1-C2-N3	5.99	127.50	123.90
1	6	1778	G	N7-C8-N9	5.99	116.10	113.10
36	5	67	A	N1-C6-N6	-5.99	115.00	118.60
36	5	214	G	C6-C5-N7	5.99	134.00	130.40
36	5	586	C	C4-C5-C6	5.99	120.40	117.40
36	5	632	G	C4-N9-C1'	5.99	134.29	126.50
36	5	710	A	N7-C8-N9	5.99	116.80	113.80
36	5	980	A	C5-C6-N1	5.99	120.70	117.70
36	5	2145	A	N1-C2-N3	5.99	132.30	129.30
36	5	2305	G	N3-C4-N9	-5.99	122.40	126.00
36	5	2872	A	O4'-C1'-N9	-5.99	103.41	108.20
36	5	3003	G	C6-C5-N7	5.99	134.00	130.40
1	2	620	A	N3-C4-N9	-5.99	122.61	127.40
36	1	28	C	C2-N1-C1'	-5.99	112.21	118.80
36	1	935	U	C2-N1-C1'	5.99	124.89	117.70
36	1	1323	G	N1-C2-N3	5.99	127.50	123.90
36	1	3270	U	C2-N1-C1'	-5.99	110.51	117.70
37	3	112	G	N1-C6-O6	-5.99	116.31	119.90
1	6	307	G	N1-C2-N3	5.99	127.50	123.90
36	5	1305	U	C5-C6-N1	-5.99	119.70	122.70
36	5	1366	A	C6-N1-C2	-5.99	115.00	118.60
36	5	2129	U	OP1-P-OP2	5.99	128.59	119.60
36	5	2195	C	C5-C6-N1	-5.99	118.00	121.00
1	2	425	A	C5-C6-N1	5.99	120.70	117.70
36	1	182	U	O4'-C1'-N1	5.99	112.99	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	213	A	N9-C4-C5	-5.99	103.40	105.80
36	1	278	U	C5-C4-O4	5.99	129.49	125.90
36	1	500	C	C4-C5-C6	5.99	120.39	117.40
36	1	1460	A	C6-N1-C2	-5.99	115.01	118.60
36	1	2229	A	C5-C6-N6	-5.99	118.91	123.70
36	1	2618	G	C4-C5-N7	-5.99	108.40	110.80
36	1	2801	A	C4-C5-N7	5.99	113.69	110.70
1	6	179	A	N7-C8-N9	5.99	116.80	113.80
1	6	1047	G	N3-C4-N9	5.99	129.59	126.00
36	5	983	A	C2-N3-C4	-5.99	107.61	110.60
36	5	1137	C	N3-C4-C5	-5.99	119.50	121.90
36	5	1323	G	C6-N1-C2	-5.99	121.50	125.10
36	5	2247	G	O5'-P-OP2	5.99	117.89	110.70
36	5	2377	G	C8-N9-C1'	5.99	134.79	127.00
36	5	2937	G	C4-C5-N7	5.99	113.20	110.80
36	5	3078	U	N1-C1'-C2'	-5.99	105.41	112.00
36	5	3091	A	O5'-P-OP2	-5.99	100.31	105.70
36	1	102	C	C2-N1-C1'	5.99	125.39	118.80
36	1	667	C	N3-C4-C5	-5.99	119.50	121.90
36	1	1115	G	N3-C4-C5	-5.99	125.61	128.60
36	1	1529	A	C5-C6-N6	5.99	128.49	123.70
36	1	1877	U	N3-C4-C5	5.99	118.19	114.60
36	1	2185	G	N3-C4-N9	5.99	129.59	126.00
36	1	2727	A	N1-C2-N3	5.99	132.29	129.30
36	1	2866	U	C6-N1-C2	-5.99	117.41	121.00
36	1	3328	G	C6-C5-N7	-5.99	126.81	130.40
1	6	952	A	O5'-P-OP2	-5.99	100.31	105.70
36	5	292	U	N3-C2-O2	5.99	126.39	122.20
36	5	575	G	C6-N1-C2	-5.99	121.51	125.10
36	5	666	A	C4-C5-C6	5.99	119.99	117.00
36	5	697	A	N7-C8-N9	-5.99	110.81	113.80
41	14	141	ARG	NE-CZ-NH2	-5.99	117.31	120.30
1	2	534	A	C8-N9-C4	5.99	108.19	105.80
36	1	272	G	C8-N9-C1'	5.99	134.78	127.00
36	1	654	C	C2-N3-C4	-5.99	116.91	119.90
36	1	719	U	P-O3'-C3'	-5.99	112.52	119.70
1	6	323	A	C5-N7-C8	-5.99	100.91	103.90
1	6	417	A	C8-N9-C4	-5.99	103.41	105.80
36	5	1002	A	C2-N3-C4	-5.99	107.61	110.60
36	5	2678	A	N3-C4-N9	-5.99	122.61	127.40
1	2	555	A	N1-C6-N6	-5.99	115.01	118.60
36	1	375	A	O5'-P-OP2	-5.99	100.31	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	867	G	C4-N9-C1'	5.99	134.28	126.50
36	1	1338	C	N3-C4-C5	5.99	124.29	121.90
36	1	1431	G	N3-C4-C5	-5.99	125.61	128.60
36	1	1725	C	N1-C2-N3	5.99	123.39	119.20
36	1	2287	C	C2-N3-C4	-5.99	116.91	119.90
36	1	2652	U	N3-C2-O2	5.99	126.39	122.20
36	1	3163	A	N1-C6-N6	5.99	122.19	118.60
36	1	3393	U	N3-C2-O2	5.99	126.39	122.20
1	6	405	C	OP2-P-O3'	5.99	118.37	105.20
36	5	863	C	OP1-P-OP2	5.99	128.58	119.60
36	5	910	G	C5-N7-C8	-5.99	101.31	104.30
36	5	1942	U	N3-C2-O2	-5.99	118.01	122.20
36	1	712	G	C4-C5-N7	-5.98	108.41	110.80
36	1	1453	A	N3-C4-C5	-5.98	122.61	126.80
36	1	1553	U	N1-C2-N3	5.98	118.49	114.90
36	1	2728	G	C8-N9-C4	-5.98	104.01	106.40
37	3	58	C	N1-C2-O2	5.98	122.49	118.90
36	5	1465	A	C8-N9-C4	-5.98	103.41	105.80
36	5	2606	G	N3-C4-N9	-5.98	122.41	126.00
1	2	340	U	O5'-P-OP1	-5.98	100.31	105.70
36	1	145	G	C5-C6-O6	-5.98	125.01	128.60
36	1	398	A	C4-C5-C6	-5.98	114.01	117.00
36	1	639	G	C4-C5-N7	5.98	113.19	110.80
36	1	790	U	N1-C2-O2	-5.98	118.61	122.80
36	1	2238	G	C4-N9-C1'	-5.98	118.72	126.50
36	1	2856	G	OP2-P-O3'	5.98	118.36	105.20
36	1	2946	A	C4-C5-C6	5.98	119.99	117.00
1	6	1185	U	N1-C2-O2	5.98	126.99	122.80
1	6	1478	G	N1-C2-N2	-5.98	110.82	116.20
36	5	108	A	N1-C6-N6	-5.98	115.01	118.60
36	5	802	C	C5-C6-N1	-5.98	118.01	121.00
36	5	986	U	OP2-P-O3'	5.98	118.36	105.20
36	5	1358	C	C6-N1-C2	5.98	122.69	120.30
36	5	2872	A	C2-N3-C4	5.98	113.59	110.60
36	5	2988	C	C4-C5-C6	5.98	120.39	117.40
36	5	3176	G	N1-C2-N3	5.98	127.49	123.90
38	8	53	A	N1-C2-N3	5.98	132.29	129.30
1	2	598	U	N3-C4-O4	5.98	123.59	119.40
36	1	50	U	C2-N1-C1'	5.98	124.88	117.70
36	1	354	U	N1-C2-O2	5.98	126.99	122.80
36	1	364	G	O5'-P-OP1	-5.98	100.32	105.70
36	1	1050	U	O5'-P-OP1	-5.98	100.32	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1149	G	OP1-P-O3'	5.98	118.36	105.20
36	1	1208	U	C4-C5-C6	-5.98	116.11	119.70
36	1	1380	G	C8-N9-C4	5.98	108.79	106.40
36	1	1791	C	N1-C2-O2	-5.98	115.31	118.90
36	1	2526	C	C6-N1-C2	-5.98	117.91	120.30
36	1	2674	A	C8-N9-C4	-5.98	103.41	105.80
1	6	795	U	N3-C2-O2	-5.98	118.01	122.20
1	6	923	A	C8-N9-C4	-5.98	103.41	105.80
1	6	1558	U	O5'-P-OP1	-5.98	100.32	105.70
1	6	1615	C	C2-N1-C1'	-5.98	112.22	118.80
36	5	638	C	N1-C2-N3	5.98	123.39	119.20
36	5	921	A	OP2-P-O3'	5.98	118.36	105.20
36	5	2842	U	C5-C4-O4	-5.98	122.31	125.90
36	5	3132	C	C5-C6-N1	-5.98	118.01	121.00
36	5	3330	A	C4-C5-C6	5.98	119.99	117.00
37	7	80	G	N1-C2-N3	5.98	127.49	123.90
52	m6	58	LEU	CA-CB-CG	5.98	129.06	115.30
1	2	467	G	N1-C6-O6	-5.98	116.31	119.90
36	1	983	A	C4-C5-C6	5.98	119.99	117.00
36	1	2295	A	N9-C4-C5	5.98	108.19	105.80
36	1	3047	U	N3-C2-O2	-5.98	118.02	122.20
36	5	64	G	OP2-P-O3'	5.98	118.36	105.20
36	5	1502	C	C5-C4-N4	-5.98	116.02	120.20
36	5	2234	G	N7-C8-N9	-5.98	110.11	113.10
36	5	2542	U	O4'-C1'-N1	5.98	112.98	108.20
1	2	590	C	C5-C6-N1	5.98	123.99	121.00
1	2	870	C	N3-C2-O2	5.98	126.08	121.90
1	2	1086	A	C8-N9-C4	-5.98	103.41	105.80
36	1	699	A	C4-N9-C1'	-5.98	115.54	126.30
36	1	783	A	N9-C4-C5	-5.98	103.41	105.80
36	1	1111	U	N3-C4-C5	5.98	118.19	114.60
36	1	1749	A	C8-N9-C4	-5.98	103.41	105.80
36	1	2697	A	C5-C6-N1	5.98	120.69	117.70
36	1	2893	C	N3-C2-O2	-5.98	117.72	121.90
1	6	331	A	C4-C5-C6	5.98	119.99	117.00
1	6	569	C	N3-C4-C5	5.98	124.29	121.90
1	6	879	G	C4-C5-N7	5.98	113.19	110.80
36	5	182	U	O4'-C1'-N1	5.98	112.98	108.20
36	5	223	U	C5-C4-O4	5.98	129.49	125.90
36	5	531	G	N3-C4-C5	-5.98	125.61	128.60
36	5	900	G	O5'-P-OP2	-5.98	100.32	105.70
36	5	1277	C	C2-N1-C1'	5.98	125.38	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1770	G	N9-C4-C5	-5.98	103.01	105.40
36	5	2402	A	C6-N1-C2	-5.98	115.01	118.60
36	5	2805	G	C8-N9-C4	-5.98	104.01	106.40
36	5	3138	U	N3-C2-O2	5.98	126.38	122.20
36	5	3282	U	N1-C2-O2	5.98	126.98	122.80
36	1	1136	A	C8-N9-C4	5.98	108.19	105.80
36	1	2291	A	C4-C5-C6	5.98	119.99	117.00
36	1	3067	C	C6-N1-C2	5.98	122.69	120.30
1	6	1031	U	N3-C4-O4	-5.98	115.22	119.40
1	6	1381	U	O5'-P-OP1	-5.98	100.32	105.70
36	5	1122	U	N3-C2-O2	-5.98	118.02	122.20
37	7	56	A	C8-N9-C4	-5.98	103.41	105.80
76	q0	79	GLU	C-N-CD	-5.98	107.45	120.60
1	2	1128	C	N1-C2-O2	-5.97	115.32	118.90
1	2	1428	G	O5'-P-OP1	-5.97	100.32	105.70
36	1	827	A	N1-C6-N6	-5.97	115.02	118.60
64	N8	133	LEU	CA-CB-CG	5.97	129.04	115.30
70	O4	10	ARG	NE-CZ-NH1	-5.97	117.31	120.30
36	5	789	A	N1-C6-N6	-5.97	115.02	118.60
36	5	793	C	N1-C2-O2	-5.97	115.31	118.90
36	5	909	G	C4-C5-C6	5.97	122.39	118.80
36	5	1198	C	N1-C2-N3	5.97	123.38	119.20
36	5	2977	G	C8-N9-C4	-5.97	104.01	106.40
36	5	2977	G	N1-C6-O6	5.97	123.48	119.90
37	7	57	G	C4-C5-N7	5.97	113.19	110.80
68	o2	41	VAL	CB-CA-C	-5.97	100.05	111.40
1	2	820	U	C6-N1-C2	-5.97	117.42	121.00
36	1	2893	C	C5-C6-N1	-5.97	118.01	121.00
36	1	2901	G	N1-C6-O6	-5.97	116.32	119.90
1	6	1631	A	N1-C6-N6	5.97	122.18	118.60
1	6	1656	U	C5-C4-O4	-5.97	122.32	125.90
1	6	1794	A	C8-N9-C4	5.97	108.19	105.80
36	5	651	G	N1-C2-N3	5.97	127.48	123.90
36	5	2790	A	C8-N9-C4	5.97	108.19	105.80
36	5	182	U	C6-N1-C1'	5.97	129.56	121.20
36	5	2844	C	N3-C4-C5	-5.97	119.51	121.90
36	5	2932	U	C6-N1-C1'	5.97	129.56	121.20
1	2	1086	A	C2-N3-C4	5.97	113.58	110.60
36	1	19	U	C6-N1-C2	-5.97	117.42	121.00
36	1	497	C	N1-C2-O2	-5.97	115.32	118.90
36	1	813	G	N1-C2-N3	5.97	127.48	123.90
36	1	1121	U	O5'-P-OP2	-5.97	100.33	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1387	G	N1-C2-N2	-5.97	110.83	116.20
36	1	2705	A	C6-C5-N7	5.97	136.48	132.30
37	3	74	C	N1-C2-O2	5.97	122.48	118.90
1	6	432	G	C2-N3-C4	5.97	114.89	111.90
1	6	1331	A	C8-N9-C4	-5.97	103.41	105.80
1	6	1440	C	C4-C5-C6	-5.97	114.42	117.40
36	5	388	G	C8-N9-C4	-5.97	104.01	106.40
36	5	918	C	N3-C4-C5	-5.97	119.51	121.90
36	5	1044	U	C6-N1-C1'	5.97	129.56	121.20
36	5	1077	U	C6-N1-C2	5.97	124.58	121.00
36	5	2948	C	C2-N1-C1'	5.97	125.37	118.80
36	5	3294	A	C8-N9-C4	-5.97	103.41	105.80
56	n0	82	ASP	CB-CG-OD1	-5.97	112.93	118.30
1	2	1445	G	O4'-C1'-N9	5.97	112.97	108.20
36	1	344	A	N3-C4-C5	5.97	130.98	126.80
37	3	99	G	C4-C5-N7	-5.97	108.41	110.80
38	4	17	A	C4-C5-C6	5.97	119.98	117.00
36	5	515	C	O4'-C1'-N1	-5.97	103.43	108.20
36	5	698	U	N1-C2-O2	-5.97	118.62	122.80
36	5	1753	G	N7-C8-N9	-5.97	110.12	113.10
36	5	2362	C	O5'-P-OP1	-5.97	100.33	105.70
36	5	2601	A	C5-C6-N6	-5.97	118.92	123.70
37	7	3	U	C5-C6-N1	-5.97	119.72	122.70
1	2	1486	G	C5-C6-O6	-5.97	125.02	128.60
1	2	1546	G	N3-C4-C5	-5.97	125.62	128.60
1	2	1638	G	C8-N9-C4	-5.97	104.01	106.40
36	1	1726	C	C6-N1-C2	-5.97	117.91	120.30
36	1	2110	G	N3-C4-C5	-5.97	125.62	128.60
36	1	2408	U	C4-C5-C6	5.97	123.28	119.70
36	1	2792	A	O5'-P-OP1	5.97	117.86	110.70
36	1	2991	A	O5'-P-OP1	-5.97	100.33	105.70
38	4	125	U	N1-C2-O2	5.97	126.98	122.80
41	L4	190	GLY	N-CA-C	5.97	128.02	113.10
1	6	356	G	N3-C4-C5	-5.97	125.62	128.60
1	6	746	A	C4-C5-C6	5.97	119.98	117.00
1	6	984	G	C8-N9-C4	5.97	108.79	106.40
36	5	393	U	C5-C6-N1	5.97	125.68	122.70
36	5	668	G	C5-N7-C8	5.97	107.28	104.30
36	5	936	A	C2-N3-C4	-5.97	107.62	110.60
36	5	1481	A	N1-C2-N3	5.97	132.28	129.30
36	5	2416	U	N3-C2-O2	-5.97	118.02	122.20
36	5	3071	U	O5'-P-OP2	-5.97	100.33	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3090	U	O5'-P-OP2	-5.97	100.33	105.70
1	2	43	A	C8-N9-C4	-5.96	103.42	105.80
1	2	1031	U	OP2-P-O3'	5.96	118.32	105.20
1	2	1284	C	C2-N1-C1'	-5.96	112.24	118.80
36	1	50	U	N3-C4-O4	5.96	123.58	119.40
36	1	2823	G	N3-C4-N9	-5.96	122.42	126.00
36	1	3010	U	C4-C5-C6	-5.96	116.12	119.70
1	6	1305	U	N1-C2-O2	-5.96	118.62	122.80
1	6	1521	G	C5-C6-N1	5.96	114.48	111.50
36	5	360	G	C4-C5-N7	-5.96	108.41	110.80
36	5	1339	C	C4-C5-C6	-5.96	114.42	117.40
36	5	2199	G	N3-C4-C5	-5.96	125.62	128.60
36	5	2303	A	C6-C5-N7	-5.96	128.12	132.30
36	5	2864	A	O4'-C1'-N9	-5.96	103.43	108.20
36	1	98	G	C6-N1-C2	-5.96	121.52	125.10
36	1	1054	A	OP1-P-OP2	-5.96	110.66	119.60
36	1	1374	G	C8-N9-C4	-5.96	104.02	106.40
36	1	3363	U	OP1-P-O3'	5.96	118.32	105.20
1	6	41	A	C5-C6-N6	5.96	128.47	123.70
36	5	2840	C	N1-C2-O2	5.96	122.48	118.90
1	2	1241	G	N7-C8-N9	5.96	116.08	113.10
36	1	2166	A	OP2-P-O3'	5.96	118.31	105.20
36	1	3010	U	C6-N1-C2	-5.96	117.42	121.00
36	1	3093	C	O4'-C1'-N1	5.96	112.97	108.20
1	6	922	G	N3-C4-N9	5.96	129.58	126.00
36	5	568	G	C5-C6-N1	5.96	114.48	111.50
36	5	688	G	C4-C5-C6	5.96	122.38	118.80
36	5	773	G	N7-C8-N9	5.96	116.08	113.10
36	5	961	C	N3-C2-O2	-5.96	117.73	121.90
36	5	1178	G	C6-N1-C2	-5.96	121.52	125.10
36	5	1289	G	C6-N1-C2	-5.96	121.52	125.10
36	5	1429	G	C6-C5-N7	-5.96	126.82	130.40
36	5	1853	U	N3-C2-O2	5.96	126.37	122.20
36	5	2973	G	N1-C6-O6	5.96	123.48	119.90
36	5	3118	C	N3-C4-C5	-5.96	119.52	121.90
36	5	3315	G	N3-C4-C5	-5.96	125.62	128.60
36	1	96	G	N7-C8-N9	-5.96	110.12	113.10
37	3	65	G	O4'-C1'-N9	-5.96	103.43	108.20
1	6	877	G	N9-C1'-C2'	-5.96	105.44	112.00
1	6	962	C	N3-C2-O2	5.96	126.07	121.90
1	6	1331	A	N1-C6-N6	-5.96	115.02	118.60
1	6	1337	A	N3-C4-C5	5.96	130.97	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1774	G	O5'-P-OP1	-5.96	100.34	105.70
35	sM	167	PRO	N-CA-CB	5.96	110.45	103.30
36	5	2671	A	N1-C6-N6	5.96	122.18	118.60
36	5	3275	U	N1-C2-O2	5.96	126.97	122.80
36	1	23	A	O5'-P-OP1	5.96	117.85	110.70
36	1	1354	G	N9-C4-C5	-5.96	103.02	105.40
1	6	1123	C	N1-C2-O2	-5.96	115.33	118.90
1	6	1592	A	N9-C4-C5	5.96	108.18	105.80
36	5	939	U	OP2-P-O3'	5.96	118.31	105.20
36	5	1207	G	N9-C4-C5	-5.96	103.02	105.40
36	5	1327	C	N3-C4-N4	-5.96	113.83	118.00
36	5	2618	G	C6-N1-C2	-5.96	121.53	125.10
36	5	2624	G	N7-C8-N9	5.96	116.08	113.10
36	1	1619	A	C4-C5-C6	-5.96	114.02	117.00
36	1	1697	A	C8-N9-C4	-5.96	103.42	105.80
36	1	2886	U	N1-C2-O2	-5.96	118.63	122.80
36	1	3189	G	C2-N3-C4	5.96	114.88	111.90
1	6	971	A	N1-C6-N6	5.96	122.17	118.60
1	6	1020	A	N1-C6-N6	-5.96	115.03	118.60
36	5	2317	A	O5'-P-OP1	5.96	117.85	110.70
1	2	376	C	N3-C4-C5	-5.96	119.52	121.90
1	2	763	G	N1-C6-O6	5.96	123.47	119.90
1	2	1672	G	C8-N9-C4	5.96	108.78	106.40
36	1	1323	G	N1-C2-N2	-5.96	110.84	116.20
36	1	1519	G	N7-C8-N9	5.96	116.08	113.10
36	5	1620	U	C6-N1-C2	-5.96	117.43	121.00
1	2	17	C	N3-C4-C5	5.95	124.28	121.90
1	2	575	C	C4-C5-C6	-5.95	114.42	117.40
1	2	1180	C	C6-N1-C2	-5.95	117.92	120.30
36	1	231	G	N9-C4-C5	-5.95	103.02	105.40
36	1	293	C	N1-C2-O2	-5.95	115.33	118.90
36	1	651	G	C4-C5-N7	5.95	113.18	110.80
36	1	943	U	OP1-P-O3'	5.95	118.30	105.20
36	1	2315	G	N3-C4-C5	-5.95	125.62	128.60
36	1	2410	U	C6-N1-C2	-5.95	117.43	121.00
36	1	2694	A	OP1-P-OP2	5.95	128.53	119.60
36	1	3031	G	N1-C2-N2	5.95	121.56	116.20
1	6	322	G	C6-C5-N7	-5.95	126.83	130.40
1	6	419	G	C4-C5-C6	-5.95	115.23	118.80
36	5	383	G	C8-N9-C4	5.95	108.78	106.40
36	5	1927	G	O5'-P-OP1	5.95	117.84	110.70
36	5	2160	G	N1-C6-O6	5.95	123.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	133	G	C4-N9-C1'	-5.95	118.76	126.50
36	1	1050	U	N1-C2-N3	5.95	118.47	114.90
36	1	1405	U	C5-C4-O4	5.95	129.47	125.90
36	1	1440	G	C4-C5-N7	5.95	113.18	110.80
36	1	2801	A	O5'-P-OP2	-5.95	100.34	105.70
36	5	1080	A	C5-N7-C8	5.95	106.88	103.90
37	7	99	G	N7-C8-N9	-5.95	110.12	113.10
38	8	13	A	O5'-P-OP2	-5.95	100.34	105.70
36	1	354	U	C2-N1-C1'	5.95	124.84	117.70
36	1	761	A	C4-C5-N7	5.95	113.68	110.70
36	1	2376	G	OP2-P-O3'	5.95	118.29	105.20
36	1	2910	A	C8-N9-C4	-5.95	103.42	105.80
36	1	2939	G	N3-C4-N9	5.95	129.57	126.00
1	6	584	C	C5-C6-N1	-5.95	118.03	121.00
1	6	1594	G	C8-N9-C4	5.95	108.78	106.40
28	d6	51	ARG	NE-CZ-NH2	5.95	123.28	120.30
36	5	235	A	N3-C4-N9	-5.95	122.64	127.40
36	5	256	G	C6-C5-N7	-5.95	126.83	130.40
36	5	1139	G	N9-C4-C5	5.95	107.78	105.40
36	5	2889	C	C4-C5-C6	-5.95	114.42	117.40
36	5	3143	C	N3-C4-C5	-5.95	119.52	121.90
38	8	85	G	N1-C6-O6	5.95	123.47	119.90
36	1	287	G	C4-N9-C1'	5.95	134.23	126.50
36	1	1390	A	C5-C6-N6	-5.95	118.94	123.70
36	1	1501	U	C5-C4-O4	-5.95	122.33	125.90
36	1	2418	G	N1-C6-O6	-5.95	116.33	119.90
36	1	3034	C	N1-C2-O2	5.95	122.47	118.90
36	1	3227	A	OP2-P-O3'	5.95	118.29	105.20
73	O7	11	ARG	NE-CZ-NH1	-5.95	117.33	120.30
36	5	345	G	O5'-P-OP1	-5.95	100.35	105.70
36	5	1505	C	OP2-P-O3'	5.95	118.29	105.20
36	5	3015	G	C8-N9-C4	5.95	108.78	106.40
36	5	3393	U	N1-C2-O2	-5.95	118.64	122.80
36	1	2997	G	C5-C6-O6	-5.95	125.03	128.60
1	6	1103	U	C5-C6-N1	-5.95	119.73	122.70
1	6	1747	G	N9-C4-C5	-5.95	103.02	105.40
36	5	591	G	N7-C8-N9	-5.95	110.13	113.10
36	5	961	C	N3-C4-C5	-5.95	119.52	121.90
1	2	1514	U	N1-C2-O2	5.95	126.96	122.80
1	2	1793	G	N3-C4-C5	-5.95	125.63	128.60
36	1	1171	G	C6-N1-C2	-5.95	121.53	125.10
36	1	1635	G	C4-C5-C6	5.95	122.37	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2290	C	C6-N1-C2	5.95	122.68	120.30
36	1	3322	A	N9-C4-C5	-5.95	103.42	105.80
1	6	624	G	C5-N7-C8	-5.95	101.33	104.30
1	6	778	G	C5-C6-N1	5.95	114.47	111.50
1	6	1542	G	N7-C8-N9	-5.95	110.13	113.10
1	6	1547	A	C4-C5-N7	5.95	113.67	110.70
36	5	112	U	O4'-C1'-N1	5.95	112.96	108.20
36	5	369	A	N7-C8-N9	5.95	116.77	113.80
36	5	844	G	N9-C1'-C2'	-5.95	105.46	112.00
36	5	1483	G	N1-C6-O6	5.95	123.47	119.90
36	5	1489	A	C2-N3-C4	-5.95	107.63	110.60
36	5	2370	G	N9-C4-C5	5.95	107.78	105.40
38	8	14	C	N1-C2-O2	-5.95	115.33	118.90
38	8	139	U	N1-C2-N3	5.95	118.47	114.90
36	1	2642	A	N7-C8-N9	-5.94	110.83	113.80
36	5	875	G	OP1-P-OP2	5.94	128.51	119.60
36	5	1737	U	N3-C4-O4	5.94	123.56	119.40
1	2	386	G	OP1-P-O3'	5.94	118.27	105.20
1	2	1198	G	O5'-P-OP1	-5.94	100.35	105.70
36	1	407	A	C8-N9-C1'	-5.94	117.00	127.70
64	N8	42	ARG	NE-CZ-NH2	-5.94	117.33	120.30
1	6	798	C	C6-N1-C2	5.94	122.68	120.30
1	6	1025	A	OP1-P-OP2	-5.94	110.69	119.60
1	6	1420	C	N3-C4-C5	-5.94	119.52	121.90
36	5	2335	G	C5-C6-O6	5.94	132.16	128.60
38	8	21	C	C6-N1-C2	-5.94	117.92	120.30
1	2	26	A	C5-N7-C8	-5.94	100.93	103.90
36	1	1887	A	N7-C8-N9	-5.94	110.83	113.80
36	1	1901	A	N9-C4-C5	5.94	108.18	105.80
36	1	2518	C	N1-C2-O2	-5.94	115.34	118.90
36	1	3006	A	C5-C6-N1	-5.94	114.73	117.70
36	1	3193	C	N3-C4-N4	5.94	122.16	118.00
1	6	1063	U	N3-C4-O4	5.94	123.56	119.40
1	6	1138	A	N3-C4-C5	5.94	130.96	126.80
1	6	1277	G	C6-C5-N7	-5.94	126.84	130.40
1	6	1550	A	C5-C6-N1	5.94	120.67	117.70
36	5	36	C	O5'-P-OP2	5.94	117.83	110.70
36	5	132	C	C4-C5-C6	5.94	120.37	117.40
36	5	299	G	O5'-P-OP1	-5.94	100.35	105.70
36	5	395	A	N7-C8-N9	5.94	116.77	113.80
36	5	514	G	C5-C6-N1	5.94	114.47	111.50
36	5	858	A	C8-N9-C4	-5.94	103.42	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1017	C	C6-N1-C1'	-5.94	113.67	120.80
36	5	1181	U	C5-C6-N1	-5.94	119.73	122.70
36	5	2279	A	C5-C6-N6	-5.94	118.95	123.70
36	5	3309	G	N1-C2-N3	5.94	127.47	123.90
36	1	1544	G	N9-C4-C5	-5.94	103.02	105.40
36	1	1838	G	C4-C5-C6	5.94	122.36	118.80
36	1	2305	G	C4-C5-N7	-5.94	108.42	110.80
36	1	2371	G	C4-C5-C6	5.94	122.36	118.80
1	6	948	G	N1-C6-O6	5.94	123.46	119.90
1	6	1668	G	N1-C2-N3	5.94	127.46	123.90
36	5	2397	A	C6-C5-N7	-5.94	128.14	132.30
36	5	2522	G	N9-C4-C5	-5.94	103.03	105.40
1	2	55	A	C5-C6-N6	-5.94	118.95	123.70
1	2	346	G	C5-C6-O6	5.94	132.16	128.60
36	1	913	A	C5-C6-N6	-5.94	118.95	123.70
36	1	1386	A	C6-C5-N7	5.94	136.46	132.30
36	5	1095	U	C5-C6-N1	5.94	125.67	122.70
36	5	1310	G	C8-N9-C4	-5.94	104.03	106.40
36	5	2121	G	N7-C8-N9	5.94	116.07	113.10
36	5	2167	A	N9-C4-C5	5.94	108.17	105.80
36	5	2897	A	N3-C4-C5	-5.94	122.64	126.80
36	1	1443	G	C5-N7-C8	-5.94	101.33	104.30
1	6	542	A	P-O3'-C3'	5.94	126.82	119.70
1	6	631	G	N1-C6-O6	5.94	123.46	119.90
1	6	1563	C	N3-C4-C5	5.94	124.27	121.90
36	5	713	U	N1-C2-N3	5.94	118.46	114.90
36	5	1079	A	O5'-P-OP1	-5.94	100.36	105.70
36	5	2627	C	O4'-C1'-N1	-5.94	103.45	108.20
36	5	3102	G	N1-C2-N3	5.94	127.46	123.90
1	2	104	A	N3-C4-C5	-5.93	122.65	126.80
1	2	552	G	C6-C5-N7	-5.93	126.84	130.40
36	1	212	G	C4-C5-C6	5.93	122.36	118.80
36	1	287	G	C4-C5-C6	5.93	122.36	118.80
36	1	533	A	OP2-P-O3'	5.93	118.25	105.20
36	1	1133	A	C5-C6-N6	-5.93	118.95	123.70
36	1	1213	G	N1-C6-O6	5.93	123.46	119.90
36	1	1909	A	N3-C4-N9	-5.93	122.65	127.40
36	1	3384	U	O5'-P-OP1	-5.93	100.36	105.70
1	6	796	A	C8-N9-C4	5.93	108.17	105.80
1	6	1172	G	C5-N7-C8	5.93	107.27	104.30
1	6	1520	U	N3-C2-O2	5.93	126.36	122.20
36	5	898	U	C2-N3-C4	-5.93	123.44	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1083	G	C5-C6-N1	5.93	114.47	111.50
36	5	2892	A	C2-N3-C4	-5.93	107.63	110.60
36	5	2945	G	C5-N7-C8	-5.93	101.33	104.30
36	5	3024	A	N3-C4-N9	-5.93	122.65	127.40
36	5	3039	C	C5-C4-N4	-5.93	116.05	120.20
1	2	404	G	C5-C6-N1	5.93	114.47	111.50
1	2	1119	G	N1-C2-N2	-5.93	110.86	116.20
36	1	94	G	C5-C6-O6	-5.93	125.04	128.60
36	1	96	G	N3-C2-N2	-5.93	115.75	119.90
36	1	1545	A	C6-C5-N7	-5.93	128.15	132.30
36	1	2518	C	N3-C4-C5	-5.93	119.53	121.90
36	1	3208	G	C8-N9-C4	5.93	108.77	106.40
1	6	325	G	OP2-P-O3'	5.93	118.25	105.20
1	6	370	A	C4-C5-N7	-5.93	107.73	110.70
1	6	466	U	C4-C5-C6	5.93	123.26	119.70
36	5	1476	G	N1-C6-O6	5.93	123.46	119.90
36	5	1905	G	C5-C6-O6	5.93	132.16	128.60
36	5	2397	A	C5-C6-N1	-5.93	114.73	117.70
36	5	2786	G	N1-C2-N3	5.93	127.46	123.90
36	5	3328	G	C5-C6-O6	-5.93	125.04	128.60
37	7	5	G	C8-N9-C4	5.93	108.77	106.40
38	8	5	U	N3-C4-O4	5.93	123.55	119.40
1	2	1436	A	N9-C4-C5	-5.93	103.43	105.80
36	1	518	G	N1-C2-N2	5.93	121.54	116.20
36	1	1449	A	N3-C4-C5	-5.93	122.65	126.80
36	1	1550	C	N3-C2-O2	-5.93	117.75	121.90
36	1	2387	A	C6-N1-C2	-5.93	115.04	118.60
1	6	363	G	N3-C4-N9	5.93	129.56	126.00
1	6	908	U	N1-C2-O2	5.93	126.95	122.80
1	6	1504	G	N1-C2-N2	-5.93	110.86	116.20
1	6	1660	A	C4-C5-C6	5.93	119.97	117.00
36	5	377	A	N9-C4-C5	5.93	108.17	105.80
36	5	787	G	N3-C4-C5	5.93	131.56	128.60
36	5	998	A	C5-C6-N6	5.93	128.44	123.70
36	1	218	G	O5'-P-OP1	-5.93	100.36	105.70
36	1	273	A	N7-C8-N9	-5.93	110.83	113.80
36	1	979	U	O5'-P-OP2	-5.93	100.36	105.70
36	1	1446	A	N7-C8-N9	5.93	116.77	113.80
36	1	2443	A	N1-C6-N6	5.93	122.16	118.60
36	1	3093	C	C6-N1-C1'	5.93	127.92	120.80
61	N5	34	LEU	CA-CB-CG	5.93	128.94	115.30
1	6	66	U	P-O3'-C3'	5.93	126.82	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	619	A	N9-C4-C5	5.93	108.17	105.80
1	6	1282	U	N1-C2-O2	-5.93	118.65	122.80
36	5	23	A	N1-C6-N6	5.93	122.16	118.60
36	5	823	C	C6-N1-C2	5.93	122.67	120.30
36	5	1542	G	C8-N9-C4	-5.93	104.03	106.40
36	5	2831	G	C5-C6-N1	-5.93	108.54	111.50
36	5	3068	U	N3-C2-O2	-5.93	118.05	122.20
37	7	106	U	N3-C4-C5	5.93	118.16	114.60
1	2	152	U	N3-C4-O4	-5.93	115.25	119.40
36	1	2209	U	N1-C2-N3	-5.93	111.34	114.90
36	1	2703	A	C5-N7-C8	5.93	106.86	103.90
38	4	56	G	N3-C4-N9	5.93	129.56	126.00
1	6	317	C	C6-N1-C2	5.93	122.67	120.30
1	6	610	G	N3-C4-C5	-5.93	125.64	128.60
36	5	1573	G	N1-C6-O6	-5.93	116.34	119.90
1	2	1561	U	C2-N1-C1'	5.93	124.81	117.70
36	1	887	G	C5-N7-C8	5.93	107.26	104.30
36	1	1405	U	N3-C2-O2	-5.93	118.05	122.20
36	1	2199	G	C5-C6-O6	-5.93	125.04	128.60
36	1	2337	C	N3-C4-N4	-5.93	113.85	118.00
36	1	2622	C	N1-C2-O2	5.93	122.46	118.90
36	1	2707	C	C2-N1-C1'	5.93	125.32	118.80
38	4	150	G	N3-C4-N9	5.93	129.56	126.00
1	6	25	C	C6-N1-C2	5.93	122.67	120.30
1	6	1100	G	C2-N3-C4	-5.93	108.94	111.90
1	6	1372	U	C6-N1-C2	-5.93	117.44	121.00
1	6	1398	U	C5-C4-O4	5.93	129.46	125.90
25	d3	73	ARG	NE-CZ-NH1	-5.93	117.34	120.30
36	5	1140	G	N1-C6-O6	-5.93	116.34	119.90
36	5	1672	U	C2-N1-C1'	-5.93	110.59	117.70
36	5	2122	G	O5'-P-OP2	-5.93	100.37	105.70
36	5	3204	C	C2-N3-C4	-5.93	116.94	119.90
36	1	227	G	C6-C5-N7	-5.92	126.85	130.40
36	1	870	G	OP2-P-O3'	5.92	118.23	105.20
36	1	934	G	C5-N7-C8	-5.92	101.34	104.30
1	6	17	C	C6-N1-C2	-5.92	117.93	120.30
1	6	89	G	N3-C2-N2	-5.92	115.75	119.90
1	6	326	G	C8-N9-C1'	-5.92	119.30	127.00
36	5	787	G	N1-C6-O6	5.92	123.45	119.90
36	5	941	G	N1-C6-O6	-5.92	116.34	119.90
36	5	1313	G	C6-C5-N7	-5.92	126.84	130.40
36	5	2421	U	C2-N3-C4	-5.92	123.44	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2766	U	O5'-P-OP2	-5.92	100.37	105.70
36	5	2768	U	C5-C6-N1	-5.92	119.74	122.70
36	5	2839	G	C5-C6-O6	5.92	132.16	128.60
37	7	95	A	N1-C6-N6	5.92	122.16	118.60
64	n8	73	LEU	CA-CB-CG	5.92	128.93	115.30
1	2	730	G	C8-N9-C4	-5.92	104.03	106.40
36	1	197	G	OP2-P-O3'	5.92	118.23	105.20
1	6	397	A	C4-C5-N7	5.92	113.66	110.70
1	6	1284	C	N3-C4-N4	5.92	122.15	118.00
36	5	944	C	C5-C4-N4	5.92	124.35	120.20
36	5	3210	A	N1-C2-N3	5.92	132.26	129.30
1	2	21	U	C5-C4-O4	-5.92	122.35	125.90
36	1	943	U	OP1-P-OP2	5.92	128.48	119.60
36	1	2198	A	P-O5'-C5'	-5.92	111.42	120.90
36	1	2603	G	N1-C6-O6	5.92	123.45	119.90
36	1	2718	U	C5-C4-O4	-5.92	122.35	125.90
37	3	92	A	N3-C4-C5	5.92	130.94	126.80
1	6	209	U	C5-C4-O4	-5.92	122.35	125.90
1	6	964	U	C6-N1-C2	5.92	124.55	121.00
1	6	1121	C	C6-N1-C2	-5.92	117.93	120.30
1	6	1781	A	C6-C5-N7	-5.92	128.16	132.30
36	5	568	G	N3-C4-C5	-5.92	125.64	128.60
36	5	608	A	N9-C4-C5	-5.92	103.43	105.80
36	5	695	C	C6-N1-C1'	-5.92	113.69	120.80
36	5	940	G	OP2-P-O3'	5.92	118.23	105.20
36	5	1321	G	N1-C2-N2	5.92	121.53	116.20
36	5	1724	U	O4'-C1'-N1	5.92	112.94	108.20
36	5	2327	U	C2-N3-C4	-5.92	123.45	127.00
36	5	2872	A	C5-C6-N1	5.92	120.66	117.70
36	5	3029	A	C5-N7-C8	-5.92	100.94	103.90
36	1	591	G	C4-C5-C6	5.92	122.35	118.80
36	1	2650	U	C5-C4-O4	5.92	129.45	125.90
36	1	2663	G	C5-C6-N1	5.92	114.46	111.50
38	4	97	A	C6-N1-C2	-5.92	115.05	118.60
51	M5	73	ARG	NE-CZ-NH1	-5.92	117.34	120.30
1	6	109	G	O5'-P-OP1	5.92	117.80	110.70
36	5	155	G	C8-N9-C4	5.92	108.77	106.40
36	5	654	C	N3-C4-C5	-5.92	119.53	121.90
36	5	854	G	N3-C4-N9	-5.92	122.45	126.00
36	1	402	A	C6-C5-N7	-5.92	128.16	132.30
36	1	1937	U	N3-C4-O4	-5.92	115.26	119.40
37	3	102	A	C5-C6-N6	-5.92	118.97	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	946	U	C6-N1-C2	-5.92	117.45	121.00
1	6	1214	U	C5-C4-O4	-5.92	122.35	125.90
1	6	1750	A	C4-C5-C6	5.92	119.96	117.00
36	5	567	G	C2-N3-C4	-5.92	108.94	111.90
36	5	1014	U	N1-C2-O2	5.92	126.94	122.80
36	5	2108	C	N3-C4-C5	-5.92	119.53	121.90
36	5	2402	A	C2-N3-C4	-5.92	107.64	110.60
36	5	2797	C	N3-C4-C5	-5.92	119.53	121.90
36	5	3124	G	N1-C2-N3	5.92	127.45	123.90
36	5	3393	U	C6-N1-C1'	5.92	129.49	121.20
38	8	97	A	N1-C2-N3	5.92	132.26	129.30
45	l8	48	ARG	NE-CZ-NH1	-5.92	117.34	120.30
62	n6	126	LEU	CA-CB-CG	5.92	128.91	115.30
1	2	19	A	C4-C5-N7	5.92	113.66	110.70
1	2	542	A	N1-C2-N3	5.92	132.26	129.30
1	2	637	C	C2-N3-C4	5.92	122.86	119.90
36	1	1093	A	N1-C6-N6	-5.92	115.05	118.60
36	1	3336	A	C8-N9-C4	-5.92	103.43	105.80
37	3	56	A	N3-C4-C5	5.92	130.94	126.80
1	6	43	A	N1-C6-N6	5.92	122.15	118.60
1	6	298	C	N1-C2-O2	5.92	122.45	118.90
36	5	585	A	O5'-P-OP2	-5.92	100.37	105.70
36	5	1832	C	N1-C2-O2	-5.92	115.35	118.90
36	5	2225	U	C6-N1-C2	-5.92	117.45	121.00
36	5	2517	U	OP1-P-O3'	5.92	118.21	105.20
36	5	2624	G	N3-C4-N9	5.92	129.55	126.00
36	5	3061	G	C4-C5-N7	5.92	113.17	110.80
36	5	3323	A	N7-C8-N9	5.92	116.76	113.80
39	l2	237	LEU	CA-CB-CG	-5.92	101.69	115.30
36	1	281	G	O4'-C1'-N9	5.92	112.93	108.20
36	1	2797	C	C4-C5-C6	5.92	120.36	117.40
36	5	1487	G	C8-N9-C4	-5.92	104.03	106.40
36	5	2140	U	N3-C2-O2	-5.92	118.06	122.20
1	2	1556	A	N1-C6-N6	-5.91	115.05	118.60
36	1	967	A	C4-C5-C6	5.91	119.96	117.00
36	1	1386	A	C4-C5-N7	-5.91	107.74	110.70
36	1	1560	G	O5'-P-OP2	-5.91	100.38	105.70
36	1	1728	G	C4-C5-C6	5.91	122.35	118.80
36	1	2762	A	N3-C4-C5	-5.91	122.66	126.80
36	1	2937	G	N1-C2-N2	5.91	121.52	116.20
36	1	3147	G	N7-C8-N9	-5.91	110.14	113.10
1	6	1117	U	O5'-P-OP2	-5.91	100.38	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1548	G	C8-N9-C4	5.91	108.77	106.40
1	6	1572	G	C5-C6-O6	-5.91	125.05	128.60
36	5	781	G	C8-N9-C4	-5.91	104.03	106.40
36	5	1073	U	N1-C2-O2	5.91	126.94	122.80
36	5	1195	A	N7-C8-N9	5.91	116.76	113.80
36	5	1344	G	N3-C4-C5	5.91	131.56	128.60
36	5	1383	G	C4-C5-C6	5.91	122.35	118.80
36	5	1465	A	C5-C6-N6	-5.91	118.97	123.70
36	5	2146	C	O5'-P-OP2	-5.91	100.38	105.70
36	5	2903	A	O5'-P-OP1	5.91	117.80	110.70
37	7	25	G	C6-N1-C2	-5.91	121.55	125.10
38	8	102	U	N3-C2-O2	-5.91	118.06	122.20
36	1	1323	G	C4-C5-C6	5.91	122.35	118.80
36	1	3020	U	C5-C6-N1	5.91	125.66	122.70
1	6	799	A	C2-N3-C4	-5.91	107.64	110.60
36	5	365	A	C6-C5-N7	-5.91	128.16	132.30
36	5	1302	A	C8-N9-C4	-5.91	103.44	105.80
36	5	2851	A	C5-N7-C8	5.91	106.86	103.90
36	5	3331	U	N3-C4-O4	5.91	123.54	119.40
1	2	1641	C	C5-C6-N1	-5.91	118.05	121.00
36	1	372	A	C6-N1-C2	-5.91	115.05	118.60
36	1	714	G	C4-N9-C1'	5.91	134.19	126.50
36	1	874	U	OP1-P-OP2	-5.91	110.73	119.60
36	1	1463	U	N1-C2-N3	5.91	118.45	114.90
36	1	2174	G	C8-N9-C4	-5.91	104.03	106.40
36	1	2303	A	C6-N1-C2	-5.91	115.05	118.60
36	1	2355	G	C5-C6-N1	-5.91	108.54	111.50
36	1	2722	U	C2-N1-C1'	5.91	124.79	117.70
36	1	3219	G	C8-N9-C1'	-5.91	119.31	127.00
37	3	17	A	N9-C4-C5	5.91	108.16	105.80
1	6	50	C	OP1-P-OP2	-5.91	110.73	119.60
1	6	1484	G	C2-N3-C4	5.91	114.86	111.90
36	5	51	A	C5-N7-C8	-5.91	100.94	103.90
36	5	660	A	C5-N7-C8	5.91	106.86	103.90
36	5	938	C	N3-C2-O2	5.91	126.04	121.90
36	5	2409	G	C6-C5-N7	-5.91	126.85	130.40
36	5	2548	C	C6-N1-C2	-5.91	117.94	120.30
36	5	2674	A	N7-C8-N9	-5.91	110.84	113.80
36	5	2920	U	C4-C5-C6	-5.91	116.15	119.70
36	1	189	G	C6-N1-C2	-5.91	121.55	125.10
36	1	225	C	N3-C2-O2	-5.91	117.77	121.90
36	1	405	U	N3-C4-C5	-5.91	111.06	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	633	C	N3-C2-O2	-5.91	117.76	121.90
36	1	1099	A	C4-C5-C6	5.91	119.95	117.00
36	1	1111	U	N3-C4-O4	-5.91	115.27	119.40
36	1	1378	U	C5-C4-O4	-5.91	122.36	125.90
36	1	1419	A	C5'-C4'-O4'	5.91	116.19	109.10
1	6	1180	C	N3-C4-N4	5.91	122.14	118.00
1	6	1264	G	N3-C4-C5	5.91	131.55	128.60
1	6	1542	G	N1-C2-N3	5.91	127.44	123.90
36	5	61	A	C5-N7-C8	5.91	106.86	103.90
36	5	1126	G	C2-N3-C4	-5.91	108.95	111.90
36	5	2978	U	O5'-P-OP1	5.91	117.79	110.70
37	7	60	G	O4'-C1'-N9	5.91	112.93	108.20
38	8	1	A	N3-C4-C5	-5.91	122.66	126.80
36	1	366	A	N9-C4-C5	5.91	108.16	105.80
36	1	1909	A	N3-C4-C5	5.91	130.94	126.80
36	1	2908	G	C5-C6-O6	-5.91	125.06	128.60
1	6	1753	A	C8-N9-C1'	-5.91	117.07	127.70
36	5	848	A	N7-C8-N9	5.91	116.75	113.80
1	2	1432	U	O4'-C1'-N1	5.91	112.92	108.20
1	2	1591	C	C5-C4-N4	5.91	124.33	120.20
1	2	1613	U	N3-C2-O2	-5.91	118.07	122.20
36	1	511	G	C5-C6-O6	-5.91	125.06	128.60
36	1	595	G	C4-C5-C6	5.91	122.34	118.80
36	1	595	G	N3-C4-N9	5.91	129.54	126.00
36	1	856	G	N1-C2-N2	-5.91	110.88	116.20
36	1	932	U	N3-C4-O4	-5.91	115.27	119.40
36	1	1157	G	C4-C5-C6	5.91	122.34	118.80
36	1	2443	A	C5-C6-N6	-5.91	118.97	123.70
36	1	2560	C	C6-N1-C2	-5.91	117.94	120.30
1	6	175	G	C8-N9-C1'	-5.91	119.32	127.00
1	6	603	U	O5'-P-OP1	-5.91	100.39	105.70
1	6	971	A	C4-C5-N7	5.91	113.65	110.70
1	6	1389	C	C6-N1-C2	-5.91	117.94	120.30
1	6	1645	G	N1-C2-N3	-5.91	120.36	123.90
36	5	94	G	C8-N9-C1'	5.91	134.68	127.00
36	5	1372	C	O5'-P-OP1	5.91	117.79	110.70
36	5	1653	G	C4-C5-N7	-5.91	108.44	110.80
36	5	2953	U	N1-C2-O2	-5.91	118.67	122.80
36	5	3260	G	N1-C2-N3	5.91	127.44	123.90
1	2	280	U	P-O3'-C3'	5.90	126.78	119.70
36	1	1525	G	N3-C4-C5	-5.90	125.65	128.60
36	1	1755	C	C5-C6-N1	5.90	123.95	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2731	U	OP2-P-O3'	5.90	118.19	105.20
36	1	3295	A	N1-C6-N6	-5.90	115.06	118.60
1	2	332	U	C6-N1-C2	5.90	124.54	121.00
1	2	1789	G	N1-C6-O6	5.90	123.44	119.90
36	1	375	A	C5-C6-N6	-5.90	118.98	123.70
36	1	517	G	C5-N7-C8	-5.90	101.35	104.30
36	1	989	A	C4-C5-C6	-5.90	114.05	117.00
36	1	1065	A	N1-C6-N6	-5.90	115.06	118.60
36	1	1147	G	C6-N1-C2	-5.90	121.56	125.10
36	1	1510	G	N3-C4-C5	-5.90	125.65	128.60
36	1	1789	G	C2-N3-C4	5.90	114.85	111.90
36	1	1900	A	C8-N9-C4	5.90	108.16	105.80
36	1	2623	G	C5-C6-N1	-5.90	108.55	111.50
36	1	2669	G	C6-C5-N7	5.90	133.94	130.40
38	4	53	A	N1-C6-N6	-5.90	115.06	118.60
52	M6	58	LEU	CA-CB-CG	5.90	128.87	115.30
1	6	310	C	N1-C2-N3	-5.90	115.07	119.20
1	6	576	G	C4-C5-C6	5.90	122.34	118.80
1	6	1518	C	O5'-P-OP1	-5.90	100.39	105.70
36	5	952	A	C5-C6-N6	5.90	128.42	123.70
36	5	1343	A	O5'-P-OP2	-5.90	100.39	105.70
36	5	2197	C	N3-C4-C5	5.90	124.26	121.90
36	5	2397	A	N7-C8-N9	5.90	116.75	113.80
36	5	2618	G	OP1-P-OP2	5.90	128.46	119.60
1	2	766	U	N1-C2-O2	5.90	126.93	122.80
36	1	53	G	C4-N9-C1'	5.90	134.17	126.50
36	1	146	U	C6-N1-C2	-5.90	117.46	121.00
36	1	1311	G	N3-C2-N2	-5.90	115.77	119.90
36	1	1718	G	N3-C4-N9	-5.90	122.46	126.00
36	1	2646	C	O5'-P-OP1	5.90	117.78	110.70
1	6	295	A	C8-N9-C4	5.90	108.16	105.80
1	6	453	U	C5-C6-N1	5.90	125.65	122.70
36	5	770	G	C8-N9-C4	-5.90	104.04	106.40
36	5	975	C	N1-C2-O2	-5.90	115.36	118.90
36	5	1322	U	C5-C4-O4	-5.90	122.36	125.90
36	5	1389	G	N1-C2-N2	-5.90	110.89	116.20
36	5	1395	G	O5'-P-OP1	-5.90	100.39	105.70
36	5	2165	G	C5-C6-O6	-5.90	125.06	128.60
36	5	2826	U	C2-N3-C4	-5.90	123.46	127.00
36	5	3117	C	C2-N1-C1'	5.90	125.29	118.80
1	2	937	C	C6-N1-C2	-5.90	117.94	120.30
1	2	1539	G	N1-C6-O6	5.90	123.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2392	C	N3-C4-C5	5.90	124.26	121.90
36	1	2794	G	C8-N9-C4	-5.90	104.04	106.40
36	1	2939	G	C2-N3-C4	5.90	114.85	111.90
37	3	2	G	O5'-P-OP1	-5.90	100.39	105.70
36	5	613	G	N3-C4-N9	-5.90	122.46	126.00
36	5	923	C	C5-C6-N1	-5.90	118.05	121.00
36	5	2549	G	C8-N9-C4	-5.90	104.04	106.40
36	5	2922	G	N9-C4-C5	5.90	107.76	105.40
36	5	3314	A	C6-C5-N7	-5.90	128.17	132.30
1	2	1768	G	N3-C4-C5	-5.90	125.65	128.60
36	1	105	C	C5-C6-N1	-5.90	118.05	121.00
36	1	613	G	C4-C5-N7	5.90	113.16	110.80
36	1	2949	U	C4-C5-C6	5.90	123.24	119.70
36	1	3177	G	C5-C6-N1	5.90	114.45	111.50
36	1	3285	C	N1-C2-O2	5.90	122.44	118.90
38	4	56	G	N1-C2-N2	-5.90	110.89	116.20
1	6	1130	G	C6-N1-C2	-5.90	121.56	125.10
36	5	290	G	O5'-P-OP1	-5.90	100.39	105.70
36	5	1307	G	O4'-C1'-N9	5.90	112.92	108.20
36	5	3219	G	N9-C4-C5	5.90	107.76	105.40
47	m0	156	ARG	NE-CZ-NH1	5.90	123.25	120.30
1	2	1409	G	N1-C6-O6	5.90	123.44	119.90
36	1	609	G	C8-N9-C4	5.90	108.76	106.40
36	1	1381	A	N1-C2-N3	5.90	132.25	129.30
38	4	109	A	C5-N7-C8	-5.90	100.95	103.90
1	6	154	G	C4-C5-N7	5.90	113.16	110.80
1	6	919	A	C5-C6-N6	-5.90	118.98	123.70
36	5	658	G	C6-C5-N7	-5.90	126.86	130.40
36	5	1379	G	O4'-C1'-N9	-5.90	103.48	108.20
36	5	1712	G	C5-C6-O6	5.90	132.14	128.60
36	5	1905	G	N7-C8-N9	-5.90	110.15	113.10
36	5	2285	C	C5-C4-N4	5.90	124.33	120.20
38	8	38	U	N3-C4-O4	-5.90	115.27	119.40
1	2	972	G	N1-C6-O6	5.89	123.44	119.90
1	2	1582	U	C5-C4-O4	-5.89	122.36	125.90
36	1	839	C	N3-C4-C5	5.89	124.26	121.90
36	1	1077	U	C2-N3-C4	-5.89	123.46	127.00
36	1	1362	G	C6-C5-N7	5.89	133.94	130.40
36	1	2165	G	N1-C6-O6	5.89	123.44	119.90
36	1	2372	A	N3-C4-N9	5.89	132.12	127.40
36	1	2619	G	OP1-P-O3'	5.89	118.17	105.20
36	1	3213	A	C6-C5-N7	-5.89	128.17	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1789	G	C8-N9-C1'	-5.89	119.34	127.00
36	5	52	A	OP1-P-OP2	5.89	128.44	119.60
36	5	695	C	N3-C4-C5	5.89	124.26	121.90
36	5	1319	G	N7-C8-N9	-5.89	110.15	113.10
36	5	2264	U	OP1-P-OP2	-5.89	110.76	119.60
1	2	311	U	C2-N1-C1'	5.89	124.77	117.70
36	1	415	G	C6-C5-N7	-5.89	126.86	130.40
36	1	421	G	C2-N3-C4	5.89	114.85	111.90
36	1	1005	G	C6-C5-N7	5.89	133.94	130.40
36	1	2093	A	C5-C6-N1	5.89	120.65	117.70
52	M6	78	ARG	NE-CZ-NH2	-5.89	117.35	120.30
1	6	371	G	C5-C6-N1	-5.89	108.55	111.50
1	6	1622	G	C5-N7-C8	-5.89	101.35	104.30
36	5	632	G	N3-C4-N9	5.89	129.53	126.00
36	5	1404	G	C4-C5-N7	5.89	113.16	110.80
36	5	1886	A	N1-C6-N6	-5.89	115.06	118.60
36	5	2827	U	C2-N3-C4	5.89	130.54	127.00
36	5	3344	A	N1-C6-N6	-5.89	115.06	118.60
36	1	1005	G	C5-C6-O6	5.89	132.13	128.60
36	1	2238	G	N1-C2-N2	5.89	121.50	116.20
36	1	2721	A	N7-C8-N9	5.89	116.75	113.80
36	1	2860	U	N1-C2-O2	5.89	126.92	122.80
1	6	1463	C	C2-N1-C1'	-5.89	112.32	118.80
1	6	1673	G	C5-C6-O6	-5.89	125.06	128.60
36	5	939	U	O5'-P-OP1	5.89	117.77	110.70
36	5	1120	A	OP1-P-O3'	-5.89	92.24	105.20
36	5	1166	G	N7-C8-N9	5.89	116.05	113.10
36	5	1475	A	N1-C2-N3	5.89	132.25	129.30
1	2	1389	C	N1-C2-O2	5.89	122.43	118.90
36	1	27	C	OP1-P-OP2	5.89	128.44	119.60
36	1	754	G	N3-C4-C5	5.89	131.54	128.60
36	1	1423	C	C6-N1-C2	-5.89	117.94	120.30
36	1	2371	G	C4-N9-C1'	5.89	134.16	126.50
36	1	2979	U	OP2-P-O3'	5.89	118.16	105.20
1	6	301	A	C6-N1-C2	-5.89	115.07	118.60
1	6	565	C	C5-C6-N1	-5.89	118.06	121.00
1	6	1395	G	C5-C6-O6	-5.89	125.07	128.60
36	5	783	A	C5-C6-N6	-5.89	118.99	123.70
36	5	812	G	N1-C2-N3	5.89	127.43	123.90
36	5	852	U	N1-C2-O2	5.89	126.92	122.80
36	5	1114	U	C2-N3-C4	5.89	130.53	127.00
36	5	2149	A	N3-C4-C5	5.89	130.92	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2316	G	C5-C6-O6	5.89	132.13	128.60
36	5	2616	C	N1-C2-N3	5.89	123.32	119.20
36	5	3200	G	N7-C8-N9	5.89	116.04	113.10
72	o6	45	ARG	NE-CZ-NH1	5.89	123.25	120.30
1	2	103	A	C6-C5-N7	-5.89	128.18	132.30
36	1	780	A	N7-C8-N9	5.89	116.74	113.80
36	1	1304	A	N1-C6-N6	-5.89	115.07	118.60
1	6	22	A	N7-C8-N9	5.89	116.74	113.80
1	6	156	A	C2-N3-C4	-5.89	107.66	110.60
36	5	2287	C	N1-C2-N3	5.89	123.32	119.20
36	5	2688	U	C5-C4-O4	-5.89	122.37	125.90
36	5	2927	C	N3-C4-C5	5.89	124.25	121.90
1	2	1598	U	N1-C2-O2	-5.89	118.68	122.80
36	1	290	G	C5-C6-O6	-5.89	125.07	128.60
36	1	1728	G	C8-N9-C1'	-5.89	119.35	127.00
36	1	2651	G	C8-N9-C4	5.89	108.75	106.40
36	1	3088	G	C5-N7-C8	5.89	107.24	104.30
36	1	3260	G	N1-C2-N3	5.89	127.43	123.90
1	6	95	G	C5-C6-O6	5.89	132.13	128.60
1	6	545	A	N1-C6-N6	-5.89	115.07	118.60
36	5	2247	G	C5-C6-N1	5.89	114.44	111.50
36	5	2282	U	P-O5'-C5'	-5.89	111.48	120.90
36	5	3380	U	N3-C4-C5	-5.89	111.07	114.60
38	8	2	A	N7-C8-N9	5.89	116.74	113.80
1	2	449	C	C6-N1-C1'	5.88	127.86	120.80
1	2	1015	U	C5-C6-N1	-5.88	119.76	122.70
1	2	1503	A	N1-C6-N6	5.88	122.13	118.60
1	2	1671	A	C8-N9-C4	5.88	108.15	105.80
1	2	1793	G	N3-C4-N9	5.88	129.53	126.00
36	1	197	G	C6-C5-N7	-5.88	126.87	130.40
36	1	610	G	C6-C5-N7	-5.88	126.87	130.40
36	1	1794	G	N7-C8-N9	-5.88	110.16	113.10
37	3	30	G	N3-C4-N9	5.88	129.53	126.00
1	6	1671	A	N9-C4-C5	5.88	108.15	105.80
36	5	647	A	C5-C6-N1	-5.88	114.76	117.70
36	5	820	A	N1-C2-N3	5.88	132.24	129.30
36	5	971	G	C5-N7-C8	5.88	107.24	104.30
36	5	1154	A	N9-C4-C5	5.88	108.15	105.80
36	5	2971	A	C5-C6-N6	5.88	128.41	123.70
1	2	1739	C	C6-N1-C2	5.88	122.65	120.30
36	1	2866	U	C2-N3-C4	-5.88	123.47	127.00
37	3	30	G	OP1-P-O3'	5.88	118.14	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1316	C	C4-C5-C6	5.88	120.34	117.40
36	5	1839	A	O5'-P-OP2	5.88	117.76	110.70
36	5	1906	G	O5'-P-OP2	-5.88	100.41	105.70
36	5	2832	C	O5'-P-OP1	-5.88	100.41	105.70
36	5	2977	G	C6-C5-N7	-5.88	126.87	130.40
1	2	1431	C	C6-N1-C1'	-5.88	113.74	120.80
36	1	419	G	N1-C2-N2	-5.88	110.91	116.20
36	1	601	U	C2-N1-C1'	5.88	124.76	117.70
36	1	669	U	C5-C4-O4	-5.88	122.37	125.90
36	1	2102	U	C5-C6-N1	-5.88	119.76	122.70
36	1	2554	A	N1-C6-N6	-5.88	115.07	118.60
36	1	2829	U	C5-C4-O4	5.88	129.43	125.90
1	6	926	A	C2-N3-C4	-5.88	107.66	110.60
1	6	972	G	C4-C5-C6	5.88	122.33	118.80
1	6	1110	G	C6-C5-N7	-5.88	126.87	130.40
36	5	2518	C	C5-C4-N4	-5.88	116.08	120.20
36	5	3062	G	C6-C5-N7	-5.88	126.87	130.40
36	5	3188	G	C4-N9-C1'	5.88	134.15	126.50
36	5	3228	C	P-O3'-C3'	5.88	126.76	119.70
36	1	1604	G	C8-N9-C1'	-5.88	119.36	127.00
36	1	2633	U	N3-C4-C5	-5.88	111.07	114.60
36	5	2403	G	OP1-P-O3'	5.88	118.14	105.20
36	5	2630	C	N1-C2-O2	5.88	122.43	118.90
36	5	3309	G	OP1-P-OP2	-5.88	110.78	119.60
1	2	392	G	C5-C6-O6	-5.88	125.07	128.60
36	1	941	G	C5-N7-C8	5.88	107.24	104.30
36	1	1313	G	C2-N3-C4	-5.88	108.96	111.90
36	1	1385	C	N1-C2-O2	-5.88	115.37	118.90
36	1	1592	G	C8-N9-C1'	-5.88	119.36	127.00
36	1	2820	A	OP1-P-OP2	-5.88	110.78	119.60
36	1	3353	G	OP2-P-O3'	5.88	118.13	105.20
1	6	34	G	C2-N3-C4	-5.88	108.96	111.90
1	6	670	U	N3-C2-O2	-5.88	118.08	122.20
1	6	1786	G	OP2-P-O3'	5.88	118.13	105.20
36	5	294	U	C2-N1-C1'	-5.88	110.64	117.70
36	5	978	G	C8-N9-C1'	5.88	134.64	127.00
36	5	1875	G	N3-C4-C5	5.88	131.54	128.60
36	5	3003	G	N1-C6-O6	-5.88	116.37	119.90
1	2	1498	G	C4-N9-C1'	5.88	134.14	126.50
36	1	609	G	C4-C5-C6	5.88	122.33	118.80
36	1	1443	G	C2-N3-C4	-5.88	108.96	111.90
36	1	1499	C	C2-N3-C4	5.88	122.84	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	755	A	C6-C5-N7	-5.88	128.19	132.30
1	6	1445	G	N1-C6-O6	5.88	123.43	119.90
36	5	68	C	C5-C6-N1	5.88	123.94	121.00
36	5	1286	A	N7-C8-N9	-5.88	110.86	113.80
36	5	1304	A	C6-N1-C2	-5.88	115.07	118.60
36	5	1322	U	O5'-P-OP2	5.88	117.75	110.70
36	5	1729	A	O4'-C1'-N9	-5.88	103.50	108.20
36	5	2201	G	C8-N9-C4	5.88	108.75	106.40
36	5	2792	A	N7-C8-N9	5.88	116.74	113.80
36	5	3197	G	OP1-P-OP2	-5.88	110.79	119.60
1	2	1651	A	C2-N3-C4	-5.88	107.66	110.60
36	1	624	G	N3-C4-N9	5.88	129.53	126.00
36	1	2132	C	O5'-P-OP2	-5.88	100.41	105.70
36	1	2984	C	N1-C2-N3	5.88	123.31	119.20
36	1	3210	A	N9-C4-C5	5.88	108.15	105.80
36	1	3295	A	C5-C6-N6	5.88	128.40	123.70
37	3	117	A	C2-N3-C4	-5.88	107.66	110.60
38	4	41	A	C5-C6-N1	5.88	120.64	117.70
36	5	1906	G	O4'-C1'-N9	-5.88	103.50	108.20
36	5	2877	G	N3-C2-N2	5.88	124.01	119.90
36	5	3060	C	N3-C4-N4	5.88	122.11	118.00
1	2	1358	G	N7-C8-N9	-5.87	110.16	113.10
1	2	1430	U	N3-C4-C5	-5.87	111.08	114.60
36	1	727	G	C6-N1-C2	-5.87	121.58	125.10
36	1	1446	A	C4-C5-C6	5.87	119.94	117.00
36	1	1610	G	C5-C6-N1	-5.87	108.56	111.50
36	1	2366	C	N3-C4-C5	5.87	124.25	121.90
36	1	2960	C	N1-C2-N3	5.87	123.31	119.20
36	1	3056	U	N3-C2-O2	5.87	126.31	122.20
1	6	440	U	N1-C2-N3	5.87	118.42	114.90
1	6	1002	G	C5-C6-N1	5.87	114.44	111.50
1	6	1786	G	C5-C6-O6	5.87	132.12	128.60
36	5	339	C	O5'-P-OP2	-5.87	100.41	105.70
36	5	656	A	N1-C6-N6	5.87	122.12	118.60
36	5	2642	A	N1-C6-N6	5.87	122.12	118.60
36	5	3150	A	N9-C4-C5	-5.87	103.45	105.80
1	2	25	C	C2-N3-C4	-5.87	116.96	119.90
1	2	191	C	C6-N1-C1'	5.87	127.84	120.80
1	2	1290	U	O4'-C1'-N1	5.87	112.90	108.20
36	1	715	A	C5-N7-C8	-5.87	100.96	103.90
36	1	1065	A	C6-N1-C2	-5.87	115.08	118.60
36	1	1296	C	O5'-P-OP1	5.87	117.75	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2384	A	N3-C4-C5	-5.87	122.69	126.80
36	1	2738	A	N7-C8-N9	5.87	116.73	113.80
36	1	3388	C	N3-C2-O2	-5.87	117.79	121.90
1	6	1615	C	N1-C2-O2	-5.87	115.38	118.90
36	5	1143	A	C5-N7-C8	-5.87	100.96	103.90
36	5	3330	A	N3-C4-N9	5.87	132.10	127.40
36	5	3361	G	C5-C6-O6	-5.87	125.08	128.60
36	1	670	C	C6-N1-C2	5.87	122.65	120.30
36	1	916	G	N9-C4-C5	5.87	107.75	105.40
36	1	1345	G	C5-N7-C8	-5.87	101.36	104.30
1	6	1125	A	OP1-P-OP2	5.87	128.41	119.60
4	s2	233	GLN	C-N-CD	5.87	140.73	128.40
13	c1	5	LEU	CA-CB-CG	5.87	128.80	115.30
36	5	101	G	N1-C6-O6	5.87	123.42	119.90
36	5	1345	G	N3-C4-C5	5.87	131.53	128.60
36	5	2407	C	C5-C6-N1	5.87	123.94	121.00
1	2	548	G	N7-C8-N9	5.87	116.03	113.10
1	2	797	G	N3-C4-C5	5.87	131.53	128.60
36	1	129	U	N3-C4-O4	5.87	123.51	119.40
36	1	1405	U	N3-C4-C5	5.87	118.12	114.60
36	1	1466	G	C4-N9-C1'	5.87	134.13	126.50
36	1	2614	G	C6-N1-C2	-5.87	121.58	125.10
36	1	2729	U	C6-N1-C2	5.87	124.52	121.00
36	1	3143	C	C6-N1-C1'	-5.87	113.76	120.80
1	6	297	U	C5-C6-N1	5.87	125.63	122.70
1	6	773	C	O5'-P-OP2	-5.87	100.42	105.70
1	6	887	A	C5-C6-N1	-5.87	114.77	117.70
1	6	1567	U	C2-N1-C1'	5.87	124.74	117.70
1	6	1637	C	O4'-C1'-N1	-5.87	103.50	108.20
36	5	882	A	P-O3'-C3'	5.87	126.74	119.70
36	5	1313	G	C2-N3-C4	5.87	114.83	111.90
36	5	1615	C	C5-C4-N4	5.87	124.31	120.20
36	5	2917	G	C5-N7-C8	-5.87	101.36	104.30
36	5	3146	G	C8-N9-C1'	-5.87	119.37	127.00
36	1	2793	G	C8-N9-C4	-5.87	104.05	106.40
36	1	3134	A	N7-C8-N9	5.87	116.73	113.80
36	5	2103	U	N3-C2-O2	-5.87	118.09	122.20
36	5	3269	U	C5-C6-N1	-5.87	119.77	122.70
1	2	311	U	C4-C5-C6	5.87	123.22	119.70
36	1	28	C	C2-N3-C4	-5.87	116.97	119.90
36	1	301	G	N9-C4-C5	5.87	107.75	105.40
36	1	1100	U	N3-C2-O2	-5.87	118.09	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1304	A	N3-C4-N9	-5.87	122.71	127.40
36	1	1551	C	C2-N1-C1'	-5.87	112.35	118.80
36	1	1824	U	C6-N1-C2	-5.87	117.48	121.00
36	1	2216	G	C5-C6-O6	-5.87	125.08	128.60
36	1	2398	A	C4-C5-C6	5.87	119.93	117.00
36	1	2761	G	O5'-P-OP2	-5.87	100.42	105.70
36	1	2938	G	N1-C6-O6	5.87	123.42	119.90
36	1	3083	G	C5-C6-O6	-5.87	125.08	128.60
51	M5	116	LEU	CA-CB-CG	-5.87	101.81	115.30
70	O4	8	ARG	NE-CZ-NH2	-5.87	117.37	120.30
1	6	913	G	C8-N9-C4	-5.87	104.05	106.40
1	6	1746	A	N3-C4-N9	-5.87	122.71	127.40
36	5	1500	G	N1-C6-O6	5.87	123.42	119.90
36	5	3139	A	N1-C2-N3	5.87	132.23	129.30
37	7	10	C	N3-C4-C5	5.87	124.25	121.90
1	2	353	A	C2-N3-C4	-5.86	107.67	110.60
1	2	1010	C	C2-N1-C1'	-5.86	112.35	118.80
1	2	1324	G	N3-C2-N2	-5.86	115.80	119.90
1	2	1433	G	N3-C4-C5	-5.86	125.67	128.60
1	2	1656	U	N3-C4-O4	5.86	123.50	119.40
36	1	97	U	C2-N3-C4	-5.86	123.48	127.00
36	1	1191	U	N3-C4-C5	5.86	118.12	114.60
36	1	1411	C	N3-C4-N4	-5.86	113.89	118.00
36	1	1907	C	C2-N3-C4	-5.86	116.97	119.90
36	1	2614	G	N3-C2-N2	5.86	124.00	119.90
36	1	2794	G	C4-C5-N7	-5.86	108.45	110.80
36	1	3103	A	C5-C6-N1	5.86	120.63	117.70
1	6	154	G	N1-C6-O6	5.86	123.42	119.90
1	6	351	C	C4-C5-C6	-5.86	114.47	117.40
1	6	589	C	N1-C2-O2	-5.86	115.38	118.90
1	6	1642	G	C4-C5-C6	-5.86	115.28	118.80
1	6	1746	A	C5-C6-N6	5.86	128.39	123.70
36	5	112	U	C6-N1-C2	-5.86	117.48	121.00
36	5	717	C	C2-N1-C1'	5.86	125.25	118.80
36	5	959	C	O4'-C1'-N1	5.86	112.89	108.20
36	5	1048	A	N9-C4-C5	5.86	108.14	105.80
36	5	1118	C	OP1-P-OP2	-5.86	110.81	119.60
36	5	1590	G	O4'-C1'-N9	-5.86	103.51	108.20
36	5	1834	U	N1-C2-N3	5.86	118.42	114.90
36	5	1881	A	C6-C5-N7	-5.86	128.19	132.30
36	5	2367	A	OP1-P-OP2	5.86	128.39	119.60
36	5	2991	A	C4-C5-N7	-5.86	107.77	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3058	U	C5-C4-O4	5.86	129.42	125.90
36	5	3150	A	C4-C5-N7	5.86	113.63	110.70
37	7	84	A	C6-C5-N7	-5.86	128.19	132.30
37	7	95	A	C6-C5-N7	-5.86	128.20	132.30
1	2	978	A	C2-N3-C4	5.86	113.53	110.60
36	1	2181	C	N3-C2-O2	-5.86	117.80	121.90
36	1	2778	G	N1-C2-N3	5.86	127.42	123.90
36	5	1668	G	C6-C5-N7	-5.86	126.88	130.40
1	2	543	C	C6-N1-C1'	-5.86	113.77	120.80
1	2	704	C	N1-C2-O2	5.86	122.42	118.90
36	1	48	A	N9-C4-C5	5.86	108.14	105.80
36	1	62	A	C5-C6-N1	-5.86	114.77	117.70
36	1	648	C	N1-C2-N3	5.86	123.30	119.20
36	1	929	A	C6-C5-N7	-5.86	128.20	132.30
36	1	2143	A	N1-C6-N6	5.86	122.12	118.60
36	1	2370	G	C5-C6-O6	5.86	132.12	128.60
36	1	2768	U	O5'-P-OP2	-5.86	100.43	105.70
36	1	3383	G	C4-N9-C1'	-5.86	118.88	126.50
1	6	96	G	C4-N9-C1'	5.86	134.12	126.50
1	6	575	C	C2-N3-C4	-5.86	116.97	119.90
1	6	1130	G	C2-N3-C4	5.86	114.83	111.90
1	6	1390	U	O4'-C1'-N1	5.86	112.89	108.20
1	6	1502	G	O5'-P-OP2	-5.86	100.43	105.70
36	5	820	A	C6-N1-C2	-5.86	115.08	118.60
36	5	856	G	C8-N9-C4	-5.86	104.06	106.40
36	5	1518	U	OP2-P-O3'	5.86	118.09	105.20
36	5	2130	G	C8-N9-C1'	5.86	134.62	127.00
36	5	2657	A	C5-C6-N1	5.86	120.63	117.70
36	5	3393	U	N1-C2-N3	5.86	118.42	114.90
38	8	19	C	N3-C2-O2	-5.86	117.80	121.90
1	2	379	U	N1-C2-O2	5.86	126.90	122.80
36	1	19	U	C5-C4-O4	5.86	129.41	125.90
36	1	677	A	C8-N9-C4	5.86	108.14	105.80
36	1	1550	C	N1-C2-O2	5.86	122.42	118.90
36	1	2779	A	N1-C6-N6	5.86	122.12	118.60
36	5	787	G	C4-C5-C6	5.86	122.32	118.80
36	5	1134	G	N9-C4-C5	5.86	107.74	105.40
36	5	2734	A	OP1-P-OP2	-5.86	110.81	119.60
36	1	731	U	N3-C4-C5	-5.86	111.08	114.60
36	1	1105	A	C8-N9-C4	5.86	108.14	105.80
36	1	2756	C	C2-N3-C4	-5.86	116.97	119.90
36	1	3184	A	C6-N1-C2	-5.86	115.08	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	78	U	C2-N1-C1'	5.86	124.73	117.70
36	5	2247	G	C8-N9-C4	5.86	108.74	106.40
36	5	2912	G	N1-C2-N3	5.86	127.41	123.90
1	2	361	C	N1-C2-O2	-5.86	115.39	118.90
1	2	804	A	C5-C6-N1	-5.86	114.77	117.70
1	2	991	G	N1-C6-O6	-5.86	116.39	119.90
1	2	993	A	C6-C5-N7	-5.86	128.20	132.30
1	2	1780	G	C6-C5-N7	-5.86	126.89	130.40
36	1	232	G	C4-C5-N7	-5.86	108.46	110.80
36	1	1403	C	OP1-P-O3'	5.86	118.08	105.20
36	1	1453	A	N3-C4-N9	5.86	132.09	127.40
36	1	3120	C	O5'-P-OP2	-5.86	100.43	105.70
37	3	29	C	N3-C2-O2	-5.86	117.80	121.90
37	3	89	G	N1-C6-O6	5.86	123.41	119.90
38	4	12	A	N1-C2-N3	-5.86	126.37	129.30
38	4	52	A	O5'-P-OP1	-5.86	100.43	105.70
36	5	1150	A	O5'-P-OP1	5.86	117.73	110.70
36	5	2691	A	C5-C6-N6	-5.86	119.02	123.70
36	5	2867	C	O5'-P-OP1	-5.86	100.43	105.70
1	2	159	U	OP1-P-OP2	-5.85	110.82	119.60
1	2	475	A	N7-C8-N9	-5.85	110.87	113.80
36	1	1115	G	N7-C8-N9	5.85	116.03	113.10
36	1	2119	A	C5-N7-C8	-5.85	100.97	103.90
36	1	2608	G	C6-C5-N7	-5.85	126.89	130.40
36	1	2832	C	C6-N1-C2	5.85	122.64	120.30
36	1	3124	G	C8-N9-C4	-5.85	104.06	106.40
1	6	553	G	N9-C4-C5	-5.85	103.06	105.40
1	6	670	U	N1-C2-O2	5.85	126.90	122.80
36	5	591	G	OP1-P-O3'	5.85	118.08	105.20
36	5	805	G	C8-N9-C4	5.85	108.74	106.40
36	5	1470	U	C2-N1-C1'	5.85	124.72	117.70
36	5	2378	C	OP1-P-OP2	-5.85	110.82	119.60
36	5	2607	G	C4-C5-C6	5.85	122.31	118.80
1	2	162	A	N3-C4-C5	-5.85	122.70	126.80
1	2	361	C	C6-N1-C1'	5.85	127.82	120.80
36	1	1165	A	N1-C2-N3	5.85	132.23	129.30
36	1	1554	U	C5-C4-O4	-5.85	122.39	125.90
37	3	98	C	C2-N1-C1'	-5.85	112.36	118.80
1	6	1178	G	C4-N9-C1'	5.85	134.11	126.50
1	6	1466	G	C4-C5-N7	5.85	113.14	110.80
36	5	780	A	N9-C4-C5	5.85	108.14	105.80
36	5	1435	A	C5-C6-N1	5.85	120.63	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2117	A	N1-C6-N6	-5.85	115.09	118.60
36	5	2329	C	C5-C4-N4	-5.85	116.10	120.20
36	5	2863	G	C5-N7-C8	-5.85	101.37	104.30
36	5	3245	A	N9-C4-C5	-5.85	103.46	105.80
36	5	3384	U	N3-C2-O2	5.85	126.30	122.20
1	2	1619	C	C6-N1-C2	-5.85	117.96	120.30
23	D1	78	LEU	CA-CB-CG	5.85	128.76	115.30
36	1	1135	A	C8-N9-C4	-5.85	103.46	105.80
36	1	3260	G	C8-N9-C1'	-5.85	119.39	127.00
36	5	41	G	O5'-P-OP2	-5.85	100.43	105.70
36	5	2628	A	C2-N3-C4	-5.85	107.67	110.60
37	7	91	G	N3-C4-C5	5.85	131.53	128.60
1	2	144	U	C5-C6-N1	-5.85	119.78	122.70
36	1	1052	U	N3-C4-C5	5.85	118.11	114.60
36	1	1293	U	C2-N3-C4	-5.85	123.49	127.00
36	1	1581	C	C6-N1-C2	-5.85	117.96	120.30
36	1	1588	A	C4-C5-N7	-5.85	107.78	110.70
36	1	1829	G	N1-C6-O6	-5.85	116.39	119.90
36	1	2186	U	C5-C4-O4	5.85	129.41	125.90
36	1	2751	G	C8-N9-C1'	5.85	134.60	127.00
37	3	25	G	C5-C6-N1	5.85	114.42	111.50
1	6	805	U	O5'-P-OP2	5.85	117.72	110.70
1	6	1061	A	N1-C6-N6	5.85	122.11	118.60
1	6	1185	U	C2-N1-C1'	5.85	124.72	117.70
36	5	594	U	C5-C6-N1	5.85	125.62	122.70
36	5	1121	U	OP1-P-OP2	5.85	128.37	119.60
36	5	2339	C	N3-C4-N4	5.85	122.09	118.00
36	5	2611	U	O5'-P-OP2	-5.85	100.44	105.70
36	5	2621	G	N1-C2-N3	5.85	127.41	123.90
36	5	2874	G	C8-N9-C1'	-5.85	119.40	127.00
36	5	3096	C	N3-C2-O2	-5.85	117.81	121.90
37	7	22	A	C8-N9-C4	-5.85	103.46	105.80
1	2	987	G	N3-C4-C5	-5.85	125.68	128.60
36	1	642	U	C6-N1-C2	-5.85	117.49	121.00
36	1	752	C	N3-C4-N4	-5.85	113.91	118.00
36	1	894	G	N9-C4-C5	5.85	107.74	105.40
36	1	1288	U	C5-C6-N1	-5.85	119.78	122.70
36	1	1905	G	C8-N9-C4	-5.85	104.06	106.40
36	1	1927	G	N9-C4-C5	-5.85	103.06	105.40
37	3	25	G	N1-C6-O6	-5.85	116.39	119.90
1	6	396	G	C8-N9-C4	-5.85	104.06	106.40
1	6	634	G	N1-C6-O6	-5.85	116.39	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1164	G	C4-C5-C6	-5.85	115.29	118.80
36	5	1170	A	O5'-P-OP1	-5.85	100.44	105.70
36	5	2808	A	C6-N1-C2	5.85	122.11	118.60
36	5	3094	A	O5'-P-OP1	-5.85	100.44	105.70
36	1	195	U	N3-C4-C5	-5.85	111.09	114.60
36	1	752	C	N3-C4-C5	5.85	124.24	121.90
36	1	2190	U	OP2-P-O3'	5.85	118.06	105.20
1	6	903	U	N3-C2-O2	5.85	126.29	122.20
36	5	3110	C	O5'-P-OP2	5.85	117.72	110.70
36	1	730	C	N3-C2-O2	-5.84	117.81	121.90
36	1	915	A	OP1-P-OP2	5.84	128.37	119.60
36	1	1164	G	C5-C6-N1	5.84	114.42	111.50
36	1	2274	U	N3-C4-C5	5.84	118.11	114.60
36	1	2332	A	C4-C5-N7	5.84	113.62	110.70
36	1	3100	U	C2-N1-C1'	-5.84	110.69	117.70
36	1	3288	G	N1-C2-N3	-5.84	120.39	123.90
1	6	939	A	N1-C2-N3	5.84	132.22	129.30
1	6	1504	G	C5-C6-O6	5.84	132.11	128.60
36	5	780	A	O5'-P-OP2	-5.84	100.44	105.70
36	5	1654	A	N1-C2-N3	5.84	132.22	129.30
36	5	2584	G	C6-C5-N7	-5.84	126.89	130.40
36	5	2920	U	O5'-P-OP1	-5.84	100.44	105.70
37	7	45	A	C4-C5-N7	-5.84	107.78	110.70
36	1	652	G	C8-N9-C1'	-5.84	119.40	127.00
1	6	370	A	C5-C6-N6	5.84	128.37	123.70
36	5	77	A	OP2-P-O3'	5.84	118.05	105.20
36	5	298	U	C6-N1-C2	-5.84	117.49	121.00
36	5	1194	G	C5-C6-N1	5.84	114.42	111.50
36	5	3202	G	C6-C5-N7	5.84	133.91	130.40
1	2	1030	A	C6-C5-N7	-5.84	128.21	132.30
36	1	439	C	C2-N3-C4	5.84	122.82	119.90
36	1	697	A	C4-N9-C1'	-5.84	115.79	126.30
36	1	1195	A	N3-C4-C5	-5.84	122.71	126.80
36	1	1436	U	O4'-C1'-N1	5.84	112.87	108.20
36	1	1883	A	N3-C4-C5	5.84	130.89	126.80
36	1	2425	G	C8-N9-C4	-5.84	104.06	106.40
36	1	2721	A	C5-N7-C8	-5.84	100.98	103.90
36	1	2901	G	N9-C4-C5	5.84	107.74	105.40
1	6	1732	A	C5-C6-N1	-5.84	114.78	117.70
36	5	206	G	N3-C4-C5	-5.84	125.68	128.60
36	5	567	G	N7-C8-N9	5.84	116.02	113.10
36	5	1193	A	C2-N3-C4	-5.84	107.68	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1550	C	C2-N3-C4	5.84	122.82	119.90
36	5	1868	G	N9-C4-C5	-5.84	103.06	105.40
36	5	1922	A	N7-C8-N9	-5.84	110.88	113.80
36	5	3015	G	C5-C6-O6	-5.84	125.09	128.60
36	5	3266	G	N3-C4-N9	-5.84	122.50	126.00
37	7	13	A	C4-C5-N7	5.84	113.62	110.70
37	7	46	A	OP2-P-O3'	5.84	118.05	105.20
1	2	1094	G	C8-N9-C4	5.84	108.74	106.40
1	2	1486	G	O4'-C1'-N9	5.84	112.87	108.20
1	2	1547	A	N1-C6-N6	-5.84	115.10	118.60
1	2	1751	C	N3-C4-N4	-5.84	113.91	118.00
36	1	59	G	P-O3'-C3'	5.84	126.71	119.70
36	1	383	G	C5-N7-C8	5.84	107.22	104.30
36	1	427	C	C5-C4-N4	-5.84	116.11	120.20
36	1	794	U	C5-C6-N1	-5.84	119.78	122.70
36	1	936	A	N3-C4-C5	5.84	130.89	126.80
36	1	1195	A	C4-C5-C6	5.84	119.92	117.00
36	1	2922	G	C4-C5-N7	5.84	113.14	110.80
1	6	522	U	C2-N1-C1'	-5.84	110.69	117.70
1	6	636	A	C6-N1-C2	-5.84	115.10	118.60
1	6	637	C	C2-N1-C1'	5.84	125.22	118.80
1	6	1031	U	C5-C6-N1	-5.84	119.78	122.70
1	6	1206	U	N3-C4-C5	-5.84	111.10	114.60
1	6	1560	U	N1-C2-O2	5.84	126.89	122.80
36	5	194	U	N3-C2-O2	-5.84	118.11	122.20
36	5	397	A	C4-C5-C6	5.84	119.92	117.00
36	5	2243	A	C5-C6-N1	5.84	120.62	117.70
36	5	2982	A	N9-C4-C5	-5.84	103.46	105.80
36	5	3226	A	N1-C2-N3	5.84	132.22	129.30
36	5	3242	G	N1-C2-N2	-5.84	110.94	116.20
36	1	369	A	N1-C2-N3	5.84	132.22	129.30
36	1	2952	G	C4-C5-N7	-5.84	108.47	110.80
38	4	25	G	O5'-P-OP2	-5.84	100.45	105.70
1	6	128	U	C2-N1-C1'	-5.84	110.69	117.70
1	6	300	A	C5-C6-N1	5.84	120.62	117.70
1	6	448	C	O4'-C1'-N1	5.84	112.87	108.20
1	6	937	C	C6-N1-C2	-5.84	117.97	120.30
36	5	888	A	C6-C5-N7	-5.84	128.21	132.30
36	5	1225	A	C8-N9-C4	5.84	108.14	105.80
36	5	1686	U	N3-C4-O4	5.84	123.49	119.40
36	1	381	U	O5'-P-OP1	-5.84	100.45	105.70
36	1	404	G	C2-N3-C4	-5.84	108.98	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2881	C	O5'-P-OP1	-5.84	100.45	105.70
36	1	3370	A	C8-N9-C4	-5.84	103.47	105.80
1	6	1494	C	N3-C2-O2	-5.84	117.81	121.90
36	5	691	A	C8-N9-C4	-5.84	103.47	105.80
36	5	2134	G	C4-N9-C1'	5.84	134.09	126.50
36	5	2727	A	N9-C4-C5	5.84	108.14	105.80
36	5	2863	G	N9-C4-C5	5.84	107.73	105.40
37	7	31	U	O5'-P-OP2	5.84	117.70	110.70
36	1	621	A	N7-C8-N9	5.83	116.72	113.80
36	1	1006	A	C6-C5-N7	-5.83	128.22	132.30
36	1	1552	G	C4-N9-C1'	5.83	134.09	126.50
36	1	2172	A	C2-N3-C4	-5.83	107.68	110.60
36	5	637	C	N1-C2-N3	-5.83	115.12	119.20
36	5	1167	U	N1-C2-N3	-5.83	111.40	114.90
36	5	2144	A	O5'-P-OP1	-5.83	100.45	105.70
1	2	435	C	N3-C4-C5	5.83	124.23	121.90
36	1	292	U	C6-N1-C2	5.83	124.50	121.00
36	1	2884	C	C6-N1-C1'	5.83	127.80	120.80
36	1	3271	G	C2-N3-C4	5.83	114.82	111.90
38	4	34	U	O4'-C1'-N1	5.83	112.87	108.20
36	5	18	G	N7-C8-N9	5.83	116.02	113.10
36	5	1085	A	C4-C5-C6	5.83	119.92	117.00
36	5	1147	G	C2-N3-C4	-5.83	108.98	111.90
36	5	1784	G	C5-C6-O6	-5.83	125.10	128.60
36	5	2667	A	C5-C6-N6	5.83	128.37	123.70
36	5	2852	C	C2-N3-C4	-5.83	116.98	119.90
36	5	2967	A	C6-N1-C2	-5.83	115.10	118.60
1	2	1589	C	N3-C4-N4	-5.83	113.92	118.00
36	1	107	A	C5-C6-N6	-5.83	119.03	123.70
36	1	934	G	N3-C4-C5	-5.83	125.68	128.60
36	1	1210	U	N3-C4-O4	-5.83	115.32	119.40
36	1	1543	G	C5-N7-C8	-5.83	101.39	104.30
36	1	1624	G	C5-N7-C8	-5.83	101.38	104.30
36	1	2884	C	C6-N1-C2	5.83	122.63	120.30
1	6	307	G	N1-C2-N2	-5.83	110.95	116.20
36	5	1158	A	O5'-P-OP2	-5.83	100.45	105.70
36	5	1301	A	N9-C4-C5	5.83	108.13	105.80
36	5	2169	G	O5'-P-OP2	5.83	117.70	110.70
37	7	94	C	C2-N3-C4	-5.83	116.98	119.90
1	2	361	C	C2-N1-C1'	-5.83	112.39	118.80
36	1	1020	G	N1-C6-O6	5.83	123.40	119.90
36	1	1078	U	O5'-P-OP2	-5.83	100.45	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	883	C	OP1-P-OP2	-5.83	110.86	119.60
36	5	1190	A	C6-C5-N7	-5.83	128.22	132.30
36	5	1396	C	OP2-P-O3'	5.83	118.03	105.20
36	5	2205	U	N1-C2-O2	5.83	126.88	122.80
36	5	2223	A	C8-N9-C4	-5.83	103.47	105.80
37	7	121	U	N1-C2-O2	5.83	126.88	122.80
1	2	611	U	C2-N1-C1'	5.83	124.69	117.70
36	1	1045	C	OP2-P-O3'	5.83	118.02	105.20
36	1	1070	U	N1-C2-O2	5.83	126.88	122.80
36	1	1858	A	C6-N1-C2	-5.83	115.10	118.60
62	N6	83	ASP	CB-CG-OD2	5.83	123.55	118.30
1	6	175	G	N3-C4-N9	5.83	129.50	126.00
1	6	1070	C	C2-N1-C1'	-5.83	112.39	118.80
1	6	1378	U	C5-C6-N1	-5.83	119.79	122.70
1	6	1583	A	C6-C5-N7	5.83	136.38	132.30
1	6	1600	A	N9-C1'-C2'	5.83	121.58	114.00
36	5	62	A	C5-C6-N1	-5.83	114.79	117.70
36	5	671	U	OP2-P-O3'	5.83	118.02	105.20
36	5	1480	G	C4-C5-N7	5.83	113.13	110.80
36	5	2426	U	N3-C2-O2	-5.83	118.12	122.20
36	5	2813	A	N1-C6-N6	5.83	122.10	118.60
1	2	49	C	C5-C6-N1	5.83	123.91	121.00
36	1	1449	A	OP1-P-O3'	-5.83	92.38	105.20
36	1	2820	A	C5-N7-C8	-5.83	100.99	103.90
36	1	3086	A	C4-C5-N7	-5.83	107.79	110.70
36	5	430	U	N3-C4-C5	5.83	118.10	114.60
36	5	3049	A	C5-N7-C8	-5.83	100.99	103.90
1	2	720	G	OP1-P-O3'	5.83	118.02	105.20
36	1	39	A	O5'-P-OP1	5.83	117.69	110.70
36	1	86	G	C6-N1-C2	-5.83	121.60	125.10
36	1	306	A	C5-C6-N1	5.83	120.61	117.70
36	1	882	A	N1-C6-N6	-5.83	115.10	118.60
36	1	1594	A	N1-C2-N3	5.83	132.21	129.30
36	1	1849	C	N1-C2-N3	5.83	123.28	119.20
36	1	1939	G	C8-N9-C1'	-5.83	119.43	127.00
1	6	21	U	N3-C4-C5	-5.83	111.11	114.60
1	6	474	A	N1-C6-N6	5.83	122.09	118.60
1	6	744	U	C6-N1-C2	-5.83	117.50	121.00
1	6	827	C	C6-N1-C1'	5.83	127.79	120.80
1	6	1165	G	N1-C2-N3	5.83	127.40	123.90
1	6	1493	A	N3-C4-N9	-5.83	122.74	127.40
1	6	1535	U	N1-C2-O2	5.83	126.88	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1629	G	C6-N1-C2	-5.83	121.60	125.10
36	5	620	U	N1-C2-O2	5.83	126.88	122.80
36	5	782	U	N3-C4-C5	5.83	118.10	114.60
36	5	813	G	C5-C6-N1	-5.83	108.59	111.50
36	5	1310	G	C4-N9-C1'	5.83	134.07	126.50
36	5	2340	U	C6-N1-C2	-5.83	117.50	121.00
36	5	3047	U	N3-C4-C5	-5.83	111.11	114.60
36	5	3140	G	N9-C1'-C2'	-5.83	105.59	112.00
38	8	7	U	N3-C2-O2	5.83	126.28	122.20
1	2	1786	G	C4-C5-N7	-5.82	108.47	110.80
36	1	287	G	N1-C6-O6	5.82	123.39	119.90
36	1	415	G	N1-C2-N3	5.82	127.39	123.90
36	1	2906	C	N1-C2-O2	-5.82	115.41	118.90
1	6	1286	U	N1-C2-N3	5.82	118.39	114.90
36	5	1164	G	N3-C4-N9	-5.82	122.51	126.00
36	5	1379	G	C6-N1-C2	-5.82	121.61	125.10
36	5	1404	G	C5-N7-C8	-5.82	101.39	104.30
36	5	1443	G	C2-N3-C4	-5.82	108.99	111.90
36	5	1514	G	N1-C2-N2	-5.82	110.96	116.20
36	5	2204	C	N3-C4-C5	-5.82	119.57	121.90
36	5	2717	U	N1-C2-N3	5.82	118.39	114.90
36	5	3034	C	N3-C4-N4	5.82	122.08	118.00
36	5	3310	A	N1-C2-N3	5.82	132.21	129.30
37	7	93	C	N3-C4-N4	5.82	122.08	118.00
38	8	136	G	N9-C4-C5	-5.82	103.07	105.40
36	1	2326	A	O5'-P-OP1	-5.82	100.46	105.70
1	6	880	C	C4-C5-C6	5.82	120.31	117.40
36	5	1224	C	N3-C2-O2	-5.82	117.82	121.90
1	2	1044	U	C5-C4-O4	5.82	129.39	125.90
36	1	377	A	N9-C4-C5	-5.82	103.47	105.80
36	1	651	G	N1-C2-N2	-5.82	110.96	116.20
36	1	940	G	N1-C6-O6	-5.82	116.41	119.90
36	1	2418	G	N3-C2-N2	5.82	123.97	119.90
36	1	2625	C	N1-C2-O2	5.82	122.39	118.90
36	1	2704	A	C4-C5-N7	-5.82	107.79	110.70
1	6	308	C	N3-C4-N4	-5.82	113.93	118.00
1	6	1542	G	C8-N9-C1'	-5.82	119.43	127.00
36	5	51	A	C5-C6-N6	-5.82	119.04	123.70
36	5	2351	U	C6-N1-C2	-5.82	117.51	121.00
36	1	283	G	C5-C6-O6	-5.82	125.11	128.60
36	1	2406	C	C6-N1-C2	-5.82	117.97	120.30
1	6	948	G	C5-C6-O6	-5.82	125.11	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1171	A	OP1-P-OP2	-5.82	110.87	119.60
1	6	1537	C	N3-C2-O2	5.82	125.97	121.90
36	5	437	G	C6-C5-N7	-5.82	126.91	130.40
36	5	722	G	C8-N9-C1'	5.82	134.56	127.00
36	5	1050	U	N1-C2-N3	5.82	118.39	114.90
36	5	1584	U	C5-C4-O4	-5.82	122.41	125.90
36	5	1829	G	N1-C6-O6	-5.82	116.41	119.90
73	o7	65	ARG	NE-CZ-NH2	-5.82	117.39	120.30
36	1	302	U	C5-C6-N1	-5.82	119.79	122.70
36	1	860	G	N3-C4-N9	5.82	129.49	126.00
36	1	1458	U	N3-C4-O4	-5.82	115.33	119.40
36	1	1610	G	C6-C5-N7	-5.82	126.91	130.40
36	1	1840	U	C5-C6-N1	-5.82	119.79	122.70
36	1	1905	G	O4'-C1'-N9	5.82	112.85	108.20
36	1	2415	C	C2-N3-C4	-5.82	116.99	119.90
36	1	3192	U	C2-N1-C1'	5.82	124.68	117.70
38	4	39	G	C6-N1-C2	-5.82	121.61	125.10
38	4	41	A	C2-N3-C4	5.82	113.51	110.60
36	5	237	G	N3-C4-C5	-5.82	125.69	128.60
36	5	528	U	C5-C6-N1	5.82	125.61	122.70
36	5	2377	G	C4-N9-C1'	-5.82	118.94	126.50
36	5	2934	A	N3-C4-C5	5.82	130.87	126.80
36	5	2966	G	C2-N3-C4	-5.82	108.99	111.90
36	5	3377	G	C5-N7-C8	-5.82	101.39	104.30
37	7	1	G	C6-C5-N7	-5.82	126.91	130.40
37	7	15	C	C6-N1-C1'	-5.82	113.82	120.80
38	8	99	C	N3-C4-C5	5.82	124.23	121.90
1	2	1463	C	N3-C4-C5	5.82	124.23	121.90
36	1	680	G	C2-N3-C4	-5.82	108.99	111.90
36	1	1377	G	C8-N9-C1'	-5.82	119.44	127.00
36	1	1424	C	N1-C2-O2	-5.82	115.41	118.90
36	1	1733	G	N1-C6-O6	5.82	123.39	119.90
36	1	2134	G	N1-C6-O6	5.82	123.39	119.90
36	1	3071	U	C2-N1-C1'	-5.82	110.72	117.70
1	6	106	U	C6-N1-C2	-5.82	117.51	121.00
1	6	585	A	N9-C4-C5	-5.82	103.47	105.80
36	5	1909	A	C5-C6-N1	5.82	120.61	117.70
36	5	2600	C	C6-N1-C2	-5.82	117.97	120.30
36	1	1103	A	C6-C5-N7	5.81	136.37	132.30
36	1	1292	C	N3-C4-C5	5.81	124.22	121.90
1	6	13	C	N1-C2-O2	5.81	122.39	118.90
1	6	23	G	N3-C2-N2	-5.81	115.83	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	170	U	C5-C6-N1	5.81	125.61	122.70
1	6	1283	U	N3-C4-O4	-5.81	115.33	119.40
1	6	1366	U	N3-C4-O4	5.81	123.47	119.40
1	6	1637	C	N1-C2-N3	-5.81	115.13	119.20
36	5	433	A	N7-C8-N9	5.81	116.71	113.80
36	5	1056	U	O4'-C1'-N1	5.81	112.85	108.20
36	5	3330	A	C5-N7-C8	5.81	106.81	103.90
36	1	35	A	O5'-P-OP2	-5.81	100.47	105.70
36	1	67	A	C5-N7-C8	5.81	106.81	103.90
36	1	399	A	O5'-P-OP1	5.81	117.67	110.70
36	1	878	G	N1-C6-O6	-5.81	116.41	119.90
36	1	1792	C	N1-C2-N3	5.81	123.27	119.20
1	6	273	G	C6-C5-N7	-5.81	126.91	130.40
1	6	621	A	C4-C5-N7	-5.81	107.79	110.70
1	6	897	C	C6-N1-C2	5.81	122.62	120.30
1	6	1592	A	N1-C6-N6	-5.81	115.11	118.60
36	5	1272	C	C5-C6-N1	5.81	123.91	121.00
36	5	1585	C	O5'-P-OP1	-5.81	100.47	105.70
36	5	2174	G	N1-C6-O6	5.81	123.39	119.90
36	5	2270	A	C4-C5-N7	5.81	113.61	110.70
36	5	2309	A	C2-N3-C4	-5.81	107.69	110.60
37	7	107	C	C5-C6-N1	-5.81	118.09	121.00
36	1	1323	G	C4-C5-N7	5.81	113.12	110.80
1	6	177	U	C5-C4-O4	-5.81	122.41	125.90
1	6	626	U	N1-C2-N3	5.81	118.39	114.90
36	5	899	U	N3-C2-O2	-5.81	118.13	122.20
36	5	2626	A	O4'-C1'-N9	-5.81	103.55	108.20
1	2	1000	C	C6-N1-C1'	-5.81	113.83	120.80
1	2	1490	C	N1-C2-O2	5.81	122.39	118.90
36	1	274	G	OP1-P-O3'	5.81	117.98	105.20
36	1	650	C	O5'-P-OP2	5.81	117.67	110.70
36	1	996	A	OP2-P-O3'	5.81	117.98	105.20
36	1	1838	G	N1-C6-O6	5.81	123.39	119.90
36	1	2423	U	C2-N3-C4	5.81	130.49	127.00
36	1	2940	A	C4-C5-N7	-5.81	107.80	110.70
38	4	28	C	N3-C2-O2	5.81	125.97	121.90
1	6	992	A	N3-C4-C5	5.81	130.87	126.80
36	5	512	U	N1-C2-N3	5.81	118.39	114.90
36	5	1205	A	N1-C2-N3	5.81	132.21	129.30
41	14	340	GLY	N-CA-C	-5.81	98.58	113.10
1	2	331	A	N1-C2-N3	5.81	132.20	129.30
36	1	189	G	C8-N9-C4	-5.81	104.08	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1104	G	N3-C2-N2	-5.81	115.83	119.90
36	1	1368	U	C4-C5-C6	5.81	123.19	119.70
36	1	1829	G	OP2-P-O3'	5.81	117.97	105.20
36	1	1898	G	N3-C4-C5	-5.81	125.70	128.60
38	4	56	G	N1-C2-N3	5.81	127.39	123.90
38	4	86	U	C6-N1-C1'	-5.81	113.07	121.20
1	6	586	G	N9-C4-C5	5.81	107.72	105.40
1	6	595	G	C6-C5-N7	-5.81	126.92	130.40
1	6	1598	U	C2-N1-C1'	5.81	124.67	117.70
36	5	85	A	C5-C6-N1	-5.81	114.80	117.70
36	5	500	C	C6-N1-C2	-5.81	117.98	120.30
36	5	502	U	OP1-P-OP2	-5.81	110.89	119.60
36	5	517	G	N1-C2-N3	5.81	127.38	123.90
36	5	688	G	C5-C6-O6	-5.81	125.12	128.60
36	5	928	C	C4-C5-C6	5.81	120.30	117.40
36	5	1612	A	C5-C6-N1	-5.81	114.80	117.70
36	5	2639	G	C5-C6-N1	-5.81	108.60	111.50
36	5	2835	U	N1-C2-O2	-5.81	118.73	122.80
36	5	3287	U	N3-C2-O2	-5.81	118.14	122.20
59	n3	34	LEU	CA-CB-CG	-5.81	101.94	115.30
36	1	938	C	C5-C6-N1	5.81	123.90	121.00
1	6	426	G	N1-C2-N3	5.81	127.38	123.90
1	6	558	U	P-O3'-C3'	5.81	126.67	119.70
36	5	228	U	C2-N1-C1'	5.81	124.67	117.70
36	5	1051	U	OP1-P-OP2	5.81	128.31	119.60
36	5	1601	U	N1-C2-O2	5.81	126.86	122.80
1	2	362	G	N3-C2-N2	-5.80	115.84	119.90
1	2	1490	C	C6-N1-C2	-5.80	117.98	120.30
36	1	1182	A	C4-C5-N7	5.80	113.60	110.70
36	1	2196	C	C2-N1-C1'	-5.80	112.41	118.80
36	1	2835	U	OP2-P-O3'	5.80	117.97	105.20
36	1	3245	A	O5'-P-OP1	5.80	117.67	110.70
37	3	99	G	N3-C2-N2	-5.80	115.84	119.90
38	4	113	U	C5-C6-N1	-5.80	119.80	122.70
1	6	1219	A	N1-C6-N6	5.80	122.08	118.60
1	6	1402	G	N3-C4-C5	-5.80	125.70	128.60
1	6	1472	C	N3-C4-N4	-5.80	113.94	118.00
36	5	185	C	C6-N1-C2	5.80	122.62	120.30
36	5	227	G	N7-C8-N9	-5.80	110.20	113.10
36	5	1481	A	C5-N7-C8	-5.80	101.00	103.90
36	5	2847	A	N9-C4-C5	-5.80	103.48	105.80
36	5	3097	C	N3-C4-C5	-5.80	119.58	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	29	U	N1-C2-O2	-5.80	118.74	122.80
1	6	1206	U	C6-N1-C2	-5.80	117.52	121.00
1	2	1201	G	N7-C8-N9	-5.80	110.20	113.10
36	1	620	U	P-O3'-C3'	5.80	126.66	119.70
36	1	634	C	OP2-P-O3'	5.80	117.97	105.20
36	1	2803	A	N9-C4-C5	5.80	108.12	105.80
36	1	2883	U	N3-C4-C5	-5.80	111.12	114.60
37	3	45	A	N1-C6-N6	-5.80	115.12	118.60
38	4	116	G	C5-C6-N1	5.80	114.40	111.50
1	6	11	A	N7-C8-N9	-5.80	110.90	113.80
1	6	758	U	C2-N1-C1'	-5.80	110.74	117.70
36	5	1185	C	C6-N1-C2	5.80	122.62	120.30
36	5	2312	A	C8-N9-C4	-5.80	103.48	105.80
36	5	2823	G	N3-C2-N2	-5.80	115.84	119.90
38	8	44	A	C4-C5-N7	5.80	113.60	110.70
42	15	131	LEU	CB-CG-CD2	-5.80	101.14	111.00
36	1	93	C	C6-N1-C1'	-5.80	113.84	120.80
36	1	148	G	C4-N9-C1'	5.80	134.04	126.50
36	1	1495	U	C4-C5-C6	5.80	123.18	119.70
36	1	2113	A	C6-C5-N7	5.80	136.36	132.30
36	1	2648	G	OP1-P-O3'	5.80	117.96	105.20
36	5	573	C	C6-N1-C2	5.80	122.62	120.30
36	5	775	A	O5'-P-OP1	-5.80	100.48	105.70
36	5	1383	G	N3-C2-N2	-5.80	115.84	119.90
36	5	1582	C	C6-N1-C2	-5.80	117.98	120.30
36	5	2186	U	C5-C4-O4	5.80	129.38	125.90
36	5	2247	G	N3-C4-N9	5.80	129.48	126.00
36	5	2761	G	N3-C4-C5	-5.80	125.70	128.60
37	7	36	C	N3-C2-O2	5.80	125.96	121.90
38	8	31	G	C8-N9-C4	5.80	108.72	106.40
1	2	39	A	O4'-C1'-N9	5.80	112.84	108.20
1	2	1196	A	O5'-P-OP2	5.80	117.66	110.70
36	5	614	C	C6-N1-C2	5.80	122.62	120.30
36	5	652	G	C5-C6-N1	5.80	114.40	111.50
36	1	209	A	O5'-P-OP2	-5.80	100.48	105.70
36	1	1458	U	N3-C4-C5	5.80	118.08	114.60
36	1	1499	C	N3-C4-C5	-5.80	119.58	121.90
36	1	2175	U	C6-N1-C1'	5.80	129.31	121.20
36	1	2652	U	C2-N1-C1'	-5.80	110.75	117.70
36	1	2943	G	O5'-P-OP1	5.80	117.66	110.70
36	1	3110	C	C6-N1-C2	-5.80	117.98	120.30
37	3	87	G	O4'-C1'-N9	-5.80	103.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	392	G	OP2-P-O3'	5.80	117.95	105.20
1	6	1000	C	N3-C4-N4	-5.80	113.94	118.00
36	5	280	U	N1-C2-O2	5.80	126.86	122.80
36	5	798	G	OP1-P-OP2	-5.80	110.91	119.60
36	5	934	G	N1-C6-O6	5.80	123.38	119.90
36	5	1118	C	N1-C2-O2	-5.80	115.42	118.90
36	5	1131	G	OP1-P-OP2	5.80	128.29	119.60
36	5	1173	U	C2-N3-C4	-5.80	123.52	127.00
36	1	897	U	C2-N1-C1'	5.79	124.65	117.70
36	1	1439	U	N1-C2-O2	5.79	126.86	122.80
36	1	1514	G	C4-C5-C6	5.79	122.28	118.80
36	1	2859	U	C4-C5-C6	5.79	123.18	119.70
36	1	3383	G	C8-N9-C1'	5.79	134.53	127.00
1	6	42	G	O5'-P-OP1	-5.79	100.48	105.70
1	6	407	A	N9-C4-C5	-5.79	103.48	105.80
1	6	1662	G	N7-C8-N9	-5.79	110.20	113.10
36	5	86	G	O5'-P-OP1	5.79	117.65	110.70
36	5	238	A	N1-C6-N6	5.79	122.08	118.60
36	5	928	C	OP2-P-O3'	-5.79	92.45	105.20
36	5	2273	G	C8-N9-C1'	5.79	134.53	127.00
36	1	283	G	C5-N7-C8	-5.79	101.40	104.30
36	1	567	G	N3-C4-C5	-5.79	125.70	128.60
36	1	1621	A	C5-N7-C8	5.79	106.80	103.90
36	1	2738	A	C5-C6-N6	-5.79	119.06	123.70
36	1	3109	G	N3-C4-N9	5.79	129.48	126.00
1	6	96	G	N1-C6-O6	5.79	123.38	119.90
1	6	1769	U	C4-C5-C6	5.79	123.18	119.70
9	s7	131	PHE	C-N-CD	5.79	140.57	128.40
36	5	1588	A	C2-N3-C4	-5.79	107.70	110.60
36	5	1764	U	O4'-C1'-N1	5.79	112.83	108.20
43	l6	46	ARG	NE-CZ-NH2	-5.79	117.40	120.30
53	m7	131	ARG	NE-CZ-NH2	-5.79	117.40	120.30
36	1	907	G	C5-N7-C8	5.79	107.20	104.30
36	1	1549	U	O5'-P-OP2	-5.79	100.49	105.70
36	1	1927	G	C4-C5-N7	5.79	113.12	110.80
36	1	2613	U	N1-C2-O2	-5.79	118.75	122.80
36	1	2649	A	C5-C6-N6	-5.79	119.07	123.70
1	6	264	G	N1-C6-O6	5.79	123.38	119.90
1	6	1002	G	C4-C5-C6	-5.79	115.33	118.80
1	6	1058	U	OP1-P-O3'	5.79	117.94	105.20
1	6	1186	U	O5'-P-OP2	-5.79	100.49	105.70
36	5	64	G	C5-N7-C8	-5.79	101.41	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	286	U	N3-C4-O4	5.79	123.45	119.40
36	5	741	U	N3-C4-C5	-5.79	111.12	114.60
36	5	1323	G	N3-C2-N2	-5.79	115.85	119.90
36	5	2399	A	O4'-C1'-N9	5.79	112.83	108.20
36	5	2404	A	N7-C8-N9	5.79	116.70	113.80
36	5	2610	G	N9-C4-C5	5.79	107.72	105.40
36	5	2662	G	C4-C5-N7	-5.79	108.48	110.80
36	5	2952	G	N3-C4-N9	5.79	129.47	126.00
1	2	1345	A	C5-C6-N1	-5.79	114.81	117.70
36	1	692	A	OP1-P-O3'	5.79	117.94	105.20
36	1	1319	G	C5-C6-N1	5.79	114.39	111.50
36	1	2614	G	C4-N9-C1'	5.79	134.03	126.50
36	1	2823	G	C5-C6-O6	5.79	132.07	128.60
38	4	73	U	N3-C4-C5	5.79	118.07	114.60
1	6	75	U	C6-N1-C1'	-5.79	113.09	121.20
1	6	996	U	C2-N3-C4	5.79	130.47	127.00
36	5	1046	A	C4-C5-N7	-5.79	107.81	110.70
36	5	2696	A	C8-N9-C4	-5.79	103.48	105.80
37	7	15	C	N3-C4-N4	5.79	122.05	118.00
46	19	168	ARG	NE-CZ-NH1	-5.79	117.41	120.30
47	m0	17	TYR	CA-CB-CG	5.79	124.40	113.40
1	2	1322	A	N1-C6-N6	-5.79	115.13	118.60
36	1	396	A	OP2-P-O3'	5.79	117.93	105.20
36	1	1101	G	N3-C4-N9	-5.79	122.53	126.00
36	1	2875	U	P-O3'-C3'	-5.79	112.75	119.70
36	1	2973	G	P-O3'-C3'	-5.79	112.75	119.70
36	1	3139	A	N7-C8-N9	5.79	116.69	113.80
1	6	104	A	C6-C5-N7	-5.79	128.25	132.30
1	6	1375	A	N3-C4-C5	5.79	130.85	126.80
1	6	1469	A	N1-C6-N6	-5.79	115.13	118.60
36	5	54	C	OP1-P-OP2	-5.79	110.92	119.60
36	5	984	G	N3-C2-N2	-5.79	115.85	119.90
36	5	1516	C	C5-C4-N4	-5.79	116.15	120.20
36	5	1850	A	N7-C8-N9	-5.79	110.91	113.80
36	5	2161	G	C2-N3-C4	5.79	114.79	111.90
36	5	2296	A	OP1-P-O3'	5.79	117.93	105.20
36	5	3014	U	C5-C6-N1	-5.79	119.81	122.70
1	2	1200	G	N3-C4-N9	5.79	129.47	126.00
36	1	535	G	N3-C4-C5	-5.79	125.71	128.60
36	5	601	U	C2-N1-C1'	5.79	124.64	117.70
36	5	684	G	N3-C4-C5	5.79	131.49	128.60
36	5	1192	C	N1-C1'-C2'	-5.79	105.63	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	317	C	N3-C4-C5	-5.79	119.59	121.90
1	2	586	G	N1-C6-O6	5.79	123.37	119.90
36	1	276	U	N3-C4-C5	-5.79	111.13	114.60
36	1	290	G	OP2-P-O3'	5.79	117.93	105.20
36	1	1116	G	N1-C2-N3	5.79	127.37	123.90
36	1	1379	G	C5-C6-N1	-5.79	108.61	111.50
36	1	1413	G	C5-C6-O6	-5.79	125.13	128.60
36	1	1851	G	N1-C2-N2	5.79	121.41	116.20
36	1	2127	U	N3-C2-O2	5.79	126.25	122.20
36	1	2166	A	C5-C6-N1	5.79	120.59	117.70
36	1	2751	G	N3-C4-N9	-5.79	122.53	126.00
1	6	23	G	N9-C4-C5	5.79	107.71	105.40
1	6	474	A	C4-N9-C1'	-5.79	115.89	126.30
1	6	600	U	OP2-P-O3'	5.79	117.93	105.20
1	6	1449	U	C2-N3-C4	5.79	130.47	127.00
1	6	1676	U	C6-N1-C2	5.79	124.47	121.00
1	6	1768	G	C8-N9-C1'	5.79	134.52	127.00
36	5	1293	U	N3-C2-O2	5.79	126.25	122.20
36	5	1301	A	N1-C2-N3	5.79	132.19	129.30
36	5	2399	A	OP2-P-O3'	5.79	117.93	105.20
1	2	1788	G	N1-C6-O6	-5.78	116.43	119.90
36	1	383	G	N1-C2-N2	-5.78	110.99	116.20
36	1	676	G	N7-C8-N9	5.78	115.99	113.10
36	1	933	A	C2-N3-C4	5.78	113.49	110.60
36	1	1520	G	C5-C6-O6	-5.78	125.13	128.60
36	1	1769	G	N3-C2-N2	-5.78	115.85	119.90
36	1	2371	G	OP2-P-O3'	5.78	117.92	105.20
38	4	73	U	N3-C2-O2	-5.78	118.15	122.20
1	6	375	U	C2-N1-C1'	-5.78	110.76	117.70
1	6	606	A	C5-C6-N6	-5.78	119.07	123.70
1	6	1033	C	N3-C2-O2	-5.78	117.85	121.90
36	5	1455	U	OP2-P-O3'	5.78	117.92	105.20
36	5	2834	G	C8-N9-C4	5.78	108.71	106.40
36	5	3212	C	C5-C6-N1	-5.78	118.11	121.00
1	2	608	U	N3-C2-O2	-5.78	118.15	122.20
36	1	211	A	N3-C4-N9	-5.78	122.77	127.40
36	1	1156	C	C4-C5-C6	5.78	120.29	117.40
36	1	1929	G	C5-C6-N1	5.78	114.39	111.50
36	1	3276	G	C8-N9-C4	-5.78	104.09	106.40
38	4	55	U	O5'-P-OP1	-5.78	100.50	105.70
1	6	377	G	N9-C4-C5	5.78	107.71	105.40
36	5	928	C	O4'-C1'-N1	5.78	112.83	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	932	U	OP1-P-OP2	-5.78	110.93	119.60
36	5	1288	U	N3-C2-O2	-5.78	118.15	122.20
36	5	1831	U	N3-C4-O4	5.78	123.45	119.40
1	2	1284	C	C6-N1-C1'	5.78	127.74	120.80
1	2	1654	G	O5'-P-OP2	-5.78	100.50	105.70
36	1	649	A	C5-N7-C8	5.78	106.79	103.90
36	1	1650	G	C8-N9-C4	5.78	108.71	106.40
36	1	2760	C	N3-C2-O2	5.78	125.95	121.90
36	1	2987	A	N1-C2-N3	-5.78	126.41	129.30
1	6	208	U	C5-C6-N1	5.78	125.59	122.70
36	5	1003	A	O5'-P-OP1	-5.78	100.50	105.70
36	5	1041	U	O5'-P-OP1	5.78	117.64	110.70
36	5	1478	C	C5-C6-N1	5.78	123.89	121.00
36	5	2873	U	C5-C4-O4	5.78	129.37	125.90
36	5	3016	A	N3-C4-N9	-5.78	122.78	127.40
36	5	3035	A	C2-N3-C4	-5.78	107.71	110.60
40	l3	21	ARG	NE-CZ-NH2	-5.78	117.41	120.30
36	1	91	G	N3-C4-N9	5.78	129.47	126.00
36	1	810	A	C8-N9-C4	-5.78	103.49	105.80
62	N6	27	ARG	NE-CZ-NH1	-5.78	117.41	120.30
1	6	1085	G	C8-N9-C1'	-5.78	119.49	127.00
36	5	1420	C	C5-C4-N4	5.78	124.25	120.20
36	5	2612	U	C2-N3-C4	-5.78	123.53	127.00
36	5	2621	G	C4-C5-C6	5.78	122.27	118.80
1	2	562	G	N1-C2-N3	5.78	127.37	123.90
1	2	1412	G	N3-C4-C5	5.78	131.49	128.60
1	2	1471	A	O5'-P-OP2	5.78	117.63	110.70
36	1	59	G	C4-C5-N7	5.78	113.11	110.80
36	1	812	G	C4-C5-C6	5.78	122.27	118.80
36	1	1174	G	N3-C4-N9	5.78	129.47	126.00
36	1	1338	C	O5'-P-OP2	-5.78	100.50	105.70
36	1	1762	C	O4'-C1'-N1	5.78	112.82	108.20
36	1	2182	A	C4-C5-N7	5.78	113.59	110.70
36	1	2191	U	N3-C4-C5	-5.78	111.13	114.60
36	1	3038	U	N3-C4-C5	-5.78	111.13	114.60
38	4	34	U	C2-N1-C1'	-5.78	110.77	117.70
78	Q2	88	CYS	CA-CB-SG	-5.78	103.60	114.00
36	5	50	U	OP1-P-O3'	5.78	117.91	105.20
36	5	820	A	O5'-P-OP2	-5.78	100.50	105.70
36	5	1369	A	N1-C6-N6	5.78	122.07	118.60
36	5	1482	A	N9-C4-C5	-5.78	103.49	105.80
36	5	1595	U	C5-C4-O4	-5.78	122.43	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	176	C	C5-C6-N1	5.78	123.89	121.00
1	2	553	G	N1-C6-O6	5.78	123.37	119.90
1	2	610	G	N3-C4-C5	-5.78	125.71	128.60
36	1	1379	G	C4-N9-C1'	5.78	134.01	126.50
36	1	1690	C	N1-C2-O2	5.78	122.37	118.90
36	1	2655	U	C5-C6-N1	5.78	125.59	122.70
36	1	2916	U	N3-C4-C5	5.78	118.07	114.60
52	M6	101	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	6	1301	U	N3-C4-O4	5.78	123.44	119.40
1	6	1581	C	N3-C2-O2	-5.78	117.86	121.90
1	6	1609	U	N1-C2-O2	-5.78	118.76	122.80
1	6	1698	G	C5-C6-O6	5.78	132.06	128.60
36	5	96	G	N1-C6-O6	5.78	123.36	119.90
36	5	803	C	N3-C4-N4	5.78	122.04	118.00
36	5	2858	U	N3-C4-O4	5.78	123.44	119.40
36	5	2947	G	OP2-P-O3'	-5.78	92.49	105.20
36	5	3043	C	OP2-P-O3'	5.78	117.91	105.20
36	1	335	G	C8-N9-C1'	5.77	134.51	127.00
36	1	2339	C	C5-C6-N1	5.77	123.89	121.00
36	1	2354	C	N1-C2-O2	-5.77	115.44	118.90
36	1	2685	C	N3-C4-C5	-5.77	119.59	121.90
36	1	3330	A	N9-C4-C5	5.77	108.11	105.80
1	6	457	G	C4-C5-N7	5.77	113.11	110.80
36	5	591	G	C6-C5-N7	-5.77	126.94	130.40
36	5	629	U	N3-C4-C5	-5.77	111.14	114.60
36	5	966	U	C5-C4-O4	-5.77	122.44	125.90
36	5	2852	C	C5-C6-N1	-5.77	118.11	121.00
1	2	322	G	O4'-C1'-N9	-5.77	103.58	108.20
36	1	1442	U	OP1-P-OP2	-5.77	110.94	119.60
36	1	2391	G	N7-C8-N9	-5.77	110.21	113.10
36	1	2948	C	N3-C4-C5	-5.77	119.59	121.90
36	1	3150	A	N3-C4-C5	5.77	130.84	126.80
1	6	458	G	C4-C5-N7	-5.77	108.49	110.80
1	6	1093	A	C8-N9-C4	-5.77	103.49	105.80
36	5	1116	G	N1-C6-O6	5.77	123.36	119.90
36	5	1490	A	C8-N9-C4	-5.77	103.49	105.80
36	5	2286	U	N3-C4-O4	-5.77	115.36	119.40
36	5	3030	G	N1-C2-N3	-5.77	120.44	123.90
36	5	3080	G	C5-N7-C8	-5.77	101.41	104.30
36	1	636	C	N1-C2-N3	5.77	123.24	119.20
36	1	1207	G	O5'-P-OP1	-5.77	100.51	105.70
36	1	2617	U	C2-N3-C4	-5.77	123.54	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3152	U	C2-N1-C1'	-5.77	110.77	117.70
1	6	1604	U	C5-C6-N1	5.77	125.59	122.70
36	5	576	C	OP2-P-O3'	5.77	117.90	105.20
1	2	597	G	C4-C5-N7	5.77	113.11	110.80
1	2	1663	G	O5'-P-OP2	-5.77	100.51	105.70
36	1	894	G	C8-N9-C4	-5.77	104.09	106.40
36	1	1874	A	C8-N9-C4	-5.77	103.49	105.80
36	1	2182	A	C5-N7-C8	-5.77	101.02	103.90
36	1	2386	A	N1-C2-N3	5.77	132.19	129.30
36	1	2723	U	C5-C6-N1	-5.77	119.82	122.70
36	1	3206	C	N3-C2-O2	5.77	125.94	121.90
36	1	3363	U	N1-C2-O2	5.77	126.84	122.80
1	6	464	A	O5'-P-OP1	-5.77	100.51	105.70
36	5	1477	A	C5-C6-N1	5.77	120.58	117.70
36	5	3016	A	C5-N7-C8	-5.77	101.02	103.90
36	5	3051	U	C5-C6-N1	-5.77	119.81	122.70
36	5	3380	U	C6-N1-C1'	5.77	129.28	121.20
1	2	964	U	N1-C2-O2	5.77	126.84	122.80
1	2	1128	C	C5-C6-N1	-5.77	118.12	121.00
36	1	76	G	C5-C6-N1	-5.77	108.62	111.50
36	1	512	U	N1-C2-O2	-5.77	118.76	122.80
36	1	637	C	C2-N1-C1'	5.77	125.14	118.80
36	1	1192	C	N1-C2-N3	-5.77	115.16	119.20
36	1	1810	A	C2-N3-C4	-5.77	107.72	110.60
36	1	2131	A	N1-C6-N6	-5.77	115.14	118.60
52	M6	84	LEU	CB-CG-CD2	-5.77	101.20	111.00
1	6	25	C	N3-C4-C5	5.77	124.21	121.90
1	6	247	A	C6-C5-N7	-5.77	128.26	132.30
1	6	811	A	C4-N9-C1'	5.77	136.68	126.30
1	6	1541	G	O5'-P-OP2	5.77	117.62	110.70
36	5	423	A	OP1-P-OP2	-5.77	110.95	119.60
36	5	700	C	N1-C2-O2	5.77	122.36	118.90
36	5	1307	G	C4-C5-C6	5.77	122.26	118.80
36	5	2190	U	C6-N1-C2	-5.77	117.54	121.00
36	5	2431	C	N1-C2-O2	5.77	122.36	118.90
36	5	2852	C	C6-N1-C1'	-5.77	113.88	120.80
36	5	3350	C	N3-C4-C5	-5.77	119.59	121.90
37	7	56	A	C4-C5-N7	5.77	113.58	110.70
62	n6	87	LYS	CD-CE-NZ	5.77	124.97	111.70
36	1	193	C	N1-C2-O2	-5.77	115.44	118.90
36	1	939	U	N3-C2-O2	5.77	126.24	122.20
36	1	1629	U	O5'-P-OP2	-5.77	100.51	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1824	U	N3-C2-O2	-5.77	118.16	122.20
36	1	2794	G	C5-C6-N1	5.77	114.38	111.50
1	6	1326	A	N1-C6-N6	5.77	122.06	118.60
36	5	682	U	C6-N1-C1'	5.77	129.27	121.20
36	5	1886	A	O5'-P-OP2	-5.77	100.51	105.70
36	5	2782	U	N1-C2-O2	-5.77	118.76	122.80
1	2	1389	C	N3-C2-O2	-5.76	117.86	121.90
36	1	803	C	N1-C2-O2	5.76	122.36	118.90
36	1	1142	G	OP1-P-OP2	5.76	128.25	119.60
36	1	1331	U	C2-N3-C4	-5.76	123.54	127.00
36	1	1903	U	OP1-P-O3'	5.76	117.88	105.20
36	1	2748	A	N3-C4-C5	5.76	130.84	126.80
36	1	2816	G	C6-C5-N7	-5.76	126.94	130.40
36	1	3015	G	C8-N9-C4	5.76	108.71	106.40
36	1	3167	A	N1-C6-N6	5.76	122.06	118.60
1	6	354	C	C5-C6-N1	5.76	123.88	121.00
1	6	1571	C	N1-C2-O2	-5.76	115.44	118.90
1	6	1584	G	N9-C4-C5	-5.76	103.09	105.40
36	5	232	G	C8-N9-C1'	5.76	134.49	127.00
36	5	864	G	N3-C4-C5	-5.76	125.72	128.60
36	5	1578	C	C6-N1-C1'	-5.76	113.88	120.80
36	5	3022	G	OP1-P-O3'	-5.76	92.52	105.20
36	5	3260	G	N3-C4-C5	-5.76	125.72	128.60
36	1	1419	A	C4-C5-C6	5.76	119.88	117.00
36	1	2659	G	N9-C4-C5	-5.76	103.09	105.40
36	1	2917	G	C4-C5-N7	-5.76	108.50	110.80
36	1	2988	C	N1-C2-O2	5.76	122.36	118.90
1	6	932	U	N3-C2-O2	-5.76	118.17	122.20
36	5	2407	C	N3-C4-N4	5.76	122.03	118.00
36	5	2838	A	N1-C2-N3	5.76	132.18	129.30
36	5	2926	A	C6-C5-N7	-5.76	128.27	132.30
36	5	2986	U	C6-N1-C2	-5.76	117.54	121.00
36	5	3014	U	O5'-P-OP1	5.76	117.61	110.70
36	1	325	A	C6-N1-C2	-5.76	115.14	118.60
36	1	423	A	C4-C5-C6	5.76	119.88	117.00
36	1	1103	A	C5-N7-C8	5.76	106.78	103.90
36	1	1401	A	C5-C6-N6	-5.76	119.09	123.70
36	1	1507	G	N1-C2-N2	-5.76	111.01	116.20
36	1	1906	G	C4-C5-N7	5.76	113.11	110.80
36	1	3065	G	C8-N9-C4	-5.76	104.09	106.40
36	1	3230	G	C8-N9-C1'	5.76	134.49	127.00
1	6	384	G	N7-C8-N9	5.76	115.98	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	432	G	N3-C2-N2	5.76	123.93	119.90
1	6	1122	G	C5-C6-O6	-5.76	125.14	128.60
1	6	1124	A	N3-C4-C5	5.76	130.83	126.80
36	5	18	G	C8-N9-C4	-5.76	104.09	106.40
36	5	64	G	C4-C5-N7	5.76	113.10	110.80
36	5	210	U	N3-C4-C5	5.76	118.06	114.60
36	5	344	A	C5-N7-C8	-5.76	101.02	103.90
36	5	1902	G	O4'-C1'-N9	-5.76	103.59	108.20
36	5	3174	A	C4-C5-N7	5.76	113.58	110.70
36	5	3325	G	N1-C6-O6	-5.76	116.44	119.90
1	2	116	U	N1-C2-N3	5.76	118.36	114.90
36	1	867	G	C6-C5-N7	-5.76	126.94	130.40
36	1	929	A	C5-N7-C8	-5.76	101.02	103.90
36	1	1891	A	C2-N3-C4	-5.76	107.72	110.60
36	1	2730	G	C2-N3-C4	-5.76	109.02	111.90
36	1	3008	A	O5'-P-OP1	5.76	117.61	110.70
1	6	289	U	N1-C2-N3	5.76	118.36	114.90
1	6	1104	U	O5'-P-OP2	-5.76	100.52	105.70
1	6	1408	G	N1-C2-N3	5.76	127.36	123.90
1	6	1655	A	C6-C5-N7	-5.76	128.27	132.30
36	5	397	A	C4-C5-N7	-5.76	107.82	110.70
36	5	1475	A	C6-N1-C2	-5.76	115.14	118.60
36	5	1666	G	C8-N9-C4	5.76	108.70	106.40
36	5	1906	G	N3-C4-N9	5.76	129.46	126.00
38	8	90	U	N1-C2-O2	5.76	126.83	122.80
36	1	710	A	C5-C6-N6	-5.76	119.09	123.70
36	1	3293	U	N3-C2-O2	5.76	126.23	122.20
1	6	890	C	N3-C2-O2	-5.76	117.87	121.90
36	5	1853	U	N1-C2-O2	-5.76	118.77	122.80
36	5	2690	G	N1-C2-N2	5.76	121.38	116.20
36	5	3279	A	N9-C1'-C2'	-5.76	105.67	112.00
36	5	3289	G	C8-N9-C4	-5.76	104.10	106.40
1	2	1200	G	N3-C2-N2	-5.76	115.87	119.90
1	2	1614	A	N1-C6-N6	5.76	122.05	118.60
36	1	792	G	O5'-P-OP1	-5.76	100.52	105.70
36	1	1441	G	C5-C6-N1	5.76	114.38	111.50
36	1	2308	C	N1-C2-O2	-5.76	115.45	118.90
36	1	3191	G	C5-C6-N1	-5.76	108.62	111.50
1	6	415	C	C6-N1-C1'	5.76	127.71	120.80
36	5	866	A	N9-C4-C5	-5.76	103.50	105.80
36	5	1293	U	C2-N1-C1'	-5.76	110.79	117.70
36	5	1615	C	N1-C2-N3	5.76	123.23	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2678	A	N1-C2-N3	5.76	132.18	129.30
36	5	2979	U	N3-C4-O4	-5.76	115.37	119.40
37	7	106	U	C2-N3-C4	-5.76	123.55	127.00
59	n3	88	ARG	NE-CZ-NH1	5.76	123.18	120.30
36	1	1548	C	C5-C6-N1	5.75	123.88	121.00
36	1	2321	A	N3-C4-N9	-5.75	122.80	127.40
36	1	3013	U	O5'-P-OP1	5.75	117.61	110.70
36	1	744	A	C8-N9-C4	5.75	108.10	105.80
36	1	1661	G	N3-C4-N9	5.75	129.45	126.00
36	1	2119	A	C4-C5-N7	5.75	113.58	110.70
36	1	2173	U	N3-C4-C5	-5.75	111.15	114.60
36	1	2700	G	N3-C4-N9	5.75	129.45	126.00
36	1	2745	G	N3-C4-N9	5.75	129.45	126.00
1	6	558	U	C5-C6-N1	5.75	125.58	122.70
1	6	1139	A	N1-C2-N3	-5.75	126.42	129.30
1	6	1466	G	N1-C6-O6	5.75	123.35	119.90
36	5	576	C	C2-N1-C1'	5.75	125.13	118.80
36	5	694	C	N3-C4-N4	-5.75	113.97	118.00
36	5	821	U	N1-C2-N3	5.75	118.35	114.90
36	5	1603	A	C4-N9-C1'	5.75	136.66	126.30
36	5	3023	U	N3-C2-O2	5.75	126.23	122.20
36	5	3086	A	C5-C6-N1	-5.75	114.82	117.70
1	2	389	G	N7-C8-N9	5.75	115.97	113.10
36	1	423	A	N7-C8-N9	5.75	116.68	113.80
36	1	870	G	N7-C8-N9	-5.75	110.22	113.10
36	1	1131	G	C2-N3-C4	5.75	114.78	111.90
36	1	1554	U	C2-N1-C1'	5.75	124.60	117.70
36	1	2550	U	C5-C4-O4	5.75	129.35	125.90
36	1	2706	G	N3-C4-N9	5.75	129.45	126.00
36	1	3010	U	N1-C2-O2	-5.75	118.77	122.80
36	1	3118	C	C2-N1-C1'	5.75	125.13	118.80
37	3	117	A	C8-N9-C4	5.75	108.10	105.80
1	6	303	U	OP2-P-O3'	5.75	117.85	105.20
1	6	566	C	C6-N1-C2	5.75	122.60	120.30
1	6	1354	G	C5-N7-C8	-5.75	101.42	104.30
1	6	1564	U	C5-C6-N1	-5.75	119.82	122.70
1	6	1654	G	O5'-P-OP1	5.75	117.60	110.70
1	6	1760	G	C5-C6-N1	5.75	114.38	111.50
36	5	95	A	C5-N7-C8	-5.75	101.02	103.90
36	5	552	G	OP1-P-O3'	5.75	117.85	105.20
36	5	1370	G	N3-C4-N9	-5.75	122.55	126.00
36	5	1428	A	C2-N3-C4	-5.75	107.72	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1637	A	C6-N1-C2	-5.75	115.15	118.60
36	5	3166	C	N3-C4-C5	-5.75	119.60	121.90
37	7	54	U	C6-N1-C1'	5.75	129.25	121.20
37	3	81	U	N3-C4-C5	5.75	118.05	114.60
36	5	581	U	C2-N3-C4	5.75	130.45	127.00
36	5	2801	A	N7-C8-N9	5.75	116.67	113.80
36	1	229	G	N1-C6-O6	-5.75	116.45	119.90
36	1	317	A	C6-N1-C2	-5.75	115.15	118.60
36	1	628	A	N9-C4-C5	5.75	108.10	105.80
36	1	1425	U	O5'-P-OP1	-5.75	100.53	105.70
36	1	2144	A	OP1-P-O3'	5.75	117.85	105.20
36	1	2376	G	N9-C4-C5	5.75	107.70	105.40
36	1	2886	U	N3-C4-O4	5.75	123.42	119.40
36	1	3246	G	O5'-P-OP2	-5.75	100.53	105.70
36	1	3266	G	N3-C4-C5	-5.75	125.73	128.60
1	6	1743	U	OP1-P-OP2	5.75	128.22	119.60
36	5	68	C	C4-C5-C6	-5.75	114.53	117.40
36	5	154	U	O4'-C1'-N1	5.75	112.80	108.20
36	5	2834	G	N7-C8-N9	-5.75	110.23	113.10
36	5	3332	U	C5-C4-O4	5.75	129.35	125.90
1	2	401	A	N9-C4-C5	-5.75	103.50	105.80
36	1	39	A	C6-N1-C2	-5.75	115.15	118.60
36	1	936	A	O4'-C1'-N9	5.75	112.80	108.20
36	1	2631	U	OP2-P-O3'	5.75	117.84	105.20
36	5	952	A	N3-C4-C5	5.75	130.82	126.80
36	5	2209	U	OP1-P-O3'	5.75	117.84	105.20
36	5	2898	G	C5-N7-C8	5.75	107.17	104.30
37	7	73	C	O4'-C1'-N1	5.75	112.80	108.20
36	1	2298	U	N1-C2-O2	-5.75	118.78	122.80
36	1	2648	G	N3-C4-N9	5.75	129.45	126.00
36	1	3266	G	C4-N9-C1'	5.75	133.97	126.50
1	6	991	G	O5'-P-OP1	5.75	117.59	110.70
36	5	896	A	O5'-P-OP2	-5.75	100.53	105.70
36	5	3107	U	N3-C4-O4	5.75	123.42	119.40
37	7	12	U	OP1-P-OP2	-5.75	110.98	119.60
36	1	95	A	N3-C4-N9	-5.74	122.81	127.40
36	1	807	A	O4'-C1'-N9	5.74	112.79	108.20
36	1	2185	G	C4-C5-N7	5.74	113.10	110.80
36	1	2643	A	O5'-P-OP1	-5.74	100.53	105.70
1	6	576	G	N7-C8-N9	5.74	115.97	113.10
1	6	880	C	C2-N1-C1'	5.74	125.12	118.80
36	5	23	A	C5-C6-N6	-5.74	119.11	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	554	A	C8-N9-C4	-5.74	103.50	105.80
36	5	801	A	C2-N3-C4	-5.74	107.73	110.60
36	5	946	U	N1-C2-N3	5.74	118.35	114.90
36	5	1164	G	C4-N9-C1'	-5.74	119.03	126.50
36	5	1482	A	C6-N1-C2	-5.74	115.15	118.60
36	5	1861	G	C5-C6-O6	5.74	132.05	128.60
36	5	1863	G	C8-N9-C4	5.74	108.70	106.40
36	5	3184	A	N3-C4-C5	5.74	130.82	126.80
36	5	3200	G	N1-C2-N3	5.74	127.35	123.90
37	7	13	A	N7-C8-N9	5.74	116.67	113.80
37	7	37	G	C4-C5-N7	5.74	113.10	110.80
36	1	1137	C	C6-N1-C1'	-5.74	113.91	120.80
1	6	516	G	C5-N7-C8	-5.74	101.43	104.30
36	5	1690	C	N3-C2-O2	5.74	125.92	121.90
1	2	576	G	C5-N7-C8	-5.74	101.43	104.30
1	2	1142	A	C5-C6-N6	5.74	128.29	123.70
36	1	98	G	O5'-P-OP2	-5.74	100.53	105.70
36	1	2266	U	N3-C4-C5	5.74	118.04	114.60
1	6	1494	C	N1-C2-N3	5.74	123.22	119.20
36	5	1204	A	N1-C6-N6	5.74	122.05	118.60
36	5	2187	G	O5'-P-OP1	-5.74	100.53	105.70
36	5	2363	A	C5-C6-N1	-5.74	114.83	117.70
36	5	2741	C	C2-N1-C1'	5.74	125.11	118.80
37	7	59	U	O5'-P-OP1	5.74	117.59	110.70
36	1	2199	G	C8-N9-C1'	-5.74	119.54	127.00
36	1	2339	C	N3-C2-O2	-5.74	117.88	121.90
36	1	2762	A	C2-N3-C4	5.74	113.47	110.60
36	1	2879	C	N3-C4-C5	-5.74	119.60	121.90
1	6	30	G	C2-N3-C4	-5.74	109.03	111.90
1	6	1644	C	N3-C4-N4	-5.74	113.98	118.00
36	5	42	C	C6-N1-C1'	-5.74	113.91	120.80
36	5	962	A	O5'-P-OP1	-5.74	100.54	105.70
36	5	1197	A	C4-C5-C6	5.74	119.87	117.00
36	5	1873	U	C5-C6-N1	5.74	125.57	122.70
36	5	2122	G	C2-N3-C4	-5.74	109.03	111.90
36	5	2714	G	C8-N9-C4	-5.74	104.11	106.40
36	5	2995	A	N7-C8-N9	-5.74	110.93	113.80
37	7	83	U	N1-C2-N3	5.74	118.34	114.90
37	7	99	G	N3-C4-N9	-5.74	122.56	126.00
38	8	107	G	N7-C8-N9	5.74	115.97	113.10
36	1	30	G	C5-N7-C8	-5.74	101.43	104.30
36	1	909	G	C5-C6-O6	-5.74	125.16	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1469	C	C2-N3-C4	-5.74	117.03	119.90
36	1	2765	C	N1-C2-N3	5.74	123.22	119.20
1	6	1513	G	C6-C5-N7	-5.74	126.96	130.40
36	5	335	G	N3-C2-N2	-5.74	115.88	119.90
36	5	350	C	C5-C4-N4	-5.74	116.18	120.20
36	5	808	A	C8-N9-C4	-5.74	103.50	105.80
36	5	910	G	N3-C4-N9	-5.74	122.56	126.00
1	2	1751	C	N3-C2-O2	-5.74	117.89	121.90
36	1	1433	A	N7-C8-N9	5.74	116.67	113.80
36	1	2772	C	C5-C6-N1	5.74	123.87	121.00
36	1	2895	G	N1-C2-N3	5.74	127.34	123.90
36	1	3390	G	C4-C5-C6	5.74	122.24	118.80
43	L6	174	LEU	CB-CG-CD2	-5.74	101.25	111.00
1	6	1219	A	N9-C4-C5	-5.74	103.51	105.80
36	5	512	U	N3-C2-O2	-5.74	118.19	122.20
36	5	1495	U	OP1-P-O3'	5.74	117.82	105.20
36	5	1653	G	C4-N9-C1'	-5.74	119.04	126.50
36	5	1769	G	N3-C2-N2	-5.74	115.89	119.90
36	5	2776	C	C4-C5-C6	-5.74	114.53	117.40
36	5	2825	C	N3-C2-O2	5.74	125.92	121.90
36	1	1400	G	N1-C6-O6	5.73	123.34	119.90
36	1	1446	A	N1-C6-N6	-5.73	115.16	118.60
36	1	1522	U	O4'-C1'-N1	5.73	112.79	108.20
64	N8	42	ARG	NE-CZ-NH1	5.73	123.17	120.30
1	6	385	A	C4-C5-N7	-5.73	107.83	110.70
1	6	619	A	OP2-P-O3'	5.73	117.81	105.20
1	6	1035	G	C4-N9-C1'	-5.73	119.05	126.50
36	5	1150	A	O5'-P-OP2	-5.73	100.54	105.70
36	5	1487	G	N1-C6-O6	5.73	123.34	119.90
1	2	1127	G	C5-C6-O6	5.73	132.04	128.60
1	2	1647	U	C6-N1-C2	-5.73	117.56	121.00
36	1	517	G	C5-C6-O6	5.73	132.04	128.60
36	1	1305	U	C4-C5-C6	5.73	123.14	119.70
36	1	2240	G	C2-N3-C4	-5.73	109.03	111.90
36	1	2372	A	C5-N7-C8	5.73	106.77	103.90
36	1	2381	G	C4-C5-N7	5.73	113.09	110.80
36	1	2389	C	N1-C2-N3	5.73	123.21	119.20
36	1	2516	U	N3-C4-O4	-5.73	115.39	119.40
36	1	2872	A	O5'-P-OP1	-5.73	100.54	105.70
38	4	109	A	OP2-P-O3'	5.73	117.81	105.20
1	6	33	U	C2-N1-C1'	5.73	124.58	117.70
36	5	423	A	C8-N9-C1'	-5.73	117.38	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	782	U	C6-N1-C2	5.73	124.44	121.00
36	5	886	C	N1-C2-N3	-5.73	115.19	119.20
36	5	2195	C	C2-N3-C4	-5.73	117.03	119.90
36	5	2288	G	N3-C4-C5	-5.73	125.73	128.60
36	5	2596	U	N1-C2-O2	5.73	126.81	122.80
36	5	3309	G	C5-C6-N1	5.73	114.37	111.50
39	12	248	GLY	N-CA-C	5.73	127.43	113.10
1	2	1733	C	N3-C4-C5	-5.73	119.61	121.90
36	1	851	C	C6-N1-C2	-5.73	118.01	120.30
36	1	921	A	OP2-P-O3'	5.73	117.81	105.20
36	1	1301	A	C4-C5-N7	5.73	113.57	110.70
36	1	1407	A	N1-C6-N6	-5.73	115.16	118.60
36	1	1525	G	C6-C5-N7	-5.73	126.96	130.40
36	1	2188	A	N1-C2-N3	5.73	132.16	129.30
36	1	3055	U	C2-N1-C1'	5.73	124.58	117.70
38	4	3	A	N1-C6-N6	5.73	122.04	118.60
1	6	97	C	N3-C4-C5	-5.73	119.61	121.90
1	6	449	C	N3-C2-O2	-5.73	117.89	121.90
1	6	781	U	C6-N1-C2	-5.73	117.56	121.00
36	5	370	U	C5-C4-O4	-5.73	122.46	125.90
36	5	512	U	C2-N3-C4	-5.73	123.56	127.00
36	5	618	C	C6-N1-C2	-5.73	118.01	120.30
36	5	694	C	C2-N3-C4	-5.73	117.03	119.90
36	5	1073	U	N3-C2-O2	-5.73	118.19	122.20
36	5	1290	A	C6-C5-N7	-5.73	128.29	132.30
36	5	1914	G	N7-C8-N9	5.73	115.97	113.10
1	2	192	U	O4'-C1'-N1	5.73	112.78	108.20
36	1	1365	G	N1-C6-O6	5.73	123.34	119.90
36	1	1450	G	OP1-P-OP2	5.73	128.19	119.60
36	1	1495	U	N3-C2-O2	5.73	126.21	122.20
36	1	2299	A	C5-C6-N6	-5.73	119.12	123.70
36	1	2337	C	C6-N1-C2	5.73	122.59	120.30
36	1	2736	A	N1-C2-N3	5.73	132.16	129.30
36	1	2939	G	C5-C6-O6	5.73	132.04	128.60
36	5	952	A	C6-N1-C2	5.73	122.04	118.60
36	5	3081	C	C2-N1-C1'	-5.73	112.50	118.80
36	5	3099	C	N3-C2-O2	5.73	125.91	121.90
1	2	1431	C	C6-N1-C2	5.73	122.59	120.30
36	1	734	C	C5-C6-N1	5.73	123.86	121.00
36	1	1852	G	C4-C5-C6	5.73	122.24	118.80
36	1	3336	A	C4-C5-C6	5.73	119.86	117.00
1	6	939	A	C6-N1-C2	-5.73	115.16	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	385	A	C2-N3-C4	-5.73	107.74	110.60
36	5	858	A	C2-N3-C4	5.73	113.46	110.60
36	5	942	U	C5-C6-N1	5.73	125.56	122.70
36	5	1132	C	OP2-P-O3'	5.73	117.80	105.20
36	5	2404	A	C4-C5-N7	-5.73	107.84	110.70
37	7	33	U	N3-C4-C5	5.73	118.04	114.60
36	1	1422	G	O4'-C1'-N9	-5.73	103.62	108.20
36	1	2408	U	N3-C4-C5	-5.73	111.16	114.60
36	1	2939	G	C8-N9-C1'	-5.73	119.56	127.00
36	1	3306	U	C2-N3-C4	-5.73	123.56	127.00
38	4	1	A	N7-C8-N9	-5.73	110.94	113.80
1	6	151	G	N1-C2-N2	5.73	121.35	116.20
1	6	1769	U	N3-C4-C5	-5.73	111.16	114.60
36	5	632	G	C8-N9-C1'	-5.73	119.56	127.00
36	5	1112	A	C6-C5-N7	-5.73	128.29	132.30
1	2	1477	G	C8-N9-C4	-5.72	104.11	106.40
36	1	2636	A	C5-N7-C8	-5.72	101.04	103.90
36	1	3044	G	N3-C4-C5	5.72	131.46	128.60
37	3	88	G	C4-N9-C1'	5.72	133.94	126.50
38	4	27	U	N1-C2-O2	5.72	126.81	122.80
76	Q0	122	ARG	NE-CZ-NH1	5.72	123.16	120.30
1	6	344	A	C8-N9-C4	5.72	108.09	105.80
1	6	421	A	N1-C6-N6	5.72	122.03	118.60
36	5	1206	G	C8-N9-C1'	-5.72	119.56	127.00
36	5	2177	G	C5-C6-N1	5.72	114.36	111.50
36	5	2295	A	C5-C6-N1	5.72	120.56	117.70
1	2	393	C	N1-C2-O2	5.72	122.33	118.90
1	2	756	A	N7-C8-N9	5.72	116.66	113.80
1	2	1267	G	N3-C2-N2	-5.72	115.89	119.90
1	2	1584	G	C4-N9-C1'	-5.72	119.06	126.50
36	1	1529	A	N1-C6-N6	-5.72	115.17	118.60
36	1	1878	G	N1-C6-O6	5.72	123.33	119.90
36	1	1916	U	C2-N3-C4	-5.72	123.57	127.00
36	1	2703	A	C6-N1-C2	-5.72	115.17	118.60
36	1	3045	G	C5-C6-N1	5.72	114.36	111.50
1	6	29	U	OP2-P-O3'	5.72	117.79	105.20
1	6	545	A	N9-C4-C5	5.72	108.09	105.80
1	6	1185	U	C6-N1-C2	-5.72	117.57	121.00
36	5	25	U	N3-C4-C5	-5.72	111.17	114.60
36	5	776	U	C2-N3-C4	-5.72	123.57	127.00
36	5	1216	C	C2-N3-C4	-5.72	117.04	119.90
36	5	1302	A	O5'-P-OP2	5.72	117.57	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1476	G	C6-C5-N7	-5.72	126.97	130.40
36	5	1476	G	O5'-P-OP2	-5.72	100.55	105.70
36	5	1545	A	N7-C8-N9	5.72	116.66	113.80
36	5	2957	G	C6-C5-N7	-5.72	126.97	130.40
36	5	3142	A	C4-C5-N7	-5.72	107.84	110.70
36	5	3217	C	C4-C5-C6	5.72	120.26	117.40
37	7	16	U	C5-C6-N1	-5.72	119.84	122.70
37	7	21	G	N9-C4-C5	5.72	107.69	105.40
38	8	139	U	N3-C4-C5	5.72	118.03	114.60
1	2	21	U	C5-C6-N1	5.72	125.56	122.70
36	1	2278	C	O5'-P-OP2	-5.72	100.55	105.70
36	1	2704	A	OP1-P-O3'	5.72	117.79	105.20
36	1	3079	U	C6-N1-C1'	5.72	129.21	121.20
36	5	395	A	N9-C4-C5	5.72	108.09	105.80
36	5	1939	G	N3-C2-N2	5.72	123.91	119.90
37	7	5	G	C6-N1-C2	-5.72	121.67	125.10
36	1	89	A	C2-N3-C4	-5.72	107.74	110.60
36	1	562	C	C6-N1-C2	5.72	122.59	120.30
36	1	691	A	N7-C8-N9	5.72	116.66	113.80
36	1	898	U	N3-C2-O2	-5.72	118.20	122.20
36	1	914	A	N3-C4-C5	-5.72	122.80	126.80
36	1	1112	A	N3-C4-C5	-5.72	122.80	126.80
36	1	1525	G	N1-C2-N3	5.72	127.33	123.90
36	1	1783	U	C4-C5-C6	5.72	123.13	119.70
36	1	2624	G	C5-C6-O6	-5.72	125.17	128.60
36	1	2770	G	N7-C8-N9	5.72	115.96	113.10
36	1	2942	C	N3-C2-O2	5.72	125.90	121.90
1	6	1114	G	N3-C4-C5	-5.72	125.74	128.60
1	6	1533	C	N1-C2-O2	5.72	122.33	118.90
1	6	1575	G	C8-N9-C1'	5.72	134.44	127.00
36	5	942	U	N1-C2-N3	5.72	118.33	114.90
36	5	2330	C	C5-C6-N1	5.72	123.86	121.00
36	5	2703	A	N1-C6-N6	5.72	122.03	118.60
36	5	3223	A	N9-C4-C5	5.72	108.09	105.80
1	2	1120	U	N1-C2-N3	5.72	118.33	114.90
36	1	277	G	N3-C4-C5	-5.72	125.74	128.60
36	1	1117	G	C8-N9-C4	5.72	108.69	106.40
36	1	2414	G	N3-C2-N2	-5.72	115.90	119.90
1	6	597	G	C2-N3-C4	-5.72	109.04	111.90
1	6	1340	U	O5'-P-OP1	5.72	117.56	110.70
1	6	1392	U	C2-N1-C1'	-5.72	110.84	117.70
36	5	144	A	N1-C6-N6	-5.72	115.17	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1840	U	C5-C6-N1	-5.72	119.84	122.70
36	5	2421	U	N1-C2-O2	-5.72	118.80	122.80
1	2	611	U	N3-C4-O4	5.72	123.40	119.40
1	2	1423	U	C6-N1-C2	-5.72	117.57	121.00
36	1	590	G	OP2-P-O3'	5.72	117.78	105.20
36	1	1328	C	N1-C2-O2	-5.72	115.47	118.90
36	1	1713	G	N7-C8-N9	-5.72	110.24	113.10
36	1	2333	C	C2-N3-C4	-5.72	117.04	119.90
36	1	2572	C	O4'-C1'-N1	5.72	112.77	108.20
36	1	3369	G	C8-N9-C4	-5.72	104.11	106.40
1	6	313	U	C5-C6-N1	-5.72	119.84	122.70
1	6	748	U	N1-C2-O2	5.72	126.80	122.80
1	6	988	A	OP1-P-O3'	5.72	117.78	105.20
36	5	429	U	C6-N1-C2	5.72	124.43	121.00
36	5	883	A	O5'-P-OP1	-5.72	100.56	105.70
36	5	1890	U	N3-C4-C5	-5.72	111.17	114.60
36	5	2640	A	C2-N3-C4	-5.72	107.74	110.60
36	5	2695	A	N9-C4-C5	5.72	108.09	105.80
36	5	2758	A	C5-C6-N1	-5.72	114.84	117.70
37	7	33	U	O5'-P-OP1	-5.72	100.56	105.70
38	8	17	A	N7-C8-N9	-5.72	110.94	113.80
38	8	110	C	N1-C2-O2	5.72	122.33	118.90
40	13	282	ILE	CG1-CB-CG2	-5.72	98.82	111.40
1	2	1290	U	N3-C2-O2	-5.71	118.20	122.20
1	2	1493	A	O4'-C1'-N9	5.71	112.77	108.20
36	1	743	C	C5-C4-N4	5.71	124.20	120.20
36	1	873	C	C5-C4-N4	-5.71	116.20	120.20
36	1	2692	A	N9-C4-C5	5.71	108.09	105.80
36	1	2840	C	N3-C2-O2	-5.71	117.90	121.90
36	1	3175	U	N1-C2-O2	5.71	126.80	122.80
1	6	27	U	N3-C4-C5	-5.71	111.17	114.60
1	6	558	U	C2-N1-C1'	5.71	124.56	117.70
1	6	1648	A	N1-C6-N6	5.71	122.03	118.60
36	5	272	G	C4-N9-C1'	-5.71	119.07	126.50
36	5	883	A	N9-C4-C5	5.71	108.09	105.80
36	5	1665	C	C5-C6-N1	-5.71	118.14	121.00
36	5	2160	G	N1-C2-N2	5.71	121.34	116.20
36	5	2330	C	N3-C4-C5	-5.71	119.61	121.90
36	5	2588	U	N3-C4-C5	-5.71	111.17	114.60
36	5	2630	C	N3-C2-O2	-5.71	117.90	121.90
36	5	2715	A	N1-C2-N3	5.71	132.16	129.30
36	5	2835	U	N3-C4-O4	5.71	123.40	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2993	G	C5-C6-O6	-5.71	125.17	128.60
38	8	20	U	O5'-P-OP1	5.71	117.56	110.70
36	1	274	G	O5'-P-OP1	5.71	117.56	110.70
36	1	980	A	OP1-P-OP2	-5.71	111.03	119.60
36	1	3213	A	C5-N7-C8	-5.71	101.04	103.90
38	4	115	C	C6-N1-C2	5.71	122.58	120.30
1	6	1243	G	C6-C5-N7	-5.71	126.97	130.40
1	6	1744	A	C8-N9-C4	5.71	108.08	105.80
36	5	307	A	N1-C6-N6	-5.71	115.17	118.60
36	5	1119	C	OP1-P-O3'	-5.71	92.63	105.20
36	5	1698	C	C6-N1-C2	-5.71	118.02	120.30
36	5	2191	U	N3-C2-O2	-5.71	118.20	122.20
1	2	931	C	C2-N3-C4	5.71	122.76	119.90
36	1	573	C	N3-C4-N4	-5.71	114.00	118.00
36	1	2433	U	N1-C2-O2	5.71	126.80	122.80
36	1	3298	C	C6-N1-C2	5.71	122.58	120.30
43	L6	29	LYS	CD-CE-NZ	5.71	124.84	111.70
1	6	51	A	O4'-C1'-N9	-5.71	103.63	108.20
1	6	983	A	N7-C8-N9	5.71	116.66	113.80
1	6	1572	G	N7-C8-N9	5.71	115.95	113.10
1	6	1647	U	O5'-P-OP1	5.71	117.55	110.70
36	5	97	U	OP2-P-O3'	5.71	117.77	105.20
36	5	395	A	C5-C6-N1	-5.71	114.84	117.70
36	5	1683	A	C2-N3-C4	-5.71	107.74	110.60
36	5	3091	A	C4-C5-N7	5.71	113.56	110.70
37	7	37	G	N3-C2-N2	5.71	123.90	119.90
36	1	212	G	C8-N9-C1'	-5.71	119.58	127.00
36	1	2910	A	OP2-P-O3'	5.71	117.76	105.20
38	4	103	G	C8-N9-C1'	-5.71	119.58	127.00
36	5	1195	A	N9-C4-C5	5.71	108.08	105.80
36	5	2674	A	C8-N9-C4	5.71	108.08	105.80
36	5	2988	C	N3-C2-O2	-5.71	117.90	121.90
36	5	3121	U	OP1-P-O3'	5.71	117.76	105.20
36	5	3167	A	C8-N9-C4	-5.71	103.52	105.80
36	5	3175	U	N1-C2-N3	5.71	118.33	114.90
1	2	1280	C	O5'-P-OP2	5.71	117.55	110.70
1	2	1572	G	C6-C5-N7	-5.71	126.97	130.40
36	1	639	G	OP1-P-O3'	5.71	117.76	105.20
36	1	700	C	C6-N1-C1'	5.71	127.65	120.80
36	1	1152	G	N3-C4-N9	5.71	129.43	126.00
36	1	1176	C	N3-C4-C5	5.71	124.18	121.90
36	1	1374	G	C5-C6-N1	5.71	114.35	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1650	G	N9-C4-C5	-5.71	103.12	105.40
36	1	2697	A	P-O3'-C3'	-5.71	112.85	119.70
36	1	2703	A	C4-N9-C1'	5.71	136.57	126.30
1	6	176	C	N1-C2-O2	5.71	122.33	118.90
1	6	1269	U	C6-N1-C2	-5.71	117.58	121.00
1	6	1337	A	N3-C4-N9	-5.71	122.83	127.40
1	6	1477	G	N1-C2-N3	-5.71	120.47	123.90
36	5	398	A	O4'-C1'-N9	-5.71	103.63	108.20
36	5	1079	A	N1-C6-N6	-5.71	115.17	118.60
36	5	1313	G	C5-C6-O6	-5.71	125.17	128.60
36	5	1592	G	C8-N9-C1'	-5.71	119.58	127.00
36	5	1680	G	C6-C5-N7	-5.71	126.97	130.40
36	5	2988	C	C5-C4-N4	-5.71	116.20	120.20
36	5	3019	U	C4-C5-C6	5.71	123.12	119.70
38	8	2	A	C4-C5-N7	5.71	113.55	110.70
1	2	1004	U	C6-N1-C2	-5.71	117.58	121.00
36	1	1521	G	N3-C4-C5	5.71	131.45	128.60
36	1	1830	G	O5'-P-OP1	-5.71	100.56	105.70
36	1	2416	U	C5-C4-O4	-5.71	122.48	125.90
36	1	2650	U	C6-N1-C2	-5.71	117.58	121.00
36	1	2703	A	C8-N9-C4	-5.71	103.52	105.80
36	1	2800	G	C5-N7-C8	-5.71	101.45	104.30
36	1	2964	G	C4-C5-C6	5.71	122.22	118.80
38	4	10	A	N7-C8-N9	-5.71	110.95	113.80
1	6	1178	G	C4-C5-N7	-5.71	108.52	110.80
1	6	1391	A	C6-N1-C2	-5.71	115.18	118.60
1	6	1663	G	N3-C4-N9	-5.71	122.58	126.00
8	s6	165	GLY	N-CA-C	-5.71	98.83	113.10
36	5	126	U	O5'-P-OP2	-5.71	100.56	105.70
36	5	692	A	C4-C5-C6	5.71	119.85	117.00
36	5	1848	G	O5'-P-OP2	-5.71	100.56	105.70
36	5	2343	C	N1-C2-N3	5.71	123.19	119.20
1	2	1022	C	N3-C4-N4	-5.71	114.01	118.00
1	2	1412	G	C8-N9-C1'	5.71	134.42	127.00
36	1	48	A	C8-N9-C4	-5.71	103.52	105.80
36	1	639	G	N7-C8-N9	5.71	115.95	113.10
37	3	110	G	C8-N9-C4	5.71	108.68	106.40
1	6	432	G	C8-N9-C1'	-5.71	119.58	127.00
1	6	1127	G	C4-C5-N7	5.71	113.08	110.80
1	6	1539	G	C4-N9-C1'	5.71	133.92	126.50
36	5	1114	U	C6-N1-C1'	5.71	129.19	121.20
36	5	2774	C	O5'-P-OP1	-5.71	100.56	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2887	A	O4'-C1'-N9	-5.71	103.64	108.20
1	2	987	G	C2-N3-C4	5.70	114.75	111.90
1	2	1140	G	C5-C6-N1	-5.70	108.65	111.50
36	1	425	G	N3-C2-N2	5.70	123.89	119.90
36	1	862	U	N3-C4-O4	5.70	123.39	119.40
36	1	2299	A	C2-N3-C4	5.70	113.45	110.60
36	1	3174	A	N1-C6-N6	5.70	122.02	118.60
38	4	109	A	C4-C5-C6	-5.70	114.15	117.00
44	L7	177	GLY	N-CA-C	-5.70	98.84	113.10
1	6	1337	A	C4-N9-C1'	-5.70	116.03	126.30
1	6	1361	U	N3-C2-O2	-5.70	118.21	122.20
36	5	1793	C	C6-N1-C2	5.70	122.58	120.30
36	5	1942	U	O5'-P-OP1	-5.70	100.57	105.70
36	5	3130	A	N1-C6-N6	5.70	122.02	118.60
36	5	3333	G	C5-N7-C8	5.70	107.15	104.30
36	1	281	G	OP1-P-O3'	5.70	117.75	105.20
36	1	959	C	N1-C2-N3	-5.70	115.21	119.20
1	2	419	G	C6-C5-N7	-5.70	126.98	130.40
1	2	573	C	C4-C5-C6	5.70	120.25	117.40
36	1	649	A	N9-C4-C5	5.70	108.08	105.80
36	1	744	A	N3-C4-N9	-5.70	122.84	127.40
36	1	994	G	C5-C6-O6	5.70	132.02	128.60
36	1	1867	A	C4-C5-C6	5.70	119.85	117.00
36	1	1916	U	C4-C5-C6	5.70	123.12	119.70
36	1	2159	U	C5-C6-N1	5.70	125.55	122.70
36	1	2247	G	N1-C6-O6	5.70	123.32	119.90
36	1	3178	A	C5-C6-N1	-5.70	114.85	117.70
1	6	1442	U	C5-C4-O4	5.70	129.32	125.90
1	6	1600	A	N1-C2-N3	5.70	132.15	129.30
36	5	687	U	C2-N1-C1'	-5.70	110.86	117.70
36	5	805	G	N3-C4-C5	-5.70	125.75	128.60
36	5	890	C	N3-C2-O2	-5.70	117.91	121.90
36	5	978	G	C5-C6-O6	-5.70	125.18	128.60
36	5	1403	C	C6-N1-C1'	-5.70	113.96	120.80
36	5	3159	C	C5-C6-N1	-5.70	118.15	121.00
38	8	56	G	N1-C6-O6	5.70	123.32	119.90
1	2	1083	G	C8-N9-C4	5.70	108.68	106.40
1	2	1431	C	C5-C4-N4	-5.70	116.21	120.20
36	1	26	A	N7-C8-N9	5.70	116.65	113.80
36	1	801	A	C4-C5-N7	5.70	113.55	110.70
36	1	919	U	N3-C4-C5	5.70	118.02	114.60
36	1	1149	G	P-O3'-C3'	5.70	126.54	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1336	U	OP2-P-O3'	5.70	117.74	105.20
36	1	2354	C	N3-C4-C5	-5.70	119.62	121.90
36	1	3328	G	C5-N7-C8	-5.70	101.45	104.30
38	4	54	A	N7-C8-N9	5.70	116.65	113.80
64	N8	59	ARG	NE-CZ-NH1	-5.70	117.45	120.30
1	6	596	C	C2-N1-C1'	-5.70	112.53	118.80
1	6	881	A	O5'-P-OP1	-5.70	100.57	105.70
1	6	1782	A	N7-C8-N9	5.70	116.65	113.80
36	5	115	A	N1-C2-N3	5.70	132.15	129.30
36	5	582	G	N3-C4-N9	-5.70	122.58	126.00
36	5	2417	U	N3-C2-O2	5.70	126.19	122.20
36	5	2654	C	O5'-P-OP1	-5.70	100.57	105.70
36	5	2779	A	O5'-P-OP2	-5.70	100.57	105.70
36	5	2947	G	N3-C2-N2	-5.70	115.91	119.90
1	2	745	U	O5'-P-OP2	-5.70	100.57	105.70
36	1	682	U	C5-C4-O4	5.70	129.32	125.90
36	1	1724	U	C2-N3-C4	-5.70	123.58	127.00
36	1	1869	C	C2-N3-C4	5.70	122.75	119.90
36	1	2310	U	OP1-P-OP2	5.70	128.15	119.60
1	6	417	A	N3-C4-C5	-5.70	122.81	126.80
1	6	718	U	N1-C2-O2	5.70	126.79	122.80
1	6	1504	G	C6-C5-N7	-5.70	126.98	130.40
1	6	1625	C	C6-N1-C2	5.70	122.58	120.30
1	6	1796	C	N1-C2-O2	5.70	122.32	118.90
36	5	1845	G	C4-C5-C6	5.70	122.22	118.80
36	5	2273	G	N9-C4-C5	5.70	107.68	105.40
1	2	576	G	N3-C2-N2	-5.70	115.91	119.90
1	2	1595	U	O4'-C1'-N1	5.70	112.76	108.20
36	1	112	U	N1-C2-N3	5.70	118.32	114.90
36	1	283	G	OP1-P-O3'	5.70	117.73	105.20
36	1	515	C	C2-N1-C1'	5.70	125.06	118.80
36	1	973	A	N1-C2-N3	5.70	132.15	129.30
36	1	1108	U	OP1-P-OP2	5.70	128.14	119.60
36	1	1396	C	N1-C2-N3	-5.70	115.21	119.20
36	1	1465	A	C4-N9-C1'	-5.70	116.05	126.30
36	1	1556	C	C4-C5-C6	5.70	120.25	117.40
36	1	3362	A	C6-C5-N7	-5.70	128.31	132.30
1	6	30	G	N1-C2-N3	5.70	127.32	123.90
1	6	956	C	C6-N1-C2	5.70	122.58	120.30
1	6	959	U	N3-C2-O2	5.70	126.19	122.20
36	5	182	U	N3-C4-C5	-5.70	111.18	114.60
36	5	1000	C	N3-C2-O2	5.70	125.89	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1270	A	N1-C6-N6	-5.70	115.18	118.60
36	5	2155	G	N1-C6-O6	5.70	123.32	119.90
36	5	2838	A	C5-N7-C8	5.70	106.75	103.90
36	5	2880	U	N3-C2-O2	5.70	126.19	122.20
37	7	26	C	C2-N1-C1'	5.70	125.06	118.80
48	m1	37	LEU	CA-CB-CG	-5.70	102.20	115.30
73	o7	65	ARG	NE-CZ-NH1	5.70	123.15	120.30
36	1	1454	A	N1-C2-N3	5.69	132.15	129.30
36	1	2292	U	N1-C2-N3	5.69	118.32	114.90
1	6	1122	G	C6-C5-N7	-5.69	126.98	130.40
1	2	1006	C	OP1-P-OP2	-5.69	111.06	119.60
36	1	205	C	C2-N3-C4	-5.69	117.05	119.90
36	1	1405	U	C2-N3-C4	-5.69	123.58	127.00
36	1	1542	G	N7-C8-N9	5.69	115.95	113.10
36	1	1849	C	C2-N3-C4	-5.69	117.05	119.90
36	1	2138	A	OP1-P-OP2	5.69	128.14	119.60
36	1	2179	C	C6-N1-C2	-5.69	118.02	120.30
36	1	2323	G	OP1-P-OP2	-5.69	111.06	119.60
36	1	2707	C	N1-C2-N3	5.69	123.19	119.20
36	1	3020	U	C6-N1-C2	-5.69	117.58	121.00
36	1	3223	A	C2-N3-C4	5.69	113.45	110.60
36	1	3300	U	C6-N1-C1'	-5.69	113.23	121.20
37	3	79	A	N1-C6-N6	5.69	122.02	118.60
1	6	34	G	N7-C8-N9	-5.69	110.25	113.10
1	6	123	G	N1-C6-O6	5.69	123.32	119.90
1	6	1662	G	N9-C4-C5	-5.69	103.12	105.40
1	6	1697	G	N3-C4-C5	-5.69	125.75	128.60
36	5	323	A	O5'-P-OP1	-5.69	100.58	105.70
36	5	666	A	N1-C2-N3	5.69	132.15	129.30
36	5	1132	C	C6-N1-C2	5.69	122.58	120.30
36	5	1815	U	P-O3'-C3'	5.69	126.53	119.70
36	5	2201	G	C8-N9-C1'	-5.69	119.60	127.00
36	5	2698	G	C4-N9-C1'	-5.69	119.10	126.50
36	5	2733	A	C5-C6-N6	-5.69	119.15	123.70
1	2	1241	G	C6-C5-N7	-5.69	126.99	130.40
1	2	1780	G	O4'-C1'-N9	-5.69	103.65	108.20
36	1	178	U	C5-C6-N1	5.69	125.55	122.70
36	1	277	G	C4-C5-N7	-5.69	108.52	110.80
36	1	1795	U	O4'-C1'-N1	5.69	112.75	108.20
37	3	110	G	C5-C6-N1	5.69	114.34	111.50
1	6	57	G	C8-N9-C1'	-5.69	119.60	127.00
1	6	1575	G	N1-C6-O6	-5.69	116.49	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	384	A	C2-N3-C4	-5.69	107.75	110.60
36	5	570	A	C8-N9-C4	5.69	108.08	105.80
36	5	642	U	C2-N3-C4	-5.69	123.59	127.00
36	5	660	A	N1-C6-N6	-5.69	115.19	118.60
36	5	1082	U	N1-C2-O2	5.69	126.78	122.80
36	5	1172	G	N3-C4-C5	-5.69	125.75	128.60
36	5	2111	G	C6-N1-C2	5.69	128.51	125.10
36	5	2732	G	N3-C2-N2	-5.69	115.92	119.90
36	5	2914	G	O5'-P-OP2	-5.69	100.58	105.70
36	5	3173	G	C4-N9-C1'	5.69	133.90	126.50
38	8	55	U	N3-C4-O4	5.69	123.38	119.40
36	1	276	U	C6-N1-C2	-5.69	117.59	121.00
36	1	434	U	C5-C4-O4	5.69	129.31	125.90
36	1	1929	G	C5-N7-C8	-5.69	101.45	104.30
36	1	2394	G	C6-N1-C2	-5.69	121.69	125.10
36	1	2647	A	N3-C4-C5	-5.69	122.82	126.80
36	5	2842	U	N3-C4-O4	5.69	123.38	119.40
36	5	3124	G	N9-C4-C5	5.69	107.67	105.40
36	1	227	G	C5-C6-O6	-5.69	125.19	128.60
36	1	398	A	N1-C2-N3	-5.69	126.46	129.30
36	1	794	U	OP2-P-O3'	5.69	117.71	105.20
36	1	835	G	C6-C5-N7	-5.69	126.99	130.40
36	1	855	U	C5-C4-O4	-5.69	122.49	125.90
36	1	985	U	N1-C2-N3	5.69	118.31	114.90
36	1	1838	G	C6-C5-N7	-5.69	126.99	130.40
36	1	1886	A	O5'-P-OP2	-5.69	100.58	105.70
36	1	2943	G	C4-C5-N7	5.69	113.08	110.80
36	1	3150	A	N9-C4-C5	-5.69	103.53	105.80
36	1	3240	C	N1-C2-O2	-5.69	115.49	118.90
36	1	3320	A	N7-C8-N9	5.69	116.64	113.80
38	4	18	U	OP1-P-OP2	-5.69	111.07	119.60
36	5	102	C	C2-N1-C1'	-5.69	112.54	118.80
36	5	1897	G	C4-N9-C1'	5.69	133.89	126.50
36	5	2441	A	N7-C8-N9	5.69	116.64	113.80
36	5	3027	A	N1-C6-N6	5.69	122.01	118.60
36	5	3285	C	N3-C2-O2	-5.69	117.92	121.90
36	5	3309	G	C8-N9-C4	5.69	108.67	106.40
1	2	822	U	C5-C6-N1	5.69	125.54	122.70
36	1	943	U	N1-C2-O2	-5.69	118.82	122.80
36	1	1191	U	C2-N3-C4	-5.69	123.59	127.00
36	1	3244	A	C2-N3-C4	-5.69	107.76	110.60
36	1	3288	G	C4-C5-N7	5.69	113.07	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	901	G	C5-C6-O6	-5.69	125.19	128.60
1	6	983	A	O5'-P-OP2	-5.69	100.58	105.70
36	5	546	C	C6-N1-C2	-5.69	118.03	120.30
36	5	1013	G	N9-C4-C5	5.69	107.67	105.40
36	5	1129	A	C5-N7-C8	-5.69	101.06	103.90
36	5	1215	U	O5'-P-OP2	-5.69	100.58	105.70
36	5	1673	G	C4-C5-N7	5.69	113.08	110.80
36	5	1833	G	O5'-P-OP2	-5.69	100.58	105.70
36	5	1886	A	C4-C5-N7	-5.69	107.86	110.70
36	1	595	G	N1-C2-N2	-5.68	111.08	116.20
36	1	1208	U	C5-C4-O4	-5.68	122.49	125.90
36	1	1340	G	OP2-P-O3'	5.68	117.71	105.20
36	1	1524	A	C5-N7-C8	5.68	106.74	103.90
36	1	1607	U	OP1-P-O3'	5.68	117.70	105.20
36	1	2175	U	C5-C4-O4	5.68	129.31	125.90
36	1	2206	G	N9-C4-C5	-5.68	103.13	105.40
36	1	2990	G	C5-C6-O6	-5.68	125.19	128.60
36	1	3134	A	OP2-P-O3'	5.68	117.71	105.20
1	6	1169	G	N3-C4-N9	5.68	129.41	126.00
3	s1	207	LEU	CB-CG-CD2	-5.68	101.34	111.00
36	5	790	U	C2-N3-C4	-5.68	123.59	127.00
36	5	1947	G	C6-N1-C2	-5.68	121.69	125.10
36	5	2381	G	OP1-P-O3'	5.68	117.71	105.20
36	5	3182	G	N1-C2-N2	-5.68	111.08	116.20
36	5	3197	G	C5-C6-O6	-5.68	125.19	128.60
36	1	277	G	C8-N9-C4	-5.68	104.13	106.40
36	1	701	G	C4-C5-C6	5.68	122.21	118.80
36	1	1161	G	C6-N1-C2	-5.68	121.69	125.10
36	1	2257	C	N1-C2-O2	5.68	122.31	118.90
36	1	2809	C	N3-C4-C5	-5.68	119.63	121.90
36	1	2882	U	O5'-P-OP1	5.68	117.52	110.70
36	1	2884	C	C5-C4-N4	5.68	124.18	120.20
36	1	3107	U	C5-C4-O4	5.68	129.31	125.90
36	1	3306	U	N3-C4-C5	5.68	118.01	114.60
38	4	117	C	N3-C2-O2	5.68	125.88	121.90
1	6	25	C	N1-C2-O2	5.68	122.31	118.90
1	6	1320	U	C2-N1-C1'	5.68	124.52	117.70
36	5	64	G	C8-N9-C1'	-5.68	119.61	127.00
36	5	437	G	C2-N3-C4	5.68	114.74	111.90
36	5	746	A	C2-N3-C4	-5.68	107.76	110.60
36	5	890	C	O5'-P-OP2	-5.68	100.58	105.70
36	5	1147	G	C5-N7-C8	-5.68	101.46	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1755	C	N1-C2-N3	-5.68	115.22	119.20
36	5	1848	G	O5'-P-OP1	-5.68	100.59	105.70
36	5	2151	C	C5-C6-N1	-5.68	118.16	121.00
36	5	3269	U	N1-C1'-C2'	-5.68	105.75	112.00
41	14	194	TYR	CA-CB-CG	5.68	124.20	113.40
19	C7	46	LEU	CA-CB-CG	5.68	128.37	115.30
36	1	959	C	C5-C6-N1	-5.68	118.16	121.00
36	1	1320	C	N3-C4-N4	-5.68	114.02	118.00
36	1	1435	A	O5'-P-OP2	5.68	117.52	110.70
36	1	1541	G	C4-C5-N7	5.68	113.07	110.80
20	c8	116	LEU	CB-CG-CD2	-5.68	101.34	111.00
36	5	984	G	C5-C6-O6	-5.68	125.19	128.60
36	5	1171	G	N9-C4-C5	5.68	107.67	105.40
1	2	909	U	C2-N1-C1'	-5.68	110.89	117.70
1	2	1092	A	C8-N9-C4	-5.68	103.53	105.80
1	2	1302	U	N1-C2-N3	-5.68	111.49	114.90
1	2	1553	G	C4-N9-C1'	-5.68	119.12	126.50
36	1	705	A	C5-C6-N6	-5.68	119.16	123.70
36	1	957	C	C2-N3-C4	-5.68	117.06	119.90
36	1	2313	A	O5'-P-OP2	5.68	117.52	110.70
36	1	3238	G	C5-C6-O6	5.68	132.01	128.60
38	4	35	C	N1-C2-O2	-5.68	115.49	118.90
38	4	110	C	C5-C6-N1	-5.68	118.16	121.00
1	6	637	C	C6-N1-C1'	-5.68	113.98	120.80
1	6	1038	U	N1-C2-O2	-5.68	118.82	122.80
36	5	227	G	OP1-P-OP2	5.68	128.12	119.60
36	5	423	A	N3-C4-N9	5.68	131.94	127.40
36	5	1208	U	N3-C2-O2	-5.68	118.22	122.20
36	5	1339	C	N1-C2-O2	5.68	122.31	118.90
36	5	1537	A	C2-N3-C4	-5.68	107.76	110.60
36	5	1554	U	N1-C2-O2	5.68	126.78	122.80
36	5	1890	U	C2-N3-C4	5.68	130.41	127.00
36	5	2557	A	N1-C6-N6	-5.68	115.19	118.60
36	5	2961	G	C8-N9-C1'	-5.68	119.62	127.00
36	5	3095	U	OP1-P-O3'	5.68	117.69	105.20
36	5	3271	G	C5-C6-N1	-5.68	108.66	111.50
1	2	1080	U	N3-C4-C5	-5.68	111.19	114.60
1	2	1782	A	C5-C6-N6	5.68	128.24	123.70
36	1	580	C	N3-C2-O2	5.68	125.88	121.90
36	1	729	C	N3-C4-C5	-5.68	119.63	121.90
36	1	1314	C	N3-C4-N4	5.68	121.97	118.00
1	6	408	C	C2-N1-C1'	-5.68	112.56	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	418	G	C4-N9-C1'	5.68	133.88	126.50
36	5	842	G	C6-C5-N7	5.68	133.81	130.40
36	5	905	U	C5-C6-N1	-5.68	119.86	122.70
36	1	361	A	C5-C6-N6	-5.68	119.16	123.70
36	1	732	C	N1-C2-O2	5.68	122.31	118.90
36	1	979	U	C5-C6-N1	5.68	125.54	122.70
36	1	1049	C	N1-C2-O2	-5.68	115.49	118.90
36	1	2244	A	C6-N1-C2	-5.68	115.19	118.60
36	1	2914	G	C5-C6-O6	5.68	132.01	128.60
36	1	3018	C	C5-C6-N1	-5.68	118.16	121.00
36	1	3291	G	N1-C2-N2	5.68	121.31	116.20
38	4	109	A	N1-C6-N6	5.68	122.01	118.60
1	6	11	A	C5-C6-N6	5.68	128.24	123.70
1	6	1774	G	N1-C2-N3	5.68	127.31	123.90
10	s8	90	LEU	CA-CB-CG	-5.68	102.25	115.30
36	5	1933	A	C2-N3-C4	-5.68	107.76	110.60
36	5	3097	C	N3-C4-N4	5.68	121.97	118.00
1	2	401	A	OP2-P-O3'	5.67	117.68	105.20
1	2	776	G	C8-N9-C4	5.67	108.67	106.40
1	2	1594	G	N1-C6-O6	5.67	123.31	119.90
36	1	968	G	N3-C4-N9	5.67	129.41	126.00
36	1	1150	A	O5'-P-OP1	5.67	117.51	110.70
36	1	1213	G	C4-C5-N7	5.67	113.07	110.80
36	1	3304	U	C2-N3-C4	-5.67	123.59	127.00
38	4	102	U	O5'-P-OP2	-5.67	100.59	105.70
1	6	108	A	N1-C6-N6	5.67	122.00	118.60
36	5	43	A	C4-C5-N7	5.67	113.54	110.70
36	5	234	G	N7-C8-N9	5.67	115.94	113.10
36	5	637	C	O5'-P-OP2	-5.67	100.59	105.70
36	5	935	U	N1-C2-N3	5.67	118.31	114.90
36	5	1306	G	N3-C4-N9	-5.67	122.59	126.00
36	5	1444	G	C8-N9-C1'	-5.67	119.62	127.00
36	5	2144	A	C2-N3-C4	5.67	113.44	110.60
36	5	2847	A	C5-N7-C8	-5.67	101.06	103.90
37	7	60	G	N7-C8-N9	5.67	115.94	113.10
36	1	131	C	C5-C6-N1	5.67	123.84	121.00
36	1	1713	G	N3-C4-N9	-5.67	122.60	126.00
36	1	1902	G	C5-C6-N1	-5.67	108.66	111.50
36	1	2598	G	C8-N9-C4	-5.67	104.13	106.40
36	1	3261	C	N3-C4-N4	5.67	121.97	118.00
1	6	901	G	C2-N3-C4	5.67	114.74	111.90
36	5	3230	G	N3-C4-C5	-5.67	125.76	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	197	G	N1-C2-N2	-5.67	111.10	116.20
36	1	938	C	N1-C2-O2	5.67	122.30	118.90
36	1	1454	A	N1-C6-N6	5.67	122.00	118.60
36	1	1460	A	C5-C6-N1	5.67	120.54	117.70
36	1	2699	G	N3-C4-C5	5.67	131.44	128.60
1	6	395	U	C6-N1-C2	-5.67	117.60	121.00
1	6	577	G	N1-C6-O6	5.67	123.30	119.90
36	5	88	A	C5-C6-N6	-5.67	119.16	123.70
36	5	2138	A	C2-N3-C4	-5.67	107.76	110.60
36	5	2948	C	N3-C2-O2	-5.67	117.93	121.90
36	5	3057	U	N3-C2-O2	-5.67	118.23	122.20
42	l5	248	ARG	NE-CZ-NH1	5.67	123.14	120.30
54	m8	11	LYS	CD-CE-NZ	5.67	124.74	111.70
37	3	84	A	OP1-P-OP2	-5.67	111.09	119.60
1	6	103	A	N7-C8-N9	5.67	116.64	113.80
36	5	967	A	C8-N9-C4	-5.67	103.53	105.80
36	5	2836	C	C5-C6-N1	-5.67	118.17	121.00
1	2	240	U	P-O3'-C3'	5.67	126.50	119.70
36	1	42	C	C2-N3-C4	-5.67	117.06	119.90
36	1	840	C	N3-C4-C5	5.67	124.17	121.90
36	1	886	C	C6-N1-C2	-5.67	118.03	120.30
36	1	945	C	N3-C4-C5	-5.67	119.63	121.90
36	1	1463	U	C4-C5-C6	5.67	123.10	119.70
36	1	2814	G	N1-C2-N3	5.67	127.30	123.90
36	1	3104	U	N1-C1'-C2'	-5.67	105.77	112.00
41	L4	156	LEU	CA-CB-CG	5.67	128.34	115.30
1	6	176	C	C6-N1-C1'	-5.67	114.00	120.80
1	6	755	A	C4-C5-N7	5.67	113.53	110.70
1	6	777	C	C4-C5-C6	-5.67	114.57	117.40
36	5	1203	A	N9-C4-C5	-5.67	103.53	105.80
36	5	1913	A	C4-C5-N7	5.67	113.53	110.70
36	5	2427	U	C5-C4-O4	5.67	129.30	125.90
1	2	48	G	N7-C8-N9	5.67	115.93	113.10
1	2	581	U	N3-C4-O4	5.67	123.37	119.40
1	2	1682	U	O4'-C1'-N1	5.67	112.73	108.20
36	1	317	A	N1-C2-N3	5.67	132.13	129.30
36	1	775	A	C2-N3-C4	5.67	113.43	110.60
36	1	879	U	O5'-P-OP2	-5.67	100.60	105.70
36	1	901	G	N1-C2-N2	5.67	121.30	116.20
36	1	1549	U	N3-C2-O2	5.67	126.17	122.20
36	1	1553	U	C5-C6-N1	-5.67	119.87	122.70
36	1	2909	U	C2-N3-C4	-5.67	123.60	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3240	C	C2-N1-C1'	-5.67	112.57	118.80
1	6	757	A	N3-C4-N9	-5.67	122.87	127.40
1	6	1504	G	C4-C5-C6	5.67	122.20	118.80
36	5	1361	U	C5-C6-N1	-5.67	119.87	122.70
36	5	1780	G	N7-C8-N9	5.67	115.93	113.10
36	5	3307	A	C5-C6-N6	-5.67	119.17	123.70
36	1	1377	G	N3-C4-N9	5.67	129.40	126.00
36	1	2831	G	N9-C4-C5	-5.67	103.13	105.40
1	6	1409	G	N3-C4-C5	-5.67	125.77	128.60
36	5	404	G	O5'-P-OP2	-5.67	100.60	105.70
36	5	989	A	C8-N9-C4	5.67	108.07	105.80
1	2	1791	A	C8-N9-C4	5.66	108.06	105.80
36	1	106	A	C8-N9-C4	5.66	108.06	105.80
36	1	370	U	C2-N1-C1'	5.66	124.50	117.70
36	1	633	C	C5-C6-N1	5.66	123.83	121.00
36	1	937	G	N9-C4-C5	-5.66	103.13	105.40
36	1	1182	A	N7-C8-N9	-5.66	110.97	113.80
36	1	1321	G	N1-C2-N2	5.66	121.30	116.20
36	1	2335	G	C8-N9-C4	-5.66	104.14	106.40
36	1	2639	G	N1-C6-O6	5.66	123.30	119.90
36	1	3053	G	C2-N3-C4	-5.66	109.07	111.90
36	1	3266	G	N1-C2-N2	-5.66	111.10	116.20
38	4	52	A	C2-N3-C4	-5.66	107.77	110.60
1	6	1110	G	C8-N9-C1'	-5.66	119.64	127.00
36	5	2280	A	OP2-P-O3'	5.66	117.66	105.20
36	5	2286	U	N1-C2-N3	5.66	118.30	114.90
36	5	2992	U	O5'-P-OP2	-5.66	100.60	105.70
36	1	1048	A	OP1-P-O3'	5.66	117.66	105.20
36	1	1507	G	N3-C2-N2	5.66	123.86	119.90
36	1	1940	G	N1-C6-O6	-5.66	116.50	119.90
36	1	2939	G	N3-C2-N2	-5.66	115.94	119.90
36	1	3135	U	C4-C5-C6	5.66	123.10	119.70
1	6	1172	G	C5-C6-O6	5.66	132.00	128.60
1	6	1536	G	N3-C4-C5	-5.66	125.77	128.60
36	5	637	C	N1-C2-O2	5.66	122.30	118.90
36	5	832	G	C8-N9-C1'	-5.66	119.64	127.00
36	5	2422	C	OP2-P-O3'	5.66	117.66	105.20
36	5	2811	A	N9-C4-C5	5.66	108.06	105.80
36	5	2910	A	C8-N9-C4	5.66	108.06	105.80
36	5	2943	G	O5'-P-OP1	5.66	117.49	110.70
38	8	55	U	C2-N1-C1'	5.66	124.50	117.70
1	2	360	A	N1-C2-N3	-5.66	126.47	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	569	C	C6-N1-C2	5.66	122.56	120.30
1	2	1363	U	N1-C2-O2	5.66	126.76	122.80
36	1	919	U	N3-C4-O4	-5.66	115.44	119.40
36	1	1333	C	C2-N3-C4	-5.66	117.07	119.90
36	1	1467	A	C5-C6-N1	5.66	120.53	117.70
36	1	2278	C	C6-N1-C2	5.66	122.56	120.30
36	1	2298	U	N1-C2-N3	5.66	118.30	114.90
36	1	2316	G	C5-C6-N1	-5.66	108.67	111.50
36	1	2769	A	C2-N3-C4	-5.66	107.77	110.60
1	6	1604	U	C2-N1-C1'	5.66	124.49	117.70
1	6	1636	C	C6-N1-C2	5.66	122.56	120.30
36	5	395	A	C5-C6-N6	5.66	128.23	123.70
36	5	618	C	N3-C2-O2	-5.66	117.94	121.90
36	5	974	G	C4-C5-N7	5.66	113.06	110.80
36	5	3291	G	N1-C6-O6	-5.66	116.50	119.90
37	7	85	G	N1-C2-N2	5.66	121.29	116.20
1	2	1037	C	C5-C6-N1	5.66	123.83	121.00
36	1	404	G	O4'-C1'-N9	-5.66	103.67	108.20
36	1	659	G	N1-C6-O6	-5.66	116.50	119.90
36	1	807	A	C4-C5-N7	5.66	113.53	110.70
36	1	1359	C	N3-C2-O2	5.66	125.86	121.90
36	1	1765	U	C5-C4-O4	5.66	129.29	125.90
36	1	2296	A	C6-N1-C2	5.66	122.00	118.60
36	1	2685	C	C5-C4-N4	5.66	124.16	120.20
1	6	316	A	C5-C6-N6	-5.66	119.17	123.70
1	6	330	G	C2-N3-C4	-5.66	109.07	111.90
1	6	1119	G	N1-C2-N3	5.66	127.30	123.90
1	6	1362	U	C5-C6-N1	5.66	125.53	122.70
36	5	894	G	N3-C2-N2	-5.66	115.94	119.90
36	5	2112	U	N1-C2-N3	5.66	118.30	114.90
36	5	2816	G	C8-N9-C4	5.66	108.66	106.40
36	5	3150	A	C5-C6-N6	-5.66	119.17	123.70
36	5	3182	G	O5'-P-OP1	5.66	117.49	110.70
69	o3	49	ILE	CG1-CB-CG2	-5.66	98.95	111.40
36	1	699	A	C4-C5-C6	-5.66	114.17	117.00
36	1	2300	G	C4-C5-C6	5.66	122.19	118.80
36	1	2323	G	N3-C4-N9	5.66	129.39	126.00
38	4	17	A	C6-C5-N7	-5.66	128.34	132.30
1	6	1115	U	N1-C2-O2	5.66	126.76	122.80
36	5	1399	A	C5-C6-N6	-5.66	119.17	123.70
36	5	1603	A	N3-C4-N9	5.66	131.93	127.40
36	5	2236	G	C4-N9-C1'	5.66	133.85	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2763	U	N3-C2-O2	5.66	126.16	122.20
36	5	2921	U	O4'-C1'-N1	-5.66	103.67	108.20
1	2	1282	U	C5-C6-N1	-5.66	119.87	122.70
36	1	225	C	N3-C4-C5	-5.66	119.64	121.90
36	1	272	G	O5'-P-OP1	-5.66	100.61	105.70
36	1	303	G	C5-C6-N1	5.66	114.33	111.50
36	1	680	G	N7-C8-N9	-5.66	110.27	113.10
36	1	871	U	C2-N1-C1'	-5.66	110.91	117.70
36	1	1306	G	C5-C6-N1	-5.66	108.67	111.50
36	1	1513	G	C4-C5-N7	5.66	113.06	110.80
36	1	2391	G	OP2-P-O3'	5.66	117.64	105.20
36	1	2556	C	C5-C4-N4	5.66	124.16	120.20
36	1	2893	C	OP1-P-OP2	5.66	128.08	119.60
36	1	3015	G	OP2-P-O3'	5.66	117.64	105.20
1	6	1422	A	N1-C6-N6	-5.66	115.21	118.60
1	6	1521	G	C6-N1-C2	-5.66	121.71	125.10
1	6	1777	G	C8-N9-C1'	-5.66	119.65	127.00
36	5	804	C	O5'-P-OP1	-5.66	100.61	105.70
36	5	963	G	N3-C4-C5	-5.66	125.77	128.60
36	5	1215	U	N3-C2-O2	5.66	126.16	122.20
36	5	1518	U	N1-C2-N3	5.66	118.29	114.90
36	5	2150	G	C6-C5-N7	-5.66	127.01	130.40
36	5	2524	A	N1-C6-N6	5.66	121.99	118.60
36	5	2850	G	N3-C4-N9	5.66	129.39	126.00
36	5	3146	G	O4'-C1'-N9	-5.66	103.68	108.20
38	8	2	A	N1-C2-N3	5.66	132.13	129.30
38	8	70	G	C5-C6-O6	5.66	131.99	128.60
77	q1	15	ARG	NE-CZ-NH1	-5.66	117.47	120.30
36	1	810	A	N1-C2-N3	5.65	132.13	129.30
36	1	2754	G	N3-C2-N2	5.65	123.86	119.90
36	5	2856	G	N3-C2-N2	-5.65	115.94	119.90
1	2	625	C	N1-C2-O2	5.65	122.29	118.90
1	2	1002	G	N3-C4-C5	-5.65	125.77	128.60
1	2	1589	C	N3-C2-O2	-5.65	117.94	121.90
36	1	591	G	C8-N9-C1'	-5.65	119.65	127.00
36	1	1154	A	P-O3'-C3'	-5.65	112.92	119.70
36	1	1370	G	C8-N9-C1'	5.65	134.35	127.00
36	1	1470	U	O5'-P-OP1	-5.65	100.61	105.70
36	1	2191	U	N1-C2-N3	5.65	118.29	114.90
1	6	144	U	C5-C6-N1	5.65	125.53	122.70
1	6	1270	G	C5-C6-O6	-5.65	125.21	128.60
36	5	993	G	N9-C4-C5	5.65	107.66	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1455	U	C5-C4-O4	-5.65	122.51	125.90
36	5	2381	G	N3-C2-N2	-5.65	115.94	119.90
36	5	3053	G	C5-C6-O6	5.65	131.99	128.60
36	5	3394	U	C6-N1-C2	-5.65	117.61	121.00
36	1	1061	A	C4-C5-N7	-5.65	107.88	110.70
36	1	2119	A	C6-C5-N7	-5.65	128.34	132.30
36	1	2237	C	C2-N3-C4	-5.65	117.07	119.90
36	1	2675	C	C6-N1-C2	5.65	122.56	120.30
1	6	337	G	N1-C2-N3	-5.65	120.51	123.90
1	6	453	U	C6-N1-C1'	-5.65	113.29	121.20
1	6	575	C	N3-C4-C5	5.65	124.16	121.90
1	6	1644	C	C5-C4-N4	5.65	124.16	120.20
1	6	1780	G	C4-N9-C1'	5.65	133.84	126.50
36	5	850	U	C5-C4-O4	-5.65	122.51	125.90
36	5	916	G	C6-N1-C2	-5.65	121.71	125.10
36	5	1902	G	C2-N3-C4	-5.65	109.08	111.90
36	5	2175	U	C5-C6-N1	-5.65	119.88	122.70
36	5	2377	G	N3-C4-N9	-5.65	122.61	126.00
36	5	2387	A	C6-C5-N7	-5.65	128.34	132.30
36	5	3142	A	O5'-P-OP2	5.65	117.48	110.70
37	7	88	G	C2-N3-C4	5.65	114.72	111.90
1	2	1788	G	C4-C5-C6	-5.65	115.41	118.80
6	S4	38	LEU	CA-CB-CG	5.65	128.29	115.30
36	1	1316	C	C5-C6-N1	-5.65	118.18	121.00
36	1	1927	G	N1-C2-N2	-5.65	111.12	116.20
36	1	2371	G	N1-C2-N3	5.65	127.29	123.90
36	1	2711	C	N1-C2-O2	-5.65	115.51	118.90
36	5	405	U	C5-C4-O4	-5.65	122.51	125.90
36	5	2831	G	C4-N9-C1'	5.65	133.84	126.50
36	5	2923	U	N3-C4-O4	5.65	123.35	119.40
36	5	3029	A	OP1-P-O3'	5.65	117.63	105.20
76	q0	106	ARG	NE-CZ-NH1	-5.65	117.47	120.30
36	1	1310	G	N3-C4-N9	-5.65	122.61	126.00
36	1	2610	G	N7-C8-N9	5.65	115.92	113.10
36	1	2666	C	C2-N3-C4	5.65	122.72	119.90
36	1	2864	A	N3-C4-N9	-5.65	122.88	127.40
56	N0	24	LEU	CA-CB-CG	5.65	128.29	115.30
1	6	692	C	C6-N1-C2	5.65	122.56	120.30
36	5	424	G	OP1-P-O3'	-5.65	92.78	105.20
36	5	954	U	C4-C5-C6	5.65	123.09	119.70
36	5	1784	G	N3-C4-C5	-5.65	125.78	128.60
36	5	2833	A	N7-C8-N9	-5.65	110.98	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2859	U	C5-C6-N1	-5.65	119.88	122.70
36	5	2924	U	N3-C4-O4	5.65	123.35	119.40
36	5	3249	C	C5-C6-N1	-5.65	118.18	121.00
36	1	1530	U	OP2-P-O3'	5.65	117.62	105.20
36	1	1871	U	O5'-P-OP2	5.65	117.48	110.70
36	1	1947	G	C4-C5-N7	5.65	113.06	110.80
1	6	718	U	N3-C2-O2	-5.65	118.25	122.20
36	5	677	A	N1-C6-N6	5.65	121.99	118.60
36	5	1792	C	OP1-P-OP2	5.65	128.07	119.60
36	5	2936	A	C4-C5-C6	5.65	119.82	117.00
1	2	1121	C	N3-C2-O2	-5.64	117.95	121.90
36	1	86	G	C5-C6-O6	-5.64	125.21	128.60
36	1	1194	G	N3-C4-C5	-5.64	125.78	128.60
1	6	94	U	N3-C2-O2	5.64	126.15	122.20
1	6	112	A	N9-C4-C5	-5.64	103.54	105.80
1	6	474	A	C6-N1-C2	5.64	121.99	118.60
1	6	1569	A	O4'-C1'-N9	-5.64	103.68	108.20
1	6	1654	G	O5'-P-OP2	-5.64	100.62	105.70
36	5	182	U	N1-C2-N3	5.64	118.29	114.90
36	5	326	U	N3-C2-O2	-5.64	118.25	122.20
36	5	1337	A	N3-C4-N9	-5.64	122.88	127.40
36	5	2973	G	N1-C2-N2	5.64	121.28	116.20
36	5	3128	G	OP1-P-OP2	-5.64	111.13	119.60
1	2	322	G	O5'-P-OP1	-5.64	100.62	105.70
1	2	1163	A	C2-N3-C4	-5.64	107.78	110.60
36	1	962	A	C8-N9-C4	-5.64	103.54	105.80
36	1	2113	A	N9-C4-C5	5.64	108.06	105.80
36	1	2348	A	C2-N3-C4	-5.64	107.78	110.60
36	1	2914	G	N9-C4-C5	5.64	107.66	105.40
36	1	3119	U	O5'-P-OP1	-5.64	100.62	105.70
1	6	151	G	N3-C4-C5	5.64	131.42	128.60
1	6	474	A	N3-C4-C5	5.64	130.75	126.80
1	6	598	U	C5-C4-O4	-5.64	122.51	125.90
1	6	827	C	N1-C2-O2	-5.64	115.51	118.90
1	6	1060	U	N1-C2-O2	5.64	126.75	122.80
36	5	718	G	N9-C4-C5	-5.64	103.14	105.40
36	5	1653	G	C8-N9-C1'	5.64	134.34	127.00
1	2	1272	U	C4-C5-C6	5.64	123.08	119.70
36	1	178	U	C6-N1-C2	-5.64	117.62	121.00
36	1	1404	G	N1-C2-N2	-5.64	111.12	116.20
36	1	1511	U	C2-N3-C4	-5.64	123.62	127.00
1	6	351	C	OP1-P-O3'	5.64	117.61	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	827	C	C2-N1-C1'	-5.64	112.59	118.80
1	6	1780	G	N9-C4-C5	-5.64	103.14	105.40
36	5	1137	C	C5-C4-N4	-5.64	116.25	120.20
36	5	1900	A	C5-C6-N6	-5.64	119.19	123.70
36	5	2578	U	N1-C2-O2	5.64	126.75	122.80
36	5	2644	C	OP2-P-O3'	5.64	117.61	105.20
38	8	7	U	O5'-P-OP1	-5.64	100.62	105.70
1	2	822	U	C2-N1-C1'	5.64	124.47	117.70
1	2	891	A	C8-N9-C4	5.64	108.06	105.80
1	2	1486	G	N7-C8-N9	5.64	115.92	113.10
36	1	636	C	OP1-P-O3'	5.64	117.61	105.20
36	1	1295	G	N3-C2-N2	5.64	123.85	119.90
36	1	1587	A	N9-C4-C5	5.64	108.06	105.80
36	1	1786	G	OP2-P-O3'	5.64	117.61	105.20
36	1	2232	A	N1-C6-N6	5.64	121.98	118.60
36	1	2277	C	N3-C2-O2	-5.64	117.95	121.90
36	1	2921	U	C2-N1-C1'	5.64	124.47	117.70
1	6	419	G	C4-C5-N7	5.64	113.06	110.80
1	6	1782	A	C8-N9-C4	-5.64	103.54	105.80
36	5	416	A	OP2-P-O3'	5.64	117.61	105.20
36	5	995	U	N3-C2-O2	-5.64	118.25	122.20
36	5	1877	U	C5-C4-O4	5.64	129.28	125.90
36	5	3226	A	N3-C4-N9	-5.64	122.89	127.40
37	7	81	U	N3-C2-O2	-5.64	118.25	122.20
37	7	95	A	C4-C5-C6	5.64	119.82	117.00
59	n3	70	ARG	NE-CZ-NH2	-5.64	117.48	120.30
36	1	1205	A	N1-C6-N6	5.64	121.98	118.60
36	1	2101	C	P-O3'-C3'	5.64	126.47	119.70
36	1	2272	G	C2-N3-C4	-5.64	109.08	111.90
36	1	2343	C	C2-N1-C1'	5.64	125.00	118.80
36	5	2393	G	N3-C2-N2	5.64	123.85	119.90
1	2	1484	G	C5-C6-O6	5.64	131.98	128.60
36	1	348	A	OP1-P-O3'	5.64	117.60	105.20
36	1	611	A	C8-N9-C4	5.64	108.06	105.80
36	1	683	U	N1-C2-O2	-5.64	118.85	122.80
36	1	1362	G	C4-N9-C1'	-5.64	119.17	126.50
36	1	1527	C	O5'-P-OP1	-5.64	100.63	105.70
36	1	1855	U	OP1-P-O3'	5.64	117.60	105.20
36	1	2174	G	C5-N7-C8	-5.64	101.48	104.30
36	1	2309	A	C5-C6-N6	-5.64	119.19	123.70
36	1	2352	A	C6-C5-N7	-5.64	128.35	132.30
36	1	2872	A	C8-N9-C4	5.64	108.06	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2897	A	C6-N1-C2	-5.64	115.22	118.60
1	6	965	U	N3-C2-O2	-5.64	118.25	122.20
1	6	1169	G	C5-C6-O6	5.64	131.98	128.60
1	6	1457	C	C6-N1-C1'	-5.64	114.03	120.80
1	6	1656	U	C6-N1-C2	5.64	124.38	121.00
20	c8	116	LEU	CA-CB-CG	5.64	128.26	115.30
36	5	874	U	O4'-C1'-N1	5.64	112.71	108.20
36	5	2140	U	C6-N1-C2	-5.64	117.62	121.00
36	5	2303	A	C5-C6-N6	-5.64	119.19	123.70
36	5	3037	U	O5'-P-OP2	-5.64	100.63	105.70
36	5	3181	C	N3-C4-C5	-5.64	119.64	121.90
36	5	3195	U	OP1-P-O3'	5.64	117.60	105.20
40	l3	246	LEU	CA-CB-CG	-5.64	102.34	115.30
62	n6	30	LEU	CA-CB-CG	5.64	128.26	115.30
1	2	65	A	C8-N9-C4	-5.63	103.55	105.80
1	2	378	A	C5-C6-N1	-5.63	114.88	117.70
1	2	449	C	N3-C4-N4	-5.63	114.06	118.00
1	2	825	U	N3-C4-O4	5.63	123.34	119.40
36	1	44	U	C5-C6-N1	-5.63	119.88	122.70
36	1	883	A	C2-N3-C4	-5.63	107.78	110.60
36	1	938	C	N1-C2-N3	5.63	123.14	119.20
36	1	1010	G	N9-C4-C5	-5.63	103.15	105.40
36	1	1947	G	N1-C6-O6	5.63	123.28	119.90
36	1	2157	G	O5'-P-OP2	-5.63	100.63	105.70
36	1	2694	A	O5'-P-OP1	-5.63	100.63	105.70
36	1	2964	G	C6-C5-N7	-5.63	127.02	130.40
36	1	3207	U	N1-C2-N3	5.63	118.28	114.90
37	3	92	A	C4-C5-N7	5.63	113.52	110.70
38	4	81	U	C2-N1-C1'	5.63	124.46	117.70
67	O1	55	LEU	CA-CB-CG	5.63	128.26	115.30
1	6	250	C	C5-C6-N1	5.63	123.82	121.00
1	6	1658	G	N3-C4-N9	-5.63	122.62	126.00
1	6	1676	U	C5-C6-N1	-5.63	119.88	122.70
36	5	714	G	C8-N9-C1'	-5.63	119.67	127.00
36	5	969	C	C2-N3-C4	-5.63	117.08	119.90
36	5	2825	C	OP1-P-O3'	-5.63	92.80	105.20
36	5	3337	G	O5'-P-OP1	5.63	117.46	110.70
38	8	65	A	C8-N9-C4	-5.63	103.55	105.80
40	l3	62	ARG	NE-CZ-NH2	-5.63	117.48	120.30
1	2	73	U	P-O3'-C3'	5.63	126.46	119.70
1	2	119	A	N7-C8-N9	-5.63	110.98	113.80
1	2	463	U	N1-C2-N3	5.63	118.28	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	422	A	C8-N9-C4	-5.63	103.55	105.80
36	1	1363	A	N9-C4-C5	-5.63	103.55	105.80
36	1	2727	A	C5-N7-C8	5.63	106.72	103.90
1	6	318	U	N3-C4-O4	5.63	123.34	119.40
36	5	592	A	C4-C5-C6	-5.63	114.18	117.00
36	5	1369	A	N7-C8-N9	5.63	116.62	113.80
37	7	108	A	OP2-P-O3'	5.63	117.59	105.20
38	8	33	A	OP2-P-O3'	5.63	117.59	105.20
47	m0	3	ARG	NE-CZ-NH1	5.63	123.12	120.30
36	1	918	C	N3-C4-N4	-5.63	114.06	118.00
36	1	1086	C	O5'-P-OP2	-5.63	100.63	105.70
36	1	1383	G	C8-N9-C4	-5.63	104.15	106.40
36	1	2139	A	C6-C5-N7	-5.63	128.36	132.30
36	1	2924	U	N1-C2-O2	-5.63	118.86	122.80
36	1	3196	U	N3-C4-O4	-5.63	115.46	119.40
1	6	163	G	C5-N7-C8	-5.63	101.48	104.30
1	6	800	U	C6-N1-C1'	5.63	129.09	121.20
1	6	862	A	N1-C6-N6	-5.63	115.22	118.60
1	6	1324	G	C2-N3-C4	-5.63	109.08	111.90
36	5	589	A	N9-C4-C5	5.63	108.05	105.80
36	5	965	A	N3-C4-N9	5.63	131.91	127.40
36	5	2325	G	C2-N3-C4	-5.63	109.08	111.90
36	5	3312	U	N3-C4-C5	5.63	117.98	114.60
36	5	3327	G	N3-C2-N2	-5.63	115.96	119.90
38	8	23	U	C6-N1-C2	5.63	124.38	121.00
54	m8	49	LEU	CA-CB-CG	5.63	128.25	115.30
1	2	404	G	N1-C6-O6	-5.63	116.52	119.90
36	1	95	A	N9-C4-C5	5.63	108.05	105.80
36	1	2135	U	N3-C2-O2	-5.63	118.26	122.20
1	6	787	G	N1-C6-O6	-5.63	116.52	119.90
1	6	982	U	N3-C4-C5	5.63	117.98	114.60
36	5	794	U	C5-C6-N1	5.63	125.52	122.70
36	5	1397	C	C4-C5-C6	5.63	120.22	117.40
36	5	1847	A	C5-C6-N6	5.63	128.20	123.70
36	5	2647	A	C5-N7-C8	-5.63	101.08	103.90
1	2	352	A	C6-N1-C2	-5.63	115.22	118.60
36	1	85	A	C8-N9-C4	-5.63	103.55	105.80
36	1	196	G	N1-C6-O6	-5.63	116.52	119.90
36	1	1315	U	C5-C6-N1	-5.63	119.89	122.70
36	1	1838	G	OP1-P-O3'	5.63	117.58	105.20
36	1	1911	A	C8-N9-C4	-5.63	103.55	105.80
36	1	2830	G	N3-C4-N9	-5.63	122.62	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2914	G	C8-N9-C4	-5.63	104.15	106.40
36	1	3309	G	C2-N3-C4	-5.63	109.09	111.90
38	4	27	U	C4-C5-C6	-5.63	116.32	119.70
1	6	972	G	N3-C4-C5	-5.63	125.79	128.60
1	6	1623	C	N3-C4-N4	5.63	121.94	118.00
36	5	569	A	C4-C5-N7	5.63	113.52	110.70
36	5	1880	U	C5-C4-O4	-5.63	122.52	125.90
36	5	2208	A	C4-C5-N7	5.63	113.51	110.70
36	5	2343	C	C2-N3-C4	-5.63	117.08	119.90
37	7	20	A	OP1-P-OP2	-5.63	111.16	119.60
37	7	88	G	OP2-P-O3'	5.63	117.58	105.20
1	2	182	A	N7-C8-N9	5.63	116.61	113.80
36	1	517	G	O5'-P-OP1	-5.63	100.64	105.70
36	1	1361	U	C5-C4-O4	-5.63	122.53	125.90
36	1	2204	C	C2-N1-C1'	5.63	124.99	118.80
36	1	2635	A	C4-C5-C6	5.63	119.81	117.00
36	1	3260	G	C4-N9-C1'	5.63	133.81	126.50
36	1	3264	G	C4-N9-C1'	5.63	133.81	126.50
41	L4	244	LEU	CA-CB-CG	5.63	128.24	115.30
44	L7	90	LYS	CD-CE-NZ	5.63	124.64	111.70
1	6	1101	G	N3-C4-N9	5.63	129.38	126.00
1	6	1396	U	C6-N1-C2	-5.63	117.62	121.00
13	c1	63	LEU	CA-CB-CG	-5.63	102.36	115.30
36	5	591	G	C5-C6-N1	-5.63	108.69	111.50
36	5	2706	G	O5'-P-OP1	-5.63	100.64	105.70
36	5	2999	U	O5'-P-OP1	-5.63	100.64	105.70
37	7	88	G	N1-C6-O6	-5.63	116.53	119.90
38	8	22	U	C2-N3-C4	-5.63	123.62	127.00
36	1	1095	U	C5-C6-N1	5.62	125.51	122.70
36	1	1521	G	O4'-C1'-N9	5.62	112.70	108.20
36	1	2210	G	C4-N9-C1'	-5.62	119.19	126.50
1	6	332	U	N1-C2-O2	5.62	126.74	122.80
1	6	1569	A	C4-C5-C6	5.62	119.81	117.00
1	6	1660	A	OP2-P-O3'	5.62	117.58	105.20
1	2	797	G	N3-C4-N9	-5.62	122.63	126.00
36	1	34	A	OP2-P-O3'	5.62	117.57	105.20
36	1	813	G	C6-C5-N7	-5.62	127.03	130.40
36	1	861	C	N1-C2-N3	5.62	123.14	119.20
36	1	1059	G	C8-N9-C4	5.62	108.65	106.40
36	1	1110	U	C6-N1-C2	5.62	124.37	121.00
36	1	1379	G	O4'-C1'-N9	-5.62	103.70	108.20
36	1	1635	G	C8-N9-C1'	-5.62	119.69	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1651	U	O4'-C1'-N1	5.62	112.70	108.20
36	5	368	G	N1-C2-N3	5.62	127.27	123.90
36	5	612	U	N1-C2-O2	-5.62	118.86	122.80
36	5	1860	G	N9-C4-C5	5.62	107.65	105.40
36	5	2262	A	C4-C5-N7	5.62	113.51	110.70
36	5	2335	G	C8-N9-C4	5.62	108.65	106.40
36	5	2354	C	N3-C2-O2	5.62	125.84	121.90
36	5	2728	G	C8-N9-C4	-5.62	104.15	106.40
36	5	2860	U	N1-C2-O2	5.62	126.74	122.80
36	5	2881	C	C2-N1-C1'	-5.62	112.61	118.80
36	5	2931	C	OP1-P-O3'	5.62	117.57	105.20
36	5	3184	A	C4-C5-N7	5.62	113.51	110.70
43	16	20	LYS	CD-CE-NZ	5.62	124.63	111.70
1	2	567	A	C8-N9-C4	5.62	108.05	105.80
36	1	308	A	O5'-P-OP1	5.62	117.45	110.70
36	1	1020	G	C4-C5-N7	5.62	113.05	110.80
36	1	1856	C	N1-C2-O2	5.62	122.27	118.90
36	1	2267	C	O5'-P-OP2	5.62	117.45	110.70
36	1	2554	A	C8-N9-C4	5.62	108.05	105.80
36	1	3375	A	N1-C2-N3	5.62	132.11	129.30
38	4	44	A	N7-C8-N9	5.62	116.61	113.80
1	6	611	U	C4-C5-C6	5.62	123.07	119.70
36	5	191	U	O5'-P-OP1	5.62	117.45	110.70
36	5	1411	C	C2-N3-C4	-5.62	117.09	119.90
36	5	1598	G	N3-C4-C5	-5.62	125.79	128.60
36	5	3044	G	N7-C8-N9	5.62	115.91	113.10
36	5	3207	U	N1-C2-N3	5.62	118.27	114.90
36	5	3295	A	N9-C4-C5	5.62	108.05	105.80
36	1	1436	U	N3-C2-O2	-5.62	118.27	122.20
1	6	107	C	N1-C2-N3	5.62	123.13	119.20
36	5	868	C	O5'-P-OP2	5.62	117.44	110.70
36	5	1216	C	C5-C4-N4	-5.62	116.27	120.20
36	5	1498	A	C5-C6-N6	5.62	128.20	123.70
36	5	2514	U	C6-N1-C1'	5.62	129.07	121.20
36	5	3379	C	C5-C6-N1	-5.62	118.19	121.00
1	2	30	G	C4-C5-N7	5.62	113.05	110.80
1	2	551	G	N3-C4-C5	5.62	131.41	128.60
1	2	555	A	N9-C4-C5	5.62	108.05	105.80
36	1	299	G	C4-C5-N7	5.62	113.05	110.80
36	1	647	A	N1-C2-N3	5.62	132.11	129.30
36	1	754	G	N9-C4-C5	-5.62	103.15	105.40
36	1	830	A	C2-N3-C4	-5.62	107.79	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	996	A	C5-C6-N6	-5.62	119.20	123.70
36	1	3017	A	OP2-P-O3'	5.62	117.56	105.20
36	1	3186	A	C8-N9-C4	-5.62	103.55	105.80
38	4	99	C	C5-C4-N4	-5.62	116.27	120.20
1	6	313	U	C5-C4-O4	5.62	129.27	125.90
1	6	1089	U	C5-C6-N1	5.62	125.51	122.70
36	5	649	A	C6-C5-N7	-5.62	128.37	132.30
36	5	718	G	C5-C6-O6	-5.62	125.23	128.60
36	5	1410	U	O5'-P-OP1	5.62	117.44	110.70
36	5	2865	U	C5-C4-O4	5.62	129.27	125.90
36	5	2867	C	O4'-C1'-N1	5.62	112.69	108.20
37	7	5	G	N1-C6-O6	-5.62	116.53	119.90
1	2	529	A	N7-C8-N9	-5.62	110.99	113.80
36	1	412	G	C8-N9-C4	-5.62	104.15	106.40
36	1	651	G	O5'-P-OP1	5.62	117.44	110.70
36	1	1000	C	C5-C4-N4	-5.62	116.27	120.20
36	1	1174	G	N3-C2-N2	5.62	123.83	119.90
1	6	786	C	N3-C2-O2	-5.62	117.97	121.90
36	5	769	G	N3-C4-C5	5.62	131.41	128.60
36	5	1340	G	C5-N7-C8	-5.62	101.49	104.30
36	5	1491	A	N1-C2-N3	5.62	132.11	129.30
36	5	2626	A	N1-C6-N6	5.62	121.97	118.60
36	5	3127	A	OP2-P-O3'	5.62	117.56	105.20
38	8	42	G	O5'-P-OP1	5.62	117.44	110.70
1	2	1080	U	C6-N1-C2	-5.62	117.63	121.00
36	1	387	A	C5-N7-C8	-5.62	101.09	103.90
36	1	414	U	N3-C2-O2	-5.62	118.27	122.20
36	1	1048	A	C2-N3-C4	5.62	113.41	110.60
36	1	1386	A	C8-N9-C1'	5.62	137.81	127.70
36	1	2323	G	O5'-P-OP1	5.62	117.44	110.70
36	1	3119	U	C6-N1-C2	-5.62	117.63	121.00
36	1	3186	A	N1-C2-N3	5.62	132.11	129.30
1	6	31	C	N3-C4-C5	-5.62	119.65	121.90
1	6	1443	U	N1-C2-O2	5.62	126.73	122.80
1	6	1576	A	C8-N9-C4	5.62	108.05	105.80
36	5	526	C	C6-N1-C1'	-5.62	114.06	120.80
36	5	639	G	OP1-P-O3'	5.62	117.55	105.20
36	5	966	U	N3-C4-O4	5.62	123.33	119.40
36	5	1475	A	N1-C6-N6	-5.62	115.23	118.60
36	5	2514	U	C6-N1-C2	-5.62	117.63	121.00
36	5	2620	G	N7-C8-N9	5.62	115.91	113.10
36	5	2659	G	C5-C6-O6	-5.62	125.23	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3164	C	C6-N1-C1'	-5.62	114.06	120.80
36	5	3184	A	OP2-P-O3'	5.62	117.56	105.20
36	1	873	C	N1-C2-N3	5.61	123.13	119.20
36	1	1364	C	C6-N1-C2	5.61	122.55	120.30
36	1	1443	G	OP1-P-O3'	5.61	117.55	105.20
36	1	2740	A	C5-C6-N1	5.61	120.51	117.70
36	1	3372	A	N7-C8-N9	-5.61	110.99	113.80
1	6	1168	U	C6-N1-C2	-5.61	117.63	121.00
1	6	1592	A	C5-C6-N6	5.61	128.19	123.70
36	5	297	G	N3-C4-N9	5.61	129.37	126.00
36	5	1365	G	N9-C4-C5	5.61	107.65	105.40
36	5	1505	C	N1-C2-O2	-5.61	115.53	118.90
36	5	1924	U	C2-N1-C1'	-5.61	110.96	117.70
36	5	2825	C	C2-N3-C4	5.61	122.71	119.90
1	2	458	G	C5-C6-N1	-5.61	108.69	111.50
36	1	675	C	C6-N1-C2	-5.61	118.06	120.30
36	1	861	C	N3-C2-O2	-5.61	117.97	121.90
36	1	3054	U	C6-N1-C1'	5.61	129.06	121.20
36	1	3216	G	N1-C2-N2	-5.61	111.15	116.20
36	5	636	C	N3-C4-N4	5.61	121.93	118.00
36	5	831	G	C8-N9-C4	5.61	108.64	106.40
36	5	1733	G	N1-C6-O6	5.61	123.27	119.90
36	1	29	C	N3-C4-N4	5.61	121.93	118.00
36	1	334	A	C4-C5-C6	-5.61	114.19	117.00
36	1	1056	U	N1-C2-N3	5.61	118.27	114.90
36	1	2272	G	N1-C6-O6	5.61	123.27	119.90
36	1	2808	A	C8-N9-C1'	-5.61	117.60	127.70
36	1	2893	C	O5'-P-OP1	-5.61	100.65	105.70
36	1	3040	A	C5-N7-C8	5.61	106.70	103.90
1	6	23	G	N3-C4-N9	-5.61	122.63	126.00
1	6	430	G	N3-C4-C5	-5.61	125.80	128.60
1	6	993	A	C2-N3-C4	-5.61	107.79	110.60
1	6	1650	U	P-O3'-C3'	-5.61	112.97	119.70
36	5	408	A	N1-C2-N3	5.61	132.10	129.30
36	5	1138	U	C2-N3-C4	-5.61	123.63	127.00
36	5	2938	G	C6-C5-N7	-5.61	127.03	130.40
36	1	231	G	C8-N9-C4	5.61	108.64	106.40
36	1	299	G	C5-C6-O6	-5.61	125.23	128.60
1	6	865	A	C5-C6-N1	5.61	120.50	117.70
1	6	1117	U	N3-C4-C5	-5.61	111.23	114.60
1	6	1186	U	N3-C4-C5	5.61	117.97	114.60
36	5	1634	G	N3-C4-N9	5.61	129.37	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1661	G	C8-N9-C4	5.61	108.64	106.40
36	1	637	C	O5'-P-OP1	-5.61	100.65	105.70
36	1	709	A	N7-C8-N9	-5.61	111.00	113.80
36	1	973	A	C6-C5-N7	5.61	136.22	132.30
36	1	1893	A	C6-C5-N7	-5.61	128.38	132.30
36	1	1927	G	N3-C2-N2	5.61	123.83	119.90
36	1	2193	U	N1-C2-N3	5.61	118.27	114.90
36	1	2675	C	N3-C2-O2	5.61	125.83	121.90
36	1	3114	A	C4-C5-C6	5.61	119.80	117.00
1	6	457	G	C5-C6-O6	-5.61	125.24	128.60
1	6	1118	G	O5'-P-OP2	-5.61	100.65	105.70
1	6	1775	U	C5-C6-N1	-5.61	119.90	122.70
36	5	365	A	C5-C6-N6	-5.61	119.21	123.70
36	5	2208	A	C6-C5-N7	-5.61	128.37	132.30
36	5	2304	C	C5-C6-N1	5.61	123.80	121.00
36	5	2391	G	C5-N7-C8	5.61	107.10	104.30
36	5	2817	A	C6-N1-C2	-5.61	115.23	118.60
36	5	2918	G	C5-C6-N1	5.61	114.30	111.50
38	8	105	A	N1-C6-N6	5.61	121.96	118.60
1	2	982	U	OP2-P-O3'	5.61	117.53	105.20
36	1	238	A	C8-N9-C4	-5.61	103.56	105.80
36	1	973	A	C4-N9-C1'	-5.61	116.21	126.30
36	1	1220	U	N1-C2-N3	5.61	118.26	114.90
36	1	1307	G	O4'-C1'-N9	-5.61	103.72	108.20
36	1	2874	G	C5-C6-O6	5.61	131.96	128.60
1	6	746	A	C8-N9-C4	-5.61	103.56	105.80
36	5	189	G	C6-N1-C2	-5.61	121.74	125.10
36	5	199	A	O4'-C1'-N9	5.61	112.68	108.20
36	5	276	U	C5-C4-O4	-5.61	122.54	125.90
36	5	567	G	N9-C4-C5	-5.61	103.16	105.40
36	5	2389	C	N3-C4-C5	5.61	124.14	121.90
36	5	3129	A	N3-C4-C5	5.61	130.72	126.80
36	5	3272	C	C4-C5-C6	5.61	120.20	117.40
36	1	870	G	N3-C4-N9	-5.60	122.64	126.00
36	1	1064	A	C6-C5-N7	5.60	136.22	132.30
36	1	1851	G	C4-C5-N7	5.60	113.04	110.80
36	1	1922	A	C5-C6-N6	-5.60	119.22	123.70
1	6	211	U	O5'-P-OP2	-5.60	100.66	105.70
36	5	632	G	N3-C4-C5	-5.60	125.80	128.60
36	5	702	C	C6-N1-C2	-5.60	118.06	120.30
36	5	883	A	N1-C6-N6	-5.60	115.24	118.60
36	5	998	A	C5-N7-C8	5.60	106.70	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2601	A	N7-C8-N9	-5.60	111.00	113.80
1	2	1217	A	C4-C5-N7	5.60	113.50	110.70
36	1	621	A	C8-N9-C4	-5.60	103.56	105.80
36	1	2139	A	C2-N3-C4	-5.60	107.80	110.60
36	1	2611	U	N3-C2-O2	-5.60	118.28	122.20
36	1	2831	G	N7-C8-N9	5.60	115.90	113.10
36	1	2932	U	C2-N1-C1'	-5.60	110.98	117.70
36	1	3135	U	N1-C2-N3	5.60	118.26	114.90
36	1	3340	G	C8-N9-C4	-5.60	104.16	106.40
37	3	33	U	C2-N1-C1'	5.60	124.42	117.70
38	4	82	U	P-O3'-C3'	5.60	126.42	119.70
1	6	381	C	N3-C4-C5	5.60	124.14	121.90
1	6	1277	G	C4-C5-N7	5.60	113.04	110.80
1	6	1658	G	C2-N3-C4	-5.60	109.10	111.90
36	5	1400	G	N7-C8-N9	5.60	115.90	113.10
36	5	1592	G	N9-C4-C5	5.60	107.64	105.40
36	5	1910	A	C4-C5-N7	5.60	113.50	110.70
36	5	2202	C	N1-C2-O2	-5.60	115.54	118.90
36	5	2413	A	C8-N9-C4	-5.60	103.56	105.80
36	5	2572	C	N3-C2-O2	-5.60	117.98	121.90
36	5	2610	G	N1-C6-O6	5.60	123.26	119.90
36	5	3093	C	C2-N3-C4	-5.60	117.10	119.90
36	5	3245	A	C8-N9-C4	-5.60	103.56	105.80
38	8	5	U	N3-C2-O2	5.60	126.12	122.20
38	8	26	U	C5-C4-O4	5.60	129.26	125.90
1	2	628	G	N1-C6-O6	5.60	123.26	119.90
36	1	595	G	C6-C5-N7	-5.60	127.04	130.40
36	1	623	U	C6-N1-C2	-5.60	117.64	121.00
36	1	2893	C	C4-C5-C6	5.60	120.20	117.40
36	1	3075	G	N3-C2-N2	-5.60	115.98	119.90
36	1	3324	C	C5-C4-N4	5.60	124.12	120.20
1	6	383	G	N1-C6-O6	5.60	123.26	119.90
1	6	1700	C	C2-N3-C4	5.60	122.70	119.90
36	5	2677	G	C5-C6-O6	-5.60	125.24	128.60
36	1	823	C	N3-C2-O2	5.60	125.82	121.90
36	1	973	A	N9-C4-C5	5.60	108.04	105.80
36	1	1127	G	N3-C4-N9	-5.60	122.64	126.00
36	1	2216	G	C5-C6-N1	5.60	114.30	111.50
36	1	2775	U	C2-N1-C1'	-5.60	110.98	117.70
36	1	3006	A	N9-C4-C5	5.60	108.04	105.80
1	6	391	A	C5-C6-N1	-5.60	114.90	117.70
1	6	540	G	C4-N9-C1'	-5.60	119.22	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	956	C	C5-C6-N1	-5.60	118.20	121.00
1	6	969	C	C5-C4-N4	-5.60	116.28	120.20
1	6	1424	A	O5'-P-OP1	5.60	117.42	110.70
36	5	883	A	N1-C2-N3	5.60	132.10	129.30
36	5	913	A	N3-C4-C5	-5.60	122.88	126.80
36	5	1320	C	N3-C4-C5	-5.60	119.66	121.90
36	5	1403	C	O4'-C1'-N1	-5.60	103.72	108.20
36	5	2362	C	OP1-P-O3'	5.60	117.52	105.20
36	5	2394	G	C5-C6-N1	-5.60	108.70	111.50
36	5	2890	A	C5-C6-N6	5.60	128.18	123.70
36	5	3213	A	N9-C4-C5	-5.60	103.56	105.80
1	2	1080	U	C5-C4-O4	5.60	129.26	125.90
36	1	233	C	OP1-P-OP2	5.60	128.00	119.60
36	1	885	U	O5'-P-OP1	-5.60	100.66	105.70
36	1	950	G	N3-C2-N2	-5.60	115.98	119.90
36	1	1402	C	C4-C5-C6	5.60	120.20	117.40
36	1	2304	C	C5-C6-N1	-5.60	118.20	121.00
36	1	2556	C	N3-C4-N4	-5.60	114.08	118.00
36	1	2839	G	OP2-P-O3'	5.60	117.52	105.20
1	6	1106	U	C2-N1-C1'	5.60	124.42	117.70
1	6	1576	A	N9-C4-C5	-5.60	103.56	105.80
1	6	1777	G	N7-C8-N9	5.60	115.90	113.10
18	c6	30	LYS	CD-CE-NZ	5.60	124.57	111.70
20	c8	115	ARG	NE-CZ-NH1	-5.60	117.50	120.30
36	5	1238	C	P-O3'-C3'	5.60	126.42	119.70
36	5	1476	G	C8-N9-C4	5.60	108.64	106.40
36	5	1498	A	C6-N1-C2	-5.60	115.24	118.60
36	5	2380	U	N1-C2-N3	5.60	118.26	114.90
36	5	2418	G	C4-C5-C6	5.60	122.16	118.80
36	5	2600	C	C5-C6-N1	5.60	123.80	121.00
36	5	3061	G	N3-C2-N2	-5.60	115.98	119.90
36	5	3176	G	C4-N9-C1'	5.60	133.78	126.50
37	7	113	C	C4-C5-C6	5.60	120.20	117.40
1	2	1727	G	OP1-P-OP2	5.60	127.99	119.60
1	6	1167	G	C6-C5-N7	-5.60	127.04	130.40
36	5	34	A	C4-C5-C6	5.60	119.80	117.00
36	5	429	U	C5-C6-N1	-5.60	119.90	122.70
36	5	698	U	OP2-P-O3'	5.60	117.51	105.20
36	5	1810	A	N1-C6-N6	5.60	121.96	118.60
36	5	2208	A	N7-C8-N9	5.60	116.60	113.80
36	5	2754	G	N3-C4-C5	-5.60	125.80	128.60
1	2	1137	A	C4-C5-C6	-5.59	114.20	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1466	G	C8-N9-C4	-5.59	104.16	106.40
36	1	693	A	C4-C5-N7	5.59	113.50	110.70
36	1	2820	A	N3-C4-C5	5.59	130.72	126.80
36	1	3042	U	C6-N1-C1'	5.59	129.03	121.20
36	1	3163	A	C4-C5-N7	5.59	113.50	110.70
1	6	867	G	C6-C5-N7	5.59	133.76	130.40
36	5	404	G	O4'-C1'-N9	-5.59	103.72	108.20
36	5	647	A	C8-N9-C4	-5.59	103.56	105.80
36	5	1301	A	C4-C5-C6	5.59	119.80	117.00
36	5	1848	G	O4'-C1'-N9	-5.59	103.72	108.20
36	5	2197	C	N3-C2-O2	5.59	125.82	121.90
36	5	2392	C	P-O3'-C3'	5.59	126.41	119.70
36	5	2400	G	N9-C4-C5	5.59	107.64	105.40
36	1	1792	C	C2-N1-C1'	5.59	124.95	118.80
1	6	1668	G	C5-C6-O6	-5.59	125.24	128.60
36	5	1318	A	N7-C8-N9	-5.59	111.00	113.80
36	5	1603	A	N3-C4-C5	-5.59	122.89	126.80
36	5	2263	C	N3-C4-C5	-5.59	119.66	121.90
36	5	2889	C	C6-N1-C2	5.59	122.54	120.30
37	7	75	G	N7-C8-N9	-5.59	110.30	113.10
1	2	1385	G	C8-N9-C4	5.59	108.64	106.40
36	1	47	C	N3-C4-N4	5.59	121.91	118.00
36	1	523	A	O4'-C1'-N9	-5.59	103.73	108.20
36	1	857	G	C5-C6-O6	5.59	131.96	128.60
36	1	865	U	C6-N1-C2	5.59	124.36	121.00
36	1	2433	U	N3-C2-O2	-5.59	118.29	122.20
1	6	1101	G	C6-N1-C2	-5.59	121.75	125.10
1	6	1123	C	N3-C2-O2	5.59	125.81	121.90
1	6	1243	G	C4-C5-C6	5.59	122.16	118.80
1	6	1361	U	C6-N1-C1'	-5.59	113.37	121.20
1	6	1642	G	C5-N7-C8	-5.59	101.50	104.30
36	5	214	G	N1-C2-N3	-5.59	120.55	123.90
36	5	362	U	C6-N1-C2	-5.59	117.64	121.00
36	5	590	G	C4-C5-N7	-5.59	108.56	110.80
36	5	1127	G	C6-N1-C2	-5.59	121.75	125.10
36	5	1355	A	C5-C6-N1	-5.59	114.90	117.70
36	5	1527	C	N3-C2-O2	5.59	125.81	121.90
37	7	90	U	N3-C4-O4	5.59	123.31	119.40
36	1	369	A	C6-N1-C2	-5.59	115.25	118.60
36	1	2324	A	N1-C6-N6	5.59	121.95	118.60
36	1	3132	C	O5'-P-OP2	5.59	117.41	110.70
36	1	3140	G	C5-N7-C8	-5.59	101.51	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3366	G	N3-C4-C5	-5.59	125.81	128.60
38	4	43	A	OP1-P-OP2	-5.59	111.22	119.60
1	6	408	C	O5'-P-OP1	5.59	117.41	110.70
1	6	1470	C	O5'-P-OP1	-5.59	100.67	105.70
36	5	1058	U	C6-N1-C2	5.59	124.35	121.00
36	5	1184	A	OP2-P-O3'	5.59	117.50	105.20
36	5	1293	U	N3-C4-C5	5.59	117.95	114.60
36	5	2295	A	OP1-P-OP2	5.59	127.98	119.60
36	5	3065	G	N1-C2-N2	-5.59	111.17	116.20
36	5	3192	U	N1-C2-O2	-5.59	118.89	122.80
1	6	1002	G	C6-C5-N7	5.59	133.75	130.40
36	5	697	A	C5-N7-C8	5.59	106.69	103.90
36	5	717	C	C6-N1-C1'	-5.59	114.09	120.80
36	5	835	G	N9-C4-C5	5.59	107.64	105.40
36	5	1376	C	OP1-P-OP2	5.59	127.98	119.60
36	5	1573	G	C5-C6-O6	5.59	131.95	128.60
36	5	2219	A	C8-N9-C4	5.59	108.03	105.80
1	2	22	A	N1-C6-N6	-5.59	115.25	118.60
36	1	820	A	N1-C6-N6	-5.59	115.25	118.60
36	1	1292	C	N3-C2-O2	5.59	125.81	121.90
36	1	1371	G	C5-N7-C8	5.59	107.09	104.30
36	1	2733	A	OP1-P-OP2	-5.59	111.22	119.60
36	1	3136	G	N7-C8-N9	5.59	115.89	113.10
36	1	3330	A	C5-N7-C8	5.59	106.69	103.90
1	6	574	G	C8-N9-C4	5.59	108.63	106.40
1	6	1207	C	C6-N1-C2	5.59	122.53	120.30
36	5	78	U	N3-C4-O4	5.59	123.31	119.40
36	5	953	G	C8-N9-C4	5.59	108.64	106.40
36	5	1186	G	C6-C5-N7	-5.59	127.05	130.40
36	5	1513	G	C6-C5-N7	-5.59	127.05	130.40
36	5	2848	G	C5-C6-N1	-5.59	108.71	111.50
36	5	2856	G	N7-C8-N9	5.59	115.89	113.10
36	5	3056	U	O4'-C1'-N1	-5.59	103.73	108.20
38	8	156	U	C2-N1-C1'	5.59	124.41	117.70
36	1	281	G	N7-C8-N9	5.58	115.89	113.10
36	1	1345	G	C4-C5-N7	5.58	113.03	110.80
36	1	2275	A	C5-N7-C8	-5.58	101.11	103.90
36	1	2299	A	OP1-P-O3'	5.58	117.49	105.20
36	1	2348	A	OP2-P-O3'	5.58	117.49	105.20
1	6	398	G	C2-N3-C4	5.58	114.69	111.90
1	6	1565	C	N1-C2-N3	5.58	123.11	119.20
36	5	421	G	C6-C5-N7	-5.58	127.05	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1871	U	C2-N1-C1'	5.58	124.40	117.70
36	5	2679	A	C5-N7-C8	5.58	106.69	103.90
1	2	441	A	N1-C6-N6	-5.58	115.25	118.60
36	1	685	G	N3-C2-N2	5.58	123.81	119.90
36	1	1163	A	C8-N9-C4	5.58	108.03	105.80
36	1	1188	U	N3-C2-O2	-5.58	118.29	122.20
36	1	1495	U	N1-C2-N3	5.58	118.25	114.90
36	1	2371	G	N1-C6-O6	-5.58	116.55	119.90
36	1	2634	U	C6-N1-C1'	-5.58	113.38	121.20
36	1	2821	C	N3-C4-N4	5.58	121.91	118.00
1	6	1550	A	C4-C5-N7	5.58	113.49	110.70
36	5	971	G	OP2-P-O3'	5.58	117.48	105.20
36	5	1239	C	O5'-P-OP2	-5.58	100.67	105.70
36	5	2663	G	C6-N1-C2	-5.58	121.75	125.10
36	5	3301	U	N3-C2-O2	5.58	126.11	122.20
37	7	22	A	N9-C4-C5	5.58	108.03	105.80
37	7	111	U	N3-C4-C5	-5.58	111.25	114.60
38	8	73	U	N3-C2-O2	-5.58	118.29	122.20
1	2	993	A	C4-C5-N7	5.58	113.49	110.70
36	1	80	G	C5-C6-N1	5.58	114.29	111.50
36	1	209	A	N1-C2-N3	5.58	132.09	129.30
36	1	676	G	C4-C5-C6	5.58	122.15	118.80
36	1	722	G	C4-N9-C1'	5.58	133.76	126.50
36	1	926	A	C4-C5-C6	-5.58	114.21	117.00
36	1	2952	G	N3-C4-N9	-5.58	122.65	126.00
1	6	87	C	C6-N1-C2	-5.58	118.07	120.30
36	5	638	C	N3-C4-C5	-5.58	119.67	121.90
36	5	1186	G	C4-C5-N7	5.58	113.03	110.80
36	5	2248	C	N3-C2-O2	5.58	125.81	121.90
36	5	2296	A	N7-C8-N9	-5.58	111.01	113.80
1	2	95	G	C5-C6-O6	5.58	131.95	128.60
1	2	598	U	C6-N1-C2	-5.58	117.65	121.00
1	2	807	A	C5-C6-N6	-5.58	119.24	123.70
1	2	1209	C	N3-C4-C5	5.58	124.13	121.90
36	1	2284	C	C2-N3-C4	5.58	122.69	119.90
36	1	2374	C	C5-C6-N1	-5.58	118.21	121.00
36	5	80	G	OP2-P-O3'	5.58	117.48	105.20
36	5	217	U	C5-C4-O4	5.58	129.25	125.90
36	5	232	G	C4-N9-C1'	-5.58	119.25	126.50
36	5	726	G	C4-N9-C1'	5.58	133.75	126.50
36	5	954	U	C5-C4-O4	5.58	129.25	125.90
36	5	1896	A	C4-C5-C6	-5.58	114.21	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2609	A	O5'-P-OP2	-5.58	100.68	105.70
36	5	2883	U	C5-C4-O4	5.58	129.25	125.90
36	1	323	A	N1-C6-N6	-5.58	115.25	118.60
36	1	897	U	O5'-P-OP2	-5.58	100.68	105.70
36	1	1511	U	C5-C4-O4	5.58	129.25	125.90
36	1	2199	G	N1-C2-N2	-5.58	111.18	116.20
36	1	2276	G	C4-C5-N7	-5.58	108.57	110.80
36	1	2424	A	OP1-P-O3'	5.58	117.47	105.20
37	3	72	A	O5'-P-OP1	-5.58	100.68	105.70
38	4	104	A	C8-N9-C4	-5.58	103.57	105.80
1	6	39	A	C4-C5-C6	5.58	119.79	117.00
36	5	1370	G	N3-C2-N2	-5.58	116.00	119.90
36	5	2356	A	N1-C6-N6	-5.58	115.25	118.60
36	5	2401	A	C6-N1-C2	5.58	121.95	118.60
36	5	2411	U	N1-C2-O2	-5.58	118.89	122.80
36	5	3061	G	N9-C1'-C2'	-5.58	105.86	112.00
36	1	1367	G	C6-C5-N7	-5.58	127.05	130.40
36	1	2185	G	C2-N3-C4	-5.58	109.11	111.90
1	6	34	G	C5-C6-O6	5.58	131.95	128.60
1	6	1409	G	N1-C6-O6	5.58	123.25	119.90
36	5	240	U	C5-C4-O4	5.58	129.25	125.90
36	5	295	A	O4'-C1'-N9	-5.58	103.74	108.20
36	5	917	A	N3-C4-C5	5.58	130.70	126.80
36	5	2835	U	C4-C5-C6	5.58	123.05	119.70
38	8	57	C	C5-C6-N1	-5.58	118.21	121.00
1	2	825	U	C6-N1-C2	-5.58	117.66	121.00
36	1	108	A	C5-C6-N6	-5.58	119.24	123.70
36	1	657	A	N7-C8-N9	5.58	116.59	113.80
36	1	1453	A	C8-N9-C1'	-5.58	117.67	127.70
36	1	2713	U	C5-C4-O4	-5.58	122.55	125.90
1	6	413	U	N1-C2-N3	5.58	118.25	114.90
1	6	1136	U	C6-N1-C2	5.58	124.34	121.00
36	5	2801	A	C4-C5-N7	5.58	113.49	110.70
36	5	3173	G	O5'-P-OP2	-5.58	100.68	105.70
56	n0	128	GLU	OE1-CD-OE2	-5.58	116.61	123.30
1	2	100	A	C6-N1-C2	-5.57	115.25	118.60
36	1	6	A	N7-C8-N9	5.57	116.59	113.80
36	1	339	C	N3-C2-O2	-5.57	118.00	121.90
36	1	2954	U	N1-C2-N3	-5.57	111.56	114.90
54	M8	159	LYS	CD-CE-NZ	5.57	124.52	111.70
1	6	565	C	C5-C4-N4	-5.57	116.30	120.20
1	6	1601	G	C5-C6-N1	5.57	114.29	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1727	G	N7-C8-N9	-5.57	110.31	113.10
36	5	20	A	C6-N1-C2	-5.57	115.26	118.60
36	5	192	C	N1-C2-O2	5.57	122.24	118.90
36	5	355	A	C2-N3-C4	-5.57	107.81	110.60
36	5	1426	C	C5-C6-N1	-5.57	118.21	121.00
36	5	1476	G	C8-N9-C1'	-5.57	119.75	127.00
36	5	2899	C	N3-C2-O2	-5.57	118.00	121.90
36	5	2951	G	C5-N7-C8	-5.57	101.51	104.30
37	7	15	C	C5-C6-N1	5.57	123.79	121.00
61	n5	40	LEU	CB-CG-CD2	5.57	120.47	111.00
36	1	366	A	N1-C2-N3	5.57	132.09	129.30
36	1	1180	A	C6-C5-N7	5.57	136.20	132.30
36	1	3259	U	N3-C4-C5	-5.57	111.26	114.60
38	4	13	A	C8-N9-C4	-5.57	103.57	105.80
53	M7	3	ARG	NE-CZ-NH2	-5.57	117.51	120.30
1	6	251	A	C6-C5-N7	-5.57	128.40	132.30
1	6	454	U	C5-C6-N1	-5.57	119.91	122.70
1	6	1139	A	C6-C5-N7	-5.57	128.40	132.30
1	6	1464	G	OP2-P-O3'	5.57	117.46	105.20
36	5	1766	G	N7-C8-N9	5.57	115.89	113.10
36	5	2155	G	C4-N9-C1'	5.57	133.74	126.50
36	5	3143	C	C2-N3-C4	5.57	122.69	119.90
1	2	372	G	N1-C2-N2	-5.57	111.19	116.20
1	2	994	G	N7-C8-N9	-5.57	110.31	113.10
36	1	806	A	N3-C4-N9	-5.57	122.94	127.40
36	1	1304	A	C6-C5-N7	5.57	136.20	132.30
36	1	1646	G	C4-N9-C1'	-5.57	119.26	126.50
36	1	2127	U	OP1-P-O3'	5.57	117.45	105.20
36	1	2437	G	N1-C6-O6	5.57	123.24	119.90
72	O6	45	ARG	NE-CZ-NH1	5.57	123.08	120.30
1	6	623	A	N1-C6-N6	-5.57	115.26	118.60
36	5	872	U	C5-C4-O4	-5.57	122.56	125.90
37	7	2	G	N1-C6-O6	-5.57	116.56	119.90
36	1	44	U	C4-C5-C6	5.57	123.04	119.70
36	1	192	C	N3-C2-O2	-5.57	118.00	121.90
36	1	709	A	N3-C4-N9	5.57	131.85	127.40
36	1	792	G	C8-N9-C4	-5.57	104.17	106.40
36	1	1656	A	N1-C2-N3	5.57	132.08	129.30
36	1	3009	G	N3-C4-C5	5.57	131.38	128.60
38	4	9	A	O5'-P-OP2	-5.57	100.69	105.70
40	L3	232	ARG	NE-CZ-NH1	-5.57	117.52	120.30
1	6	423	G	C8-N9-C4	-5.57	104.17	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	354	U	C5-C4-O4	-5.57	122.56	125.90
36	5	1040	A	C2-N3-C4	-5.57	107.81	110.60
36	5	1191	U	N1-C2-N3	5.57	118.24	114.90
36	5	1193	A	C5-C6-N1	-5.57	114.92	117.70
36	5	3161	C	C6-N1-C2	-5.57	118.07	120.30
36	5	3367	C	N3-C4-C5	5.57	124.13	121.90
1	2	36	C	N3-C2-O2	5.57	125.80	121.90
1	2	468	A	N9-C4-C5	-5.57	103.57	105.80
1	2	1245	G	N1-C6-O6	-5.57	116.56	119.90
1	2	1670	G	N1-C2-N3	5.57	127.24	123.90
36	1	216	G	C4-C5-N7	5.57	113.03	110.80
36	1	589	A	C6-C5-N7	5.57	136.20	132.30
36	1	923	C	N1-C2-O2	5.57	122.24	118.90
36	1	1408	G	N7-C8-N9	5.57	115.88	113.10
36	1	1850	A	C8-N9-C4	-5.57	103.57	105.80
36	1	2960	C	N3-C4-N4	-5.57	114.10	118.00
36	1	3055	U	O4'-C1'-N1	-5.57	103.75	108.20
38	4	16	G	C4-C5-N7	5.57	113.03	110.80
1	6	160	C	C4-C5-C6	-5.57	114.62	117.40
1	6	297	U	N3-C2-O2	-5.57	118.30	122.20
1	6	1036	A	C2-N3-C4	-5.57	107.82	110.60
36	5	234	G	C8-N9-C4	-5.57	104.17	106.40
36	5	297	G	C4-C5-N7	5.57	113.03	110.80
36	5	1295	G	N3-C4-N9	5.57	129.34	126.00
36	5	1300	G	C6-C5-N7	-5.57	127.06	130.40
36	5	1665	C	OP1-P-O3'	-5.57	92.95	105.20
36	5	2755	C	C5-C4-N4	-5.57	116.30	120.20
36	5	2772	C	N3-C4-C5	-5.57	119.67	121.90
36	5	3227	A	C5-C6-N1	-5.57	114.92	117.70
1	2	1201	G	C5-C6-O6	5.57	131.94	128.60
36	1	53	G	N3-C4-C5	-5.57	125.82	128.60
36	1	351	A	N3-C4-C5	5.57	130.70	126.80
36	1	804	C	C2-N3-C4	-5.57	117.12	119.90
36	1	1255	C	C2-N1-C1'	5.57	124.92	118.80
36	1	2113	A	C4-C5-N7	-5.57	107.92	110.70
36	1	2626	A	N9-C4-C5	5.57	108.03	105.80
36	1	3080	G	C8-N9-C4	5.57	108.63	106.40
36	1	3093	C	N1-C2-N3	5.57	123.10	119.20
37	3	89	G	O5'-P-OP2	-5.57	100.69	105.70
1	6	175	G	C4-C5-N7	5.57	113.03	110.80
1	6	418	G	OP1-P-O3'	5.57	117.44	105.20
1	6	992	A	C5-N7-C8	-5.57	101.12	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1243	G	C8-N9-C4	-5.57	104.17	106.40
36	5	771	A	N7-C8-N9	-5.57	111.02	113.80
36	5	1146	C	N1-C2-N3	-5.57	115.30	119.20
36	5	2307	G	OP2-P-O3'	5.57	117.44	105.20
36	5	3028	G	C6-C5-N7	-5.57	127.06	130.40
36	5	3035	A	N1-C2-N3	5.57	132.08	129.30
36	5	3138	U	N1-C2-O2	-5.57	118.91	122.80
1	2	191	C	O4'-C1'-N1	5.56	112.65	108.20
36	1	1355	A	P-O3'-C3'	5.56	126.38	119.70
36	1	1365	G	C6-C5-N7	-5.56	127.06	130.40
1	6	1101	G	N1-C2-N2	-5.56	111.19	116.20
36	5	2325	G	C4-C5-C6	5.56	122.14	118.80
36	5	2359	C	OP1-P-O3'	5.56	117.44	105.20
1	2	320	U	C4-C5-C6	-5.56	116.36	119.70
1	2	1279	C	N3-C2-O2	-5.56	118.01	121.90
1	2	1452	U	C6-N1-C2	-5.56	117.66	121.00
36	1	351	A	C5-C6-N1	-5.56	114.92	117.70
36	1	517	G	N9-C4-C5	5.56	107.62	105.40
36	1	625	G	N3-C2-N2	-5.56	116.01	119.90
36	1	684	G	C5-C6-O6	-5.56	125.26	128.60
36	1	1773	C	C2-N1-C1'	-5.56	112.68	118.80
36	1	1908	A	C8-N9-C4	-5.56	103.58	105.80
36	1	2167	A	OP2-P-O3'	5.56	117.44	105.20
36	1	2337	C	N3-C4-C5	5.56	124.12	121.90
36	1	2403	G	N3-C4-N9	5.56	129.34	126.00
36	1	2883	U	OP1-P-OP2	-5.56	111.26	119.60
36	1	3056	U	N1-C2-O2	-5.56	118.91	122.80
36	1	3143	C	N3-C2-O2	-5.56	118.01	121.90
1	6	1025	A	O5'-P-OP2	5.56	117.37	110.70
1	6	1343	U	C6-N1-C2	5.56	124.34	121.00
1	6	1598	U	C5-C4-O4	-5.56	122.56	125.90
1	6	1786	G	N9-C4-C5	5.56	107.62	105.40
36	5	1496	C	N1-C2-O2	5.56	122.24	118.90
36	5	1875	G	C2-N3-C4	-5.56	109.12	111.90
36	5	2986	U	C4-C5-C6	5.56	123.04	119.70
36	5	3195	U	N1-C2-N3	-5.56	111.56	114.90
36	5	3212	C	C6-N1-C2	5.56	122.53	120.30
36	1	1149	G	C2-N3-C4	-5.56	109.12	111.90
36	1	1295	G	N3-C4-C5	-5.56	125.82	128.60
36	1	1353	U	N1-C2-O2	5.56	126.69	122.80
1	6	930	A	N9-C4-C5	5.56	108.02	105.80
1	6	1024	U	N1-C2-O2	-5.56	118.91	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1536	G	N9-C4-C5	-5.56	103.18	105.40
36	5	634	C	C6-N1-C2	-5.56	118.08	120.30
36	5	1084	A	C5-C6-N1	5.56	120.48	117.70
36	5	1584	U	C6-N1-C2	5.56	124.34	121.00
36	5	2289	U	N3-C2-O2	-5.56	118.31	122.20
36	5	2800	G	N3-C4-C5	-5.56	125.82	128.60
36	5	2872	A	C4-N9-C1'	-5.56	116.29	126.30
38	8	7	U	C4-C5-C6	5.56	123.04	119.70
1	2	250	C	C2-N1-C1'	5.56	124.92	118.80
1	2	1539	G	C4-C5-N7	5.56	113.02	110.80
36	1	219	A	OP1-P-OP2	5.56	127.94	119.60
36	1	317	A	C5-C6-N1	5.56	120.48	117.70
36	1	583	G	C5-C6-N1	5.56	114.28	111.50
36	1	1402	C	C2-N3-C4	-5.56	117.12	119.90
36	1	2394	G	OP1-P-OP2	5.56	127.94	119.60
36	1	2940	A	O5'-P-OP2	-5.56	100.70	105.70
36	1	3307	A	C4-C5-N7	5.56	113.48	110.70
36	5	406	G	N1-C2-N3	5.56	127.23	123.90
36	5	1178	G	N1-C2-N2	-5.56	111.20	116.20
36	5	1879	A	C2-N3-C4	-5.56	107.82	110.60
36	5	1897	G	C4-C5-C6	5.56	122.14	118.80
36	5	2293	C	N3-C4-N4	5.56	121.89	118.00
36	5	3249	C	C6-N1-C2	5.56	122.52	120.30
38	8	109	A	O5'-P-OP1	5.56	117.37	110.70
40	l3	19	ARG	NE-CZ-NH1	5.56	123.08	120.30
36	1	924	G	C2-N3-C4	5.56	114.68	111.90
36	1	1368	U	C6-N1-C1'	-5.56	113.42	121.20
36	1	1524	A	C6-C5-N7	5.56	136.19	132.30
36	1	2997	G	N7-C8-N9	5.56	115.88	113.10
36	1	3175	U	N3-C2-O2	-5.56	118.31	122.20
1	6	29	U	C5-C6-N1	-5.56	119.92	122.70
1	6	103	A	C8-N9-C4	-5.56	103.58	105.80
1	6	1243	G	N3-C4-N9	5.56	129.33	126.00
36	5	879	U	O5'-P-OP2	-5.56	100.70	105.70
36	5	2160	G	N3-C2-N2	-5.56	116.01	119.90
36	5	2208	A	N1-C6-N6	5.56	121.93	118.60
36	5	2556	C	C6-N1-C2	-5.56	118.08	120.30
36	5	2666	C	C6-N1-C1'	-5.56	114.13	120.80
36	5	2741	C	O5'-P-OP2	5.56	117.37	110.70
38	8	116	G	C4-N9-C1'	5.56	133.72	126.50
38	8	136	G	O5'-P-OP1	5.56	117.37	110.70
1	2	1245	G	C5-C6-N1	5.56	114.28	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1438	U	C4-C5-C6	5.56	123.03	119.70
36	1	2699	G	N3-C2-N2	-5.56	116.01	119.90
1	6	1650	U	O5'-P-OP1	5.56	117.37	110.70
17	c5	43	ARG	NE-CZ-NH1	5.56	123.08	120.30
36	5	699	A	N7-C8-N9	5.56	116.58	113.80
36	5	2710	C	C5-C4-N4	-5.56	116.31	120.20
37	7	54	U	C2-N1-C1'	-5.56	111.03	117.70
1	2	30	G	N1-C6-O6	5.55	123.23	119.90
1	2	993	A	C8-N9-C4	-5.55	103.58	105.80
1	2	1462	G	C6-C5-N7	5.55	133.73	130.40
1	2	1583	A	C5-C6-N6	5.55	128.14	123.70
36	1	31	C	N3-C4-C5	-5.55	119.68	121.90
36	1	1542	G	N1-C2-N3	5.55	127.23	123.90
36	1	1634	G	C8-N9-C4	-5.55	104.18	106.40
36	1	1656	A	N7-C8-N9	-5.55	111.02	113.80
36	1	2120	A	C5-N7-C8	5.55	106.68	103.90
36	1	2167	A	C6-C5-N7	-5.55	128.41	132.30
1	6	1008	G	C4-C5-N7	5.55	113.02	110.80
36	5	735	A	N1-C6-N6	5.55	121.93	118.60
36	5	1500	G	C5-C6-O6	-5.55	125.27	128.60
36	5	3246	G	OP1-P-O3'	5.55	117.42	105.20
36	1	209	A	C5-C6-N1	-5.55	114.92	117.70
36	1	506	U	N3-C4-C5	-5.55	111.27	114.60
36	1	1617	G	C2-N3-C4	-5.55	109.12	111.90
36	5	1102	A	N3-C4-C5	-5.55	122.91	126.80
36	5	1527	C	C5-C6-N1	-5.55	118.22	121.00
36	5	2524	A	N9-C1'-C2'	5.55	121.22	114.00
36	5	2756	C	C6-N1-C1'	-5.55	114.14	120.80
1	2	870	C	N1-C2-O2	-5.55	115.57	118.90
36	1	495	G	C4-N9-C1'	-5.55	119.28	126.50
36	1	1160	C	C2-N3-C4	5.55	122.68	119.90
36	1	3305	A	C5-C6-N1	5.55	120.48	117.70
1	6	158	U	N3-C4-O4	5.55	123.29	119.40
1	6	1041	G	N1-C6-O6	5.55	123.23	119.90
1	6	1641	C	C6-N1-C2	5.55	122.52	120.30
1	6	1768	G	N3-C2-N2	-5.55	116.01	119.90
36	5	55	G	N1-C6-O6	5.55	123.23	119.90
36	5	394	G	OP1-P-OP2	5.55	127.93	119.60
36	5	650	C	C6-N1-C1'	5.55	127.46	120.80
36	5	746	A	OP2-P-O3'	5.55	117.41	105.20
36	5	835	G	C4-C5-N7	-5.55	108.58	110.80
36	5	988	U	C2-N3-C4	-5.55	123.67	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1155	C	C5-C4-N4	-5.55	116.31	120.20
36	5	1175	C	C6-N1-C2	-5.55	118.08	120.30
36	5	1465	A	C5-N7-C8	-5.55	101.12	103.90
36	5	1620	U	C2-N1-C1'	5.55	124.36	117.70
36	5	1835	A	O5'-P-OP1	-5.55	100.70	105.70
36	5	2388	U	C5-C4-O4	-5.55	122.57	125.90
36	5	3061	G	N7-C8-N9	-5.55	110.33	113.10
40	l3	328	ILE	C-N-CD	5.55	140.06	128.40
69	o3	45	LEU	CA-CB-CG	-5.55	102.53	115.30
1	2	429	G	C6-C5-N7	-5.55	127.07	130.40
1	2	747	C	N1-C2-O2	5.55	122.23	118.90
1	2	1768	G	N7-C8-N9	5.55	115.88	113.10
36	1	399	A	OP1-P-OP2	-5.55	111.28	119.60
36	1	407	A	O5'-P-OP1	-5.55	100.71	105.70
36	1	638	C	C2-N3-C4	-5.55	117.12	119.90
36	1	1367	G	C4-N9-C1'	5.55	133.72	126.50
38	4	2	A	N7-C8-N9	5.55	116.58	113.80
1	6	408	C	C5-C6-N1	-5.55	118.22	121.00
1	6	1431	C	C6-N1-C2	5.55	122.52	120.30
1	6	1513	G	C8-N9-C4	-5.55	104.18	106.40
36	5	717	C	N1-C2-O2	5.55	122.23	118.90
36	5	1211	U	C2-N1-C1'	-5.55	111.04	117.70
36	5	1585	C	C5-C6-N1	5.55	123.78	121.00
36	5	2877	G	C6-C5-N7	-5.55	127.07	130.40
36	5	2995	A	N3-C4-C5	5.55	130.68	126.80
68	o2	4	LEU	C-N-CD	5.55	140.06	128.40
1	2	1179	G	C5-C6-N1	5.55	114.27	111.50
36	1	329	U	C5-C6-N1	-5.55	119.93	122.70
36	1	613	G	N7-C8-N9	5.55	115.87	113.10
36	1	1906	G	C6-C5-N7	-5.55	127.07	130.40
36	1	3152	U	N3-C4-O4	-5.55	115.52	119.40
1	6	119	A	C5-C6-N1	-5.55	114.93	117.70
1	6	758	U	N1-C2-N3	5.55	118.23	114.90
1	6	1279	C	O5'-P-OP2	-5.55	100.71	105.70
1	6	1641	C	C5-C6-N1	-5.55	118.23	121.00
36	5	742	G	N3-C4-N9	5.55	129.33	126.00
1	2	1782	A	N9-C4-C5	5.55	108.02	105.80
36	1	689	U	C4-C5-C6	-5.55	116.37	119.70
36	1	1085	A	OP2-P-O3'	5.55	117.40	105.20
36	1	1149	G	C8-N9-C4	-5.55	104.18	106.40
36	1	1305	U	OP2-P-O3'	5.55	117.40	105.20
36	1	1453	A	C4-N9-C1'	5.55	136.28	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1716	U	OP1-P-O3'	5.55	117.40	105.20
36	1	1933	A	C5-N7-C8	-5.55	101.13	103.90
36	1	2993	G	C6-C5-N7	-5.55	127.07	130.40
1	6	50	C	O5'-P-OP2	5.55	117.36	110.70
1	6	372	G	C4-C5-N7	-5.55	108.58	110.80
1	6	948	G	C4-C5-N7	5.55	113.02	110.80
1	6	1696	G	OP1-P-O3'	5.55	117.40	105.20
36	5	1212	A	C6-C5-N7	-5.55	128.42	132.30
36	5	1852	G	N7-C8-N9	5.55	115.87	113.10
36	5	2134	G	C8-N9-C1'	-5.55	119.79	127.00
36	5	3012	A	C6-N1-C2	-5.55	115.27	118.60
36	5	3189	G	C6-N1-C2	-5.55	121.77	125.10
36	1	3137	C	P-O3'-C3'	-5.54	113.05	119.70
1	6	610	G	O4'-C1'-N9	5.54	112.64	108.20
1	6	759	U	N1-C2-O2	5.54	126.68	122.80
36	5	439	C	C4-C5-C6	5.54	120.17	117.40
36	5	1159	A	OP2-P-O3'	5.54	117.40	105.20
36	5	1598	G	N3-C2-N2	5.54	123.78	119.90
36	5	1714	A	C2-N3-C4	-5.54	107.83	110.60
36	5	3296	A	O4'-C1'-N9	-5.54	103.76	108.20
38	8	107	G	C4-N9-C1'	5.54	133.71	126.50
1	2	756	A	C5-N7-C8	-5.54	101.13	103.90
1	2	1412	G	C4-N9-C1'	-5.54	119.29	126.50
36	1	315	C	C6-N1-C2	-5.54	118.08	120.30
36	1	586	C	C5-C4-N4	-5.54	116.32	120.20
36	1	1559	A	C5-N7-C8	-5.54	101.13	103.90
36	1	1701	C	C6-N1-C2	5.54	122.52	120.30
36	1	1804	A	N1-C2-N3	5.54	132.07	129.30
36	1	2270	A	C5-N7-C8	-5.54	101.13	103.90
36	1	2714	G	C5-N7-C8	-5.54	101.53	104.30
36	1	2930	A	N3-C4-N9	5.54	131.84	127.40
36	1	2958	A	OP2-P-O3'	5.54	117.40	105.20
57	N1	12	ARG	NE-CZ-NH1	-5.54	117.53	120.30
1	6	596	C	N3-C4-C5	5.54	124.12	121.90
1	6	1183	A	N1-C2-N3	5.54	132.07	129.30
1	6	1200	G	C5-C6-N1	-5.54	108.73	111.50
1	6	1424	A	OP1-P-O3'	5.54	117.40	105.20
1	6	1514	U	C5-C6-N1	-5.54	119.93	122.70
36	5	211	A	N7-C8-N9	-5.54	111.03	113.80
36	5	588	G	C6-C5-N7	-5.54	127.07	130.40
36	5	635	G	O5'-P-OP1	-5.54	100.71	105.70
36	5	849	C	C6-N1-C2	5.54	122.52	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	958	C	OP2-P-O3'	5.54	117.40	105.20
36	5	1064	A	C5-N7-C8	-5.54	101.13	103.90
36	5	1079	A	OP1-P-OP2	5.54	127.92	119.60
36	5	1160	C	C5-C6-N1	-5.54	118.23	121.00
36	5	1323	G	C4-C5-C6	5.54	122.13	118.80
36	5	2208	A	C8-N9-C4	-5.54	103.58	105.80
36	5	3376	A	C4-C5-C6	5.54	119.77	117.00
1	2	399	A	C5-C6-N6	5.54	128.13	123.70
1	2	1033	C	N3-C2-O2	-5.54	118.02	121.90
1	2	1135	U	C2-N1-C1'	-5.54	111.05	117.70
36	1	55	G	N1-C6-O6	5.54	123.22	119.90
36	1	111	C	C5-C6-N1	5.54	123.77	121.00
36	1	294	U	C5-C6-N1	5.54	125.47	122.70
36	1	856	G	N9-C4-C5	5.54	107.62	105.40
36	1	890	C	C2-N1-C1'	5.54	124.90	118.80
36	1	994	G	C5-C6-N1	5.54	114.27	111.50
36	1	1326	A	C2-N3-C4	5.54	113.37	110.60
36	1	2700	G	N9-C4-C5	-5.54	103.18	105.40
36	1	2823	G	N9-C4-C5	5.54	107.62	105.40
36	1	2859	U	OP2-P-O3'	5.54	117.39	105.20
36	1	3006	A	N3-C4-N9	-5.54	122.97	127.40
38	4	82	U	C6-N1-C2	-5.54	117.67	121.00
1	6	57	G	N3-C4-N9	5.54	129.32	126.00
1	6	865	A	C6-N1-C2	-5.54	115.28	118.60
36	5	182	U	C6-N1-C2	-5.54	117.67	121.00
36	5	209	A	C6-N1-C2	-5.54	115.28	118.60
36	5	351	A	N1-C2-N3	-5.54	126.53	129.30
36	5	1306	G	O5'-P-OP2	-5.54	100.71	105.70
36	5	3030	G	C6-C5-N7	5.54	133.72	130.40
36	1	1309	U	N1-C2-N3	5.54	118.22	114.90
36	1	1315	U	OP1-P-O3'	5.54	117.39	105.20
62	N6	111	LEU	CA-CB-CG	-5.54	102.56	115.30
1	6	611	U	OP1-P-OP2	-5.54	111.29	119.60
1	6	902	G	C5-C6-N1	-5.54	108.73	111.50
1	6	969	C	N3-C4-N4	5.54	121.88	118.00
1	6	1192	C	C6-N1-C2	-5.54	118.08	120.30
36	5	1903	U	N3-C4-O4	5.54	123.28	119.40
36	5	2208	A	C5-N7-C8	-5.54	101.13	103.90
36	5	3191	G	N3-C4-C5	5.54	131.37	128.60
1	2	1657	U	OP2-P-O3'	5.54	117.39	105.20
36	1	209	A	N1-C6-N6	-5.54	115.28	118.60
36	1	700	C	N1-C2-O2	-5.54	115.58	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	717	C	O5'-P-OP2	-5.54	100.72	105.70
36	1	857	G	N3-C2-N2	-5.54	116.02	119.90
36	1	1438	U	C2-N3-C4	-5.54	123.68	127.00
36	1	1500	G	C4-N9-C1'	-5.54	119.30	126.50
36	1	3112	G	N3-C4-N9	5.54	129.32	126.00
36	1	3220	G	N3-C4-C5	-5.54	125.83	128.60
36	1	3295	A	N9-C4-C5	5.54	108.02	105.80
38	4	101	U	N3-C2-O2	-5.54	118.32	122.20
1	6	553	G	C6-C5-N7	-5.54	127.08	130.40
1	6	746	A	N1-C6-N6	5.54	121.92	118.60
36	5	430	U	OP2-P-O3'	5.54	117.38	105.20
36	5	705	A	OP1-P-O3'	5.54	117.39	105.20
36	5	864	G	C8-N9-C1'	-5.54	119.80	127.00
36	5	916	G	OP2-P-O3'	5.54	117.39	105.20
36	5	1260	A	N7-C8-N9	5.54	116.57	113.80
36	5	2419	A	N9-C4-C5	5.54	108.02	105.80
36	5	2676	A	C8-N9-C4	-5.54	103.58	105.80
36	5	3054	U	N3-C4-C5	-5.54	111.28	114.60
36	5	3259	U	C4-C5-C6	-5.54	116.38	119.70
36	5	3314	A	C5-C6-N6	-5.54	119.27	123.70
36	5	3335	A	C6-C5-N7	-5.54	128.42	132.30
1	2	586	G	C5-C6-O6	-5.54	125.28	128.60
1	2	1568	C	P-O3'-C3'	5.54	126.34	119.70
36	1	1310	G	C5-N7-C8	-5.54	101.53	104.30
36	1	1928	G	O5'-P-OP2	-5.54	100.72	105.70
36	1	2639	G	C8-N9-C1'	5.54	134.20	127.00
1	6	1282	U	N3-C4-C5	-5.54	111.28	114.60
1	6	1621	U	C6-N1-C2	5.54	124.32	121.00
36	5	1737	U	C5-C4-O4	-5.54	122.58	125.90
36	5	3313	U	N3-C2-O2	5.54	126.08	122.20
1	2	686	C	C6-N1-C2	-5.54	118.09	120.30
1	2	1561	U	N3-C2-O2	-5.54	118.33	122.20
36	1	329	U	N3-C2-O2	-5.54	118.33	122.20
36	1	1005	G	N9-C4-C5	5.54	107.61	105.40
36	1	1149	G	N3-C4-C5	-5.54	125.83	128.60
36	1	1577	G	N3-C4-C5	-5.54	125.83	128.60
1	6	911	U	N1-C2-O2	5.54	126.67	122.80
1	6	1375	A	C8-N9-C4	5.54	108.01	105.80
36	5	266	A	C6-C5-N7	-5.54	128.43	132.30
36	5	1045	C	O5'-P-OP2	5.54	117.34	110.70
36	5	1064	A	N7-C8-N9	5.54	116.57	113.80
36	5	2166	A	N3-C4-C5	5.54	130.68	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2277	C	N1-C2-N3	5.54	123.08	119.20
36	5	2347	U	N1-C2-O2	5.54	126.67	122.80
36	5	2349	U	OP1-P-O3'	5.54	117.38	105.20
36	5	2399	A	C8-N9-C4	-5.54	103.59	105.80
36	5	2709	C	C5-C4-N4	-5.54	116.33	120.20
36	5	2996	U	C6-N1-C2	5.54	124.32	121.00
62	n6	57	LEU	CA-CB-CG	5.54	128.03	115.30
1	2	1787	C	C6-N1-C2	5.53	122.51	120.30
36	1	2727	A	O5'-P-OP1	-5.53	100.72	105.70
47	M0	139	ARG	NE-CZ-NH1	5.53	123.07	120.30
1	6	1763	A	N1-C6-N6	-5.53	115.28	118.60
36	5	407	A	C6-N1-C2	-5.53	115.28	118.60
36	5	418	A	C2-N3-C4	5.53	113.37	110.60
36	5	1681	U	N3-C4-C5	-5.53	111.28	114.60
36	5	1741	A	N1-C6-N6	-5.53	115.28	118.60
36	5	2375	G	C8-N9-C1'	5.53	134.19	127.00
36	5	3052	G	C4-C5-N7	5.53	113.01	110.80
36	5	3315	G	N3-C4-N9	5.53	129.32	126.00
36	1	703	G	N3-C4-C5	5.53	131.37	128.60
36	1	1897	G	C6-C5-N7	-5.53	127.08	130.40
1	6	1527	C	N3-C4-C5	5.53	124.11	121.90
1	6	1529	C	O5'-P-OP2	-5.53	100.72	105.70
36	5	2530	G	C6-C5-N7	-5.53	127.08	130.40
36	5	2640	A	C4-C5-N7	5.53	113.47	110.70
36	1	154	U	C2-N1-C1'	-5.53	111.06	117.70
36	1	731	U	N3-C4-O4	5.53	123.27	119.40
36	1	2556	C	C6-N1-C2	-5.53	118.09	120.30
36	1	2780	A	N9-C4-C5	-5.53	103.59	105.80
36	1	3179	U	C6-N1-C2	5.53	124.32	121.00
1	6	76	A	O4'-C1'-N9	5.53	112.62	108.20
1	6	313	U	N3-C2-O2	-5.53	118.33	122.20
36	5	324	A	C8-N9-C1'	-5.53	117.75	127.70
36	5	692	A	C5-N7-C8	-5.53	101.14	103.90
36	5	971	G	C8-N9-C4	5.53	108.61	106.40
36	5	1431	G	C5-C6-N1	5.53	114.27	111.50
36	5	1470	U	C5-C4-O4	-5.53	122.58	125.90
36	5	1603	A	C5-C6-N1	-5.53	114.93	117.70
36	5	1916	U	O5'-P-OP1	-5.53	100.72	105.70
36	5	2404	A	N1-C6-N6	-5.53	115.28	118.60
36	5	2441	A	N1-C6-N6	5.53	121.92	118.60
36	5	2917	G	P-O3'-C3'	5.53	126.34	119.70
38	8	2	A	C6-C5-N7	-5.53	128.43	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	793	A	N7-C8-N9	5.53	116.56	113.80
36	1	2279	A	O5'-P-OP2	-5.53	100.72	105.70
1	6	1782	A	C5-C6-N1	-5.53	114.94	117.70
36	5	55	G	C4-C5-C6	5.53	122.12	118.80
36	5	356	C	C4-C5-C6	5.53	120.17	117.40
36	5	858	A	C4-C5-N7	-5.53	107.94	110.70
1	2	436	A	N1-C6-N6	5.53	121.92	118.60
1	2	1422	A	N9-C4-C5	-5.53	103.59	105.80
1	2	1492	A	N1-C6-N6	-5.53	115.28	118.60
36	1	832	G	N9-C4-C5	-5.53	103.19	105.40
36	1	1104	G	OP2-P-O3'	5.53	117.36	105.20
36	1	1148	G	C5-C6-O6	-5.53	125.28	128.60
36	1	1371	G	O5'-P-OP1	5.53	117.33	110.70
36	1	2138	A	N3-C4-N9	5.53	131.82	127.40
36	1	2165	G	C4-C5-C6	5.53	122.12	118.80
36	1	2891	U	C5-C4-O4	-5.53	122.58	125.90
1	6	109	G	C5-C6-N1	-5.53	108.74	111.50
1	6	1647	U	O5'-P-OP2	-5.53	100.72	105.70
36	5	913	A	N9-C4-C5	5.53	108.01	105.80
36	5	2615	G	C2-N3-C4	-5.53	109.14	111.90
36	1	1245	A	C8-N9-C4	-5.53	103.59	105.80
36	1	1332	A	C6-C5-N7	-5.53	128.43	132.30
36	1	1528	G	N3-C4-N9	5.53	129.32	126.00
36	1	1547	G	C4-C5-C6	5.53	122.11	118.80
36	1	1672	U	C5-C4-O4	5.53	129.22	125.90
36	1	1775	G	C5-C6-O6	5.53	131.91	128.60
36	1	3102	G	OP1-P-O3'	5.53	117.36	105.20
36	1	3204	C	O5'-P-OP2	-5.53	100.73	105.70
36	1	3232	G	C6-C5-N7	-5.53	127.08	130.40
1	6	1177	C	C6-N1-C2	5.53	122.51	120.30
36	5	44	U	C6-N1-C2	-5.53	117.69	121.00
36	5	345	G	C5-C6-N1	-5.53	108.74	111.50
36	5	1615	C	C6-N1-C2	-5.53	118.09	120.30
36	5	3203	U	N3-C2-O2	-5.53	118.33	122.20
37	7	27	A	C8-N9-C4	-5.53	103.59	105.80
36	1	324	A	N7-C8-N9	5.52	116.56	113.80
36	1	904	A	N3-C4-N9	-5.52	122.98	127.40
36	1	2606	G	N1-C6-O6	-5.52	116.58	119.90
36	1	2849	C	C6-N1-C1'	5.52	127.43	120.80
36	1	3258	U	C5-C4-O4	-5.52	122.59	125.90
1	6	303	U	C5-C4-O4	5.52	129.21	125.90
1	6	549	G	C5-C6-N1	-5.52	108.74	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	195	U	N3-C4-O4	-5.52	115.53	119.40
36	5	996	A	OP1-P-O3'	-5.52	93.05	105.20
36	5	2667	A	O5'-P-OP1	-5.52	100.73	105.70
1	2	28	A	C5-C6-N1	5.52	120.46	117.70
1	2	951	A	C8-N9-C4	5.52	108.01	105.80
36	1	64	G	O5'-P-OP1	-5.52	100.73	105.70
36	1	293	C	C2-N1-C1'	-5.52	112.72	118.80
36	1	402	A	C8-N9-C4	-5.52	103.59	105.80
36	1	613	G	C6-C5-N7	-5.52	127.09	130.40
36	1	1828	A	C6-C5-N7	-5.52	128.43	132.30
36	1	2874	G	C6-C5-N7	-5.52	127.09	130.40
1	6	476	U	C6-N1-C2	-5.52	117.69	121.00
1	6	1298	U	C2-N1-C1'	5.52	124.33	117.70
1	6	1610	G	N3-C2-N2	5.52	123.77	119.90
1	6	1614	A	C5-C6-N6	-5.52	119.28	123.70
1	6	1624	C	N3-C4-N4	-5.52	114.13	118.00
36	5	192	C	C5-C6-N1	5.52	123.76	121.00
36	5	846	A	N1-C6-N6	-5.52	115.29	118.60
36	5	902	G	C4-N9-C1'	-5.52	119.32	126.50
36	5	1258	U	C6-N1-C2	-5.52	117.69	121.00
36	5	1372	C	N1-C2-O2	-5.52	115.59	118.90
36	5	2335	G	N3-C4-C5	-5.52	125.84	128.60
36	5	2723	U	N3-C2-O2	-5.52	118.33	122.20
1	2	1776	A	N1-C2-N3	-5.52	126.54	129.30
36	1	1541	G	C4-N9-C1'	5.52	133.68	126.50
36	1	3389	U	N1-C2-N3	-5.52	111.59	114.90
53	M7	73	GLY	N-CA-C	-5.52	99.30	113.10
1	6	1521	G	N3-C4-N9	5.52	129.31	126.00
36	5	1145	G	C8-N9-C1'	-5.52	119.82	127.00
36	5	3061	G	OP2-P-O3'	5.52	117.35	105.20
36	5	3389	U	OP1-P-OP2	-5.52	111.32	119.60
1	2	55	A	N9-C4-C5	-5.52	103.59	105.80
1	2	1085	G	N1-C2-N2	-5.52	111.23	116.20
36	1	2298	U	N3-C4-O4	-5.52	115.54	119.40
36	1	2514	U	O5'-P-OP1	-5.52	100.73	105.70
36	1	2895	G	C6-N1-C2	-5.52	121.79	125.10
36	1	3022	G	N1-C6-O6	5.52	123.21	119.90
44	L7	83	LEU	CA-CB-CG	5.52	127.99	115.30
51	M5	105	ARG	NE-CZ-NH1	-5.52	117.54	120.30
1	6	154	G	N9-C4-C5	-5.52	103.19	105.40
1	6	307	G	C8-N9-C1'	-5.52	119.83	127.00
1	6	776	G	C8-N9-C4	5.52	108.61	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	964	U	C5-C6-N1	-5.52	119.94	122.70
1	6	1058	U	C5-C4-O4	5.52	129.21	125.90
1	6	1178	G	C5-N7-C8	5.52	107.06	104.30
1	6	1367	G	N1-C6-O6	5.52	123.21	119.90
1	6	1591	C	N1-C2-O2	-5.52	115.59	118.90
1	6	1642	G	OP2-P-O3'	5.52	117.34	105.20
1	6	1671	A	N1-C6-N6	-5.52	115.29	118.60
36	5	786	A	C5-N7-C8	-5.52	101.14	103.90
36	5	1045	C	OP1-P-O3'	-5.52	93.06	105.20
36	5	1206	G	C4-N9-C1'	5.52	133.68	126.50
36	5	1380	G	C8-N9-C4	5.52	108.61	106.40
36	5	3042	U	N3-C4-C5	5.52	117.91	114.60
76	q0	121	LEU	CB-CG-CD2	-5.52	101.62	111.00
1	2	72	A	C8-N9-C4	5.52	108.01	105.80
1	2	597	G	C8-N9-C4	-5.52	104.19	106.40
1	2	1277	G	N9-C4-C5	5.52	107.61	105.40
1	2	1425	A	O5'-P-OP1	5.52	117.32	110.70
36	1	915	A	C5-N7-C8	-5.52	101.14	103.90
36	1	1385	C	C5-C4-N4	5.52	124.06	120.20
36	1	1400	G	N3-C4-C5	-5.52	125.84	128.60
36	1	1453	A	O5'-P-OP1	5.52	117.32	110.70
36	1	1841	A	N1-C6-N6	-5.52	115.29	118.60
36	1	2320	A	OP2-P-O3'	5.52	117.34	105.20
36	1	2810	C	C5-C4-N4	5.52	124.06	120.20
36	1	2872	A	N1-C6-N6	5.52	121.91	118.60
36	1	2944	U	O5'-P-OP1	-5.52	100.73	105.70
36	1	3225	C	N3-C2-O2	-5.52	118.04	121.90
37	3	121	U	N3-C2-O2	-5.52	118.34	122.20
1	6	1	U	C2-N1-C1'	5.52	124.32	117.70
1	6	335	U	C6-N1-C2	-5.52	117.69	121.00
1	6	1487	A	C4-C5-C6	5.52	119.76	117.00
36	5	85	A	C2-N3-C4	-5.52	107.84	110.60
36	5	590	G	N9-C4-C5	5.52	107.61	105.40
36	5	1920	U	C5-C4-O4	5.52	129.21	125.90
36	5	3015	G	N3-C4-N9	-5.52	122.69	126.00
36	5	3377	G	C4-C5-C6	-5.52	115.49	118.80
1	2	552	G	N7-C8-N9	5.52	115.86	113.10
36	1	787	G	C8-N9-C4	-5.52	104.19	106.40
36	1	836	A	N1-C6-N6	-5.52	115.29	118.60
36	1	1909	A	C2-N3-C4	-5.52	107.84	110.60
1	6	1278	G	C4-C5-N7	-5.52	108.59	110.80
36	5	802	C	N3-C4-N4	-5.52	114.14	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1332	A	N9-C4-C5	-5.52	103.59	105.80
36	5	1383	G	C8-N9-C4	-5.52	104.19	106.40
36	5	1901	A	C6-N1-C2	-5.52	115.29	118.60
36	5	2838	A	N7-C8-N9	-5.52	111.04	113.80
36	5	3037	U	N1-C2-O2	-5.52	118.94	122.80
1	2	77	U	O4'-C1'-N1	-5.51	103.79	108.20
1	2	514	G	C6-C5-N7	5.51	133.71	130.40
1	2	1596	C	C5-C6-N1	5.51	123.76	121.00
1	2	1750	A	C4-C5-C6	5.51	119.76	117.00
36	1	304	G	C8-N9-C4	-5.51	104.19	106.40
36	1	783	A	C8-N9-C4	5.51	108.01	105.80
36	1	1310	G	C5-C6-N1	5.51	114.26	111.50
36	1	1624	G	C6-C5-N7	-5.51	127.09	130.40
36	1	1893	A	N1-C6-N6	5.51	121.91	118.60
36	1	2159	U	C5-C4-O4	-5.51	122.59	125.90
36	1	2428	U	C5-C6-N1	-5.51	119.94	122.70
36	1	3042	U	C5-C4-O4	5.51	129.21	125.90
1	6	532	U	N1-C2-N3	5.51	118.21	114.90
1	6	1682	U	C5-C6-N1	5.51	125.46	122.70
36	5	54	C	N1-C2-N3	5.51	123.06	119.20
36	5	1055	A	C4-C5-N7	-5.51	107.94	110.70
36	5	1364	C	N1-C2-O2	5.51	122.21	118.90
36	5	2320	A	N1-C2-N3	5.51	132.06	129.30
36	5	2387	A	C8-N9-C4	-5.51	103.59	105.80
36	5	3089	C	N3-C4-C5	-5.51	119.69	121.90
36	1	655	C	C6-N1-C1'	-5.51	114.19	120.80
36	1	686	G	OP1-P-OP2	-5.51	111.33	119.60
36	1	1046	A	N9-C4-C5	-5.51	103.59	105.80
36	1	1133	A	N1-C6-N6	5.51	121.91	118.60
36	5	264	G	C4-N9-C1'	5.51	133.67	126.50
37	7	55	A	OP1-P-OP2	5.51	127.87	119.60
1	2	1130	G	O5'-P-OP1	-5.51	100.74	105.70
1	2	1215	C	N1-C2-O2	5.51	122.21	118.90
36	1	407	A	N3-C4-N9	5.51	131.81	127.40
36	1	754	G	C2-N3-C4	-5.51	109.14	111.90
36	1	1372	C	N3-C4-C5	-5.51	119.69	121.90
36	1	1516	C	OP1-P-OP2	5.51	127.87	119.60
36	1	1526	U	O5'-P-OP2	-5.51	100.74	105.70
36	1	1584	U	N3-C2-O2	5.51	126.06	122.20
36	1	2291	A	N9-C4-C5	5.51	108.00	105.80
36	1	2693	C	N3-C4-C5	5.51	124.11	121.90
36	1	2864	A	C5-N7-C8	-5.51	101.14	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3263	G	C5-C6-O6	-5.51	125.29	128.60
36	1	3394	U	N1-C2-N3	5.51	118.21	114.90
38	4	18	U	C4-C5-C6	5.51	123.01	119.70
38	4	62	C	N1-C2-O2	5.51	122.21	118.90
1	6	922	G	C4-C5-N7	5.51	113.00	110.80
1	6	1295	G	N3-C4-C5	5.51	131.35	128.60
1	6	1584	G	C5-C6-O6	-5.51	125.29	128.60
36	5	256	G	C4-C5-C6	5.51	122.11	118.80
36	5	974	G	C8-N9-C1'	-5.51	119.84	127.00
36	5	1304	A	C5-C6-N6	-5.51	119.29	123.70
36	5	1499	C	N1-C2-N3	5.51	123.06	119.20
36	5	2134	G	N3-C4-N9	5.51	129.31	126.00
36	5	2659	G	C6-C5-N7	-5.51	127.09	130.40
36	5	2673	A	C4-C5-N7	-5.51	107.94	110.70
36	5	3384	U	N3-C4-O4	5.51	123.26	119.40
38	8	102	U	C2-N1-C1'	5.51	124.31	117.70
1	2	1077	C	C6-N1-C2	-5.51	118.10	120.30
36	1	97	U	N1-C2-O2	-5.51	118.94	122.80
36	1	260	C	C5-C6-N1	5.51	123.75	121.00
36	1	580	C	N3-C4-N4	-5.51	114.14	118.00
36	1	775	A	N3-C4-C5	-5.51	122.94	126.80
36	1	1195	A	N7-C8-N9	5.51	116.56	113.80
36	1	3144	G	OP1-P-O3'	-5.51	93.08	105.20
1	6	51	A	C4-C5-C6	5.51	119.75	117.00
1	6	633	U	C4-C5-C6	5.51	123.01	119.70
1	6	1165	G	C8-N9-C1'	-5.51	119.84	127.00
1	6	1615	C	C6-N1-C2	5.51	122.50	120.30
1	6	1670	G	C4-N9-C1'	5.51	133.66	126.50
36	5	365	A	OP1-P-O3'	5.51	117.32	105.20
36	5	967	A	C5-N7-C8	-5.51	101.14	103.90
36	5	1585	C	N3-C2-O2	-5.51	118.04	121.90
36	5	2125	A	N1-C6-N6	5.51	121.91	118.60
36	5	2247	G	C6-N1-C2	-5.51	121.79	125.10
36	5	2249	G	C3'-C2'-C1'	-5.51	97.09	101.50
36	5	2621	G	OP1-P-OP2	-5.51	111.34	119.60
36	5	2676	A	C2-N3-C4	-5.51	107.84	110.60
36	5	3271	G	C4-C5-C6	5.51	122.11	118.80
36	5	3334	U	OP2-P-O3'	5.51	117.32	105.20
36	5	3381	U	C6-N1-C2	5.51	124.31	121.00
38	8	107	G	C5-C6-N1	-5.51	108.75	111.50
36	1	271	C	N1-C2-O2	5.51	122.20	118.90
36	1	1209	G	C4-N9-C1'	5.51	133.66	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2807	U	C5-C6-N1	5.51	125.45	122.70
37	3	85	G	C6-C5-N7	-5.51	127.09	130.40
1	6	904	G	C5-C6-O6	5.51	131.91	128.60
1	6	1610	G	C5-C6-N1	5.51	114.25	111.50
36	5	43	A	C5-C6-N6	-5.51	119.29	123.70
36	5	1050	U	C2-N3-C4	-5.51	123.69	127.00
36	5	1907	C	N1-C2-N3	5.51	123.06	119.20
36	5	2275	A	C4-C5-C6	5.51	119.75	117.00
36	5	2727	A	N7-C8-N9	-5.51	111.05	113.80
36	5	2770	G	C5-C6-O6	-5.51	125.30	128.60
1	2	945	U	N1-C2-O2	5.51	126.65	122.80
36	1	953	G	N7-C8-N9	-5.51	110.35	113.10
36	1	1113	G	C4-C5-N7	5.51	113.00	110.80
36	1	1134	G	N3-C2-N2	-5.51	116.05	119.90
36	1	1294	A	O5'-P-OP1	5.51	117.31	110.70
1	6	402	C	C6-N1-C2	5.51	122.50	120.30
1	6	755	A	N1-C6-N6	5.51	121.90	118.60
36	5	692	A	N7-C8-N9	5.51	116.55	113.80
36	5	832	G	C2-N3-C4	5.51	114.65	111.90
36	5	2112	U	P-O3'-C3'	5.51	126.31	119.70
36	5	2175	U	C2-N1-C1'	-5.51	111.09	117.70
36	5	2720	G	N3-C4-C5	-5.51	125.85	128.60
36	5	2944	U	O5'-P-OP1	-5.51	100.74	105.70
37	7	26	C	C6-N1-C2	-5.51	118.10	120.30
37	7	108	A	N1-C2-N3	5.51	132.05	129.30
52	m6	49	ARG	NE-CZ-NH1	-5.51	117.55	120.30
1	2	582	U	C2-N1-C1'	5.50	124.31	117.70
36	1	109	A	OP1-P-O3'	5.50	117.31	105.20
36	1	355	A	O5'-P-OP1	-5.50	100.75	105.70
36	1	1136	A	C4-C5-C6	5.50	119.75	117.00
36	1	3153	U	N3-C2-O2	-5.50	118.35	122.20
36	1	3224	G	C4-C5-N7	-5.50	108.60	110.80
36	5	783	A	N1-C6-N6	5.50	121.90	118.60
36	5	1895	A	C6-N1-C2	-5.50	115.30	118.60
36	5	1947	G	N3-C2-N2	5.50	123.75	119.90
36	5	3254	G	C8-N9-C4	5.50	108.60	106.40
1	2	347	G	C8-N9-C4	-5.50	104.20	106.40
36	1	372	A	C4-C5-C6	5.50	119.75	117.00
36	1	403	C	O5'-P-OP2	-5.50	100.75	105.70
36	1	757	C	N3-C4-N4	5.50	121.85	118.00
36	1	2364	G	N3-C4-C5	-5.50	125.85	128.60
36	1	3240	C	O5'-P-OP2	-5.50	100.75	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	4	C	N3-C4-C5	5.50	124.10	121.90
1	6	576	G	N3-C2-N2	-5.50	116.05	119.90
1	6	1100	G	N7-C8-N9	-5.50	110.35	113.10
1	6	1472	C	N3-C4-C5	5.50	124.10	121.90
1	6	1609	U	N3-C4-O4	-5.50	115.55	119.40
36	5	127	G	C5-C6-O6	-5.50	125.30	128.60
36	5	531	G	C4-C5-C6	5.50	122.10	118.80
36	5	857	G	C2-N3-C4	-5.50	109.15	111.90
36	5	1112	A	C8-N9-C1'	-5.50	117.79	127.70
36	5	1133	A	N7-C8-N9	5.50	116.55	113.80
36	5	1535	A	N7-C8-N9	-5.50	111.05	113.80
36	5	2524	A	C6-C5-N7	-5.50	128.45	132.30
36	5	2855	U	C2-N3-C4	-5.50	123.70	127.00
36	1	325	A	OP2-P-O3'	5.50	117.30	105.20
36	1	883	A	C5-C6-N1	5.50	120.45	117.70
36	1	1517	G	C4-C5-N7	5.50	113.00	110.80
36	1	2300	G	O5'-P-OP2	5.50	117.30	110.70
36	1	2330	C	N3-C4-N4	-5.50	114.15	118.00
36	1	2915	U	OP1-P-OP2	5.50	127.85	119.60
36	1	3081	C	C2-N3-C4	-5.50	117.15	119.90
36	1	3197	G	C4-N9-C1'	-5.50	119.35	126.50
38	4	90	U	C6-N1-C2	5.50	124.30	121.00
1	6	347	G	C4-C5-N7	5.50	113.00	110.80
1	6	1746	A	N9-C4-C5	5.50	108.00	105.80
36	5	570	A	C2-N3-C4	-5.50	107.85	110.60
36	5	709	A	C6-C5-N7	-5.50	128.45	132.30
36	5	1953	G	C4-N9-C1'	-5.50	119.35	126.50
36	5	3002	C	N3-C4-N4	5.50	121.85	118.00
36	5	3092	C	C4-C5-C6	-5.50	114.65	117.40
36	5	3255	U	C5-C4-O4	5.50	129.20	125.90
37	7	38	U	C4-C5-C6	-5.50	116.40	119.70
1	2	408	C	O5'-P-OP1	5.50	117.30	110.70
36	1	657	A	C8-N9-C4	-5.50	103.60	105.80
41	L4	187	LEU	CA-CB-CG	5.50	127.95	115.30
36	5	54	C	N3-C2-O2	-5.50	118.05	121.90
36	5	961	C	C5-C6-N1	5.50	123.75	121.00
36	5	2760	C	C6-N1-C2	5.50	122.50	120.30
36	5	3313	U	OP1-P-OP2	5.50	127.85	119.60
1	2	99	C	C2-N1-C1'	-5.50	112.75	118.80
23	D1	79	LEU	CA-CB-CG	5.50	127.95	115.30
36	1	242	C	N1-C1'-C2'	-5.50	105.95	112.00
36	1	667	C	O5'-P-OP2	-5.50	100.75	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	815	G	N1-C2-N2	5.50	121.15	116.20
36	1	904	A	C8-N9-C4	-5.50	103.60	105.80
36	1	1107	C	C6-N1-C2	5.50	122.50	120.30
36	1	1202	A	C6-C5-N7	-5.50	128.45	132.30
36	1	1365	G	N1-C2-N3	5.50	127.20	123.90
36	1	1752	A	N1-C2-N3	5.50	132.05	129.30
36	1	1839	A	N1-C6-N6	-5.50	115.30	118.60
36	1	2394	G	N3-C4-C5	-5.50	125.85	128.60
36	1	2865	U	OP2-P-O3'	5.50	117.30	105.20
37	3	49	G	N3-C4-N9	5.50	129.30	126.00
37	3	91	G	C2-N3-C4	-5.50	109.15	111.90
1	6	578	U	C4-C5-C6	5.50	123.00	119.70
1	6	981	U	N1-C2-N3	5.50	118.20	114.90
1	6	991	G	N9-C4-C5	5.50	107.60	105.40
1	6	1629	G	OP2-P-O3'	5.50	117.30	105.20
36	5	313	A	O5'-P-OP1	-5.50	100.75	105.70
36	5	2874	G	N3-C4-N9	5.50	129.30	126.00
36	5	2940	A	N1-C2-N3	5.50	132.05	129.30
1	2	535	A	C8-N9-C4	-5.50	103.60	105.80
1	2	1050	G	N1-C6-O6	5.50	123.20	119.90
36	1	393	U	C5-C6-N1	5.50	125.45	122.70
36	1	407	A	OP1-P-OP2	5.50	127.85	119.60
36	1	685	G	N1-C2-N2	-5.50	111.25	116.20
36	1	896	A	C8-N9-C4	-5.50	103.60	105.80
36	1	1315	U	C4-C5-C6	5.50	123.00	119.70
36	1	1424	C	C4-C5-C6	5.50	120.15	117.40
36	1	1558	A	O5'-P-OP2	-5.50	100.75	105.70
36	1	1634	G	C5-C6-O6	-5.50	125.30	128.60
36	1	2205	U	N1-C2-O2	5.50	126.65	122.80
36	1	3027	A	N1-C2-N3	5.50	132.05	129.30
36	1	3046	A	C6-C5-N7	-5.50	128.45	132.30
62	N6	126	LEU	CA-CB-CG	5.50	127.94	115.30
11	s9	3	ARG	NE-CZ-NH2	5.50	123.05	120.30
36	5	294	U	N3-C4-O4	-5.50	115.55	119.40
36	5	433	A	C4-C5-N7	5.50	113.45	110.70
36	5	1041	U	N3-C2-O2	5.50	126.05	122.20
36	5	1213	G	C6-N1-C2	-5.50	121.80	125.10
36	5	3080	G	C4-C5-N7	5.50	113.00	110.80
37	7	112	G	C5-C6-O6	5.50	131.90	128.60
36	1	2204	C	C6-N1-C1'	-5.50	114.21	120.80
36	1	2399	A	C4-C5-N7	5.50	113.45	110.70
36	1	2943	G	C8-N9-C1'	-5.50	119.86	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3064	U	C6-N1-C1'	5.50	128.89	121.20
36	1	3291	G	N3-C2-N2	-5.50	116.05	119.90
38	4	140	G	N3-C2-N2	-5.50	116.05	119.90
1	6	45	U	O5'-P-OP2	-5.50	100.75	105.70
1	6	857	U	N3-C2-O2	5.50	126.05	122.20
1	6	946	U	C2-N1-C1'	5.50	124.29	117.70
36	5	578	A	C6-C5-N7	5.50	136.15	132.30
36	5	1726	C	C6-N1-C2	5.50	122.50	120.30
36	5	1838	G	C8-N9-C4	5.50	108.60	106.40
36	5	3030	G	N1-C2-N2	5.50	121.15	116.20
1	2	255	U	C6-N1-C2	-5.49	117.70	121.00
1	2	1539	G	C5-C6-O6	-5.49	125.30	128.60
36	1	624	G	C4-N9-C1'	5.49	133.64	126.50
36	1	1060	U	N3-C4-O4	-5.49	115.56	119.40
36	1	1736	G	C5-N7-C8	-5.49	101.55	104.30
36	1	1799	A	C2-N3-C4	-5.49	107.85	110.60
36	1	1923	C	O5'-P-OP1	-5.49	100.76	105.70
36	1	2286	U	C5-C4-O4	5.49	129.20	125.90
36	1	3089	C	N1-C2-N3	5.49	123.05	119.20
1	6	432	G	C4-N9-C1'	5.49	133.64	126.50
1	6	972	G	C4-C5-N7	5.49	113.00	110.80
1	6	1143	A	C6-C5-N7	-5.49	128.46	132.30
1	6	1630	U	C6-N1-C2	-5.49	117.70	121.00
36	5	196	G	OP1-P-O3'	5.49	117.29	105.20
36	5	388	G	C5-C6-O6	5.49	131.90	128.60
36	5	1318	A	C6-N1-C2	-5.49	115.30	118.60
36	5	2794	G	C4-N9-C1'	-5.49	119.36	126.50
36	5	2952	G	C4-N9-C1'	5.49	133.64	126.50
36	5	3328	G	N9-C4-C5	-5.49	103.20	105.40
37	7	97	A	N3-C4-N9	5.49	131.79	127.40
36	1	907	G	O4'-C1'-N9	5.49	112.59	108.20
36	1	1709	C	N3-C4-C5	-5.49	119.70	121.90
36	1	1887	A	C6-C5-N7	-5.49	128.46	132.30
36	1	3082	C	OP1-P-OP2	-5.49	111.36	119.60
1	6	16	G	O5'-P-OP1	5.49	117.29	110.70
1	6	567	A	O5'-P-OP2	-5.49	100.76	105.70
36	5	509	U	C6-N1-C2	5.49	124.30	121.00
36	5	890	C	O5'-P-OP1	5.49	117.29	110.70
36	5	1336	U	C5-C6-N1	5.49	125.45	122.70
36	5	2682	C	N3-C4-C5	-5.49	119.70	121.90
36	5	2687	G	N3-C4-N9	5.49	129.29	126.00
1	2	310	C	N3-C2-O2	-5.49	118.06	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1073	G	N7-C8-N9	-5.49	110.36	113.10
1	2	1462	G	N7-C8-N9	-5.49	110.36	113.10
36	1	3152	U	C6-N1-C1'	5.49	128.89	121.20
37	3	41	G	O4'-C1'-N9	5.49	112.59	108.20
37	3	91	G	C4-N9-C1'	5.49	133.64	126.50
1	6	23	G	C5-C6-N1	-5.49	108.75	111.50
36	5	1042	U	C6-N1-C2	5.49	124.30	121.00
36	5	1264	G	N1-C6-O6	-5.49	116.61	119.90
36	5	1350	A	N1-C6-N6	-5.49	115.31	118.60
36	5	1883	A	C6-N1-C2	-5.49	115.31	118.60
36	5	2320	A	C2-N3-C4	-5.49	107.86	110.60
36	5	2361	A	C5-C6-N1	5.49	120.45	117.70
36	5	2915	U	O5'-P-OP2	-5.49	100.76	105.70
36	5	2952	G	N9-C4-C5	-5.49	103.20	105.40
36	5	3062	G	N9-C4-C5	-5.49	103.20	105.40
1	2	238	U	O4'-C1'-N1	5.49	112.59	108.20
1	2	619	A	OP2-P-O3'	5.49	117.28	105.20
36	1	1295	G	C4-N9-C1'	5.49	133.63	126.50
36	1	1475	A	N1-C6-N6	5.49	121.89	118.60
36	1	1751	G	N9-C4-C5	5.49	107.59	105.40
38	4	43	A	C2-N3-C4	5.49	113.34	110.60
63	N7	51	LEU	CA-CB-CG	-5.49	102.67	115.30
1	6	21	U	N1-C2-N3	5.49	118.19	114.90
1	6	93	A	C5-C6-N1	5.49	120.44	117.70
1	6	435	C	N1-C2-O2	5.49	122.19	118.90
1	6	602	U	OP2-P-O3'	5.49	117.27	105.20
1	6	980	G	C8-N9-C4	5.49	108.59	106.40
1	6	1447	C	N1-C2-O2	5.49	122.19	118.90
36	5	653	A	N9-C4-C5	-5.49	103.60	105.80
36	5	1202	A	C6-C5-N7	-5.49	128.46	132.30
37	7	33	U	C2-N3-C4	-5.49	123.71	127.00
36	1	399	A	C4-C5-N7	5.49	113.44	110.70
36	1	655	C	O5'-P-OP1	5.49	117.28	110.70
36	1	908	G	C4-C5-C6	5.49	122.09	118.80
36	1	3013	U	C6-N1-C2	5.49	124.29	121.00
1	6	425	A	N9-C4-C5	5.49	108.00	105.80
1	6	1283	U	C5-C4-O4	5.49	129.19	125.90
1	6	1564	U	N3-C4-C5	5.49	117.89	114.60
36	5	39	A	N1-C2-N3	5.49	132.04	129.30
36	5	52	A	C6-N1-C2	-5.49	115.31	118.60
36	5	830	A	N1-C2-N3	5.49	132.04	129.30
36	5	2167	A	C8-N9-C4	-5.49	103.61	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	115	G	OP2-P-O3'	5.49	117.27	105.20
38	8	10	A	N7-C8-N9	-5.49	111.06	113.80
1	2	311	U	N3-C4-C5	-5.49	111.31	114.60
1	2	1608	U	C6-N1-C2	-5.49	117.71	121.00
1	2	1752	U	C6-N1-C2	5.49	124.29	121.00
36	1	113	C	N3-C4-N4	5.49	121.84	118.00
36	1	404	G	C4-N9-C1'	5.49	133.63	126.50
36	1	1050	U	C4-C5-C6	5.49	122.99	119.70
36	1	1321	G	N1-C6-O6	5.49	123.19	119.90
36	1	2610	G	N1-C2-N3	5.49	127.19	123.90
36	1	3222	U	N3-C4-O4	-5.49	115.56	119.40
36	1	3276	G	C4-C5-N7	5.49	112.99	110.80
36	1	3329	U	O5'-P-OP1	-5.49	100.76	105.70
38	4	52	A	N1-C6-N6	-5.49	115.31	118.60
38	4	73	U	N3-C4-O4	-5.49	115.56	119.40
1	6	1039	A	C5-N7-C8	-5.49	101.16	103.90
1	6	1192	C	N3-C4-N4	5.49	121.84	118.00
36	5	406	G	C2-N3-C4	-5.49	109.16	111.90
36	5	667	C	N1-C2-O2	5.49	122.19	118.90
36	5	1668	G	N1-C6-O6	5.49	123.19	119.90
36	5	2957	G	N3-C4-N9	-5.49	122.71	126.00
1	2	1720	G	N1-C6-O6	5.48	123.19	119.90
36	1	1893	A	C2-N3-C4	-5.48	107.86	110.60
36	5	2163	C	N3-C2-O2	-5.48	118.06	121.90
1	2	1004	U	N1-C2-N3	5.48	118.19	114.90
1	2	1201	G	C5-N7-C8	5.48	107.04	104.30
36	1	52	A	O5'-P-OP1	-5.48	100.77	105.70
36	1	125	C	C6-N1-C2	5.48	122.49	120.30
36	1	932	U	C2-N3-C4	-5.48	123.71	127.00
36	1	1177	G	P-O3'-C3'	5.48	126.28	119.70
36	1	1334	U	O5'-P-OP2	-5.48	100.77	105.70
36	1	1367	G	C8-N9-C4	-5.48	104.21	106.40
36	1	1500	G	N1-C6-O6	5.48	123.19	119.90
1	6	561	G	N7-C8-N9	5.48	115.84	113.10
1	6	804	A	C5-C6-N6	-5.48	119.31	123.70
1	6	858	G	C8-N9-C1'	-5.48	119.87	127.00
1	6	1100	G	C4-C5-N7	5.48	112.99	110.80
36	5	768	C	C5-C6-N1	5.48	123.74	121.00
36	5	867	G	C4-C5-C6	5.48	122.09	118.80
36	5	943	U	C4-C5-C6	5.48	122.99	119.70
36	5	1155	C	C5-C6-N1	5.48	123.74	121.00
36	5	1215	U	N3-C4-O4	5.48	123.24	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1860	G	O4'-C1'-N9	5.48	112.59	108.20
36	5	1863	G	N1-C6-O6	-5.48	116.61	119.90
36	5	2396	G	N9-C4-C5	5.48	107.59	105.40
1	2	1029	U	N3-C4-O4	-5.48	115.56	119.40
36	1	628	A	OP1-P-O3'	-5.48	93.14	105.20
36	1	641	C	C6-N1-C2	5.48	122.49	120.30
36	1	651	G	O4'-C1'-N9	-5.48	103.82	108.20
36	1	1205	A	O5'-P-OP2	-5.48	100.77	105.70
36	1	2877	G	OP1-P-OP2	5.48	127.82	119.60
37	3	103	A	OP2-P-O3'	5.48	117.26	105.20
1	6	1656	U	N3-C4-O4	5.48	123.24	119.40
1	2	336	G	N1-C6-O6	5.48	123.19	119.90
36	1	362	U	C2-N1-C1'	-5.48	111.13	117.70
36	1	929	A	N1-C2-N3	-5.48	126.56	129.30
36	1	1153	A	N1-C6-N6	5.48	121.89	118.60
36	1	2095	G	C6-C5-N7	-5.48	127.11	130.40
36	1	2870	C	P-O3'-C3'	5.48	126.27	119.70
1	6	1625	C	N3-C2-O2	5.48	125.74	121.90
36	5	2318	U	N1-C2-N3	-5.48	111.61	114.90
1	2	581	U	C5-C6-N1	5.48	125.44	122.70
36	1	805	G	C6-C5-N7	-5.48	127.11	130.40
36	1	943	U	N3-C4-C5	-5.48	111.31	114.60
36	1	1429	G	C4-C5-C6	5.48	122.09	118.80
36	1	1521	G	N3-C4-N9	-5.48	122.71	126.00
36	1	1618	G	N9-C4-C5	5.48	107.59	105.40
36	1	2520	A	C4-C5-N7	5.48	113.44	110.70
38	4	41	A	N3-C4-N9	5.48	131.78	127.40
1	6	757	A	C2-N3-C4	-5.48	107.86	110.60
1	6	1509	C	C2-N3-C4	-5.48	117.16	119.90
36	5	419	G	N3-C4-C5	-5.48	125.86	128.60
36	5	595	G	N3-C4-C5	-5.48	125.86	128.60
36	5	1816	A	C2-N3-C4	5.48	113.34	110.60
36	5	3114	A	N3-C4-C5	5.48	130.63	126.80
36	5	3225	C	N3-C4-N4	5.48	121.83	118.00
1	2	287	G	N9-C1'-C2'	-5.48	105.98	112.00
1	2	1108	G	C5-C6-N1	5.48	114.24	111.50
1	2	1173	C	N3-C2-O2	-5.48	118.07	121.90
1	2	1303	U	C2-N1-C1'	-5.48	111.13	117.70
36	1	419	G	N3-C4-N9	5.48	129.28	126.00
36	1	815	G	C4-C5-N7	-5.48	108.61	110.80
36	1	2127	U	O5'-P-OP2	5.48	117.27	110.70
36	1	2229	A	C5-N7-C8	-5.48	101.16	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	157	A	N1-C6-N6	-5.48	115.31	118.60
1	2	378	A	C4-C5-N7	5.47	113.44	110.70
1	2	1656	U	N3-C2-O2	5.47	126.03	122.20
36	1	73	C	O4'-C1'-N1	-5.47	103.82	108.20
36	1	353	G	N3-C4-N9	-5.47	122.72	126.00
36	1	2164	A	C8-N9-C4	-5.47	103.61	105.80
36	1	2243	A	N1-C6-N6	5.47	121.89	118.60
36	1	2419	A	C5-C6-N6	-5.47	119.32	123.70
36	1	2634	U	N3-C4-O4	5.47	123.23	119.40
37	3	109	G	C4-N9-C1'	-5.47	119.38	126.50
1	6	989	U	N3-C2-O2	-5.47	118.37	122.20
1	6	1226	A	N3-C4-C5	-5.47	122.97	126.80
36	5	217	U	N3-C4-O4	-5.47	115.57	119.40
36	5	1847	A	O5'-P-OP2	-5.47	100.77	105.70
1	2	1266	U	OP1-P-O3'	5.47	117.24	105.20
36	1	1374	G	C5-C6-O6	-5.47	125.32	128.60
36	1	1448	U	C4-C5-C6	5.47	122.98	119.70
36	1	1525	G	N1-C2-N2	-5.47	111.27	116.20
36	1	1665	C	N3-C2-O2	5.47	125.73	121.90
37	3	75	G	N1-C2-N3	5.47	127.18	123.90
40	L3	117	ARG	NE-CZ-NH1	5.47	123.04	120.30
1	6	52	U	C2-N1-C1'	5.47	124.27	117.70
1	6	639	U	O4'-C1'-N1	5.47	112.58	108.20
36	5	183	G	N9-C4-C5	5.47	107.59	105.40
36	5	617	G	C8-N9-C4	5.47	108.59	106.40
36	5	1082	U	C2-N1-C1'	5.47	124.27	117.70
36	5	1318	A	OP2-P-O3'	5.47	117.24	105.20
36	5	1896	A	N9-C4-C5	5.47	107.99	105.80
36	5	3074	G	O5'-P-OP1	-5.47	100.78	105.70
52	m6	138	LEU	CB-CG-CD2	-5.47	101.70	111.00
1	2	574	G	C4-C5-N7	-5.47	108.61	110.80
1	2	1329	A	N9-C4-C5	-5.47	103.61	105.80
36	1	788	C	C4-C5-C6	5.47	120.14	117.40
36	1	1070	U	C5-C4-O4	5.47	129.18	125.90
1	6	546	U	N1-C2-N3	5.47	118.18	114.90
36	5	712	G	C2-N3-C4	5.47	114.64	111.90
36	5	1489	A	C6-N1-C2	-5.47	115.32	118.60
36	5	2287	C	N3-C4-N4	-5.47	114.17	118.00
36	5	2860	U	C6-N1-C2	5.47	124.28	121.00
1	2	1744	A	O5'-P-OP1	-5.47	100.78	105.70
36	1	933	A	N3-C4-N9	5.47	131.78	127.40
36	1	1046	A	C6-C5-N7	-5.47	128.47	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1303	A	OP1-P-O3'	5.47	117.23	105.20
36	1	1523	U	O4'-C1'-N1	5.47	112.58	108.20
36	1	2586	G	N3-C4-C5	-5.47	125.86	128.60
36	1	2624	G	C4-N9-C1'	5.47	133.61	126.50
36	1	3321	C	O5'-P-OP1	5.47	117.26	110.70
36	1	3393	U	C2-N1-C1'	-5.47	111.14	117.70
1	6	57	G	N7-C8-N9	5.47	115.83	113.10
1	6	325	G	N1-C2-N3	5.47	127.18	123.90
1	6	1148	C	N3-C2-O2	-5.47	118.07	121.90
1	6	1228	G	C4-N9-C1'	5.47	133.61	126.50
36	5	1881	A	C5-C6-N1	5.47	120.44	117.70
36	5	2351	U	C2-N3-C4	-5.47	123.72	127.00
36	5	2374	C	OP2-P-O3'	5.47	117.23	105.20
36	5	3315	G	N1-C2-N3	5.47	127.18	123.90
38	8	12	A	C6-C5-N7	-5.47	128.47	132.30
1	2	1030	A	N1-C6-N6	5.47	121.88	118.60
36	1	881	C	OP1-P-O3'	5.47	117.23	105.20
36	1	3323	A	C4-C5-C6	5.47	119.73	117.00
38	4	13	A	C2-N3-C4	-5.47	107.87	110.60
1	6	331	A	O5'-P-OP2	-5.47	100.78	105.70
1	6	388	G	N1-C2-N3	5.47	127.18	123.90
1	6	554	C	N1-C2-O2	-5.47	115.62	118.90
1	6	1361	U	N1-C2-O2	5.47	126.63	122.80
36	5	1668	G	N7-C8-N9	5.47	115.83	113.10
36	5	2518	C	N3-C2-O2	5.47	125.73	121.90
36	5	3117	C	N3-C2-O2	-5.47	118.07	121.90
1	2	1044	U	N1-C2-N3	5.47	118.18	114.90
1	2	1773	C	N1-C2-O2	-5.47	115.62	118.90
36	1	1005	G	C4-C5-N7	-5.47	108.61	110.80
36	1	2627	C	C2-N1-C1'	-5.47	112.79	118.80
36	1	2844	C	N3-C4-C5	5.47	124.09	121.90
36	1	3269	U	C5-C4-O4	5.47	129.18	125.90
38	4	77	A	C2-N3-C4	-5.47	107.87	110.60
1	6	420	A	C8-N9-C4	-5.47	103.61	105.80
1	6	1245	G	N3-C4-C5	-5.47	125.87	128.60
36	5	543	C	C6-N1-C2	-5.47	118.11	120.30
36	5	591	G	C4-N9-C1'	5.47	133.61	126.50
36	5	1173	U	C5-C6-N1	-5.47	119.97	122.70
36	5	1889	G	C5-C6-O6	-5.47	125.32	128.60
36	5	2106	A	C8-N9-C4	-5.47	103.61	105.80
36	5	2265	C	N3-C4-C5	-5.47	119.71	121.90
36	5	2377	G	N1-C2-N3	-5.47	120.62	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2386	A	C2-N3-C4	-5.47	107.87	110.60
36	5	2722	U	C6-N1-C2	-5.47	117.72	121.00
36	5	2923	U	OP2-P-O3'	-5.47	93.17	105.20
36	5	3128	G	OP2-P-O3'	5.47	117.23	105.20
36	5	3181	C	C5-C4-N4	5.47	124.03	120.20
1	2	233	C	C6-N1-C2	-5.46	118.11	120.30
36	1	320	G	C4-C5-N7	5.46	112.99	110.80
36	1	1002	A	C4-C5-C6	-5.46	114.27	117.00
36	1	1346	G	N3-C2-N2	-5.46	116.08	119.90
36	1	1905	G	C5-C6-N1	-5.46	108.77	111.50
36	1	2286	U	C4-C5-C6	5.46	122.98	119.70
36	1	2886	U	N3-C2-O2	5.46	126.03	122.20
36	1	3142	A	C4-N9-C1'	-5.46	116.47	126.30
36	1	3261	C	C5-C6-N1	5.46	123.73	121.00
1	6	440	U	C2-N3-C4	-5.46	123.72	127.00
1	6	874	C	N1-C2-O2	5.46	122.18	118.90
1	6	903	U	N3-C4-O4	5.46	123.22	119.40
36	5	801	A	C5-C6-N1	-5.46	114.97	117.70
36	5	987	U	N1-C2-N3	5.46	118.18	114.90
36	5	2347	U	C4-C5-C6	5.46	122.98	119.70
37	7	25	G	N3-C4-C5	-5.46	125.87	128.60
38	8	17	A	N1-C6-N6	5.46	121.88	118.60
36	1	936	A	C8-N9-C4	5.46	107.98	105.80
36	1	2163	C	N3-C4-C5	5.46	124.08	121.90
36	1	2368	A	C6-C5-N7	-5.46	128.48	132.30
36	1	2655	U	C6-N1-C1'	5.46	128.85	121.20
36	1	3288	G	C5-N7-C8	-5.46	101.57	104.30
36	5	235	A	N3-C4-C5	5.46	130.62	126.80
36	5	651	G	OP2-P-O3'	5.46	117.22	105.20
36	5	1656	A	N1-C2-N3	5.46	132.03	129.30
36	5	1929	G	C2-N3-C4	-5.46	109.17	111.90
68	o2	27	ARG	NE-CZ-NH1	-5.46	117.57	120.30
1	2	622	A	C2-N3-C4	5.46	113.33	110.60
36	1	38	U	O5'-P-OP2	5.46	117.25	110.70
36	1	94	G	N1-C6-O6	5.46	123.18	119.90
36	1	416	A	C6-C5-N7	-5.46	128.48	132.30
36	1	695	C	C2-N3-C4	-5.46	117.17	119.90
36	1	907	G	N3-C2-N2	5.46	123.72	119.90
36	1	1099	A	C8-N9-C4	5.46	107.98	105.80
36	1	2149	A	N1-C6-N6	-5.46	115.32	118.60
36	1	2423	U	N3-C4-O4	5.46	123.22	119.40
36	1	2652	U	OP2-P-O3'	5.46	117.22	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2684	C	C6-N1-C2	-5.46	118.11	120.30
36	1	2964	G	C5-C6-N1	-5.46	108.77	111.50
36	1	3375	A	P-O3'-C3'	5.46	126.25	119.70
1	6	635	A	C5-C6-N6	5.46	128.07	123.70
1	6	858	G	C8-N9-C4	-5.46	104.22	106.40
1	6	865	A	C8-N9-C4	-5.46	103.61	105.80
1	6	980	G	N1-C6-O6	5.46	123.18	119.90
1	6	1126	G	N3-C2-N2	-5.46	116.08	119.90
1	6	1467	C	C5-C6-N1	5.46	123.73	121.00
1	6	1796	C	N3-C2-O2	-5.46	118.08	121.90
36	5	595	G	N9-C4-C5	-5.46	103.22	105.40
36	5	702	C	C5-C6-N1	5.46	123.73	121.00
36	5	1043	C	C2-N3-C4	-5.46	117.17	119.90
36	5	1489	A	C8-N9-C1'	-5.46	117.87	127.70
36	5	1691	U	C6-N1-C2	-5.46	117.72	121.00
36	5	2190	U	OP2-P-O3'	5.46	117.21	105.20
36	5	2199	G	C8-N9-C4	-5.46	104.22	106.40
36	5	2365	C	C4-C5-C6	5.46	120.13	117.40
1	2	100	A	N1-C6-N6	-5.46	115.32	118.60
36	1	115	A	O4'-C1'-N9	-5.46	103.83	108.20
36	1	1869	C	N3-C2-O2	5.46	125.72	121.90
36	1	2239	G	N3-C2-N2	5.46	123.72	119.90
36	1	2990	G	N3-C4-N9	5.46	129.28	126.00
36	1	3173	G	C4-N9-C1'	5.46	133.60	126.50
1	6	885	G	OP1-P-O3'	5.46	117.21	105.20
36	5	342	A	N3-C4-N9	5.46	131.77	127.40
36	5	356	C	N1-C2-O2	-5.46	115.62	118.90
36	5	1095	U	C2-N1-C1'	5.46	124.25	117.70
36	5	1881	A	O4'-C1'-N9	-5.46	103.83	108.20
36	5	2664	C	N3-C4-C5	5.46	124.08	121.90
36	5	3095	U	C5-C6-N1	-5.46	119.97	122.70
36	1	128	G	N1-C6-O6	5.46	123.17	119.90
36	1	622	A	N1-C2-N3	-5.46	126.57	129.30
36	1	1196	C	N1-C2-N3	-5.46	115.38	119.20
36	1	3242	G	C2-N3-C4	-5.46	109.17	111.90
40	L3	284	ARG	NE-CZ-NH1	5.46	123.03	120.30
61	N5	115	ARG	NE-CZ-NH1	5.46	123.03	120.30
1	6	165	G	C4-C5-C6	5.46	122.08	118.80
1	6	1454	G	C6-C5-N7	-5.46	127.12	130.40
36	5	1431	G	N3-C4-N9	5.46	129.28	126.00
36	5	1752	A	O5'-P-OP1	-5.46	100.79	105.70
36	5	1884	A	C6-N1-C2	-5.46	115.33	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2300	G	C4-C5-N7	5.46	112.98	110.80
36	5	2374	C	C6-N1-C1'	-5.46	114.25	120.80
36	5	2624	G	N9-C4-C5	-5.46	103.22	105.40
36	5	2729	U	C5-C6-N1	-5.46	119.97	122.70
37	7	87	G	C8-N9-C1'	-5.46	119.90	127.00
1	2	314	C	OP1-P-O3'	5.46	117.20	105.20
1	2	783	G	N9-C4-C5	-5.46	103.22	105.40
36	1	429	U	OP2-P-O3'	5.46	117.20	105.20
36	1	875	G	N3-C2-N2	-5.46	116.08	119.90
36	1	1444	G	N3-C4-C5	-5.46	125.87	128.60
36	1	3008	A	OP1-P-OP2	-5.46	111.41	119.60
36	1	3145	C	N1-C2-O2	-5.46	115.63	118.90
37	3	56	A	C4-C5-C6	-5.46	114.27	117.00
38	4	33	A	O5'-P-OP1	-5.46	100.79	105.70
38	4	46	G	N3-C4-C5	-5.46	125.87	128.60
38	4	81	U	C6-N1-C2	-5.46	117.73	121.00
38	4	83	C	N3-C4-C5	-5.46	119.72	121.90
36	5	53	G	N1-C6-O6	-5.46	116.63	119.90
36	5	528	U	N3-C4-O4	5.46	123.22	119.40
36	5	936	A	O5'-P-OP1	5.46	117.25	110.70
36	5	1280	C	C6-N1-C2	5.46	122.48	120.30
36	5	2370	G	C8-N9-C4	-5.46	104.22	106.40
36	1	1103	A	C4-C5-N7	-5.46	107.97	110.70
36	1	1147	G	N1-C2-N3	5.46	127.17	123.90
36	1	1431	G	C8-N9-C1'	-5.46	119.91	127.00
36	1	1893	A	C5-N7-C8	-5.46	101.17	103.90
1	6	411	C	C6-N1-C2	-5.46	118.12	120.30
36	5	1452	A	N1-C2-N3	5.46	132.03	129.30
36	5	3142	A	N1-C6-N6	-5.46	115.33	118.60
1	2	275	C	C5-C6-N1	5.45	123.73	121.00
1	2	1112	G	OP1-P-OP2	-5.45	111.42	119.60
14	C2	103	LEU	CA-CB-CG	5.45	127.84	115.30
36	1	275	U	OP1-P-OP2	-5.45	111.42	119.60
36	1	515	C	N3-C4-C5	-5.45	119.72	121.90
36	1	613	G	C5-N7-C8	-5.45	101.57	104.30
36	1	951	A	C8-N9-C4	5.45	107.98	105.80
36	1	1082	U	N3-C2-O2	-5.45	118.38	122.20
36	1	1456	A	O4'-C1'-N9	-5.45	103.84	108.20
36	1	1524	A	C5-C6-N1	5.45	120.43	117.70
36	1	1553	U	N1-C2-O2	-5.45	118.98	122.80
36	1	3122	A	C4-C5-N7	5.45	113.43	110.70
1	6	322	G	O4'-C1'-N9	-5.45	103.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	761	G	N9-C4-C5	5.45	107.58	105.40
1	6	1178	G	C5-C6-O6	5.45	131.87	128.60
1	6	1772	C	C4-C5-C6	5.45	120.13	117.40
36	5	110	G	C4-N9-C1'	5.45	133.59	126.50
36	5	1389	G	C8-N9-C4	5.45	108.58	106.40
36	5	1551	C	O4'-C1'-N1	5.45	112.56	108.20
36	5	2119	A	C2-N3-C4	-5.45	107.87	110.60
36	5	2274	U	N3-C4-O4	5.45	123.22	119.40
37	7	106	U	OP1-P-OP2	5.45	127.78	119.60
1	2	770	A	O5'-P-OP2	-5.45	100.79	105.70
36	1	1618	G	C4-C5-N7	-5.45	108.62	110.80
36	1	1795	U	N1-C2-O2	-5.45	118.98	122.80
36	1	3304	U	OP1-P-OP2	5.45	127.78	119.60
36	1	3320	A	C5-N7-C8	-5.45	101.17	103.90
1	6	1100	G	N3-C4-C5	5.45	131.33	128.60
36	5	1522	U	C2-N1-C1'	-5.45	111.16	117.70
36	5	1652	G	N1-C6-O6	5.45	123.17	119.90
36	5	2907	G	C6-N1-C2	-5.45	121.83	125.10
37	7	17	A	C6-N1-C2	-5.45	115.33	118.60
1	2	27	U	N1-C2-O2	5.45	126.61	122.80
36	1	10	C	C6-N1-C2	5.45	122.48	120.30
36	1	80	G	C8-N9-C4	-5.45	104.22	106.40
36	1	518	G	N9-C4-C5	5.45	107.58	105.40
36	1	828	A	N1-C6-N6	5.45	121.87	118.60
36	1	906	A	C5-C6-N1	5.45	120.42	117.70
36	1	944	C	C2-N3-C4	-5.45	117.17	119.90
36	1	1330	A	OP2-P-O3'	5.45	117.19	105.20
36	1	1545	A	C4-C5-C6	5.45	119.73	117.00
36	1	2197	C	N3-C2-O2	5.45	125.72	121.90
36	1	2339	C	N1-C2-O2	5.45	122.17	118.90
36	1	3189	G	N3-C4-N9	5.45	129.27	126.00
36	1	3242	G	O5'-P-OP2	-5.45	100.80	105.70
36	1	3304	U	N1-C2-N3	5.45	118.17	114.90
52	M6	99	LEU	CA-CB-CG	-5.45	102.76	115.30
1	6	55	A	C5-C6-N6	5.45	128.06	123.70
1	6	217	A	P-O3'-C3'	5.45	126.24	119.70
1	6	1774	G	OP2-P-O3'	5.45	117.19	105.20
36	5	1313	G	N3-C4-C5	-5.45	125.87	128.60
36	5	1397	C	C2-N1-C1'	5.45	124.80	118.80
36	5	2372	A	N3-C4-N9	5.45	131.76	127.40
36	5	2828	G	O5'-P-OP2	5.45	117.24	110.70
36	5	2918	G	N7-C8-N9	-5.45	110.38	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3060	C	N3-C2-O2	5.45	125.72	121.90
1	2	755	A	C4-C5-N7	-5.45	107.98	110.70
1	2	1104	U	N3-C2-O2	5.45	126.01	122.20
36	1	1178	G	C6-N1-C2	-5.45	121.83	125.10
36	1	1367	G	C4-C5-C6	5.45	122.07	118.80
36	1	2824	G	C2-N3-C4	-5.45	109.18	111.90
36	1	3189	G	N3-C4-C5	-5.45	125.88	128.60
37	3	115	G	C8-N9-C4	5.45	108.58	106.40
1	6	3	U	C5-C6-N1	-5.45	119.98	122.70
1	6	760	A	C2-N3-C4	-5.45	107.88	110.60
1	6	1583	A	N9-C4-C5	5.45	107.98	105.80
36	5	81	C	C5-C6-N1	-5.45	118.28	121.00
36	5	957	C	N3-C2-O2	-5.45	118.09	121.90
36	5	2908	G	OP1-P-O3'	-5.45	93.21	105.20
36	5	3100	U	N3-C4-C5	5.45	117.87	114.60
36	5	3243	A	N1-C6-N6	5.45	121.87	118.60
36	1	2332	A	C5-C6-N6	-5.45	119.34	123.70
1	6	52	U	C6-N1-C2	-5.45	117.73	121.00
36	5	1362	G	C5-C6-O6	-5.45	125.33	128.60
36	5	1383	G	N1-C6-O6	5.45	123.17	119.90
36	5	2735	U	O5'-P-OP1	5.45	117.24	110.70
1	2	728	U	C2-N1-C1'	5.45	124.23	117.70
1	2	1427	A	C2-N3-C4	5.45	113.32	110.60
36	1	236	G	N1-C6-O6	-5.45	116.63	119.90
36	1	1412	G	OP1-P-OP2	-5.45	111.43	119.60
36	1	1527	C	N3-C2-O2	5.45	125.71	121.90
36	1	2247	G	O5'-P-OP1	-5.45	100.80	105.70
36	1	2916	U	C5-C4-O4	-5.45	122.63	125.90
36	1	2991	A	O5'-P-OP2	5.45	117.23	110.70
36	1	3022	G	O4'-C1'-N9	5.45	112.56	108.20
36	1	3114	A	N1-C2-N3	5.45	132.02	129.30
36	1	3318	G	N9-C1'-C2'	-5.45	106.01	112.00
38	4	63	G	N1-C2-N3	5.45	127.17	123.90
1	6	417	A	OP2-P-O3'	5.45	117.18	105.20
1	6	574	G	N7-C8-N9	-5.45	110.38	113.10
1	6	777	C	C5-C6-N1	5.45	123.72	121.00
1	6	1004	U	C4-C5-C6	5.45	122.97	119.70
36	5	96	G	C6-N1-C2	5.45	128.37	125.10
36	5	212	G	N3-C4-C5	-5.45	125.88	128.60
36	5	947	G	C4-N9-C1'	5.45	133.58	126.50
36	5	1400	G	C6-C5-N7	-5.45	127.13	130.40
36	5	2728	G	N7-C8-N9	5.45	115.82	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3390	G	N1-C2-N3	5.45	127.17	123.90
37	7	93	C	C2-N3-C4	-5.45	117.18	119.90
38	8	101	U	N3-C2-O2	-5.45	118.39	122.20
50	m4	38	ILE	CG1-CB-CG2	-5.45	99.42	111.40
1	2	43	A	N1-C6-N6	-5.44	115.33	118.60
36	1	329	U	C2-N3-C4	-5.44	123.73	127.00
36	1	587	U	N3-C2-O2	5.44	126.01	122.20
36	1	592	A	O5'-P-OP2	-5.44	100.80	105.70
36	1	696	C	P-O3'-C3'	5.44	126.23	119.70
36	1	1099	A	C5-C6-N6	-5.44	119.34	123.70
36	1	2235	C	N1-C2-O2	-5.44	115.63	118.90
36	1	2356	A	N1-C6-N6	5.44	121.87	118.60
36	5	817	A	C8-N9-C4	-5.44	103.62	105.80
36	5	2354	C	C2-N3-C4	5.44	122.62	119.90
36	1	573	C	O5'-P-OP2	-5.44	100.80	105.70
36	1	994	G	OP1-P-O3'	5.44	117.17	105.20
36	1	1621	A	N7-C8-N9	-5.44	111.08	113.80
36	1	3312	U	C5-C6-N1	5.44	125.42	122.70
1	6	417	A	C4-C5-C6	5.44	119.72	117.00
1	6	1070	C	C2-N3-C4	-5.44	117.18	119.90
1	6	1772	C	C5-C6-N1	-5.44	118.28	121.00
36	5	1343	A	C8-N9-C4	5.44	107.98	105.80
36	5	2208	A	O4'-C1'-N9	5.44	112.56	108.20
36	5	2285	C	N1-C2-N3	5.44	123.01	119.20
36	5	3061	G	N1-C2-N2	5.44	121.10	116.20
36	5	3290	G	C4-N9-C1'	5.44	133.57	126.50
1	2	1241	G	C8-N9-C1'	-5.44	119.93	127.00
1	2	1255	G	C4-C5-N7	-5.44	108.62	110.80
36	1	361	A	C6-N1-C2	-5.44	115.34	118.60
36	1	679	U	C5-C4-O4	5.44	129.16	125.90
36	1	1296	C	N3-C4-C5	5.44	124.08	121.90
36	1	2799	A	C5-C6-N6	5.44	128.05	123.70
36	1	2882	U	N1-C2-N3	5.44	118.17	114.90
1	6	1376	C	C2-N1-C1'	-5.44	112.82	118.80
36	5	62	A	N7-C8-N9	5.44	116.52	113.80
36	5	515	C	C5-C6-N1	-5.44	118.28	121.00
36	5	521	A	O5'-P-OP1	-5.44	100.80	105.70
36	5	677	A	C5-C6-N1	5.44	120.42	117.70
36	5	1040	A	N9-C1'-C2'	-5.44	106.02	112.00
36	5	1174	G	O5'-P-OP2	-5.44	100.80	105.70
36	5	1672	U	C5-C6-N1	-5.44	119.98	122.70
36	5	2584	G	O4'-C1'-N9	-5.44	103.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2978	U	N1-C2-N3	5.44	118.16	114.90
36	5	3153	U	C2-N1-C1'	5.44	124.23	117.70
36	5	3324	C	C6-N1-C2	5.44	122.48	120.30
37	7	68	C	O5'-P-OP1	-5.44	100.80	105.70
37	7	80	G	C8-N9-C1'	-5.44	119.93	127.00
38	8	31	G	N7-C8-N9	-5.44	110.38	113.10
62	n6	6	LEU	CA-CB-CG	-5.44	102.79	115.30
36	1	404	G	N3-C4-N9	5.44	129.26	126.00
36	1	504	A	C5-C6-N1	5.44	120.42	117.70
36	1	2121	G	C8-N9-C1'	5.44	134.07	127.00
36	1	2163	C	C5-C6-N1	-5.44	118.28	121.00
36	1	2210	G	C8-N9-C1'	5.44	134.07	127.00
36	1	2341	A	C8-N9-C4	5.44	107.97	105.80
1	6	361	C	N3-C2-O2	-5.44	118.09	121.90
1	6	613	G	C5-C6-O6	-5.44	125.34	128.60
36	5	507	U	C4-C5-C6	5.44	122.96	119.70
36	5	3147	G	N1-C2-N2	-5.44	111.31	116.20
40	l3	14	LEU	CB-CG-CD2	-5.44	101.75	111.00
1	2	1625	C	C5-C6-N1	-5.44	118.28	121.00
36	1	91	G	C4-N9-C1'	5.44	133.57	126.50
36	1	142	C	OP1-P-OP2	5.44	127.75	119.60
36	1	839	C	C5-C4-N4	-5.44	116.39	120.20
36	1	1762	C	N1-C2-O2	5.44	122.16	118.90
1	6	1309	C	C4-C5-C6	5.44	120.12	117.40
36	5	33	G	N9-C4-C5	5.44	107.58	105.40
36	5	694	C	C5-C6-N1	-5.44	118.28	121.00
36	5	878	G	C2-N3-C4	5.44	114.62	111.90
36	5	949	C	C5-C6-N1	-5.44	118.28	121.00
36	5	1195	A	C6-N1-C2	-5.44	115.34	118.60
36	5	1329	U	N1-C2-O2	-5.44	118.99	122.80
36	5	1439	U	N3-C4-C5	5.44	117.86	114.60
36	5	3030	G	OP2-P-O3'	5.44	117.16	105.20
36	5	3340	G	C8-N9-C4	-5.44	104.22	106.40
50	m4	66	THR	C-N-CD	5.44	139.82	128.40
1	2	1136	U	C2-N1-C1'	-5.44	111.18	117.70
36	1	1146	C	N3-C2-O2	5.44	125.70	121.90
1	6	1277	G	C5-C6-O6	-5.44	125.34	128.60
36	5	379	C	C2-N1-C1'	5.44	124.78	118.80
36	5	572	A	C4-C5-C6	5.44	119.72	117.00
36	5	1220	U	O4'-C1'-N1	-5.44	103.85	108.20
36	5	1877	U	N3-C4-C5	-5.44	111.34	114.60
36	5	2761	G	N9-C4-C5	5.44	107.58	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	39	G	C8-N9-C1'	-5.44	119.93	127.00
47	m0	76	MET	CG-SD-CE	-5.44	91.50	100.20
1	2	839	U	C6-N1-C2	-5.43	117.74	121.00
1	2	1414	U	O4'-C1'-N1	5.43	112.55	108.20
36	1	304	G	N9-C4-C5	5.43	107.57	105.40
36	1	1056	U	O5'-P-OP2	-5.43	100.81	105.70
36	1	1128	U	C2-N3-C4	-5.43	123.74	127.00
36	1	1199	C	N1-C2-N3	5.43	123.00	119.20
36	1	1520	G	C8-N9-C1'	-5.43	119.94	127.00
36	1	1543	G	C4-C5-N7	5.43	112.97	110.80
36	1	3276	G	N3-C4-C5	5.43	131.32	128.60
1	6	151	G	C8-N9-C1'	5.43	134.06	127.00
1	6	310	C	N3-C4-N4	5.43	121.80	118.00
1	6	953	G	C8-N9-C4	5.43	108.57	106.40
1	6	970	A	C5-C6-N6	-5.43	119.35	123.70
1	6	1177	C	N1-C2-O2	-5.43	115.64	118.90
1	6	1536	G	N1-C2-N2	-5.43	111.31	116.20
1	6	1629	G	N1-C6-O6	-5.43	116.64	119.90
36	5	574	U	OP1-P-O3'	-5.43	93.25	105.20
36	5	720	A	OP1-P-OP2	5.43	127.75	119.60
36	5	1391	C	C6-N1-C1'	-5.43	114.28	120.80
36	5	2371	G	N9-C4-C5	-5.43	103.23	105.40
37	7	79	A	OP1-P-OP2	5.43	127.75	119.60
38	8	99	C	C2-N1-C1'	5.43	124.78	118.80
1	2	1165	G	N9-C4-C5	-5.43	103.23	105.40
1	2	1479	A	N9-C4-C5	-5.43	103.63	105.80
36	1	537	A	C8-N9-C4	5.43	107.97	105.80
36	1	624	G	C8-N9-C1'	-5.43	119.94	127.00
36	1	746	A	OP2-P-O3'	5.43	117.15	105.20
36	1	804	C	C4-C5-C6	5.43	120.12	117.40
36	1	1148	G	C4-N9-C1'	-5.43	119.44	126.50
36	1	1308	A	C5-N7-C8	-5.43	101.18	103.90
36	1	1892	G	C4-C5-N7	-5.43	108.63	110.80
36	1	2118	C	C4-C5-C6	-5.43	114.68	117.40
36	1	2899	C	C5-C4-N4	5.43	124.00	120.20
38	4	112	U	N3-C2-O2	5.43	126.00	122.20
1	6	272	U	P-O3'-C3'	5.43	126.22	119.70
36	5	232	G	N9-C4-C5	5.43	107.57	105.40
36	5	353	G	OP1-P-OP2	5.43	127.75	119.60
36	5	401	U	C6-N1-C2	-5.43	117.74	121.00
36	5	884	A	C5-N7-C8	-5.43	101.18	103.90
36	5	1195	A	N3-C4-N9	-5.43	123.05	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1307	G	C6-N1-C2	-5.43	121.84	125.10
36	5	1415	U	OP1-P-O3'	5.43	117.15	105.20
36	5	1748	G	C6-C5-N7	-5.43	127.14	130.40
36	5	2262	A	OP2-P-O3'	5.43	117.15	105.20
36	1	1120	A	N1-C6-N6	-5.43	115.34	118.60
36	1	3022	G	C5-C6-O6	-5.43	125.34	128.60
36	5	437	G	N1-C2-N2	-5.43	111.31	116.20
36	5	617	G	N9-C4-C5	-5.43	103.23	105.40
36	5	2155	G	OP1-P-O3'	-5.43	93.25	105.20
36	5	2194	G	C4-N9-C1'	5.43	133.56	126.50
36	5	2618	G	C5-C6-O6	5.43	131.86	128.60
36	5	3194	C	N3-C2-O2	-5.43	118.10	121.90
37	7	111	U	N3-C4-O4	5.43	123.20	119.40
1	2	429	G	C8-N9-C4	-5.43	104.23	106.40
36	1	1748	G	O5'-P-OP1	-5.43	100.81	105.70
36	1	2907	G	OP2-P-O3'	5.43	117.15	105.20
36	1	3326	G	N1-C6-O6	-5.43	116.64	119.90
1	6	1586	A	C6-N1-C2	-5.43	115.34	118.60
36	5	352	A	N3-C4-C5	5.43	130.60	126.80
36	5	967	A	N7-C8-N9	5.43	116.52	113.80
36	5	1171	G	N3-C2-N2	-5.43	116.10	119.90
36	5	1361	U	OP2-P-O3'	5.43	117.14	105.20
36	5	1445	U	N1-C2-O2	-5.43	119.00	122.80
36	5	1906	G	N3-C2-N2	5.43	123.70	119.90
36	5	2656	A	C8-N9-C4	-5.43	103.63	105.80
36	5	2794	G	C4-C5-C6	-5.43	115.54	118.80
1	2	931	C	C5-C6-N1	5.43	123.71	121.00
36	1	233	C	N1-C2-O2	-5.43	115.64	118.90
36	1	2382	G	C5-C6-O6	5.43	131.86	128.60
36	1	2621	G	O5'-P-OP1	5.43	117.21	110.70
36	1	2705	A	O4'-C1'-N9	-5.43	103.86	108.20
36	1	2808	A	C4-N9-C1'	5.43	136.07	126.30
1	6	1504	G	C4-N9-C1'	5.43	133.56	126.50
1	6	1535	U	C4-C5-C6	5.43	122.96	119.70
36	5	2833	A	C8-N9-C4	5.43	107.97	105.80
36	5	2939	G	N1-C2-N2	5.43	121.08	116.20
36	5	3333	G	N7-C8-N9	-5.43	110.39	113.10
36	1	570	A	OP2-P-O3'	5.43	117.14	105.20
36	1	1140	G	N1-C2-N3	5.43	127.16	123.90
36	1	2240	G	C4-C5-C6	5.43	122.06	118.80
36	1	2751	G	OP1-P-OP2	5.43	127.74	119.60
36	1	2798	C	C5-C6-N1	5.43	123.71	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3168	A	O5'-P-OP2	-5.43	100.81	105.70
1	6	41	A	C4-C5-N7	-5.43	107.99	110.70
36	5	1115	G	C6-N1-C2	-5.43	121.84	125.10
36	5	2422	C	C4-C5-C6	5.43	120.11	117.40
36	5	2793	G	N1-C6-O6	5.43	123.16	119.90
36	5	2970	C	C4-C5-C6	5.43	120.11	117.40
36	5	3202	G	C5-C6-O6	5.43	131.85	128.60
37	7	112	G	C6-N1-C2	-5.43	121.84	125.10
38	8	111	A	C4-C5-N7	5.43	113.41	110.70
36	1	204	A	OP2-P-O3'	5.42	117.13	105.20
36	1	220	G	N3-C4-C5	5.42	131.31	128.60
36	1	2185	G	C4-N9-C1'	5.42	133.55	126.50
36	1	2963	C	C5-C6-N1	5.42	123.71	121.00
38	4	42	G	C8-N9-C4	5.42	108.57	106.40
1	6	1029	U	C6-N1-C1'	5.42	128.79	121.20
36	5	30	G	C5-N7-C8	-5.42	101.59	104.30
36	5	118	U	O5'-P-OP2	5.42	117.21	110.70
36	5	840	C	O5'-P-OP1	-5.42	100.82	105.70
36	5	903	U	C5-C4-O4	5.42	129.16	125.90
36	5	1107	C	C2-N1-C1'	5.42	124.77	118.80
36	5	1335	C	N3-C4-N4	5.42	121.80	118.00
36	5	1346	G	OP2-P-O3'	5.42	117.13	105.20
38	8	94	C	N3-C2-O2	5.42	125.70	121.90
1	2	1373	C	C2-N1-C1'	5.42	124.77	118.80
1	2	1789	G	N9-C4-C5	-5.42	103.23	105.40
36	1	1834	U	N3-C2-O2	5.42	126.00	122.20
36	5	1313	G	C8-N9-C4	-5.42	104.23	106.40
36	5	2727	A	C6-C5-N7	5.42	136.10	132.30
36	5	2777	G	C5-N7-C8	5.42	107.01	104.30
36	1	183	G	C4-N9-C1'	5.42	133.55	126.50
36	1	714	G	N1-C2-N2	-5.42	111.32	116.20
36	1	970	A	C6-N1-C2	-5.42	115.35	118.60
36	1	1167	U	C5-C6-N1	-5.42	119.99	122.70
36	1	1468	A	OP1-P-OP2	5.42	127.73	119.60
36	1	1601	U	C5-C6-N1	5.42	125.41	122.70
36	1	1826	C	N1-C2-O2	5.42	122.15	118.90
36	1	1877	U	C2-N3-C4	-5.42	123.75	127.00
36	1	2187	G	C2-N3-C4	-5.42	109.19	111.90
36	1	2691	A	C4-C5-N7	-5.42	107.99	110.70
36	1	2805	G	OP1-P-O3'	5.42	117.13	105.20
36	1	3026	G	C4-C5-C6	5.42	122.05	118.80
36	1	3278	C	C2-N1-C1'	5.42	124.76	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	57	C	N3-C2-O2	-5.42	118.11	121.90
1	6	35	U	N3-C4-O4	-5.42	115.61	119.40
17	c5	95	GLY	N-CA-C	-5.42	99.54	113.10
36	5	1177	G	O4'-C1'-N9	5.42	112.54	108.20
36	5	1209	G	C4-C5-C6	5.42	122.05	118.80
36	5	1782	U	N3-C4-O4	5.42	123.19	119.40
36	5	1861	G	N3-C4-C5	-5.42	125.89	128.60
36	5	2715	A	C2-N3-C4	5.42	113.31	110.60
36	5	2915	U	C2-N1-C1'	5.42	124.20	117.70
36	5	3100	U	C2-N3-C4	-5.42	123.75	127.00
36	5	3108	G	N1-C6-O6	5.42	123.15	119.90
1	2	1356	U	C5-C4-O4	5.42	129.15	125.90
1	2	1501	C	C5-C4-N4	-5.42	116.41	120.20
36	1	151	A	C4-C5-C6	5.42	119.71	117.00
36	1	2120	A	C5-C6-N1	5.42	120.41	117.70
36	1	2302	G	C8-N9-C4	-5.42	104.23	106.40
38	4	24	G	O5'-P-OP1	-5.42	100.82	105.70
1	6	1753	A	O5'-P-OP1	-5.42	100.82	105.70
21	c9	57	ARG	NE-CZ-NH1	5.42	123.01	120.30
36	5	635	G	C4-C5-N7	-5.42	108.63	110.80
36	5	1678	G	N7-C8-N9	5.42	115.81	113.10
36	5	2110	G	N3-C4-N9	5.42	129.25	126.00
36	5	2850	G	N1-C2-N2	-5.42	111.32	116.20
36	5	2976	A	C2-N3-C4	5.42	113.31	110.60
36	5	3268	A	C2-N3-C4	-5.42	107.89	110.60
37	7	101	G	N3-C4-C5	5.42	131.31	128.60
36	1	373	A	C4-C5-C6	5.42	119.71	117.00
36	1	379	C	O5'-P-OP2	-5.42	100.82	105.70
36	1	593	C	N3-C4-C5	-5.42	119.73	121.90
36	1	1481	A	C5-N7-C8	-5.42	101.19	103.90
36	1	1834	U	C6-N1-C1'	5.42	128.78	121.20
1	6	609	U	N3-C2-O2	-5.42	118.41	122.20
1	6	943	C	C6-N1-C2	5.42	122.47	120.30
36	5	601	U	C5-C6-N1	5.42	125.41	122.70
36	5	1163	A	C4-C5-C6	5.42	119.71	117.00
36	5	1897	G	N3-C2-N2	-5.42	116.11	119.90
36	5	2329	C	N1-C2-O2	-5.42	115.65	118.90
36	5	2752	U	C6-N1-C2	5.42	124.25	121.00
36	5	3229	G	N1-C2-N2	-5.42	111.32	116.20
36	5	3319	U	N3-C2-O2	-5.42	118.41	122.20
37	7	68	C	C6-N1-C2	-5.42	118.13	120.30
44	17	98	LYS	C-N-CD	5.42	139.78	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	100	A	N1-C6-N6	5.42	121.85	118.60
36	1	1000	C	N1-C2-O2	-5.42	115.65	118.90
36	1	1498	A	N1-C6-N6	-5.42	115.35	118.60
36	1	2187	G	C4-C5-C6	5.42	122.05	118.80
1	6	1138	A	C5-C6-N1	-5.42	114.99	117.70
1	6	1174	C	N1-C2-O2	5.42	122.15	118.90
36	5	349	A	C4-C5-N7	-5.42	107.99	110.70
36	5	575	G	N1-C6-O6	5.42	123.15	119.90
36	5	937	G	C5-C6-N1	5.42	114.21	111.50
36	5	1470	U	N3-C4-O4	5.42	123.19	119.40
36	5	1740	U	C6-N1-C2	5.42	124.25	121.00
36	5	2324	A	C6-N1-C2	5.42	121.85	118.60
36	5	2541	U	P-O3'-C3'	5.42	126.20	119.70
36	5	3261	C	N1-C2-O2	-5.42	115.65	118.90
38	8	132	G	N3-C4-N9	-5.42	122.75	126.00
36	1	684	G	N1-C6-O6	5.42	123.15	119.90
36	1	761	A	N1-C6-N6	5.42	121.85	118.60
36	1	908	G	C5-C6-N1	5.42	114.21	111.50
36	1	3110	C	N1-C2-O2	5.42	122.15	118.90
37	3	30	G	C4-N9-C1'	5.42	133.54	126.50
1	6	1327	C	O5'-P-OP2	-5.42	100.83	105.70
1	6	1633	A	C5-C6-N1	-5.42	114.99	117.70
36	5	1011	A	N7-C8-N9	5.42	116.51	113.80
36	5	2799	A	C4-C5-C6	5.42	119.71	117.00
36	5	2858	U	O5'-P-OP1	5.42	117.20	110.70
37	7	82	G	C6-N1-C2	-5.42	121.85	125.10
1	2	1785	U	N3-C2-O2	-5.41	118.41	122.20
36	1	299	G	N1-C6-O6	5.41	123.15	119.90
36	1	686	G	O4'-C1'-N9	5.41	112.53	108.20
36	1	975	C	N3-C4-N4	5.41	121.79	118.00
36	1	1203	A	N1-C6-N6	5.41	121.85	118.60
36	1	1314	C	C2-N1-C1'	5.41	124.75	118.80
36	1	1784	G	O5'-P-OP2	-5.41	100.83	105.70
36	1	2202	C	C2-N1-C1'	5.41	124.75	118.80
36	1	2628	A	C4-N9-C1'	5.41	136.04	126.30
36	1	2651	G	C2-N3-C4	-5.41	109.19	111.90
36	1	3216	G	C2-N3-C4	-5.41	109.19	111.90
38	4	24	G	C6-C5-N7	-5.41	127.15	130.40
1	6	370	A	C5-N7-C8	5.41	106.61	103.90
1	6	1111	G	C6-C5-N7	-5.41	127.15	130.40
1	6	1273	G	O4'-C1'-N9	5.41	112.53	108.20
36	5	282	G	C6-N1-C2	5.41	128.35	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1550	C	OP1-P-O3'	5.41	117.11	105.20
36	5	2265	C	N3-C4-N4	5.41	121.79	118.00
36	5	2360	C	C5-C6-N1	5.41	123.71	121.00
36	5	2600	C	C2-N1-C1'	5.41	124.76	118.80
36	5	2681	U	OP1-P-O3'	5.41	117.11	105.20
36	5	2944	U	C2-N1-C1'	5.41	124.20	117.70
36	5	3120	C	C2-N3-C4	-5.41	117.19	119.90
36	5	3229	G	C6-C5-N7	-5.41	127.15	130.40
37	7	82	G	N3-C4-C5	-5.41	125.89	128.60
1	2	1215	C	C6-N1-C2	-5.41	118.14	120.30
36	1	790	U	N1-C2-N3	5.41	118.15	114.90
36	1	2301	U	C6-N1-C2	-5.41	117.75	121.00
59	N3	63	LYS	CD-CE-NZ	5.41	124.15	111.70
1	6	1025	A	N7-C8-N9	5.41	116.51	113.80
1	6	1039	A	N7-C8-N9	5.41	116.51	113.80
1	6	1436	A	N1-C6-N6	5.41	121.85	118.60
36	5	631	U	O5'-P-OP2	-5.41	100.83	105.70
36	5	1316	C	N1-C2-O2	-5.41	115.65	118.90
36	5	1604	G	C4-N9-C1'	5.41	133.54	126.50
36	5	1653	G	C6-C5-N7	5.41	133.65	130.40
36	5	2868	U	N1-C2-O2	5.41	126.59	122.80
36	5	3189	G	N7-C8-N9	-5.41	110.39	113.10
36	5	3228	C	C4-C5-C6	5.41	120.11	117.40
1	2	250	C	N1-C2-O2	5.41	122.15	118.90
1	2	317	C	C4-C5-C6	5.41	120.11	117.40
1	2	1077	C	C2-N3-C4	5.41	122.61	119.90
1	2	1255	G	N1-C6-O6	-5.41	116.65	119.90
36	1	806	A	O4'-C1'-N9	-5.41	103.87	108.20
36	1	867	G	C8-N9-C1'	-5.41	119.97	127.00
36	1	943	U	C5-C6-N1	-5.41	120.00	122.70
36	1	1311	G	C4-C5-C6	5.41	122.05	118.80
36	1	1516	C	C6-N1-C2	-5.41	118.14	120.30
36	1	2289	U	C5-C6-N1	-5.41	120.00	122.70
36	1	2853	A	C4-C5-N7	5.41	113.41	110.70
36	1	3127	A	C6-N1-C2	-5.41	115.35	118.60
1	6	158	U	P-O3'-C3'	5.41	126.19	119.70
1	6	1116	A	N1-C2-N3	5.41	132.00	129.30
1	6	1137	A	C5-N7-C8	5.41	106.61	103.90
1	6	1200	G	C2-N3-C4	-5.41	109.19	111.90
1	6	1300	A	N1-C6-N6	5.41	121.85	118.60
36	5	875	G	C4-N9-C1'	-5.41	119.47	126.50
36	5	1147	G	C5-C6-O6	-5.41	125.35	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1313	G	C4-N9-C1'	5.41	133.53	126.50
36	5	1709	C	C2-N1-C1'	-5.41	112.85	118.80
36	5	2221	G	C2-N3-C4	-5.41	109.19	111.90
36	5	2411	U	N3-C4-C5	5.41	117.85	114.60
36	5	3046	A	C5-C6-N1	5.41	120.41	117.70
36	5	3246	G	C4-C5-N7	5.41	112.96	110.80
38	8	20	U	N1-C2-N3	5.41	118.15	114.90
1	2	566	C	C2-N1-C1'	-5.41	112.85	118.80
1	2	1793	G	OP1-P-O3'	5.41	117.10	105.20
36	1	667	C	C5-C4-N4	5.41	123.99	120.20
36	1	688	G	C6-N1-C2	-5.41	121.86	125.10
36	1	1395	G	OP2-P-O3'	5.41	117.10	105.20
36	1	1660	C	C5-C4-N4	-5.41	116.41	120.20
38	4	64	U	N3-C2-O2	-5.41	118.41	122.20
1	6	44	U	C2-N3-C4	-5.41	123.75	127.00
1	6	585	A	C5-C6-N6	-5.41	119.37	123.70
1	6	1529	C	O5'-P-OP1	5.41	117.19	110.70
1	6	1537	C	C5-C4-N4	5.41	123.99	120.20
36	5	677	A	O5'-P-OP2	5.41	117.19	110.70
36	5	1163	A	OP1-P-OP2	5.41	127.71	119.60
36	5	1402	C	C5-C6-N1	-5.41	118.30	121.00
36	5	1569	U	O4'-C1'-N1	5.41	112.53	108.20
36	5	3278	C	C5-C6-N1	-5.41	118.30	121.00
52	m6	140	LYS	CD-CE-NZ	5.41	124.14	111.70
1	2	370	A	C4-C5-N7	-5.41	108.00	110.70
1	2	1745	G	N9-C4-C5	-5.41	103.24	105.40
36	1	428	A	C5-N7-C8	-5.41	101.20	103.90
36	1	1213	G	C5-N7-C8	-5.41	101.60	104.30
36	1	1293	U	O5'-P-OP1	-5.41	100.83	105.70
36	1	2883	U	C2-N3-C4	5.41	130.24	127.00
37	3	30	G	N1-C6-O6	-5.41	116.66	119.90
1	6	1274	C	C5-C6-N1	5.41	123.70	121.00
36	5	391	A	C5-C6-N1	5.41	120.40	117.70
36	5	1134	G	C5-C6-O6	5.41	131.84	128.60
36	5	2653	C	C2-N1-C1'	-5.41	112.85	118.80
36	5	3338	C	N3-C4-C5	5.41	124.06	121.90
1	2	1780	G	C5-C6-N1	-5.41	108.80	111.50
36	1	23	A	N3-C4-N9	5.41	131.72	127.40
36	1	32	U	N3-C4-C5	5.41	117.84	114.60
36	1	42	C	C2-N1-C1'	5.41	124.75	118.80
36	1	99	A	C8-N9-C1'	5.41	137.43	127.70
36	1	1176	C	OP1-P-O3'	5.41	117.09	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1576	G	N3-C4-N9	5.41	129.24	126.00
36	1	2146	C	C6-N1-C2	-5.41	118.14	120.30
36	1	2281	A	P-O3'-C3'	-5.41	113.21	119.70
36	1	2623	G	C5-N7-C8	-5.41	101.60	104.30
36	1	2637	A	C5-C6-N6	5.41	128.02	123.70
36	1	2873	U	C5-C4-O4	5.41	129.14	125.90
36	1	3275	U	C5-C6-N1	5.41	125.40	122.70
1	6	695	U	C6-N1-C2	-5.41	117.76	121.00
1	6	1118	G	C8-N9-C4	5.41	108.56	106.40
1	6	1313	A	N7-C8-N9	5.41	116.50	113.80
1	6	1747	G	C5-C6-N1	-5.41	108.80	111.50
36	5	950	G	C4-C5-N7	5.41	112.96	110.80
36	5	973	A	C8-N9-C4	-5.41	103.64	105.80
36	5	1348	U	N3-C2-O2	-5.41	118.42	122.20
36	5	3119	U	N1-C2-O2	-5.41	119.02	122.80
36	5	3375	A	C6-N1-C2	-5.41	115.36	118.60
37	7	53	U	N3-C4-C5	-5.41	111.36	114.60
36	5	896	A	OP2-P-O3'	5.40	117.09	105.20
36	5	1606	U	O5'-P-OP1	-5.40	100.84	105.70
37	7	49	G	N9-C4-C5	-5.40	103.24	105.40
66	o0	86	ARG	NE-CZ-NH1	-5.40	117.60	120.30
1	2	120	U	C6-N1-C2	-5.40	117.76	121.00
36	1	246	U	C5-C4-O4	-5.40	122.66	125.90
36	1	1431	G	N3-C2-N2	5.40	123.68	119.90
36	1	2283	G	C5-C6-O6	-5.40	125.36	128.60
36	1	2688	U	C6-N1-C2	5.40	124.24	121.00
36	1	2860	U	C2'-C3'-O3'	5.40	122.34	113.70
36	1	2986	U	N3-C2-O2	5.40	125.98	122.20
37	3	26	C	C2-N3-C4	-5.40	117.20	119.90
38	4	80	A	P-O3'-C3'	5.40	126.18	119.70
36	5	322	U	C5-C4-O4	-5.40	122.66	125.90
36	5	345	G	C5-C6-O6	-5.40	125.36	128.60
36	5	699	A	N9-C4-C5	5.40	107.96	105.80
36	5	707	U	O5'-P-OP1	-5.40	100.84	105.70
36	5	1200	A	OP1-P-OP2	5.40	127.70	119.60
36	5	1344	G	N1-C2-N3	5.40	127.14	123.90
36	5	1681	U	C4-C5-C6	5.40	122.94	119.70
36	5	1772	U	C4-C5-C6	5.40	122.94	119.70
36	5	2142	A	C2-N3-C4	5.40	113.30	110.60
36	5	2858	U	C5-C6-N1	5.40	125.40	122.70
1	2	572	C	N3-C2-O2	5.40	125.68	121.90
1	2	865	A	N1-C2-N3	5.40	132.00	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	929	A	N1-C6-N6	-5.40	115.36	118.60
1	2	1282	U	C2-N3-C4	-5.40	123.76	127.00
1	2	1306	C	C5-C6-N1	5.40	123.70	121.00
36	1	622	A	N3-C4-C5	5.40	130.58	126.80
36	1	2433	U	N3-C4-O4	5.40	123.18	119.40
36	1	3028	G	C5-C6-O6	-5.40	125.36	128.60
1	6	65	A	C5-C6-N1	-5.40	115.00	117.70
1	6	561	G	N3-C4-C5	-5.40	125.90	128.60
1	6	858	G	C5-N7-C8	-5.40	101.60	104.30
1	6	884	A	C5-C6-N6	-5.40	119.38	123.70
1	6	1516	A	C5-C6-N1	5.40	120.40	117.70
36	5	1177	G	C5-C6-N1	5.40	114.20	111.50
36	5	1290	A	C4-C5-N7	5.40	113.40	110.70
36	5	1643	A	C8-N9-C4	-5.40	103.64	105.80
36	5	1837	U	N3-C2-O2	5.40	125.98	122.20
36	5	2255	A	C4-C5-N7	5.40	113.40	110.70
36	5	2376	G	C5-C6-N1	5.40	114.20	111.50
36	5	2609	A	N9-C4-C5	-5.40	103.64	105.80
36	5	2796	G	OP1-P-OP2	5.40	127.70	119.60
36	5	2836	C	N3-C2-O2	-5.40	118.12	121.90
36	5	2983	C	C6-N1-C2	-5.40	118.14	120.30
36	5	3036	G	C4-C5-C6	5.40	122.04	118.80
38	8	10	A	C8-N9-C4	5.40	107.96	105.80
1	2	260	U	C6-N1-C1'	-5.40	113.64	121.20
1	2	1665	U	N1-C2-O2	-5.40	119.02	122.80
36	1	788	C	C6-N1-C2	5.40	122.46	120.30
36	1	1342	C	C6-N1-C2	5.40	122.46	120.30
36	1	2325	G	N3-C4-N9	5.40	129.24	126.00
37	3	75	G	N3-C2-N2	-5.40	116.12	119.90
36	5	632	G	C4-C5-C6	5.40	122.04	118.80
38	8	70	G	C4-C5-N7	-5.40	108.64	110.80
1	2	1200	G	C8-N9-C1'	-5.40	119.98	127.00
1	2	1299	G	C8-N9-C4	-5.40	104.24	106.40
1	2	1455	G	C8-N9-C1'	-5.40	119.98	127.00
1	2	1601	G	O5'-P-OP2	-5.40	100.84	105.70
36	1	674	G	C2-N3-C4	-5.40	109.20	111.90
36	1	721	G	N7-C8-N9	5.40	115.80	113.10
36	1	1372	C	OP2-P-O3'	5.40	117.08	105.20
36	1	1807	G	C4-C5-N7	5.40	112.96	110.80
36	1	2365	C	C2-N3-C4	-5.40	117.20	119.90
36	1	2703	A	N9-C4-C5	5.40	107.96	105.80
36	1	2730	G	C5-C6-N1	-5.40	108.80	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3145	C	N3-C4-N4	5.40	121.78	118.00
36	1	3202	G	N7-C8-N9	-5.40	110.40	113.10
36	1	3221	C	O5'-P-OP2	5.40	117.18	110.70
1	6	58	U	C5-C6-N1	5.40	125.40	122.70
1	6	794	U	N3-C2-O2	-5.40	118.42	122.20
1	6	1097	U	P-O3'-C3'	5.40	126.18	119.70
36	5	57	A	N1-C2-N3	5.40	132.00	129.30
36	5	1100	U	C2-N3-C4	-5.40	123.76	127.00
36	5	1834	U	N3-C4-O4	5.40	123.18	119.40
36	5	2574	G	C5-C6-O6	-5.40	125.36	128.60
36	5	3264	G	C4-C5-N7	-5.40	108.64	110.80
37	7	9	C	C6-N1-C2	-5.40	118.14	120.30
1	2	176	C	C6-N1-C2	-5.40	118.14	120.30
36	1	421	G	C5-C6-O6	5.40	131.84	128.60
36	1	498	A	N1-C6-N6	5.40	121.84	118.60
36	1	2998	U	N3-C4-O4	5.40	123.18	119.40
36	5	1838	G	C8-N9-C1'	-5.40	119.98	127.00
1	2	847	A	N1-C6-N6	5.39	121.84	118.60
36	1	209	A	OP1-P-OP2	5.39	127.69	119.60
36	1	917	A	N3-C4-C5	-5.39	123.02	126.80
36	1	1523	U	C5-C6-N1	5.39	125.40	122.70
36	1	1928	G	O5'-P-OP1	5.39	117.17	110.70
36	1	3063	C	C4-C5-C6	5.39	120.10	117.40
38	4	110	C	N3-C4-N4	-5.39	114.22	118.00
1	6	717	C	C2-N1-C1'	5.39	124.73	118.80
1	6	958	U	C4-C5-C6	5.39	122.94	119.70
1	6	1471	A	N7-C8-N9	5.39	116.50	113.80
1	6	1478	G	N3-C4-N9	5.39	129.24	126.00
36	5	52	A	C4-C5-C6	5.39	119.70	117.00
36	5	344	A	N9-C4-C5	5.39	107.96	105.80
36	5	908	G	N1-C6-O6	-5.39	116.66	119.90
36	5	960	U	C2-N1-C1'	5.39	124.17	117.70
36	5	1763	U	N3-C2-O2	-5.39	118.42	122.20
36	5	2868	U	C5-C6-N1	5.39	125.40	122.70
36	5	3226	A	N9-C4-C5	5.39	107.96	105.80
1	2	115	G	C4-C5-N7	5.39	112.96	110.80
1	2	1418	G	N1-C6-O6	5.39	123.14	119.90
5	S3	109	LEU	CA-CB-CG	-5.39	102.89	115.30
36	1	1079	A	C6-N1-C2	-5.39	115.36	118.60
36	1	1135	A	C5-N7-C8	-5.39	101.20	103.90
36	1	2591	A	C8-N9-C4	-5.39	103.64	105.80
36	1	2638	C	N3-C2-O2	-5.39	118.12	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2785	A	C6-N1-C2	-5.39	115.36	118.60
36	1	2809	C	N3-C2-O2	5.39	125.67	121.90
36	1	2871	G	C4-N9-C1'	-5.39	119.49	126.50
36	1	2932	U	C5-C4-O4	5.39	129.14	125.90
36	1	3188	G	N7-C8-N9	-5.39	110.40	113.10
1	6	1318	G	C4-C5-N7	5.39	112.96	110.80
1	6	1546	G	C5-C6-O6	-5.39	125.36	128.60
36	5	652	G	N9-C4-C5	-5.39	103.24	105.40
36	5	3286	G	N9-C4-C5	-5.39	103.24	105.40
37	7	26	C	N3-C2-O2	-5.39	118.12	121.90
36	1	1121	U	C4-C5-C6	5.39	122.94	119.70
36	1	1184	A	C5-C6-N1	-5.39	115.00	117.70
36	1	1190	A	N3-C4-C5	-5.39	123.03	126.80
36	1	2870	C	N1-C2-N3	-5.39	115.43	119.20
37	3	8	G	N9-C4-C5	5.39	107.56	105.40
1	6	1588	G	N3-C2-N2	-5.39	116.13	119.90
36	5	314	U	OP1-P-OP2	5.39	127.69	119.60
36	5	2147	A	N9-C4-C5	-5.39	103.64	105.80
36	5	2812	C	N3-C4-N4	-5.39	114.23	118.00
37	7	87	G	O4'-C1'-N9	-5.39	103.89	108.20
1	2	424	C	N3-C2-O2	-5.39	118.13	121.90
1	2	730	G	N7-C8-N9	5.39	115.80	113.10
1	2	1140	G	N7-C8-N9	5.39	115.80	113.10
1	2	1596	C	N1-C2-O2	5.39	122.13	118.90
36	1	45	A	N9-C4-C5	5.39	107.96	105.80
36	1	1493	G	N9-C4-C5	5.39	107.56	105.40
36	1	1507	G	OP2-P-O3'	5.39	117.06	105.20
36	1	1516	C	N1-C2-O2	-5.39	115.67	118.90
36	1	2303	A	N1-C2-N3	5.39	132.00	129.30
36	1	2412	G	O5'-P-OP2	-5.39	100.85	105.70
36	1	2593	A	O4'-C1'-N9	-5.39	103.89	108.20
36	1	3124	G	N7-C8-N9	5.39	115.80	113.10
1	6	1619	C	C2-N1-C1'	5.39	124.73	118.80
36	5	298	U	C2-N1-C1'	5.39	124.17	117.70
36	5	366	A	C8-N9-C4	5.39	107.96	105.80
36	5	541	U	N3-C2-O2	5.39	125.97	122.20
36	5	1139	G	C2-N3-C4	-5.39	109.21	111.90
36	5	1709	C	C2-N3-C4	-5.39	117.20	119.90
36	5	2323	G	N3-C2-N2	-5.39	116.13	119.90
36	5	2863	G	N7-C8-N9	5.39	115.80	113.10
36	5	2918	G	C6-N1-C2	-5.39	121.87	125.10
36	5	3264	G	C5-C6-N1	-5.39	108.81	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3320	A	N1-C2-N3	5.39	132.00	129.30
1	2	425	A	C8-N9-C4	-5.39	103.64	105.80
36	1	1010	G	C2-N3-C4	-5.39	109.21	111.90
36	1	2415	C	N3-C4-C5	5.39	124.06	121.90
36	1	2785	A	C2-N3-C4	-5.39	107.91	110.60
1	6	185	U	C2-N1-C1'	5.39	124.17	117.70
1	6	660	G	C8-N9-C4	-5.39	104.25	106.40
1	6	1415	U	N1-C2-O2	5.39	126.57	122.80
36	5	1614	C	N1-C2-O2	5.39	122.13	118.90
36	5	2690	G	O5'-P-OP1	-5.39	100.85	105.70
1	2	1270	G	C6-C5-N7	-5.39	127.17	130.40
1	2	1273	G	C4-C5-N7	5.39	112.95	110.80
36	1	168	U	C5-C4-O4	5.39	129.13	125.90
36	1	946	U	C6-N1-C1'	-5.39	113.66	121.20
36	1	1514	G	N1-C2-N3	5.39	127.13	123.90
36	1	2935	U	C2-N3-C4	5.39	130.23	127.00
38	4	140	G	N7-C8-N9	5.39	115.79	113.10
58	N2	89	LEU	CA-CB-CG	5.39	127.69	115.30
1	6	523	G	C5-C6-O6	-5.39	125.37	128.60
1	6	1488	G	C5-N7-C8	5.39	106.99	104.30
36	5	226	C	C6-N1-C2	5.39	122.45	120.30
36	5	953	G	C4-C5-C6	-5.39	115.57	118.80
36	5	1822	C	C4-C5-C6	5.39	120.09	117.40
36	5	2304	C	N1-C2-N3	-5.39	115.43	119.20
36	5	2688	U	C2-N3-C4	-5.39	123.77	127.00
36	5	3377	G	OP2-P-O3'	5.39	117.05	105.20
36	5	3391	A	C5-C6-N6	5.39	128.01	123.70
37	7	87	G	N1-C6-O6	5.39	123.13	119.90
56	n0	167	ARG	C-N-CA	-5.39	99.38	122.00
1	2	275	C	C6-N1-C2	-5.38	118.15	120.30
1	2	1612	U	C6-N1-C2	-5.38	117.77	121.00
1	2	1615	C	C5-C6-N1	5.38	123.69	121.00
36	1	300	G	N1-C6-O6	-5.38	116.67	119.90
36	1	901	G	C5-C6-N1	5.38	114.19	111.50
36	1	1172	G	C4-N9-C1'	5.38	133.50	126.50
36	1	1300	G	N3-C4-N9	5.38	129.23	126.00
36	1	1406	A	C4-C5-C6	5.38	119.69	117.00
36	1	1897	G	N3-C4-C5	-5.38	125.91	128.60
36	1	2403	G	N7-C8-N9	5.38	115.79	113.10
36	1	3049	A	O5'-P-OP2	5.38	117.16	110.70
1	6	616	G	C4-C5-N7	5.38	112.95	110.80
1	6	1001	A	N3-C4-N9	5.38	131.71	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1171	A	N9-C4-C5	5.38	107.95	105.80
36	5	772	U	N3-C4-O4	5.38	123.17	119.40
36	5	984	G	N1-C6-O6	5.38	123.13	119.90
36	5	1320	C	OP1-P-O3'	-5.38	93.35	105.20
36	5	1858	A	N9-C4-C5	-5.38	103.65	105.80
36	5	2253	G	C8-N9-C1'	-5.38	120.00	127.00
36	5	2965	U	N3-C4-O4	5.38	123.17	119.40
36	5	3028	G	N1-C2-N3	5.38	127.13	123.90
36	5	3315	G	C5-C6-N1	5.38	114.19	111.50
36	1	1346	G	O5'-P-OP1	5.38	117.16	110.70
36	1	1385	C	C5-C6-N1	-5.38	118.31	121.00
36	1	2234	G	N7-C8-N9	-5.38	110.41	113.10
36	1	2956	A	C4-C5-C6	5.38	119.69	117.00
1	6	75	U	N3-C2-O2	-5.38	118.43	122.20
1	6	420	A	OP1-P-OP2	-5.38	111.53	119.60
1	6	1177	C	N3-C4-N4	5.38	121.77	118.00
36	5	162	G	N7-C8-N9	-5.38	110.41	113.10
36	5	1043	C	C2-N1-C1'	-5.38	112.88	118.80
36	5	1353	U	OP1-P-OP2	-5.38	111.53	119.60
36	5	2114	C	OP1-P-OP2	5.38	127.67	119.60
36	5	2364	G	C6-N1-C2	-5.38	121.87	125.10
36	5	2864	A	C8-N9-C4	5.38	107.95	105.80
36	1	624	G	N1-C6-O6	5.38	123.13	119.90
36	1	862	U	C6-N1-C1'	-5.38	113.67	121.20
36	1	958	C	N3-C4-N4	5.38	121.77	118.00
36	1	1203	A	C2-N3-C4	-5.38	107.91	110.60
36	1	1355	A	N3-C4-C5	5.38	130.57	126.80
36	1	1581	C	N1-C2-O2	5.38	122.13	118.90
36	1	1667	A	N7-C8-N9	5.38	116.49	113.80
36	1	2329	C	C4-C5-C6	5.38	120.09	117.40
75	O9	46	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	6	101	U	N3-C4-O4	-5.38	115.63	119.40
1	6	387	A	C4-C5-N7	-5.38	108.01	110.70
1	6	1311	U	N1-C2-O2	-5.38	119.03	122.80
36	5	518	G	N1-C6-O6	5.38	123.13	119.90
36	5	617	G	O5'-P-OP2	5.38	117.16	110.70
36	5	1158	A	C5-N7-C8	5.38	106.59	103.90
36	5	1166	G	N3-C4-N9	-5.38	122.77	126.00
36	5	1389	G	N1-C6-O6	5.38	123.13	119.90
36	5	1397	C	N3-C4-C5	-5.38	119.75	121.90
36	5	1414	G	C8-N9-C4	-5.38	104.25	106.40
36	5	1757	A	C5-C6-N1	-5.38	115.01	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2391	G	C8-N9-C4	5.38	108.55	106.40
1	2	145	A	C8-N9-C4	-5.38	103.65	105.80
1	2	1346	A	N7-C8-N9	5.38	116.49	113.80
36	1	193	C	N3-C2-O2	5.38	125.67	121.90
36	1	1886	A	C4-C5-C6	-5.38	114.31	117.00
36	1	2410	U	C5-C6-N1	5.38	125.39	122.70
36	1	3052	G	N3-C2-N2	-5.38	116.13	119.90
36	1	3097	C	O5'-P-OP1	-5.38	100.86	105.70
37	3	50	U	N3-C2-O2	-5.38	118.43	122.20
1	6	1513	G	C4-N9-C1'	5.38	133.49	126.50
36	5	796	U	C6-N1-C2	-5.38	117.77	121.00
36	5	1172	G	N7-C8-N9	5.38	115.79	113.10
36	5	1889	G	O5'-P-OP2	-5.38	100.86	105.70
36	5	2294	U	C6-N1-C2	5.38	124.23	121.00
36	5	3015	G	N1-C2-N2	5.38	121.04	116.20
36	5	3044	G	C5-N7-C8	-5.38	101.61	104.30
36	5	3157	U	C6-N1-C1'	-5.38	113.67	121.20
36	5	3318	G	O5'-P-OP1	-5.38	100.86	105.70
37	7	50	U	C2-N1-C1'	5.38	124.16	117.70
1	2	75	U	C6-N1-C1'	-5.38	113.67	121.20
1	2	1596	C	C6-N1-C2	-5.38	118.15	120.30
36	1	891	G	N3-C4-N9	-5.38	122.77	126.00
36	1	1137	C	O5'-P-OP2	-5.38	100.86	105.70
36	1	2120	A	C4-C5-N7	-5.38	108.01	110.70
36	1	2371	G	C8-N9-C1'	-5.38	120.01	127.00
36	1	2598	G	N3-C4-C5	-5.38	125.91	128.60
36	1	2669	G	N3-C4-C5	5.38	131.29	128.60
36	1	2901	G	N3-C4-C5	-5.38	125.91	128.60
36	1	2962	U	N1-C2-N3	-5.38	111.67	114.90
36	1	3098	G	N3-C4-N9	5.38	129.23	126.00
36	1	3230	G	N1-C2-N2	5.38	121.04	116.20
36	5	526	C	C5-C6-N1	-5.38	118.31	121.00
36	5	1364	C	P-O3'-C3'	5.38	126.15	119.70
36	5	1640	G	C8-N9-C4	-5.38	104.25	106.40
36	5	2692	A	C8-N9-C4	-5.38	103.65	105.80
36	5	2752	U	C2-N1-C1'	-5.38	111.25	117.70
36	5	2966	G	C4-C5-N7	-5.38	108.65	110.80
36	5	3180	A	N7-C8-N9	-5.38	111.11	113.80
46	19	38	LEU	CB-CG-CD2	-5.38	101.86	111.00
1	2	472	U	O4'-C1'-N1	5.38	112.50	108.20
1	2	1490	C	C6-N1-C1'	-5.38	114.35	120.80
36	1	659	G	OP1-P-O3'	-5.38	93.37	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1751	G	C6-C5-N7	5.38	133.62	130.40
36	1	1844	C	O5'-P-OP1	-5.38	100.86	105.70
36	1	2632	G	OP1-P-O3'	5.38	117.03	105.20
36	1	3202	G	N3-C4-C5	5.38	131.29	128.60
38	4	3	A	N3-C4-N9	5.38	131.70	127.40
1	6	397	A	C8-N9-C4	5.38	107.95	105.80
1	6	433	C	C6-N1-C1'	-5.38	114.35	120.80
1	6	619	A	O4'-C1'-N9	5.38	112.50	108.20
36	5	656	A	C6-C5-N7	-5.38	128.54	132.30
36	5	658	G	C4-C5-N7	5.38	112.95	110.80
36	5	1208	U	C6-N1-C1'	5.38	128.73	121.20
36	5	1466	G	C5-C6-O6	-5.38	125.37	128.60
36	5	1517	G	N3-C4-C5	5.38	131.29	128.60
36	5	2841	G	C4-C5-N7	-5.38	108.65	110.80
36	5	2955	U	C6-N1-C2	-5.38	117.77	121.00
36	5	2984	C	OP2-P-O3'	5.38	117.03	105.20
36	5	3069	G	N9-C4-C5	-5.38	103.25	105.40
1	2	1109	G	C5-N7-C8	-5.38	101.61	104.30
38	4	27	U	C2-N1-C1'	5.38	124.15	117.70
36	5	1112	A	C4-N9-C1'	5.38	135.97	126.30
36	5	2979	U	OP2-P-O3'	5.38	117.03	105.20
1	2	548	G	C5-C6-O6	-5.37	125.38	128.60
1	2	1466	G	C5-C6-O6	-5.37	125.38	128.60
36	1	186	U	C4-C5-C6	-5.37	116.48	119.70
36	1	411	U	N3-C4-C5	-5.37	111.38	114.60
36	1	892	U	N1-C2-O2	5.37	126.56	122.80
36	1	1506	A	C8-N9-C4	-5.37	103.65	105.80
36	1	1559	A	N7-C8-N9	5.37	116.49	113.80
36	1	1784	G	N3-C4-N9	-5.37	122.78	126.00
36	1	1884	A	N9-C4-C5	5.37	107.95	105.80
36	1	1899	G	N7-C8-N9	5.37	115.79	113.10
36	1	2366	C	O5'-P-OP2	-5.37	100.86	105.70
36	1	2843	U	C5-C4-O4	-5.37	122.68	125.90
37	3	107	C	N3-C4-C5	5.37	124.05	121.90
60	N4	80	ARG	C-N-CA	5.37	144.56	122.00
1	6	1282	U	C4-C5-C6	5.37	122.92	119.70
36	5	522	A	O5'-P-OP2	-5.37	100.86	105.70
36	5	2708	C	C2-N3-C4	-5.37	117.21	119.90
36	5	2710	C	N3-C4-N4	5.37	121.76	118.00
36	5	2759	U	O4'-C1'-N1	-5.37	103.90	108.20
36	5	3120	C	N1-C2-O2	5.37	122.12	118.90
55	m9	62	ARG	NE-CZ-NH1	5.37	122.99	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	60	U	N1-C2-O2	5.37	126.56	122.80
1	2	1299	G	C2-N3-C4	5.37	114.58	111.90
1	2	1589	C	C2-N3-C4	-5.37	117.21	119.90
1	2	1752	U	O5'-P-OP2	-5.37	100.87	105.70
36	1	347	G	C8-N9-C4	5.37	108.55	106.40
36	1	757	C	O5'-P-OP1	5.37	117.15	110.70
36	1	960	U	P-O3'-C3'	5.37	126.14	119.70
36	1	1119	C	C4-C5-C6	5.37	120.09	117.40
36	1	1172	G	C6-N1-C2	-5.37	121.88	125.10
36	1	1478	C	C4-C5-C6	5.37	120.09	117.40
36	1	2293	C	C5-C6-N1	5.37	123.69	121.00
36	1	3237	U	N3-C2-O2	-5.37	118.44	122.20
36	1	3240	C	C2-N3-C4	-5.37	117.21	119.90
1	6	430	G	N1-C2-N2	-5.37	111.37	116.20
1	6	1335	U	C5-C4-O4	5.37	129.12	125.90
36	5	118	U	O5'-P-OP1	-5.37	100.87	105.70
36	5	785	G	N7-C8-N9	5.37	115.78	113.10
36	5	842	G	N1-C6-O6	-5.37	116.68	119.90
36	5	1671	C	C6-N1-C2	-5.37	118.15	120.30
36	5	2172	A	C8-N9-C4	-5.37	103.65	105.80
36	5	2759	U	C2-N1-C1'	5.37	124.14	117.70
36	5	2801	A	C5-C6-N6	-5.37	119.40	123.70
36	5	3072	C	N3-C4-N4	5.37	121.76	118.00
1	2	536	C	C5-C6-N1	5.37	123.69	121.00
36	1	55	G	C5-C6-O6	-5.37	125.38	128.60
36	1	300	G	C8-N9-C1'	5.37	133.98	127.00
36	1	1416	C	C2-N1-C1'	-5.37	112.89	118.80
36	1	2339	C	O4'-C1'-N1	-5.37	103.90	108.20
36	1	2598	G	C5-C6-O6	-5.37	125.38	128.60
36	1	2855	U	N1-C2-N3	5.37	118.12	114.90
36	1	3001	C	N3-C4-C5	5.37	124.05	121.90
36	5	1770	G	C4-N9-C1'	5.37	133.48	126.50
36	5	2643	A	N7-C8-N9	-5.37	111.11	113.80
36	5	2976	A	C5-C6-N6	-5.37	119.40	123.70
1	2	1306	C	C6-N1-C2	-5.37	118.15	120.30
36	1	803	C	C6-N1-C1'	-5.37	114.36	120.80
36	1	2195	C	N1-C2-O2	-5.37	115.68	118.90
36	1	2216	G	C8-N9-C4	-5.37	104.25	106.40
36	1	2353	G	C8-N9-C1'	-5.37	120.02	127.00
37	3	107	C	N3-C4-N4	-5.37	114.24	118.00
1	6	331	A	N7-C8-N9	5.37	116.48	113.80
1	6	356	G	C5-C6-N1	5.37	114.18	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1101	G	C4-N9-C1'	5.37	133.48	126.50
1	6	1673	G	N7-C8-N9	-5.37	110.42	113.10
29	d7	41	LEU	CA-CB-CG	5.37	127.65	115.30
36	5	235	A	C2-N3-C4	-5.37	107.92	110.60
36	5	366	A	C5-C6-N1	-5.37	115.02	117.70
36	5	800	G	O4'-C1'-N9	-5.37	103.91	108.20
36	5	816	A	C5-C6-N6	5.37	127.99	123.70
36	5	1077	U	N3-C2-O2	5.37	125.96	122.20
36	5	2101	C	N1-C2-O2	5.37	122.12	118.90
36	5	2294	U	N1-C2-O2	5.37	126.56	122.80
36	5	2702	A	N9-C4-C5	5.37	107.95	105.80
36	5	2789	U	C2-N1-C1'	-5.37	111.26	117.70
1	2	1661	U	OP2-P-O3'	5.37	117.01	105.20
36	1	1401	A	C8-N9-C1'	-5.37	118.04	127.70
36	1	3093	C	N1-C2-O2	-5.37	115.68	118.90
36	1	3246	G	N7-C8-N9	5.37	115.78	113.10
1	6	61	A	C4-C5-C6	5.37	119.68	117.00
1	6	1727	G	C4-C5-N7	-5.37	108.65	110.80
36	5	1316	C	OP1-P-O3'	5.37	117.01	105.20
36	5	1891	A	N7-C8-N9	-5.37	111.12	113.80
36	5	2925	C	O5'-P-OP2	5.37	117.14	110.70
36	5	3326	G	C8-N9-C1'	-5.37	120.02	127.00
54	m8	179	ARG	NE-CZ-NH2	-5.37	117.62	120.30
36	1	347	G	N9-C4-C5	-5.37	103.25	105.40
36	1	372	A	N1-C2-N3	5.37	131.98	129.30
36	1	709	A	N9-C4-C5	-5.37	103.65	105.80
36	1	733	G	C5-N7-C8	-5.37	101.62	104.30
36	1	741	U	N3-C2-O2	5.37	125.96	122.20
36	1	856	G	C4-N9-C1'	5.37	133.47	126.50
36	1	1114	U	C2-N3-C4	5.37	130.22	127.00
36	1	2207	A	N3-C4-C5	-5.37	123.04	126.80
36	1	2516	U	C5-C6-N1	-5.37	120.02	122.70
36	1	3150	A	C2-N3-C4	-5.37	107.92	110.60
36	1	3241	G	N1-C6-O6	-5.37	116.68	119.90
36	1	3325	G	N9-C1'-C2'	-5.37	106.10	112.00
1	6	31	C	O5'-P-OP1	5.37	117.14	110.70
1	6	899	G	C8-N9-C4	5.37	108.55	106.40
1	6	1241	G	C4-C5-N7	5.37	112.95	110.80
1	6	1646	C	C4-C5-C6	5.37	120.08	117.40
36	5	1450	G	N1-C2-N3	5.37	127.12	123.90
36	5	1734	G	N1-C6-O6	-5.37	116.68	119.90
36	5	1794	G	OP1-P-OP2	5.37	127.65	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2878	G	OP1-P-O3'	5.37	117.00	105.20
36	5	2940	A	C4-C5-N7	5.37	113.38	110.70
36	5	2960	C	P-O3'-C3'	5.37	126.14	119.70
37	7	34	C	O4'-C1'-N1	5.37	112.49	108.20
38	8	45	C	C6-N1-C2	5.37	122.45	120.30
1	2	694	U	N1-C2-O2	5.36	126.56	122.80
1	2	755	A	N1-C6-N6	-5.36	115.38	118.60
1	2	959	U	N1-C2-O2	5.36	126.56	122.80
1	2	1291	G	N1-C2-N2	-5.36	111.37	116.20
1	2	1584	G	N3-C4-C5	5.36	131.28	128.60
36	1	2135	U	O5'-P-OP2	-5.36	100.87	105.70
36	1	2190	U	N1-C2-O2	-5.36	119.05	122.80
36	1	3209	A	C4-C5-C6	5.36	119.68	117.00
36	1	3253	G	N3-C4-C5	5.36	131.28	128.60
36	1	3284	G	N9-C4-C5	5.36	107.55	105.40
36	1	3308	C	N3-C2-O2	-5.36	118.15	121.90
37	3	111	U	C6-N1-C2	-5.36	117.78	121.00
1	6	323	A	N7-C8-N9	5.36	116.48	113.80
1	6	1111	G	N3-C4-N9	5.36	129.22	126.00
1	6	1285	U	C5-C6-N1	5.36	125.38	122.70
1	6	1583	A	C4-C5-N7	-5.36	108.02	110.70
1	6	1665	U	C2-N1-C1'	-5.36	111.26	117.70
36	5	183	G	C5-C6-O6	5.36	131.82	128.60
36	5	324	A	C4-N9-C1'	5.36	135.96	126.30
36	5	1376	C	C6-N1-C1'	-5.36	114.36	120.80
36	5	1858	A	C8-N9-C1'	-5.36	118.05	127.70
36	5	1916	U	C5-C6-N1	-5.36	120.02	122.70
36	5	2289	U	C5-C6-N1	-5.36	120.02	122.70
36	5	3077	A	N3-C4-N9	-5.36	123.11	127.40
36	5	3293	U	O5'-P-OP1	-5.36	100.87	105.70
36	5	3294	A	C6-N1-C2	-5.36	115.38	118.60
36	5	3307	A	C8-N9-C4	5.36	107.94	105.80
1	2	1010	C	C6-N1-C1'	5.36	127.23	120.80
1	2	1753	A	C5-C6-N6	-5.36	119.41	123.70
36	1	1208	U	N1-C2-N3	-5.36	111.68	114.90
36	1	1589	A	O4'-C1'-N9	-5.36	103.91	108.20
36	1	3305	A	OP1-P-O3'	-5.36	93.40	105.20
38	4	32	C	C4-C5-C6	5.36	120.08	117.40
36	5	201	A	N1-C6-N6	5.36	121.82	118.60
36	5	685	G	N9-C4-C5	-5.36	103.25	105.40
36	5	881	C	C5-C6-N1	5.36	123.68	121.00
36	5	979	U	C6-N1-C1'	5.36	128.71	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2907	G	OP2-P-O3'	5.36	117.00	105.20
56	n0	166	LYS	CD-CE-NZ	5.36	124.03	111.70
1	2	402	C	C4-C5-C6	5.36	120.08	117.40
1	2	428	A	O4'-C1'-N9	5.36	112.49	108.20
36	1	217	U	N3-C4-C5	-5.36	111.38	114.60
36	1	383	G	N3-C4-N9	5.36	129.22	126.00
36	1	1481	A	C6-C5-N7	-5.36	128.55	132.30
36	1	1646	G	N3-C4-C5	5.36	131.28	128.60
36	1	1670	C	N3-C4-C5	5.36	124.04	121.90
36	1	3151	U	N3-C4-O4	-5.36	115.65	119.40
36	1	3394	U	C6-N1-C2	-5.36	117.78	121.00
38	4	101	U	C2-N1-C1'	5.36	124.13	117.70
1	6	1516	A	O4'-C1'-N9	5.36	112.49	108.20
1	6	1657	U	N1-C2-O2	5.36	126.55	122.80
36	5	58	G	C5-C6-N1	-5.36	108.82	111.50
36	5	545	U	N1-C2-N3	-5.36	111.68	114.90
36	5	860	G	N1-C2-N3	-5.36	120.68	123.90
36	5	875	G	N9-C1'-C2'	-5.36	106.10	112.00
36	5	1130	A	C5-C6-N1	5.36	120.38	117.70
36	5	1542	G	C5-N7-C8	-5.36	101.62	104.30
36	5	2338	C	C6-N1-C2	-5.36	118.16	120.30
36	5	2597	U	C5-C4-O4	5.36	129.12	125.90
36	5	2617	U	N3-C2-O2	-5.36	118.45	122.20
36	5	2900	A	OP2-P-O3'	5.36	116.99	105.20
1	2	360	A	N9-C4-C5	-5.36	103.66	105.80
1	2	551	G	N3-C2-N2	-5.36	116.15	119.90
36	1	1578	C	C5-C6-N1	5.36	123.68	121.00
36	1	2941	A	N3-C4-N9	5.36	131.69	127.40
1	6	683	C	N1-C2-O2	5.36	122.12	118.90
1	6	1060	U	N3-C2-O2	-5.36	118.45	122.20
1	6	1609	U	N3-C2-O2	5.36	125.95	122.20
36	5	657	A	C2-N3-C4	5.36	113.28	110.60
36	5	784	A	N9-C4-C5	-5.36	103.66	105.80
36	5	1590	G	N9-C4-C5	-5.36	103.26	105.40
36	5	2165	G	N3-C4-C5	-5.36	125.92	128.60
36	5	2850	G	C6-N1-C2	-5.36	121.89	125.10
36	5	2945	G	N3-C4-C5	-5.36	125.92	128.60
37	7	90	U	C2-N1-C1'	5.36	124.13	117.70
1	2	614	C	C6-N1-C2	-5.36	118.16	120.30
36	1	324	A	C8-N9-C4	-5.36	103.66	105.80
36	1	923	C	C5-C6-N1	-5.36	118.32	121.00
36	1	1310	G	C8-N9-C4	-5.36	104.26	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1929	G	N1-C2-N2	-5.36	111.38	116.20
49	M3	110	ASP	CB-CG-OD1	-5.36	113.48	118.30
1	6	796	A	O5'-P-OP2	-5.36	100.88	105.70
1	6	1167	G	C8-N9-C1'	-5.36	120.03	127.00
36	5	38	U	N1-C2-N3	-5.36	111.69	114.90
36	5	413	U	C6-N1-C2	5.36	124.22	121.00
36	5	1160	C	C2-N1-C1'	-5.36	112.91	118.80
36	5	1292	C	C2-N3-C4	-5.36	117.22	119.90
36	5	1888	U	OP2-P-O3'	5.36	116.98	105.20
36	5	2120	A	N1-C6-N6	5.36	121.81	118.60
36	5	2135	U	N3-C2-O2	-5.36	118.45	122.20
36	5	2143	A	OP1-P-O3'	5.36	116.99	105.20
36	5	2399	A	C8-N9-C1'	5.36	137.34	127.70
36	5	2751	G	C8-N9-C4	-5.36	104.26	106.40
36	5	2974	U	C5-C6-N1	-5.36	120.02	122.70
36	5	3269	U	P-O3'-C3'	5.36	126.13	119.70
36	1	211	A	C6-C5-N7	5.36	136.05	132.30
36	1	606	C	N3-C4-C5	-5.36	119.76	121.90
36	1	988	U	C5-C6-N1	-5.36	120.02	122.70
36	1	1148	G	C8-N9-C1'	5.36	133.96	127.00
36	1	1764	U	P-O3'-C3'	5.36	126.13	119.70
36	1	2269	U	N1-C2-N3	5.36	118.11	114.90
36	1	2415	C	C5-C6-N1	-5.36	118.32	121.00
36	1	3051	U	C6-N1-C2	-5.36	117.79	121.00
36	1	3180	A	N1-C2-N3	5.36	131.98	129.30
36	1	3313	U	O5'-P-OP1	5.36	117.13	110.70
38	4	39	G	C5-C6-N1	5.36	114.18	111.50
1	6	797	G	N3-C4-C5	5.36	131.28	128.60
1	6	1473	U	C2-N3-C4	-5.36	123.79	127.00
1	6	1548	G	N7-C8-N9	-5.36	110.42	113.10
1	6	1638	G	C8-N9-C4	-5.36	104.26	106.40
36	5	146	U	N1-C2-O2	5.36	126.55	122.80
36	5	1413	G	C8-N9-C4	5.36	108.54	106.40
36	5	1436	U	N3-C2-O2	-5.36	118.45	122.20
36	5	1881	A	N1-C6-N6	5.36	121.81	118.60
36	5	2209	U	C2-N1-C1'	-5.36	111.27	117.70
36	5	2283	G	O5'-P-OP1	-5.36	100.88	105.70
36	5	2325	G	C5-C6-N1	-5.36	108.82	111.50
36	5	2388	U	OP1-P-OP2	-5.36	111.57	119.60
36	5	3178	A	O5'-P-OP2	-5.36	100.88	105.70
38	8	13	A	O5'-P-OP1	5.36	117.13	110.70
1	2	600	U	N1-C2-O2	-5.35	119.05	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1183	A	C4-C5-C6	-5.35	114.32	117.00
12	C0	15	LEU	CA-CB-CG	-5.35	102.99	115.30
36	1	316	U	N3-C4-O4	5.35	123.15	119.40
36	1	997	A	C5-C6-N1	5.35	120.38	117.70
36	1	1324	U	C5-C6-N1	-5.35	120.02	122.70
36	1	1646	G	C8-N9-C4	5.35	108.54	106.40
36	1	2754	G	N9-C4-C5	-5.35	103.26	105.40
36	1	2791	G	C8-N9-C4	-5.35	104.26	106.40
36	1	3182	G	N3-C2-N2	5.35	123.65	119.90
1	6	998	A	C4-C5-N7	-5.35	108.02	110.70
36	5	1838	G	C5-C6-O6	-5.35	125.39	128.60
36	5	2676	A	C5-N7-C8	-5.35	101.22	103.90
1	2	1010	C	N1-C2-O2	-5.35	115.69	118.90
1	2	1237	G	C4-C5-N7	-5.35	108.66	110.80
36	1	619	A	N9-C4-C5	-5.35	103.66	105.80
36	1	915	A	N7-C8-N9	5.35	116.48	113.80
36	1	1140	G	N9-C4-C5	-5.35	103.26	105.40
36	1	2134	G	C5-C6-N1	-5.35	108.82	111.50
36	1	2371	G	C5-N7-C8	5.35	106.98	104.30
36	1	2376	G	N1-C6-O6	-5.35	116.69	119.90
36	1	2619	G	C2-N3-C4	5.35	114.58	111.90
36	1	2966	G	C6-C5-N7	-5.35	127.19	130.40
36	1	3032	A	C5-C6-N6	5.35	127.98	123.70
36	1	3096	C	C5-C6-N1	5.35	123.68	121.00
1	6	42	G	C4-C5-N7	5.35	112.94	110.80
1	6	104	A	C5-C6-N6	-5.35	119.42	123.70
1	6	151	G	C5-C6-N1	-5.35	108.82	111.50
1	6	1001	A	C2-N3-C4	5.35	113.28	110.60
36	5	2745	G	N3-C4-N9	5.35	129.21	126.00
36	5	2794	G	OP1-P-OP2	5.35	127.63	119.60
76	q0	108	THR	N-CA-C	-5.35	96.55	111.00
1	2	864	U	N3-C2-O2	-5.35	118.45	122.20
36	1	182	U	C2-N1-C1'	-5.35	111.28	117.70
36	1	2988	C	N3-C4-N4	-5.35	114.25	118.00
36	1	3306	U	C6-N1-C1'	-5.35	113.71	121.20
1	6	1027	A	N9-C4-C5	5.35	107.94	105.80
36	5	2623	G	P-O3'-C3'	-5.35	113.28	119.70
37	7	32	U	O5'-P-OP2	-5.35	100.88	105.70
1	2	399	A	C5-N7-C8	5.35	106.58	103.90
1	2	612	U	O5'-P-OP1	5.35	117.12	110.70
1	2	978	A	C8-N9-C4	-5.35	103.66	105.80
1	2	1673	G	N3-C4-N9	5.35	129.21	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	135	C	C6-N1-C2	-5.35	118.16	120.30
36	1	933	A	OP1-P-OP2	5.35	127.62	119.60
36	1	1180	A	C8-N9-C1'	5.35	137.33	127.70
36	1	1417	G	N3-C4-C5	5.35	131.28	128.60
36	1	1440	G	N1-C2-N2	-5.35	111.39	116.20
36	1	3278	C	C6-N1-C1'	-5.35	114.38	120.80
38	4	54	A	C6-N1-C2	-5.35	115.39	118.60
1	6	185	U	C6-N1-C1'	-5.35	113.71	121.20
1	6	592	A	C2-N3-C4	5.35	113.28	110.60
36	5	865	U	OP1-P-OP2	-5.35	111.58	119.60
36	5	2713	U	C2-N3-C4	5.35	130.21	127.00
36	5	2981	U	C4-C5-C6	5.35	122.91	119.70
36	5	3020	U	C5-C4-O4	-5.35	122.69	125.90
37	7	51	A	N7-C8-N9	5.35	116.47	113.80
1	2	1455	G	C4-C5-C6	5.35	122.01	118.80
1	2	1758	U	C2-N1-C1'	5.35	124.12	117.70
36	1	213	A	O5'-P-OP1	-5.35	100.89	105.70
36	1	407	A	C5-C6-N1	5.35	120.37	117.70
36	1	1163	A	C5-C6-N6	-5.35	119.42	123.70
36	1	2139	A	C4-C5-C6	5.35	119.67	117.00
36	1	2382	G	N1-C2-N2	-5.35	111.39	116.20
1	6	609	U	C2-N3-C4	-5.35	123.79	127.00
36	5	57	A	O5'-P-OP2	-5.35	100.89	105.70
36	5	188	U	C5-C6-N1	5.35	125.37	122.70
36	5	1147	G	N3-C2-N2	5.35	123.64	119.90
36	5	1164	G	N1-C2-N2	5.35	121.01	116.20
36	5	1428	A	OP1-P-O3'	5.35	116.96	105.20
36	5	1476	G	C5-C6-O6	-5.35	125.39	128.60
36	5	1532	C	C4-C5-C6	5.35	120.07	117.40
36	5	2322	C	C4-C5-C6	5.35	120.07	117.40
36	5	3309	G	N9-C1'-C2'	-5.35	106.12	112.00
37	7	48	U	N3-C4-O4	5.35	123.14	119.40
39	12	200	ARG	NE-CZ-NH2	5.35	122.97	120.30
36	1	815	G	N3-C4-C5	-5.35	125.93	128.60
36	1	2301	U	C5-C6-N1	5.35	125.37	122.70
36	1	2517	U	N3-C2-O2	-5.35	118.46	122.20
36	1	2934	A	OP1-P-OP2	5.35	127.62	119.60
1	6	593	U	N3-C2-O2	-5.35	118.46	122.20
1	6	1665	U	C4-C5-C6	5.35	122.91	119.70
36	5	1134	G	N1-C2-N3	5.35	127.11	123.90
36	5	1159	A	C6-C5-N7	-5.35	128.56	132.30
36	5	2430	A	C4-C5-C6	5.35	119.67	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2838	A	C6-C5-N7	5.35	136.04	132.30
36	5	3310	A	C6-N1-C2	-5.35	115.39	118.60
36	1	65	A	N7-C8-N9	-5.34	111.13	113.80
36	1	1366	A	C4-C5-C6	5.34	119.67	117.00
36	1	2199	G	C6-C5-N7	-5.34	127.19	130.40
36	1	3030	G	N3-C4-C5	5.34	131.27	128.60
38	4	1	A	C4-C5-C6	-5.34	114.33	117.00
59	N3	17	LEU	CA-CB-CG	-5.34	103.01	115.30
1	6	115	G	C6-C5-N7	-5.34	127.19	130.40
1	6	124	A	N1-C6-N6	5.34	121.81	118.60
1	6	385	A	C6-C5-N7	5.34	136.04	132.30
1	6	553	G	N3-C4-C5	5.34	131.27	128.60
1	6	996	U	C2-N1-C1'	5.34	124.11	117.70
1	6	1021	C	N3-C4-C5	5.34	124.04	121.90
1	6	1619	C	C5-C6-N1	5.34	123.67	121.00
36	5	127	G	N1-C2-N2	5.34	121.01	116.20
36	5	845	G	C4-C5-N7	-5.34	108.66	110.80
36	5	1307	G	N1-C2-N3	5.34	127.11	123.90
36	5	1348	U	N3-C4-O4	5.34	123.14	119.40
36	5	1417	G	N1-C6-O6	-5.34	116.69	119.90
36	5	1861	G	C4-N9-C1'	5.34	133.45	126.50
36	5	2187	G	C4-C5-N7	-5.34	108.66	110.80
36	5	2188	A	N1-C2-N3	5.34	131.97	129.30
36	5	2796	G	N1-C2-N3	-5.34	120.69	123.90
36	5	2966	G	C4-C5-C6	5.34	122.01	118.80
36	5	3000	A	OP1-P-O3'	-5.34	93.44	105.20
36	5	3143	C	C6-N1-C2	-5.34	118.16	120.30
36	1	582	G	C5-C6-O6	5.34	131.81	128.60
36	1	596	C	N1-C2-O2	5.34	122.11	118.90
36	1	2244	A	C8-N9-C4	-5.34	103.66	105.80
1	6	308	C	C5-C4-N4	5.34	123.94	120.20
36	5	799	G	O5'-P-OP1	-5.34	100.89	105.70
36	5	1723	A	OP2-P-O3'	5.34	116.95	105.20
36	5	1886	A	N1-C2-N3	5.34	131.97	129.30
36	5	3377	G	O5'-P-OP2	-5.34	100.89	105.70
38	8	2	A	OP1-P-OP2	-5.34	111.59	119.60
1	2	975	C	C6-N1-C2	-5.34	118.16	120.30
1	2	1240	U	C5-C6-N1	-5.34	120.03	122.70
1	2	1389	C	C2-N1-C1'	5.34	124.68	118.80
36	1	48	A	O4'-C1'-N9	5.34	112.47	108.20
36	1	254	A	N1-C6-N6	-5.34	115.39	118.60
36	1	419	G	C5-C6-N1	5.34	114.17	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	420	G	C8-N9-C1'	-5.34	120.06	127.00
36	1	1102	A	N1-C2-N3	5.34	131.97	129.30
36	1	1581	C	C2-N3-C4	5.34	122.57	119.90
36	1	2100	A	N9-C1'-C2'	-5.34	106.12	112.00
38	4	56	G	C6-N1-C2	-5.34	121.89	125.10
1	6	1683	C	N1-C2-O2	5.34	122.11	118.90
36	5	183	G	C5-N7-C8	5.34	106.97	104.30
36	5	639	G	C5-C6-N1	-5.34	108.83	111.50
36	5	644	G	C4-N9-C1'	5.34	133.44	126.50
36	5	1064	A	O4'-C1'-N9	-5.34	103.93	108.20
36	5	1517	G	N1-C6-O6	5.34	123.10	119.90
36	5	2434	U	OP1-P-O3'	5.34	116.95	105.20
36	5	3028	G	N3-C4-N9	5.34	129.21	126.00
36	5	3047	U	C4-C5-C6	5.34	122.91	119.70
38	8	110	C	N3-C4-C5	5.34	124.04	121.90
1	2	1270	G	C4-C5-C6	5.34	122.00	118.80
36	1	21	G	N9-C4-C5	5.34	107.54	105.40
36	1	715	A	N7-C8-N9	5.34	116.47	113.80
36	1	1284	C	C2-N1-C1'	5.34	124.67	118.80
36	1	1799	A	N1-C2-N3	5.34	131.97	129.30
36	1	2388	U	C5-C6-N1	-5.34	120.03	122.70
36	1	2603	G	C5-C6-N1	-5.34	108.83	111.50
36	1	2896	A	N1-C2-N3	5.34	131.97	129.30
36	1	3221	C	N3-C4-C5	-5.34	119.76	121.90
36	1	3232	G	C4-C5-C6	5.34	122.00	118.80
37	3	109	G	C8-N9-C1'	5.34	133.94	127.00
1	6	26	A	OP2-P-O3'	5.34	116.95	105.20
1	6	1074	G	N1-C6-O6	5.34	123.10	119.90
1	6	1672	G	C5-C6-N1	5.34	114.17	111.50
36	5	92	G	C4-C5-N7	5.34	112.94	110.80
36	5	218	G	C4-C5-N7	-5.34	108.66	110.80
36	5	725	G	N1-C2-N2	-5.34	111.39	116.20
36	5	1164	G	C6-N1-C2	-5.34	121.90	125.10
36	5	1202	A	N1-C6-N6	5.34	121.80	118.60
36	5	1317	A	C4-C5-N7	5.34	113.37	110.70
36	5	2254	U	OP1-P-O3'	5.34	116.95	105.20
36	5	2420	C	C2-N1-C1'	5.34	124.67	118.80
36	5	2917	G	C8-N9-C4	-5.34	104.26	106.40
36	5	3061	G	C4-N9-C1'	-5.34	119.56	126.50
1	2	1342	C	C5-C6-N1	5.34	123.67	121.00
1	6	1489	U	N3-C2-O2	-5.34	118.46	122.20
36	5	2420	C	C4-C5-C6	-5.34	114.73	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3237	U	N1-C2-O2	-5.34	119.06	122.80
36	5	3324	C	C2-N3-C4	-5.34	117.23	119.90
52	m6	51	LYS	CD-CE-NZ	5.34	123.98	111.70
1	2	17	C	C6-N1-C1'	5.34	127.20	120.80
1	2	1123	C	C2-N3-C4	5.34	122.57	119.90
1	2	1568	C	N3-C4-N4	-5.34	114.26	118.00
36	1	812	G	O5'-P-OP2	-5.34	100.90	105.70
36	1	933	A	C6-C5-N7	-5.34	128.56	132.30
36	1	1152	G	N3-C2-N2	5.34	123.64	119.90
36	1	1377	G	N1-C2-N3	5.34	127.10	123.90
36	1	3034	C	OP1-P-O3'	5.34	116.94	105.20
36	1	3075	G	C6-C5-N7	-5.34	127.20	130.40
38	4	53	A	N7-C8-N9	-5.34	111.13	113.80
41	L4	101	ALA	C-N-CD	-5.34	108.86	120.60
1	6	57	G	N1-C2-N3	5.34	127.10	123.90
1	6	420	A	C5-C6-N6	-5.34	119.43	123.70
1	6	1157	A	N9-C4-C5	5.34	107.93	105.80
1	6	1426	C	N1-C2-N3	-5.34	115.46	119.20
36	5	35	A	C6-N1-C2	-5.34	115.40	118.60
36	5	529	A	OP1-P-OP2	-5.34	111.60	119.60
36	5	1054	A	N9-C4-C5	-5.34	103.67	105.80
36	5	2174	G	C8-N9-C4	5.34	108.53	106.40
36	5	2824	G	N3-C4-N9	5.34	129.20	126.00
38	8	93	U	N3-C4-O4	-5.34	115.67	119.40
1	2	980	G	C8-N9-C4	5.33	108.53	106.40
1	2	1537	C	N1-C2-N3	-5.33	115.47	119.20
36	1	73	C	C6-N1-C2	-5.33	118.17	120.30
36	1	3321	C	N3-C4-C5	-5.33	119.77	121.90
1	6	17	C	N3-C4-N4	5.33	121.73	118.00
36	5	860	G	C5-N7-C8	-5.33	101.63	104.30
36	5	987	U	C4-C5-C6	5.33	122.90	119.70
36	5	1363	A	C5-N7-C8	5.33	106.57	103.90
36	5	2891	U	N1-C2-O2	5.33	126.53	122.80
1	2	332	U	C2-N3-C4	-5.33	123.80	127.00
1	2	1436	A	N1-C6-N6	5.33	121.80	118.60
1	2	1558	U	C5-C4-O4	-5.33	122.70	125.90
36	1	30	G	C4-C5-N7	5.33	112.93	110.80
36	1	411	U	N1-C2-O2	-5.33	119.07	122.80
36	1	428	A	C2-N3-C4	5.33	113.27	110.60
36	1	925	A	N1-C6-N6	5.33	121.80	118.60
36	1	1544	G	C5-C6-O6	-5.33	125.40	128.60
36	1	1952	G	OP2-P-O3'	5.33	116.94	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2722	U	OP1-P-OP2	-5.33	111.60	119.60
36	1	3088	G	C4-C5-N7	-5.33	108.67	110.80
36	1	3312	U	N1-C2-O2	-5.33	119.07	122.80
36	1	3316	A	OP2-P-O3'	5.33	116.94	105.20
54	M8	111	ARG	NE-CZ-NH1	-5.33	117.63	120.30
1	6	172	C	O5'-P-OP1	-5.33	100.90	105.70
1	6	1070	C	C5-C6-N1	-5.33	118.33	121.00
1	6	1598	U	C6-N1-C1'	-5.33	113.73	121.20
36	5	274	G	C6-C5-N7	5.33	133.60	130.40
36	5	281	G	N1-C2-N3	5.33	127.10	123.90
36	5	1891	A	N1-C6-N6	5.33	121.80	118.60
36	5	2118	C	C2-N1-C1'	5.33	124.67	118.80
36	5	2966	G	O5'-P-OP1	5.33	117.10	110.70
36	5	3120	C	C2-N1-C1'	5.33	124.67	118.80
1	2	763	G	C5-C6-O6	-5.33	125.40	128.60
1	2	1102	G	C5-C6-O6	-5.33	125.40	128.60
1	2	1109	G	C6-C5-N7	-5.33	127.20	130.40
1	2	1148	C	N1-C2-N3	5.33	122.93	119.20
36	1	882	A	C5-C6-N6	5.33	127.97	123.70
36	1	1065	A	O5'-P-OP1	-5.33	100.90	105.70
36	1	1168	U	OP1-P-OP2	-5.33	111.60	119.60
36	1	2284	C	N3-C4-C5	-5.33	119.77	121.90
36	1	2889	C	O5'-P-OP2	5.33	117.10	110.70
36	1	2953	U	N3-C2-O2	-5.33	118.47	122.20
36	1	3140	G	N9-C4-C5	-5.33	103.27	105.40
1	6	825	U	C5-C4-O4	-5.33	122.70	125.90
1	6	934	C	N3-C4-N4	-5.33	114.27	118.00
36	5	281	G	C6-N1-C2	-5.33	121.90	125.10
36	5	1337	A	N3-C4-C5	5.33	130.53	126.80
36	5	1420	C	OP2-P-O3'	5.33	116.93	105.20
36	5	3278	C	N3-C2-O2	5.33	125.63	121.90
1	2	422	G	O4'-C1'-N9	-5.33	103.94	108.20
1	2	1108	G	C6-C5-N7	5.33	133.60	130.40
36	1	1488	G	C4-C5-N7	5.33	112.93	110.80
1	6	1142	A	C8-N9-C4	-5.33	103.67	105.80
36	5	416	A	C4-C5-C6	-5.33	114.33	117.00
36	5	851	C	N3-C2-O2	5.33	125.63	121.90
36	5	1062	A	O5'-P-OP1	5.33	117.10	110.70
36	5	1332	A	OP1-P-O3'	5.33	116.93	105.20
36	5	1333	C	N3-C4-C5	-5.33	119.77	121.90
36	5	1889	G	OP1-P-OP2	-5.33	111.61	119.60
36	5	3079	U	N3-C4-O4	-5.33	115.67	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	260	U	C5-C4-O4	-5.33	122.70	125.90
36	1	89	A	O5'-P-OP1	5.33	117.09	110.70
36	1	697	A	OP1-P-OP2	5.33	127.59	119.60
36	1	1320	C	C2-N3-C4	-5.33	117.24	119.90
36	1	1437	C	C2-N1-C1'	5.33	124.66	118.80
36	1	1643	A	C8-N9-C4	5.33	107.93	105.80
36	1	2828	G	N3-C4-C5	-5.33	125.94	128.60
36	1	3361	G	C4-C5-N7	-5.33	108.67	110.80
1	6	16	G	C6-C5-N7	-5.33	127.20	130.40
1	6	372	G	C5-C6-O6	5.33	131.80	128.60
1	6	1129	U	C6-N1-C1'	5.33	128.66	121.20
1	6	1264	G	C5-C6-O6	-5.33	125.40	128.60
1	6	1569	A	C4-N9-C1'	5.33	135.89	126.30
36	5	538	G	C6-C5-N7	-5.33	127.20	130.40
36	5	1124	U	C4-C5-C6	-5.33	116.50	119.70
36	5	1339	C	N3-C4-C5	5.33	124.03	121.90
36	5	1486	G	C8-N9-C1'	5.33	133.93	127.00
36	5	2149	A	C5-C6-N1	-5.33	115.04	117.70
36	5	2187	G	N7-C8-N9	5.33	115.76	113.10
1	2	548	G	N1-C6-O6	5.33	123.10	119.90
36	1	278	U	OP1-P-OP2	-5.33	111.61	119.60
36	1	1548	C	N3-C4-N4	5.33	121.73	118.00
36	1	2643	A	C4-C5-C6	-5.33	114.34	117.00
1	6	2	A	N9-C4-C5	5.33	107.93	105.80
1	6	1665	U	OP2-P-O3'	5.33	116.92	105.20
36	5	1207	G	C4-C5-N7	5.33	112.93	110.80
36	5	2663	G	C5-C6-N1	5.33	114.16	111.50
36	5	2918	G	N1-C2-N3	5.33	127.10	123.90
1	2	1606	C	O5'-P-OP2	-5.33	100.91	105.70
36	1	644	G	C5-N7-C8	5.33	106.96	104.30
36	1	876	A	C6-N1-C2	-5.33	115.41	118.60
36	1	975	C	N1-C2-O2	-5.33	115.70	118.90
36	1	1428	A	OP1-P-OP2	5.33	127.59	119.60
36	1	1517	G	C5-C6-N1	5.33	114.16	111.50
36	1	1544	G	C4-C5-N7	5.33	112.93	110.80
36	1	1585	C	N3-C2-O2	5.33	125.63	121.90
36	1	2305	G	OP2-P-O3'	5.33	116.92	105.20
36	1	2705	A	N9-C4-C5	5.33	107.93	105.80
36	1	3362	A	N1-C6-N6	5.33	121.80	118.60
38	4	10	A	N1-C6-N6	-5.33	115.41	118.60
38	4	34	U	C6-N1-C1'	5.33	128.66	121.20
1	6	48	G	OP2-P-O3'	5.33	116.92	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	403	G	OP1-P-O3'	5.33	116.92	105.20
1	6	1180	C	C5-C6-N1	5.33	123.66	121.00
1	6	1521	G	C5-C6-O6	-5.33	125.40	128.60
1	6	1543	A	C2-N3-C4	-5.33	107.94	110.60
1	6	1569	A	C6-C5-N7	-5.33	128.57	132.30
36	5	374	A	C8-N9-C4	-5.33	103.67	105.80
36	5	746	A	N1-C2-N3	5.33	131.96	129.30
36	5	1168	U	N3-C4-C5	5.33	117.80	114.60
36	5	1277	C	C5-C6-N1	5.33	123.66	121.00
36	5	1323	G	C6-C5-N7	-5.33	127.20	130.40
36	5	2312	A	C5-C6-N1	5.33	120.36	117.70
38	8	51	G	N1-C2-N3	5.33	127.09	123.90
1	2	41	A	C8-N9-C4	-5.32	103.67	105.80
36	1	679	U	N3-C4-C5	5.32	117.79	114.60
36	1	946	U	N3-C4-O4	5.32	123.13	119.40
36	1	1506	A	C2-N3-C4	-5.32	107.94	110.60
36	1	2321	A	C6-N1-C2	5.32	121.79	118.60
36	1	2802	A	C6-N1-C2	-5.32	115.41	118.60
36	1	2817	A	C6-N1-C2	-5.32	115.41	118.60
36	1	3293	U	C6-N1-C1'	5.32	128.65	121.20
1	6	580	A	C2-N3-C4	5.32	113.26	110.60
1	6	1777	G	C4-C5-C6	5.32	121.99	118.80
36	5	349	A	C6-N1-C2	-5.32	115.41	118.60
36	5	1420	C	OP1-P-O3'	-5.32	93.49	105.20
36	5	1487	G	N7-C8-N9	5.32	115.76	113.10
36	5	2207	A	N9-C4-C5	-5.32	103.67	105.80
36	5	3242	G	N3-C4-C5	-5.32	125.94	128.60
38	8	8	C	N3-C4-C5	-5.32	119.77	121.90
38	8	115	C	C2-N3-C4	-5.32	117.24	119.90
38	8	116	G	C8-N9-C4	-5.32	104.27	106.40
36	1	2234	G	C4-C5-N7	-5.32	108.67	110.80
36	1	2341	A	N7-C8-N9	-5.32	111.14	113.80
36	1	3052	G	O5'-P-OP1	-5.32	100.91	105.70
37	3	97	A	N9-C4-C5	-5.32	103.67	105.80
1	6	1146	G	N1-C6-O6	-5.32	116.71	119.90
36	5	731	U	C2-N3-C4	-5.32	123.81	127.00
36	5	1319	G	N1-C2-N2	5.32	120.99	116.20
36	5	1761	C	N1-C2-O2	5.32	122.09	118.90
36	5	2938	G	C5-C6-N1	5.32	114.16	111.50
36	5	3143	C	C5-C4-N4	-5.32	116.47	120.20
38	8	77	A	C8-N9-C4	5.32	107.93	105.80
1	2	100	A	C5-C6-N1	5.32	120.36	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	576	G	N7-C8-N9	5.32	115.76	113.10
36	1	865	U	C2-N3-C4	-5.32	123.81	127.00
36	1	1043	C	C5-C6-N1	-5.32	118.34	121.00
36	1	1498	A	OP2-P-O3'	5.32	116.91	105.20
36	1	2778	G	C6-N1-C2	-5.32	121.91	125.10
36	1	2966	G	C5-C6-N1	-5.32	108.84	111.50
36	1	3360	C	C5-C6-N1	5.32	123.66	121.00
1	6	68	A	C4-C5-N7	5.32	113.36	110.70
1	6	777	C	N1-C2-O2	5.32	122.09	118.90
1	6	1273	G	OP1-P-OP2	-5.32	111.62	119.60
1	6	1665	U	C5-C6-N1	-5.32	120.04	122.70
36	5	396	A	N3-C4-C5	5.32	130.52	126.80
36	5	929	A	C5-C6-N1	5.32	120.36	117.70
36	5	1510	G	C4-C5-N7	5.32	112.93	110.80
36	5	2371	G	C4-N9-C1'	5.32	133.42	126.50
36	5	2556	C	O4'-C1'-N1	5.32	112.46	108.20
36	5	2622	C	C5-C4-N4	5.32	123.92	120.20
36	5	2723	U	C2-N1-C1'	5.32	124.08	117.70
36	5	2754	G	C8-N9-C4	5.32	108.53	106.40
36	5	2803	A	C6-N1-C2	5.32	121.79	118.60
36	5	2819	A	C2-N3-C4	5.32	113.26	110.60
36	5	3362	A	C4-C5-N7	5.32	113.36	110.70
1	2	1264	G	N9-C4-C5	5.32	107.53	105.40
36	1	53	G	C4-C5-C6	5.32	121.99	118.80
36	1	1947	G	C6-C5-N7	-5.32	127.21	130.40
36	1	3265	C	C5-C6-N1	-5.32	118.34	121.00
36	1	3322	A	C2-N3-C4	-5.32	107.94	110.60
37	3	30	G	C6-N1-C2	-5.32	121.91	125.10
38	4	110	C	C5-C4-N4	5.32	123.92	120.20
1	6	757	A	N3-C4-C5	5.32	130.52	126.80
36	5	965	A	N3-C4-C5	-5.32	123.08	126.80
36	5	1081	U	C5-C6-N1	5.32	125.36	122.70
1	2	347	G	N1-C2-N3	5.32	127.09	123.90
1	2	1307	U	C5-C4-O4	5.32	129.09	125.90
36	1	232	G	N3-C4-C5	-5.32	125.94	128.60
36	1	584	G	OP1-P-O3'	5.32	116.90	105.20
36	1	628	A	C8-N9-C4	-5.32	103.67	105.80
36	1	1473	G	C8-N9-C4	5.32	108.53	106.40
36	1	1476	G	C8-N9-C1'	-5.32	120.09	127.00
36	1	2420	C	O5'-P-OP2	5.32	117.08	110.70
36	1	3040	A	C4-C5-C6	5.32	119.66	117.00
38	4	34	U	C4-C5-C6	5.32	122.89	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1020	A	N9-C4-C5	5.32	107.93	105.80
1	6	1083	G	C4-N9-C1'	5.32	133.41	126.50
1	6	1119	G	C6-N1-C2	-5.32	121.91	125.10
1	6	1336	A	C8-N9-C4	5.32	107.93	105.80
36	5	504	A	N9-C4-C5	-5.32	103.67	105.80
36	5	1094	U	C5-C6-N1	5.32	125.36	122.70
36	5	1348	U	O5'-P-OP2	5.32	117.08	110.70
36	5	1589	A	C5-N7-C8	-5.32	101.24	103.90
36	5	1832	C	C5-C4-N4	-5.32	116.48	120.20
36	5	2311	G	C2-N3-C4	-5.32	109.24	111.90
36	5	3124	G	C6-C5-N7	-5.32	127.21	130.40
37	7	21	G	OP1-P-O3'	5.32	116.90	105.20
37	7	46	A	C5-C6-N6	-5.32	119.45	123.70
37	7	65	G	C5-N7-C8	-5.32	101.64	104.30
38	8	108	C	O5'-P-OP2	-5.32	100.92	105.70
1	2	936	G	C8-N9-C4	-5.32	104.27	106.40
1	2	1573	A	P-O3'-C3'	5.32	126.08	119.70
1	2	1599	C	C6-N1-C2	-5.32	118.17	120.30
1	2	1764	C	N1-C2-O2	5.32	122.09	118.90
36	1	747	A	C4-C5-C6	-5.32	114.34	117.00
36	1	792	G	C2-N3-C4	-5.32	109.24	111.90
36	1	1794	G	C8-N9-C4	5.32	108.53	106.40
36	1	1906	G	N9-C4-C5	-5.32	103.27	105.40
36	1	2231	C	C5-C6-N1	-5.32	118.34	121.00
36	1	2373	A	N7-C8-N9	5.32	116.46	113.80
36	1	2389	C	C2-N3-C4	-5.32	117.24	119.90
36	1	2554	A	O4'-C1'-N9	-5.32	103.95	108.20
36	1	2843	U	C6-N1-C1'	-5.32	113.76	121.20
36	1	2937	G	N3-C4-C5	5.32	131.26	128.60
37	3	10	C	C6-N1-C2	5.32	122.43	120.30
37	3	26	C	C5-C6-N1	-5.32	118.34	121.00
38	4	139	U	N1-C2-O2	5.32	126.52	122.80
1	6	454	U	N3-C2-O2	-5.32	118.48	122.20
1	6	1662	G	O5'-P-OP2	-5.32	100.92	105.70
36	5	40	A	N3-C4-C5	5.32	130.52	126.80
36	5	74	G	O5'-P-OP1	-5.32	100.92	105.70
36	5	525	C	OP2-P-O3'	5.32	116.89	105.20
36	5	601	U	N3-C4-O4	5.32	123.12	119.40
36	5	677	A	C4-C5-C6	-5.32	114.34	117.00
36	5	813	G	O5'-P-OP1	5.32	117.08	110.70
36	5	1248	C	C6-N1-C2	-5.32	118.17	120.30
36	5	2236	G	N3-C4-C5	-5.32	125.94	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2317	A	N9-C4-C5	5.32	107.93	105.80
36	5	2670	G	OP1-P-O3'	-5.32	93.50	105.20
36	5	3080	G	C5-C6-O6	-5.32	125.41	128.60
36	5	3227	A	OP2-P-O3'	5.32	116.90	105.20
37	7	24	A	N9-C4-C5	5.32	107.93	105.80
1	2	318	U	N1-C2-O2	-5.31	119.08	122.80
36	1	408	A	C4-C5-N7	-5.31	108.04	110.70
36	1	1178	G	N9-C4-C5	-5.31	103.27	105.40
36	1	2233	A	N9-C4-C5	5.31	107.93	105.80
38	4	36	G	C4-C5-N7	5.31	112.93	110.80
36	5	399	A	C2-N3-C4	5.31	113.26	110.60
36	5	788	C	N1-C2-N3	5.31	122.92	119.20
36	5	2674	A	O5'-P-OP1	-5.31	100.92	105.70
36	5	2904	U	OP2-P-O3'	5.31	116.89	105.20
1	2	615	A	N9-C4-C5	5.31	107.92	105.80
1	2	1086	A	N9-C4-C5	5.31	107.92	105.80
36	1	1736	G	N7-C8-N9	5.31	115.76	113.10
36	1	2370	G	C5-N7-C8	5.31	106.96	104.30
36	1	3180	A	C8-N9-C4	-5.31	103.67	105.80
36	1	3294	A	N1-C6-N6	-5.31	115.41	118.60
1	6	187	G	OP1-P-O3'	5.31	116.89	105.20
1	6	1001	A	C5-C6-N6	-5.31	119.45	123.70
1	6	1367	G	OP2-P-O3'	5.31	116.89	105.20
36	5	40	A	N3-C4-N9	-5.31	123.15	127.40
36	5	188	U	N1-C2-N3	5.31	118.09	114.90
36	5	947	G	C5-C6-O6	-5.31	125.41	128.60
36	5	1422	G	C2-N3-C4	-5.31	109.24	111.90
36	5	2275	A	O4'-C1'-N9	5.31	112.45	108.20
36	5	2647	A	N1-C2-N3	5.31	131.96	129.30
36	5	2857	C	N1-C2-O2	5.31	122.09	118.90
36	5	3164	C	N3-C4-C5	5.31	124.03	121.90
36	5	3313	U	N3-C4-C5	-5.31	111.41	114.60
37	7	40	C	C5-C4-N4	-5.31	116.48	120.20
1	2	357	G	O5'-P-OP2	5.31	117.07	110.70
36	1	650	C	N1-C2-O2	-5.31	115.71	118.90
36	1	2761	G	N1-C6-O6	-5.31	116.71	119.90
36	1	2963	C	O5'-P-OP2	-5.31	100.92	105.70
36	1	3219	G	N9-C4-C5	-5.31	103.28	105.40
1	6	79	C	C6-N1-C2	5.31	122.42	120.30
36	5	30	G	N7-C8-N9	5.31	115.76	113.10
36	5	230	U	C5-C4-O4	5.31	129.09	125.90
36	5	1637	A	C8-N9-C4	-5.31	103.68	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	65	G	N3-C4-C5	5.31	131.26	128.60
1	2	806	A	C5-C6-N1	5.31	120.36	117.70
1	2	913	G	P-O3'-C3'	5.31	126.07	119.70
1	2	1146	G	C4-C5-C6	5.31	121.99	118.80
36	1	378	A	C8-N9-C4	5.31	107.92	105.80
36	1	1207	G	O5'-P-OP2	5.31	117.07	110.70
36	1	1386	A	N1-C2-N3	5.31	131.96	129.30
36	1	1419	A	O4'-C1'-N9	5.31	112.45	108.20
36	1	1529	A	N9-C4-C5	5.31	107.92	105.80
36	1	1594	A	C2-N3-C4	5.31	113.25	110.60
1	6	1082	C	C4-C5-C6	5.31	120.06	117.40
1	6	1097	U	N1-C2-N3	5.31	118.08	114.90
1	6	1357	A	C8-N9-C4	5.31	107.92	105.80
1	6	1614	A	N7-C8-N9	5.31	116.45	113.80
36	5	97	U	N1-C2-O2	-5.31	119.08	122.80
36	5	689	U	OP1-P-O3'	-5.31	93.52	105.20
36	5	1085	A	C5-C6-N1	-5.31	115.05	117.70
36	5	2411	U	N3-C4-O4	5.31	123.12	119.40
36	5	2745	G	C4-C5-N7	5.31	112.92	110.80
1	2	514	G	C4-N9-C1'	-5.31	119.60	126.50
1	2	1200	G	C8-N9-C4	-5.31	104.28	106.40
1	2	1418	G	C5-C6-O6	-5.31	125.42	128.60
1	2	1764	C	O5'-P-OP1	-5.31	100.92	105.70
36	1	287	G	OP1-P-O3'	5.31	116.88	105.20
36	1	325	A	O5'-P-OP1	-5.31	100.92	105.70
36	1	1118	C	C6-N1-C2	-5.31	118.18	120.30
36	1	1314	C	N3-C4-C5	-5.31	119.78	121.90
36	1	2202	C	C5-C6-N1	5.31	123.65	121.00
36	1	2266	U	C4-C5-C6	-5.31	116.52	119.70
36	1	2648	G	N3-C4-C5	-5.31	125.95	128.60
36	1	2654	C	N3-C4-N4	5.31	121.72	118.00
1	6	90	C	N1-C2-N3	5.31	122.92	119.20
1	6	340	U	N3-C4-O4	5.31	123.11	119.40
1	6	440	U	OP1-P-OP2	5.31	127.56	119.60
1	6	1122	G	N1-C6-O6	5.31	123.08	119.90
1	6	1524	A	C6-N1-C2	-5.31	115.42	118.60
1	6	1631	A	OP1-P-O3'	5.31	116.88	105.20
1	6	1650	U	N1-C2-N3	5.31	118.08	114.90
36	5	217	U	C5-C6-N1	-5.31	120.05	122.70
36	5	326	U	OP2-P-O3'	5.31	116.88	105.20
36	5	957	C	C5-C6-N1	5.31	123.65	121.00
36	5	983	A	C8-N9-C4	5.31	107.92	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2344	U	C4-C5-C6	5.31	122.88	119.70
36	5	3044	G	C4-C5-N7	5.31	112.92	110.80
36	5	3326	G	N3-C2-N2	5.31	123.62	119.90
36	5	3386	G	N9-C4-C5	5.31	107.52	105.40
1	2	654	C	C6-N1-C2	-5.31	118.18	120.30
36	1	1465	A	C8-N9-C4	5.31	107.92	105.80
36	1	3141	A	C5-N7-C8	-5.31	101.25	103.90
1	6	151	G	C4-C5-N7	-5.31	108.68	110.80
1	6	1030	A	C8-N9-C4	5.31	107.92	105.80
36	5	1867	A	N3-C4-N9	-5.31	123.16	127.40
36	5	2933	A	N9-C4-C5	5.31	107.92	105.80
1	2	22	A	C2-N3-C4	5.30	113.25	110.60
36	1	379	C	N1-C2-O2	-5.30	115.72	118.90
36	1	2333	C	C4-C5-C6	5.30	120.05	117.40
36	1	2776	C	C6-N1-C1'	-5.30	114.43	120.80
1	6	765	G	O4'-C1'-N9	-5.30	103.96	108.20
1	6	784	C	O5'-P-OP1	-5.30	100.92	105.70
1	6	1136	U	N3-C4-C5	5.30	117.78	114.60
1	6	1337	A	C8-N9-C1'	5.30	137.25	127.70
1	6	1484	G	N9-C4-C5	5.30	107.52	105.40
36	5	383	G	C5-C6-O6	5.30	131.78	128.60
36	5	2677	G	C6-C5-N7	-5.30	127.22	130.40
37	7	87	G	O5'-P-OP1	-5.30	100.93	105.70
36	1	225	C	N1-C2-O2	5.30	122.08	118.90
36	1	1344	G	O5'-P-OP1	5.30	117.06	110.70
36	1	1409	G	C4-C5-N7	5.30	112.92	110.80
36	1	1554	U	C2-N3-C4	5.30	130.18	127.00
36	1	1670	C	C2-N3-C4	-5.30	117.25	119.90
36	1	2161	G	N1-C6-O6	5.30	123.08	119.90
36	1	3263	G	N9-C4-C5	-5.30	103.28	105.40
36	5	1163	A	C6-N1-C2	-5.30	115.42	118.60
78	q2	93	LEU	CB-CG-CD2	-5.30	101.98	111.00
1	2	469	C	O5'-P-OP2	-5.30	100.93	105.70
1	2	966	A	N1-C2-N3	5.30	131.95	129.30
36	1	132	C	C6-N1-C2	-5.30	118.18	120.30
36	1	643	U	C5-C6-N1	5.30	125.35	122.70
36	1	933	A	C8-N9-C1'	-5.30	118.16	127.70
36	1	1709	C	C6-N1-C2	-5.30	118.18	120.30
36	1	2398	A	N7-C8-N9	-5.30	111.15	113.80
68	O2	47	ARG	NE-CZ-NH1	5.30	122.95	120.30
73	O7	65	ARG	NE-CZ-NH2	-5.30	117.65	120.30
1	6	509	G	O5'-P-OP1	-5.30	100.93	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	989	U	N1-C2-O2	5.30	126.51	122.80
1	6	1374	C	N3-C4-C5	-5.30	119.78	121.90
36	5	41	G	C8-N9-C1'	5.30	133.89	127.00
36	5	535	G	O4'-C1'-N9	-5.30	103.96	108.20
36	5	560	G	N3-C2-N2	-5.30	116.19	119.90
36	5	1171	G	C8-N9-C4	-5.30	104.28	106.40
36	5	1183	C	C2-N1-C1'	5.30	124.63	118.80
36	5	2333	C	C5-C6-N1	-5.30	118.35	121.00
36	5	2615	G	N9-C4-C5	-5.30	103.28	105.40
36	5	2649	A	C4-C5-N7	5.30	113.35	110.70
36	5	2727	A	C6-N1-C2	-5.30	115.42	118.60
36	5	3180	A	N3-C4-C5	5.30	130.51	126.80
36	5	3382	U	N3-C2-O2	-5.30	118.49	122.20
1	2	630	A	O4'-C1'-N9	-5.30	103.96	108.20
1	2	1250	U	P-O3'-C3'	5.30	126.06	119.70
36	1	145	G	N7-C8-N9	5.30	115.75	113.10
36	1	402	A	C4-C5-N7	5.30	113.35	110.70
36	1	970	A	C5-C6-N1	5.30	120.35	117.70
36	1	1145	G	N9-C4-C5	5.30	107.52	105.40
36	1	1463	U	C5-C6-N1	-5.30	120.05	122.70
36	1	2147	A	C6-N1-C2	-5.30	115.42	118.60
36	1	2659	G	C4-N9-C1'	5.30	133.39	126.50
36	1	2896	A	C6-C5-N7	-5.30	128.59	132.30
38	4	94	C	C2-N1-C1'	-5.30	112.97	118.80
38	4	125	U	C2-N1-C1'	5.30	124.06	117.70
6	s4	167	GLY	N-CA-C	-5.30	99.85	113.10
36	5	673	U	C4-C5-C6	5.30	122.88	119.70
36	5	1411	C	N1-C2-O2	5.30	122.08	118.90
36	5	1603	A	O5'-P-OP1	5.30	117.06	110.70
36	5	2197	C	C6-N1-C1'	-5.30	114.44	120.80
36	5	3026	G	N1-C2-N2	-5.30	111.43	116.20
36	5	3189	G	N1-C2-N2	-5.30	111.43	116.20
37	7	32	U	C5-C4-O4	-5.30	122.72	125.90
37	7	42	A	C4-N9-C1'	5.30	135.84	126.30
1	2	551	G	C2-N3-C4	-5.30	109.25	111.90
36	1	1201	C	N1-C2-N3	-5.30	115.49	119.20
36	5	1295	G	N3-C2-N2	5.30	123.61	119.90
36	5	2776	C	C6-N1-C1'	-5.30	114.44	120.80
36	5	3127	A	C6-N1-C2	-5.30	115.42	118.60
36	5	3130	A	C5-C6-N6	-5.30	119.46	123.70
36	5	3137	C	C2-N1-C1'	5.30	124.63	118.80
1	2	350	U	N1-C2-O2	-5.30	119.09	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	630	A	C2-N3-C4	-5.30	107.95	110.60
36	1	904	A	N9-C4-C5	5.30	107.92	105.80
36	1	967	A	C6-N1-C2	-5.30	115.42	118.60
36	1	1463	U	N3-C2-O2	-5.30	118.49	122.20
36	1	1534	A	C2-N3-C4	-5.30	107.95	110.60
36	1	2209	U	C2-N3-C4	5.30	130.18	127.00
36	1	2316	G	C4-C5-C6	5.30	121.98	118.80
36	1	2931	C	N1-C1'-C2'	-5.30	106.17	112.00
36	1	2932	U	OP1-P-OP2	5.30	127.55	119.60
36	1	3186	A	C5-C6-N1	5.30	120.35	117.70
1	6	1209	C	N1-C2-O2	-5.30	115.72	118.90
36	5	422	A	C5-C6-N6	5.30	127.94	123.70
36	5	513	G	C6-N1-C2	-5.30	121.92	125.10
36	5	854	G	N1-C6-O6	5.30	123.08	119.90
36	5	1101	G	C4-N9-C1'	5.30	133.39	126.50
36	5	1199	C	C2-N1-C1'	5.30	124.63	118.80
36	5	1199	C	C6-N1-C1'	-5.30	114.44	120.80
36	5	1616	U	N3-C4-C5	-5.30	111.42	114.60
36	5	1838	G	C4-C5-C6	5.30	121.98	118.80
36	5	2530	G	N1-C6-O6	5.30	123.08	119.90
36	5	2557	A	N1-C2-N3	5.30	131.95	129.30
36	5	2573	G	C4-C5-N7	5.30	112.92	110.80
36	5	3044	G	N1-C2-N3	5.30	127.08	123.90
1	2	969	C	OP2-P-O3'	5.29	116.85	105.20
1	2	1316	G	N1-C6-O6	-5.29	116.72	119.90
36	1	422	A	O4'-C1'-N9	-5.29	103.96	108.20
36	1	1364	C	C2-N3-C4	-5.29	117.25	119.90
36	1	1791	C	O4'-C1'-N1	5.29	112.44	108.20
36	1	2899	C	C4-C5-C6	5.29	120.05	117.40
1	6	417	A	P-O3'-C3'	5.29	126.05	119.70
36	5	1055	A	N7-C8-N9	-5.29	111.15	113.80
36	5	2948	C	C5-C6-N1	5.29	123.65	121.00
1	2	1775	U	OP2-P-O3'	5.29	116.85	105.20
36	1	856	G	N1-C2-N3	5.29	127.08	123.90
36	1	1461	A	C2-N3-C4	-5.29	107.95	110.60
36	1	1709	C	C4-C5-C6	5.29	120.05	117.40
36	1	1909	A	OP1-P-OP2	-5.29	111.66	119.60
36	1	2353	G	C4-N9-C1'	5.29	133.38	126.50
1	6	21	U	C2-N1-C1'	5.29	124.05	117.70
1	6	594	A	C6-N1-C2	-5.29	115.42	118.60
1	6	980	G	C4-C5-N7	5.29	112.92	110.80
36	5	800	G	C5-C6-N1	5.29	114.15	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1507	G	OP2-P-O3'	5.29	116.85	105.20
36	5	1605	A	C2-N3-C4	-5.29	107.95	110.60
36	5	1911	A	C4-C5-C6	5.29	119.65	117.00
36	5	2583	C	C5-C6-N1	5.29	123.65	121.00
1	2	1206	U	C6-N1-C2	-5.29	117.83	121.00
36	1	731	U	N1-C2-N3	5.29	118.08	114.90
36	1	1583	A	C5-C6-N6	5.29	127.93	123.70
36	1	2157	G	N3-C4-N9	5.29	129.18	126.00
36	1	2172	A	N9-C4-C5	-5.29	103.68	105.80
36	1	2404	A	N3-C4-N9	5.29	131.63	127.40
36	1	2610	G	C8-N9-C4	-5.29	104.28	106.40
36	1	2761	G	C4-C5-N7	-5.29	108.68	110.80
36	1	3116	G	C4-N9-C1'	5.29	133.38	126.50
36	1	3157	U	N3-C4-C5	5.29	117.77	114.60
36	1	3174	A	N9-C4-C5	-5.29	103.68	105.80
38	4	118	C	N3-C4-N4	5.29	121.70	118.00
1	6	374	U	OP1-P-OP2	5.29	127.54	119.60
1	6	789	A	N3-C4-C5	-5.29	123.09	126.80
1	6	1174	C	C2-N1-C1'	5.29	124.62	118.80
36	5	326	U	C2-N1-C1'	5.29	124.05	117.70
36	5	673	U	C6-N1-C1'	5.29	128.61	121.20
36	5	909	G	C4-N9-C1'	5.29	133.38	126.50
36	5	1155	C	O5'-P-OP1	-5.29	100.94	105.70
36	5	1312	C	N3-C4-N4	5.29	121.70	118.00
36	5	3060	C	O5'-P-OP1	-5.29	100.94	105.70
36	1	2890	A	N3-C4-C5	-5.29	123.10	126.80
36	1	3272	C	N3-C2-O2	5.29	125.60	121.90
1	6	566	C	C2-N3-C4	-5.29	117.25	119.90
1	6	1746	A	O5'-P-OP2	5.29	117.05	110.70
36	5	831	G	C5-C6-N1	-5.29	108.86	111.50
36	5	1444	G	C8-N9-C4	-5.29	104.28	106.40
36	5	1594	A	C6-N1-C2	-5.29	115.43	118.60
36	5	2833	A	O5'-P-OP1	5.29	117.05	110.70
1	2	1044	U	C6-N1-C2	-5.29	117.83	121.00
36	1	104	G	N3-C4-C5	5.29	131.25	128.60
36	1	623	U	C5-C4-O4	5.29	129.07	125.90
36	1	1202	A	C5-C6-N6	-5.29	119.47	123.70
59	N3	87	ARG	NE-CZ-NH2	-5.29	117.66	120.30
1	6	30	G	N1-C6-O6	5.29	123.07	119.90
1	6	430	G	N1-C2-N3	5.29	127.07	123.90
1	6	1534	G	N1-C2-N3	-5.29	120.73	123.90
36	5	591	G	C8-N9-C4	5.29	108.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	591	G	N1-C2-N3	5.29	127.07	123.90
36	5	722	G	C4-N9-C1'	-5.29	119.62	126.50
36	5	1414	G	C5-N7-C8	-5.29	101.66	104.30
36	5	1660	C	O5'-P-OP1	-5.29	100.94	105.70
36	5	2418	G	OP2-P-O3'	-5.29	93.56	105.20
36	5	2765	C	C5-C6-N1	5.29	123.64	121.00
36	5	2870	C	C2-N1-C1'	-5.29	112.98	118.80
77	q1	11	ARG	NE-CZ-NH2	-5.29	117.66	120.30
36	1	279	U	OP2-P-O3'	-5.29	93.57	105.20
36	1	1393	A	C4-C5-N7	-5.29	108.06	110.70
36	1	1769	G	N7-C8-N9	5.29	115.74	113.10
36	1	1836	C	N3-C4-C5	-5.29	119.78	121.90
1	6	968	U	C2-N3-C4	-5.29	123.83	127.00
36	5	433	A	C8-N9-C4	-5.29	103.69	105.80
36	5	2361	A	OP2-P-O3'	5.29	116.83	105.20
1	2	1756	A	C5-C6-N6	-5.29	119.47	123.70
36	1	176	G	C8-N9-C4	-5.29	104.29	106.40
36	1	2309	A	C4-C5-C6	5.29	119.64	117.00
36	1	3093	C	OP1-P-O3'	5.29	116.83	105.20
36	1	3193	C	N3-C4-C5	-5.29	119.79	121.90
1	6	393	C	C6-N1-C2	5.29	122.41	120.30
1	6	1079	U	C2-N1-C1'	-5.29	111.36	117.70
1	6	1169	G	C4-N9-C1'	5.29	133.37	126.50
36	5	792	G	C6-C5-N7	5.29	133.57	130.40
36	5	896	A	N1-C2-N3	-5.29	126.66	129.30
36	5	1437	C	O5'-P-OP1	-5.29	100.94	105.70
36	5	2301	U	C5-C4-O4	5.29	129.07	125.90
36	5	2801	A	C6-C5-N7	-5.29	128.60	132.30
36	5	2840	C	N3-C2-O2	-5.29	118.20	121.90
36	5	3362	A	C4-N9-C1'	5.29	135.81	126.30
1	2	430	G	C6-C5-N7	-5.28	127.23	130.40
1	2	1311	U	N3-C4-C5	5.28	117.77	114.60
1	2	1499	G	N3-C4-N9	5.28	129.17	126.00
36	1	399	A	O5'-P-OP2	-5.28	100.94	105.70
36	1	418	A	C5-C6-N1	5.28	120.34	117.70
36	1	650	C	O5'-P-OP1	-5.28	100.95	105.70
36	1	670	C	C5-C6-N1	-5.28	118.36	121.00
36	1	1064	A	C5-C6-N6	5.28	127.93	123.70
36	1	1905	G	C5-C6-O6	5.28	131.77	128.60
36	1	2278	C	N1-C2-N3	-5.28	115.50	119.20
36	1	2434	U	C2-N1-C1'	5.28	124.04	117.70
36	1	2610	G	C2-N3-C4	-5.28	109.26	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2662	G	C6-C5-N7	-5.28	127.23	130.40
1	6	756	A	C5-N7-C8	-5.28	101.26	103.90
1	6	959	U	OP2-P-O3'	5.28	116.83	105.20
1	6	1129	U	C6-N1-C2	-5.28	117.83	121.00
36	5	633	C	N3-C2-O2	5.28	125.60	121.90
36	5	641	C	N1-C2-O2	-5.28	115.73	118.90
36	5	888	A	C4-C5-C6	5.28	119.64	117.00
36	5	1882	G	N7-C8-N9	5.28	115.74	113.10
36	5	1912	U	N1-C2-N3	-5.28	111.73	114.90
36	5	1919	G	C2-N3-C4	-5.28	109.26	111.90
36	5	2320	A	C4-C5-C6	5.28	119.64	117.00
37	7	65	G	OP1-P-O3'	-5.28	93.58	105.20
50	m4	135	LEU	CA-CB-CG	5.28	127.45	115.30
1	2	247	A	C4-C5-C6	5.28	119.64	117.00
1	6	40	A	N1-C6-N6	5.28	121.77	118.60
1	6	1142	A	N1-C2-N3	5.28	131.94	129.30
36	5	342	A	N3-C4-C5	-5.28	123.10	126.80
36	5	972	A	N1-C2-N3	5.28	131.94	129.30
36	5	2209	U	C5-C6-N1	-5.28	120.06	122.70
36	5	2414	G	C4-C5-C6	5.28	121.97	118.80
36	5	2696	A	OP2-P-O3'	5.28	116.82	105.20
36	5	3018	C	N3-C4-C5	-5.28	119.79	121.90
37	7	48	U	C6-N1-C1'	-5.28	113.81	121.20
36	1	193	C	C5-C6-N1	5.28	123.64	121.00
36	1	569	A	C2-N3-C4	5.28	113.24	110.60
36	1	1102	A	C8-N9-C4	5.28	107.91	105.80
36	1	1175	C	N3-C2-O2	5.28	125.60	121.90
36	1	1886	A	N1-C6-N6	-5.28	115.43	118.60
36	1	2182	A	C6-N1-C2	-5.28	115.43	118.60
36	1	2210	G	C5-C6-O6	5.28	131.77	128.60
36	1	2276	G	C6-C5-N7	5.28	133.57	130.40
36	1	2803	A	C6-C5-N7	5.28	136.00	132.30
36	1	3328	G	N7-C8-N9	5.28	115.74	113.10
1	6	516	G	N7-C8-N9	5.28	115.74	113.10
1	6	752	A	C5-C6-N6	-5.28	119.48	123.70
1	6	825	U	N3-C4-O4	5.28	123.10	119.40
1	6	1059	U	N1-C2-N3	-5.28	111.73	114.90
1	6	1070	C	O5'-P-OP2	-5.28	100.95	105.70
1	6	1790	A	N1-C6-N6	5.28	121.77	118.60
36	5	594	U	N3-C2-O2	-5.28	118.50	122.20
36	5	889	U	OP2-P-O3'	5.28	116.82	105.20
36	5	969	C	N3-C4-C5	-5.28	119.79	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1192	C	C2-N1-C1'	5.28	124.61	118.80
36	5	2236	G	O5'-P-OP1	-5.28	100.95	105.70
36	5	2713	U	C6-N1-C2	-5.28	117.83	121.00
36	5	2985	C	OP1-P-OP2	-5.28	111.68	119.60
37	7	53	U	N3-C4-O4	5.28	123.10	119.40
1	2	604	A	C2-N3-C4	5.28	113.24	110.60
1	2	1212	G	C4-N9-C1'	5.28	133.36	126.50
36	1	1541	G	N7-C8-N9	5.28	115.74	113.10
1	6	1112	G	C6-N1-C2	-5.28	121.93	125.10
1	6	1789	G	C4-C5-C6	5.28	121.97	118.80
36	5	271	C	O4'-C1'-N1	5.28	112.42	108.20
36	5	2286	U	OP1-P-O3'	5.28	116.81	105.20
36	5	2743	A	C4-C5-C6	5.28	119.64	117.00
36	5	3229	G	N3-C4-C5	-5.28	125.96	128.60
36	5	3234	A	O5'-P-OP1	5.28	117.03	110.70
36	5	3286	G	N3-C4-N9	5.28	129.17	126.00
1	2	104	A	O4'-C1'-N9	5.28	112.42	108.20
1	2	431	C	C2-N3-C4	5.28	122.54	119.90
36	1	287	G	N3-C4-C5	-5.28	125.96	128.60
36	1	1121	U	O5'-P-OP1	5.28	117.03	110.70
36	1	1320	C	C5-C6-N1	-5.28	118.36	121.00
36	1	1399	A	C5-C6-N6	5.28	127.92	123.70
36	1	3217	C	N1-C1'-C2'	5.28	120.86	114.00
1	6	17	C	C2-N1-C1'	5.28	124.61	118.80
36	5	627	U	N1-C2-O2	-5.28	119.11	122.80
36	5	822	G	C8-N9-C1'	-5.28	120.14	127.00
36	5	2148	U	C6-N1-C2	5.28	124.17	121.00
36	5	3045	G	C5-C6-O6	5.28	131.77	128.60
36	5	3187	A	C2-N3-C4	-5.28	107.96	110.60
36	1	67	A	C6-C5-N7	5.28	135.99	132.30
36	1	1533	U	C4-C5-C6	5.28	122.87	119.70
36	1	1634	G	C4-C5-N7	5.28	112.91	110.80
68	O2	66	LEU	CB-CG-CD2	-5.28	102.03	111.00
1	6	337	G	C4-N9-C1'	5.28	133.36	126.50
1	6	1576	A	C5-C6-N6	-5.28	119.48	123.70
36	5	933	A	OP1-P-OP2	5.28	127.51	119.60
36	5	959	C	C6-N1-C1'	5.28	127.13	120.80
36	5	977	C	C6-N1-C2	-5.28	118.19	120.30
36	5	2127	U	N1-C2-N3	5.28	118.06	114.90
36	5	2279	A	C2-N3-C4	-5.28	107.96	110.60
36	5	2284	C	O5'-P-OP1	-5.28	100.95	105.70
36	5	2988	C	O5'-P-OP2	-5.28	100.95	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3085	G	C4-C5-C6	-5.28	115.64	118.80
36	5	3122	A	N3-C4-C5	5.28	130.49	126.80
36	5	3123	A	O5'-P-OP2	-5.28	100.95	105.70
38	8	90	U	C6-N1-C1'	-5.28	113.81	121.20
40	13	300	ARG	NE-CZ-NH2	-5.28	117.66	120.30
36	1	1323	G	N3-C4-C5	-5.27	125.96	128.60
36	1	1820	U	N3-C2-O2	-5.27	118.51	122.20
36	1	2250	G	N1-C2-N2	-5.27	111.45	116.20
36	1	2417	U	OP2-P-O3'	5.27	116.80	105.20
1	6	397	A	N3-C4-C5	5.27	130.49	126.80
1	6	1601	G	N9-C4-C5	5.27	107.51	105.40
36	5	806	A	C5-C6-N6	5.27	127.92	123.70
36	5	1164	G	C5'-C4'-O4'	-5.27	102.77	109.10
36	5	2145	A	C4-C5-C6	5.27	119.64	117.00
1	2	5	U	O5'-P-OP1	5.27	117.03	110.70
1	2	449	C	N1-C2-N3	5.27	122.89	119.20
1	2	1673	G	C4-N9-C1'	5.27	133.35	126.50
36	1	191	U	C2-N1-C1'	5.27	124.03	117.70
36	1	964	G	C8-N9-C4	-5.27	104.29	106.40
36	1	1841	A	O5'-P-OP2	-5.27	100.95	105.70
36	1	2421	U	C5-C6-N1	-5.27	120.06	122.70
36	1	2554	A	N7-C8-N9	-5.27	111.16	113.80
36	1	2864	A	OP2-P-O3'	5.27	116.80	105.20
36	1	2938	G	C5-C6-O6	-5.27	125.44	128.60
38	4	7	U	OP2-P-O3'	5.27	116.80	105.20
1	6	298	C	C2-N1-C1'	5.27	124.60	118.80
1	6	637	C	C5-C4-N4	-5.27	116.51	120.20
36	5	27	C	C2-N3-C4	5.27	122.54	119.90
36	5	365	A	C2-N3-C4	-5.27	107.96	110.60
36	5	656	A	C5-N7-C8	-5.27	101.26	103.90
36	5	1934	G	N9-C4-C5	-5.27	103.29	105.40
36	5	2251	G	N1-C2-N2	-5.27	111.45	116.20
36	5	2726	C	O4'-C1'-N1	5.27	112.42	108.20
36	5	3083	G	N3-C4-C5	5.27	131.24	128.60
37	7	104	A	C5-C6-N1	-5.27	115.06	117.70
37	7	118	A	OP2-P-O3'	5.27	116.80	105.20
38	8	45	C	C2-N3-C4	-5.27	117.26	119.90
1	2	61	A	C4-C5-N7	5.27	113.34	110.70
1	2	1655	A	C4-N9-C1'	-5.27	116.81	126.30
36	1	1134	G	C6-N1-C2	-5.27	121.94	125.10
36	1	2824	G	N3-C4-N9	5.27	129.16	126.00
36	1	2978	U	N3-C2-O2	-5.27	118.51	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	410	A	C6-C5-N7	-5.27	128.61	132.30
1	6	452	A	N1-C2-N3	5.27	131.94	129.30
36	5	52	A	C4-C5-N7	-5.27	108.06	110.70
36	5	590	G	N3-C2-N2	-5.27	116.21	119.90
37	7	109	G	N9-C1'-C2'	-5.27	106.20	112.00
1	2	5	U	C2-N1-C1'	5.27	124.02	117.70
1	2	1002	G	N3-C2-N2	5.27	123.59	119.90
36	1	197	G	C5-N7-C8	-5.27	101.67	104.30
36	1	306	A	C6-N1-C2	-5.27	115.44	118.60
36	1	500	C	N1-C2-O2	-5.27	115.74	118.90
36	1	652	G	N7-C8-N9	-5.27	110.47	113.10
36	1	2323	G	N1-C6-O6	5.27	123.06	119.90
36	1	2631	U	N1-C2-N3	5.27	118.06	114.90
36	1	2660	G	N1-C2-N2	-5.27	111.46	116.20
36	1	2842	U	C2-N1-C1'	5.27	124.02	117.70
36	1	2944	U	N3-C4-C5	5.27	117.76	114.60
38	4	54	A	N1-C2-N3	5.27	131.94	129.30
1	6	112	A	N1-C6-N6	5.27	121.76	118.60
1	6	542	A	N1-C6-N6	-5.27	115.44	118.60
1	6	634	G	N3-C4-C5	-5.27	125.97	128.60
1	6	1198	G	O5'-P-OP1	-5.27	100.96	105.70
36	5	1289	G	C5-N7-C8	5.27	106.94	104.30
36	5	2187	G	N1-C6-O6	-5.27	116.74	119.90
36	5	2653	C	N3-C4-C5	5.27	124.01	121.90
38	8	149	A	C8-N9-C4	-5.27	103.69	105.80
1	2	49	C	C2-N3-C4	5.27	122.53	119.90
1	2	414	C	C6-N1-C2	-5.27	118.19	120.30
1	2	469	C	O5'-P-OP1	5.27	117.02	110.70
1	2	543	C	C5-C6-N1	5.27	123.63	121.00
1	2	1030	A	C5-N7-C8	-5.27	101.27	103.90
36	1	210	U	C6-N1-C2	-5.27	117.84	121.00
36	1	337	G	N1-C2-N3	-5.27	120.74	123.90
36	1	525	C	C5-C6-N1	-5.27	118.37	121.00
36	1	1323	G	C6-N1-C2	-5.27	121.94	125.10
36	1	1545	A	N1-C2-N3	5.27	131.93	129.30
36	1	3288	G	N1-C2-N2	5.27	120.94	116.20
1	6	246	G	N7-C8-N9	5.27	115.73	113.10
1	6	991	G	N3-C4-N9	-5.27	122.84	126.00
1	6	1005	A	N1-C6-N6	-5.27	115.44	118.60
1	6	1180	C	C2-N1-C1'	5.27	124.59	118.80
1	6	1717	G	N1-C6-O6	5.27	123.06	119.90
36	5	394	G	N3-C2-N2	-5.27	116.21	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	888	A	N1-C6-N6	5.27	121.76	118.60
36	5	1653	G	N9-C4-C5	5.27	107.51	105.40
36	5	1885	U	C4-C5-C6	5.27	122.86	119.70
36	5	1947	G	C4-C5-N7	5.27	112.91	110.80
36	5	2755	C	C2-N3-C4	-5.27	117.27	119.90
37	7	69	C	N1-C2-N3	-5.27	115.51	119.20
38	8	24	G	C6-C5-N7	5.27	133.56	130.40
36	1	1143	A	C4-C5-C6	5.27	119.63	117.00
36	1	2174	G	C5-C6-O6	-5.27	125.44	128.60
36	1	2395	G	C4-C5-N7	5.27	112.91	110.80
37	3	67	G	OP2-P-O3'	5.27	116.79	105.20
1	6	880	C	N3-C4-C5	-5.27	119.79	121.90
36	5	968	G	C5-C6-O6	-5.27	125.44	128.60
36	5	2139	A	OP1-P-O3'	5.27	116.78	105.20
36	5	2786	G	C2-N3-C4	-5.27	109.27	111.90
36	5	3172	A	C6-C5-N7	-5.27	128.61	132.30
1	2	535	A	N7-C8-N9	5.26	116.43	113.80
1	2	576	G	C2-N3-C4	-5.26	109.27	111.90
1	2	915	A	N7-C8-N9	5.26	116.43	113.80
36	1	367	A	C8-N9-C4	5.26	107.91	105.80
36	1	2630	C	N3-C4-C5	5.26	124.01	121.90
36	1	3375	A	OP1-P-O3'	5.26	116.78	105.20
1	6	147	A	N7-C8-N9	5.26	116.43	113.80
1	6	608	U	OP1-P-O3'	5.26	116.78	105.20
36	5	1461	A	C5-C6-N1	5.26	120.33	117.70
36	5	1461	A	N9-C1'-C2'	-5.26	106.21	112.00
36	5	1881	A	C4-C5-C6	5.26	119.63	117.00
36	5	2402	A	OP1-P-O3'	5.26	116.78	105.20
38	8	138	A	C5-N7-C8	5.26	106.53	103.90
1	2	1565	C	N3-C2-O2	5.26	125.58	121.90
36	1	2202	C	N3-C4-C5	-5.26	119.80	121.90
38	4	101	U	O5'-P-OP2	-5.26	100.96	105.70
41	L4	150	LEU	CA-CB-CG	5.26	127.41	115.30
1	6	704	C	C6-N1-C2	-5.26	118.19	120.30
36	5	294	U	O4'-C1'-N1	5.26	112.41	108.20
36	5	372	A	C8-N9-C4	-5.26	103.69	105.80
1	2	1127	G	N3-C4-N9	-5.26	122.84	126.00
1	2	1462	G	N3-C4-N9	-5.26	122.84	126.00
36	1	53	G	C5-N7-C8	5.26	106.93	104.30
36	1	377	A	C6-C5-N7	-5.26	128.62	132.30
36	1	438	A	N9-C4-C5	-5.26	103.70	105.80
36	1	1195	A	O4'-C1'-N9	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1320	C	C5-C4-N4	5.26	123.88	120.20
36	1	1401	A	C6-C5-N7	-5.26	128.62	132.30
36	1	1796	G	OP1-P-O3'	5.26	116.78	105.20
36	1	2313	A	OP2-P-O3'	5.26	116.78	105.20
36	1	3277	U	N1-C2-O2	5.26	126.48	122.80
36	5	569	A	C8-N9-C4	5.26	107.91	105.80
36	5	870	G	C4-C5-N7	5.26	112.91	110.80
36	5	966	U	C2-N1-C1'	5.26	124.01	117.70
36	5	1554	U	C6-N1-C1'	-5.26	113.83	121.20
36	5	1766	G	C8-N9-C4	-5.26	104.30	106.40
38	8	107	G	N3-C2-N2	-5.26	116.22	119.90
1	2	1161	C	N3-C2-O2	5.26	125.58	121.90
1	2	1673	G	C8-N9-C4	-5.26	104.30	106.40
36	1	227	G	O5'-P-OP2	-5.26	100.97	105.70
36	1	305	U	C2-N1-C1'	-5.26	111.39	117.70
36	1	1308	A	N3-C4-C5	5.26	130.48	126.80
36	1	1690	C	P-O3'-C3'	-5.26	113.39	119.70
36	1	1838	G	C2-N3-C4	-5.26	109.27	111.90
36	1	1911	A	C5-C6-N1	5.26	120.33	117.70
36	1	3045	G	C8-N9-C4	-5.26	104.30	106.40
38	4	56	G	C8-N9-C1'	-5.26	120.16	127.00
1	6	341	A	O4'-C1'-N9	5.26	112.41	108.20
1	6	795	U	C5-C4-O4	5.26	129.06	125.90
36	5	1051	U	C2-N1-C1'	-5.26	111.39	117.70
36	5	1058	U	C5-C4-O4	-5.26	122.74	125.90
36	5	1126	G	N1-C2-N3	5.26	127.06	123.90
36	5	1208	U	C5-C6-N1	-5.26	120.07	122.70
36	5	2958	A	C6-N1-C2	-5.26	115.44	118.60
36	5	3054	U	N1-C2-N3	5.26	118.06	114.90
36	5	3242	G	C5-N7-C8	5.26	106.93	104.30
38	8	16	G	C5-C6-N1	-5.26	108.87	111.50
36	1	1222	G	N9-C4-C5	-5.26	103.30	105.40
1	6	1035	G	N7-C8-N9	-5.26	110.47	113.10
36	5	854	G	C2-N3-C4	-5.26	109.27	111.90
36	5	2376	G	C6-N1-C2	-5.26	121.94	125.10
36	5	2855	U	N3-C4-O4	5.26	123.08	119.40
40	13	4	ARG	NE-CZ-NH2	-5.26	117.67	120.30
1	2	533	U	OP1-P-OP2	-5.26	111.72	119.60
1	2	1150	G	N3-C4-N9	-5.26	122.85	126.00
36	1	30	G	C8-N9-C1'	5.26	133.83	127.00
36	1	385	A	C5-C6-N6	5.26	127.91	123.70
36	1	428	A	C4-C5-N7	5.26	113.33	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1224	C	N3-C4-C5	-5.26	119.80	121.90
36	1	1540	U	N3-C4-O4	5.26	123.08	119.40
36	1	1715	A	OP1-P-O3'	5.26	116.76	105.20
36	1	1775	G	C4-C5-N7	-5.26	108.70	110.80
36	1	1820	U	N1-C2-O2	5.26	126.48	122.80
36	1	2280	A	C4-C5-C6	5.26	119.63	117.00
36	1	2817	A	N1-C6-N6	-5.26	115.45	118.60
36	1	2893	C	C5-C4-N4	5.26	123.88	120.20
36	1	3044	G	C5-N7-C8	-5.26	101.67	104.30
36	1	3106	A	OP1-P-OP2	5.26	127.49	119.60
36	1	3276	G	C2-N3-C4	-5.26	109.27	111.90
37	3	103	A	N9-C4-C5	5.26	107.90	105.80
54	M8	22	ASP	CB-CG-OD2	5.26	123.03	118.30
77	Q1	13	LEU	CA-CB-CG	5.26	127.39	115.30
1	6	214	G	N3-C4-C5	5.26	131.23	128.60
1	6	415	C	C5-C6-N1	-5.26	118.37	121.00
1	6	1338	C	C5-C4-N4	-5.26	116.52	120.20
8	s6	32	ILE	CB-CA-C	-5.26	101.09	111.60
36	5	609	G	OP1-P-OP2	5.26	127.48	119.60
36	5	992	A	C8-N9-C4	-5.26	103.70	105.80
36	5	1311	G	C4-N9-C1'	5.26	133.33	126.50
36	5	1796	G	N3-C4-C5	-5.26	125.97	128.60
36	5	2253	G	O4'-C1'-N9	-5.26	104.00	108.20
36	5	2282	U	C5-C6-N1	-5.26	120.07	122.70
36	5	2354	C	OP1-P-OP2	5.26	127.49	119.60
36	5	2552	C	N1-C2-O2	5.26	122.05	118.90
36	5	3102	G	O5'-P-OP2	5.26	117.01	110.70
36	5	3112	G	N3-C4-C5	-5.26	125.97	128.60
37	7	14	U	OP1-P-OP2	5.26	127.48	119.60
38	8	12	A	C4-C5-N7	5.26	113.33	110.70
1	2	18	C	C5-C4-N4	-5.25	116.52	120.20
1	2	766	U	N3-C2-O2	-5.25	118.52	122.20
36	1	1534	A	C4-C5-N7	5.25	113.33	110.70
36	1	2828	G	C4-N9-C1'	5.25	133.33	126.50
36	1	2854	U	C5-C6-N1	-5.25	120.07	122.70
36	1	3256	G	O4'-C1'-N9	-5.25	104.00	108.20
1	6	294	C	C5-C6-N1	-5.25	118.37	121.00
1	6	430	G	C6-N1-C2	-5.25	121.95	125.10
36	5	794	U	OP1-P-O3'	5.25	116.76	105.20
36	5	806	A	C5-N7-C8	-5.25	101.27	103.90
36	5	1542	G	N1-C2-N3	5.25	127.05	123.90
36	5	1877	U	C4-C5-C6	5.25	122.85	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	429	G	N7-C8-N9	5.25	115.73	113.10
36	1	148	G	N1-C2-N2	-5.25	111.47	116.20
36	1	928	C	C2-N1-C1'	-5.25	113.02	118.80
36	1	942	U	OP1-P-OP2	-5.25	111.72	119.60
36	1	1905	G	C6-C5-N7	5.25	133.55	130.40
36	1	2384	A	C2-N3-C4	5.25	113.23	110.60
36	1	2649	A	O5'-P-OP1	-5.25	100.97	105.70
36	1	2912	G	N9-C4-C5	5.25	107.50	105.40
1	6	107	C	N3-C4-N4	5.25	121.68	118.00
1	6	811	A	C8-N9-C4	-5.25	103.70	105.80
1	6	1671	A	C6-N1-C2	-5.25	115.45	118.60
36	5	71	A	C8-N9-C4	5.25	107.90	105.80
36	5	729	C	C6-N1-C2	-5.25	118.20	120.30
36	5	749	C	C6-N1-C2	-5.25	118.20	120.30
36	5	1185	C	N1-C2-O2	-5.25	115.75	118.90
36	5	1783	U	O5'-P-OP2	-5.25	100.97	105.70
36	5	2901	G	OP1-P-OP2	-5.25	111.72	119.60
36	5	2944	U	C6-N1-C2	-5.25	117.85	121.00
36	5	3200	G	C4-N9-C1'	5.25	133.33	126.50
36	5	3312	U	C5-C6-N1	-5.25	120.07	122.70
36	1	385	A	N3-C4-N9	-5.25	123.20	127.40
36	1	592	A	N1-C6-N6	5.25	121.75	118.60
36	1	1124	U	N1-C2-N3	5.25	118.05	114.90
36	1	1927	G	N3-C4-N9	5.25	129.15	126.00
36	1	2701	U	N3-C4-O4	5.25	123.08	119.40
36	1	3106	A	N9-C4-C5	5.25	107.90	105.80
37	3	118	A	O5'-P-OP2	-5.25	100.97	105.70
38	4	41	A	C8-N9-C4	-5.25	103.70	105.80
1	6	120	U	OP2-P-O3'	5.25	116.75	105.20
36	5	907	G	C5-C6-O6	-5.25	125.45	128.60
36	5	1053	A	OP2-P-O3'	5.25	116.75	105.20
36	5	1154	A	C6-N1-C2	-5.25	115.45	118.60
36	5	1282	G	C2-N3-C4	-5.25	109.27	111.90
36	5	2748	A	C2-N3-C4	-5.25	107.97	110.60
36	5	3058	U	C2-N3-C4	5.25	130.15	127.00
36	5	3060	C	N1-C2-O2	-5.25	115.75	118.90
36	5	3378	C	N3-C4-C5	5.25	124.00	121.90
38	8	12	A	OP2-P-O3'	5.25	116.75	105.20
1	2	11	A	C6-N1-C2	-5.25	115.45	118.60
1	2	346	G	N3-C4-C5	5.25	131.22	128.60
36	1	2755	C	C2-N3-C4	-5.25	117.28	119.90
38	4	111	A	N1-C2-N3	-5.25	126.67	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1452	U	C5-C4-O4	-5.25	122.75	125.90
1	6	1609	U	C6-N1-C1'	5.25	128.55	121.20
36	5	959	C	OP1-P-OP2	-5.25	111.72	119.60
36	5	1716	U	OP1-P-O3'	5.25	116.75	105.20
36	5	2302	G	N1-C2-N2	-5.25	111.47	116.20
36	5	3065	G	C5-C6-N1	-5.25	108.88	111.50
1	2	338	C	C6-N1-C2	-5.25	118.20	120.30
1	2	362	G	N1-C6-O6	5.25	123.05	119.90
36	1	107	A	C4-C5-C6	-5.25	114.38	117.00
36	1	321	C	N3-C4-C5	-5.25	119.80	121.90
36	1	342	A	N3-C4-C5	5.25	130.47	126.80
36	1	996	A	N3-C4-N9	5.25	131.60	127.40
36	1	1115	G	O4'-C1'-N9	-5.25	104.00	108.20
36	1	2184	U	C2-N1-C1'	5.25	124.00	117.70
36	1	2238	G	N1-C6-O6	-5.25	116.75	119.90
36	1	2714	G	C2-N3-C4	-5.25	109.28	111.90
36	1	2760	C	C6-N1-C1'	5.25	127.10	120.80
36	1	3248	C	O5'-P-OP2	5.25	117.00	110.70
36	1	3308	C	C5-C4-N4	5.25	123.88	120.20
1	6	1137	A	N9-C4-C5	-5.25	103.70	105.80
1	6	1704	U	N1-C2-O2	5.25	126.47	122.80
36	5	201	A	C2-N3-C4	-5.25	107.98	110.60
36	5	229	G	C5-N7-C8	-5.25	101.67	104.30
36	5	1152	G	P-O3'-C3'	5.25	126.00	119.70
36	5	1525	G	N3-C4-C5	-5.25	125.98	128.60
36	5	1871	U	C5-C4-O4	-5.25	122.75	125.90
36	5	2357	A	N1-C6-N6	-5.25	115.45	118.60
38	8	14	C	N3-C4-C5	-5.25	119.80	121.90
1	2	601	A	C4-C5-C6	5.25	119.62	117.00
1	2	1027	A	C8-N9-C4	-5.25	103.70	105.80
1	2	1266	U	N3-C2-O2	5.25	125.87	122.20
36	1	403	C	N1-C2-N3	5.25	122.87	119.20
36	1	558	U	O5'-P-OP2	-5.25	100.98	105.70
36	1	906	A	C4-C5-C6	5.25	119.62	117.00
36	1	1153	A	C8-N9-C1'	-5.25	118.26	127.70
36	1	1524	A	C2-N3-C4	5.25	113.22	110.60
36	1	2127	U	C4-C5-C6	-5.25	116.55	119.70
36	1	2865	U	C4-C5-C6	5.25	122.85	119.70
36	1	3310	A	C5-N7-C8	-5.25	101.28	103.90
36	1	3395	G	O5'-P-OP2	-5.25	100.98	105.70
38	4	104	A	O5'-P-OP2	5.25	117.00	110.70
40	L3	146	ARG	NE-CZ-NH1	5.25	122.92	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	360	A	C2-N3-C4	-5.25	107.98	110.60
1	6	1155	G	N1-C6-O6	5.25	123.05	119.90
1	6	1551	U	N1-C2-O2	-5.25	119.13	122.80
1	6	1614	A	N9-C4-C5	-5.25	103.70	105.80
36	5	351	A	C2-N3-C4	5.25	113.22	110.60
36	5	962	A	N7-C8-N9	5.25	116.42	113.80
36	5	1191	U	C5-C4-O4	5.25	129.05	125.90
36	5	1329	U	C5-C4-O4	-5.25	122.75	125.90
36	5	1398	U	N3-C2-O2	-5.25	118.53	122.20
36	5	2243	A	C4-C5-C6	5.25	119.62	117.00
36	5	2394	G	C4-C5-N7	5.25	112.90	110.80
36	5	2620	G	N1-C2-N2	-5.25	111.48	116.20
36	5	2768	U	C2-N1-C1'	-5.25	111.41	117.70
36	5	2886	U	OP1-P-OP2	5.25	127.47	119.60
38	8	66	A	C2-N3-C4	-5.25	107.98	110.60
58	n2	50	LEU	CA-CB-CG	5.25	127.37	115.30
1	2	615	A	N3-C4-C5	-5.25	123.13	126.80
1	2	1201	G	C8-N9-C4	5.25	108.50	106.40
36	1	166	C	N3-C2-O2	-5.25	118.23	121.90
36	1	625	G	C8-N9-C4	5.25	108.50	106.40
36	1	1060	U	N1-C2-N3	5.25	118.05	114.90
36	1	1367	G	N7-C8-N9	5.25	115.72	113.10
36	1	1881	A	OP2-P-O3'	5.25	116.74	105.20
36	1	2343	C	C6-N1-C1'	-5.25	114.50	120.80
36	1	2882	U	C5-C4-O4	5.25	129.05	125.90
36	5	347	G	OP1-P-O3'	5.25	116.74	105.20
36	5	928	C	OP1-P-O3'	5.25	116.74	105.20
36	5	1536	G	C5-C6-N1	-5.25	108.88	111.50
37	7	10	C	C6-N1-C2	5.25	122.40	120.30
1	2	350	U	C6-N1-C1'	5.24	128.54	121.20
36	1	24	G	N7-C8-N9	-5.24	110.48	113.10
36	1	58	G	OP1-P-OP2	-5.24	111.73	119.60
36	1	1939	G	N1-C2-N3	5.24	127.05	123.90
36	1	3263	G	N3-C2-N2	5.24	123.57	119.90
37	3	17	A	N1-C2-N3	5.24	131.92	129.30
1	6	62	A	N1-C6-N6	-5.24	115.45	118.60
1	6	533	U	C5-C6-N1	-5.24	120.08	122.70
1	6	555	A	C5-C6-N1	5.24	120.32	117.70
1	6	560	U	N3-C4-O4	5.24	123.07	119.40
1	6	1077	C	C6-N1-C2	5.24	122.40	120.30
1	6	1298	U	N1-C2-O2	5.24	126.47	122.80
1	6	1420	C	C4-C5-C6	5.24	120.02	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1512	G	N9-C4-C5	-5.24	103.30	105.40
36	5	590	G	C5-C6-O6	5.24	131.75	128.60
36	5	656	A	C4-C5-N7	5.24	113.32	110.70
36	5	918	C	C5-C4-N4	-5.24	116.53	120.20
36	5	1658	G	C4-C5-C6	5.24	121.95	118.80
36	5	2989	U	OP1-P-O3'	5.24	116.74	105.20
36	5	3196	U	C2-N1-C1'	-5.24	111.41	117.70
1	2	414	C	C5-C4-N4	-5.24	116.53	120.20
1	2	1071	U	N3-C4-C5	-5.24	111.45	114.60
36	1	809	G	OP1-P-O3'	5.24	116.73	105.20
36	1	2396	G	O5'-P-OP2	-5.24	100.98	105.70
1	6	797	G	N3-C4-N9	-5.24	122.86	126.00
1	6	1753	A	O5'-P-OP2	5.24	116.99	110.70
36	5	387	A	N1-C6-N6	-5.24	115.45	118.60
36	5	1290	A	N1-C6-N6	5.24	121.75	118.60
36	5	2186	U	N3-C4-C5	-5.24	111.45	114.60
36	5	2276	G	C5-C6-O6	5.24	131.75	128.60
36	5	3146	G	C8-N9-C4	5.24	108.50	106.40
1	2	696	C	N3-C2-O2	-5.24	118.23	121.90
1	2	1291	G	C4-C5-N7	5.24	112.90	110.80
1	2	1462	G	C8-N9-C1'	5.24	133.81	127.00
36	1	1456	A	N9-C4-C5	5.24	107.90	105.80
36	1	1543	G	N7-C8-N9	5.24	115.72	113.10
36	1	1566	A	C8-N9-C4	-5.24	103.70	105.80
37	3	15	C	C6-N1-C2	5.24	122.40	120.30
38	4	139	U	N3-C2-O2	-5.24	118.53	122.20
1	6	68	A	N7-C8-N9	5.24	116.42	113.80
1	6	555	A	C2-N3-C4	5.24	113.22	110.60
1	6	996	U	C6-N1-C2	-5.24	117.86	121.00
1	6	1445	G	N3-C4-N9	-5.24	122.86	126.00
36	5	396	A	C5-C6-N6	5.24	127.89	123.70
36	5	398	A	OP1-P-O3'	5.24	116.73	105.20
36	5	813	G	N3-C2-N2	-5.24	116.23	119.90
36	5	1715	A	O4'-C1'-N9	-5.24	104.01	108.20
36	5	2900	A	C6-C5-N7	-5.24	128.63	132.30
1	2	1101	G	N1-C6-O6	-5.24	116.76	119.90
1	2	1464	G	N7-C8-N9	5.24	115.72	113.10
36	1	577	C	C5-C6-N1	-5.24	118.38	121.00
36	1	966	U	N3-C4-O4	5.24	123.07	119.40
36	1	1400	G	C6-C5-N7	-5.24	127.26	130.40
36	1	1559	A	C4-C5-N7	5.24	113.32	110.70
36	1	1924	U	N3-C2-O2	-5.24	118.53	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2157	G	C4-C5-C6	5.24	121.94	118.80
37	3	79	A	C6-N1-C2	5.24	121.74	118.60
52	M6	149	TYR	N-CA-C	5.24	125.15	111.00
1	6	1035	G	C8-N9-C4	5.24	108.50	106.40
1	6	1041	G	N1-C2-N3	5.24	127.04	123.90
1	6	1794	A	OP1-P-O3'	5.24	116.73	105.20
36	5	373	A	C8-N9-C4	-5.24	103.70	105.80
36	5	990	U	O5'-P-OP1	5.24	116.99	110.70
36	5	1113	G	O5'-P-OP2	5.24	116.99	110.70
36	5	1598	G	N3-C4-N9	5.24	129.14	126.00
36	5	1927	G	N9-C4-C5	-5.24	103.30	105.40
36	5	1947	G	C5-C6-O6	-5.24	125.46	128.60
36	5	2793	G	N1-C2-N2	5.24	120.92	116.20
36	5	2943	G	O5'-P-OP2	-5.24	100.98	105.70
36	5	3369	G	N1-C2-N3	5.24	127.04	123.90
37	7	1	G	C5-N7-C8	-5.24	101.68	104.30
37	7	38	U	N3-C4-C5	5.24	117.74	114.60
51	m5	67	ARG	N-CA-C	5.24	125.15	111.00
1	2	73	U	OP1-P-O3'	5.24	116.72	105.20
36	1	495	G	N3-C2-N2	-5.24	116.23	119.90
36	1	3330	A	N3-C4-C5	-5.24	123.13	126.80
1	6	617	U	N3-C4-O4	5.24	123.07	119.40
1	6	1269	U	C2-N1-C1'	5.24	123.98	117.70
36	5	947	G	C4-C5-C6	5.24	121.94	118.80
36	5	996	A	O5'-P-OP1	5.24	116.98	110.70
36	5	1693	C	C6-N1-C2	5.24	122.39	120.30
36	5	1711	C	C6-N1-C2	5.24	122.39	120.30
36	5	2404	A	P-O3'-C3'	-5.24	113.42	119.70
36	5	2751	G	O5'-P-OP2	5.24	116.98	110.70
1	2	347	G	N7-C8-N9	5.24	115.72	113.10
1	2	403	G	N9-C4-C5	5.24	107.49	105.40
36	1	625	G	C4-C5-N7	-5.24	108.71	110.80
36	1	2335	G	O5'-P-OP1	-5.24	100.99	105.70
36	1	2600	C	C2-N1-C1'	5.24	124.56	118.80
36	1	2740	A	C5-N7-C8	-5.24	101.28	103.90
36	1	2922	G	OP2-P-O3'	-5.24	93.68	105.20
36	1	2987	A	N1-C6-N6	5.24	121.74	118.60
36	1	3117	C	N1-C2-O2	5.24	122.04	118.90
36	1	3250	U	N1-C2-O2	5.24	126.46	122.80
37	3	52	G	P-O3'-C3'	5.24	125.98	119.70
37	3	79	A	C5-N7-C8	-5.24	101.28	103.90
1	6	395	U	OP2-P-O3'	5.24	116.72	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1149	G	N3-C2-N2	-5.24	116.23	119.90
1	6	1604	U	C2-N3-C4	5.24	130.14	127.00
36	5	3325	G	N3-C2-N2	5.24	123.56	119.90
36	5	3343	G	N1-C2-N2	-5.24	111.49	116.20
37	7	7	G	N3-C2-N2	-5.24	116.23	119.90
1	2	571	G	N3-C4-C5	5.23	131.22	128.60
1	2	1127	G	N7-C8-N9	5.23	115.72	113.10
1	2	1643	U	C5-C6-N1	-5.23	120.08	122.70
36	1	1845	G	N3-C2-N2	-5.23	116.24	119.90
36	1	2860	U	C2-N3-C4	5.23	130.14	127.00
37	3	55	A	C8-N9-C4	-5.23	103.71	105.80
1	6	633	U	C5-C6-N1	-5.23	120.08	122.70
36	5	1466	G	C4-C5-N7	5.23	112.89	110.80
36	5	2291	A	P-O3'-C3'	-5.23	113.42	119.70
37	7	101	G	C4-C5-N7	5.23	112.89	110.80
1	2	62	A	N1-C6-N6	5.23	121.74	118.60
1	2	89	G	N3-C4-N9	-5.23	122.86	126.00
1	2	453	U	C6-N1-C2	-5.23	117.86	121.00
36	1	41	G	C4-C5-C6	-5.23	115.66	118.80
36	1	622	A	C6-N1-C2	5.23	121.74	118.60
36	1	1216	C	C6-N1-C2	-5.23	118.21	120.30
36	1	1430	U	C5-C4-O4	-5.23	122.76	125.90
36	1	1459	C	N1-C2-O2	5.23	122.04	118.90
36	1	2218	G	N9-C4-C5	-5.23	103.31	105.40
36	1	2312	A	C4-C5-C6	-5.23	114.38	117.00
36	1	2598	G	C4-C5-N7	5.23	112.89	110.80
36	1	2803	A	C4-C5-N7	-5.23	108.08	110.70
36	1	2969	A	N3-C4-C5	5.23	130.46	126.80
37	3	101	G	N3-C4-C5	5.23	131.22	128.60
38	4	148	G	C4-C5-N7	5.23	112.89	110.80
1	6	1409	G	O5'-P-OP2	5.23	116.98	110.70
36	5	533	A	C2-N3-C4	5.23	113.22	110.60
36	5	1407	A	N1-C6-N6	-5.23	115.46	118.60
36	5	3019	U	C6-N1-C2	-5.23	117.86	121.00
1	2	440	U	N3-C2-O2	5.23	125.86	122.20
1	2	555	A	N3-C4-C5	-5.23	123.14	126.80
1	2	1438	G	N1-C6-O6	5.23	123.04	119.90
36	1	45	A	C2-N3-C4	-5.23	107.98	110.60
36	1	2348	A	N1-C2-N3	5.23	131.91	129.30
36	1	2420	C	N3-C2-O2	-5.23	118.24	121.90
36	1	2979	U	O5'-P-OP2	-5.23	100.99	105.70
1	6	1403	C	C6-N1-C2	5.23	122.39	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	784	A	OP2-P-O3'	5.23	116.71	105.20
36	5	915	A	N3-C4-C5	-5.23	123.14	126.80
36	5	1518	U	N3-C4-C5	-5.23	111.46	114.60
36	5	1939	G	OP2-P-O3'	5.23	116.71	105.20
36	5	2230	C	C6-N1-C2	5.23	122.39	120.30
36	5	2411	U	O5'-P-OP1	5.23	116.98	110.70
36	5	2622	C	N3-C4-C5	-5.23	119.81	121.90
36	5	2678	A	OP2-P-O3'	5.23	116.71	105.20
36	5	3016	A	O5'-P-OP2	-5.23	100.99	105.70
36	5	3044	G	C8-N9-C4	-5.23	104.31	106.40
36	5	3083	G	C5-C6-O6	-5.23	125.46	128.60
1	6	768	C	N3-C2-O2	5.23	125.56	121.90
1	6	1753	A	C4-C5-N7	-5.23	108.08	110.70
36	5	297	G	C8-N9-C1'	-5.23	120.20	127.00
36	5	1127	G	C5-C6-O6	5.23	131.74	128.60
36	5	2280	A	O5'-P-OP2	-5.23	100.99	105.70
36	5	3387	U	N3-C4-O4	5.23	123.06	119.40
1	2	849	C	N3-C4-C5	-5.23	119.81	121.90
36	1	207	U	C2-N3-C4	5.23	130.14	127.00
36	1	1606	U	O5'-P-OP1	-5.23	101.00	105.70
36	1	1775	G	C5-C6-N1	-5.23	108.89	111.50
36	1	2391	G	C2-N3-C4	-5.23	109.29	111.90
37	3	117	A	N1-C6-N6	5.23	121.74	118.60
38	4	113	U	C4-C5-C6	5.23	122.84	119.70
1	6	1750	A	C5-C6-N1	-5.23	115.09	117.70
36	5	89	A	C5-C6-N6	5.23	127.88	123.70
36	5	962	A	N1-C2-N3	5.23	131.91	129.30
36	5	1220	U	N3-C4-C5	5.23	117.74	114.60
36	5	3171	U	C2-N3-C4	-5.23	123.86	127.00
36	5	3247	G	N3-C4-N9	5.23	129.14	126.00
39	12	9	ARG	NE-CZ-NH2	-5.23	117.69	120.30
1	2	570	A	N1-C6-N6	5.23	121.74	118.60
36	1	402	A	C5-N7-C8	-5.23	101.29	103.90
36	1	425	G	C5-C6-N1	5.23	114.11	111.50
36	1	1728	G	C6-C5-N7	-5.23	127.27	130.40
36	1	2629	U	C6-N1-C2	-5.23	117.86	121.00
36	1	3079	U	O5'-P-OP2	5.23	116.97	110.70
38	4	90	U	O4'-C1'-N1	-5.23	104.02	108.20
36	5	101	G	OP2-P-O3'	5.23	116.70	105.20
36	5	596	C	O5'-P-OP1	-5.23	101.00	105.70
36	5	641	C	OP1-P-O3'	5.23	116.70	105.20
36	5	1217	A	O5'-P-OP2	-5.23	101.00	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2254	U	C6-N1-C2	5.23	124.14	121.00
1	2	830	U	C2-N1-C1'	5.22	123.97	117.70
1	2	1134	C	C4-C5-C6	5.22	120.01	117.40
36	1	342	A	OP1-P-O3'	5.22	116.69	105.20
36	1	2651	G	C8-N9-C1'	-5.22	120.21	127.00
36	1	2908	G	C6-C5-N7	-5.22	127.27	130.40
36	1	3106	A	C5-C6-N6	5.22	127.88	123.70
36	1	3308	C	N1-C2-N3	5.22	122.86	119.20
42	L5	21	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	6	312	A	N9-C4-C5	5.22	107.89	105.80
1	6	453	U	C6-N1-C2	-5.22	117.86	121.00
1	6	625	C	OP2-P-O3'	5.22	116.69	105.20
1	6	1280	C	N1-C2-O2	-5.22	115.77	118.90
1	6	1523	G	C6-C5-N7	-5.22	127.27	130.40
25	d3	57	LEU	CA-CB-CG	-5.22	103.28	115.30
36	5	880	G	N9-C4-C5	5.22	107.49	105.40
36	5	1530	U	N3-C4-O4	5.22	123.06	119.40
36	5	1942	U	C6-N1-C2	-5.22	117.86	121.00
36	5	2248	C	C5-C6-N1	-5.22	118.39	121.00
36	5	2661	G	N3-C2-N2	5.22	123.56	119.90
36	5	2922	G	N1-C2-N3	5.22	127.03	123.90
36	5	3391	A	C5-C6-N1	-5.22	115.09	117.70
59	n3	17	LEU	CA-CB-CG	-5.22	103.29	115.30
36	1	2145	A	C4-C5-N7	5.22	113.31	110.70
36	1	2378	C	C5-C4-N4	-5.22	116.54	120.20
1	6	452	A	N7-C8-N9	-5.22	111.19	113.80
36	5	649	A	N3-C4-N9	5.22	131.58	127.40
36	5	2280	A	C6-C5-N7	-5.22	128.65	132.30
36	5	3026	G	N1-C2-N3	5.22	127.03	123.90
36	5	3290	G	N7-C8-N9	5.22	115.71	113.10
37	7	98	C	C4-C5-C6	5.22	120.01	117.40
1	2	468	A	N7-C8-N9	-5.22	111.19	113.80
36	1	368	G	N1-C2-N2	-5.22	111.50	116.20
36	1	1317	A	C8-N9-C4	-5.22	103.71	105.80
36	1	1578	C	C6-N1-C1'	-5.22	114.53	120.80
36	1	2648	G	C5-C6-O6	-5.22	125.47	128.60
36	1	2828	G	C8-N9-C4	-5.22	104.31	106.40
1	6	393	C	N3-C4-N4	-5.22	114.34	118.00
1	6	1469	A	C5-C6-N1	5.22	120.31	117.70
36	5	1401	A	C5-C6-N1	5.22	120.31	117.70
36	5	2200	U	N3-C2-O2	-5.22	118.55	122.20
1	2	810	G	N7-C8-N9	5.22	115.71	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1241	G	C4-C5-N7	5.22	112.89	110.80
36	1	1171	G	C6-C5-N7	5.22	133.53	130.40
36	1	2912	G	O5'-P-OP1	-5.22	101.00	105.70
36	1	2980	U	C6-N1-C2	-5.22	117.87	121.00
36	1	3080	G	C5-C6-N1	5.22	114.11	111.50
38	4	60	U	C2-N1-C1'	-5.22	111.44	117.70
1	6	11	A	C8-N9-C4	5.22	107.89	105.80
1	6	969	C	C2-N1-C1'	5.22	124.54	118.80
1	6	1413	U	OP2-P-O3'	5.22	116.68	105.20
1	6	1489	U	N3-C4-O4	-5.22	115.75	119.40
1	6	1764	C	C2-N3-C4	-5.22	117.29	119.90
36	5	162	G	C5-C6-N1	5.22	114.11	111.50
36	5	1046	A	C5-C6-N6	5.22	127.88	123.70
36	5	1159	A	N3-C4-C5	5.22	130.45	126.80
36	5	2802	A	O4'-C1'-N9	5.22	112.38	108.20
37	7	53	U	C4-C5-C6	5.22	122.83	119.70
37	7	68	C	C5-C4-N4	5.22	123.85	120.20
36	1	1488	G	N7-C8-N9	5.22	115.71	113.10
36	1	2194	G	OP2-P-O3'	5.22	116.68	105.20
36	1	2198	A	C5-C6-N6	5.22	127.87	123.70
36	1	2326	A	N3-C4-C5	5.22	130.45	126.80
36	1	2522	G	C4-N9-C1'	5.22	133.28	126.50
36	1	2699	G	C5-C6-O6	-5.22	125.47	128.60
36	1	2753	G	C2-N3-C4	5.22	114.51	111.90
37	3	90	U	OP2-P-O3'	5.22	116.68	105.20
36	5	390	G	OP2-P-O3'	5.22	116.68	105.20
36	5	1193	A	OP2-P-O3'	5.22	116.68	105.20
36	5	1222	G	N3-C4-C5	-5.22	125.99	128.60
67	o1	64	VAL	CB-CA-C	-5.22	101.49	111.40
1	2	352	A	O4'-C1'-N9	-5.22	104.03	108.20
1	2	397	A	C8-N9-C4	5.22	107.89	105.80
1	2	1764	C	C6-N1-C2	5.22	122.39	120.30
36	1	315	C	C2-N3-C4	5.22	122.51	119.90
36	1	1155	C	C6-N1-C2	5.22	122.39	120.30
36	1	2283	G	N3-C2-N2	-5.22	116.25	119.90
36	1	2678	A	C6-N1-C2	-5.22	115.47	118.60
36	1	2716	U	OP2-P-O3'	5.22	116.68	105.20
37	3	63	A	C8-N9-C4	5.22	107.89	105.80
38	4	145	U	C6-N1-C2	5.22	124.13	121.00
1	6	6	G	C6-C5-N7	-5.22	127.27	130.40
1	6	144	U	C6-N1-C2	-5.22	117.87	121.00
1	6	144	U	O4'-C1'-N1	5.22	112.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	538	A	N1-C6-N6	5.22	121.73	118.60
1	6	1247	U	N1-C2-O2	5.22	126.45	122.80
1	6	1522	U	OP1-P-OP2	5.22	127.42	119.60
1	6	1700	C	P-O3'-C3'	5.22	125.96	119.70
36	5	810	A	C6-C5-N7	-5.22	128.65	132.30
36	5	1329	U	OP1-P-O3'	5.22	116.68	105.20
36	5	1520	G	C2-N3-C4	5.22	114.51	111.90
36	5	1931	U	C6-N1-C2	5.22	124.13	121.00
36	5	2674	A	C6-C5-N7	5.22	135.95	132.30
36	5	2703	A	C8-N9-C1'	-5.22	118.31	127.70
36	5	2705	A	N9-C4-C5	5.22	107.89	105.80
36	5	2768	U	C2-N3-C4	-5.22	123.87	127.00
36	5	3006	A	C6-N1-C2	-5.22	115.47	118.60
36	5	3227	A	C5-N7-C8	-5.22	101.29	103.90
37	7	102	A	C4-C5-C6	-5.22	114.39	117.00
38	8	38	U	C2-N1-C1'	5.22	123.96	117.70
1	2	546	U	OP2-P-O3'	5.21	116.67	105.20
1	2	1596	C	C6-N1-C1'	-5.21	114.54	120.80
36	1	85	A	N3-C4-N9	-5.21	123.23	127.40
36	1	331	G	O4'-C1'-N9	-5.21	104.03	108.20
36	1	1065	A	C2-N3-C4	-5.21	107.99	110.60
36	1	1233	G	C8-N9-C4	-5.21	104.31	106.40
36	1	2368	A	C5-N7-C8	-5.21	101.29	103.90
36	1	2424	A	N3-C4-N9	-5.21	123.23	127.40
36	1	2713	U	C6-N1-C1'	-5.21	113.90	121.20
36	1	3221	C	O5'-P-OP1	-5.21	101.01	105.70
41	L4	327	LEU	CA-CB-CG	5.21	127.29	115.30
1	6	109	G	C8-N9-C4	5.21	108.49	106.40
1	6	347	G	C5-C6-O6	-5.21	125.47	128.60
1	6	1004	U	C2-N3-C4	-5.21	123.87	127.00
1	6	1431	C	N1-C2-O2	5.21	122.03	118.90
36	5	642	U	C2-N1-C1'	-5.21	111.44	117.70
36	5	858	A	C5-C6-N1	5.21	120.31	117.70
36	5	1007	U	O5'-P-OP2	5.21	116.96	110.70
36	5	1125	U	O5'-P-OP1	-5.21	101.01	105.70
36	5	2944	U	C2-N3-C4	-5.21	123.87	127.00
1	2	1114	G	C2-N3-C4	5.21	114.51	111.90
1	2	1789	G	C5-C6-O6	-5.21	125.47	128.60
36	5	647	A	C2-N3-C4	-5.21	107.99	110.60
36	5	2815	G	N1-C6-O6	5.21	123.03	119.90
37	7	97	A	N1-C6-N6	5.21	121.73	118.60
1	2	162	A	C8-N9-C4	-5.21	103.72	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1594	G	N7-C8-N9	5.21	115.70	113.10
36	1	504	A	N1-C2-N3	5.21	131.91	129.30
36	1	742	G	C8-N9-C4	-5.21	104.31	106.40
36	1	1307	G	N3-C2-N2	-5.21	116.25	119.90
36	1	1355	A	C6-N1-C2	5.21	121.73	118.60
36	1	2650	U	N3-C2-O2	-5.21	118.55	122.20
36	1	2750	U	N3-C2-O2	-5.21	118.55	122.20
36	1	2957	G	C8-N9-C4	-5.21	104.31	106.40
1	6	128	U	O4'-C1'-N1	5.21	112.37	108.20
1	6	179	A	C4-C5-C6	5.21	119.61	117.00
1	6	247	A	C2-N3-C4	-5.21	107.99	110.60
1	6	473	A	C5-N7-C8	5.21	106.51	103.90
1	6	639	U	C4-C5-C6	-5.21	116.57	119.70
1	6	972	G	N1-C2-N3	5.21	127.03	123.90
1	6	1134	C	C4-C5-C6	5.21	120.01	117.40
3	s1	233	GLY	N-CA-C	5.21	126.13	113.10
36	5	1176	C	N3-C4-C5	5.21	123.98	121.90
36	5	3124	G	N1-C6-O6	5.21	123.03	119.90
38	8	48	A	C4-C5-C6	-5.21	114.39	117.00
36	1	645	A	N1-C2-N3	5.21	131.91	129.30
36	1	697	A	N9-C1'-C2'	-5.21	106.27	112.00
36	1	1316	C	OP1-P-OP2	5.21	127.42	119.60
36	1	2137	U	C4-C5-C6	5.21	122.83	119.70
36	1	2183	A	C6-N1-C2	-5.21	115.47	118.60
36	1	2407	C	N3-C4-C5	-5.21	119.82	121.90
1	6	1139	A	N7-C8-N9	5.21	116.41	113.80
1	6	1366	U	C6-N1-C2	5.21	124.13	121.00
36	5	2322	C	N3-C2-O2	-5.21	118.25	121.90
37	7	21	G	N3-C4-N9	-5.21	122.87	126.00
1	2	98	U	N3-C4-O4	5.21	123.05	119.40
1	2	536	C	C2-N1-C1'	5.21	124.53	118.80
1	2	949	C	C5-C6-N1	5.21	123.60	121.00
1	2	1773	C	N3-C4-N4	5.21	121.65	118.00
36	1	276	U	N1-C2-O2	-5.21	119.15	122.80
36	1	652	G	C4-C5-N7	-5.21	108.72	110.80
36	1	979	U	C6-N1-C1'	5.21	128.49	121.20
36	1	1175	C	OP1-P-OP2	5.21	127.41	119.60
36	1	1787	A	C8-N9-C4	5.21	107.88	105.80
36	1	2407	C	C4-C5-C6	5.21	120.00	117.40
38	4	55	U	OP2-P-O3'	5.21	116.66	105.20
38	4	103	G	C6-C5-N7	-5.21	127.27	130.40
56	N0	144	LEU	CA-CB-CG	-5.21	103.32	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	751	G	C4-N9-C1'	-5.21	119.73	126.50
1	6	1276	U	OP1-P-OP2	-5.21	111.79	119.60
1	6	1475	A	C2-N3-C4	-5.21	108.00	110.60
1	6	1556	A	C2-N3-C4	-5.21	108.00	110.60
36	5	514	G	O4'-C1'-N9	5.21	112.37	108.20
36	5	3218	A	C2-N3-C4	-5.21	108.00	110.60
1	2	333	A	C6-N1-C2	-5.21	115.48	118.60
1	2	777	C	N1-C2-O2	5.21	122.02	118.90
36	1	330	G	N3-C4-C5	-5.21	126.00	128.60
36	1	402	A	C5-C6-N1	5.21	120.30	117.70
36	1	1525	G	C6-N1-C2	-5.21	121.98	125.10
36	1	1760	A	N1-C6-N6	-5.21	115.48	118.60
36	1	2243	A	C6-N1-C2	-5.21	115.48	118.60
36	1	2647	A	N3-C4-N9	5.21	131.56	127.40
36	1	2871	G	N9-C4-C5	-5.21	103.32	105.40
36	1	2941	A	N1-C6-N6	5.21	121.72	118.60
36	1	2946	A	C6-N1-C2	-5.21	115.48	118.60
36	1	2985	C	C2-N1-C1'	-5.21	113.07	118.80
36	1	3127	A	N9-C4-C5	5.21	107.88	105.80
38	4	2	A	C2-N3-C4	-5.21	108.00	110.60
1	6	799	A	N1-C2-N3	5.21	131.90	129.30
1	6	905	A	C4-C5-N7	-5.21	108.10	110.70
1	6	1116	A	C8-N9-C4	-5.21	103.72	105.80
1	6	1501	C	OP2-P-O3'	5.21	116.65	105.20
36	5	277	G	N1-C2-N3	5.21	127.02	123.90
36	5	514	G	O5'-P-OP2	-5.21	101.01	105.70
36	5	519	A	C6-N1-C2	-5.21	115.48	118.60
36	5	531	G	N1-C2-N3	5.21	127.02	123.90
36	5	2116	G	N9-C4-C5	5.21	107.48	105.40
36	5	2137	U	O5'-P-OP2	5.21	116.95	110.70
36	5	2522	G	C8-N9-C4	5.21	108.48	106.40
36	5	2978	U	O4'-C1'-N1	5.21	112.36	108.20
36	5	3039	C	N3-C4-C5	-5.21	119.82	121.90
48	m1	166	LYS	N-CA-C	-5.21	96.94	111.00
1	2	1027	A	N1-C6-N6	-5.21	115.48	118.60
1	2	1757	G	C5-C6-N1	5.21	114.10	111.50
36	1	1329	U	N1-C2-N3	5.21	118.02	114.90
36	1	3085	G	C5-C6-N1	5.21	114.10	111.50
36	1	3390	G	N3-C4-N9	5.21	129.12	126.00
1	6	980	G	C6-C5-N7	-5.21	127.28	130.40
36	5	41	G	N1-C6-O6	-5.21	116.78	119.90
36	5	1019	G	N3-C4-C5	5.21	131.20	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1692	U	N3-C4-C5	5.21	117.72	114.60
36	5	1870	C	N3-C4-C5	-5.21	119.82	121.90
1	2	1022	C	N3-C2-O2	-5.20	118.26	121.90
1	2	1610	G	C6-C5-N7	-5.20	127.28	130.40
36	1	305	U	C5-C4-O4	5.20	129.02	125.90
36	1	495	G	C8-N9-C1'	5.20	133.76	127.00
36	1	894	G	N3-C4-C5	-5.20	126.00	128.60
36	1	2191	U	N1-C2-O2	5.20	126.44	122.80
36	1	2875	U	C4-C5-C6	5.20	122.82	119.70
36	1	3173	G	C8-N9-C1'	-5.20	120.24	127.00
36	1	3372	A	N1-C6-N6	-5.20	115.48	118.60
38	4	53	A	C4-C5-C6	5.20	119.60	117.00
1	6	12	U	C5-C4-O4	-5.20	122.78	125.90
1	6	1372	U	N1-C2-N3	5.20	118.02	114.90
36	5	421	G	C4-C5-C6	5.20	121.92	118.80
36	5	913	A	C5-N7-C8	5.20	106.50	103.90
36	5	1489	A	C6-C5-N7	-5.20	128.66	132.30
36	5	1508	C	C4-C5-C6	5.20	120.00	117.40
36	5	1517	G	N1-C2-N3	5.20	127.02	123.90
36	5	2147	A	N1-C6-N6	5.20	121.72	118.60
36	5	2433	U	N3-C2-O2	-5.20	118.56	122.20
36	5	2702	A	OP1-P-O3'	5.20	116.65	105.20
36	5	2767	U	N3-C2-O2	-5.20	118.56	122.20
56	n0	170	THR	C-N-CA	-5.20	108.69	121.70
1	2	435	C	C6-N1-C2	5.20	122.38	120.30
36	1	2971	A	N7-C8-N9	5.20	116.40	113.80
38	4	18	U	C5-C6-N1	5.20	125.30	122.70
1	6	176	C	C2-N3-C4	5.20	122.50	119.90
1	6	1638	G	O5'-P-OP2	-5.20	101.02	105.70
36	5	62	A	C4-C5-N7	5.20	113.30	110.70
36	5	974	G	N1-C6-O6	5.20	123.02	119.90
36	5	995	U	C6-N1-C2	5.20	124.12	121.00
36	5	1520	G	C5-C6-O6	-5.20	125.48	128.60
36	5	1836	C	OP2-P-O3'	5.20	116.64	105.20
36	5	2178	A	C6-N1-C2	-5.20	115.48	118.60
36	5	2713	U	N3-C4-C5	-5.20	111.48	114.60
1	2	465	G	C8-N9-C4	-5.20	104.32	106.40
1	2	625	C	C2-N3-C4	5.20	122.50	119.90
1	2	897	C	C2-N1-C1'	5.20	124.52	118.80
1	2	1092	A	O4'-C1'-N9	5.20	112.36	108.20
36	1	113	C	O5'-P-OP1	-5.20	101.02	105.70
36	1	1005	G	N3-C4-N9	-5.20	122.88	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1401	A	N1-C6-N6	5.20	121.72	118.60
36	1	2396	G	OP1-P-O3'	5.20	116.64	105.20
36	1	2893	C	N3-C4-N4	-5.20	114.36	118.00
36	1	3039	C	OP2-P-O3'	5.20	116.64	105.20
36	1	3075	G	C5-C6-O6	-5.20	125.48	128.60
36	1	3142	A	N1-C2-N3	5.20	131.90	129.30
36	1	3262	U	OP1-P-OP2	-5.20	111.80	119.60
1	6	1588	G	C4-C5-N7	-5.20	108.72	110.80
1	6	1758	U	C6-N1-C2	-5.20	117.88	121.00
4	s2	233	GLN	C-N-CA	-5.20	100.16	122.00
36	5	52	A	C5-C6-N6	5.20	127.86	123.70
36	5	209	A	N9-C4-C5	-5.20	103.72	105.80
36	5	514	G	N1-C2-N3	5.20	127.02	123.90
36	5	534	U	N1-C2-O2	5.20	126.44	122.80
36	5	1331	U	C4-C5-C6	5.20	122.82	119.70
36	5	1907	C	C6-N1-C1'	5.20	127.04	120.80
36	5	2125	A	O4'-C1'-N9	-5.20	104.04	108.20
36	5	2262	A	O5'-P-OP2	-5.20	101.02	105.70
36	5	2549	G	C8-N9-C1'	-5.20	120.24	127.00
36	5	2607	G	C8-N9-C1'	-5.20	120.24	127.00
36	5	2857	C	N3-C4-N4	-5.20	114.36	118.00
65	n9	20	GLY	N-CA-C	5.20	126.10	113.10
1	2	1215	C	N3-C4-N4	-5.20	114.36	118.00
36	1	891	G	C8-N9-C1'	5.20	133.76	127.00
36	1	1480	G	N3-C4-C5	5.20	131.20	128.60
36	1	1761	C	N3-C4-C5	5.20	123.98	121.90
36	1	2287	C	C6-N1-C1'	-5.20	114.56	120.80
36	1	2362	C	N3-C2-O2	-5.20	118.26	121.90
36	1	2700	G	C8-N9-C1'	-5.20	120.24	127.00
36	1	2703	A	C8-N9-C1'	-5.20	118.34	127.70
36	1	2757	U	N1-C2-N3	5.20	118.02	114.90
36	1	2800	G	C4-C5-N7	5.20	112.88	110.80
36	1	3040	A	N1-C2-N3	5.20	131.90	129.30
1	6	611	U	N1-C2-O2	5.20	126.44	122.80
36	5	1084	A	C5-C6-N6	-5.20	119.54	123.70
36	5	1944	U	C5-C6-N1	5.20	125.30	122.70
36	5	2646	C	C2-N3-C4	-5.20	117.30	119.90
36	5	2845	A	C8-N9-C4	-5.20	103.72	105.80
36	5	3126	C	C6-N1-C2	5.20	122.38	120.30
37	7	68	C	C2-N3-C4	-5.20	117.30	119.90
47	m0	204	GLY	N-CA-C	5.20	126.10	113.10
64	n8	46	ASP	CB-CG-OD1	5.20	122.98	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	318	A	N3-C4-C5	5.20	130.44	126.80
79	Q3	49	ARG	NE-CZ-NH2	-5.20	117.70	120.30
1	6	624	G	N1-C2-N3	-5.20	120.78	123.90
36	5	73	C	C5-C6-N1	-5.20	118.40	121.00
36	5	1839	A	OP1-P-O3'	5.20	116.63	105.20
36	5	2361	A	P-O3'-C3'	5.20	125.94	119.70
36	5	2938	G	C5-N7-C8	-5.20	101.70	104.30
36	5	2982	A	N1-C2-N3	-5.20	126.70	129.30
36	1	1155	C	C5-C6-N1	-5.20	118.40	121.00
36	1	1164	G	C5-C6-O6	-5.20	125.48	128.60
36	1	2817	A	C5-N7-C8	5.20	106.50	103.90
1	6	13	C	C6-N1-C2	-5.20	118.22	120.30
1	6	233	C	C5-C6-N1	5.20	123.60	121.00
1	6	1383	G	N3-C4-N9	5.20	129.12	126.00
1	6	1582	U	C6-N1-C1'	-5.20	113.92	121.20
1	6	1745	G	C6-C5-N7	-5.20	127.28	130.40
36	5	794	U	N3-C4-C5	-5.20	111.48	114.60
36	5	1506	A	N9-C4-C5	5.20	107.88	105.80
36	5	1554	U	C2-N1-C1'	5.20	123.94	117.70
36	5	2166	A	N9-C4-C5	-5.20	103.72	105.80
36	5	2940	A	N3-C4-C5	-5.20	123.16	126.80
36	5	2952	G	OP1-P-O3'	-5.20	93.77	105.20
36	5	3319	U	C6-N1-C2	-5.20	117.88	121.00
1	2	1082	C	N3-C2-O2	-5.19	118.26	121.90
36	1	2925	C	N1-C2-O2	-5.19	115.78	118.90
1	6	341	A	C5-C6-N1	5.19	120.30	117.70
1	6	1582	U	C5-C4-O4	-5.19	122.78	125.90
1	6	1715	G	C4-C5-N7	5.19	112.88	110.80
36	5	1854	C	N3-C4-C5	-5.19	119.82	121.90
36	5	3129	A	N7-C8-N9	5.19	116.40	113.80
1	2	381	C	O5'-P-OP1	-5.19	101.03	105.70
1	2	1192	C	C2-N1-C1'	-5.19	113.09	118.80
1	2	1658	G	C4-C5-N7	5.19	112.88	110.80
36	1	43	A	N9-C4-C5	5.19	107.88	105.80
36	1	100	A	C6-C5-N7	-5.19	128.66	132.30
36	1	107	A	N7-C8-N9	5.19	116.40	113.80
36	1	363	G	C6-N1-C2	-5.19	121.98	125.10
36	1	1116	G	O5'-P-OP1	-5.19	101.03	105.70
36	1	1555	U	N3-C2-O2	5.19	125.83	122.20
36	1	1878	G	N1-C2-N2	5.19	120.87	116.20
36	1	2352	A	N3-C4-N9	5.19	131.55	127.40
36	1	2970	C	OP1-P-OP2	5.19	127.39	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3318	G	C8-N9-C4	-5.19	104.32	106.40
1	6	752	A	C2-N3-C4	-5.19	108.00	110.60
1	6	860	U	C4-C5-C6	5.19	122.81	119.70
1	6	883	C	C5-C6-N1	5.19	123.60	121.00
1	6	1484	G	N3-C4-C5	-5.19	126.00	128.60
1	6	1523	G	C8-N9-C1'	-5.19	120.25	127.00
1	6	1547	A	C4-C5-C6	-5.19	114.40	117.00
36	5	362	U	N3-C2-O2	-5.19	118.57	122.20
36	5	428	A	C6-C5-N7	-5.19	128.66	132.30
36	5	657	A	OP2-P-O3'	5.19	116.62	105.20
36	5	1142	G	C6-C5-N7	-5.19	127.28	130.40
36	5	1158	A	N1-C6-N6	-5.19	115.48	118.60
36	5	1192	C	N3-C4-N4	5.19	121.64	118.00
36	5	1820	U	C6-N1-C2	-5.19	117.88	121.00
36	5	1904	C	C2-N3-C4	-5.19	117.30	119.90
36	5	2189	U	N1-C2-N3	-5.19	111.78	114.90
36	5	2793	G	C4-N9-C1'	-5.19	119.75	126.50
36	5	3172	A	C4-C5-N7	5.19	113.30	110.70
36	1	411	U	N3-C2-O2	5.19	125.83	122.20
36	1	1099	A	N9-C4-C5	-5.19	103.72	105.80
36	1	1186	G	N1-C6-O6	-5.19	116.78	119.90
36	1	1736	G	C4-C5-N7	5.19	112.88	110.80
36	1	2957	G	C4-C5-C6	-5.19	115.69	118.80
36	1	3034	C	O5'-P-OP1	5.19	116.93	110.70
37	3	40	C	C5-C4-N4	-5.19	116.57	120.20
40	L3	25	ILE	CB-CA-C	-5.19	101.22	111.60
51	M5	12	ARG	NE-CZ-NH1	-5.19	117.70	120.30
57	N1	83	ARG	NE-CZ-NH2	-5.19	117.70	120.30
1	6	559	C	OP1-P-OP2	-5.19	111.81	119.60
1	6	1027	A	C4-C5-N7	-5.19	108.10	110.70
1	6	1673	G	C4-C5-C6	-5.19	115.69	118.80
36	5	872	U	O5'-P-OP1	5.19	116.93	110.70
36	5	1115	G	C8-N9-C4	5.19	108.48	106.40
36	5	1719	G	C5-C6-O6	-5.19	125.49	128.60
36	5	2210	G	C8-N9-C4	-5.19	104.32	106.40
36	5	2337	C	O5'-P-OP2	-5.19	101.03	105.70
36	5	2697	A	N9-C4-C5	-5.19	103.72	105.80
38	8	26	U	N3-C2-O2	-5.19	118.57	122.20
1	2	1205	C	C6-N1-C2	5.19	122.38	120.30
36	1	1097	G	N1-C6-O6	5.19	123.01	119.90
36	1	2244	A	C5-C6-N1	5.19	120.30	117.70
36	1	2610	G	C5-C6-O6	-5.19	125.49	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3174	A	O4'-C1'-N9	5.19	112.35	108.20
37	3	52	G	O5'-P-OP2	-5.19	101.03	105.70
1	6	811	A	N3-C4-C5	-5.19	123.17	126.80
36	5	338	A	N9-C4-C5	5.19	107.88	105.80
36	5	1777	U	O5'-P-OP2	5.19	116.93	110.70
36	5	1790	G	C8-N9-C1'	-5.19	120.25	127.00
36	5	2628	A	N1-C2-N3	5.19	131.90	129.30
36	5	3137	C	O5'-P-OP2	-5.19	101.03	105.70
1	2	1297	G	C8-N9-C4	5.19	108.47	106.40
1	2	1462	G	C4-C5-C6	-5.19	115.69	118.80
36	1	316	U	N3-C2-O2	-5.19	118.57	122.20
36	1	585	A	C5-N7-C8	5.19	106.49	103.90
36	1	1172	G	OP2-P-O3'	-5.19	93.79	105.20
36	1	2932	U	C2-N3-C4	-5.19	123.89	127.00
36	1	3169	U	P-O3'-C3'	5.19	125.92	119.70
1	6	3	U	N1-C2-O2	5.19	126.43	122.80
1	6	331	A	N3-C4-C5	-5.19	123.17	126.80
1	6	556	A	C2-N3-C4	-5.19	108.01	110.60
36	5	537	A	N1-C6-N6	5.19	121.71	118.60
36	5	1121	U	N3-C4-C5	5.19	117.71	114.60
36	5	2877	G	C6-N1-C2	-5.19	121.99	125.10
36	5	2967	A	N9-C4-C5	5.19	107.88	105.80
37	7	116	C	C5-C4-N4	-5.19	116.57	120.20
36	1	13	A	C6-C5-N7	-5.19	128.67	132.30
36	1	773	G	C8-N9-C4	-5.19	104.33	106.40
36	1	792	G	N9-C4-C5	5.19	107.47	105.40
36	1	2243	A	C4-N9-C1'	5.19	135.63	126.30
36	1	2917	G	C8-N9-C4	5.19	108.47	106.40
36	1	3119	U	N3-C4-C5	-5.19	111.49	114.60
1	6	565	C	N3-C2-O2	-5.19	118.27	121.90
36	5	1320	C	C4-C5-C6	5.19	119.99	117.40
36	5	3028	G	N9-C4-C5	-5.19	103.33	105.40
36	5	3366	G	N7-C8-N9	5.19	115.69	113.10
1	2	1771	U	C5-C6-N1	-5.18	120.11	122.70
1	2	1776	A	OP1-P-O3'	5.18	116.61	105.20
11	S9	109	LEU	CA-CB-CG	5.18	127.22	115.30
36	1	207	U	C4-C5-C6	-5.18	116.59	119.70
36	1	335	G	O4'-C1'-N9	5.18	112.35	108.20
36	1	637	C	N3-C4-N4	-5.18	114.37	118.00
36	1	686	G	C8-N9-C1'	5.18	133.74	127.00
36	1	1717	U	C5-C6-N1	-5.18	120.11	122.70
36	1	2116	G	C4-C5-N7	-5.18	108.73	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	M5	113	LEU	CA-CB-CG	5.18	127.23	115.30
1	6	1093	A	C2-N3-C4	5.18	113.19	110.60
36	5	519	A	N1-C2-N3	5.18	131.89	129.30
36	5	631	U	OP2-P-O3'	5.18	116.61	105.20
36	5	876	A	OP1-P-O3'	-5.18	93.79	105.20
36	5	1535	A	C6-C5-N7	5.18	135.93	132.30
36	5	1827	C	C6-N1-C2	-5.18	118.23	120.30
36	5	2224	A	C5-C6-N1	5.18	120.29	117.70
36	5	2283	G	C4-C5-C6	-5.18	115.69	118.80
36	5	2614	G	N3-C2-N2	5.18	123.53	119.90
36	5	2696	A	N9-C4-C5	5.18	107.87	105.80
36	5	2784	G	C5-C6-O6	-5.18	125.49	128.60
36	5	2841	G	N9-C4-C5	5.18	107.47	105.40
36	5	3145	C	C4-C5-C6	5.18	119.99	117.40
37	7	58	C	C5-C6-N1	5.18	123.59	121.00
38	8	156	U	C5-C6-N1	5.18	125.29	122.70
52	m6	170	LYS	CD-CE-NZ	5.18	123.62	111.70
1	2	994	G	C8-N9-C4	5.18	108.47	106.40
1	2	1210	C	N3-C2-O2	5.18	125.53	121.90
1	2	1455	G	C4-C5-N7	-5.18	108.73	110.80
36	1	318	A	C4-C5-N7	5.18	113.29	110.70
36	1	624	G	N1-C2-N3	5.18	127.01	123.90
36	1	837	A	C2-N3-C4	-5.18	108.01	110.60
36	1	1057	A	C6-C5-N7	-5.18	128.67	132.30
36	1	2332	A	O5'-P-OP2	-5.18	101.03	105.70
36	1	2396	G	OP1-P-OP2	5.18	127.37	119.60
36	1	2751	G	C4-N9-C1'	-5.18	119.76	126.50
36	1	3320	A	C2-N3-C4	-5.18	108.01	110.60
38	4	36	G	C5-C6-O6	-5.18	125.49	128.60
1	6	1010	C	N1-C2-O2	-5.18	115.79	118.90
1	6	1442	U	C6-N1-C2	-5.18	117.89	121.00
36	5	373	A	N1-C2-N3	5.18	131.89	129.30
36	5	408	A	N9-C4-C5	5.18	107.87	105.80
36	5	893	C	N3-C4-N4	5.18	121.63	118.00
36	5	1063	G	N3-C4-N9	-5.18	122.89	126.00
36	5	1093	A	N1-C2-N3	5.18	131.89	129.30
36	5	1223	A	O5'-P-OP1	-5.18	101.04	105.70
36	5	1592	G	OP2-P-O3'	5.18	116.60	105.20
36	5	2329	C	N3-C4-N4	5.18	121.63	118.00
36	5	2741	C	N1-C2-O2	5.18	122.01	118.90
1	2	1191	U	C6-N1-C2	-5.18	117.89	121.00
1	2	1458	G	C8-N9-C1'	-5.18	120.27	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	308	A	N1-C6-N6	-5.18	115.49	118.60
36	1	1379	G	P-O3'-C3'	-5.18	113.48	119.70
36	1	1475	A	N9-C4-C5	-5.18	103.73	105.80
36	1	2321	A	OP1-P-OP2	-5.18	111.83	119.60
36	1	2720	G	N9-C4-C5	-5.18	103.33	105.40
37	3	93	C	N3-C2-O2	-5.18	118.27	121.90
38	4	141	C	C2-N1-C1'	5.18	124.50	118.80
1	6	64	U	N1-C2-O2	5.18	126.43	122.80
1	6	617	U	OP2-P-O3'	5.18	116.60	105.20
36	5	816	A	N7-C8-N9	-5.18	111.21	113.80
36	5	1347	U	N3-C4-C5	-5.18	111.49	114.60
36	5	3248	C	N3-C4-C5	-5.18	119.83	121.90
38	8	79	A	C4-C5-C6	-5.18	114.41	117.00
1	2	262	U	C4-C5-C6	5.18	122.81	119.70
1	2	1589	C	C5-C6-N1	-5.18	118.41	121.00
36	1	4	U	C4-C5-C6	-5.18	116.59	119.70
36	1	555	U	C2-N1-C1'	5.18	123.92	117.70
36	1	1095	U	O5'-P-OP1	5.18	116.92	110.70
36	1	1157	G	C6-C5-N7	-5.18	127.29	130.40
36	1	2157	G	C8-N9-C1'	-5.18	120.27	127.00
36	1	3031	G	N7-C8-N9	-5.18	110.51	113.10
37	3	65	G	C8-N9-C4	5.18	108.47	106.40
1	6	106	U	N3-C4-O4	-5.18	115.78	119.40
1	6	581	U	C2-N1-C1'	-5.18	111.48	117.70
1	6	1470	C	P-O3'-C3'	5.18	125.92	119.70
1	6	1510	U	N1-C2-N3	5.18	118.01	114.90
1	6	1603	U	C4-C5-C6	-5.18	116.59	119.70
36	5	939	U	C6-N1-C2	-5.18	117.89	121.00
36	5	1917	C	C4-C5-C6	-5.18	114.81	117.40
36	5	2101	C	N3-C2-O2	-5.18	118.27	121.90
36	5	2210	G	N7-C8-N9	5.18	115.69	113.10
36	5	2248	C	OP1-P-O3'	5.18	116.60	105.20
1	2	1291	G	N1-C6-O6	5.18	123.01	119.90
36	1	582	G	N3-C4-N9	-5.18	122.89	126.00
36	1	1166	G	N1-C2-N3	5.18	127.01	123.90
36	1	2130	G	N3-C2-N2	-5.18	116.28	119.90
1	6	357	G	C6-C5-N7	-5.18	127.29	130.40
36	5	1898	G	C4-C5-C6	-5.18	115.69	118.80
1	2	163	G	N3-C4-C5	-5.18	126.01	128.60
1	2	1136	U	C6-N1-C1'	5.18	128.45	121.20
1	2	1212	G	C5-C6-N1	-5.18	108.91	111.50
1	2	1521	G	C4-C5-N7	-5.18	108.73	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	311	C	N3-C4-C5	-5.18	119.83	121.90
36	1	514	G	OP1-P-OP2	-5.18	111.83	119.60
36	1	1335	C	O5'-P-OP1	5.18	116.91	110.70
36	1	1469	C	C4-C5-C6	5.18	119.99	117.40
36	1	1895	A	C5-N7-C8	5.18	106.49	103.90
36	1	2363	A	N7-C8-N9	5.18	116.39	113.80
36	1	2872	A	N3-C4-N9	5.18	131.54	127.40
44	L7	163	LEU	CA-CB-CG	-5.18	103.40	115.30
1	6	858	G	C4-C5-N7	5.18	112.87	110.80
1	6	877	G	N7-C8-N9	-5.18	110.51	113.10
1	6	1657	U	OP1-P-O3'	5.18	116.59	105.20
36	5	63	A	C5-C6-N1	-5.18	115.11	117.70
36	5	152	U	C5-C6-N1	-5.18	120.11	122.70
36	5	508	U	C4-C5-C6	5.18	122.81	119.70
36	5	1087	G	N3-C4-N9	-5.18	122.89	126.00
36	5	1096	U	C5-C6-N1	-5.18	120.11	122.70
36	5	1348	U	C5-C4-O4	-5.18	122.79	125.90
36	5	2260	U	OP2-P-O3'	5.18	116.59	105.20
36	5	2375	G	C2-N3-C4	-5.18	109.31	111.90
36	5	3210	A	C6-N1-C2	-5.18	115.49	118.60
36	5	3243	A	C8-N9-C4	5.18	107.87	105.80
36	5	3304	U	O5'-P-OP2	-5.18	101.04	105.70
38	8	87	G	N1-C2-N2	-5.18	111.54	116.20
38	8	107	G	N1-C2-N3	5.18	127.01	123.90
1	2	615	A	C4-C5-N7	-5.17	108.11	110.70
1	2	1426	C	N3-C4-N4	5.17	121.62	118.00
36	1	113	C	N1-C2-O2	-5.17	115.80	118.90
36	1	291	C	N1-C2-O2	-5.17	115.80	118.90
36	1	301	G	N7-C8-N9	5.17	115.69	113.10
36	1	335	G	C5-C6-O6	-5.17	125.50	128.60
36	1	869	G	N7-C8-N9	-5.17	110.51	113.10
36	1	961	C	N3-C2-O2	-5.17	118.28	121.90
36	1	1437	C	C6-N1-C1'	-5.17	114.59	120.80
36	1	2115	G	C4-C5-N7	5.17	112.87	110.80
36	1	2537	U	P-O3'-C3'	5.17	125.91	119.70
36	1	2589	G	N1-C2-N3	5.17	127.00	123.90
36	1	2936	A	C6-C5-N7	5.17	135.92	132.30
36	1	3071	U	C5-C6-N1	-5.17	120.11	122.70
37	3	95	A	N1-C6-N6	5.17	121.70	118.60
1	6	885	G	N1-C6-O6	5.17	123.00	119.90
36	5	45	A	N1-C2-N3	5.17	131.89	129.30
36	5	437	G	N9-C4-C5	5.17	107.47	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	692	A	C4-C5-N7	5.17	113.29	110.70
36	5	1011	A	C6-C5-N7	-5.17	128.68	132.30
36	5	1187	C	C5-C4-N4	-5.17	116.58	120.20
36	5	2661	G	N1-C2-N3	5.17	127.00	123.90
36	5	2684	C	O5'-P-OP1	5.17	116.91	110.70
36	5	2708	C	N3-C2-O2	5.17	125.52	121.90
36	5	2918	G	C5-N7-C8	5.17	106.89	104.30
36	5	2922	G	N1-C6-O6	-5.17	116.80	119.90
37	7	5	G	N7-C8-N9	-5.17	110.51	113.10
1	2	376	C	O5'-P-OP1	-5.17	101.04	105.70
36	1	1198	C	O4'-C1'-N1	5.17	112.34	108.20
36	1	1215	U	C5-C6-N1	-5.17	120.11	122.70
36	1	2642	A	C2-N3-C4	-5.17	108.01	110.60
36	1	3266	G	N9-C4-C5	5.17	107.47	105.40
36	5	1606	U	N1-C2-O2	-5.17	119.18	122.80
37	7	35	C	C2-N3-C4	-5.17	117.31	119.90
1	2	822	U	C6-N1-C2	-5.17	117.90	121.00
1	2	830	U	C6-N1-C1'	-5.17	113.96	121.20
1	2	1046	G	C8-N9-C4	-5.17	104.33	106.40
36	1	42	C	C4-C5-C6	5.17	119.99	117.40
36	1	971	G	N1-C2-N2	-5.17	111.55	116.20
36	1	1282	G	N1-C6-O6	5.17	123.00	119.90
36	1	1829	G	C4-C5-N7	-5.17	108.73	110.80
36	1	2348	A	C8-N9-C4	5.17	107.87	105.80
1	6	1476	C	N3-C4-N4	5.17	121.62	118.00
1	6	1624	C	N3-C4-C5	5.17	123.97	121.90
36	5	915	A	C4-C5-C6	5.17	119.59	117.00
36	5	952	A	C4-C5-C6	-5.17	114.41	117.00
36	5	1333	C	C6-N1-C1'	-5.17	114.59	120.80
36	5	1431	G	C8-N9-C4	5.17	108.47	106.40
36	5	1491	A	C4-C5-C6	5.17	119.58	117.00
36	5	2237	C	O5'-P-OP2	-5.17	101.05	105.70
36	5	2599	U	N3-C4-C5	-5.17	111.50	114.60
36	5	2717	U	C2-N3-C4	-5.17	123.90	127.00
36	5	3173	G	N3-C2-N2	5.17	123.52	119.90
37	7	52	G	OP1-P-O3'	5.17	116.58	105.20
36	1	104	G	C5-N7-C8	-5.17	101.72	104.30
36	1	1077	U	C4-C5-C6	5.17	122.80	119.70
1	6	7	G	C6-C5-N7	-5.17	127.30	130.40
1	6	474	A	N9-C4-C5	-5.17	103.73	105.80
1	6	811	A	C5-C6-N6	-5.17	119.56	123.70
1	6	967	A	N3-C4-N9	5.17	131.54	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1202	A	C4-C5-C6	5.17	119.58	117.00
36	5	1867	A	C5-C6-N6	5.17	127.84	123.70
36	5	2309	A	C5-C6-N1	-5.17	115.11	117.70
1	2	619	A	N7-C8-N9	-5.17	111.22	113.80
36	1	973	A	C8-N9-C1'	5.17	137.00	127.70
36	1	1171	G	N3-C2-N2	-5.17	116.28	119.90
36	1	1202	A	C4-C5-N7	5.17	113.28	110.70
36	1	1583	A	N9-C4-C5	5.17	107.87	105.80
36	1	1897	G	C5-N7-C8	-5.17	101.72	104.30
36	1	2985	C	N1-C2-N3	5.17	122.82	119.20
36	1	3177	G	C5-C6-O6	-5.17	125.50	128.60
1	6	576	G	C8-N9-C4	-5.17	104.33	106.40
1	6	973	A	OP1-P-O3'	5.17	116.57	105.20
22	d0	63	LEU	CA-CB-CG	-5.17	103.41	115.30
36	5	71	A	C6-C5-N7	5.17	135.92	132.30
36	5	353	G	C4-N9-C1'	-5.17	119.78	126.50
36	5	872	U	N3-C4-O4	5.17	123.02	119.40
36	5	885	U	C4-C5-C6	5.17	122.80	119.70
36	5	925	A	N1-C6-N6	5.17	121.70	118.60
36	5	1186	G	N7-C8-N9	5.17	115.69	113.10
36	5	1397	C	N3-C4-N4	5.17	121.62	118.00
36	5	2124	G	OP2-P-O3'	5.17	116.57	105.20
36	5	2313	A	N9-C4-C5	5.17	107.87	105.80
36	5	2597	U	N1-C2-O2	5.17	126.42	122.80
36	5	2851	A	OP2-P-O3'	5.17	116.57	105.20
36	5	3065	G	N3-C4-N9	-5.17	122.90	126.00
36	5	3280	U	C6-N1-C2	5.17	124.10	121.00
37	7	54	U	C5-C4-O4	5.17	129.00	125.90
1	2	6	G	C2-N3-C4	5.17	114.48	111.90
1	2	1561	U	N1-C2-O2	5.17	126.42	122.80
36	1	192	C	N3-C4-C5	-5.17	119.83	121.90
36	1	1340	G	C5-N7-C8	-5.17	101.72	104.30
36	1	1670	C	C2-N1-C1'	-5.17	113.12	118.80
36	1	2377	G	C5-C6-O6	5.17	131.70	128.60
36	1	2633	U	N1-C2-N3	5.17	118.00	114.90
36	1	2990	G	N3-C4-C5	-5.17	126.02	128.60
36	1	3226	A	C5-C6-N6	5.17	127.83	123.70
1	6	331	A	C6-N1-C2	-5.17	115.50	118.60
1	6	608	U	N1-C2-N3	5.17	118.00	114.90
1	6	1556	A	C4-C5-N7	5.17	113.28	110.70
36	5	216	G	C6-C5-N7	-5.17	127.30	130.40
36	5	323	A	P-O3'-C3'	-5.17	113.50	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	799	G	N1-C6-O6	5.17	123.00	119.90
36	5	814	U	OP1-P-OP2	-5.17	111.85	119.60
36	5	955	U	N3-C2-O2	5.17	125.82	122.20
36	5	2271	A	C5-C6-N6	-5.17	119.57	123.70
36	5	2831	G	C4-C5-C6	5.17	121.90	118.80
1	2	982	U	OP1-P-O3'	-5.17	93.84	105.20
36	1	149	U	C5-C6-N1	5.17	125.28	122.70
36	1	870	G	C6-C5-N7	5.17	133.50	130.40
36	1	882	A	N1-C2-N3	-5.17	126.72	129.30
36	1	1426	C	N3-C4-C5	-5.17	119.83	121.90
36	1	2522	G	N9-C1'-C2'	5.17	120.71	114.00
36	1	3158	G	N1-C6-O6	5.17	123.00	119.90
61	N5	78	ASP	CB-CG-OD1	5.17	122.95	118.30
1	6	96	G	N3-C4-C5	-5.17	126.02	128.60
1	6	1304	G	C6-C5-N7	5.17	133.50	130.40
1	6	1574	G	N1-C6-O6	5.17	123.00	119.90
36	5	1111	U	N3-C4-C5	5.17	117.70	114.60
36	5	1330	A	OP1-P-OP2	5.17	127.35	119.60
36	5	3255	U	N3-C4-C5	-5.17	111.50	114.60
37	7	65	G	N3-C4-N9	-5.17	122.90	126.00
37	7	75	G	O4'-C1'-N9	-5.17	104.07	108.20
1	2	555	A	N1-C2-N3	5.16	131.88	129.30
4	S2	235	LEU	CA-CB-CG	5.16	127.18	115.30
36	1	4	U	N3-C4-C5	5.16	117.70	114.60
36	1	105	C	O5'-P-OP2	-5.16	101.05	105.70
36	1	403	C	N3-C2-O2	-5.16	118.29	121.90
36	1	624	G	C5-C6-N1	-5.16	108.92	111.50
36	1	714	G	N3-C4-N9	5.16	129.10	126.00
36	1	856	G	C8-N9-C4	-5.16	104.33	106.40
36	1	1490	A	N9-C4-C5	5.16	107.86	105.80
36	1	1847	A	N1-C2-N3	5.16	131.88	129.30
36	1	2373	A	N3-C4-C5	5.16	130.41	126.80
36	1	2389	C	N1-C2-O2	-5.16	115.80	118.90
36	1	2649	A	C5-N7-C8	-5.16	101.32	103.90
1	6	297	U	C2-N1-C1'	5.16	123.89	117.70
36	5	290	G	C8-N9-C4	-5.16	104.33	106.40
36	5	774	G	C8-N9-C1'	-5.16	120.29	127.00
36	5	810	A	C5-N7-C8	-5.16	101.32	103.90
36	5	2193	U	O4'-C1'-N1	-5.16	104.07	108.20
36	5	2914	G	N1-C6-O6	5.16	123.00	119.90
36	5	3114	A	N1-C2-N3	-5.16	126.72	129.30
38	8	102	U	C6-N1-C1'	-5.16	113.97	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	255	U	C5-C6-N1	5.16	125.28	122.70
1	2	390	G	N1-C2-N2	5.16	120.85	116.20
1	2	1679	G	N1-C6-O6	-5.16	116.80	119.90
36	1	11	A	C2-N3-C4	-5.16	108.02	110.60
36	1	201	A	C8-N9-C4	5.16	107.86	105.80
36	1	634	C	O5'-P-OP1	-5.16	101.05	105.70
36	1	1690	C	OP1-P-O3'	5.16	116.56	105.20
36	1	1707	A	O5'-P-OP2	5.16	116.89	110.70
36	1	2280	A	OP2-P-O3'	5.16	116.56	105.20
36	5	406	G	C5-N7-C8	-5.16	101.72	104.30
36	5	1080	A	P-O3'-C3'	5.16	125.89	119.70
36	5	1204	A	OP1-P-O3'	-5.16	93.84	105.20
36	5	2611	U	C2-N3-C4	5.16	130.10	127.00
36	5	2727	A	C2-N3-C4	5.16	113.18	110.60
36	5	3367	C	N3-C4-N4	-5.16	114.39	118.00
1	2	620	A	N9-C4-C5	5.16	107.86	105.80
36	1	172	G	N3-C4-C5	-5.16	126.02	128.60
36	1	1134	G	C5-C6-O6	5.16	131.70	128.60
36	1	2249	G	C4-C5-N7	-5.16	108.74	110.80
36	1	2417	U	C4-C5-C6	5.16	122.80	119.70
37	3	7	G	C6-N1-C2	-5.16	122.00	125.10
38	4	15	G	O5'-P-OP1	-5.16	101.06	105.70
1	6	60	U	C5-C6-N1	5.16	125.28	122.70
1	6	147	A	C4-C5-N7	5.16	113.28	110.70
1	6	925	G	N7-C8-N9	5.16	115.68	113.10
1	6	1226	A	C2-N3-C4	5.16	113.18	110.60
1	6	1634	C	OP1-P-O3'	5.16	116.55	105.20
36	5	965	A	C6-N1-C2	-5.16	115.50	118.60
36	5	1317	A	N7-C8-N9	5.16	116.38	113.80
36	5	1420	C	C6-N1-C1'	5.16	126.99	120.80
36	5	2301	U	C2-N3-C4	5.16	130.10	127.00
36	5	2388	U	C4-C5-C6	5.16	122.80	119.70
36	5	2690	G	OP2-P-O3'	5.16	116.56	105.20
36	5	3049	A	C6-C5-N7	-5.16	128.69	132.30
36	5	3102	G	N1-C6-O6	5.16	123.00	119.90
36	5	3315	G	C4-N9-C1'	5.16	133.21	126.50
1	2	937	C	C5-C6-N1	5.16	123.58	121.00
1	2	1235	C	O5'-P-OP1	-5.16	101.06	105.70
1	2	1634	C	C6-N1-C2	-5.16	118.24	120.30
1	2	1757	G	OP2-P-O3'	5.16	116.55	105.20
35	SM	134	ASP	CB-CG-OD2	5.16	122.94	118.30
36	1	37	U	C2-N1-C1'	-5.16	111.51	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	99	A	C4-N9-C1'	-5.16	117.02	126.30
36	1	720	A	C6-N1-C2	-5.16	115.50	118.60
36	1	760	G	N3-C4-C5	5.16	131.18	128.60
36	1	1461	A	O5'-P-OP2	-5.16	101.06	105.70
36	1	2409	G	C5-C6-O6	-5.16	125.50	128.60
38	4	15	G	C6-N1-C2	-5.16	122.00	125.10
49	M3	7	LEU	C-N-CD	5.16	139.23	128.40
1	6	109	G	N3-C4-C5	5.16	131.18	128.60
1	6	610	G	C6-N1-C2	-5.16	122.00	125.10
1	6	1746	A	N1-C6-N6	-5.16	115.50	118.60
36	5	707	U	C2-N3-C4	5.16	130.09	127.00
36	5	1686	U	C2-N1-C1'	5.16	123.89	117.70
36	5	1778	G	N7-C8-N9	-5.16	110.52	113.10
36	5	3323	A	C5-C6-N1	5.16	120.28	117.70
36	1	14	U	C2-N1-C1'	5.16	123.89	117.70
36	1	996	A	C2-N3-C4	5.16	113.18	110.60
1	6	903	U	N1-C2-O2	-5.16	119.19	122.80
1	6	958	U	C5-C6-N1	-5.16	120.12	122.70
1	6	1361	U	C6-N1-C2	-5.16	117.91	121.00
1	6	1745	G	N3-C4-N9	5.16	129.09	126.00
36	5	2391	G	C5-C6-N1	5.16	114.08	111.50
36	5	2415	C	N3-C4-N4	5.16	121.61	118.00
1	2	1342	C	C6-N1-C2	-5.16	118.24	120.30
1	2	1431	C	O4'-C1'-N1	-5.16	104.08	108.20
36	1	195	U	OP1-P-O3'	5.16	116.54	105.20
36	1	366	A	C6-N1-C2	-5.16	115.51	118.60
36	1	807	A	C5-C6-N6	-5.16	119.58	123.70
36	1	1196	C	OP1-P-O3'	5.16	116.54	105.20
36	1	1435	A	P-O3'-C3'	5.16	125.89	119.70
36	1	2396	G	N3-C4-N9	-5.16	122.91	126.00
36	1	2620	G	OP1-P-O3'	5.16	116.54	105.20
36	1	2628	A	C6-C5-N7	-5.16	128.69	132.30
36	1	2754	G	C8-N9-C4	5.16	108.46	106.40
36	1	2968	G	C5-C6-N1	5.16	114.08	111.50
36	1	3054	U	O4'-C1'-N1	5.16	112.32	108.20
37	3	17	A	C6-N1-C2	-5.16	115.51	118.60
1	6	43	A	N3-C4-N9	5.16	131.52	127.40
1	6	296	U	N3-C2-O2	-5.16	118.59	122.20
1	6	756	A	N7-C8-N9	5.16	116.38	113.80
36	5	969	C	OP1-P-O3'	5.16	116.54	105.20
36	5	1092	C	O4'-C1'-N1	5.16	112.32	108.20
36	5	2119	A	C4-N9-C1'	5.16	135.58	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2255	A	C5-C6-N6	-5.16	119.58	123.70
36	5	2364	G	C4-C5-N7	5.16	112.86	110.80
36	5	2643	A	O5'-P-OP1	-5.16	101.06	105.70
36	5	2652	U	OP1-P-OP2	5.16	127.33	119.60
36	5	2664	C	C2-N3-C4	-5.16	117.32	119.90
36	5	2719	U	C2-N1-C1'	-5.16	111.51	117.70
36	5	3275	U	N1-C2-N3	-5.16	111.81	114.90
37	7	24	A	C5-C6-N1	5.16	120.28	117.70
37	7	99	G	C5-N7-C8	5.16	106.88	104.30
1	2	77	U	C5-C4-O4	-5.15	122.81	125.90
36	1	905	U	C2-N1-C1'	-5.15	111.52	117.70
36	1	1213	G	C6-C5-N7	-5.15	127.31	130.40
36	1	1895	A	N7-C8-N9	-5.15	111.22	113.80
36	1	2295	A	C5-C6-N6	5.15	127.82	123.70
37	3	41	G	C8-N9-C1'	-5.15	120.30	127.00
36	5	86	G	C2-N3-C4	5.15	114.48	111.90
36	5	183	G	C8-N9-C4	-5.15	104.34	106.40
36	5	1194	G	C8-N9-C4	-5.15	104.34	106.40
36	5	2899	C	C5-C6-N1	-5.15	118.42	121.00
1	2	1206	U	N3-C2-O2	-5.15	118.59	122.20
36	1	196	G	C5-N7-C8	5.15	106.88	104.30
36	1	295	A	C8-N9-C4	-5.15	103.74	105.80
36	1	1001	G	C5-C6-O6	-5.15	125.51	128.60
36	1	1173	U	C5-C6-N1	-5.15	120.12	122.70
36	1	1375	G	C6-N1-C2	-5.15	122.01	125.10
36	1	1795	U	C5-C6-N1	-5.15	120.12	122.70
36	1	2110	G	C4-N9-C1'	5.15	133.20	126.50
36	1	2713	U	N3-C4-O4	5.15	123.01	119.40
36	1	3318	G	C3'-C2'-C1'	5.15	105.62	101.50
1	6	1777	G	OP2-P-O3'	5.15	116.54	105.20
36	5	326	U	C6-N1-C2	-5.15	117.91	121.00
36	5	432	G	N3-C2-N2	-5.15	116.29	119.90
36	5	1003	A	C6-C5-N7	-5.15	128.69	132.30
36	5	1193	A	C4-C5-C6	5.15	119.58	117.00
36	5	1348	U	O4'-C1'-N1	5.15	112.32	108.20
36	5	2159	U	OP1-P-O3'	5.15	116.53	105.20
36	5	2306	C	OP2-P-O3'	5.15	116.53	105.20
36	5	3298	C	C5-C4-N4	5.15	123.81	120.20
1	2	47	A	C6-N1-C2	-5.15	115.51	118.60
1	2	1517	U	N3-C4-O4	5.15	123.00	119.40
36	1	59	G	N1-C6-O6	5.15	122.99	119.90
36	1	223	U	C2-N1-C1'	-5.15	111.52	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	499	G	N1-C2-N2	5.15	120.83	116.20
36	1	669	U	C5-C6-N1	-5.15	120.12	122.70
36	1	902	G	C5-N7-C8	-5.15	101.72	104.30
36	1	1010	G	N1-C6-O6	5.15	122.99	119.90
36	1	1082	U	C6-N1-C2	-5.15	117.91	121.00
36	1	1334	U	N3-C4-C5	-5.15	111.51	114.60
36	1	1369	A	C4-C5-C6	5.15	119.58	117.00
36	1	1546	A	C5-N7-C8	-5.15	101.33	103.90
36	1	1752	A	C2-N3-C4	-5.15	108.03	110.60
36	1	1913	A	N1-C6-N6	5.15	121.69	118.60
36	1	2364	G	N1-C6-O6	-5.15	116.81	119.90
36	1	2805	G	C2-N3-C4	5.15	114.47	111.90
36	1	2830	G	N7-C8-N9	-5.15	110.52	113.10
36	1	3196	U	C5-C4-O4	5.15	128.99	125.90
38	4	119	C	N3-C2-O2	5.15	125.50	121.90
1	6	110	U	O5'-P-OP1	-5.15	101.06	105.70
1	6	516	G	C8-N9-C4	-5.15	104.34	106.40
36	5	875	G	N3-C4-N9	-5.15	122.91	126.00
36	5	906	A	OP1-P-OP2	5.15	127.33	119.60
36	5	1060	U	N3-C2-O2	-5.15	118.59	122.20
36	5	2353	G	P-O3'-C3'	-5.15	113.52	119.70
36	5	2671	A	C2-N3-C4	-5.15	108.03	110.60
36	5	2813	A	N1-C2-N3	5.15	131.88	129.30
37	7	65	G	N1-C2-N2	5.15	120.83	116.20
38	8	136	G	N7-C8-N9	-5.15	110.52	113.10
1	2	561	G	C5-C6-O6	-5.15	125.51	128.60
1	2	904	G	C8-N9-C1'	-5.15	120.31	127.00
4	S2	58	LEU	CA-CB-CG	5.15	127.14	115.30
36	1	337	G	C2-N3-C4	5.15	114.47	111.90
36	1	995	U	N1-C2-N3	5.15	117.99	114.90
36	1	1076	C	C5-C6-N1	-5.15	118.43	121.00
1	6	254	A	O5'-P-OP1	5.15	116.88	110.70
1	6	334	G	N9-C4-C5	5.15	107.46	105.40
1	6	1321	A	OP1-P-O3'	5.15	116.53	105.20
36	5	921	A	N1-C6-N6	-5.15	115.51	118.60
36	5	1582	C	O4'-C1'-N1	5.15	112.32	108.20
36	5	2914	G	OP1-P-OP2	5.15	127.32	119.60
36	5	3089	C	C2-N3-C4	5.15	122.47	119.90
1	2	1052	U	C2-N1-C1'	5.15	123.88	117.70
36	1	1114	U	N3-C4-C5	-5.15	111.51	114.60
36	1	1144	U	C5-C6-N1	5.15	125.27	122.70
36	1	1151	U	C2-N1-C1'	5.15	123.88	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1833	G	C4-C5-N7	-5.15	108.74	110.80
36	1	3268	A	O4'-C1'-N9	-5.15	104.08	108.20
37	3	52	G	N7-C8-N9	5.15	115.67	113.10
1	6	1428	G	N3-C4-N9	-5.15	122.91	126.00
1	6	1456	C	N1-C2-N3	5.15	122.80	119.20
36	5	769	G	C5-C6-O6	-5.15	125.51	128.60
36	5	886	C	C4-C5-C6	-5.15	114.83	117.40
36	5	1124	U	O4'-C1'-N1	5.15	112.32	108.20
36	5	1192	C	C6-N1-C2	-5.15	118.24	120.30
36	5	1300	G	N9-C4-C5	-5.15	103.34	105.40
36	5	1916	U	N1-C2-O2	5.15	126.40	122.80
36	5	2291	A	C6-N1-C2	5.15	121.69	118.60
36	5	2409	G	N9-C4-C5	-5.15	103.34	105.40
36	5	2670	G	C5-C6-O6	-5.15	125.51	128.60
36	5	2758	A	C8-N9-C4	5.15	107.86	105.80
36	5	2866	U	N1-C2-O2	5.15	126.40	122.80
36	1	591	G	C4-N9-C1'	5.15	133.19	126.50
36	1	810	A	C5-C6-N6	5.15	127.82	123.70
36	1	1360	C	N3-C2-O2	5.15	125.50	121.90
36	1	3009	G	C5-C6-O6	-5.15	125.51	128.60
36	5	916	G	C5-C6-N1	5.15	114.07	111.50
36	5	1095	U	N1-C2-O2	5.15	126.40	122.80
36	5	1734	G	N7-C8-N9	-5.15	110.53	113.10
36	5	3095	U	N1-C2-N3	5.15	117.99	114.90
36	5	3289	G	C3'-C2'-C1'	-5.15	97.38	101.50
1	2	1081	A	O4'-C1'-N9	5.14	112.31	108.20
1	2	1195	C	C4-C5-C6	5.14	119.97	117.40
1	2	1486	G	C4-C5-C6	5.14	121.89	118.80
1	2	1555	A	C8-N9-C4	-5.14	103.74	105.80
36	1	891	G	N3-C4-C5	5.14	131.17	128.60
36	1	931	C	C2-N3-C4	-5.14	117.33	119.90
36	1	936	A	N3-C4-N9	-5.14	123.28	127.40
36	1	1475	A	C5-C6-N6	-5.14	119.58	123.70
36	1	2328	U	N3-C4-O4	-5.14	115.80	119.40
36	1	2930	A	C4-C5-N7	5.14	113.27	110.70
36	1	3005	A	N9-C4-C5	5.14	107.86	105.80
36	1	3289	G	N7-C8-N9	5.14	115.67	113.10
1	6	619	A	N1-C2-N3	-5.14	126.73	129.30
36	5	41	G	N3-C4-N9	-5.14	122.91	126.00
36	5	186	U	N1-C2-O2	5.14	126.40	122.80
36	5	588	G	C5-C6-O6	-5.14	125.51	128.60
36	5	974	G	C4-C5-C6	5.14	121.89	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1215	U	C5-C4-O4	-5.14	122.81	125.90
36	5	1733	G	C8-N9-C1'	-5.14	120.31	127.00
36	5	2278	C	C4-C5-C6	-5.14	114.83	117.40
37	7	95	A	N1-C2-N3	5.14	131.87	129.30
1	2	993	A	N7-C8-N9	5.14	116.37	113.80
1	2	1144	U	C5-C4-O4	-5.14	122.81	125.90
36	1	692	A	C8-N9-C4	-5.14	103.74	105.80
36	1	827	A	C5-C6-N1	5.14	120.27	117.70
36	1	2517	U	N1-C2-O2	5.14	126.40	122.80
36	1	2745	G	O4'-C1'-N9	5.14	112.31	108.20
37	3	118	A	O5'-P-OP1	5.14	116.87	110.70
1	6	316	A	OP1-P-OP2	5.14	127.31	119.60
36	5	312	C	C5-C4-N4	5.14	123.80	120.20
36	5	510	G	C5-C6-N1	5.14	114.07	111.50
36	5	635	G	O5'-P-OP2	-5.14	101.07	105.70
36	5	960	U	C4-C5-C6	5.14	122.78	119.70
36	5	1431	G	OP2-P-O3'	5.14	116.52	105.20
36	5	1473	G	C6-C5-N7	-5.14	127.31	130.40
36	5	2678	A	C4-C5-N7	-5.14	108.13	110.70
36	5	2765	C	C2-N1-C1'	5.14	124.46	118.80
36	5	2788	C	C4-C5-C6	5.14	119.97	117.40
37	7	82	G	N3-C4-N9	5.14	129.09	126.00
38	8	13	A	C6-N1-C2	5.14	121.69	118.60
1	2	628	G	C6-N1-C2	5.14	128.19	125.10
36	1	893	C	C2-N1-C1'	5.14	124.45	118.80
36	1	969	C	N3-C4-C5	-5.14	119.84	121.90
36	1	1779	C	N3-C2-O2	-5.14	118.30	121.90
36	1	2117	A	C5-C6-N6	-5.14	119.59	123.70
36	5	76	G	N3-C4-C5	-5.14	126.03	128.60
36	5	109	A	C2-N3-C4	-5.14	108.03	110.60
36	5	707	U	OP2-P-O3'	5.14	116.51	105.20
36	5	3365	U	OP2-P-O3'	5.14	116.51	105.20
37	7	109	G	C8-N9-C4	5.14	108.46	106.40
1	2	261	U	C6-N1-C1'	-5.14	114.01	121.20
1	2	1291	G	C2-N3-C4	-5.14	109.33	111.90
36	1	18	G	N3-C4-N9	-5.14	122.92	126.00
36	1	216	G	N1-C6-O6	5.14	122.98	119.90
36	1	1145	G	C8-N9-C4	-5.14	104.34	106.40
36	1	1428	A	N3-C4-C5	5.14	130.40	126.80
36	1	1922	A	C5-C6-N1	5.14	120.27	117.70
36	1	2274	U	C2-N3-C4	-5.14	123.92	127.00
36	1	2558	U	C5-C6-N1	-5.14	120.13	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2698	G	C8-N9-C4	5.14	108.46	106.40
36	1	2754	G	C4-C5-N7	5.14	112.86	110.80
36	1	2990	G	C6-N1-C2	-5.14	122.02	125.10
38	4	46	G	N9-C4-C5	-5.14	103.34	105.40
1	6	1780	G	C5-C6-O6	-5.14	125.52	128.60
36	5	517	G	C5-C6-N1	-5.14	108.93	111.50
36	5	632	G	C6-C5-N7	-5.14	127.32	130.40
36	5	794	U	C6-N1-C2	-5.14	117.92	121.00
36	5	864	G	OP2-P-O3'	5.14	116.51	105.20
36	5	980	A	C4-C5-C6	-5.14	114.43	117.00
36	5	1208	U	N1-C2-N3	5.14	117.98	114.90
36	5	1520	G	C6-C5-N7	-5.14	127.32	130.40
36	5	1543	G	C8-N9-C4	-5.14	104.34	106.40
36	5	2165	G	C4-N9-C1'	5.14	133.18	126.50
36	5	2334	U	C5-C6-N1	-5.14	120.13	122.70
36	5	2926	A	N1-C6-N6	5.14	121.68	118.60
36	5	2980	U	C2-N1-C1'	-5.14	111.53	117.70
36	5	3110	C	N3-C4-C5	5.14	123.96	121.90
36	5	3176	G	C6-C5-N7	-5.14	127.32	130.40
36	5	3367	C	N3-C2-O2	5.14	125.50	121.90
38	8	61	A	C5-C6-N6	5.14	127.81	123.70
57	n1	152	ALA	C-N-CD	5.14	139.19	128.40
1	2	339	C	OP2-P-O3'	5.14	116.50	105.20
1	2	934	C	C6-N1-C1'	-5.14	114.63	120.80
1	2	1130	G	OP2-P-O3'	5.14	116.50	105.20
36	1	587	U	N3-C4-O4	5.14	123.00	119.40
36	1	1929	G	O5'-P-OP2	-5.14	101.08	105.70
36	1	3094	A	O5'-P-OP2	5.14	116.87	110.70
1	6	157	A	C2-N3-C4	-5.14	108.03	110.60
1	6	361	C	C5-C6-N1	-5.14	118.43	121.00
1	6	788	A	C5-N7-C8	5.14	106.47	103.90
1	6	1132	A	C5-N7-C8	5.14	106.47	103.90
1	6	1176	G	C8-N9-C4	5.14	108.45	106.40
36	5	1161	G	N1-C6-O6	-5.14	116.82	119.90
36	5	1929	G	N9-C4-C5	5.14	107.45	105.40
36	5	2281	A	C8-N9-C4	5.14	107.86	105.80
1	2	349	U	C6-N1-C2	5.14	124.08	121.00
1	2	1605	G	C8-N9-C4	-5.14	104.35	106.40
1	2	1748	G	N1-C2-N3	5.14	126.98	123.90
36	1	440	A	C8-N9-C4	-5.14	103.75	105.80
36	1	595	G	O5'-P-OP2	5.14	116.86	110.70
36	1	1048	A	C5-C6-N1	5.14	120.27	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1306	G	OP2-P-O3'	5.14	116.50	105.20
36	1	1330	A	C8-N9-C4	5.14	107.85	105.80
36	1	1578	C	C6-N1-C2	-5.14	118.25	120.30
36	1	2520	A	N7-C8-N9	5.14	116.37	113.80
36	1	2658	G	N9-C4-C5	-5.14	103.35	105.40
36	1	3186	A	C4-C5-N7	-5.14	108.13	110.70
1	6	337	G	N3-C2-N2	5.14	123.50	119.90
1	6	456	A	O4'-C1'-N9	-5.14	104.09	108.20
1	6	1201	G	C8-N9-C1'	5.14	133.68	127.00
1	6	1733	C	C5-C6-N1	-5.14	118.43	121.00
36	5	70	A	C4-N9-C1'	5.14	135.54	126.30
36	5	191	U	N3-C2-O2	5.14	125.80	122.20
36	5	1119	C	C2-N3-C4	-5.14	117.33	119.90
36	5	1173	U	C5-C4-O4	5.14	128.98	125.90
36	5	2729	U	C2-N1-C1'	-5.14	111.54	117.70
36	5	2959	C	N1-C2-N3	5.14	122.80	119.20
36	5	2990	G	N3-C4-C5	-5.14	126.03	128.60
36	5	3047	U	N3-C4-O4	5.14	123.00	119.40
36	5	3343	G	N1-C2-N3	5.14	126.98	123.90
37	7	107	C	OP2-P-O3'	5.14	116.50	105.20
78	q2	97	LYS	CD-CE-NZ	5.14	123.51	111.70
1	2	458	G	N3-C2-N2	-5.13	116.31	119.90
1	2	1386	G	C4-N9-C1'	-5.13	119.83	126.50
36	1	65	A	C5-C6-N6	-5.13	119.59	123.70
36	1	297	G	C6-N1-C2	-5.13	122.02	125.10
36	1	674	G	N3-C2-N2	-5.13	116.31	119.90
36	1	1317	A	C4-C5-N7	5.13	113.27	110.70
36	1	1328	C	O5'-P-OP1	-5.13	101.08	105.70
36	1	1390	A	N1-C6-N6	5.13	121.68	118.60
36	1	1469	C	C5-C6-N1	-5.13	118.43	121.00
36	1	1913	A	C5-N7-C8	-5.13	101.33	103.90
36	1	2593	A	P-O3'-C3'	5.13	125.86	119.70
36	1	2787	G	C5-N7-C8	-5.13	101.73	104.30
36	1	2863	G	O5'-P-OP1	5.13	116.86	110.70
36	1	2883	U	C2-N1-C1'	5.13	123.86	117.70
36	1	2943	G	C4-C5-C6	5.13	121.88	118.80
36	1	3125	U	N3-C4-O4	-5.13	115.81	119.40
36	1	3215	A	C6-N1-C2	-5.13	115.52	118.60
1	6	580	A	C5-C6-N1	5.13	120.27	117.70
1	6	860	U	N1-C2-O2	-5.13	119.20	122.80
36	5	233	C	C6-N1-C1'	5.13	126.96	120.80
36	5	760	G	N3-C4-C5	5.13	131.17	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1146	C	C6-N1-C2	5.13	122.35	120.30
36	5	1587	A	C8-N9-C4	5.13	107.85	105.80
36	5	1782	U	C2-N1-C1'	5.13	123.86	117.70
36	5	2236	G	N3-C4-N9	5.13	129.08	126.00
36	5	3229	G	N9-C4-C5	-5.13	103.35	105.40
36	5	3330	A	C4-N9-C1'	5.13	135.54	126.30
1	2	610	G	C5-C6-O6	-5.13	125.52	128.60
1	2	1299	G	C4-C5-C6	5.13	121.88	118.80
36	1	229	G	N3-C2-N2	-5.13	116.31	119.90
36	1	707	U	N3-C2-O2	-5.13	118.61	122.20
36	1	1288	U	C4-C5-C6	5.13	122.78	119.70
36	1	2638	C	N1-C2-O2	5.13	121.98	118.90
1	6	270	C	C5-C6-N1	5.13	123.57	121.00
36	5	3214	U	C2-N3-C4	-5.13	123.92	127.00
1	2	315	A	N1-C2-N3	-5.13	126.73	129.30
1	2	328	A	C8-N9-C4	-5.13	103.75	105.80
1	2	1639	C	N3-C4-N4	-5.13	114.41	118.00
1	2	1772	C	N3-C4-C5	5.13	123.95	121.90
36	1	357	A	C8-N9-C4	-5.13	103.75	105.80
36	1	947	G	N1-C2-N3	5.13	126.98	123.90
36	1	1443	G	OP2-P-O3'	-5.13	93.91	105.20
36	1	2154	U	C5-C4-O4	-5.13	122.82	125.90
36	1	2155	G	N1-C2-N2	-5.13	111.58	116.20
36	1	2934	A	C6-C5-N7	-5.13	128.71	132.30
36	1	2942	C	N1-C2-O2	-5.13	115.82	118.90
36	1	2976	A	OP1-P-OP2	-5.13	111.90	119.60
36	1	3259	U	C2-N1-C1'	5.13	123.86	117.70
36	1	3353	G	P-O3'-C3'	5.13	125.86	119.70
38	4	8	C	C5-C4-N4	-5.13	116.61	120.20
48	M1	12	LEU	CA-CB-CG	5.13	127.10	115.30
1	6	5	U	OP2-P-O3'	5.13	116.49	105.20
1	6	112	A	C4-C5-N7	5.13	113.27	110.70
1	6	327	U	O5'-P-OP2	-5.13	101.08	105.70
1	6	613	G	C8-N9-C4	-5.13	104.35	106.40
1	6	759	U	C6-N1-C2	-5.13	117.92	121.00
36	5	507	U	O4'-C1'-N1	5.13	112.31	108.20
36	5	582	G	N9-C4-C5	5.13	107.45	105.40
36	5	1523	U	C2-N1-C1'	5.13	123.86	117.70
36	5	1847	A	C8-N9-C4	5.13	107.85	105.80
36	5	2806	U	N3-C4-C5	5.13	117.68	114.60
37	7	120	C	C6-N1-C2	5.13	122.35	120.30
38	8	91	C	C6-N1-C2	-5.13	118.25	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1037	C	C5-C4-N4	-5.13	116.61	120.20
36	1	959	C	N3-C2-O2	5.13	125.49	121.90
1	6	149	C	C2-N1-C1'	-5.13	113.16	118.80
1	6	897	C	C2-N1-C1'	-5.13	113.16	118.80
36	5	230	U	N1-C2-N3	5.13	117.98	114.90
36	5	705	A	N1-C6-N6	-5.13	115.52	118.60
36	5	1878	G	N1-C2-N3	-5.13	120.82	123.90
36	5	3009	G	C2-N3-C4	-5.13	109.33	111.90
36	5	3052	G	C5'-C4'-O4'	5.13	115.26	109.10
36	5	3380	U	C2-N3-C4	5.13	130.08	127.00
36	1	213	A	C5-C6-N6	-5.13	119.60	123.70
36	1	341	G	C8-N9-C4	-5.13	104.35	106.40
36	1	432	G	C4-C5-C6	5.13	121.88	118.80
36	1	968	G	C6-N1-C2	-5.13	122.02	125.10
36	1	1112	A	C8-N9-C4	-5.13	103.75	105.80
36	1	1357	G	C4-C5-C6	5.13	121.88	118.80
36	1	1422	G	C5-C6-N1	-5.13	108.94	111.50
36	1	1550	C	N3-C4-C5	-5.13	119.85	121.90
36	1	2239	G	N1-C2-N2	-5.13	111.58	116.20
36	1	2610	G	C4-C5-C6	5.13	121.88	118.80
1	6	480	G	N3-C4-N9	5.13	129.08	126.00
1	6	800	U	C6-N1-C2	-5.13	117.92	121.00
1	6	824	G	C8-N9-C4	-5.13	104.35	106.40
1	6	1280	C	C2-N3-C4	5.13	122.46	119.90
1	6	1407	U	C5-C6-N1	-5.13	120.14	122.70
1	6	1513	G	N3-C4-C5	-5.13	126.04	128.60
36	5	210	U	C2-N3-C4	-5.13	123.92	127.00
36	5	932	U	N3-C4-O4	-5.13	115.81	119.40
36	5	1058	U	OP2-P-O3'	5.13	116.48	105.20
36	5	1081	U	N1-C2-O2	5.13	126.39	122.80
36	5	1198	C	OP1-P-O3'	5.13	116.48	105.20
36	5	1788	C	N3-C2-O2	5.13	125.49	121.90
36	5	2260	U	N3-C2-O2	-5.13	118.61	122.20
36	5	2518	C	N3-C4-N4	5.13	121.59	118.00
36	5	2933	A	O5'-P-OP1	-5.13	101.08	105.70
36	5	3254	G	N1-C2-N3	5.13	126.98	123.90
37	7	32	U	N3-C4-O4	5.13	122.99	119.40
1	2	458	G	C8-N9-C4	5.13	108.45	106.40
36	1	15	C	OP1-P-OP2	-5.13	111.91	119.60
36	1	297	G	N3-C4-N9	5.13	129.08	126.00
36	1	422	A	N1-C2-N3	5.13	131.86	129.30
36	1	741	U	N3-C4-C5	-5.13	111.52	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	944	C	C4-C5-C6	5.13	119.96	117.40
36	1	963	G	C6-C5-N7	-5.13	127.32	130.40
36	1	1404	G	OP1-P-O3'	5.13	116.48	105.20
36	1	1446	A	OP2-P-O3'	5.13	116.48	105.20
36	1	2995	A	C2-N3-C4	-5.13	108.04	110.60
36	1	3086	A	C5-N7-C8	5.13	106.46	103.90
36	1	3099	C	C5-C4-N4	-5.13	116.61	120.20
36	1	3105	U	N3-C4-O4	-5.13	115.81	119.40
37	3	112	G	C6-C5-N7	5.13	133.48	130.40
38	4	25	G	C4-C5-N7	-5.13	108.75	110.80
1	6	595	G	C5-N7-C8	-5.13	101.74	104.30
1	6	1387	G	C5-C6-O6	5.13	131.68	128.60
1	6	1606	C	O5'-P-OP2	-5.13	101.09	105.70
36	5	33	G	C4-C5-N7	-5.13	108.75	110.80
36	5	101	G	C4-C5-N7	5.13	112.85	110.80
36	5	790	U	C6-N1-C2	5.13	124.08	121.00
36	5	1117	G	OP2-P-O3'	5.13	116.48	105.20
36	5	1225	A	C6-N1-C2	-5.13	115.52	118.60
36	5	1344	G	OP2-P-O3'	5.13	116.48	105.20
36	5	1376	C	C5-C4-N4	-5.13	116.61	120.20
36	5	1586	G	C5-C6-O6	5.13	131.68	128.60
36	5	3035	A	N1-C6-N6	5.13	121.67	118.60
36	5	3205	G	N3-C2-N2	5.13	123.49	119.90
36	1	1163	A	C2-N3-C4	-5.12	108.04	110.60
36	1	1712	G	C8-N9-C4	-5.12	104.35	106.40
36	1	2356	A	N1-C2-N3	5.12	131.86	129.30
36	1	2943	G	C4-N9-C1'	5.12	133.16	126.50
78	Q2	8	ARG	NE-CZ-NH1	5.12	122.86	120.30
1	6	312	A	N1-C6-N6	-5.12	115.53	118.60
1	6	1383	G	C4-N9-C1'	5.12	133.16	126.50
36	5	684	G	N9-C1'-C2'	-5.12	106.36	112.00
36	5	878	G	N7-C8-N9	5.12	115.66	113.10
36	5	1299	U	N3-C4-O4	5.12	122.99	119.40
36	5	1753	G	C8-N9-C4	5.12	108.45	106.40
36	5	2608	G	C5-C6-O6	-5.12	125.53	128.60
48	m1	12	LEU	CA-CB-CG	5.12	127.09	115.30
1	2	1467	C	N3-C2-O2	-5.12	118.31	121.90
36	1	32	U	C2-N3-C4	-5.12	123.93	127.00
36	1	389	A	C6-C5-N7	-5.12	128.71	132.30
36	1	670	C	O5'-P-OP2	5.12	116.85	110.70
36	1	813	G	N1-C6-O6	5.12	122.97	119.90
36	1	2395	G	O4'-C1'-N9	-5.12	104.10	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	324	U	C2-N1-C1'	-5.12	111.55	117.70
1	6	607	G	C4-C5-C6	5.12	121.87	118.80
1	6	742	U	C2-N1-C1'	5.12	123.85	117.70
36	5	25	U	C4-C5-C6	5.12	122.77	119.70
36	5	54	C	C4-C5-C6	5.12	119.96	117.40
36	5	524	U	N3-C4-C5	5.12	117.67	114.60
36	5	2372	A	C8-N9-C1'	-5.12	118.48	127.70
36	5	2614	G	C8-N9-C1'	-5.12	120.34	127.00
36	5	2838	A	C5-C6-N1	5.12	120.26	117.70
36	5	2928	C	C5-C4-N4	-5.12	116.61	120.20
36	5	3123	A	N1-C6-N6	5.12	121.67	118.60
37	7	111	U	C2-N1-C1'	5.12	123.85	117.70
1	2	1076	A	C2-N3-C4	-5.12	108.04	110.60
36	1	1345	G	C4-N9-C1'	5.12	133.16	126.50
36	1	1501	U	C6-N1-C1'	-5.12	114.03	121.20
36	1	1599	G	N1-C2-N3	5.12	126.97	123.90
36	1	2847	A	C8-N9-C4	5.12	107.85	105.80
36	1	2978	U	C4-C5-C6	5.12	122.77	119.70
36	1	3129	A	C2-N3-C4	-5.12	108.04	110.60
1	6	401	A	OP2-P-O3'	5.12	116.47	105.20
1	6	1283	U	N1-C2-N3	5.12	117.97	114.90
1	6	1457	C	O5'-P-OP2	-5.12	101.09	105.70
1	6	1518	C	N3-C2-O2	-5.12	118.32	121.90
1	6	1704	U	C6-N1-C1'	-5.12	114.03	121.20
36	5	432	G	OP2-P-O3'	5.12	116.47	105.20
36	5	686	G	O4'-C1'-N9	5.12	112.30	108.20
36	5	688	G	C4-N9-C1'	5.12	133.16	126.50
36	5	1492	G	N1-C2-N3	5.12	126.97	123.90
36	5	1664	G	N1-C6-O6	-5.12	116.83	119.90
36	5	2195	C	C5-C4-N4	5.12	123.78	120.20
36	5	2284	C	OP1-P-O3'	5.12	116.47	105.20
36	5	3140	G	C8-N9-C4	5.12	108.45	106.40
37	7	8	G	N3-C4-C5	-5.12	126.04	128.60
36	1	1434	G	N9-C4-C5	5.12	107.45	105.40
36	1	3126	C	C5-C6-N1	-5.12	118.44	121.00
1	6	646	C	C5-C6-N1	5.12	123.56	121.00
36	5	957	C	C4-C5-C6	5.12	119.96	117.40
36	5	1226	G	C4-C5-N7	-5.12	108.75	110.80
36	5	1325	U	C6-N1-C2	5.12	124.07	121.00
36	5	1415	U	N1-C2-O2	-5.12	119.22	122.80
36	5	2171	G	P-O3'-C3'	-5.12	113.56	119.70
36	5	3306	U	C2-N1-C1'	5.12	123.84	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3320	A	OP1-P-OP2	5.12	127.28	119.60
38	8	90	U	C2-N1-C1'	5.12	123.84	117.70
1	2	950	C	N3-C4-N4	5.12	121.58	118.00
1	2	1131	A	OP2-P-O3'	5.12	116.46	105.20
1	2	1756	A	C6-C5-N7	-5.12	128.72	132.30
36	1	383	G	N3-C2-N2	5.12	123.48	119.90
36	1	419	G	C4-C5-N7	-5.12	108.75	110.80
36	1	654	C	N3-C2-O2	-5.12	118.32	121.90
36	1	792	G	N3-C4-C5	5.12	131.16	128.60
36	1	890	C	N3-C4-C5	5.12	123.95	121.90
36	1	1149	G	N1-C2-N2	-5.12	111.59	116.20
36	1	1355	A	C5-C6-N1	-5.12	115.14	117.70
36	1	1363	A	C4-C5-N7	5.12	113.26	110.70
36	1	2316	G	OP1-P-O3'	5.12	116.46	105.20
36	1	2382	G	O5'-P-OP1	5.12	116.84	110.70
36	1	2872	A	P-O3'-C3'	5.12	125.84	119.70
36	1	3241	G	C5-C6-N1	5.12	114.06	111.50
37	3	104	A	N9-C4-C5	5.12	107.85	105.80
1	6	62	A	N9-C4-C5	5.12	107.85	105.80
1	6	341	A	N9-C4-C5	5.12	107.85	105.80
1	6	596	C	N3-C2-O2	5.12	125.48	121.90
36	5	320	G	N9-C1'-C2'	-5.12	106.37	112.00
36	5	1013	G	C4-C5-N7	-5.12	108.75	110.80
36	5	1484	U	C5-C4-O4	5.12	128.97	125.90
36	5	2875	U	O4'-C1'-N1	5.12	112.29	108.20
36	5	2910	A	OP2-P-O3'	5.12	116.46	105.20
36	5	3044	G	O5'-P-OP1	5.12	116.84	110.70
36	5	3150	A	C5-N7-C8	-5.12	101.34	103.90
37	7	18	C	C6-N1-C2	5.12	122.35	120.30
10	S8	9	HIS	N-CA-C	-5.12	97.19	111.00
36	1	1417	G	C5-C6-N1	5.12	114.06	111.50
36	1	2653	C	C2-N1-C1'	5.12	124.43	118.80
1	6	130	C	N1-C2-O2	5.12	121.97	118.90
1	6	1644	C	N1-C2-N3	5.12	122.78	119.20
36	5	566	G	N3-C2-N2	5.12	123.48	119.90
36	5	867	G	C8-N9-C1'	-5.12	120.35	127.00
36	5	2586	G	C8-N9-C1'	5.12	133.65	127.00
36	5	2819	A	OP2-P-O3'	5.12	116.46	105.20
36	5	2994	A	C4-C5-C6	5.12	119.56	117.00
1	2	5	U	C5-C6-N1	5.12	125.26	122.70
36	1	81	C	C4-C5-C6	5.12	119.96	117.40
36	1	809	G	O5'-P-OP1	5.12	116.84	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	876	A	C4-N9-C1'	5.12	135.51	126.30
36	1	1103	A	C8-N9-C4	5.12	107.85	105.80
36	1	2330	C	C6-N1-C2	-5.12	118.25	120.30
36	1	2698	G	N7-C8-N9	-5.12	110.54	113.10
36	1	2865	U	OP1-P-OP2	-5.12	111.93	119.60
36	1	3088	G	OP1-P-O3'	-5.12	93.95	105.20
36	1	3276	G	N3-C4-N9	-5.12	122.93	126.00
1	6	105	A	OP1-P-OP2	5.12	127.27	119.60
1	6	555	A	N3-C4-C5	-5.12	123.22	126.80
1	6	572	C	C6-N1-C2	5.12	122.35	120.30
1	6	1600	A	N1-C6-N6	5.12	121.67	118.60
36	5	267	G	C2-N3-C4	5.12	114.46	111.90
36	5	283	G	N1-C6-O6	-5.12	116.83	119.90
36	5	1057	A	C2-N3-C4	-5.12	108.04	110.60
36	5	1159	A	C5-N7-C8	-5.12	101.34	103.90
36	5	1350	A	N9-C4-C5	5.12	107.85	105.80
36	5	2608	G	OP1-P-O3'	-5.12	93.94	105.20
36	5	2855	U	O4'-C1'-N1	-5.12	104.11	108.20
38	8	101	U	C5-C6-N1	-5.12	120.14	122.70
1	2	1199	G	O4'-C1'-N9	5.11	112.29	108.20
36	1	348	A	N3-C4-C5	5.11	130.38	126.80
36	1	649	A	N7-C8-N9	-5.11	111.24	113.80
36	1	1138	U	C2-N3-C4	-5.11	123.93	127.00
36	1	1513	G	C6-C5-N7	-5.11	127.33	130.40
36	1	1620	U	C2-N1-C1'	5.11	123.84	117.70
36	1	1774	C	C6-N1-C2	5.11	122.35	120.30
36	1	1815	U	P-O3'-C3'	5.11	125.84	119.70
36	1	2364	G	N1-C2-N2	-5.11	111.60	116.20
36	1	2387	A	N7-C8-N9	5.11	116.36	113.80
36	1	3330	A	N1-C6-N6	-5.11	115.53	118.60
38	4	126	A	O5'-P-OP1	-5.11	101.10	105.70
1	6	302	U	P-O3'-C3'	-5.11	113.56	119.70
1	6	1140	G	OP2-P-O3'	5.11	116.45	105.20
1	6	1432	U	N3-C2-O2	-5.11	118.62	122.20
36	5	137	G	N3-C2-N2	-5.11	116.32	119.90
36	5	747	A	O5'-P-OP1	5.11	116.83	110.70
36	5	834	U	N1-C2-N3	5.11	117.97	114.90
36	5	2615	G	OP2-P-O3'	5.11	116.45	105.20
36	5	2829	U	N3-C4-O4	5.11	122.98	119.40
38	8	110	C	O5'-P-OP2	-5.11	101.10	105.70
1	2	766	U	C2-N1-C1'	5.11	123.83	117.70
1	2	1766	A	O4'-C1'-N9	5.11	112.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	78	U	O5'-P-OP1	-5.11	101.10	105.70
36	1	864	G	C8-N9-C1'	-5.11	120.35	127.00
36	1	997	A	OP2-P-O3'	5.11	116.45	105.20
36	1	1460	A	N1-C6-N6	-5.11	115.53	118.60
36	1	2177	G	N1-C2-N2	-5.11	111.60	116.20
36	1	2275	A	C8-N9-C4	-5.11	103.75	105.80
36	1	2589	G	C4-N9-C1'	5.11	133.15	126.50
38	4	98	U	N3-C2-O2	-5.11	118.62	122.20
36	5	1100	U	C2-N1-C1'	-5.11	111.57	117.70
36	5	2422	C	C2-N3-C4	-5.11	117.34	119.90
37	7	100	C	N1-C2-O2	-5.11	115.83	118.90
1	2	861	U	N3-C2-O2	5.11	125.78	122.20
1	2	1240	U	O5'-P-OP2	-5.11	101.10	105.70
36	1	44	U	OP2-P-O3'	5.11	116.44	105.20
36	1	76	G	OP1-P-O3'	5.11	116.44	105.20
36	1	223	U	C5-C6-N1	-5.11	120.14	122.70
36	1	351	A	O4'-C1'-N9	-5.11	104.11	108.20
36	1	1116	G	C5-N7-C8	-5.11	101.75	104.30
36	1	1124	U	C5-C6-N1	5.11	125.25	122.70
36	1	1430	U	N3-C4-O4	5.11	122.98	119.40
36	1	2122	G	N3-C4-N9	-5.11	122.93	126.00
36	1	2357	A	N7-C8-N9	5.11	116.36	113.80
1	6	1630	U	C5-C4-O4	-5.11	122.83	125.90
36	5	576	C	N1-C2-N3	5.11	122.78	119.20
36	5	728	G	N9-C1'-C2'	-5.11	106.38	112.00
36	5	1115	G	C5-C6-N1	5.11	114.06	111.50
36	5	1790	G	C5-C6-N1	-5.11	108.94	111.50
36	5	2282	U	C2-N3-C4	-5.11	123.93	127.00
36	5	2950	G	N7-C8-N9	5.11	115.66	113.10
36	1	708	G	N3-C4-C5	-5.11	126.05	128.60
36	1	714	G	C2-N3-C4	-5.11	109.35	111.90
36	1	840	C	C2-N1-C1'	-5.11	113.18	118.80
36	1	1060	U	C2-N3-C4	-5.11	123.94	127.00
36	1	1744	G	C2-N3-C4	-5.11	109.35	111.90
36	1	2178	A	OP2-P-O3'	5.11	116.44	105.20
36	1	2894	C	N1-C2-O2	5.11	121.97	118.90
38	4	94	C	N1-C2-O2	5.11	121.97	118.90
1	6	247	A	N9-C4-C5	-5.11	103.76	105.80
36	5	3024	A	C6-N1-C2	5.11	121.67	118.60
38	8	32	C	C6-N1-C2	5.11	122.34	120.30
44	17	45	LEU	CB-CG-CD1	5.11	119.69	111.00
55	m9	62	ARG	NE-CZ-NH2	-5.11	117.75	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	587	C	C6-N1-C2	-5.11	118.26	120.30
36	1	1743	G	C6-C5-N7	5.11	133.47	130.40
36	1	2105	G	C4-C5-N7	5.11	112.84	110.80
36	1	2415	C	N3-C4-N4	-5.11	114.42	118.00
36	1	2864	A	C2-N3-C4	-5.11	108.05	110.60
36	1	2881	C	C5-C6-N1	-5.11	118.45	121.00
36	1	2895	G	OP1-P-OP2	-5.11	111.94	119.60
36	1	3248	C	N3-C2-O2	5.11	125.47	121.90
70	O4	30	LEU	CA-CB-CG	-5.11	103.55	115.30
1	6	204	G	C4-N9-C1'	5.11	133.14	126.50
1	6	474	A	C5-N7-C8	-5.11	101.35	103.90
1	6	566	C	C4-C5-C6	5.11	119.95	117.40
1	6	603	U	N1-C2-N3	5.11	117.96	114.90
36	5	532	A	C2-N3-C4	-5.11	108.05	110.60
36	5	731	U	C5-C4-O4	5.11	128.96	125.90
36	5	1160	C	C2-N3-C4	-5.11	117.35	119.90
36	5	1202	A	C8-N9-C1'	-5.11	118.51	127.70
36	5	1287	A	C4-C5-C6	5.11	119.55	117.00
36	5	1546	A	O5'-P-OP2	5.11	116.83	110.70
36	5	2185	G	C5-N7-C8	-5.11	101.75	104.30
36	5	2364	G	C8-N9-C4	-5.11	104.36	106.40
36	5	3149	G	O5'-P-OP2	-5.11	101.10	105.70
37	7	90	U	C5-C4-O4	-5.11	122.83	125.90
1	2	1776	A	C5-C6-N1	5.11	120.25	117.70
36	1	240	U	N3-C4-C5	-5.11	111.54	114.60
36	1	500	C	C5-C6-N1	-5.11	118.45	121.00
36	1	796	U	N3-C4-C5	5.11	117.66	114.60
36	1	1577	G	C8-N9-C4	-5.11	104.36	106.40
36	1	2876	C	N3-C4-C5	-5.11	119.86	121.90
40	L3	150	ARG	NE-CZ-NH1	-5.11	117.75	120.30
1	6	204	G	N1-C6-O6	5.11	122.96	119.90
1	6	340	U	C4-C5-C6	5.11	122.76	119.70
1	6	1454	G	C5-C6-O6	-5.11	125.54	128.60
1	6	1610	G	N1-C2-N2	-5.11	111.61	116.20
36	5	1764	U	N3-C2-O2	-5.11	118.63	122.20
36	5	1810	A	C4-C5-N7	5.11	113.25	110.70
36	5	1854	C	C4-C5-C6	5.11	119.95	117.40
36	5	2125	A	N3-C4-C5	5.11	130.37	126.80
36	5	2258	U	N1-C2-O2	5.11	126.37	122.80
36	1	197	G	C2-N3-C4	-5.10	109.35	111.90
36	1	319	A	N1-C6-N6	-5.10	115.54	118.60
36	1	952	A	N1-C2-N3	5.10	131.85	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1412	G	C4-C5-N7	5.10	112.84	110.80
36	1	1456	A	C5-C6-N6	5.10	127.78	123.70
36	1	2370	G	C4-C5-N7	-5.10	108.76	110.80
1	6	1421	A	N7-C8-N9	-5.10	111.25	113.80
36	5	43	A	O4'-C1'-N9	5.10	112.28	108.20
36	5	274	G	C8-N9-C4	5.10	108.44	106.40
36	5	1911	A	N1-C2-N3	5.10	131.85	129.30
36	5	2420	C	O5'-P-OP2	5.10	116.83	110.70
36	5	2863	G	N3-C2-N2	-5.10	116.33	119.90
37	7	1	G	C4-C5-N7	5.10	112.84	110.80
37	7	77	G	OP1-P-O3'	5.10	116.43	105.20
38	8	5	U	N1-C2-O2	-5.10	119.23	122.80
1	2	144	U	C4-C5-C6	5.10	122.76	119.70
1	2	351	C	C2-N1-C1'	-5.10	113.19	118.80
1	2	1758	U	N3-C2-O2	-5.10	118.63	122.20
36	1	287	G	N7-C8-N9	5.10	115.65	113.10
36	1	379	C	O5'-P-OP1	5.10	116.82	110.70
36	1	407	A	O4'-C1'-N9	-5.10	104.12	108.20
36	1	876	A	N1-C2-N3	5.10	131.85	129.30
36	1	877	C	OP2-P-O3'	5.10	116.43	105.20
36	1	953	G	N3-C4-N9	-5.10	122.94	126.00
36	1	1166	G	N9-C1'-C2'	-5.10	106.39	112.00
36	1	1909	A	O5'-P-OP2	5.10	116.82	110.70
36	1	2771	U	C5-C6-N1	5.10	125.25	122.70
36	1	2772	C	N1-C2-N3	-5.10	115.63	119.20
36	1	2808	A	C6-C5-N7	-5.10	128.73	132.30
36	1	2837	A	O4'-C1'-N9	-5.10	104.12	108.20
1	6	104	A	C8-N9-C4	-5.10	103.76	105.80
1	6	539	G	O4'-C1'-N9	-5.10	104.12	108.20
1	6	594	A	C5-C6-N1	5.10	120.25	117.70
1	6	761	G	N3-C4-C5	-5.10	126.05	128.60
1	6	1477	G	C8-N9-C4	5.10	108.44	106.40
11	s9	3	ARG	NE-CZ-NH1	-5.10	117.75	120.30
36	5	305	U	C4-C5-C6	5.10	122.76	119.70
36	5	946	U	N3-C4-O4	5.10	122.97	119.40
36	5	1208	U	C2-N1-C1'	-5.10	111.58	117.70
36	5	2409	G	C4-C5-C6	5.10	121.86	118.80
36	5	2657	A	OP1-P-O3'	5.10	116.43	105.20
36	5	2917	G	N9-C4-C5	5.10	107.44	105.40
36	5	3089	C	N3-C2-O2	5.10	125.47	121.90
1	2	1165	G	C8-N9-C1'	-5.10	120.37	127.00
1	2	1241	G	C8-N9-C4	-5.10	104.36	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1550	C	OP1-P-OP2	-5.10	111.95	119.60
36	1	2371	G	C4-C5-N7	-5.10	108.76	110.80
36	1	3057	U	N1-C2-N3	5.10	117.96	114.90
36	1	3209	A	C8-N9-C1'	-5.10	118.52	127.70
1	6	85	A	C5-N7-C8	-5.10	101.35	103.90
1	6	576	G	C5-C6-N1	-5.10	108.95	111.50
1	6	1631	A	C4-C5-N7	5.10	113.25	110.70
36	5	501	A	OP2-P-O3'	5.10	116.42	105.20
36	5	675	C	OP1-P-OP2	-5.10	111.95	119.60
36	5	1045	C	O4'-C1'-N1	-5.10	104.12	108.20
36	5	2834	G	N1-C6-O6	-5.10	116.84	119.90
36	1	612	U	OP1-P-O3'	5.10	116.42	105.20
36	1	1599	G	C2-N3-C4	-5.10	109.35	111.90
36	1	2177	G	C8-N9-C4	-5.10	104.36	106.40
36	1	2324	A	O4'-C1'-N9	-5.10	104.12	108.20
36	1	2748	A	C8-N9-C4	5.10	107.84	105.80
36	1	2843	U	C5-C6-N1	5.10	125.25	122.70
36	1	2925	C	O4'-C1'-N1	5.10	112.28	108.20
1	6	1031	U	O5'-P-OP1	-5.10	101.11	105.70
36	5	229	G	N7-C8-N9	5.10	115.65	113.10
36	5	363	G	N3-C4-N9	5.10	129.06	126.00
36	5	811	U	C4-C5-C6	5.10	122.76	119.70
36	5	1119	C	C5-C6-N1	-5.10	118.45	121.00
36	5	1122	U	C2-N1-C1'	5.10	123.82	117.70
36	5	1134	G	N3-C2-N2	-5.10	116.33	119.90
36	5	1154	A	C4-C5-C6	5.10	119.55	117.00
36	5	1371	G	C6-N1-C2	-5.10	122.04	125.10
36	5	1471	U	C5-C4-O4	5.10	128.96	125.90
36	5	2407	C	N3-C4-C5	5.10	123.94	121.90
36	5	3024	A	C4-N9-C1'	-5.10	117.12	126.30
38	8	31	G	N1-C2-N2	-5.10	111.61	116.20
1	2	315	A	C2-N3-C4	5.10	113.15	110.60
1	2	985	G	N3-C4-C5	-5.10	126.05	128.60
36	1	353	G	N7-C8-N9	-5.10	110.55	113.10
36	1	1515	A	C8-N9-C4	5.10	107.84	105.80
36	1	2292	U	O5'-P-OP1	-5.10	101.11	105.70
36	1	3107	U	N1-C1'-C2'	-5.10	106.39	112.00
36	1	3395	G	OP1-P-OP2	5.10	127.25	119.60
1	6	55	A	N9-C4-C5	5.10	107.84	105.80
1	6	425	A	C5-C6-N1	5.10	120.25	117.70
36	5	209	A	C5-C6-N1	5.10	120.25	117.70
36	5	984	G	C4-C5-C6	5.10	121.86	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	993	G	O5'-P-OP2	-5.10	101.11	105.70
36	5	1204	A	N3-C4-C5	5.10	130.37	126.80
36	5	2247	G	C8-N9-C1'	-5.10	120.37	127.00
36	5	3011	A	C8-N9-C4	5.10	107.84	105.80
36	5	3336	A	C5-N7-C8	-5.10	101.35	103.90
46	19	166	ARG	NE-CZ-NH1	5.10	122.85	120.30
1	2	1264	G	C5-C6-O6	5.10	131.66	128.60
36	1	2714	G	N9-C4-C5	5.10	107.44	105.40
40	L3	43	LEU	CA-CB-CG	5.10	127.02	115.30
1	6	128	U	C5-C6-N1	-5.10	120.15	122.70
1	6	473	A	C4-C5-N7	-5.10	108.15	110.70
1	6	697	C	N3-C4-C5	-5.10	119.86	121.90
36	5	559	A	C5-N7-C8	-5.10	101.35	103.90
36	5	1929	G	N7-C8-N9	5.10	115.65	113.10
36	5	2099	A	O4'-C1'-N9	5.10	112.28	108.20
36	5	2765	C	C5-C4-N4	-5.10	116.63	120.20
36	1	318	A	O5'-P-OP1	-5.09	101.11	105.70
36	1	407	A	C4-N9-C1'	5.09	135.47	126.30
36	1	991	G	N1-C2-N3	5.09	126.96	123.90
36	1	1332	A	C6-N1-C2	-5.09	115.54	118.60
36	1	1883	A	C2-N3-C4	-5.09	108.05	110.60
36	1	2300	G	C5-C6-O6	5.09	131.66	128.60
36	1	3063	C	OP2-P-O3'	5.09	116.41	105.20
36	1	3377	G	C5-C6-O6	5.09	131.66	128.60
1	6	908	U	N3-C2-O2	-5.09	118.63	122.20
1	6	963	A	N9-C4-C5	-5.09	103.76	105.80
1	6	1643	U	C4-C5-C6	5.09	122.76	119.70
20	c8	135	GLY	N-CA-C	5.09	125.84	113.10
36	5	155	G	N3-C4-C5	-5.09	126.05	128.60
36	5	286	U	C2-N1-C1'	5.09	123.81	117.70
36	5	661	G	C8-N9-C4	-5.09	104.36	106.40
36	5	1177	G	N3-C4-C5	-5.09	126.05	128.60
36	5	1322	U	N3-C2-O2	5.09	125.77	122.20
36	5	1637	A	C5-C6-N6	5.09	127.78	123.70
36	5	1685	C	C5-C6-N1	-5.09	118.45	121.00
36	5	2866	U	C6-N1-C2	-5.09	117.94	121.00
36	5	2976	A	N3-C4-C5	-5.09	123.23	126.80
36	5	3124	G	O5'-P-OP2	-5.09	101.11	105.70
36	5	3166	C	N3-C2-O2	-5.09	118.33	121.90
48	m1	94	ARG	NE-CZ-NH1	5.09	122.85	120.30
1	2	196	G	O4'-C1'-N9	5.09	112.27	108.20
1	2	441	A	C8-N9-C4	-5.09	103.76	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	828	A	C6-C5-N7	-5.09	128.74	132.30
36	1	947	G	C4-C5-N7	-5.09	108.76	110.80
36	1	1364	C	N1-C2-O2	5.09	121.96	118.90
36	1	2858	U	C2-N1-C1'	5.09	123.81	117.70
37	3	95	A	OP1-P-OP2	-5.09	111.96	119.60
1	6	214	G	C4-N9-C1'	-5.09	119.88	126.50
1	6	1537	C	C2-N1-C1'	-5.09	113.20	118.80
1	6	1663	G	N7-C8-N9	-5.09	110.55	113.10
36	5	1073	U	N3-C4-C5	5.09	117.66	114.60
36	5	2968	G	N1-C2-N3	5.09	126.96	123.90
1	2	45	U	C5-C4-O4	5.09	128.95	125.90
1	2	947	U	C2-N1-C1'	-5.09	111.59	117.70
1	2	970	A	OP2-P-O3'	5.09	116.40	105.20
1	2	1746	A	OP1-P-O3'	5.09	116.40	105.20
1	2	1796	C	N3-C4-C5	-5.09	119.86	121.90
36	1	42	C	C5-C4-N4	-5.09	116.64	120.20
36	1	71	A	O5'-P-OP2	5.09	116.81	110.70
36	1	2417	U	C5-C6-N1	-5.09	120.15	122.70
36	1	2656	A	OP1-P-OP2	5.09	127.24	119.60
36	1	2816	G	N1-C2-N3	5.09	126.95	123.90
61	N5	115	ARG	NE-CZ-NH2	-5.09	117.75	120.30
1	6	112	A	C5-C6-N6	-5.09	119.63	123.70
1	6	1387	G	C4-C5-N7	-5.09	108.76	110.80
1	6	1571	C	C4-C5-C6	5.09	119.95	117.40
1	6	1760	G	N1-C6-O6	-5.09	116.84	119.90
36	5	23	A	C5-N7-C8	-5.09	101.35	103.90
36	5	650	C	C5-C6-N1	-5.09	118.45	121.00
36	5	1061	A	O4'-C1'-N9	5.09	112.27	108.20
36	5	1063	G	C2-N3-C4	-5.09	109.36	111.90
36	5	1914	G	C5-N7-C8	-5.09	101.75	104.30
36	5	2245	C	C4-C5-C6	5.09	119.95	117.40
36	5	2746	A	C5-C6-N6	5.09	127.77	123.70
36	5	2835	U	OP2-P-O3'	5.09	116.40	105.20
36	5	2848	G	C5-N7-C8	-5.09	101.75	104.30
36	5	3145	C	O5'-P-OP2	-5.09	101.12	105.70
1	2	1071	U	C5-C4-O4	5.09	128.95	125.90
36	1	992	A	C4-C5-C6	-5.09	114.45	117.00
36	1	1189	C	N1-C2-O2	-5.09	115.85	118.90
36	1	1461	A	C5-C6-N6	-5.09	119.63	123.70
36	1	2738	A	O5'-P-OP2	-5.09	101.12	105.70
36	1	2895	G	N7-C8-N9	5.09	115.64	113.10
36	1	3300	U	C2-N1-C1'	5.09	123.81	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	52	A	P-O3'-C3'	-5.09	113.59	119.70
1	6	286	C	C5-C4-N4	-5.09	116.64	120.20
1	6	369	A	N1-C6-N6	5.09	121.65	118.60
1	6	977	A	C6-C5-N7	-5.09	128.74	132.30
1	6	1173	C	N3-C4-C5	5.09	123.94	121.90
1	6	1284	C	O5'-P-OP2	-5.09	101.12	105.70
36	5	155	G	C2-N3-C4	5.09	114.44	111.90
36	5	770	G	O5'-P-OP2	5.09	116.81	110.70
36	5	1448	U	N3-C2-O2	-5.09	118.64	122.20
36	5	1578	C	N1-C2-O2	5.09	121.95	118.90
36	5	1582	C	N3-C4-C5	5.09	123.94	121.90
36	5	1760	A	C5-C6-N6	5.09	127.77	123.70
36	5	2678	A	N9-C4-C5	5.09	107.84	105.80
36	5	3266	G	N9-C4-C5	5.09	107.44	105.40
37	7	105	C	N3-C2-O2	-5.09	118.34	121.90
36	1	661	G	OP1-P-OP2	5.09	127.23	119.60
36	1	2383	C	N3-C4-N4	5.09	121.56	118.00
36	1	3213	A	C8-N9-C4	-5.09	103.77	105.80
38	4	129	C	OP2-P-O3'	5.09	116.39	105.20
1	6	409	C	C6-N1-C2	-5.09	118.27	120.30
1	6	783	G	C8-N9-C1'	-5.09	120.39	127.00
36	5	1889	G	C5-N7-C8	-5.09	101.76	104.30
36	5	2947	G	C2-N3-C4	5.09	114.44	111.90
1	2	350	U	C2-N1-C1'	-5.09	111.60	117.70
1	2	1274	C	OP1-P-O3'	-5.09	94.01	105.20
1	2	1427	A	N3-C4-C5	-5.09	123.24	126.80
36	1	823	C	O5'-P-OP1	5.09	116.80	110.70
36	1	980	A	C4-C5-C6	5.09	119.54	117.00
36	1	1628	C	C6-N1-C2	-5.09	118.27	120.30
36	1	1661	G	N1-C2-N3	5.09	126.95	123.90
36	1	1704	A	C5-C6-N1	-5.09	115.16	117.70
36	1	2297	U	C2-N3-C4	-5.09	123.95	127.00
36	1	2579	G	N1-C6-O6	-5.09	116.85	119.90
36	1	2819	A	C4-C5-C6	-5.09	114.46	117.00
36	1	2986	U	N3-C4-O4	5.09	122.96	119.40
1	6	555	A	C6-N1-C2	-5.09	115.55	118.60
1	6	586	G	C4-C5-N7	-5.09	108.77	110.80
1	6	927	C	C2-N1-C1'	5.09	124.40	118.80
1	6	1515	A	O4'-C1'-N9	-5.09	104.13	108.20
1	6	1516	A	C6-N1-C2	-5.09	115.55	118.60
1	6	1602	C	N1-C2-N3	5.09	122.76	119.20
36	5	577	C	N3-C4-N4	-5.09	114.44	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	614	C	C4-C5-C6	-5.09	114.86	117.40
36	5	619	A	O4'-C1'-N9	-5.09	104.13	108.20
36	5	684	G	C4-N9-C1'	-5.09	119.89	126.50
36	5	819	U	C2-N3-C4	5.09	130.05	127.00
36	5	825	U	C2-N1-C1'	-5.09	111.60	117.70
36	5	872	U	OP1-P-OP2	-5.09	111.97	119.60
36	5	919	U	N1-C2-O2	-5.09	119.24	122.80
36	5	1922	A	N3-C4-N9	-5.09	123.33	127.40
36	5	2654	C	C4-C5-C6	-5.09	114.86	117.40
37	7	87	G	C5-C6-O6	-5.09	125.55	128.60
1	2	21	U	C6-N1-C1'	-5.08	114.08	121.20
36	1	300	G	N3-C4-N9	-5.08	122.95	126.00
36	1	1743	G	C8-N9-C1'	5.08	133.61	127.00
36	1	2625	C	C4-C5-C6	-5.08	114.86	117.40
36	1	2953	U	C2-N1-C1'	5.08	123.80	117.70
36	1	3064	U	N3-C2-O2	5.08	125.76	122.20
62	N6	7	ASP	CB-CG-OD1	-5.08	113.72	118.30
1	6	1624	C	C5-C6-N1	-5.08	118.46	121.00
36	5	110	G	C6-C5-N7	-5.08	127.35	130.40
36	5	956	U	OP1-P-OP2	5.08	127.23	119.60
36	5	1658	G	N3-C4-C5	-5.08	126.06	128.60
36	5	2337	C	N1-C2-N3	5.08	122.76	119.20
36	1	28	C	O5'-P-OP2	-5.08	101.12	105.70
36	1	98	G	C5-C6-N1	5.08	114.04	111.50
36	1	211	A	C4-N9-C1'	-5.08	117.15	126.30
36	1	1180	A	N1-C2-N3	5.08	131.84	129.30
36	1	1374	G	O5'-P-OP2	-5.08	101.12	105.70
36	1	2211	U	C6-N1-C2	-5.08	117.95	121.00
36	1	3213	A	N7-C8-N9	5.08	116.34	113.80
41	L4	230	VAL	CB-CA-C	-5.08	101.74	111.40
1	6	905	A	O4'-C1'-N9	5.08	112.27	108.20
1	6	1627	U	N3-C4-C5	-5.08	111.55	114.60
36	5	1480	G	C5-C6-O6	-5.08	125.55	128.60
36	5	1900	A	C2-N3-C4	5.08	113.14	110.60
36	5	2102	U	C6-N1-C2	-5.08	117.95	121.00
36	5	2142	A	O4'-C1'-N9	-5.08	104.13	108.20
36	5	2327	U	OP1-P-O3'	-5.08	94.02	105.20
36	5	2331	C	N3-C4-C5	-5.08	119.87	121.90
36	5	2633	U	C4-C5-C6	5.08	122.75	119.70
36	5	3140	G	C5-N7-C8	-5.08	101.76	104.30
38	8	54	A	C5-N7-C8	-5.08	101.36	103.90
38	8	116	G	N7-C8-N9	5.08	115.64	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1235	C	N1-C2-O2	-5.08	115.85	118.90
36	1	429	U	N3-C2-O2	-5.08	118.64	122.20
36	1	495	G	C5-C6-O6	5.08	131.65	128.60
36	1	1209	G	C6-N1-C2	-5.08	122.05	125.10
36	1	2187	G	N1-C6-O6	-5.08	116.85	119.90
36	1	2349	U	OP2-P-O3'	5.08	116.38	105.20
36	1	2933	A	C4-C5-N7	5.08	113.24	110.70
36	1	3272	C	C4-C5-C6	5.08	119.94	117.40
38	4	59	A	N9-C4-C5	5.08	107.83	105.80
38	4	117	C	C2-N1-C1'	-5.08	113.21	118.80
1	6	400	A	C4-C5-C6	5.08	119.54	117.00
1	6	571	G	OP1-P-OP2	-5.08	111.98	119.60
1	6	1192	C	C5-C4-N4	-5.08	116.64	120.20
36	5	867	G	C4-N9-C1'	5.08	133.11	126.50
36	5	1618	G	O5'-P-OP2	-5.08	101.13	105.70
36	5	2418	G	C8-N9-C1'	-5.08	120.39	127.00
36	5	2419	A	C8-N9-C4	-5.08	103.77	105.80
36	5	2850	G	N1-C6-O6	-5.08	116.85	119.90
36	5	3189	G	N3-C4-N9	5.08	129.05	126.00
1	2	423	G	C2-N3-C4	5.08	114.44	111.90
36	1	83	U	O5'-P-OP2	-5.08	101.13	105.70
36	1	1524	A	C6-N1-C2	-5.08	115.55	118.60
36	1	2347	U	C2-N3-C4	5.08	130.05	127.00
36	5	89	A	N1-C6-N6	-5.08	115.55	118.60
36	5	631	U	C5-C4-O4	-5.08	122.85	125.90
36	5	647	A	OP1-P-OP2	-5.08	111.98	119.60
36	5	952	A	N1-C6-N6	-5.08	115.55	118.60
36	5	1086	C	N3-C4-C5	-5.08	119.87	121.90
36	5	1163	A	C2-N3-C4	-5.08	108.06	110.60
36	5	1920	U	N1-C2-N3	5.08	117.95	114.90
36	5	2119	A	N1-C2-N3	5.08	131.84	129.30
36	5	3042	U	C2-N3-C4	-5.08	123.95	127.00
1	2	534	A	C4-C5-C6	-5.08	114.46	117.00
1	2	1610	G	C4-C5-C6	5.08	121.85	118.80
36	1	326	U	C2-N1-C1'	5.08	123.79	117.70
36	1	335	G	N3-C4-N9	-5.08	122.95	126.00
36	1	410	U	N3-C4-O4	-5.08	115.84	119.40
36	1	583	G	N1-C2-N2	-5.08	111.63	116.20
36	1	636	C	O5'-P-OP2	5.08	116.79	110.70
36	1	831	G	C5-C6-O6	-5.08	125.55	128.60
36	1	945	C	C2-N1-C1'	5.08	124.39	118.80
36	1	2403	G	O3'-P-O5'	-5.08	94.35	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2701	U	C6-N1-C2	-5.08	117.95	121.00
36	1	3319	U	N3-C2-O2	-5.08	118.64	122.20
1	6	803	A	C8-N9-C4	-5.08	103.77	105.80
1	6	1052	U	O5'-P-OP1	-5.08	101.13	105.70
1	6	1570	A	N9-C1'-C2'	-5.08	106.41	112.00
1	6	1651	A	N7-C8-N9	5.08	116.34	113.80
36	5	409	A	O4'-C1'-N9	5.08	112.26	108.20
36	5	864	G	N9-C4-C5	-5.08	103.37	105.40
36	5	1045	C	OP2-P-O3'	5.08	116.37	105.20
36	5	1365	G	N1-C2-N2	5.08	120.77	116.20
36	5	1377	G	C5-C6-N1	-5.08	108.96	111.50
36	5	1394	A	N1-C6-N6	5.08	121.65	118.60
36	5	1486	G	C2-N3-C4	-5.08	109.36	111.90
36	5	2813	A	C5-N7-C8	-5.08	101.36	103.90
36	5	2854	U	N3-C4-C5	-5.08	111.55	114.60
36	5	2937	G	N3-C4-N9	5.08	129.05	126.00
36	5	3164	C	C6-N1-C2	5.08	122.33	120.30
37	7	13	A	C8-N9-C4	-5.08	103.77	105.80
36	1	752	C	C2-N3-C4	-5.08	117.36	119.90
36	1	3270	U	N3-C4-O4	-5.08	115.85	119.40
1	6	402	C	N3-C2-O2	-5.08	118.35	121.90
1	6	1079	U	N3-C2-O2	5.08	125.75	122.20
36	5	208	C	N1-C2-O2	-5.08	115.85	118.90
36	5	425	G	OP2-P-O3'	5.08	116.37	105.20
36	5	650	C	N1-C2-N3	5.08	122.75	119.20
36	5	1929	G	N1-C2-N3	5.08	126.95	123.90
37	7	30	G	N1-C2-N3	5.08	126.95	123.90
38	8	41	A	C2-N3-C4	-5.08	108.06	110.60
1	2	1102	G	C4-C5-N7	5.08	112.83	110.80
1	2	1324	G	C8-N9-C1'	5.08	133.60	127.00
1	2	1520	U	C5-C4-O4	-5.08	122.86	125.90
1	2	1582	U	C2-N1-C1'	5.08	123.79	117.70
36	1	25	U	C2-N3-C4	5.08	130.04	127.00
36	1	964	G	C5-C6-N1	5.08	114.04	111.50
36	1	1303	A	N1-C2-N3	5.08	131.84	129.30
36	1	1520	G	OP2-P-O3'	5.08	116.36	105.20
36	1	2957	G	N7-C8-N9	5.08	115.64	113.10
36	1	3006	A	C4-C5-C6	5.08	119.54	117.00
36	1	3075	G	N3-C4-C5	5.08	131.14	128.60
1	6	62	A	C4-C5-N7	-5.08	108.16	110.70
1	6	246	G	N3-C4-C5	-5.08	126.06	128.60
1	6	305	C	C6-N1-C2	5.08	122.33	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	930	A	C6-N1-C2	-5.08	115.55	118.60
1	6	1575	G	C4-C5-C6	-5.08	115.75	118.80
1	6	1785	U	O5'-P-OP2	5.08	116.79	110.70
36	5	303	G	N3-C4-C5	-5.08	126.06	128.60
36	5	561	C	C4-C5-C6	5.08	119.94	117.40
36	5	1335	C	C5-C6-N1	5.08	123.54	121.00
36	5	2863	G	C5-C6-N1	-5.08	108.96	111.50
36	5	3012	A	N9-C4-C5	-5.08	103.77	105.80
36	5	3207	U	N3-C4-O4	-5.08	115.85	119.40
38	8	70	G	N1-C6-O6	-5.08	116.86	119.90
1	2	985	G	N3-C4-N9	5.07	129.04	126.00
36	1	35	A	N9-C4-C5	-5.07	103.77	105.80
36	1	63	A	N1-C2-N3	-5.07	126.76	129.30
36	1	515	C	C6-N1-C1'	-5.07	114.71	120.80
36	1	921	A	O4'-C1'-N9	-5.07	104.14	108.20
36	1	1938	U	N3-C2-O2	5.07	125.75	122.20
36	1	2171	G	C4-C5-N7	-5.07	108.77	110.80
36	1	2184	U	C5-C4-O4	-5.07	122.86	125.90
36	1	2604	U	C4-C5-C6	5.07	122.75	119.70
36	1	2879	C	C6-N1-C2	5.07	122.33	120.30
38	4	62	C	N3-C2-O2	-5.07	118.35	121.90
38	4	85	G	N3-C2-N2	5.07	123.45	119.90
1	6	953	G	N9-C4-C5	-5.07	103.37	105.40
1	6	1071	U	OP1-P-OP2	5.07	127.21	119.60
1	6	1418	G	C6-N1-C2	5.07	128.14	125.10
1	6	1629	G	N3-C4-N9	5.07	129.04	126.00
1	6	1716	C	C6-N1-C2	5.07	122.33	120.30
36	5	49	A	C8-N9-C4	5.07	107.83	105.80
36	5	188	U	N3-C4-O4	5.07	122.95	119.40
36	5	1008	U	N3-C2-O2	5.07	125.75	122.20
36	5	1530	U	C5-C4-O4	-5.07	122.86	125.90
36	5	1652	G	O5'-P-OP1	5.07	116.79	110.70
36	5	1733	G	C4-N9-C1'	5.07	133.09	126.50
36	5	1866	C	C6-N1-C2	-5.07	118.27	120.30
36	5	2150	G	C4-C5-C6	5.07	121.84	118.80
36	5	2858	U	C4-C5-C6	5.07	122.74	119.70
36	5	2859	U	C2-N1-C1'	-5.07	111.61	117.70
36	5	3323	A	N3-C4-C5	-5.07	123.25	126.80
36	1	871	U	N1-C2-O2	-5.07	119.25	122.80
36	1	1190	A	N9-C4-C5	5.07	107.83	105.80
36	1	1471	U	C5-C6-N1	-5.07	120.16	122.70
36	1	1939	G	N3-C4-N9	5.07	129.04	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1951	C	C5-C6-N1	5.07	123.54	121.00
36	1	2686	A	N7-C8-N9	5.07	116.34	113.80
44	L7	202	LEU	CA-CB-CG	-5.07	103.64	115.30
1	6	1584	G	C4-C5-N7	5.07	112.83	110.80
36	5	367	A	N9-C4-C5	5.07	107.83	105.80
36	5	1066	G	O5'-P-OP2	5.07	116.79	110.70
36	5	1363	A	C4-C5-N7	-5.07	108.16	110.70
36	5	1892	G	N1-C2-N2	-5.07	111.64	116.20
36	5	2650	U	N1-C2-N3	5.07	117.94	114.90
36	5	2688	U	C4-C5-C6	5.07	122.74	119.70
29	D7	41	LEU	CA-CB-CG	5.07	126.96	115.30
36	1	369	A	N9-C4-C5	5.07	107.83	105.80
36	1	813	G	C5-C6-O6	-5.07	125.56	128.60
36	1	896	A	C6-N1-C2	-5.07	115.56	118.60
36	1	1100	U	C4-C5-C6	5.07	122.74	119.70
36	1	1423	C	N3-C2-O2	-5.07	118.35	121.90
36	1	1534	A	N7-C8-N9	5.07	116.33	113.80
36	1	1760	A	C8-N9-C4	-5.07	103.77	105.80
36	1	1791	C	N3-C4-N4	-5.07	114.45	118.00
36	1	2858	U	N1-C2-O2	5.07	126.35	122.80
36	1	3296	A	C8-N9-C4	5.07	107.83	105.80
38	4	21	C	C6-N1-C2	5.07	122.33	120.30
75	O9	6	SER	N-CA-C	-5.07	97.31	111.00
1	6	342	C	C4-C5-C6	5.07	119.94	117.40
1	6	410	A	C5-C6-N6	-5.07	119.64	123.70
1	6	457	G	C8-N9-C4	5.07	108.43	106.40
1	6	628	G	N9-C4-C5	-5.07	103.37	105.40
1	6	967	A	C8-N9-C4	5.07	107.83	105.80
1	6	1003	A	N9-C4-C5	-5.07	103.77	105.80
1	6	1508	U	C4-C5-C6	5.07	122.74	119.70
1	6	1791	A	O5'-P-OP1	5.07	116.78	110.70
36	5	182	U	C4-C5-C6	5.07	122.74	119.70
36	5	804	C	N1-C1'-C2'	-5.07	106.42	112.00
36	5	1041	U	C6-N1-C2	5.07	124.04	121.00
36	5	1078	U	OP1-P-OP2	-5.07	112.00	119.60
36	5	1607	U	N3-C4-O4	5.07	122.95	119.40
36	5	1897	G	C8-N9-C1'	-5.07	120.41	127.00
36	5	2737	C	C2-N3-C4	-5.07	117.36	119.90
36	5	2793	G	C5-N7-C8	-5.07	101.77	104.30
36	5	3082	C	C5-C4-N4	-5.07	116.65	120.20
36	5	3094	A	OP2-P-O3'	5.07	116.35	105.20
36	1	683	U	C6-N1-C2	5.07	124.04	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2248	C	C6-N1-C2	5.07	122.33	120.30
36	1	3141	A	C4-C5-N7	5.07	113.23	110.70
1	6	1194	A	C4-C5-C6	5.07	119.53	117.00
36	5	1724	U	N1-C2-O2	-5.07	119.25	122.80
36	5	2255	A	C5-C6-N1	5.07	120.23	117.70
36	5	3184	A	C2-N3-C4	-5.07	108.06	110.60
1	2	18	C	C2-N1-C1'	5.07	124.37	118.80
1	2	30	G	C5-C6-O6	-5.07	125.56	128.60
1	2	440	U	N1-C2-O2	-5.07	119.25	122.80
1	2	880	C	C6-N1-C2	-5.07	118.27	120.30
1	2	1358	G	C4-N9-C1'	-5.07	119.91	126.50
36	1	637	C	C6-N1-C1'	-5.07	114.72	120.80
36	1	960	U	C6-N1-C2	5.07	124.04	121.00
36	1	1184	A	C2-N3-C4	-5.07	108.07	110.60
36	1	1417	G	O4'-C1'-N9	-5.07	104.14	108.20
36	1	1708	C	C2-N1-C1'	-5.07	113.23	118.80
36	1	2433	U	C5-C6-N1	5.07	125.23	122.70
36	1	2636	A	N9-C4-C5	5.07	107.83	105.80
36	1	3193	C	C5-C6-N1	5.07	123.53	121.00
55	M9	44	LEU	CA-CB-CG	5.07	126.96	115.30
1	6	136	C	C6-N1-C1'	-5.07	114.72	120.80
1	6	1169	G	N1-C2-N3	5.07	126.94	123.90
1	6	1582	U	O4'-C1'-N1	5.07	112.25	108.20
1	6	1730	A	C5-C6-N1	5.07	120.23	117.70
1	6	1766	A	C6-C5-N7	-5.07	128.75	132.30
24	d2	57	ARG	NE-CZ-NH2	-5.07	117.77	120.30
36	5	674	G	C5-C6-N1	5.07	114.03	111.50
36	5	1111	U	C2-N1-C1'	-5.07	111.62	117.70
36	5	1225	A	N7-C8-N9	-5.07	111.27	113.80
36	5	1303	A	N3-C4-C5	5.07	130.35	126.80
36	5	1433	A	N7-C8-N9	5.07	116.33	113.80
36	5	1443	G	N3-C2-N2	-5.07	116.35	119.90
36	5	1604	G	C8-N9-C4	-5.07	104.37	106.40
36	5	1654	A	N7-C8-N9	-5.07	111.27	113.80
36	5	1791	C	N3-C4-N4	5.07	121.55	118.00
36	5	2238	G	C4-C5-N7	5.07	112.83	110.80
36	5	2416	U	C5-C4-O4	5.07	128.94	125.90
36	5	2801	A	N1-C6-N6	5.07	121.64	118.60
36	5	3083	G	C4-C5-N7	5.07	112.83	110.80
36	5	3117	C	C6-N1-C1'	-5.07	114.72	120.80
36	5	3394	U	C5-C4-O4	5.07	128.94	125.90
37	7	8	G	N1-C2-N3	5.07	126.94	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	C7	73	LEU	CA-CB-CG	5.07	126.95	115.30
36	1	347	G	N3-C2-N2	5.07	123.45	119.90
36	1	605	U	N1-C2-N3	5.07	117.94	114.90
36	1	688	G	N7-C8-N9	5.07	115.63	113.10
36	1	1150	A	C5-C6-N6	5.07	127.75	123.70
36	1	1511	U	N1-C2-N3	5.07	117.94	114.90
36	1	1656	A	OP1-P-OP2	5.07	127.20	119.60
36	1	1774	C	C5-C4-N4	-5.07	116.66	120.20
36	1	1843	C	C5-C6-N1	5.07	123.53	121.00
36	1	2114	C	O5'-P-OP1	5.07	116.78	110.70
36	1	2879	C	C5-C4-N4	-5.07	116.66	120.20
36	1	3094	A	C8-N9-C4	-5.07	103.77	105.80
36	1	3304	U	C2-N1-C1'	5.07	123.78	117.70
1	6	71	A	C8-N9-C4	-5.07	103.77	105.80
1	6	119	A	O5'-P-OP1	-5.07	101.14	105.70
1	6	1596	C	C6-N1-C1'	-5.07	114.72	120.80
36	5	1332	A	C6-N1-C2	-5.07	115.56	118.60
36	5	1356	U	C5-C6-N1	5.07	125.23	122.70
36	5	2365	C	C6-N1-C2	5.07	122.33	120.30
36	5	2756	C	N3-C2-O2	-5.07	118.35	121.90
36	5	2864	A	C4-C5-N7	5.07	113.23	110.70
1	2	360	A	C4-C5-C6	-5.06	114.47	117.00
1	2	964	U	C6-N1-C1'	-5.06	114.11	121.20
36	1	803	C	C2-N3-C4	-5.06	117.37	119.90
36	1	877	C	OP1-P-OP2	-5.06	112.00	119.60
36	1	932	U	O4'-C1'-N1	5.06	112.25	108.20
36	1	1632	A	N7-C8-N9	5.06	116.33	113.80
36	1	1728	G	N3-C4-C5	-5.06	126.07	128.60
36	1	2946	A	C5'-C4'-O4'	5.06	115.18	109.10
1	6	596	C	N1-C2-O2	-5.06	115.86	118.90
1	6	984	G	N7-C8-N9	-5.06	110.57	113.10
1	6	1733	C	C6-N1-C2	5.06	122.33	120.30
36	5	668	G	C6-C5-N7	5.06	133.44	130.40
36	5	2375	G	O4'-C1'-N9	5.06	112.25	108.20
1	2	1165	G	C8-N9-C4	5.06	108.42	106.40
1	2	1220	C	C6-N1-C2	-5.06	118.28	120.30
1	2	1550	A	C6-C5-N7	-5.06	128.76	132.30
36	1	67	A	C8-N9-C4	5.06	107.83	105.80
36	1	267	G	C8-N9-C1'	5.06	133.58	127.00
36	1	513	G	C5-C6-N1	-5.06	108.97	111.50
36	1	1142	G	O5'-P-OP2	-5.06	101.14	105.70
36	1	1863	G	C4-C5-N7	5.06	112.83	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2280	A	C5'-C4'-O4'	5.06	115.17	109.10
36	1	2519	A	C8-N9-C4	-5.06	103.78	105.80
36	1	2882	U	O4'-C1'-N1	5.06	112.25	108.20
1	6	250	C	C6-N1-C1'	-5.06	114.72	120.80
1	6	253	A	C4-C5-C6	-5.06	114.47	117.00
1	6	957	G	C5-C6-O6	-5.06	125.56	128.60
1	6	1301	U	C5-C4-O4	-5.06	122.86	125.90
1	6	1304	G	C4-C5-N7	-5.06	108.78	110.80
1	6	1717	G	C5-C6-O6	-5.06	125.56	128.60
1	6	1732	A	N3-C4-N9	-5.06	123.35	127.40
36	5	303	G	N3-C4-N9	5.06	129.04	126.00
36	5	340	C	N1-C2-O2	-5.06	115.86	118.90
36	5	652	G	N3-C2-N2	5.06	123.44	119.90
36	5	682	U	N3-C4-C5	-5.06	111.56	114.60
36	5	683	U	N3-C4-O4	5.06	122.94	119.40
36	5	832	G	P-O3'-C3'	-5.06	113.62	119.70
36	5	835	G	C6-C5-N7	5.06	133.44	130.40
36	5	1048	A	N1-C2-N3	5.06	131.83	129.30
36	5	1382	G	C5-C6-O6	-5.06	125.56	128.60
36	5	1447	G	N3-C4-C5	5.06	131.13	128.60
36	5	1484	U	N1-C2-O2	-5.06	119.26	122.80
36	5	1947	G	N1-C2-N2	-5.06	111.64	116.20
36	5	2119	A	N9-C4-C5	-5.06	103.78	105.80
36	5	2379	U	O5'-P-OP1	5.06	116.78	110.70
36	5	2905	U	OP1-P-OP2	-5.06	112.01	119.60
37	7	76	A	C8-N9-C4	5.06	107.83	105.80
36	1	73	C	N3-C4-N4	5.06	121.54	118.00
36	1	876	A	C4-C5-C6	5.06	119.53	117.00
36	1	1166	G	C5-C6-O6	-5.06	125.56	128.60
46	L9	23	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	6	139	C	P-O3'-C3'	5.06	125.77	119.70
1	6	342	C	N3-C4-N4	5.06	121.54	118.00
36	5	1127	G	C5-C6-N1	5.06	114.03	111.50
36	5	1869	C	N3-C4-C5	-5.06	119.88	121.90
36	5	1871	U	N3-C4-O4	5.06	122.94	119.40
36	1	592	A	O5'-P-OP1	-5.06	101.15	105.70
36	1	686	G	C8-N9-C4	-5.06	104.38	106.40
36	1	954	U	N3-C2-O2	5.06	125.74	122.20
36	1	1176	C	N3-C2-O2	5.06	125.44	121.90
36	1	1319	G	N3-C2-N2	5.06	123.44	119.90
36	1	1380	G	N3-C4-N9	-5.06	122.96	126.00
36	1	1911	A	C6-N1-C2	-5.06	115.56	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	158	U	N1-C2-N3	5.06	117.94	114.90
1	6	301	A	C4-C5-N7	-5.06	108.17	110.70
1	6	440	U	P-O3'-C3'	5.06	125.77	119.70
1	6	557	G	C3'-C2'-C1'	5.06	105.55	101.50
1	6	814	A	O5'-P-OP2	-5.06	101.15	105.70
1	6	1113	A	C6-N1-C2	-5.06	115.56	118.60
1	6	1165	G	OP2-P-O3'	5.06	116.33	105.20
1	6	1640	C	C5-C4-N4	-5.06	116.66	120.20
36	5	1209	G	C6-C5-N7	-5.06	127.36	130.40
36	5	1307	G	C5-N7-C8	-5.06	101.77	104.30
36	5	2303	A	N3-C4-C5	5.06	130.34	126.80
36	5	2801	A	O5'-P-OP1	-5.06	101.15	105.70
36	5	2899	C	N1-C2-N3	5.06	122.74	119.20
1	2	1595	U	OP1-P-O3'	5.06	116.33	105.20
1	2	1645	G	N1-C6-O6	-5.06	116.86	119.90
36	1	41	G	C6-C5-N7	5.06	133.43	130.40
36	1	63	A	N9-C4-C5	-5.06	103.78	105.80
36	1	77	A	OP2-P-O3'	5.06	116.33	105.20
36	1	193	C	C2-N3-C4	5.06	122.43	119.90
36	1	213	A	N9-C1'-C2'	-5.06	106.44	112.00
36	1	364	G	C4-C5-N7	5.06	112.82	110.80
36	1	571	U	C6-N1-C2	-5.06	117.97	121.00
36	1	663	C	O5'-P-OP2	-5.06	101.15	105.70
36	1	1512	U	OP1-P-O3'	-5.06	94.07	105.20
36	1	1774	C	C6-N1-C1'	-5.06	114.73	120.80
36	1	1796	G	N9-C4-C5	5.06	107.42	105.40
36	1	1876	U	N1-C2-N3	5.06	117.94	114.90
36	1	1906	G	C8-N9-C4	5.06	108.42	106.40
36	1	2723	U	N1-C2-N3	5.06	117.93	114.90
36	1	2825	C	N3-C4-N4	5.06	121.54	118.00
38	4	21	C	N3-C4-C5	5.06	123.92	121.90
1	6	627	C	C6-N1-C2	5.06	122.32	120.30
36	5	209	A	C8-N9-C4	5.06	107.82	105.80
36	5	564	G	C4-N9-C1'	5.06	133.08	126.50
36	5	658	G	C5-N7-C8	-5.06	101.77	104.30
36	5	785	G	N9-C4-C5	5.06	107.42	105.40
36	5	1173	U	O5'-P-OP2	-5.06	101.15	105.70
36	5	1293	U	C6-N1-C2	5.06	124.03	121.00
36	5	1302	A	OP2-P-O3'	5.06	116.33	105.20
36	5	1311	G	C6-C5-N7	-5.06	127.36	130.40
36	5	1381	A	C4-C5-C6	5.06	119.53	117.00
36	5	1746	U	C5-C6-N1	5.06	125.23	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1879	A	OP1-P-OP2	-5.06	112.01	119.60
36	5	2349	U	C2-N1-C1'	5.06	123.77	117.70
36	5	3059	G	C5-C6-N1	5.06	114.03	111.50
36	5	3077	A	N3-C4-C5	5.06	130.34	126.80
36	1	912	G	N1-C2-N3	5.06	126.93	123.90
36	1	952	A	N7-C8-N9	5.06	116.33	113.80
36	1	1295	G	OP1-P-OP2	5.06	127.18	119.60
36	1	1328	C	C5-C6-N1	5.06	123.53	121.00
36	1	1458	U	C2-N3-C4	-5.06	123.97	127.00
36	1	1509	A	N1-C6-N6	5.06	121.63	118.60
36	1	1926	C	C4-C5-C6	5.06	119.93	117.40
36	1	2227	C	P-O3'-C3'	5.06	125.77	119.70
36	1	3316	A	N1-C6-N6	5.06	121.63	118.60
37	3	37	G	N9-C4-C5	-5.06	103.38	105.40
36	5	206	G	O5'-P-OP1	-5.06	101.15	105.70
36	5	735	A	C5-C6-N1	-5.06	115.17	117.70
36	5	2945	G	OP1-P-O3'	5.06	116.32	105.20
38	8	41	A	OP2-P-O3'	5.06	116.32	105.20
36	1	147	U	C4-C5-C6	5.05	122.73	119.70
36	1	291	C	C6-N1-C1'	5.05	126.86	120.80
36	1	733	G	C6-C5-N7	-5.05	127.37	130.40
36	1	917	A	C5'-C4'-O4'	5.05	115.17	109.10
36	1	1129	A	C5-N7-C8	-5.05	101.37	103.90
36	1	1947	G	C5-C6-O6	-5.05	125.57	128.60
36	1	2373	A	N3-C4-N9	-5.05	123.36	127.40
36	1	2660	G	C2-N3-C4	-5.05	109.37	111.90
36	1	2808	A	N9-C4-C5	-5.05	103.78	105.80
36	1	2855	U	C4-C5-C6	5.05	122.73	119.70
36	1	3121	U	OP1-P-O3'	5.05	116.32	105.20
1	6	159	U	N3-C2-O2	5.05	125.74	122.20
1	6	754	A	C5-C6-N1	5.05	120.23	117.70
1	6	829	A	P-O3'-C3'	5.05	125.77	119.70
18	c6	116	LEU	N-CA-C	5.05	124.65	111.00
36	5	366	A	C4-C5-C6	5.05	119.53	117.00
36	5	415	G	C4-C5-N7	5.05	112.82	110.80
36	5	816	A	O5'-P-OP1	5.05	116.77	110.70
36	5	1044	U	O5'-P-OP2	-5.05	101.15	105.70
36	5	1918	C	O4'-C1'-N1	5.05	112.24	108.20
36	5	2645	G	C5-C6-N1	5.05	114.03	111.50
36	5	2735	U	C4-C5-C6	5.05	122.73	119.70
36	5	2948	C	C4-C5-C6	-5.05	114.87	117.40
36	5	2953	U	N1-C2-N3	-5.05	111.87	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3041	U	OP1-P-OP2	5.05	127.18	119.60
38	8	38	U	C4-C5-C6	5.05	122.73	119.70
1	2	453	U	N1-C2-O2	5.05	126.34	122.80
36	1	182	U	C6-N1-C1'	5.05	128.27	121.20
36	1	1025	A	C8-N9-C4	-5.05	103.78	105.80
36	1	1461	A	C4-C5-N7	5.05	113.23	110.70
1	6	425	A	C4-C5-C6	-5.05	114.47	117.00
1	6	1001	A	N3-C4-C5	-5.05	123.26	126.80
1	6	1171	A	C5-C6-N6	5.05	127.74	123.70
1	6	1286	U	C5-C6-N1	-5.05	120.17	122.70
36	5	694	C	N3-C4-C5	5.05	123.92	121.90
36	5	955	U	OP2-P-O3'	5.05	116.32	105.20
36	5	2875	U	O5'-P-OP2	-5.05	101.15	105.70
40	13	240	ARG	CG-CD-NE	-5.05	101.19	111.80
1	2	370	A	N1-C6-N6	-5.05	115.57	118.60
1	2	771	A	N7-C8-N9	5.05	116.33	113.80
1	2	1363	U	O4'-C1'-N1	5.05	112.24	108.20
36	1	198	A	C4-C5-C6	5.05	119.53	117.00
36	1	1002	A	C6-C5-N7	5.05	135.84	132.30
36	1	1205	A	C5-C6-N6	-5.05	119.66	123.70
36	1	1670	C	N3-C2-O2	5.05	125.44	121.90
36	1	1682	U	O5'-P-OP1	-5.05	101.15	105.70
36	1	1839	A	N1-C2-N3	5.05	131.83	129.30
36	1	2891	U	N1-C2-O2	-5.05	119.26	122.80
36	1	2920	U	OP2-P-O3'	5.05	116.31	105.20
36	1	3325	G	C5-N7-C8	5.05	106.83	104.30
37	3	3	U	OP1-P-OP2	5.05	127.18	119.60
41	L4	325	LEU	CA-CB-CG	-5.05	103.68	115.30
1	6	153	G	O5'-P-OP2	5.05	116.76	110.70
36	5	93	C	C6-N1-C2	5.05	122.32	120.30
36	5	197	G	C6-N1-C2	5.05	128.13	125.10
36	5	386	A	C5-N7-C8	5.05	106.43	103.90
36	5	1196	C	C2-N1-C1'	-5.05	113.24	118.80
36	5	1888	U	N1-C1'-C2'	-5.05	106.44	112.00
36	5	2161	G	O5'-P-OP2	5.05	116.76	110.70
36	5	2304	C	C5-C4-N4	-5.05	116.66	120.20
36	5	2964	G	C5-C6-O6	5.05	131.63	128.60
36	5	3054	U	N3-C2-O2	5.05	125.74	122.20
36	5	3331	U	O5'-P-OP1	-5.05	101.15	105.70
1	2	862	A	C8-N9-C4	5.05	107.82	105.80
36	1	64	G	OP2-P-O3'	5.05	116.31	105.20
36	1	151	A	C6-C5-N7	-5.05	128.76	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	694	C	N3-C4-C5	5.05	123.92	121.90
36	1	931	C	C6-N1-C2	-5.05	118.28	120.30
36	1	1381	A	C5-C6-N1	-5.05	115.17	117.70
36	1	1724	U	N3-C2-O2	-5.05	118.67	122.20
36	1	2249	G	C5-C6-O6	5.05	131.63	128.60
36	1	2309	A	C4-C5-N7	5.05	113.22	110.70
36	1	2969	A	N3-C4-N9	-5.05	123.36	127.40
36	1	3209	A	C6-N1-C2	5.05	121.63	118.60
36	1	3271	G	N1-C6-O6	-5.05	116.87	119.90
1	6	19	A	C4-C5-C6	5.05	119.53	117.00
1	6	66	U	OP1-P-O3'	5.05	116.31	105.20
1	6	176	C	C5-C6-N1	5.05	123.52	121.00
1	6	357	G	C5-C6-O6	-5.05	125.57	128.60
1	6	1017	U	OP1-P-O3'	5.05	116.31	105.20
1	6	1115	U	N3-C4-C5	5.05	117.63	114.60
36	5	350	C	N1-C2-O2	5.05	121.93	118.90
36	5	589	A	C4-C5-C6	5.05	119.53	117.00
36	5	985	U	O5'-P-OP1	5.05	116.76	110.70
36	5	2585	G	C2-N3-C4	5.05	114.42	111.90
36	5	3134	A	C6-N1-C2	-5.05	115.57	118.60
37	7	2	G	C4-C5-N7	-5.05	108.78	110.80
51	m5	38	ARG	NE-CZ-NH1	-5.05	117.78	120.30
36	1	1429	G	C5-C6-N1	-5.05	108.98	111.50
36	1	3101	G	C5-C6-O6	-5.05	125.57	128.60
36	1	3341	U	C5-C4-O4	5.05	128.93	125.90
38	4	10	A	C4-C5-N7	-5.05	108.18	110.70
1	6	784	C	N3-C4-C5	-5.05	119.88	121.90
1	6	1169	G	N1-C6-O6	-5.05	116.87	119.90
36	5	1170	A	C5-C6-N1	-5.05	115.18	117.70
36	5	1519	G	C5-C6-O6	-5.05	125.57	128.60
36	5	1836	C	C6-N1-C2	-5.05	118.28	120.30
1	2	61	A	C5-N7-C8	-5.05	101.38	103.90
1	2	581	U	C6-N1-C1'	-5.05	114.14	121.20
1	2	1355	C	C6-N1-C2	-5.05	118.28	120.30
1	2	1517	U	C4-C5-C6	5.05	122.73	119.70
36	1	589	A	C5-C6-N1	5.05	120.22	117.70
36	1	2361	A	N7-C8-N9	-5.05	111.28	113.80
36	1	2513	U	P-O3'-C3'	5.05	125.76	119.70
36	1	2877	G	N3-C4-C5	5.05	131.12	128.60
1	6	687	G	N3-C2-N2	-5.05	116.37	119.90
1	6	1007	C	C2-N3-C4	-5.05	117.38	119.90
1	6	1438	G	C4-C5-N7	5.05	112.82	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	578	A	N3-C4-N9	-5.05	123.36	127.40
36	5	591	G	N1-C2-N2	-5.05	111.66	116.20
36	5	716	A	OP2-P-O3'	5.05	116.30	105.20
36	5	1634	G	C4-N9-C1'	5.05	133.06	126.50
36	5	1791	C	C5-C4-N4	-5.05	116.67	120.20
36	5	2225	U	C2-N1-C1'	5.05	123.76	117.70
36	1	842	G	C4-C5-C6	5.04	121.83	118.80
36	1	1552	G	N3-C4-C5	-5.04	126.08	128.60
36	1	2379	U	OP2-P-O3'	5.04	116.30	105.20
1	6	102	U	C2-N3-C4	-5.04	123.97	127.00
1	6	558	U	C6-N1-C1'	-5.04	114.14	121.20
1	6	1001	A	C4-N9-C1'	5.04	135.38	126.30
1	6	1746	A	C6-C5-N7	5.04	135.83	132.30
36	5	567	G	C5-C6-O6	-5.04	125.57	128.60
36	5	2206	G	C8-N9-C4	5.04	108.42	106.40
36	5	3147	G	N1-C6-O6	5.04	122.93	119.90
1	2	401	A	C5-C6-N6	-5.04	119.67	123.70
1	2	1268	G	N1-C6-O6	-5.04	116.87	119.90
36	1	313	A	C5-C6-N6	-5.04	119.66	123.70
36	1	694	C	C2-N3-C4	-5.04	117.38	119.90
36	1	889	U	N3-C4-C5	-5.04	111.57	114.60
36	1	968	G	C8-N9-C1'	-5.04	120.44	127.00
36	1	1199	C	C4-C5-C6	5.04	119.92	117.40
36	1	1636	U	C6-N1-C2	-5.04	117.97	121.00
36	1	2302	G	N3-C4-C5	-5.04	126.08	128.60
36	1	2310	U	N3-C2-O2	-5.04	118.67	122.20
36	1	2406	C	C5-C6-N1	5.04	123.52	121.00
1	6	179	A	N9-C4-C5	5.04	107.82	105.80
36	5	777	U	OP1-P-OP2	5.04	127.17	119.60
36	5	1057	A	C8-N9-C4	5.04	107.82	105.80
36	5	1308	A	C4-C5-C6	-5.04	114.48	117.00
36	5	1336	U	N1-C2-O2	-5.04	119.27	122.80
36	5	1400	G	C4-N9-C1'	5.04	133.06	126.50
36	5	2140	U	N3-C4-O4	5.04	122.93	119.40
1	2	402	C	N3-C4-N4	5.04	121.53	118.00
1	2	775	G	C6-C5-N7	-5.04	127.38	130.40
1	2	1010	C	O5'-P-OP1	5.04	116.75	110.70
1	2	1015	U	C5-C4-O4	5.04	128.93	125.90
36	1	166	C	C6-N1-C2	-5.04	118.28	120.30
36	1	349	A	C4-C5-N7	-5.04	108.18	110.70
36	1	690	A	N1-C6-N6	-5.04	115.58	118.60
36	1	769	G	OP1-P-OP2	5.04	127.16	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1146	C	N3-C4-N4	5.04	121.53	118.00
36	1	2127	U	N1-C2-N3	-5.04	111.88	114.90
36	1	2342	U	C5-C6-N1	-5.04	120.18	122.70
36	1	2555	G	C2-N3-C4	-5.04	109.38	111.90
36	1	2699	G	N1-C2-N2	5.04	120.74	116.20
36	1	2805	G	N1-C6-O6	-5.04	116.88	119.90
36	1	2916	U	OP2-P-O3'	5.04	116.29	105.20
36	1	3128	G	OP2-P-O3'	5.04	116.29	105.20
37	3	50	U	C5-C6-N1	5.04	125.22	122.70
1	6	1367	G	N3-C4-N9	5.04	129.03	126.00
1	6	1542	G	N3-C4-N9	5.04	129.03	126.00
1	6	1652	C	C6-N1-C2	-5.04	118.28	120.30
36	5	516	A	C5-C6-N6	-5.04	119.67	123.70
36	5	647	A	N1-C2-N3	5.04	131.82	129.30
36	5	751	A	C5-C6-N1	5.04	120.22	117.70
36	5	1112	A	N1-C6-N6	5.04	121.62	118.60
36	5	2958	A	N1-C2-N3	5.04	131.82	129.30
36	5	3286	G	C5-C6-O6	-5.04	125.58	128.60
38	8	85	G	C5-C6-O6	-5.04	125.58	128.60
36	1	506	U	N1-C2-N3	5.04	117.92	114.90
36	1	1198	C	N3-C4-C5	-5.04	119.88	121.90
1	6	1751	C	C6-N1-C2	5.04	122.32	120.30
36	5	89	A	O5'-P-OP2	-5.04	101.16	105.70
36	5	1425	U	C2-N3-C4	-5.04	123.98	127.00
36	5	1545	A	C6-C5-N7	-5.04	128.77	132.30
36	5	2135	U	C5-C6-N1	-5.04	120.18	122.70
36	5	2347	U	OP2-P-O3'	5.04	116.29	105.20
1	2	152	U	N1-C2-O2	5.04	126.33	122.80
1	2	1583	A	C4-C5-N7	-5.04	108.18	110.70
36	1	211	A	C2-N3-C4	-5.04	108.08	110.60
36	1	677	A	N1-C2-N3	-5.04	126.78	129.30
36	1	695	C	N1-C2-O2	5.04	121.92	118.90
36	1	1939	G	C4-N9-C1'	5.04	133.05	126.50
36	1	2381	G	C6-N1-C2	-5.04	122.08	125.10
36	1	2635	A	N1-C6-N6	-5.04	115.58	118.60
36	1	2829	U	N1-C2-N3	5.04	117.92	114.90
1	6	448	C	N1-C2-N3	5.04	122.73	119.20
1	6	635	A	OP2-P-O3'	5.04	116.29	105.20
1	6	1108	G	N3-C4-N9	-5.04	122.98	126.00
1	6	1188	G	N1-C6-O6	-5.04	116.88	119.90
1	6	1773	C	C5-C6-N1	5.04	123.52	121.00
36	5	1191	U	N1-C2-O2	-5.04	119.27	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1382	G	N3-C4-C5	5.04	131.12	128.60
36	5	2191	U	N1-C2-N3	5.04	117.92	114.90
36	5	2598	G	C6-C5-N7	-5.04	127.38	130.40
36	5	2841	G	N3-C4-C5	-5.04	126.08	128.60
36	5	3086	A	O5'-P-OP2	5.04	116.75	110.70
36	5	3131	U	N3-C4-O4	-5.04	115.87	119.40
53	m7	67	ILE	CG1-CB-CG2	-5.04	100.31	111.40
1	2	298	C	C6-N1-C2	5.04	122.31	120.30
1	2	1636	C	C5-C6-N1	5.04	123.52	121.00
36	1	709	A	N9-C1'-C2'	-5.04	106.46	112.00
36	1	804	C	N3-C2-O2	-5.04	118.37	121.90
36	1	1157	G	N3-C2-N2	-5.04	116.37	119.90
36	1	1708	C	C5-C6-N1	-5.04	118.48	121.00
1	6	1007	C	C2-N1-C1'	-5.04	113.26	118.80
36	5	3	U	N3-C2-O2	-5.04	118.67	122.20
36	5	1114	U	C5-C6-N1	5.04	125.22	122.70
36	5	1137	C	C6-N1-C1'	-5.04	114.76	120.80
36	5	1345	G	C6-C5-N7	-5.04	127.38	130.40
36	5	1377	G	N3-C4-N9	-5.04	122.98	126.00
36	5	2853	A	C8-N9-C4	5.04	107.81	105.80
36	5	3013	U	N1-C2-O2	5.04	126.33	122.80
36	5	3317	U	N3-C4-O4	-5.04	115.87	119.40
1	2	915	A	C5-N7-C8	-5.04	101.38	103.90
1	2	1146	G	C4-C5-N7	5.04	112.81	110.80
1	2	1339	C	P-O3'-C3'	5.04	125.74	119.70
1	2	1583	A	N9-C4-C5	5.04	107.81	105.80
36	1	227	G	C6-N1-C2	-5.04	122.08	125.10
36	1	642	U	N3-C4-O4	5.04	122.92	119.40
36	1	955	U	C5-C6-N1	-5.04	120.18	122.70
36	1	1043	C	C2-N1-C1'	-5.04	113.26	118.80
36	1	1435	A	N3-C4-C5	-5.04	123.28	126.80
36	1	1497	C	C2-N3-C4	5.04	122.42	119.90
38	4	38	U	N1-C2-O2	5.04	126.33	122.80
1	6	194	U	C6-N1-C1'	-5.04	114.15	121.20
1	6	769	A	N1-C6-N6	5.04	121.62	118.60
1	6	1021	C	OP1-P-O3'	5.04	116.28	105.20
1	6	1387	G	N3-C4-C5	-5.04	126.08	128.60
36	5	503	C	N1-C2-O2	-5.04	115.88	118.90
36	5	640	U	N3-C2-O2	5.04	125.72	122.20
36	5	806	A	C5-C6-N1	-5.04	115.18	117.70
36	5	1431	G	C8-N9-C1'	-5.04	120.45	127.00
36	5	1478	C	C2-N3-C4	5.04	122.42	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1675	G	N3-C2-N2	5.04	123.42	119.90
36	5	2601	A	C2-N3-C4	5.04	113.12	110.60
36	5	3086	A	C8-N9-C4	5.04	107.81	105.80
36	5	3241	G	C8-N9-C4	5.04	108.41	106.40
38	8	7	U	OP1-P-OP2	5.04	127.15	119.60
1	2	115	G	N1-C2-N2	-5.03	111.67	116.20
1	2	597	G	O5'-P-OP2	5.03	116.74	110.70
1	2	1083	G	N3-C4-N9	5.03	129.02	126.00
1	2	1747	G	C5-C6-O6	5.03	131.62	128.60
36	1	74	G	C8-N9-C4	-5.03	104.39	106.40
36	1	591	G	OP1-P-O3'	5.03	116.27	105.20
36	1	779	G	P-O3'-C3'	5.03	125.74	119.70
36	1	1527	C	N1-C2-O2	-5.03	115.88	118.90
36	1	1544	G	C8-N9-C4	5.03	108.41	106.40
36	1	2195	C	C5-C4-N4	-5.03	116.68	120.20
36	1	2829	U	N3-C4-C5	-5.03	111.58	114.60
36	1	3101	G	C2-N3-C4	5.03	114.42	111.90
36	1	3214	U	N1-C2-N3	5.03	117.92	114.90
36	1	3344	A	C8-N9-C4	-5.03	103.79	105.80
1	6	327	U	OP2-P-O3'	5.03	116.27	105.20
1	6	750	U	C2-N1-C1'	-5.03	111.66	117.70
1	6	1241	G	C8-N9-C4	-5.03	104.39	106.40
36	5	1131	G	C6-C5-N7	-5.03	127.38	130.40
36	5	1209	G	C8-N9-C4	-5.03	104.39	106.40
36	5	1513	G	N1-C6-O6	5.03	122.92	119.90
36	5	1606	U	C4-C5-C6	5.03	122.72	119.70
36	5	1886	A	C4-C5-C6	5.03	119.52	117.00
36	5	2320	A	N1-C6-N6	5.03	121.62	118.60
36	5	2861	U	N3-C4-O4	5.03	122.92	119.40
36	5	2979	U	C2-N3-C4	-5.03	123.98	127.00
36	5	3012	A	C6-C5-N7	-5.03	128.78	132.30
36	5	3095	U	N3-C4-C5	-5.03	111.58	114.60
36	5	3237	U	N3-C2-O2	5.03	125.72	122.20
38	8	12	A	C2-N3-C4	5.03	113.12	110.60
1	2	351	C	C5-C4-N4	5.03	123.72	120.20
1	2	398	G	C4-N9-C1'	5.03	133.04	126.50
36	1	862	U	C2-N1-C1'	5.03	123.74	117.70
36	1	962	A	C2-N3-C4	-5.03	108.08	110.60
36	1	1786	G	C5-C6-O6	-5.03	125.58	128.60
36	1	2294	U	O5'-P-OP2	-5.03	101.17	105.70
36	1	2585	G	N3-C4-C5	-5.03	126.08	128.60
36	1	2710	C	C5-C4-N4	-5.03	116.68	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2902	A	N7-C8-N9	-5.03	111.28	113.80
1	6	167	U	N3-C2-O2	5.03	125.72	122.20
1	6	764	U	N1-C2-N3	5.03	117.92	114.90
36	5	2703	A	N1-C2-N3	5.03	131.82	129.30
36	5	3324	C	OP1-P-O3'	-5.03	94.13	105.20
37	7	41	G	C5-C6-N1	-5.03	108.98	111.50
37	7	50	U	C6-N1-C2	-5.03	117.98	121.00
1	2	106	U	O5'-P-OP1	-5.03	101.17	105.70
1	2	429	G	N1-C6-O6	5.03	122.92	119.90
1	2	595	G	C4-C5-N7	-5.03	108.79	110.80
1	2	1408	G	C8-N9-C1'	5.03	133.54	127.00
1	2	1730	A	OP2-P-O3'	5.03	116.27	105.20
36	1	287	G	C8-N9-C4	-5.03	104.39	106.40
36	1	377	A	C4-C5-N7	5.03	113.22	110.70
36	1	626	U	N1-C2-O2	-5.03	119.28	122.80
36	1	635	G	N9-C4-C5	-5.03	103.39	105.40
36	1	697	A	O5'-P-OP1	-5.03	101.17	105.70
36	1	985	U	O5'-P-OP1	-5.03	101.17	105.70
36	1	1293	U	C6-N1-C2	5.03	124.02	121.00
36	1	3141	A	C2-N3-C4	-5.03	108.08	110.60
36	1	3244	A	C4-C5-C6	5.03	119.52	117.00
1	6	480	G	C6-C5-N7	-5.03	127.38	130.40
1	6	945	U	C5-C6-N1	-5.03	120.19	122.70
1	6	1248	C	N1-C2-O2	5.03	121.92	118.90
1	6	1786	G	C6-C5-N7	5.03	133.42	130.40
36	5	148	G	N1-C6-O6	5.03	122.92	119.90
36	5	645	A	O4'-C1'-N9	-5.03	104.18	108.20
36	5	769	G	O5'-P-OP1	-5.03	101.17	105.70
36	5	816	A	N3-C4-C5	-5.03	123.28	126.80
36	5	1863	G	C6-N1-C2	-5.03	122.08	125.10
36	5	2271	A	N1-C6-N6	5.03	121.62	118.60
36	5	3179	U	O4'-C1'-N1	-5.03	104.17	108.20
37	7	30	G	N9-C1'-C2'	-5.03	106.47	112.00
37	7	107	C	N3-C4-N4	-5.03	114.48	118.00
1	2	934	C	N1-C2-O2	5.03	121.92	118.90
36	1	715	A	C8-N9-C4	-5.03	103.79	105.80
36	1	1834	U	C5-C6-N1	-5.03	120.19	122.70
36	1	2326	A	N9-C4-C5	5.03	107.81	105.80
36	1	2635	A	C5-C6-N1	-5.03	115.19	117.70
36	1	2944	U	C4-C5-C6	-5.03	116.68	119.70
36	5	433	A	OP2-P-O3'	5.03	116.26	105.20
36	5	2814	G	N9-C4-C5	-5.03	103.39	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2904	U	C5-C6-N1	-5.03	120.19	122.70
37	7	121	U	N3-C2-O2	-5.03	118.68	122.20
1	2	553	G	C5-C6-N1	-5.03	108.99	111.50
1	2	1027	A	N9-C4-C5	5.03	107.81	105.80
1	2	1299	G	N3-C2-N2	5.03	123.42	119.90
1	2	1332	C	N1-C2-O2	5.03	121.92	118.90
36	1	26	A	N1-C6-N6	5.03	121.62	118.60
36	1	158	G	C2-N3-C4	-5.03	109.39	111.90
36	1	392	G	C5-N7-C8	-5.03	101.79	104.30
36	1	927	C	OP1-P-O3'	-5.03	94.14	105.20
36	1	2134	G	C8-N9-C1'	-5.03	120.46	127.00
36	1	2157	G	N3-C4-C5	-5.03	126.09	128.60
36	1	2521	U	N3-C4-C5	5.03	117.62	114.60
36	1	3121	U	N1-C2-N3	5.03	117.92	114.90
1	6	906	A	C4-C5-C6	-5.03	114.49	117.00
1	6	977	A	C5-N7-C8	-5.03	101.39	103.90
1	6	1412	G	N3-C4-N9	-5.03	122.98	126.00
1	6	1664	C	N3-C4-N4	5.03	121.52	118.00
1	6	1745	G	N3-C4-C5	-5.03	126.09	128.60
19	c7	100	LEU	CA-CB-CG	5.03	126.86	115.30
36	5	1133	A	C6-C5-N7	-5.03	128.78	132.30
36	5	1175	C	N1-C2-O2	-5.03	115.88	118.90
36	5	1190	A	C5-C6-N6	-5.03	119.68	123.70
36	5	1206	G	C6-N1-C2	-5.03	122.08	125.10
36	5	1224	C	O5'-P-OP1	-5.03	101.17	105.70
36	5	1348	U	C5'-C4'-O4'	5.03	115.13	109.10
36	5	1690	C	N3-C4-C5	-5.03	119.89	121.90
36	5	2643	A	C4-C5-C6	-5.03	114.49	117.00
36	5	3006	A	C5-C6-N6	5.03	127.72	123.70
1	2	370	A	C5-N7-C8	5.03	106.41	103.90
1	2	1757	G	O4'-C1'-N9	-5.03	104.18	108.20
36	1	369	A	N3-C4-C5	-5.03	123.28	126.80
36	1	525	C	C6-N1-C2	5.03	122.31	120.30
36	1	593	C	N1-C2-O2	5.03	121.92	118.90
36	1	1838	G	C4-N9-C1'	5.03	133.03	126.50
36	1	2314	U	O5'-P-OP1	5.03	116.73	110.70
36	1	2796	G	OP1-P-OP2	5.03	127.14	119.60
36	1	2902	A	C4-C5-N7	-5.03	108.19	110.70
36	1	2956	A	C4-C5-N7	5.03	113.21	110.70
36	1	3134	A	C6-N1-C2	-5.03	115.58	118.60
36	1	3276	G	O4'-C1'-N9	-5.03	104.18	108.20
1	6	395	U	N3-C4-C5	-5.03	111.58	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	579	A	P-O3'-C3'	5.03	125.73	119.70
1	6	607	G	C5-C6-O6	5.03	131.62	128.60
1	6	1218	G	C4-N9-C1'	-5.03	119.97	126.50
1	6	1478	G	N3-C2-N2	5.03	123.42	119.90
1	6	1493	A	N3-C4-C5	5.03	130.32	126.80
1	6	1661	U	C6-N1-C2	5.03	124.02	121.00
36	5	416	A	C5-N7-C8	-5.03	101.39	103.90
36	5	986	U	N1-C2-N3	5.03	117.92	114.90
36	5	1065	A	C2-N3-C4	-5.03	108.09	110.60
36	5	2954	U	C6-N1-C2	5.03	124.02	121.00
36	5	3006	A	C4-C5-N7	-5.03	108.19	110.70
38	8	87	G	C4-N9-C1'	5.03	133.03	126.50
1	2	1321	A	N1-C6-N6	-5.02	115.59	118.60
36	1	269	G	C8-N9-C1'	5.02	133.53	127.00
36	1	326	U	C4-C5-C6	5.02	122.72	119.70
36	1	567	G	N9-C4-C5	5.02	107.41	105.40
36	1	699	A	C8-N9-C1'	5.02	136.74	127.70
36	1	849	C	OP2-P-O3'	5.02	116.25	105.20
36	5	180	C	N1-C2-O2	5.02	121.91	118.90
36	5	857	G	N1-C2-N3	5.02	126.91	123.90
1	2	1419	G	C8-N9-C1'	-5.02	120.47	127.00
36	1	209	A	N9-C4-C5	5.02	107.81	105.80
36	1	401	U	N1-C2-O2	5.02	126.32	122.80
36	1	605	U	N3-C2-O2	-5.02	118.68	122.20
36	1	1453	A	C6-C5-N7	-5.02	128.78	132.30
36	1	1819	U	C2-N1-C1'	5.02	123.73	117.70
36	1	2520	A	N1-C6-N6	5.02	121.61	118.60
36	1	3240	C	C5-C6-N1	-5.02	118.49	121.00
37	3	3	U	OP1-P-O3'	5.02	116.25	105.20
37	3	49	G	O4'-C1'-N9	5.02	112.22	108.20
36	5	819	U	N3-C2-O2	5.02	125.72	122.20
36	5	1165	A	N9-C4-C5	5.02	107.81	105.80
36	5	1519	G	N3-C2-N2	-5.02	116.38	119.90
36	5	1617	G	N1-C6-O6	5.02	122.91	119.90
36	5	1704	A	O5'-P-OP1	-5.02	101.18	105.70
36	5	3098	G	N1-C2-N2	-5.02	111.68	116.20
36	5	3220	G	O5'-P-OP2	-5.02	101.18	105.70
37	7	121	U	O4'-C1'-N1	-5.02	104.18	108.20
1	2	1189	A	C8-N9-C4	5.02	107.81	105.80
1	2	1455	G	C5-N7-C8	5.02	106.81	104.30
36	1	625	G	C5-N7-C8	5.02	106.81	104.30
36	1	1362	G	OP2-P-O3'	5.02	116.25	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3003	G	C5-C6-N1	5.02	114.01	111.50
38	4	86	U	N3-C4-O4	5.02	122.92	119.40
38	4	108	C	OP2-P-O3'	5.02	116.25	105.20
41	L4	244	LEU	CB-CG-CD2	-5.02	102.47	111.00
1	6	396	G	N3-C4-C5	-5.02	126.09	128.60
1	6	553	G	N1-C2-N3	-5.02	120.89	123.90
1	6	1093	A	N9-C4-C5	5.02	107.81	105.80
36	5	1886	A	C5-C6-N1	-5.02	115.19	117.70
36	5	2123	G	C5-C6-O6	5.02	131.61	128.60
36	5	2995	A	N1-C6-N6	5.02	121.61	118.60
1	2	401	A	N1-C6-N6	5.02	121.61	118.60
1	2	449	C	O4'-C1'-N1	5.02	112.22	108.20
1	2	608	U	C5-C4-O4	5.02	128.91	125.90
1	2	823	G	C5-C6-N1	5.02	114.01	111.50
1	2	1373	C	N3-C4-C5	-5.02	119.89	121.90
1	2	1670	G	C4-N9-C1'	5.02	133.03	126.50
36	1	211	A	C4-C5-C6	-5.02	114.49	117.00
36	1	224	C	OP1-P-OP2	-5.02	112.07	119.60
36	1	596	C	C5-C6-N1	-5.02	118.49	121.00
36	1	757	C	C4-C5-C6	5.02	119.91	117.40
36	1	973	A	N3-C4-C5	5.02	130.31	126.80
36	1	1322	U	N3-C4-C5	-5.02	111.59	114.60
36	1	1338	C	C5-C6-N1	5.02	123.51	121.00
36	1	1449	A	N1-C6-N6	-5.02	115.59	118.60
36	1	1518	U	C4-C5-C6	5.02	122.71	119.70
36	1	1795	U	O5'-P-OP1	-5.02	101.18	105.70
36	1	3103	A	C6-N1-C2	-5.02	115.59	118.60
36	1	3134	A	C5-C6-N1	5.02	120.21	117.70
36	1	3160	U	N3-C2-O2	-5.02	118.69	122.20
36	1	3245	A	C5-C6-N1	-5.02	115.19	117.70
37	3	97	A	C5-C6-N1	-5.02	115.19	117.70
1	6	455	C	O4'-C1'-N1	-5.02	104.18	108.20
1	6	586	G	C5-C6-O6	5.02	131.61	128.60
1	6	676	G	O4'-C1'-N9	5.02	112.22	108.20
36	5	45	A	C5-N7-C8	-5.02	101.39	103.90
36	5	201	A	O4'-C1'-N9	-5.02	104.18	108.20
36	5	326	U	N1-C2-O2	5.02	126.31	122.80
36	5	929	A	C8-N9-C4	5.02	107.81	105.80
36	5	1007	U	N1-C2-N3	-5.02	111.89	114.90
36	5	1311	G	N1-C6-O6	5.02	122.91	119.90
36	5	1312	C	N3-C2-O2	5.02	125.41	121.90
36	5	2114	C	N3-C4-N4	5.02	121.51	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2404	A	C2-N3-C4	5.02	113.11	110.60
36	5	2668	U	N3-C4-O4	5.02	122.91	119.40
36	5	2858	U	N1-C2-N3	5.02	117.91	114.90
38	8	108	C	OP2-P-O3'	5.02	116.24	105.20
1	2	73	U	C1'-O4'-C4'	-5.02	105.89	109.90
1	2	963	A	N1-C2-N3	-5.02	126.79	129.30
36	1	22	G	N3-C4-N9	-5.02	122.99	126.00
36	1	158	G	C5-C6-N1	-5.02	108.99	111.50
36	1	769	G	O5'-P-OP1	-5.02	101.19	105.70
36	1	1109	U	OP1-P-OP2	5.02	127.12	119.60
36	1	1259	A	N1-C6-N6	-5.02	115.59	118.60
36	1	1492	G	C8-N9-C4	-5.02	104.39	106.40
36	1	1849	C	O5'-P-OP1	-5.02	101.19	105.70
36	1	3098	G	O5'-P-OP2	-5.02	101.18	105.70
36	1	3126	C	C5-C4-N4	5.02	123.71	120.20
36	1	3280	U	C4-C5-C6	-5.02	116.69	119.70
37	3	85	G	C4-C5-N7	5.02	112.81	110.80
36	5	858	A	N1-C2-N3	5.02	131.81	129.30
36	5	1130	A	C5-N7-C8	-5.02	101.39	103.90
36	5	3068	U	C4-C5-C6	5.02	122.71	119.70
36	5	3094	A	C2-N3-C4	-5.02	108.09	110.60
1	2	57	G	N1-C2-N3	5.02	126.91	123.90
1	2	990	C	C5-C6-N1	5.02	123.51	121.00
36	1	1377	G	C2-N3-C4	-5.02	109.39	111.90
36	1	1764	U	C6-N1-C2	5.02	124.01	121.00
36	1	1849	C	C4-C5-C6	5.02	119.91	117.40
36	1	2326	A	N1-C6-N6	-5.02	115.59	118.60
36	1	2775	U	C5-C4-O4	5.02	128.91	125.90
1	6	1063	U	C5-C4-O4	-5.02	122.89	125.90
36	5	868	C	N3-C4-C5	-5.02	119.89	121.90
36	5	1320	C	OP2-P-O3'	5.02	116.23	105.20
36	5	1446	A	N1-C6-N6	-5.02	115.59	118.60
36	5	1725	C	N3-C4-C5	-5.02	119.89	121.90
36	5	2382	G	C4-C5-C6	-5.02	115.79	118.80
36	5	2805	G	C5-C6-N1	-5.02	108.99	111.50
1	2	337	G	OP1-P-O3'	5.01	116.23	105.20
1	2	794	U	C5-C6-N1	5.01	125.21	122.70
1	2	1200	G	N7-C8-N9	5.01	115.61	113.10
36	1	801	A	N9-C4-C5	-5.01	103.80	105.80
36	1	1167	U	C2-N3-C4	-5.01	123.99	127.00
36	1	1400	G	C8-N9-C1'	-5.01	120.48	127.00
36	1	1410	U	C5-C6-N1	5.01	125.21	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1474	A	OP1-P-OP2	-5.01	112.08	119.60
36	1	1933	A	C8-N9-C4	-5.01	103.79	105.80
36	1	2971	A	C2-N3-C4	5.01	113.11	110.60
36	1	3163	A	N9-C1'-C2'	-5.01	106.48	112.00
36	1	3382	U	N1-C2-O2	5.01	126.31	122.80
62	N6	53	ASP	CB-CG-OD1	-5.01	113.79	118.30
1	6	407	A	C8-N9-C4	5.01	107.81	105.80
1	6	565	C	C6-N1-C1'	-5.01	114.78	120.80
1	6	1077	C	N3-C4-C5	5.01	123.91	121.90
36	5	12	A	O5'-P-OP2	5.01	116.72	110.70
36	5	1246	G	N1-C6-O6	5.01	122.91	119.90
36	5	1513	G	OP1-P-O3'	5.01	116.23	105.20
36	5	2194	G	N1-C2-N2	-5.01	111.69	116.20
36	5	2401	A	OP2-P-O3'	5.01	116.23	105.20
36	5	2894	C	OP1-P-OP2	5.01	127.12	119.60
36	5	3326	G	N7-C8-N9	-5.01	110.59	113.10
46	19	34	LEU	CA-CB-CG	-5.01	103.77	115.30
1	2	1617	U	C2-N1-C1'	-5.01	111.69	117.70
36	1	156	G	C4-N9-C1'	5.01	133.02	126.50
36	1	772	U	C6-N1-C2	5.01	124.01	121.00
36	1	961	C	C2-N3-C4	5.01	122.41	119.90
36	1	1295	G	N1-C2-N2	-5.01	111.69	116.20
36	1	1353	U	C5-C4-O4	-5.01	122.89	125.90
36	1	2801	A	C5-N7-C8	-5.01	101.39	103.90
36	1	3370	A	N7-C8-N9	5.01	116.31	113.80
38	4	99	C	N1-C2-N3	-5.01	115.69	119.20
1	6	1202	A	N3-C4-C5	-5.01	123.29	126.80
1	6	1743	U	C4-C5-C6	5.01	122.71	119.70
36	5	936	A	N1-C2-N3	5.01	131.81	129.30
36	5	2763	U	N1-C2-O2	-5.01	119.29	122.80
1	2	626	U	N1-C2-N3	5.01	117.91	114.90
1	2	849	C	C2-N3-C4	5.01	122.41	119.90
36	1	275	U	C5-C4-O4	-5.01	122.89	125.90
36	1	347	G	N1-C2-N2	-5.01	111.69	116.20
36	1	1310	G	C6-N1-C2	-5.01	122.09	125.10
36	1	1485	G	C4-C5-N7	5.01	112.81	110.80
36	1	1759	C	C6-N1-C2	-5.01	118.30	120.30
36	1	2636	A	N3-C4-N9	-5.01	123.39	127.40
36	1	3288	G	O4'-C1'-N9	5.01	112.21	108.20
36	1	3325	G	N1-C2-N2	-5.01	111.69	116.20
37	3	37	G	N1-C6-O6	5.01	122.91	119.90
1	6	682	C	N1-C2-O2	-5.01	115.89	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	782	U	N1-C2-O2	5.01	126.31	122.80
1	6	862	A	P-O3'-C3'	5.01	125.71	119.70
1	6	1180	C	O5'-P-OP1	-5.01	101.19	105.70
1	6	1246	C	N3-C2-O2	-5.01	118.39	121.90
36	5	252	U	C5-C6-N1	5.01	125.20	122.70
36	5	668	G	C5-C6-O6	5.01	131.61	128.60
36	5	908	G	N7-C8-N9	5.01	115.61	113.10
36	5	1214	U	OP2-P-O3'	5.01	116.23	105.20
36	5	2252	A	N1-C6-N6	-5.01	115.59	118.60
36	5	2594	C	C2-N1-C1'	5.01	124.31	118.80
36	5	2609	A	C5-C6-N6	-5.01	119.69	123.70
36	5	2703	A	C5-C6-N1	-5.01	115.19	117.70
36	5	2704	A	OP1-P-OP2	5.01	127.12	119.60
36	5	2991	A	C8-N9-C4	-5.01	103.80	105.80
36	5	3226	A	N1-C6-N6	-5.01	115.59	118.60
36	5	3378	C	C6-N1-C1'	-5.01	114.79	120.80
37	7	114	U	N3-C4-O4	5.01	122.91	119.40
38	8	30	C	N3-C2-O2	-5.01	118.39	121.90
1	2	334	G	N1-C2-N2	5.01	120.71	116.20
1	2	571	G	C8-N9-C1'	5.01	133.51	127.00
1	2	909	U	C6-N1-C2	5.01	124.01	121.00
1	2	1112	G	C4-C5-N7	5.01	112.80	110.80
1	2	1199	G	N3-C2-N2	-5.01	116.39	119.90
36	1	394	G	O4'-C1'-N9	5.01	112.21	108.20
36	1	1299	U	C5-C4-O4	-5.01	122.89	125.90
36	1	1322	U	C5-C6-N1	-5.01	120.19	122.70
36	1	1390	A	C5-N7-C8	-5.01	101.39	103.90
36	1	2166	A	C4-C5-C6	-5.01	114.50	117.00
36	1	2773	C	C5-C4-N4	-5.01	116.69	120.20
36	1	2824	G	C5-N7-C8	-5.01	101.80	104.30
36	1	3137	C	C2-N3-C4	-5.01	117.39	119.90
1	6	547	U	N3-C4-O4	-5.01	115.89	119.40
1	6	1592	A	C5-N7-C8	-5.01	101.39	103.90
36	5	998	A	C4-C5-C6	5.01	119.50	117.00
36	5	1056	U	N3-C4-C5	5.01	117.61	114.60
36	5	2193	U	N1-C2-O2	5.01	126.31	122.80
36	5	2371	G	O4'-C1'-N9	-5.01	104.19	108.20
36	5	2897	A	N9-C4-C5	-5.01	103.80	105.80
36	5	2905	U	C2-N3-C4	-5.01	124.00	127.00
36	5	3297	U	C5-C6-N1	5.01	125.20	122.70
1	2	1517	U	N1-C2-O2	-5.01	119.30	122.80
36	1	2621	G	N1-C2-N3	5.01	126.91	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	35	C	N3-C2-O2	5.01	125.41	121.90
38	4	68	G	N3-C2-N2	-5.01	116.39	119.90
56	N0	115	ARG	NE-CZ-NH2	-5.01	117.80	120.30
1	6	626	U	C6-N1-C2	-5.01	118.00	121.00
1	6	1565	C	C5-C6-N1	-5.01	118.50	121.00
36	5	431	U	C5-C4-O4	5.01	128.91	125.90
36	5	569	A	OP1-P-OP2	5.01	127.11	119.60
36	5	1236	G	N3-C4-C5	-5.01	126.10	128.60
36	5	1399	A	C6-C5-N7	-5.01	128.79	132.30
36	5	1613	A	C6-N1-C2	-5.01	115.59	118.60
36	5	1681	U	N1-C2-O2	-5.01	119.30	122.80
36	5	1807	G	C8-N9-C1'	-5.01	120.49	127.00
36	5	2837	A	N1-C6-N6	-5.01	115.59	118.60
1	2	561	G	N3-C2-N2	-5.01	116.40	119.90
1	2	875	G	C4-N9-C1'	5.01	133.01	126.50
36	1	167	U	C5-C4-O4	5.01	128.90	125.90
36	1	499	G	C8-N9-C4	-5.01	104.40	106.40
36	1	2579	G	N3-C4-C5	-5.01	126.10	128.60
36	1	2767	U	O5'-P-OP2	-5.01	101.19	105.70
36	1	2887	A	N9-C4-C5	5.01	107.80	105.80
36	1	3252	G	C4-N9-C1'	-5.01	119.99	126.50
37	3	49	G	N3-C4-C5	-5.01	126.10	128.60
1	6	448	C	N3-C4-C5	-5.01	119.90	121.90
1	6	1740	A	C5-C6-N1	-5.01	115.20	117.70
36	5	994	G	C5-C6-N1	5.01	114.00	111.50
36	5	994	G	N3-C2-N2	5.01	123.41	119.90
36	5	1525	G	N3-C4-N9	5.01	129.00	126.00
36	5	1620	U	C5-C6-N1	5.01	125.20	122.70
36	5	2611	U	C6-N1-C2	-5.01	118.00	121.00
36	5	2960	C	N1-C2-N3	5.01	122.70	119.20
36	1	1738	C	N3-C4-N4	-5.00	114.50	118.00
36	1	2110	G	N3-C4-N9	5.00	129.00	126.00
36	1	2126	A	C5-C6-N1	5.00	120.20	117.70
36	5	1013	G	C5-C6-O6	5.00	131.60	128.60
36	5	1256	G	C8-N9-C4	5.00	108.40	106.40
38	8	76	C	C4-C5-C6	5.00	119.90	117.40
1	2	351	C	C6-N1-C2	5.00	122.30	120.30
1	2	1674	C	O5'-P-OP1	-5.00	101.20	105.70
36	1	228	U	O5'-P-OP1	-5.00	101.20	105.70
36	1	734	C	N1-C2-O2	5.00	121.90	118.90
36	1	974	G	C5-C6-N1	5.00	114.00	111.50
36	1	1099	A	C8-N9-C1'	-5.00	118.69	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1507	G	O5'-P-OP1	-5.00	101.20	105.70
36	1	1736	G	C8-N9-C4	-5.00	104.40	106.40
36	1	1808	G	N9-C4-C5	5.00	107.40	105.40
36	1	2210	G	N3-C4-N9	-5.00	123.00	126.00
1	6	260	U	N1-C2-N3	-5.00	111.90	114.90
1	6	424	C	C4-C5-C6	-5.00	114.90	117.40
1	6	1678	A	N1-C6-N6	5.00	121.60	118.60
36	5	1257	C	C2-N1-C1'	-5.00	113.30	118.80
36	5	1311	G	C8-N9-C1'	-5.00	120.49	127.00
36	5	1853	U	C5-C6-N1	-5.00	120.20	122.70
36	5	2642	A	OP2-P-O3'	5.00	116.21	105.20
36	5	3009	G	N9-C4-C5	5.00	107.40	105.40
38	8	21	C	O4'-C1'-N1	5.00	112.20	108.20
1	2	320	U	C5-C6-N1	5.00	125.20	122.70
36	1	23	A	C4-N9-C1'	5.00	135.30	126.30
36	1	148	G	C8-N9-C1'	-5.00	120.50	127.00
36	1	851	C	C2-N1-C1'	5.00	124.30	118.80
36	1	2287	C	N1-C2-N3	5.00	122.70	119.20
36	1	2297	U	N1-C2-N3	5.00	117.90	114.90
36	1	2354	C	C6-N1-C2	-5.00	118.30	120.30
36	1	2382	G	N3-C2-N2	5.00	123.40	119.90
1	6	415	C	O4'-C1'-N1	5.00	112.20	108.20
1	6	556	A	C5-C6-N1	-5.00	115.20	117.70
1	6	622	A	O4'-C1'-N9	-5.00	104.20	108.20
1	6	1439	C	N3-C2-O2	5.00	125.40	121.90
1	6	1584	G	C8-N9-C4	5.00	108.40	106.40
36	5	885	U	C6-N1-C2	-5.00	118.00	121.00
36	5	974	G	N1-C2-N2	-5.00	111.70	116.20
36	5	1117	G	O4'-C1'-N9	-5.00	104.20	108.20
36	5	1134	G	C5-N7-C8	5.00	106.80	104.30
36	5	1295	G	C8-N9-C1'	-5.00	120.50	127.00
36	5	1699	A	N9-C4-C5	-5.00	103.80	105.80
36	5	2288	G	C6-N1-C2	-5.00	122.10	125.10
36	5	2392	C	N3-C4-C5	5.00	123.90	121.90
36	5	2654	C	OP1-P-O3'	5.00	116.20	105.20
36	5	2759	U	C6-N1-C1'	-5.00	114.20	121.20
36	5	3093	C	N1-C2-N3	5.00	122.70	119.20
36	5	3333	G	C4-C5-N7	-5.00	108.80	110.80
36	5	3337	G	C8-N9-C1'	-5.00	120.50	127.00
38	8	73	U	N1-C2-O2	5.00	126.30	122.80

There are no chirality outliers.

All (130) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
12	C0	26	ASP	Peptide
12	C0	87	VAL	Peptide
16	C4	38	THR	Peptide
18	C6	113	ASP	Peptide
19	C7	85	VAL	Peptide
23	D1	11	LEU	Peptide
24	D2	98	GLN	Peptide
25	D3	143	PRO	Peptide
25	D3	2	GLY	Peptide
26	D4	60	PHE	Peptide
27	D5	94	LYS	Peptide
28	D6	97	PRO	Peptide
33	E1	105	TYR	Peptide
33	E1	146	SER	Peptide
40	L3	204	ALA	Peptide
40	L3	346	THR	Peptide
40	L3	41	VAL	Peptide
41	L4	129	THR	Peptide
41	L4	13	GLY	Peptide
41	L4	131	VAL	Peptide
41	L4	174	ALA	Peptide
41	L4	83	GLY	Peptide
42	L5	58	LYS	Peptide
43	L6	89	THR	Peptide
43	L6	97	ASN	Peptide
44	L7	37	ASN	Peptide
44	L7	92	ILE	Peptide
47	M0	196	PHE	Peptide
47	M0	217	PHE	Peptide
52	M6	110	PRO	Peptide
52	M6	111	PRO	Peptide
53	M7	55	GLN	Peptide
57	N1	16	GLN	Peptide
63	N7	23	VAL	Peptide
63	N7	6	LYS	Peptide
64	N8	116	GLY	Peptide
64	N8	55	LYS	Peptide
64	N8	83	PRO	Peptide
64	N8	95	SER	Peptide
65	N9	20	GLY	Peptide
65	N9	25	LYS	Peptide
69	O3	29	LEU	Peptide

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Mol	Chain	Res	Type	Group
69	O3	90	PRO	Peptide
70	O4	22	VAL	Peptide
70	O4	71	THR	Peptide
72	O6	2	THR	Peptide
2	S0	29	VAL	Peptide
2	S0	6	THR	Peptide
5	S3	144	ALA	Peptide
5	S3	42	THR	Peptide
11	S9	15	PRO	Peptide
11	S9	92	LYS	Peptide
35	SM	89	ARG	Peptide
15	c3	140	LYS	Peptide
17	c5	8	LYS	Peptide
18	c6	115	THR	Peptide
18	c6	140	LYS	Peptide
18	c6	41	PRO	Peptide
19	c7	103	ASP	Peptide
19	c7	87	GLU	Peptide
20	c8	63	GLN	Peptide
21	c9	141	GLU	Peptide
22	d0	70	THR	Peptide
24	d2	120	HIS	Peptide
24	d2	58	SER	Peptide
26	d4	123	LYS	Peptide
26	d4	29	HIS	Peptide
27	d5	83	LEU	Peptide
28	d6	10	ARG	Peptide
80	e0	2	ALA	Peptide
80	e0	6	GLY	Peptide
81	e1	146	SER	Peptide
39	l2	141	PRO	Peptide
39	l2	215	ASN	Peptide
40	l3	139	GLN	Peptide
40	l3	234	GLY	Peptide
40	l3	262	TRP	Peptide
40	l3	27	ALA	Peptide
40	l3	346	THR	Peptide
41	l4	132	ALA	Peptide
41	l4	352	ALA	Peptide
42	l5	133	GLU	Peptide
42	l5	258	LYS	Peptide
42	l5	270	LYS	Peptide

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Mol	Chain	Res	Type	Group
43	l6	31	ARG	Peptide
44	l7	129	LEU	Peptide
44	l7	157	ASN	Peptide
44	l7	226	GLY	Peptide
45	l8	98	ARG	Peptide
47	m0	111	LEU	Peptide
48	m1	8	PRO	Peptide
82	m2	29	UNK	Peptide
82	m2	36	UNK	Peptide
82	m2	85	UNK	Peptide
49	m3	138	VAL	Peptide
49	m3	148	ALA	Peptide
52	m6	182	ASN	Peptide
52	m6	89	SER	Peptide
53	m7	123	PRO	Peptide
53	m7	55	GLN	Peptide
54	m8	185	LYS	Peptide
56	n0	133	ALA	Peptide
56	n0	3	HIS	Peptide
57	n1	147	VAL	Peptide
60	n4	77	LYS	Peptide
61	n5	57	LEU	Peptide
64	n8	23	GLY	Peptide
64	n8	66	ALA	Peptide
65	n9	19	ASN	Peptide
67	o1	23	VAL	Peptide
68	o2	126	LEU	Peptide
68	o2	15	LYS	Peptide
70	o4	33	GLN	Peptide
70	o4	46	ASP	Peptide
83	p0	101	VAL	Peptide
76	q0	78	ILE	Peptide
2	s0	5	ALA	Peptide
2	s0	72	ASP	Peptide
3	s1	130	SER	Peptide
3	s1	131	ASP	Peptide
3	s1	200	ALA	Peptide
5	s3	203	PRO	Peptide
5	s3	53	THR	Peptide
6	s4	159	THR	Peptide
6	s4	219	VAL	Peptide
7	s5	36	ALA	Peptide

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Mol	Chain	Res	Type	Group
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
9	s7	130	VAL	Peptide
11	s9	89	ASP	Peptide

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	37283	0	18756	1861	1
1	6	38149	0	19193	1847	0
2	S0	1577	0	1567	285	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	250	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	294	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	255	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	301	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	285	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	249	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	204	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	248	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	265	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	130	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	170	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	121	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	184	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	c3	1192	0	1255	0	0
16	C4	891	0	883	189	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	193	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	215	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	152	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	227	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	199	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	149	0
22	d0	882	0	939	0	1
23	D1	684	0	672	140	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	148	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	190	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	180	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	94	0
27	d5	558	0	598	0	0
28	D6	769	0	815	167	0
28	d6	769	0	814	0	0
29	D7	610	0	632	87	0
29	d7	610	0	632	0	0
30	D8	497	0	535	65	0
30	d8	497	0	535	0	0
31	D9	442	0	428	83	0
31	d9	442	0	428	0	0
32	E0	475	0	525	71	0
33	E1	566	0	601	93	0
34	SR	2441	0	2397	334	0
34	sR	2442	0	2392	0	2
35	SM	1104	0	996	156	0
35	sM	679	0	603	0	0
36	1	67355	0	33811	2977	1
36	5	67376	0	33824	2966	0
37	3	2579	0	1304	98	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	7	2579	0	1302	119	0
38	4	3353	0	1695	182	0
38	8	3353	0	1695	176	0
39	L2	1914	0	1981	336	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	507	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	484	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	406	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	196	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	321	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	278	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	271	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1736	322	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	221	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	268	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	190	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	279	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	285	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	228	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	236	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	258	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	224	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	232	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	104	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	n2	778	0	791	0	0
59	N3	1003	0	1048	144	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	90	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	145	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	174	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	166	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	231	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	81	0
65	n9	462	0	491	0	0
66	O0	743	0	797	113	0
66	o0	767	0	816	0	0
67	O1	876	0	912	142	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	157	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	153	0
69	o3	850	0	880	0	0
70	O4	880	0	945	171	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	177	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	155	0
72	o6	770	0	846	0	0
73	O7	681	0	684	117	0
73	o7	681	0	685	0	0
74	O8	612	0	682	93	0
74	o8	608	0	671	0	0
75	O9	436	0	475	86	0
75	o9	436	0	475	0	0
76	Q0	417	0	456	91	0
76	q0	417	0	456	0	0
77	Q1	233	0	284	44	0
77	q1	233	0	284	0	0
78	Q2	847	0	916	135	0
78	q2	847	0	914	0	0
79	Q3	694	0	734	134	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	e1	608	0	656	0	0
82	m2	750	0	175	0	0
83	p0	1076	0	1040	0	0
84	p1	235	0	51	0	0
85	p2	230	0	52	0	0
86	1	468	0	0	0	0
86	2	124	0	0	0	0
86	3	14	0	0	0	0
86	4	23	0	0	0	0
86	5	499	0	0	0	0
86	6	150	0	0	0	0
86	7	15	0	0	0	0
86	8	17	0	0	0	0
86	D3	1	0	0	0	0
86	D4	1	0	0	0	0
86	L2	2	0	0	0	0
86	L3	2	0	0	0	0
86	L4	2	0	0	0	0
86	L5	1	0	0	0	0
86	L6	2	0	0	0	0
86	L7	2	0	0	0	0
86	L8	1	0	0	0	0
86	M0	3	0	0	0	0
86	M1	1	0	0	0	0
86	M3	2	0	0	0	0
86	M5	2	0	0	0	0
86	M6	1	0	0	0	0
86	M7	5	0	0	0	0
86	M9	1	0	0	0	0
86	N0	1	0	0	0	0
86	N3	2	0	0	0	0
86	N5	2	0	0	0	0
86	N6	1	0	0	0	0
86	N8	4	0	0	0	0
86	N9	1	0	0	0	0
86	O1	1	0	0	0	0
86	O2	1	0	0	0	0
86	O3	1	0	0	0	0
86	O5	1	0	0	0	0
86	O7	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	S2	2	0	0	0	0
86	S8	1	0	0	0	0
86	SM	1	0	0	0	0
86	c7	1	0	0	0	0
86	c8	1	0	0	0	0
86	d3	1	0	0	0	0
86	d6	1	0	0	0	0
86	l2	1	0	0	0	0
86	l3	6	0	0	0	0
86	l4	1	0	0	0	0
86	l5	3	0	0	0	0
86	l7	2	0	0	0	0
86	l9	1	0	0	0	0
86	m0	1	0	0	0	0
86	m1	1	0	0	0	0
86	m4	1	0	0	0	0
86	m5	2	0	0	0	0
86	m6	3	0	0	0	0
86	m7	4	0	0	0	0
86	n3	1	0	0	0	0
86	n4	1	0	0	0	0
86	n8	2	0	0	0	0
86	n9	2	0	0	0	0
86	o0	1	0	0	0	0
86	o1	1	0	0	0	0
86	o2	1	0	0	0	0
86	o3	2	0	0	0	0
86	o4	1	0	0	0	0
86	q0	2	0	0	0	0
86	q1	1	0	0	0	0
86	q3	2	0	0	0	0
86	s1	1	0	0	0	0
86	s2	1	0	0	0	0
86	s8	2	0	0	0	0
87	1	2429	0	0	266	1
87	2	1099	0	0	117	0
87	3	77	0	0	5	0
87	4	119	0	0	10	0
87	5	2471	0	0	263	0
87	6	1134	0	0	132	0
87	7	77	0	0	4	0
87	8	126	0	0	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	C3	7	0	0	1	0
87	C5	7	0	0	5	0
87	C8	7	0	0	0	0
87	D3	7	0	0	0	0
87	D9	7	0	0	0	0
87	L3	21	0	0	1	0
87	L4	7	0	0	0	0
87	M0	7	0	0	0	0
87	M5	7	0	0	2	0
87	M6	7	0	0	0	0
87	M7	7	0	0	1	0
87	M9	14	0	0	2	0
87	N9	7	0	0	0	0
87	O1	7	0	0	6	0
87	O2	7	0	0	0	0
87	O3	7	0	0	1	0
87	O7	14	0	0	3	0
87	Q2	7	0	0	3	0
87	S8	7	0	0	1	0
87	SR	7	0	0	0	0
87	c3	7	0	0	0	0
87	c5	7	0	0	0	0
87	c8	7	0	0	0	0
87	d4	7	0	0	0	0
87	d9	7	0	0	0	0
87	l3	14	0	0	0	0
87	l4	14	0	0	0	0
87	l5	28	0	0	0	0
87	l9	7	0	0	0	0
87	m0	14	0	0	0	0
87	m1	7	0	0	0	0
87	m4	7	0	0	0	0
87	m5	7	0	0	0	0
87	m7	7	0	0	0	0
87	m9	7	0	0	0	0
87	n3	7	0	0	0	0
87	n9	7	0	0	0	0
87	o3	7	0	0	0	0
87	o7	7	0	0	0	0
87	o9	7	0	0	0	0
87	q1	7	0	0	0	0
87	q2	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	s1	7	0	0	0	0
87	s8	7	0	0	0	0
87	sR	7	0	0	0	0
88	2	34	0	40	9	0
89	D6	1	0	0	0	0
89	D7	1	0	0	0	0
89	D9	1	0	0	0	0
89	E1	1	0	0	0	0
89	O7	1	0	0	1	0
89	Q0	1	0	0	1	0
89	Q2	1	0	0	2	0
89	Q3	1	0	0	0	0
89	d6	1	0	0	0	0
89	d7	1	0	0	0	0
89	d9	1	0	0	0	0
89	e1	1	0	0	0	0
89	o7	1	0	0	0	0
89	q0	1	0	0	0	0
89	q2	1	0	0	0	0
89	q3	1	0	0	0	0
All	All	411095	0	297211	21971	3

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 32.

All (21971) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:63:GLN:CB	25:D3:63:GLN:CG	1.55	1.57
78:Q2:17:CYS:SG	78:Q2:17:CYS:CB	2.08	1.40
1:2:1754:A:HO2'	32:E0:2:ALA:N	1.52	1.08
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.80	1.07
36:1:883:A:H5'	53:M7:133:HIS:HA	1.35	1.07
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.32	1.06
56:N0:115:ARG:NH1	36:5:1295:G:O2'	296.14	1.04
78:Q2:17:CYS:CB	89:Q2:501:ZN:ZN	1.37	1.04
41:L4:52:VAL:HG11	41:L4:99:MET:HE3	1.38	1.03
27:D5:43:ASP:HB2	27:D5:46:LYS:HB2	3.29	1.02
38:8:157:U:H3'	38:8:158:U:H3'	1.42	1.02
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.40	1.02
36:1:640:U:OP1	64:N8:21:ARG:NH2	1.93	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:101:THR:HG23	45:L8:104:GLU:H	1.23	1.02
40:L3:10:ARG:HH22	40:L3:263:SER:HB2	1.22	1.01
36:5:3194:C:O2	36:5:3197:G:N2	1.91	1.01
51:M5:84:PRO:HA	51:M5:87:GLN:HG3	1.41	1.01
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	2.08	1.01
1:6:1799:U:H4'	1:6:1800:A:H2'	1.40	1.01
46:L9:16:VAL:HG12	46:L9:29:GLY:HA3	1.43	1.01
53:M7:138:LYS:NZ	36:5:2356:A:OP1	148.39	1.00
11:S9:3:ARG:NH1	1:6:40:A:OP1	372.26	1.00
1:6:25:C:N4	1:6:380:U:O4	1.95	1.00
28:D6:26:CYS:HB3	28:D6:77:CYS:SG	2.01	0.99
11:S9:113:VAL:HG12	11:S9:119:ALA:HB2	3.89	0.99
1:6:454:U:H5''	1:6:455:C:H5	1.25	0.99
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.73	0.99
36:5:1661:G:O6	87:5:3915:OHX:N3	1.94	0.98
1:6:1579:U:OP1	87:6:2189:OHX:N4	1.97	0.98
44:L7:158:LYS:HZ2	44:L7:159:GLN:H	3.38	0.98
45:L8:137:ASN:HB3	51:M5:2:GLY:HA2	1.45	0.98
13:C1:37:ASN:HA	13:C1:44:THR:HG21	1.42	0.98
41:L4:271:LYS:NZ	36:5:695:C:OP1	104.88	0.97
43:L6:64:LEU:HD11	43:L6:76:LEU:HD23	1.45	0.97
36:1:807:A:H61	36:1:934:G:H22	1.12	0.97
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.84	0.97
52:M6:18:ARG:NH2	36:5:1318:A:OP1	277.84	0.97
36:1:838:G:O6	79:Q3:4:ARG:NH2	1.98	0.97
42:L5:22:ARG:NH1	42:L5:28:THR:OG1	5.43	0.97
36:1:360:G:N2	36:1:814:U:O2	1.97	0.96
15:C3:76:LYS:HA	15:C3:81:ALA:HB2	2.16	0.96
36:1:1233:G:H22	36:1:1255:C:H42	1.09	0.96
19:C7:26:LEU:HD11	19:C7:62:GLN:HG3	5.45	0.96
50:M4:55:ARG:NH2	50:M4:76:ALA:O	1.98	0.96
7:S5:33:VAL:HA	7:S5:37:GLN:HE22	4.97	0.96
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	4.61	0.95
4:S2:205:ARG:HB3	4:S2:205:ARG:HH11	1.30	0.95
44:L7:25:GLN:HG2	44:L7:29:GLU:HB2	1.46	0.95
76:Q0:122:ARG:HH11	76:Q0:122:ARG:HG3	1.32	0.95
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.02	0.95
36:1:3087:A:OP1	87:1:4180:OHX:N1	1.98	0.95
61:N5:111:ASN:HB2	61:N5:123:TYR:HB2	3.09	0.95
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.00	0.94
1:2:406:U:H2'	1:2:407:A:H8	1.30	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:64:SER:HA	41:L4:75:PRO:HA	1.49	0.94
36:1:1108:U:H2'	36:1:1109:U:H6	1.29	0.94
42:L5:154:THR:HG23	42:L5:157:ALA:HB2	4.15	0.94
36:5:1383:G:O6	87:5:3932:OHX:N2	2.00	0.94
19:C7:27:ASP:O	19:C7:31:ASN:ND2	2.00	0.94
47:M0:208:ASN:HB3	47:M0:211:ARG:HH11	5.75	0.94
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	1.78	0.94
54:M8:40:THR:O	54:M8:42:ALA:N	2.01	0.94
36:1:1024:G:N2	36:1:1027:A:N7	2.16	0.94
5:S3:178:ARG:HE	5:S3:178:ARG:H	1.14	0.94
15:C3:101:HIS:O	15:C3:105:ASN:ND2	1.99	0.94
71:O5:101:THR:OG1	71:O5:102:GLU:N	2.81	0.94
47:M0:190:VAL:HG13	47:M0:197:VAL:HG21	2.67	0.94
44:L7:217:PRO:O	87:5:3997:OHX:N6	259.84	0.94
76:Q0:99:CYS:SG	89:Q0:500:ZN:ZN	1.56	0.93
10:S8:100:ALA:HB3	10:S8:169:ILE:HG13	3.66	0.93
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.01	0.93
8:S6:7:TYR:HE1	8:S6:125:THR:HA	2.71	0.93
44:L7:232:ARG:HG3	44:L7:235:PHE:HB2	3.40	0.93
42:L5:41:LYS:NZ	57:N1:32:LYS:O	2.69	0.93
36:5:1665:C:H42	36:5:1784:G:H1	1.14	0.93
17:C5:115:TYR:OH	1:6:1556:A:OP1	386.35	0.93
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.02	0.93
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.02	0.93
5:S3:107:PHE:O	5:S3:111:ASN:ND2	2.02	0.93
47:M0:21:ARG:NH1	47:M0:22:TYR:OH	3.15	0.93
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.01	0.93
36:1:1234:G:H1	36:1:1254:C:H42	1.17	0.92
1:2:916:U:H3	16:C4:41:ARG:HH22	1.01	0.92
68:O2:22:SER:HA	68:O2:28:VAL:HB	2.11	0.92
55:M9:60:LYS:NZ	36:5:1672:U:OP2	170.68	0.92
5:S3:38:GLU:HG2	5:S3:49:ILE:HD13	1.48	0.92
2:S0:180:GLU:HA	2:S0:183:ARG:HB2	2.10	0.92
40:L3:21:ARG:HG2	40:L3:269:GLN:HG2	1.51	0.92
20:C8:36:LYS:HG2	20:C8:105:VAL:HG21	8.00	0.92
1:2:181:A:H2'	1:2:182:A:C8	2.04	0.92
7:S5:40:ILE:HG23	7:S5:42:LEU:HG	4.93	0.92
54:M8:66:ARG:NH2	36:5:744:A:OP1	167.43	0.92
1:6:1203:A:OP2	87:6:2135:OHX:N1	2.02	0.92
1:6:754:A:N6	1:6:793:A:N7	2.17	0.92
36:1:2389:C:H42	36:1:2990:G:H1	1.17	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.03	0.92
1:6:1698:G:N2	1:6:1699:G:N7	2.18	0.92
36:1:2652:U:H4'	78:Q2:89:LYS:HE2	1.51	0.92
48:M1:94:ARG:O	48:M1:96:PHE:N	2.01	0.92
51:M5:125:SER:HB3	36:5:2433:U:H1'	159.96	0.92
1:2:1597:A:OP1	31:D9:19:ARG:NH2	2.02	0.92
36:1:847:A:H2'	36:1:848:A:H8	1.34	0.92
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.79	0.92
4:S2:142:GLY:HA2	4:S2:151:PRO:HB3	1.52	0.92
1:6:976:G:H1	1:6:1023:A:HO2'	1.16	0.91
36:1:1898:G:OP2	87:1:3932:OHX:N4	2.03	0.91
36:1:624:G:OP2	87:1:4130:OHX:N3	2.03	0.91
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	2.08	0.91
66:O0:29:SER:HA	66:O0:32:LYS:HD3	1.51	0.91
36:1:2859:U:O2'	87:1:3868:OHX:N3	2.03	0.91
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.03	0.91
1:6:1073:G:H2'	1:6:1074:G:H5''	1.53	0.91
31:D9:24:CYS:HB3	31:D9:42:CYS:SG	2.87	0.91
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.03	0.91
55:M9:35:ALA:O	55:M9:37:SER:N	3.46	0.91
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.02	0.91
1:2:916:U:H3	16:C4:41:ARG:NH2	1.69	0.91
1:2:1483:A:H2'	1:2:1484:G:H8	1.34	0.91
46:L9:28:VAL:HG12	46:L9:33:THR:HB	5.39	0.91
47:M0:191:LYS:NZ	47:M0:212:GLU:OE2	2.02	0.91
63:N7:24:VAL:HG21	63:N7:87:LEU:HD23	3.99	0.91
36:1:2179:C:OP1	39:L2:132:ASN:ND2	2.04	0.91
1:2:1229:G:O2'	1:2:1255:G:N2	2.04	0.91
40:L3:60:LEU:HD11	40:L3:62:ARG:HB2	1.52	0.91
1:6:1595:U:H3	1:6:1600:A:H2	1.18	0.91
67:O1:82:GLU:OE2	87:5:3969:OHX:N5	115.36	0.91
1:6:1010:C:OP2	87:6:2177:OHX:N3	2.03	0.91
18:C6:22:VAL:HG22	18:C6:65:ILE:HG23	4.19	0.91
11:S9:163:PRO:O	11:S9:165:GLY:N	2.04	0.91
36:1:2443:A:N6	36:1:2504:U:O4	2.03	0.90
1:6:542:A:H1'	1:6:543:C:H5'	1.52	0.90
52:M6:84:LEU:O	52:M6:86:GLY:N	2.03	0.90
1:2:264:G:N7	87:2:2034:OHX:N1	2.19	0.90
36:1:2895:G:O2'	76:Q0:100:TYR:O	1.88	0.90
46:L9:49:ASN:O	46:L9:51:GLN:N	2.05	0.90
1:6:1112:G:N2	1:6:1133:A:N7	2.19	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:195:ILE:HG22	6:S4:196:VAL:H	3.20	0.90
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.06	0.90
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	2.49	0.90
56:N0:90:MET:HG2	36:5:1213:G:H4'	319.34	0.90
40:L3:120:LYS:HE2	36:5:3000:A:H5''	202.18	0.90
1:6:74:U:O2	87:6:2199:OHX:N2	2.05	0.90
50:M4:38:ILE:HA	50:M4:44:VAL:HG12	4.02	0.90
36:1:3182:G:OP1	52:M6:160:ARG:NH2	2.04	0.90
18:C6:143:ARG:NH1	1:6:1191:U:OP2	348.26	0.90
36:1:1129:A:OP1	47:M0:13:LYS:NZ	2.05	0.90
44:L7:79:ALA:HB2	57:N1:138:SER:H	1.34	0.90
36:5:3242:G:H5'	36:5:3245:A:H8	1.36	0.90
61:N5:114:VAL:HB	75:O9:10:LYS:HZ1	3.53	0.90
60:N4:49:ILE:O	60:N4:52:THR:OG1	1.94	0.90
51:M5:99:ARG:HD3	51:M5:167:THR:HB	1.52	0.89
36:5:1231:A:H5''	36:5:1232:C:H5'	1.52	0.89
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.52	0.89
36:1:2640:A:OP1	57:N1:55:LYS:NZ	2.04	0.89
4:S2:60:SER:OG	23:D1:15:ARG:NH2	4.02	0.89
59:N3:23:MET:HG2	59:N3:36:ILE:HD11	3.10	0.89
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.06	0.89
27:D5:59:TYR:HE2	27:D5:61:SER:HB3	1.35	0.89
1:2:658:C:N3	1:2:676:G:N1	2.19	0.89
1:2:1621:U:H2'	1:2:1622:G:C8	2.07	0.89
36:1:2661:G:H1	36:1:2709:C:H42	1.16	0.89
9:S7:60:ILE:HD11	9:S7:90:VAL:HG22	4.05	0.89
36:5:3170:A:N1	36:5:3280:U:N3	2.20	0.89
69:O3:59:VAL:O	69:O3:61:GLY:N	2.49	0.89
1:2:569:C:H2'	1:2:570:A:H8	1.38	0.89
75:O9:19:GLN:NE2	38:8:53:A:OP1	90.24	0.89
25:D3:79:ASN:HD22	25:D3:81:LYS:HB2	1.38	0.89
36:1:2881:C:H42	36:1:2943:G:H1	1.20	0.89
42:L5:260:PHE:HE2	37:7:121:U:H5'	321.91	0.89
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.05	0.89
40:L3:147:GLU:OE2	40:L3:150:ARG:NH1	2.89	0.89
1:6:83:G:N7	87:6:2102:OHX:N1	2.20	0.89
5:S3:223:LYS:HD3	34:SR:193:ILE:HD13	7.31	0.89
36:5:2273:G:O6	87:5:4193:OHX:N5	2.06	0.89
42:L5:8:LYS:NZ	36:5:2687:G:OP1	310.87	0.89
52:M6:121:PRO:HA	52:M6:124:LEU:HD23	2.63	0.89
44:L7:222:HIS:ND1	44:L7:224:ILE:HG13	1.87	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.06	0.89
1:2:1641:C:H42	1:2:1760:G:H1	1.20	0.88
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	4.32	0.88
1:2:895:G:O2'	16:C4:38:THR:N	2.06	0.88
36:5:655:C:H2'	36:5:656:A:H8	1.37	0.88
36:1:1722:U:OP1	55:M9:100:ARG:NH1	2.05	0.88
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.05	0.88
50:M4:14:LEU:H	50:M4:19:ARG:HH11	1.19	0.88
29:D7:55:THR:OG1	29:D7:56:CYS:N	2.02	0.88
40:L3:76:VAL:HA	40:L3:326:GLY:H	1.38	0.88
1:6:67:A:O2'	1:6:69:G:OP1	1.91	0.88
36:5:742:G:N7	87:5:3998:OHX:N4	2.21	0.88
62:N6:36:SER:O	62:N6:39:LEU:N	2.05	0.88
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.36	0.88
36:5:343:U:OP2	87:5:3920:OHX:N3	2.06	0.88
36:5:2818:U:H6	36:5:2818:U:H5'	1.38	0.88
72:O6:70:ARG:HH11	72:O6:84:LYS:HG2	1.38	0.88
40:L3:81:THR:HG23	40:L3:205:VAL:HG21	4.02	0.88
36:1:3155:U:H3'	36:1:3156:U:H4'	1.55	0.88
11:S9:88:GLU:O	11:S9:91:LYS:NZ	2.07	0.88
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.69	0.88
39:L2:45:VAL:HB	39:L2:61:VAL:HG22	1.56	0.88
1:2:902:G:OP1	16:C4:90:ARG:NH1	2.07	0.88
40:L3:59:ASP:OD2	40:L3:357:LYS:NZ	2.35	0.88
34:SR:82:SER:OG	34:SR:92:TRP:NE1	3.00	0.88
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.31	0.88
21:C9:57:ARG:NH1	1:6:1479:A:OP1	391.64	0.88
36:1:3140:G:OP1	40:L3:20:LYS:NZ	2.05	0.88
58:N2:56:VAL:HG22	58:N2:65:VAL:HG22	1.53	0.88
49:M3:165:SER:O	49:M3:167:PHE:N	2.05	0.88
1:6:151:G:H1	1:6:163:G:H1	1.22	0.88
36:1:2409:G:H1	36:1:2812:C:H42	1.17	0.88
66:O0:95:ALA:HB2	66:O0:100:ILE:HD11	1.56	0.88
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.54	0.88
1:2:1483:A:H2'	1:2:1484:G:C8	2.08	0.88
36:5:511:G:H1	36:5:580:C:H42	1.21	0.88
36:1:2338:C:OP1	40:L3:236:LYS:NZ	2.05	0.88
52:M6:195:ALA:O	52:M6:197:LEU:N	2.76	0.88
3:S1:144:ARG:HB3	3:S1:208:GLN:HG2	3.49	0.88
36:1:2125:A:N6	36:1:2328:U:O4	2.06	0.88
78:Q2:54:THR:O	78:Q2:54:THR:OG1	3.00	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:77:LEU:O	36:5:272:G:N2	145.05	0.88
22:D0:69:LYS:HG3	22:D0:78:THR:HB	3.30	0.88
21:C9:61:VAL:HG21	21:C9:104:VAL:HG11	1.56	0.87
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.54	0.87
36:5:1249:G:H2'	36:5:1250:G:H8	1.38	0.87
39:L2:130:SER:HB3	39:L2:174:ARG:HH21	1.38	0.87
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.07	0.87
36:1:208:C:OP2	41:L4:163:LYS:NZ	2.08	0.87
1:2:1575:G:H2'	1:2:1576:A:C8	2.08	0.87
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.43	0.87
9:S7:143:LEU:HD11	9:S7:149:ILE:HG13	1.56	0.87
4:S2:119:LYS:HZ2	1:6:1291:G:H5'	405.24	0.87
36:1:1170:A:OP2	87:1:3959:OHX:N5	2.08	0.87
1:6:1207:C:H42	1:6:1456:C:H5	1.19	0.87
43:L6:172:HIS:HD1	69:O3:44:TYR:HH	0.88	0.87
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	2.15	0.87
36:5:3054:U:O4	87:5:4167:OHX:N4	2.08	0.87
1:6:1280:C:H2'	1:6:1281:G:H8	1.37	0.87
70:O4:74:ARG:NH2	36:5:1639:C:OP2	199.02	0.87
1:6:1702:A:H5'	1:6:1703:C:H5	1.36	0.87
1:6:140:A:N6	1:6:281:G:OP1	2.08	0.87
10:S8:50:GLY:O	10:S8:52:ASN:ND2	2.08	0.87
16:C4:54:GLU:OE1	1:6:901:G:N2	282.61	0.87
36:5:346:C:N4	36:5:349:A:OP2	2.07	0.87
40:L3:43:LEU:HG	40:L3:181:ILE:HG21	2.92	0.87
1:2:1291:G:H21	1:2:1324:G:H22	1.19	0.87
1:6:36:C:N4	1:6:472:U:O4	2.08	0.87
22:D0:105:GLN:HA	22:D0:108:ILE:HD13	6.99	0.87
64:N8:147:LEU:HD13	72:O6:7:ILE:HD11	5.63	0.87
36:1:863:C:OP1	87:1:3883:OHX:N5	2.08	0.87
36:1:3181:C:O2'	52:M6:164:SER:OG	1.85	0.87
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	2.00	0.87
36:5:3164:C:N4	36:5:3286:G:O6	2.06	0.87
70:O4:5:VAL:HG22	70:O4:6:THR:H	1.38	0.87
1:6:1636:C:H4'	1:6:1637:C:H5''	1.57	0.87
8:S6:87:ARG:NH1	1:6:159:U:O2'	321.68	0.87
41:L4:197:ARG:NH1	36:5:1381:A:OP1	110.06	0.86
64:N8:40:HIS:O	36:5:964:G:N2	186.71	0.86
1:6:454:U:H5''	1:6:455:C:C5	2.10	0.86
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.39	0.86
36:5:812:G:N7	87:5:4039:OHX:N2	2.22	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:48:ARG:HG3	59:N3:48:ARG:HH11	2.27	0.86
34:SR:7:LEU:HG	34:SR:315:VAL:HG13	3.85	0.86
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.08	0.86
67:O1:44:MET:HB2	67:O1:46:THR:HG22	1.57	0.86
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	2.87	0.86
36:1:2218:G:H2'	36:1:2219:A:C8	2.11	0.86
8:S6:164:LYS:HD2	8:S6:167:LYS:HB3	2.46	0.86
36:1:501:A:H2'	36:1:502:U:C6	2.10	0.86
53:M7:108:ASP:O	53:M7:110:THR:N	3.30	0.86
36:5:2284:C:O2	87:5:4174:OHX:N1	2.08	0.86
1:2:1515:A:O2'	1:2:1517:U:OP2	1.94	0.86
41:L4:152:VAL:HG22	41:L4:172:VAL:HG21	1.55	0.86
1:2:1143:A:O2'	1:2:1300:A:N1	2.09	0.86
56:N0:44:PHE:O	56:N0:46:GLN:N	3.63	0.86
36:5:2233:A:OP2	87:5:3957:OHX:N5	2.09	0.86
1:2:160:C:O2'	8:S6:95:LYS:NZ	2.07	0.86
36:1:345:G:OP1	36:1:1429:G:N2	2.08	0.86
1:2:25:C:O2	87:2:2084:OHX:N3	2.09	0.86
64:N8:12:ARG:NH2	36:5:661:G:OP2	152.66	0.86
36:1:3393:U:H2'	36:1:3394:U:H6	1.39	0.86
11:S9:146:PHE:HZ	1:6:765:G:C6	430.10	0.86
17:C5:40:ARG:O	17:C5:43:ARG:N	3.86	0.86
52:M6:119:VAL:HB	52:M6:124:LEU:HD21	2.73	0.86
52:M6:85:ARG:HH11	52:M6:90:HIS:CE1	2.73	0.86
1:2:1684:U:H2'	1:2:1685:G:H8	1.40	0.86
36:1:3276:G:O6	53:M7:171:ARG:NH1	2.07	0.86
36:5:835:G:O2'	36:5:857:G:N2	2.08	0.86
36:1:1009:A:O3'	47:M0:39:LYS:NZ	2.08	0.85
10:S8:39:GLY:N	10:S8:60:ILE:O	2.07	0.85
52:M6:181:ALA:O	52:M6:183:ALA:N	2.08	0.85
40:L3:299:ASP:OD1	40:L3:301:THR:OG1	1.93	0.85
36:1:979:U:H1'	36:1:980:A:C8	2.11	0.85
19:C7:10:LYS:NZ	1:6:1401:A:O3'	407.27	0.85
36:1:1456:A:N7	67:O1:26:LYS:NZ	2.24	0.85
48:M1:109:HIS:HD2	48:M1:114:ILE:HG21	5.55	0.85
72:O6:70:ARG:HG3	72:O6:87:VAL:HG21	3.54	0.85
40:L3:106:TRP:O	40:L3:137:TYR:OH	1.94	0.85
36:5:1806:A:OP2	87:5:4019:OHX:N5	2.08	0.85
1:2:747:C:H4'	24:D2:80:ASN:HD21	1.41	0.85
70:O4:46:ASP:OD2	70:O4:88:ARG:NH2	4.20	0.85
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.10	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:54:LEU:N	49:M3:94:GLY:O	3.32	0.85
57:N1:129:LYS:HD3	36:5:1097:G:H5''	249.10	0.85
1:6:653:C:N4	1:6:677:G:O6	2.07	0.85
58:N2:42:LYS:NZ	36:5:1686:U:OP1	175.73	0.85
36:5:1365:G:OP2	87:5:4024:OHX:N3	2.10	0.85
49:M3:69:VAL:HB	49:M3:149:GLN:HE22	1.42	0.85
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.10	0.85
1:6:868:G:H1	1:6:960:U:H3	1.23	0.85
47:M0:47:PRO:HD2	47:M0:141:LYS:HA	1.59	0.85
7:S5:51:VAL:HG13	7:S5:131:GLN:HB2	1.58	0.85
1:2:1420:C:OP1	31:D9:54:LYS:NZ	2.08	0.85
69:O3:75:HIS:HB3	69:O3:80:VAL:HB	1.59	0.85
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	1.58	0.85
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.10	0.85
36:5:1565:G:N1	36:5:1574:C:N3	2.24	0.85
36:5:754:G:H2'	36:5:755:A:H8	1.42	0.85
36:1:3338:C:O2	36:1:3366:G:N2	2.10	0.85
8:S6:214:LYS:O	8:S6:218:GLU:N	4.32	0.85
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	2.82	0.85
5:S3:177:MET:HG3	5:S3:178:ARG:HG2	5.99	0.85
1:2:1575:G:H2'	1:2:1576:A:H8	1.41	0.85
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.10	0.84
21:C9:115:GLU:OE1	21:C9:123:ARG:NH1	4.14	0.84
55:M9:47:ASN:ND2	36:5:1765:U:O4	96.91	0.84
1:2:1291:G:H22	1:2:1324:G:H1	1.20	0.84
36:1:1483:G:O6	70:O4:4:ARG:NH2	2.10	0.84
1:2:572:C:H5'	25:D3:109:ARG:HH12	1.39	0.84
9:S7:30:SER:HB2	9:S7:34:LEU:HB2	1.85	0.84
40:L3:53:MET:HG2	40:L3:77:THR:HG22	2.09	0.84
64:N8:3:SER:O	64:N8:6:THR:HG22	2.16	0.84
39:L2:4:VAL:HG13	39:L2:8:GLN:HE21	3.11	0.84
40:L3:95:THR:O	40:L3:97:ARG:N	2.10	0.84
64:N8:34:MET:HB2	36:5:96:G:OP2	159.69	0.84
78:Q2:17:CYS:SG	89:Q2:501:ZN:ZN	1.64	0.84
36:5:3035:A:OP2	87:5:4046:OHX:N5	2.10	0.84
19:C7:82:ASP:O	19:C7:83:GLN:NE2	2.10	0.84
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	1.93	0.84
36:5:114:A:N6	36:5:154:U:O2	2.11	0.84
33:E1:98:VAL:HG21	1:6:1252:C:H41	434.88	0.84
37:7:13:A:OP1	37:7:111:U:O2'	1.94	0.84
26:D4:27:VAL:HG11	26:D4:35:VAL:HG21	3.70	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:228:SER:HA	44:L7:232:ARG:HH22	3.11	0.84
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	3.39	0.84
11:S9:102:GLU:OE2	11:S9:102:GLU:N	2.48	0.84
26:D4:99:LYS:HD3	26:D4:101:GLU:HB2	1.56	0.84
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	2.36	0.84
39:L2:30:ARG:O	39:L2:163:ARG:NH2	2.11	0.84
57:N1:90:ASN:HD22	36:5:2736:A:H1'	222.25	0.84
1:6:479:C:O2	1:6:510:G:N2	2.10	0.84
5:S3:141:LYS:NZ	1:6:1275:A:N3	389.98	0.84
36:5:272:G:O6	36:5:293:C:N4	2.07	0.84
1:6:485:A:N6	1:6:502:U:O4	2.09	0.84
1:2:583:C:OP1	87:2:2026:OHX:N3	2.11	0.84
53:M7:17:ALA:HB2	53:M7:98:ALA:HB2	1.57	0.84
47:M0:161:GLY:O	47:M0:163:GLN:NE2	2.70	0.84
45:L8:67:ILE:O	45:L8:236:GLY:N	2.11	0.84
35:SM:72:ARG:HH22	1:6:1461:C:P	327.88	0.84
36:1:1748:G:OP2	74:O8:42:LYS:NZ	2.10	0.84
61:N5:56:ARG:NH2	38:8:135:G:OP2	79.99	0.84
1:6:1081:A:H2	1:6:1082:C:H41	1.26	0.84
11:S9:154:LYS:O	11:S9:155:HIS:ND1	4.34	0.84
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	2.34	0.84
1:2:985:G:O6	87:2:2024:OHX:N4	2.11	0.84
8:S6:11:GLY:HA3	8:S6:129:VAL:HG22	1.57	0.84
79:Q3:9:GLY:O	79:Q3:11:THR:N	2.86	0.84
36:1:2400:G:H5''	36:1:2401:A:OP2	1.76	0.84
1:6:445:A:H2'	1:6:446:A:H8	1.42	0.83
21:C9:73:VAL:O	21:C9:77:ASN:ND2	2.52	0.83
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	1.59	0.83
24:D2:23:ARG:NH1	24:D2:65:LEU:O	2.11	0.83
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	2.99	0.83
1:2:1158:C:H42	1:2:1163:A:H61	1.19	0.83
1:2:1481:C:O2'	1:2:1482:C:O5'	1.96	0.83
1:2:1772:C:H5''	77:Q1:2:ARG:HD2	1.59	0.83
39:L2:96:LEU:O	79:Q3:87:ARG:NH1	2.54	0.83
35:SM:55:SER:OG	35:SM:56:GLY:N	2.09	0.83
1:6:649:U:H3	1:6:685:A:H61	1.24	0.83
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.60	0.83
43:L6:31:ARG:O	43:L6:33:SER:N	2.99	0.83
46:L9:101:VAL:HG22	46:L9:114:VAL:HG22	1.90	0.83
50:M4:80:THR:HG21	36:5:560:G:H5'	355.14	0.83
36:1:3259:U:H6	36:1:3259:U:H5'	1.44	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:366:A:OP1	41:L4:95:ARG:NH2	2.12	0.83
41:L4:161:LYS:NZ	36:5:209:A:OP1	75.68	0.83
1:2:844:A:H2'	1:2:845:G:H8	1.44	0.83
1:2:788:A:OP2	6:S4:108:ARG:NH1	2.11	0.83
55:M9:88:ARG:HG3	55:M9:88:ARG:HH11	3.12	0.83
36:1:1818:U:H3'	36:1:1819:U:H5''	1.59	0.83
28:D6:19:LYS:NZ	1:6:944:A:OP2	295.12	0.83
42:L5:270:LYS:O	42:L5:271:LYS:NZ	7.91	0.83
1:2:406:U:H2'	1:2:407:A:C8	2.13	0.83
1:2:1169:G:N1	1:2:1575:G:OP2	2.10	0.83
73:O7:65:ARG:HH11	73:O7:65:ARG:HG3	1.44	0.83
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.32	0.83
1:6:1266:U:H2'	1:6:1267:G:C8	2.14	0.83
1:2:1083:G:H1	1:2:1090:C:H42	1.21	0.83
36:1:1317:A:OP1	87:1:4062:OHX:N2	2.12	0.83
42:L5:237:GLU:O	42:L5:241:THR:OG1	1.95	0.83
16:C4:67:VAL:O	16:C4:71:CYS:N	2.11	0.83
4:S2:56:ILE:HA	4:S2:61:LEU:HD12	4.24	0.83
36:1:2444:C:H42	36:1:2503:G:H21	1.24	0.83
76:Q0:84:ALA:HA	76:Q0:87:SER:HB2	1.60	0.83
1:2:559:C:H42	1:2:586:G:H1	1.27	0.83
1:2:1203:A:OP2	87:2:2111:OHX:N5	2.12	0.83
1:2:1570:A:O2'	20:C8:144:ARG:NH2	2.12	0.83
36:1:76:G:H5''	49:M3:73:ARG:HB2	1.61	0.83
36:1:3138:U:H2'	36:1:3139:A:H5''	1.60	0.83
1:2:1351:G:O6	1:2:1374:C:N4	2.11	0.83
27:D5:83:LEU:HD22	27:D5:88:ILE:HD12	1.59	0.83
28:D6:10:ARG:NE	1:6:1795:U:O2	328.27	0.83
36:1:1196:C:O2	87:1:3993:OHX:N2	2.12	0.83
7:S5:185:ARG:HH12	1:6:1572:G:H1'	328.35	0.83
87:1:4180:OHX:N1	40:L3:364:LYS:O	2.12	0.83
35:SM:73:SER:OG	35:SM:74:LYS:NZ	4.65	0.83
18:C6:90:VAL:HG21	18:C6:117:LEU:HD11	1.60	0.83
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.60	0.83
36:5:2874:G:H22	36:5:2979:U:H3	1.27	0.83
36:1:1945:A:H2'	36:1:1946:A:H8	1.44	0.83
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.44	0.83
36:1:847:A:H2'	36:1:848:A:C8	2.14	0.83
42:L5:265:TYR:OH	37:7:121:U:OP2	313.36	0.83
53:M7:31:GLU:OE2	53:M7:61:ARG:N	2.57	0.83
36:5:2697:A:H2'	36:5:2698:G:C8	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2255:A:H5'	36:5:2261:G:H22	1.43	0.83
7:S5:35:GLN:O	7:S5:37:GLN:N	3.69	0.82
8:S6:48:TYR:OH	8:S6:119:GLN:O	3.22	0.82
39:L2:177:LYS:HB2	79:Q3:29:LEU:HD22	3.91	0.82
73:O7:66:TYR:O	73:O7:68:LYS:N	3.02	0.82
36:1:129:U:O4	87:1:3891:OHX:N5	2.11	0.82
36:1:2181:C:OP1	39:L2:192:LYS:NZ	2.11	0.82
10:S8:37:LYS:NZ	10:S8:95:THR:OG1	2.36	0.82
15:C3:103:GLU:O	15:C3:106:ARG:NH2	2.11	0.82
62:N6:2:ALA:N	36:5:213:A:OP1	81.55	0.82
36:1:1165:A:N6	36:1:1334:U:O4	2.11	0.82
1:2:1113:A:H5'	77:Q1:6:ARG:HH22	1.45	0.82
1:2:181:A:H2'	1:2:182:A:H8	1.40	0.82
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.36	0.82
49:M3:2:ALA:HB1	64:N8:33:GLY:H	1.43	0.82
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	2.70	0.82
36:1:86:G:O2'	36:1:98:G:O6	1.97	0.82
45:L8:99:PRO:HG2	45:L8:190:VAL:HG13	4.56	0.82
1:2:1034:C:HO2'	24:D2:2:THR:N	1.77	0.82
25:D3:74:VAL:HG21	25:D3:104:LEU:HD11	1.60	0.82
36:1:2894:C:OP2	46:L9:168:ARG:NH1	2.13	0.82
1:2:1594:G:H5'	31:D9:33:LYS:HE3	1.61	0.82
8:S6:162:VAL:O	8:S6:169:TYR:N	2.11	0.82
1:2:147:A:OP2	1:2:166:C:N4	2.09	0.82
7:S5:73:THR:HG21	18:C6:114:ARG:HE	5.35	0.82
74:O8:42:LYS:HG3	74:O8:55:VAL:HG22	1.62	0.82
36:1:2094:C:H2'	36:1:2095:G:H8	1.43	0.82
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.60	0.82
1:2:591:A:H2'	1:2:592:A:C8	2.14	0.82
36:5:3192:U:O4	87:5:4139:OHX:N6	2.13	0.82
48:M1:171:VAL:HG13	48:M1:172:LEU:H	1.44	0.82
36:5:3128:G:OP2	87:5:4154:OHX:N3	2.12	0.82
36:1:2251:G:O6	36:1:2265:C:N4	2.12	0.82
5:S3:209:ILE:O	19:C7:20:TYR:OH	1.98	0.82
1:2:1684:U:H2'	1:2:1685:G:C8	2.14	0.82
42:L5:177:GLU:O	42:L5:179:ARG:N	2.11	0.82
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.95	0.82
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.51	0.82
41:L4:50:TYR:HD2	41:L4:50:TYR:H	3.17	0.82
19:C7:35:CYS:HA	19:C7:38:ILE:HG22	1.62	0.82
5:S3:40:ARG:HB2	5:S3:47:GLU:HB2	1.86	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:128:ARG:NH2	36:5:3214:U:OP2	281.85	0.82
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.72	0.82
8:S6:13:GLN:OE1	1:6:151:G:N2	311.32	0.82
6:S4:148:ARG:NH1	8:S6:201:GLN:OE1	2.11	0.82
36:1:799:G:O6	87:1:3981:OHX:N5	2.12	0.82
36:5:1487:G:H1	36:5:1855:U:H3	1.28	0.82
36:5:968:G:H2'	36:5:969:C:C6	2.15	0.82
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.62	0.82
36:1:2808:A:O2'	87:1:3878:OHX:N3	2.12	0.82
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.97	0.82
36:1:1790:G:O6	87:1:4167:OHX:N4	2.13	0.82
1:6:1221:A:N6	1:6:1262:U:O4	2.13	0.82
36:1:1234:G:N2	36:1:1254:C:N3	2.27	0.82
55:M9:35:ALA:HB1	55:M9:41:ILE:HG12	4.87	0.82
4:S2:132:ALA:O	4:S2:135:SER:OG	1.96	0.82
24:D2:8:ALA:HB2	24:D2:74:VAL:HG11	3.40	0.82
1:2:812:A:OP1	1:2:858:G:N2	2.13	0.82
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.12	0.82
53:M7:33:ALA:O	53:M7:35:ALA:N	3.62	0.82
11:S9:81:VAL:O	11:S9:84:GLY:N	2.13	0.82
27:D5:98:GLN:NE2	27:D5:99:ALA:O	2.27	0.82
42:L5:84:PRO:O	42:L5:86:TYR:N	2.12	0.82
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.13	0.82
34:SR:115:ILE:HD11	34:SR:119:ALA:HA	2.39	0.82
62:N6:36:SER:OG	62:N6:106:ILE:O	1.97	0.82
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.11	0.82
36:5:171:G:N1	36:5:248:U:O2	2.13	0.82
37:3:113:C:H2'	37:3:114:U:O4'	1.79	0.82
36:1:643:U:O2'	36:1:1153:A:N1	2.13	0.82
36:5:2897:A:O2'	36:5:2898:G:O5'	1.97	0.82
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.13	0.81
36:5:2308:C:O2	87:5:4233:OHX:N1	2.13	0.81
36:1:1953:G:O6	36:1:2094:C:N4	2.13	0.81
36:1:3376:A:OP2	87:1:3907:OHX:N5	2.13	0.81
36:5:3317:U:O2'	36:5:3318:G:OP2	1.98	0.81
36:1:1014:U:H2'	36:1:1015:U:H5''	1.60	0.81
32:E0:13:LYS:NZ	1:6:566:C:O2	376.64	0.81
28:D6:4:LYS:HD3	28:D6:5:ARG:HH21	4.30	0.81
19:C7:5:ARG:NH1	1:6:1402:G:OP2	409.40	0.81
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.13	0.81
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	2.88	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:111:LYS:O	53:M7:153:LYS:N	2.59	0.81
43:L6:35:VAL:O	43:L6:38:THR:OG1	1.98	0.81
13:C1:40:LEU:HD22	1:6:246:G:C2	326.38	0.81
10:S8:5:ARG:NH1	10:S8:29:LEU:O	2.12	0.81
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.61	0.81
27:D5:65:LEU:HB3	27:D5:71:ILE:HD13	1.61	0.81
50:M4:77:ARG:HG3	36:5:561:C:OP1	349.57	0.81
21:C9:53:TRP:HH2	21:C9:100:ILE:HD12	2.58	0.81
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	7.93	0.81
36:1:3020:U:O4	87:1:3988:OHX:N4	2.13	0.81
56:N0:26:ARG:HH11	57:N1:150:THR:HG21	2.46	0.81
7:S5:74:ALA:O	18:C6:122:ARG:NH2	2.13	0.81
34:SR:238:ASP:HB2	34:SR:256:THR:HB	3.37	0.81
36:1:501:A:H2'	36:1:502:U:H6	1.45	0.81
43:L6:48:ARG:NH2	36:5:3276:G:O2'	240.79	0.81
51:M5:136:ASP:OD2	51:M5:138:GLN:NE2	2.13	0.81
1:6:938:G:N7	87:6:2110:OHX:N3	2.28	0.81
43:L6:18:LEU:H	43:L6:18:LEU:HD22	1.45	0.81
42:L5:132:THR:HG21	42:L5:170:GLY:HA2	2.22	0.81
36:1:2841:G:N2	36:1:2846:U:OP1	2.13	0.81
1:2:703:G:H2'	1:2:704:C:H5'	1.62	0.81
44:L7:222:HIS:O	44:L7:225:GLN:N	2.69	0.81
36:1:2157:G:N2	36:1:2177:G:O2'	2.12	0.81
37:7:91:G:H2'	37:7:92:A:H8	1.46	0.81
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.98	0.81
36:1:301:G:H1	36:1:314:U:H3	1.25	0.81
36:1:1709:C:OP1	70:O4:83:ASN:ND2	2.12	0.81
36:1:2409:G:N2	36:1:2812:C:N3	2.27	0.81
52:M6:167:TYR:OH	52:M6:171:LYS:NZ	2.13	0.81
48:M1:23:VAL:O	48:M1:25:GLU:N	2.13	0.81
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	1.77	0.81
36:5:2970:C:H4'	36:5:2971:A:C6	2.14	0.81
20:C8:75:ASN:N	20:C8:75:ASN:OD1	2.89	0.81
67:O1:31:ARG:HB3	67:O1:31:ARG:HH11	1.46	0.81
50:M4:19:ARG:HD3	50:M4:69:THR:HG22	1.62	0.81
42:L5:260:PHE:HB2	42:L5:265:TYR:CE2	3.15	0.81
36:1:31:C:O2	36:1:53:G:N2	2.13	0.81
70:O4:106:LYS:HA	70:O4:109:THR:HB	1.63	0.81
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.63	0.81
1:2:220:A:H5''	1:2:832:U:H1'	1.62	0.81
1:2:740:A:H2'	1:2:741:C:H5''	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:200:ASN:HB3	7:S5:208:SER:HB2	3.58	0.81
2:S0:36:TYR:OH	2:S0:56:LYS:NZ	2.13	0.81
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.82	0.81
1:6:415:C:O2	1:6:418:G:N1	2.12	0.81
73:O7:64:MET:HB3	73:O7:68:LYS:HB3	4.55	0.81
36:5:1700:G:N2	36:5:1745:C:O2	2.14	0.81
63:N7:69:LYS:NZ	36:5:1633:C:OP2	192.41	0.81
36:1:655:C:H2'	36:1:656:A:H8	1.45	0.81
1:6:1451:C:H2'	1:6:1452:U:C6	2.16	0.81
39:L2:9:ARG:NH1	36:5:912:G:OP2	178.76	0.81
36:1:1942:U:HO2'	36:1:3345:G:HO2'	1.25	0.81
36:1:1049:C:H2'	36:1:1050:U:H6	1.46	0.81
36:5:550:A:H2'	36:5:551:A:C8	2.15	0.81
23:D1:24:ILE:HD13	23:D1:31:SER:HB2	3.31	0.81
76:Q0:109:ASN:N	76:Q0:109:ASN:OD1	3.29	0.81
42:L5:107:ARG:O	42:L5:111:GLN:N	2.77	0.81
17:C5:69:GLU:OE1	17:C5:70:ASN:ND2	8.15	0.81
68:O2:105:ARG:NH2	36:5:1412:G:OP1	146.31	0.81
36:5:1712:G:N2	36:5:1732:U:O4	2.13	0.81
17:C5:122:THR:HG22	1:6:1558:U:H3	367.38	0.81
44:L7:24:GLU:O	44:L7:26:VAL:N	2.12	0.81
36:1:2771:U:O2'	36:1:2772:C:O4'	1.98	0.81
36:5:130:A:N6	36:5:138:U:O4	2.10	0.81
42:L5:58:LYS:NZ	37:7:49:G:O2'	302.70	0.81
26:D4:56:SER:O	26:D4:74:LEU:N	2.26	0.81
34:SR:200:ASN:ND2	34:SR:240:VAL:O	2.14	0.81
49:M3:2:ALA:N	64:N8:33:GLY:O	4.80	0.81
36:1:835:G:O2'	36:1:857:G:N2	2.14	0.81
4:S2:165:VAL:HA	4:S2:202:GLY:HA3	2.21	0.81
18:C6:13:LYS:HG3	18:C6:14:LYS:HG3	7.69	0.81
36:1:2274:U:OP2	87:1:3966:OHX:N4	2.14	0.81
36:5:3052:G:N7	87:5:4167:OHX:N3	2.28	0.80
36:1:1038:C:H4'	42:L5:5:LYS:HE3	1.61	0.80
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.64	0.80
1:6:449:C:O2	1:6:457:G:N2	2.12	0.80
21:C9:14:PHE:HZ	21:C9:132:LEU:HD12	5.08	0.80
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	4.65	0.80
8:S6:139:ASN:HA	8:S6:142:ARG:HB2	1.63	0.80
36:1:1658:G:O6	36:1:1791:C:N4	2.14	0.80
37:7:91:G:H2'	37:7:92:A:C8	2.16	0.80
36:5:438:A:H2'	36:5:494:G:H21	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3085:G:OP1	60:N4:34:SER:OG	1.97	0.80
36:5:2717:U:OP1	87:5:4063:OHX:N3	2.14	0.80
1:2:36:C:N4	1:2:472:U:O4	2.14	0.80
41:L4:328:ASN:ND2	41:L4:329:PRO:O	7.25	0.80
36:1:156:G:OP2	72:O6:27:SER:OG	1.97	0.80
1:6:1699:G:H22	1:6:1701:A:H3'	1.47	0.80
49:M3:56:PRO:HG3	49:M3:74:GLY:O	1.82	0.80
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	2.12	0.80
70:O4:8:ARG:HG2	70:O4:8:ARG:HH11	1.45	0.80
25:D3:68:ILE:HD12	32:E0:10:ARG:HH22	1.47	0.80
36:5:2987:A:H2'	36:5:2988:C:C6	2.14	0.80
36:5:1170:A:OP2	87:5:3997:OHX:N4	2.13	0.80
55:M9:172:ARG:NH1	1:6:852:C:OP1	320.84	0.80
67:O1:46:THR:OG1	67:O1:47:ASP:N	2.10	0.80
63:N7:17:ARG:O	63:N7:19:ALA:N	2.12	0.80
68:O2:78:ASN:HA	68:O2:108:ILE:HD11	1.63	0.80
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.33	0.80
64:N8:91:LEU:HA	64:N8:121:VAL:HG21	1.69	0.80
36:5:1579:C:H2'	36:5:1580:A:H8	1.46	0.80
36:5:1580:A:O2'	36:5:1581:C:OP2	1.98	0.80
52:M6:73:PHE:CD2	52:M6:78:ARG:HG2	3.61	0.80
67:O1:13:THR:HG22	67:O1:72:ARG:NH1	1.96	0.80
36:1:1383:G:O6	87:1:3881:OHX:N3	2.15	0.80
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	1.61	0.80
49:M3:79:GLU:OE2	49:M3:103:ASN:ND2	3.57	0.80
4:S2:43:ARG:NH1	4:S2:247:ALA:O	3.88	0.80
1:2:511:A:N6	1:2:539:G:O6	2.13	0.80
36:1:2623:G:H1	36:1:2644:C:H42	1.29	0.80
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.14	0.80
1:2:354:C:H5''	10:S8:16:ALA:HB2	1.64	0.80
1:6:827:C:N4	1:6:845:G:O6	2.13	0.80
47:M0:175:ASN:OD1	47:M0:176:LEU:N	4.93	0.80
1:2:325:G:OP1	13:C1:134:THR:OG1	1.98	0.80
23:D1:72:LEU:O	23:D1:75:ASN:ND2	2.14	0.80
2:S0:76:ILE:HG23	2:S0:98:ILE:HB	1.64	0.80
37:7:40:C:H5''	37:7:41:G:OP2	1.81	0.80
52:M6:142:SER:O	52:M6:145:VAL:N	2.15	0.80
67:O1:72:ARG:NH2	67:O1:104:LEU:HB2	3.47	0.80
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.64	0.80
36:5:1657:C:O2'	36:5:1797:A:OP2	1.99	0.80
25:D3:75:GLN:NE2	25:D3:80:GLY:O	3.95	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:195:ARG:NH2	36:5:341:G:N7	110.58	0.80
55:M9:6:THR:HG23	55:M9:9:ARG:HH21	1.45	0.80
14:C2:29:LYS:HG3	14:C2:100:TRP:HD1	1.45	0.80
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.46	0.80
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.98	0.80
28:D6:79:ILE:HD11	1:6:1795:U:H5'	334.00	0.80
47:M0:46:PHE:HD1	47:M0:140:THR:HA	1.46	0.80
63:N7:16:GLY:O	63:N7:18:TYR:N	2.77	0.80
36:1:132:C:H2'	36:1:133:U:H5''	1.64	0.80
36:5:863:C:OP1	87:5:3912:OHX:N3	2.14	0.80
28:D6:10:ARG:HH22	28:D6:36:ILE:HG13	3.05	0.80
36:1:67:A:OP2	87:1:3911:OHX:N6	2.14	0.80
14:C2:42:ALA:HB3	14:C2:122:VAL:HB	1.62	0.80
48:M1:52:TYR:HA	48:M1:61:ARG:HB2	2.87	0.80
39:L2:224:THR:HG21	36:5:2201:G:H21	221.87	0.80
4:S2:173:PRO:HG2	11:S9:57:ARG:HD2	1.64	0.80
36:1:821:U:O2'	36:1:912:G:OP1	1.99	0.80
36:5:975:C:H2'	36:5:976:U:H6	1.45	0.80
15:C3:20:ARG:HG3	15:C3:20:ARG:HH11	4.48	0.80
36:1:2687:G:O6	87:1:3900:OHX:N5	2.14	0.80
1:2:1433:G:H2'	1:2:1434:U:C6	2.17	0.80
64:N8:21:ARG:NH2	36:5:640:U:OP1	182.96	0.79
53:M7:52:LEU:HD11	53:M7:88:VAL:HG11	2.25	0.79
15:C3:88:LEU:HA	15:C3:91:LEU:HD12	1.62	0.79
6:S4:229:GLY:HA3	6:S4:234:PRO:HA	3.23	0.79
1:2:997:G:O6	1:2:1007:C:N4	2.15	0.79
13:C1:8:GLN:HE22	13:C1:14:GLN:HB2	3.41	0.79
1:2:435:C:H2'	1:2:436:A:C8	2.16	0.79
10:S8:62:THR:HG22	10:S8:77:ARG:HA	1.64	0.79
36:1:1733:G:OP2	87:1:3916:OHX:N6	2.15	0.79
29:D7:28:PRO:HB3	1:6:959:U:H5'	349.97	0.79
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.63	0.79
36:5:847:A:H2'	36:5:848:A:C8	2.18	0.79
49:M3:140:SER:HG	49:M3:143:ALA:H	1.29	0.79
5:S3:69:LEU:HA	5:S3:72:LEU:HD12	1.64	0.79
58:N2:14:THR:HG23	58:N2:66:VAL:HG22	2.29	0.79
22:D0:58:LEU:HD12	22:D0:88:LYS:HD2	1.85	0.79
61:N5:58:ASP:OD1	71:O5:25:LYS:NZ	3.86	0.79
48:M1:60:ARG:O	48:M1:63:GLU:HB2	1.81	0.79
40:L3:332:ARG:HH11	40:L3:333:LYS:HD2	2.44	0.79
36:1:2158:A:H4'	36:1:2159:U:H5''	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:123:ALA:O	59:N3:125:LEU:N	2.98	0.79
36:5:3338:C:O2	36:5:3366:G:N2	2.15	0.79
45:L8:36:ILE:O	45:L8:38:GLN:N	2.14	0.79
47:M0:55:ASN:O	47:M0:131:ILE:HD13	3.14	0.79
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.15	0.79
7:S5:41:LYS:O	7:S5:41:LYS:NZ	3.13	0.79
31:D9:24:CYS:O	31:D9:25:SER:OG	1.99	0.79
40:L3:19:ARG:NH2	36:5:3045:G:OP1	233.63	0.79
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	2.02	0.79
72:O6:9:ILE:HD13	72:O6:10:GLY:H	4.58	0.79
64:N8:126:LYS:HB3	64:N8:148:ILE:HG21	1.62	0.79
42:L5:43:LYS:NZ	36:5:1078:U:OP1	230.17	0.79
36:5:1409:G:N7	87:5:4157:OHX:N6	2.31	0.79
15:C3:99:ARG:O	15:C3:103:GLU:N	2.12	0.79
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	1.64	0.79
25:D3:50:LYS:NZ	25:D3:101:GLU:OE1	4.07	0.79
36:5:3066:U:O4	87:5:4100:OHX:N4	2.16	0.79
36:1:1678:G:OP2	58:N2:77:LYS:NZ	2.15	0.79
41:L4:234:ASN:HD21	41:L4:236:LEU:HD12	1.46	0.79
87:2:2039:OHX:N1	25:D3:64:PRO:O	2.16	0.79
1:2:478:A:O2'	11:S9:124:HIS:ND1	2.04	0.79
1:2:1585:U:H3	1:2:1611:A:H2	1.31	0.79
34:SR:20:VAL:O	34:SR:291:SER:OG	2.00	0.79
1:6:1150:G:O6	87:6:2119:OHX:N5	2.14	0.79
36:5:778:U:O4	87:5:4081:OHX:N1	2.15	0.79
1:2:214:G:N7	87:2:2116:OHX:N1	2.29	0.79
1:2:207:U:O2	10:S8:178:ARG:NH1	2.14	0.79
40:L3:328:ILE:HG12	40:L3:329:PRO:HD2	1.64	0.79
47:M0:157:TYR:CD1	36:5:2836:C:H4'	311.92	0.79
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	1.63	0.79
38:4:16:G:O6	87:4:224:OHX:N3	2.16	0.79
35:SM:68:ARG:O	35:SM:70:ASN:N	2.16	0.79
18:C6:94:GLN:OE1	18:C6:102:LYS:NZ	2.15	0.79
1:6:58:U:O2'	1:6:451:A:N3	2.15	0.79
44:L7:139:PRO:HA	44:L7:237:ASN:HD21	1.47	0.79
36:1:1677:G:N1	36:1:1691:U:O2	2.12	0.79
14:C2:140:PHE:O	14:C2:142:GLN:N	2.16	0.79
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.01	0.79
54:M8:100:THR:HG22	54:M8:120:GLU:HB3	2.77	0.79
2:S0:133:ILE:H	2:S0:133:ILE:HD12	1.48	0.79
36:5:71:A:C2	36:5:2778:G:H1'	2.18	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:974:G:N2	36:5:1107:C:O2	2.16	0.79
38:8:16:G:O6	87:8:218:OHX:N6	2.16	0.79
53:M7:88:VAL:O	53:M7:92:GLN:HG2	1.81	0.79
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.25	0.79
7:S5:162:VAL:HB	30:D8:45:LYS:HB3	1.63	0.79
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.92	0.79
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	1.93	0.79
62:N6:27:ARG:HA	62:N6:30:LEU:HD12	1.64	0.79
36:5:2808:A:H4'	36:5:2809:C:H5''	1.65	0.79
1:6:186:C:N4	1:6:199:G:O6	2.16	0.79
36:5:2209:U:H4'	36:5:2210:G:OP1	1.82	0.79
56:N0:5:LYS:HB2	56:N0:7:TYR:CE2	2.18	0.79
36:1:1404:G:H5''	68:O2:64:LYS:HE3	1.65	0.79
13:C1:72:THR:HG22	13:C1:124:THR:HG23	3.08	0.79
56:N0:77:VAL:HG11	56:N0:106:LEU:HG	2.04	0.78
39:L2:3:ARG:HD3	36:5:911:C:H42	178.56	0.78
36:1:2251:G:N1	36:1:2265:C:N3	2.28	0.78
6:S4:185:GLY:O	6:S4:224:ASN:ND2	3.69	0.78
69:O3:53:TYR:CE1	69:O3:65:ARG:HB2	2.54	0.78
9:S7:25:VAL:HA	9:S7:28:GLU:HB2	1.74	0.78
22:D0:34:LEU:HD21	22:D0:89:ARG:HD2	4.21	0.78
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.65	0.78
20:C8:91:ASP:OD1	20:C8:92:ILE:N	2.55	0.78
15:C3:89:TYR:OH	15:C3:93:LYS:NZ	5.19	0.78
62:N6:61:GLY:O	62:N6:63:LYS:N	3.12	0.78
56:N0:66:GLU:OE2	56:N0:73:LYS:NZ	2.16	0.78
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.83	0.78
1:6:1542:G:N2	1:6:1569:A:OP2	2.17	0.78
36:1:410:U:O4	87:1:4055:OHX:N2	2.16	0.78
60:N4:15:PRO:O	60:N4:17:ARG:N	2.15	0.78
34:SR:79:TYR:HB3	34:SR:91:LEU:HD11	1.84	0.78
39:L2:152:SER:OG	39:L2:153:GLY:N	2.15	0.78
36:1:2512:C:N4	36:1:2593:A:OP2	2.15	0.78
24:D2:35:ILE:HD13	24:D2:38:LEU:HD12	1.64	0.78
54:M8:115:VAL:HA	54:M8:119:GLY:H	2.07	0.78
1:6:815:G:H5'	1:6:815:G:H8	1.49	0.78
31:D9:19:ARG:NH2	1:6:1597:A:OP1	407.20	0.78
14:C2:97:LEU:HA	14:C2:100:TRP:HE3	1.47	0.78
57:N1:130:ARG:O	36:5:1098:A:O2'	257.04	0.78
70:O4:37:LYS:NZ	36:5:1591:G:OP1	159.52	0.78
36:5:3349:C:H42	36:5:3356:G:H1	1.31	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2869:U:H5''	36:5:2870:C:OP2	1.83	0.78
25:D3:68:ILE:HG22	25:D3:70:LYS:HZ2	1.48	0.78
1:2:1754:A:C6	88:2:2181:GET:H21	2.18	0.78
87:1:3959:OHX:N3	44:L7:217:PRO:O	2.16	0.78
36:1:1233:G:N2	36:1:1255:C:H42	1.82	0.78
50:M4:72:LEU:HD11	50:M4:81:VAL:HG22	1.65	0.78
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	3.00	0.78
15:C3:121:ARG:O	15:C3:124:ARG:N	3.79	0.78
2:S0:17:LEU:HA	2:S0:172:LEU:HD11	1.65	0.78
61:N5:71:THR:HG21	36:5:1603:A:H61	90.65	0.78
36:1:2503:G:H1'	36:1:2504:U:H5	1.48	0.78
1:2:1622:G:H2'	1:2:1623:C:H6	1.48	0.78
9:S7:162:ILE:HG22	9:S7:165:LYS:HD2	4.22	0.78
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.64	0.78
36:1:1544:G:O6	87:1:4056:OHX:N4	2.17	0.78
6:S4:146:THR:HG21	1:6:123:G:H21	340.45	0.78
35:SM:102:THR:OG1	35:SM:103:LYS:N	2.16	0.78
33:E1:140:TYR:HE1	33:E1:146:SER:HA	3.37	0.78
32:E0:55:ARG:NH2	1:6:558:U:OP2	416.90	0.78
28:D6:44:ILE:HG13	28:D6:66:LYS:HA	1.66	0.78
49:M3:63:VAL:HG22	36:5:72:C:H5'	113.48	0.78
17:C5:85:ILE:HG22	17:C5:112:LEU:HD23	1.63	0.78
36:1:2603:G:O6	87:1:3867:OHX:N2	2.16	0.78
25:D3:137:LYS:O	25:D3:139:LYS:N	4.71	0.78
59:N3:28:ASN:HD21	59:N3:112:SER:H	1.31	0.78
1:2:984:G:O6	1:2:1017:U:N3	2.17	0.78
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	2.95	0.78
23:D1:28:ASP:O	23:D1:31:SER:OG	2.01	0.78
36:5:1870:C:O2	36:5:3066:U:O2'	2.02	0.78
38:8:62:C:O2	87:8:225:OHX:N1	2.17	0.78
20:C8:40:ARG:HH11	20:C8:40:ARG:HG2	1.88	0.78
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.65	0.78
70:O4:82:ALA:O	70:O4:85:VAL:N	2.35	0.78
52:M6:73:PHE:HD2	52:M6:78:ARG:HG2	4.20	0.78
45:L8:33:ASN:O	45:L8:35:GLY:N	3.69	0.78
36:1:2533:G:O6	36:1:2546:C:N4	2.16	0.78
1:6:1477:G:H2'	1:6:1478:G:C8	2.19	0.78
37:7:112:G:OP2	87:7:221:OHX:N2	2.17	0.78
36:5:90:C:H2'	36:5:91:G:H5'	1.64	0.78
5:S3:28:GLU:OE1	5:S3:65:ARG:NH2	2.11	0.78
34:SR:56:VAL:HG12	34:SR:57:PRO:HD2	3.10	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2970:C:H4'	36:5:2971:A:N6	1.99	0.78
31:D9:26:SER:O	31:D9:28:THR:N	2.16	0.78
36:1:2534:G:O6	87:1:3996:OHX:N6	2.17	0.78
36:5:731:U:H2'	36:5:732:C:H6	1.48	0.78
36:1:3254:G:O6	87:1:4054:OHX:N5	2.17	0.78
36:1:3302:U:H3	36:1:3312:U:H3	1.28	0.78
1:6:665:U:N3	1:6:668:C:O2	2.16	0.78
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.61	0.78
41:L4:190:GLY:O	41:L4:193:LYS:NZ	3.06	0.78
8:S6:7:TYR:CE1	8:S6:125:THR:HA	3.12	0.78
9:S7:143:LEU:HD12	9:S7:147:ASN:HB2	1.66	0.78
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.16	0.78
40:L3:30:LYS:NZ	36:5:3138:U:OP2	240.67	0.78
25:D3:110:LYS:HD2	25:D3:112:LYS:HE3	6.27	0.78
1:2:1789:G:OP2	16:C4:132:ARG:NH2	2.15	0.78
36:1:250:U:H5''	36:1:251:G:H5''	1.66	0.78
36:5:1674:G:N2	36:5:1773:C:O2	2.14	0.78
36:1:216:G:H4'	62:N6:19:TYR:CE2	2.19	0.78
36:1:2261:G:H21	36:1:2262:A:H61	1.33	0.77
28:D6:79:ILE:HA	28:D6:84:VAL:HG11	1.66	0.77
10:S8:34:ALA:HB2	10:S8:174:GLY:HA3	1.65	0.77
10:S8:69:SER:OG	10:S8:185:GLU:OE2	2.02	0.77
18:C6:21:HIS:HB2	18:C6:66:ARG:HG3	1.66	0.77
1:2:894:U:H2'	1:2:895:G:H8	1.49	0.77
1:2:895:G:HO2'	16:C4:38:THR:H	1.31	0.77
16:C4:70:LYS:O	16:C4:74:VAL:N	3.20	0.77
66:O0:101:LEU:H	66:O0:101:LEU:HD22	4.48	0.77
48:M1:44:THR:O	37:7:39:C:O2'	300.13	0.77
49:M3:140:SER:OG	49:M3:143:ALA:N	2.15	0.77
1:6:1477:G:H2'	1:6:1478:G:H8	1.48	0.77
36:1:249:U:O2	36:1:250:U:N3	2.17	0.77
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.78	0.77
36:1:3108:G:O6	36:1:3126:C:N4	2.17	0.77
54:M8:30:VAL:O	54:M8:34:THR:HG22	1.83	0.77
12:C0:21:VAL:HB	12:C0:66:TYR:HB2	2.60	0.77
20:C8:91:ASP:HB3	20:C8:95:GLY:H	1.49	0.77
20:C8:141:THR:OG1	20:C8:142:GLY:N	3.47	0.77
35:SM:72:ARG:NH1	1:6:1460:A:O2'	324.47	0.77
76:Q0:77:ILE:HG22	76:Q0:78:ILE:HG22	1.66	0.77
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.80	0.77
36:5:22:G:H1'	38:8:104:A:N3	1.99	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:147:ALA:O	3:S1:148:ASN:ND2	2.18	0.77
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.63	0.77
36:1:3272:C:H5'	43:L6:78:ARG:HB2	1.65	0.77
5:S3:167:PHE:HA	5:S3:190:ARG:HE	2.39	0.77
68:O2:101:SER:HA	68:O2:125:ARG:HH21	4.14	0.77
35:SM:72:ARG:NH2	1:6:1461:C:OP1	327.34	0.77
39:L2:43:GLY:N	39:L2:88:ILE:O	2.69	0.77
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD12	4.16	0.77
23:D1:3:ASN:ND2	23:D1:7:GLN:O	2.17	0.77
36:5:1715:A:H4'	36:5:1716:U:OP1	1.85	0.77
36:5:3264:G:O6	87:5:4115:OHX:N2	2.17	0.77
13:C1:73:GLY:HA3	13:C1:88:ARG:HG3	4.13	0.77
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.12	0.77
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.17	0.77
79:Q3:4:ARG:NH1	36:5:837:A:OP2	236.54	0.77
36:1:2705:A:OP2	87:1:3870:OHX:N1	2.17	0.77
15:C3:88:LEU:HD22	15:C3:92:ILE:HD11	3.25	0.77
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.67	0.77
41:L4:361:HIS:CD2	41:L4:362:ASP:H	3.73	0.77
36:1:1481:A:O2'	36:1:1858:A:N3	2.14	0.77
1:6:371:G:N2	1:6:613:G:O6	2.15	0.77
1:2:1349:G:O6	1:2:1376:C:N4	2.16	0.77
7:S5:144:GLU:HA	7:S5:161:ASP:HA	1.66	0.77
17:C5:111:MET:HG2	20:C8:119:ILE:HD11	5.77	0.77
55:M9:7:GLN:NE2	55:M9:35:ALA:O	2.17	0.77
34:SR:36:ALA:HB2	34:SR:42:LEU:HD23	2.41	0.77
36:1:73:C:C2	72:O6:15:LYS:HG2	2.19	0.77
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.17	0.77
52:M6:55:HIS:O	52:M6:58:LEU:N	2.18	0.77
41:L4:338:LYS:O	41:L4:340:GLY:N	2.16	0.77
38:8:59:A:H4'	38:8:60:U:H5''	1.66	0.77
63:N7:54:THR:H	63:N7:57:HIS:CD2	3.15	0.77
1:6:1293:U:O4	1:6:1322:A:N6	2.18	0.77
1:2:9:U:O4	87:2:2155:OHX:N6	2.18	0.77
70:O4:87:GLU:OE1	70:O4:91:ARG:NH1	2.84	0.77
36:5:3197:G:H2'	36:5:3198:U:H5''	1.66	0.77
2:S0:121:VAL:O	2:S0:144:ILE:N	2.16	0.77
1:2:1459:C:H42	20:C8:139:LYS:HE2	1.49	0.77
8:S6:98:ARG:NH2	8:S6:101:ILE:O	3.06	0.77
49:M3:119:TYR:HE1	71:O5:118:ILE:HD11	4.18	0.77
39:L2:181:LYS:NZ	36:5:860:G:OP2	211.47	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1734:U:H2'	1:6:1735:U:H6	1.50	0.77
8:S6:28:PHE:HZ	8:S6:104:PRO:HB3	1.50	0.77
57:N1:70:SER:OG	36:5:2737:C:OP1	233.08	0.77
41:L4:99:MET:HE3	41:L4:103:THR:H	2.87	0.77
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.67	0.77
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.65	0.77
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.50	0.77
42:L5:61:ILE:HD13	42:L5:79:TYR:HE1	2.73	0.77
5:S3:42:THR:OG1	5:S3:44:THR:O	5.79	0.77
36:1:410:U:O4	87:1:4055:OHX:N5	2.18	0.77
40:L3:95:THR:HG22	36:5:3243:A:H4'	256.96	0.77
60:N4:33:ASN:OD1	60:N4:36:SER:OG	2.01	0.77
1:6:1413:U:H4'	1:6:1414:U:OP2	1.84	0.77
64:N8:57:GLY:O	36:5:2787:G:H4'	161.45	0.77
47:M0:156:ARG:HH11	47:M0:156:ARG:HG3	3.75	0.77
36:1:2852:C:N3	47:M0:158:LYS:NZ	2.33	0.77
54:M8:18:ALA:HA	54:M8:53:PHE:CE1	2.83	0.77
26:D4:41:ARG:HB3	26:D4:52:LYS:HG3	1.65	0.77
71:O5:31:LEU:HB3	71:O5:44:ILE:HD12	1.81	0.77
1:2:591:A:H2'	1:2:592:A:H8	1.48	0.77
4:S2:129:ILE:HA	4:S2:132:ALA:HB3	1.66	0.77
36:5:1615:C:H2'	36:5:1616:U:H6	1.48	0.77
1:2:800:U:H2'	1:2:801:G:H8	1.50	0.77
36:1:1556:C:O2'	87:1:3913:OHX:N2	2.18	0.77
36:5:1194:G:OP1	87:5:4009:OHX:N6	2.18	0.77
1:6:57:G:O6	1:6:90:C:N4	2.16	0.77
1:2:538:A:H5'	1:2:543:C:H42	1.50	0.77
47:M0:32:ARG:HH11	47:M0:32:ARG:HA	1.50	0.77
41:L4:329:PRO:O	41:L4:331:ALA:N	3.44	0.77
45:L8:136:LEU:O	45:L8:140:VAL:HG23	2.03	0.77
13:C1:45:PRO:HG3	13:C1:115:PHE:HE2	3.99	0.77
36:5:3327:G:O6	87:5:3953:OHX:N1	2.18	0.77
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	3.45	0.77
43:L6:172:HIS:ND1	69:O3:44:TYR:OH	2.05	0.77
39:L2:211:HIS:O	39:L2:213:GLY:N	3.59	0.77
36:1:2248:C:OP2	87:1:3882:OHX:N3	2.17	0.77
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.67	0.77
36:1:1365:G:OP2	87:1:3968:OHX:N6	2.17	0.77
57:N1:119:ALA:O	57:N1:122:GLN:N	2.17	0.77
36:1:964:G:OP1	87:1:3965:OHX:N2	2.18	0.77
45:L8:137:ASN:OD1	51:M5:3:ALA:N	5.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1592:A:H2'	1:2:1593:A:H8	1.49	0.77
36:1:155:G:H5''	36:1:156:G:C8	2.20	0.77
1:2:1127:G:OP1	77:Q1:11:ARG:NH2	2.18	0.77
71:O5:85:THR:HB	71:O5:88:LEU:HB2	1.66	0.77
13:C1:7:VAL:O	13:C1:9:SER:N	3.61	0.77
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.20	0.77
16:C4:92:LYS:HD2	16:C4:121:VAL:HG22	5.16	0.77
45:L8:50:VAL:HA	61:N5:30:ALA:HB1	4.53	0.77
71:O5:84:LYS:O	73:O7:73:ARG:NH2	3.40	0.76
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	2.16	0.76
71:O5:81:ARG:NH2	36:5:18:G:OP1	76.86	0.76
56:N0:50:LYS:NZ	37:7:76:A:O2'	303.12	0.76
36:5:1618:G:N2	36:5:1826:C:O2	2.15	0.76
11:S9:149:ARG:HD2	1:6:765:G:N7	427.40	0.76
47:M0:87:LEU:HD23	47:M0:138:VAL:HG23	5.54	0.76
47:M0:46:PHE:CD1	47:M0:140:THR:HA	2.19	0.76
41:L4:208:VAL:HG12	41:L4:230:VAL:HG22	1.67	0.76
42:L5:148:ILE:HD11	42:L5:159:VAL:HG11	1.67	0.76
42:L5:106:ALA:HA	42:L5:171:LEU:HD11	1.65	0.76
69:O3:73:ARG:HD3	69:O3:82:ARG:HD2	1.66	0.76
9:S7:51:VAL:HG23	9:S7:53:GLY:H	2.02	0.76
37:3:30:G:N2	37:3:47:C:O2	2.18	0.76
45:L8:78:PHE:O	45:L8:80:TYR:N	2.17	0.76
36:5:2939:G:C2'	36:5:2940:A:H5'	2.15	0.76
36:5:621:A:H2'	36:5:622:A:C8	2.20	0.76
19:C7:115:LEU:HD13	19:C7:116:LYS:H	1.49	0.76
36:1:2683:U:H2'	36:1:2684:C:C6	2.20	0.76
40:L3:245:GLY:HA3	40:L3:248:LYS:NZ	2.01	0.76
68:O2:81:ASP:O	68:O2:84:THR:OG1	2.02	0.76
18:C6:114:ARG:H	18:C6:116:LEU:HD22	1.50	0.76
36:1:2244:A:OP1	39:L2:243:THR:OG1	2.04	0.76
2:S0:130:ALA:HA	2:S0:133:ILE:HD13	1.68	0.76
36:1:581:U:O4	87:1:4171:OHX:N4	2.18	0.76
1:6:1156:C:OP1	87:6:2171:OHX:N1	2.19	0.76
36:1:1276:U:OP1	87:1:4083:OHX:N4	2.18	0.76
24:D2:71:LYS:NZ	1:6:1099:U:OP1	374.19	0.76
36:5:2297:U:H2'	36:5:2299:A:N7	2.00	0.76
36:5:1724:U:H1'	36:5:1725:C:C6	2.20	0.76
1:2:58:U:O2'	1:2:451:A:N3	2.17	0.76
30:D8:11:LYS:HB3	30:D8:31:GLU:HG2	1.66	0.76
68:O2:40:SER:O	68:O2:43:ARG:N	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:87:SER:O	87:O7:103:OHX:N3	2.18	0.76
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.91	0.76
1:6:149:C:H42	1:6:165:G:H1	1.31	0.76
36:5:3019:U:O4	87:5:3981:OHX:N2	2.18	0.76
71:O5:30:GLU:O	71:O5:33:VAL:N	2.18	0.76
36:5:980:A:H2'	36:5:981:U:C2	2.20	0.76
43:L6:150:LYS:HE3	43:L6:156:LYS:HD2	5.28	0.76
38:8:9:A:H2'	38:8:10:A:C8	2.21	0.76
36:1:2305:G:N2	36:1:2305:G:OP2	2.17	0.76
36:5:1023:C:H42	36:5:1029:G:H1	1.30	0.76
6:S4:60:GLU:OE1	26:D4:20:ARG:NH1	2.18	0.76
1:6:1451:C:H2'	1:6:1452:U:H6	1.48	0.76
36:1:1493:G:O6	75:O9:2:ALA:HB2	1.86	0.76
59:N3:22:ILE:HG12	59:N3:35:TYR:HB2	1.66	0.76
36:1:3239:G:O6	87:1:3969:OHX:N6	2.19	0.76
36:1:1565:G:N2	36:1:1574:C:O2	2.19	0.76
78:Q2:46:LYS:HE3	36:5:92:G:OP1	163.43	0.76
16:C4:115:ILE:HB	28:D6:65:PRO:HG3	6.79	0.76
36:5:1440:G:N7	87:5:3959:OHX:N6	2.33	0.76
36:1:1765:U:OP2	55:M9:39:ASN:ND2	2.17	0.76
24:D2:104:LEU:HB3	24:D2:125:ILE:HA	1.66	0.76
36:5:1097:G:N3	36:5:1097:G:H2'	2.00	0.76
39:L2:181:LYS:HB2	36:5:860:G:C6	212.19	0.76
2:S0:129:ASP:O	2:S0:132:ALA:N	2.17	0.76
20:C8:8:GLN:O	20:C8:10:SER:N	3.75	0.76
1:2:766:U:O2	1:2:770:A:N6	2.18	0.76
38:4:125:U:O2'	38:4:126:A:OP1	2.03	0.76
36:1:1752:A:OP2	87:1:4046:OHX:N5	2.19	0.76
1:6:692:C:H2'	1:6:693:U:C6	2.21	0.76
19:C7:7:LYS:N	1:6:1316:G:OP1	410.36	0.76
1:2:1369:U:O4	87:2:2095:OHX:N5	2.19	0.76
30:D8:27:GLN:OE1	30:D8:64:ARG:NH1	5.65	0.76
17:C5:44:ARG:HH21	17:C5:52:LYS:HZ1	1.33	0.76
63:N7:87:LEU:HB2	63:N7:127:ASN:ND2	2.01	0.76
36:5:1238:C:O2'	36:5:1239:C:OP1	2.03	0.76
36:5:1564:U:H2'	36:5:1565:G:C8	2.21	0.76
65:N9:37:PRO:HB2	36:5:2738:A:H4'	209.11	0.76
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.68	0.76
1:6:1700:C:O2'	1:6:1701:A:OP1	2.02	0.76
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	2.40	0.76
36:5:2211:U:OP2	87:5:4217:OHX:N1	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:42:LYS:HD2	74:O8:44:LYS:HE2	1.67	0.76
1:6:882:U:H2'	1:6:883:C:H6	1.51	0.76
16:C4:60:ALA:HB1	16:C4:101:ALA:HB2	2.12	0.76
11:S9:54:ARG:NE	1:6:1:U:O4	392.80	0.76
37:3:4:U:H2'	37:3:5:G:H8	1.50	0.76
1:2:195:G:O6	10:S8:141:ARG:NH2	2.19	0.76
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.51	0.76
40:L3:212:ASN:O	40:L3:281:LYS:NZ	2.19	0.76
53:M7:126:ARG:HA	53:M7:140:GLU:HG2	2.90	0.76
11:S9:63:ASP:HB3	11:S9:66:ASP:HB2	1.68	0.76
21:C9:97:SER:OG	1:6:1504:G:OP1	394.08	0.76
74:O8:26:LYS:NZ	36:5:1751:G:OP1	128.71	0.76
36:1:2278:C:OP1	87:1:3958:OHX:N3	2.19	0.76
78:Q2:71:ARG:NH2	78:Q2:80:ARG:HD3	4.94	0.76
25:D3:19:ARG:HG3	25:D3:23:ARG:HG2	1.65	0.76
36:5:394:G:H22	36:5:397:A:H5'	1.51	0.76
28:D6:33:ASP:OD1	28:D6:34:LYS:N	2.20	0.75
1:6:1564:U:H2'	1:6:1565:C:C6	2.20	0.75
63:N7:14:VAL:HG22	70:O4:86:LYS:HA	1.67	0.75
43:L6:172:HIS:CE1	69:O3:44:TYR:HH	2.01	0.75
42:L5:270:LYS:HD2	42:L5:272:TYR:HB2	9.48	0.75
36:5:2311:G:OP2	87:5:4193:OHX:N1	2.19	0.75
36:1:980:A:H2'	36:1:981:U:C2	2.21	0.75
38:8:42:G:N1	38:8:102:U:O2	2.17	0.75
5:S3:113:LEU:HD22	5:S3:114:ALA:H	1.51	0.75
39:L2:172:GLY:HA3	79:Q3:68:ALA:H	3.97	0.75
79:Q3:49:ARG:HD2	79:Q3:50:GLY:H	3.77	0.75
1:2:1140:G:OP2	87:2:2065:OHX:N6	2.19	0.75
10:S8:18:ARG:NH1	1:6:105:A:OP1	304.07	0.75
51:M5:9:GLU:OE1	51:M5:12:ARG:NH1	2.59	0.75
36:5:2620:G:O6	87:5:4237:OHX:N4	2.18	0.75
36:5:3326:G:H2'	36:5:3327:G:H8	1.52	0.75
15:C3:105:ASN:O	15:C3:107:LYS:N	2.87	0.75
26:D4:121:THR:OG1	1:6:149:C:OP1	335.79	0.75
34:SR:224:ASN:OD1	34:SR:227:ALA:N	2.43	0.75
36:1:1952:G:H5'	36:1:1953:G:OP2	1.86	0.75
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.20	0.75
72:O6:63:ASN:O	72:O6:65:GLY:N	4.73	0.75
36:1:743:C:O2	54:M8:141:ARG:HD2	1.85	0.75
36:1:3136:G:OP2	87:1:4097:OHX:N6	2.18	0.75
36:1:271:C:O2	72:O6:82:ARG:NH2	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:165:GLN:OE1	40:L3:167:ARG:NH2	3.31	0.75
36:5:707:U:O2	36:5:712:G:N1	2.18	0.75
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.11	0.75
8:S6:139:ASN:HA	8:S6:142:ARG:HG3	3.85	0.75
36:5:189:G:O6	36:5:205:C:N4	2.18	0.75
40:L3:2:SER:N	36:5:2940:A:N7	237.36	0.75
36:5:2268:U:O4	36:5:2272:G:N1	2.16	0.75
36:1:1224:C:O2	36:1:3116:G:N2	2.19	0.75
1:2:1230:A:H2'	1:2:1258:U:H5	1.51	0.75
44:L7:184:LEU:HD11	44:L7:202:LEU:HD21	1.67	0.75
16:C4:31:THR:HB	16:C4:38:THR:HA	1.67	0.75
39:L2:174:ARG:NH2	36:5:2179:C:O3'	212.35	0.75
26:D4:61:ARG:NH2	1:6:530:C:O2	409.35	0.75
57:N1:28:SER:OG	37:7:9:C:OP1	267.72	0.75
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	2.43	0.75
36:5:1013:G:O6	36:5:1036:A:N6	2.18	0.75
78:Q2:48:SER:O	87:Q2:502:OHX:N3	4.22	0.75
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.67	0.75
23:D1:51:VAL:HG21	23:D1:78:LEU:HD11	1.69	0.75
2:S0:58:VAL:O	2:S0:62:ARG:N	2.19	0.75
20:C8:36:LYS:HB2	20:C8:102:ALA:HA	1.67	0.75
36:1:1791:C:H2'	36:1:1792:C:C6	2.21	0.75
36:5:1877:U:OP2	87:5:3952:OHX:N1	2.20	0.75
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	3.11	0.75
39:L2:117:GLU:OE2	39:L2:121:GLY:N	2.18	0.75
53:M7:98:ALA:HA	53:M7:101:ASN:HB2	2.78	0.75
1:6:652:G:N2	1:6:682:C:O2	2.18	0.75
36:1:1889:G:H5'	40:L3:245:GLY:HA2	1.69	0.75
1:2:190:C:N4	1:2:196:G:O6	2.20	0.75
38:4:9:A:H2'	38:4:10:A:C8	2.22	0.75
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.18	0.75
36:1:1233:G:H22	36:1:1255:C:N4	1.85	0.75
7:S5:187:ILE:HD13	27:D5:66:VAL:HG11	1.68	0.75
17:C5:115:TYR:N	17:C5:118:GLU:OE1	2.16	0.75
14:C2:43:ARG:HA	14:C2:121:VAL:HG12	3.02	0.75
42:L5:265:TYR:O	42:L5:269:SER:HB3	4.50	0.75
24:D2:67:GLY:O	24:D2:69:LEU:N	3.33	0.75
36:1:3139:A:OP1	40:L3:274:SER:HB2	1.87	0.75
36:5:2181:C:H2'	36:5:2182:A:H8	1.52	0.75
36:5:1404:G:O6	87:5:4084:OHX:N3	2.20	0.75
36:5:2151:C:N4	36:5:2185:G:O6	2.20	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:23:GLY:N	36:5:2701:U:OP1	269.96	0.75
53:M7:36:ILE:O	53:M7:38:GLY:N	2.19	0.75
1:6:927:C:H2'	1:6:928:U:H6	1.50	0.75
36:1:1874:A:OP2	55:M9:21:LYS:NZ	2.19	0.75
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.19	0.75
35:SM:64:LYS:O	35:SM:66:ALA:N	2.31	0.75
50:M4:40:ASP:OD1	50:M4:42:LYS:N	2.54	0.75
26:D4:91:LEU:HD13	26:D4:96:LEU:HB2	4.66	0.75
1:6:1159:C:N3	87:6:2142:OHX:N5	2.33	0.75
36:1:519:A:N6	56:N0:65:ASN:O	2.19	0.75
1:2:1445:G:C6	33:E1:91:ILE:HB	2.22	0.75
68:O2:103:LYS:O	68:O2:106:VAL:HG12	1.86	0.75
53:M7:29:THR:HA	53:M7:32:THR:HG22	1.69	0.75
11:S9:133:HIS:NE2	1:6:513:U:OP1	447.55	0.75
36:1:685:G:N2	36:1:695:C:O2	2.20	0.75
30:D8:42:ARG:HH12	30:D8:61:ARG:HE	7.32	0.75
4:S2:205:ARG:HB3	4:S2:205:ARG:NH1	2.01	0.75
1:6:1280:C:H2'	1:6:1281:G:C8	2.20	0.75
16:C4:99:GLN:NE2	28:D6:44:ILE:O	3.97	0.75
49:M3:79:GLU:OE1	49:M3:101:ARG:NH2	2.62	0.75
36:1:1658:G:H2'	36:1:1659:U:H6	1.52	0.75
36:5:1952:G:H1	36:5:2094:C:H42	1.32	0.75
36:1:1204:A:H2	36:1:2834:G:N3	1.85	0.75
62:N6:74:TYR:OH	38:8:75:G:OP2	61.74	0.75
41:L4:49:ALA:O	38:8:27:U:O2'	105.83	0.75
36:5:300:G:O6	87:5:4186:OHX:N2	2.19	0.75
34:SR:319:ASN:N	34:SR:319:ASN:OD1	2.18	0.75
70:O4:38:LEU:HD23	70:O4:39:ALA:H	5.65	0.75
36:1:2442:G:H22	36:1:2505:U:H3	1.32	0.75
6:S4:57:ASN:HB3	6:S4:60:GLU:H	1.52	0.74
36:5:3328:G:N2	36:5:3378:C:O2	2.16	0.74
15:C3:88:LEU:O	15:C3:91:LEU:N	2.91	0.74
1:2:899:G:H1	1:2:910:C:H42	1.33	0.74
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.20	0.74
9:S7:53:GLY:O	9:S7:55:LYS:N	4.11	0.74
1:2:992:A:O2'	1:2:1785:U:O2	2.01	0.74
1:2:1291:G:H2'	1:2:1292:G:H8	1.50	0.74
51:M5:138:GLN:HA	51:M5:143:ARG:HD2	1.69	0.74
36:5:2697:A:H2'	36:5:2698:G:H8	1.49	0.74
64:N8:94:ALA:HA	64:N8:121:VAL:HG13	1.68	0.74
2:S0:28:ASN:O	2:S0:150:ASP:HB3	7.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2444:C:H42	36:5:2503:G:H1	1.33	0.74
38:4:63:G:N2	38:4:98:U:O2	2.17	0.74
22:D0:51:VAL:HG22	22:D0:94:GLU:H	4.40	0.74
56:N0:88:HIS:N	56:N0:88:HIS:CD2	2.88	0.74
11:S9:89:ASP:N	11:S9:89:ASP:OD2	2.20	0.74
44:L7:107:ARG:HH12	44:L7:200:ASN:HA	1.53	0.74
5:S3:192:PRO:HB2	5:S3:201:ALA:HA	1.69	0.74
7:S5:128:ASN:O	7:S5:131:GLN:N	2.56	0.74
7:S5:49:GLU:HA	7:S5:65:ARG:HH12	5.23	0.74
6:S4:221:ARG:HD3	1:6:752:A:O2'	360.87	0.74
36:1:2226:U:H2'	36:1:2227:C:H6	1.50	0.74
36:1:1062:A:O2'	57:N1:108:ARG:NH1	2.19	0.74
1:2:386:G:OP1	10:S8:25:ARG:NH2	2.20	0.74
1:6:386:G:O2'	1:6:387:A:H5'	1.87	0.74
41:L4:293:SER:OG	41:L4:294:GLU:N	4.56	0.74
37:3:4:U:H2'	37:3:5:G:C8	2.22	0.74
61:N5:42:ARG:HD2	36:5:14:U:H1'	101.88	0.74
36:1:2284:C:N4	36:1:2308:C:OP2	2.20	0.74
40:L3:262:TRP:CG	40:L3:263:SER:N	3.03	0.74
47:M0:177:ASP:HB3	47:M0:179:PRO:HD2	3.46	0.74
41:L4:140:HIS:NE2	41:L4:246:ARG:HG2	3.56	0.74
20:C8:35:ILE:HB	20:C8:38:VAL:HG13	5.01	0.74
55:M9:105:LEU:HD12	55:M9:138:LEU:HD13	7.89	0.74
1:6:1649:G:N7	87:6:2114:OHX:N2	2.35	0.74
18:C6:82:ARG:HH22	18:C6:114:ARG:HB2	2.11	0.74
36:5:380:U:H2'	36:5:381:U:O4'	1.87	0.74
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.21	0.74
1:2:57:G:O6	87:2:2046:OHX:N3	2.19	0.74
36:5:979:U:O2'	36:5:980:A:N7	2.19	0.74
49:M3:182:ILE:HG22	49:M3:186:ARG:HG3	2.98	0.74
62:N6:3:LYS:NZ	62:N6:5:SER:O	2.63	0.74
36:1:1180:A:H5''	69:O3:77:ASN:HB2	1.69	0.74
1:6:515:A:H2'	1:6:516:G:O4'	1.87	0.74
36:5:2568:C:O2'	36:5:2569:A:O5'	2.04	0.74
2:S0:70:PRO:O	2:S0:95:ALA:N	2.20	0.74
68:O2:6:HIS:O	68:O2:6:HIS:ND1	2.20	0.74
36:1:2389:C:N4	36:1:2990:G:H1	1.86	0.74
36:1:1878:G:OP1	87:1:3928:OHX:N4	2.20	0.74
12:C0:3:MET:HE1	12:C0:41:TYR:HB3	2.79	0.74
34:SR:112:SER:OG	34:SR:155:ARG:NH1	5.05	0.74
44:L7:225:GLN:NE2	37:7:97:A:O4'	276.43	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2211:U:O4	87:5:3957:OHX:N4	2.21	0.74
54:M8:123:THR:OG1	54:M8:125:ASP:OD2	2.05	0.74
36:1:1443:G:O6	87:1:3977:OHX:N3	2.20	0.74
44:L7:47:ARG:O	44:L7:50:ALA:N	3.12	0.74
36:1:562:C:H2'	36:1:563:U:H6	1.51	0.74
17:C5:18:ARG:HH11	20:C8:90:ASN:HD21	4.96	0.74
34:SR:37:SER:OG	34:SR:38:ARG:N	2.44	0.74
36:1:2808:A:H4'	36:1:2809:C:O5'	1.88	0.74
36:5:2101:C:H2'	36:5:2102:U:H6	1.51	0.74
42:L5:238:ASP:O	42:L5:242:SER:OG	4.78	0.74
1:2:1591:C:H2'	1:2:1592:A:H8	1.51	0.74
36:5:207:U:H3	36:5:222:A:H61	1.35	0.74
38:8:10:A:H2'	38:8:11:C:C6	2.22	0.74
36:1:2991:A:O2'	36:1:3308:C:N4	2.20	0.74
62:N6:89:LYS:HE3	62:N6:91:ASN:HD21	4.52	0.74
45:L8:247:ASP:O	45:L8:251:LYS:HB2	1.88	0.74
67:O1:76:SER:HB3	67:O1:78:LYS:HE3	1.70	0.74
1:2:373:G:N7	87:2:2159:OHX:N6	2.34	0.74
36:5:2168:A:C6	36:5:2170:U:H1'	2.22	0.74
48:M1:83:GLY:HA2	48:M1:86:VAL:HG23	1.68	0.74
63:N7:127:ASN:O	63:N7:129:TRP:N	2.21	0.74
55:M9:43:LYS:NZ	36:5:1765:U:H5'	91.50	0.74
36:1:282:G:H5''	36:1:283:G:OP1	1.88	0.74
36:1:336:A:OP2	62:N6:9:SER:OG	2.05	0.74
36:5:1696:A:OP2	36:5:1749:A:N6	2.21	0.74
42:L5:68:THR:HG22	42:L5:70:THR:H	1.52	0.74
3:S1:115:ARG:HG3	3:S1:115:ARG:HH11	4.28	0.74
36:1:1808:G:OP2	63:N7:133:LYS:NZ	2.17	0.74
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	3.49	0.74
1:6:546:U:H2'	1:6:547:U:H6	1.51	0.74
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.21	0.74
15:C3:15:ALA:O	1:6:959:U:H5''	349.78	0.74
77:Q1:13:LEU:O	77:Q1:16:LYS:N	3.10	0.74
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.24	0.74
14:C2:66:VAL:HG11	14:C2:71:ILE:HG21	1.70	0.74
49:M3:89:TYR:O	49:M3:92:THR:N	2.22	0.74
1:6:1266:U:H2'	1:6:1267:G:H8	1.51	0.74
4:S2:163:GLY:O	4:S2:165:VAL:N	4.83	0.74
36:5:1554:U:H1'	36:5:1555:U:H5''	1.67	0.74
1:6:815:G:C8	1:6:815:G:H5'	2.22	0.74
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	9.12	0.74
47:M0:188:GLY:HA3	47:M0:216:TYR:HD1	1.52	0.74
36:1:2255:A:N7	36:1:2259:A:N6	2.35	0.74
46:L9:20:ILE:HG13	50:M4:7:VAL:HG22	1.70	0.74
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.93	0.74
41:L4:6:VAL:N	41:L4:20:LEU:O	2.98	0.74
43:L6:39:VAL:O	43:L6:40:LEU:HD23	1.88	0.74
18:C6:133:GLY:HA3	18:C6:136:SER:HB3	3.22	0.74
12:C0:46:LEU:O	12:C0:50:THR:N	2.17	0.74
17:C5:18:ARG:HD3	20:C8:90:ASN:HD21	4.25	0.74
48:M1:109:HIS:HD2	48:M1:123:PHE:H	1.36	0.74
1:2:1186:U:O4	1:2:1200:G:N2	2.20	0.74
40:L3:296:THR:H	40:L3:299:ASP:HB3	1.52	0.74
36:5:3165:A:H61	36:5:3285:C:H42	1.35	0.74
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.70	0.74
22:D0:57:ARG:HA	22:D0:89:ARG:HG3	1.69	0.74
36:1:830:A:H2'	36:1:831:G:O4'	1.87	0.74
70:O4:89:ILE:HG22	70:O4:90:ILE:HD13	1.69	0.74
3:S1:175:GLU:OE2	3:S1:187:LYS:NZ	4.43	0.74
41:L4:289:ILE:O	41:L4:292:SER:HB3	1.88	0.74
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	1.78	0.74
38:8:148:G:H2'	38:8:149:A:H8	1.53	0.74
1:2:10:G:N1	1:2:1144:U:O2	2.16	0.74
36:1:23:A:OP1	87:1:3871:OHX:N5	2.20	0.74
36:1:3066:U:O4	87:1:4133:OHX:N5	2.21	0.74
1:2:1580:C:H2'	1:2:1581:C:C6	2.22	0.73
67:O1:41:LYS:HG3	67:O1:47:ASP:H	3.59	0.73
2:S0:175:TYR:HD2	2:S0:176:LEU:HD23	1.53	0.73
34:SR:122:ILE:HB	34:SR:134:TRP:HB2	1.68	0.73
62:N6:91:ASN:O	62:N6:93:ALA:N	2.21	0.73
78:Q2:58:PHE:HD1	78:Q2:59:HIS:N	1.85	0.73
55:M9:66:HIS:O	55:M9:69:SER:N	2.21	0.73
54:M8:28:LEU:O	54:M8:31:LYS:N	2.21	0.73
1:6:65:A:O3'	1:6:66:U:H3'	1.88	0.73
36:5:3287:U:H2'	36:5:3288:G:H5'	1.70	0.73
49:M3:48:PRO:HD2	71:O5:115:LYS:HD3	1.69	0.73
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.22	0.73
25:D3:24:TRP:HE3	25:D3:30:LYS:HD2	1.52	0.73
1:2:1234:A:H4'	33:E1:146:SER:HB3	1.69	0.73
36:5:422:A:C2	36:5:2363:A:H4'	2.23	0.73
36:1:1835:A:H5'	36:1:1835:A:H8	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2372:A:H5''	36:5:2373:A:C5'	2.17	0.73
45:L8:70:LYS:NZ	36:5:2437:G:OP1	176.66	0.73
35:SM:123:ALA:HA	35:SM:126:ASP:HB2	1.70	0.73
47:M0:76:MET:HE1	47:M0:148:VAL:HA	4.77	0.73
1:2:1592:A:H2'	1:2:1593:A:C8	2.23	0.73
1:2:1450:U:H2'	1:2:1451:C:C6	2.23	0.73
6:S4:71:LYS:HG3	6:S4:91:THR:HB	4.63	0.73
42:L5:43:LYS:O	42:L5:46:THR:HB	1.87	0.73
33:E1:136:LYS:O	33:E1:138:ARG:N	2.21	0.73
16:C4:87:GLY:HA2	16:C4:92:LYS:HA	1.68	0.73
1:6:482:U:H3	1:6:505:A:H61	1.33	0.73
48:M1:28:ASP:HA	48:M1:31:THR:HG23	4.49	0.73
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	4.77	0.73
51:M5:149:ASN:OD1	87:M5:303:OHX:N2	2.21	0.73
36:5:2432:A:N6	36:5:2597:U:O4	2.17	0.73
36:1:2255:A:N6	36:1:2260:U:O2	2.19	0.73
7:S5:143:ARG:NH1	7:S5:218:GLU:OE2	3.25	0.73
61:N5:110:VAL:O	61:N5:111:ASN:ND2	2.20	0.73
42:L5:64:ILE:HG22	42:L5:75:LEU:HB3	1.69	0.73
2:S0:122:ILE:HA	2:S0:144:ILE:HB	1.70	0.73
63:N7:14:VAL:HG23	70:O4:89:ILE:HG21	1.70	0.73
6:S4:195:ILE:HA	6:S4:210:ILE:HD13	4.64	0.73
36:1:283:G:OP2	36:1:285:A:O2'	2.05	0.73
36:5:2169:G:O6	87:5:3949:OHX:N5	2.21	0.73
36:1:3095:U:H2'	36:1:3096:C:H6	1.53	0.73
9:S7:109:VAL:HG22	9:S7:110:GLN:HB2	5.12	0.73
1:2:1412:G:H21	19:C7:3:ARG:HH22	1.33	0.73
36:5:2775:U:H2'	36:5:2776:C:H6	1.53	0.73
15:C3:23:PRO:O	15:C3:25:TRP:N	2.19	0.73
20:C8:61:LEU:HB3	20:C8:66:LEU:HD21	3.16	0.73
23:D1:36:VAL:O	23:D1:51:VAL:N	3.47	0.73
20:C8:36:LYS:HG2	20:C8:105:VAL:CG2	8.22	0.73
79:Q3:56:THR:HG22	79:Q3:63:THR:HG23	1.70	0.73
71:O5:87:ALA:HA	71:O5:90:ARG:HG2	1.69	0.73
1:2:1106:U:H2'	1:2:1107:G:H8	1.51	0.73
15:C3:83:GLU:HG3	15:C3:84:ILE:HD13	3.57	0.73
25:D3:79:ASN:ND2	25:D3:81:LYS:HB2	2.02	0.73
18:C6:135:ARG:NH1	1:6:1583:A:OP1	383.40	0.73
18:C6:37:THR:O	18:C6:45:ARG:NH1	2.21	0.73
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	2.20	0.73
1:2:866:G:H5''	15:C3:3:ARG:H	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:146:THR:OG1	39:L2:160:SER:OG	3.55	0.73
39:L2:79:ASN:HD21	39:L2:114:SER:HB3	2.35	0.73
46:L9:134:ILE:HG12	46:L9:146:LEU:HD23	1.70	0.73
2:S0:134:LYS:O	2:S0:137:SER:OG	2.94	0.73
1:6:1514:U:H5''	1:6:1515:A:O4'	1.89	0.73
36:1:1054:A:H5''	36:1:2637:A:N6	2.04	0.73
21:C9:25:GLN:HG3	21:C9:27:LYS:HG3	4.01	0.73
36:1:1901:A:H5''	36:1:1902:G:OP2	1.87	0.73
1:6:404:G:H2'	1:6:405:C:H6	1.52	0.73
1:2:442:C:H2'	1:2:443:C:H6	1.51	0.73
1:6:1475:A:H2'	1:6:1476:C:O4'	1.88	0.73
36:5:1261:G:O2'	36:5:1278:A:N1	2.22	0.73
52:M6:8:VAL:HB	52:M6:117:ARG:HB3	2.51	0.73
54:M8:185:LYS:NZ	36:5:779:G:OP1	179.52	0.73
36:1:2898:G:H5''	36:1:2899:C:H5'	1.69	0.73
1:2:1237:G:O6	1:2:1248:C:N4	2.16	0.73
1:2:1235:C:H2'	33:E1:138:ARG:HH21	1.53	0.73
64:N8:29:PRO:O	64:N8:31:GLY:N	2.20	0.73
36:1:1160:C:OP1	54:M8:2:GLY:N	2.21	0.73
37:7:3:U:H2'	37:7:4:U:H6	1.52	0.73
36:1:3252:G:N7	87:1:4162:OHX:N2	2.37	0.73
11:S9:90:LYS:HB3	11:S9:95:TYR:HB3	3.64	0.73
11:S9:174:ARG:HA	11:S9:174:ARG:HE	1.54	0.73
47:M0:11:TYR:O	47:M0:13:LYS:N	2.86	0.73
40:L3:296:THR:HG22	40:L3:298:PHE:H	1.59	0.73
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.23	0.73
1:2:487:G:H1	1:2:500:C:H42	1.35	0.73
69:O3:18:ARG:HD3	36:5:1178:G:H5'	239.21	0.73
36:1:168:U:H2'	36:1:169:U:C5	2.23	0.73
1:2:1294:G:O6	87:2:2077:OHX:N4	2.22	0.73
36:1:1342:C:H2'	36:1:1343:A:H8	1.53	0.73
36:5:2997:G:H1'	36:5:3396:U:H5'	1.71	0.73
40:L3:211:GLN:NE2	40:L3:283:TYR:O	2.21	0.73
11:S9:149:ARG:O	11:S9:151:ASP:N	2.22	0.73
11:S9:85:VAL:HG13	11:S9:103:ASP:HB3	1.71	0.73
36:1:1381:A:H5''	41:L4:197:ARG:HH11	1.52	0.73
7:S5:185:ARG:NH1	1:6:1572:G:H1'	329.05	0.73
36:1:2746:A:H2	42:L5:146:LEU:HB3	1.54	0.73
70:O4:88:ARG:NH1	36:5:2556:C:OP1	198.50	0.73
36:5:1249:G:H2'	36:5:1250:G:C8	2.22	0.73
36:5:938:C:O2	36:5:2813:A:O2'	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1687:U:H5''	36:1:1688:U:H5'	1.71	0.73
35:SM:36:ASP:HB2	48:M1:61:ARG:HD3	3.90	0.73
56:N0:5:LYS:HB2	56:N0:7:TYR:HE2	1.51	0.73
1:2:1508:U:O4	87:2:2031:OHX:N5	2.22	0.73
36:5:734:C:H2'	36:5:735:A:C8	2.24	0.73
36:1:517:G:P	44:L7:60:ARG:HH22	2.12	0.73
43:L6:148:GLU:OE1	43:L6:151:LYS:NZ	4.69	0.73
38:4:5:U:H2'	38:4:6:U:C6	2.23	0.73
36:1:1116:G:N2	36:1:2817:A:O4'	2.21	0.73
36:1:8:C:H2'	36:1:9:U:O4'	1.88	0.73
7:S5:41:LYS:HB3	7:S5:41:LYS:NZ	3.47	0.73
36:1:2881:C:N4	36:1:2943:G:H1	1.87	0.73
34:SR:70:ASP:HB3	34:SR:112:SER:HA	1.70	0.73
4:S2:87:GLN:HG2	4:S2:96:THR:HB	3.93	0.73
36:5:3085:G:H5''	36:5:3086:A:OP1	1.89	0.73
22:D0:103:ILE:HA	22:D0:106:ILE:HG22	2.83	0.73
38:8:10:A:H2'	38:8:11:C:H6	1.54	0.73
54:M8:8:LYS:NZ	36:5:971:G:OP1	197.94	0.73
36:1:2726:C:O2'	36:1:2727:A:H2'	1.88	0.73
34:SR:132:LYS:NZ	34:SR:143:THR:OG1	2.21	0.73
47:M0:19:LYS:HG3	47:M0:26:VAL:HG11	1.71	0.73
1:2:142:G:H1	1:2:173:A:H2	1.35	0.73
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.53	0.73
26:D4:104:SER:OG	26:D4:105:ARG:N	2.18	0.72
72:O6:44:VAL:O	72:O6:48:ALA:N	2.53	0.72
36:1:3049:A:OP2	87:1:4180:OHX:N3	2.21	0.72
1:6:895:G:H1	1:6:917:U:H3	1.36	0.72
68:O2:105:ARG:HD3	68:O2:124:GLY:HA3	2.19	0.72
36:1:2227:C:OP1	78:Q2:32:LYS:NZ	2.15	0.72
4:S2:175:GLY:HA3	11:S9:53:ARG:HH22	1.54	0.72
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.22	0.72
36:5:621:A:H2'	36:5:622:A:H8	1.53	0.72
33:E1:92:LYS:O	33:E1:93:HIS:ND1	3.36	0.72
54:M8:90:ASP:O	54:M8:92:ARG:N	2.22	0.72
6:S4:246:LEU:HD12	6:S4:246:LEU:H	1.53	0.72
65:N9:8:THR:OG1	65:N9:9:ALA:N	2.49	0.72
8:S6:23:ARG:O	8:S6:26:VAL:HG23	2.28	0.72
28:D6:12:LYS:NZ	1:6:1029:U:OP2	320.90	0.72
51:M5:185:ALA:HB3	51:M5:190:THR:HG23	1.69	0.72
20:C8:6:GLN:HG3	27:D5:44:GLN:HB2	7.22	0.72
41:L4:47:ARG:NH2	41:L4:109:TRP:HA	3.57	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:190:ILE:H	7:S5:190:ILE:HD13	2.64	0.72
5:S3:28:GLU:HG3	5:S3:29:LEU:HG	1.71	0.72
1:2:868:G:O6	87:2:2032:OHX:N6	2.22	0.72
17:C5:126:VAL:HG13	17:C5:127:ARG:H	2.02	0.72
20:C8:145:ARG:H	35:SM:72:ARG:HH21	9.41	0.72
69:O3:73:ARG:HD3	69:O3:82:ARG:HH11	1.53	0.72
34:SR:154:VAL:O	34:SR:155:ARG:NH1	2.22	0.72
36:5:1554:U:H2'	36:5:1581:C:H2'	1.69	0.72
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.24	0.72
50:M4:104:ALA:HA	50:M4:107:GLU:HB2	1.69	0.72
1:2:531:C:OP2	87:2:2070:OHX:N4	2.22	0.72
36:1:2908:G:O6	87:1:3874:OHX:N4	2.22	0.72
42:L5:183:TRP:CH2	42:L5:188:GLU:HA	2.23	0.72
41:L4:327:LEU:HA	44:L7:166:ASN:HD21	1.52	0.72
6:S4:54:TYR:O	26:D4:15:ASN:ND2	3.35	0.72
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.22	0.72
19:C7:26:LEU:HD13	19:C7:59:LYS:HG3	1.70	0.72
79:Q3:4:ARG:NH2	36:5:838:G:O6	235.17	0.72
41:L4:144:LYS:HD3	41:L4:144:LYS:H	5.20	0.72
42:L5:56:THR:O	42:L5:58:LYS:N	2.36	0.72
2:S0:132:ALA:HB3	2:S0:133:ILE:HD12	1.71	0.72
25:D3:29:TYR:CZ	25:D3:33:LEU:HD11	2.25	0.72
54:M8:2:GLY:N	36:5:1160:C:OP1	223.69	0.72
36:1:1492:G:O3'	75:O9:48:LYS:NZ	2.22	0.72
36:1:1585:C:H2'	36:1:1586:G:H8	1.54	0.72
1:2:134:U:OP1	1:2:136:C:N4	2.21	0.72
36:1:1546:A:H4'	51:M5:101:THR:HG21	1.70	0.72
43:L6:26:ARG:NH1	36:5:503:C:OP1	257.27	0.72
12:C0:48:SER:HA	12:C0:51:SER:HB2	3.90	0.72
55:M9:98:ARG:NH1	55:M9:130:ASN:OD1	5.90	0.72
36:5:998:A:O2'	37:7:103:A:N3	2.21	0.72
6:S4:129:VAL:HG12	6:S4:156:VAL:HG22	2.09	0.72
79:Q3:73:THR:HG22	79:Q3:75:ALA:H	4.80	0.72
52:M6:194:LEU:HB3	52:M6:199:TYR:HB2	1.71	0.72
36:1:3277:U:O4	53:M7:172:GLN:NE2	2.22	0.72
8:S6:24:ILE:O	8:S6:26:VAL:N	2.21	0.72
36:1:764:U:O4	87:1:3963:OHX:N5	2.22	0.72
36:1:2206:G:H1	36:1:2237:C:H42	1.37	0.72
56:N0:49:HIS:O	56:N0:51:VAL:N	3.39	0.72
1:6:1297:G:N2	1:6:1300:A:OP2	2.19	0.72
36:1:2320:A:OP2	87:1:4209:OHX:N5	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:93:C:H4'	36:5:94:G:H5''	1.72	0.72
53:M7:28:ASN:O	53:M7:32:THR:HG22	1.88	0.72
36:1:2853:A:O3'	47:M0:64:ALA:HB2	1.89	0.72
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	1.71	0.72
41:L4:25:VAL:O	41:L4:27:SER:N	2.22	0.72
1:2:1202:A:OP1	87:2:2111:OHX:N1	2.21	0.72
6:S4:220:THR:OG1	6:S4:221:ARG:N	3.10	0.72
48:M1:11:ASP:O	48:M1:12:LEU:HB2	1.88	0.72
63:N7:33:SER:OG	63:N7:34:LYS:N	3.98	0.72
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	2.01	0.72
79:Q3:26:VAL:HG13	79:Q3:30:GLU:HG3	2.65	0.72
37:3:22:A:H2'	37:3:23:A:C8	2.24	0.72
62:N6:56:VAL:HG23	62:N6:106:ILE:HA	1.70	0.72
40:L3:169:THR:O	40:L3:171:LEU:N	2.40	0.72
72:O6:90:MET:O	72:O6:92:ASN:N	3.26	0.72
10:S8:178:ARG:NH1	1:6:207:U:O2	287.58	0.72
36:1:1204:A:N6	36:1:1300:G:O2'	2.21	0.72
40:L3:250:ALA:HB3	36:5:2880:U:O2	224.28	0.72
36:5:192:C:O2	36:5:203:G:N2	2.15	0.72
7:S5:146:THR:O	30:D8:45:LYS:NZ	2.23	0.72
36:1:3325:G:H5''	67:O1:103:GLY:HA2	1.71	0.72
8:S6:64:LYS:HB2	8:S6:97:VAL:HG21	3.55	0.72
36:1:1804:A:H2'	36:1:1805:C:C6	2.25	0.72
45:L8:55:TYR:CE2	45:L8:56:VAL:HG23	2.24	0.72
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.12	0.72
36:1:2445:A:H61	36:1:2502:A:H2	1.36	0.72
9:S7:136:VAL:N	9:S7:153:LEU:O	3.66	0.72
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.71	0.72
1:2:397:A:H5''	10:S8:47:ARG:NH1	2.05	0.72
30:D8:10:ALA:HB1	30:D8:30:VAL:HB	1.71	0.72
30:D8:12:VAL:HG22	30:D8:28:VAL:HG21	3.74	0.72
42:L5:146:LEU:HB3	36:5:2746:A:H2	258.96	0.72
1:2:1120:U:O2	1:2:1127:G:N2	2.21	0.72
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.71	0.72
2:S0:140:ASN:ND2	4:S2:60:SER:O	2.21	0.72
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.52	0.72
36:5:3243:A:HO2'	36:5:3244:A:H8	1.38	0.72
45:L8:97:TYR:OH	45:L8:204:ARG:N	2.20	0.72
30:D8:36:THR:OG1	30:D8:37:SER:N	2.22	0.72
25:D3:56:LYS:HZ2	25:D3:97:ASP:H	1.37	0.72
1:2:50:C:N4	1:2:424:C:O2	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:272:G:OP2	87:1:4030:OHX:N3	2.23	0.72
1:2:899:G:O2'	1:2:915:A:N1	2.23	0.72
23:D1:74:GLN:HG3	23:D1:79:LEU:HB2	3.65	0.72
29:D7:67:THR:OG1	29:D7:70:LYS:O	2.08	0.72
36:5:1764:U:H3'	36:5:1765:U:H5''	1.72	0.72
35:SM:68:ARG:NH2	1:6:1460:A:OP2	332.71	0.72
37:3:13:A:O2'	42:L5:24:ARG:NH1	2.21	0.72
36:1:1881:A:H2'	36:1:1882:G:H8	1.55	0.72
5:S3:57:ASP:N	5:S3:57:ASP:OD1	2.23	0.72
87:1:3917:OHX:N5	51:M5:204:LYS:O	2.21	0.72
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.71	0.72
78:Q2:10:THR:OG1	78:Q2:11:TYR:N	2.21	0.72
45:L8:101:THR:HG22	45:L8:104:GLU:OE2	1.90	0.72
36:1:2356:A:H5'	53:M7:138:LYS:HE3	1.72	0.72
19:C7:55:THR:O	19:C7:58:MET:HB2	1.89	0.72
12:C0:58:GLN:OE1	12:C0:59:PHE:N	2.18	0.72
3:S1:229:MET:HA	3:S1:232:HIS:CE1	2.24	0.72
4:S2:119:LYS:NZ	1:6:1291:G:H5'	406.04	0.72
16:C4:88:GLY:H	16:C4:120:PRO:HG2	1.55	0.72
1:2:140:A:N6	1:2:281:G:OP1	2.22	0.72
36:5:261:U:H2'	36:5:262:U:C6	2.24	0.72
39:L2:70:ARG:HH21	39:L2:72:ARG:HD3	1.54	0.72
19:C7:35:CYS:O	19:C7:39:ALA:N	2.22	0.72
21:C9:109:GLU:HG3	21:C9:115:GLU:HA	1.71	0.72
5:S3:64:ARG:HG2	5:S3:65:ARG:H	4.68	0.72
15:C3:6:SER:OG	15:C3:8:GLY:N	2.17	0.72
2:S0:136:ALA:HA	2:S0:141:ILE:HD12	1.71	0.72
50:M4:14:LEU:N	50:M4:19:ARG:HH11	1.88	0.72
1:6:73:U:H2'	1:6:74:U:C6	2.23	0.72
57:N1:57:TYR:OH	36:5:2724:U:OP1	223.66	0.72
36:5:2818:U:C6	36:5:2818:U:H5'	2.25	0.72
46:L9:129:ARG:HG2	46:L9:129:ARG:HH11	4.44	0.72
40:L3:194:TRP:O	40:L3:198:HIS:ND1	2.17	0.72
1:2:1511:U:H2'	1:2:1512:G:C8	2.25	0.72
40:L3:187:SER:OG	40:L3:188:ILE:HD12	1.90	0.72
36:1:986:U:OP1	44:L7:98:LYS:NZ	2.16	0.72
41:L4:39:PHE:O	41:L4:42:VAL:N	2.83	0.71
42:L5:120:LYS:O	42:L5:248:ARG:NH2	3.26	0.71
1:2:1252:C:H2'	1:2:1253:U:C6	2.24	0.71
16:C4:54:GLU:CD	1:6:901:G:H22	282.68	0.71
36:5:655:C:H2'	36:5:656:A:C8	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.15	0.71
36:5:3043:C:N4	36:5:3098:G:O6	2.18	0.71
57:N1:100:LYS:HB3	36:5:990:U:H4'	259.24	0.71
36:1:2233:A:OP2	87:1:4043:OHX:N5	2.23	0.71
36:5:197:G:C8	36:5:395:A:H1'	2.25	0.71
1:6:759:U:OP1	87:6:2184:OHX:N2	2.23	0.71
36:5:1192:C:H5	87:5:4086:OHX:N6	1.88	0.71
36:1:3026:G:O6	87:1:3940:OHX:N4	2.22	0.71
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.53	0.71
41:L4:39:PHE:CE2	41:L4:43:ASN:HB2	2.54	0.71
61:N5:110:VAL:HG22	61:N5:124:VAL:HG22	3.54	0.71
1:2:1549:C:P	17:C5:39:ALA:H	2.13	0.71
17:C5:108:ARG:H	17:C5:111:MET:HG3	1.56	0.71
1:2:1178:G:O6	1:2:1461:C:N4	2.18	0.71
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.54	0.71
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.25	0.71
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.55	0.71
52:M6:188:SER:O	52:M6:191:ALA:N	3.43	0.71
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.18	0.71
36:5:286:U:H2'	36:5:287:G:H8	1.54	0.71
1:2:778:G:H2'	1:2:779:U:H2'	1.72	0.71
42:L5:12:TYR:OH	36:5:2688:U:OP1	300.10	0.71
36:1:3299:A:H61	36:1:3315:G:H1	1.37	0.71
36:5:2533:G:N2	36:5:2546:C:O2	2.23	0.71
69:O3:86:ARG:HH22	36:5:498:A:H5'	216.91	0.71
69:O3:90:PRO:O	69:O3:92:LYS:N	2.22	0.71
1:6:1621:U:H2'	1:6:1622:G:H8	1.55	0.71
1:2:318:U:O4	87:2:2125:OHX:N5	2.22	0.71
65:N9:50:THR:OG1	65:N9:51:ALA:N	3.41	0.71
28:D6:58:VAL:HG22	28:D6:59:TYR:H	4.26	0.71
1:6:453:U:O4	87:6:2066:OHX:N4	2.23	0.71
36:5:2996:U:OP1	36:5:2996:U:H4'	1.90	0.71
1:2:45:U:O4	1:2:434:G:N2	2.23	0.71
36:5:1497:C:H2'	36:5:1498:A:H8	1.52	0.71
36:5:2836:C:H5	36:5:2852:C:H42	1.35	0.71
10:S8:185:GLU:HA	10:S8:189:LEU:HD22	1.72	0.71
19:C7:49:LYS:HA	1:6:1389:C:H4'	422.25	0.71
15:C3:72:MET:HE2	1:6:962:C:H5''	317.15	0.71
36:1:2374:C:N4	36:1:2941:A:C4	2.58	0.71
1:6:143:G:O6	1:6:172:C:N4	2.18	0.71
49:M3:113:VAL:O	49:M3:117:LYS:N	3.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:60:TYR:HD2	71:O5:25:LYS:HB3	1.54	0.71
70:O4:52:GLN:HG3	36:5:1738:C:H1'	193.31	0.71
36:1:1802:C:O2'	70:O4:59:PRO:O	2.04	0.71
36:1:2726:C:OP1	87:1:4123:OHX:N3	2.24	0.71
62:N6:126:LEU:HB2	71:O5:71:LYS:HD2	47.20	0.71
36:5:1790:G:H2'	36:5:1791:C:H6	1.54	0.71
7:S5:82:PHE:CZ	30:D8:49:ARG:HD2	4.65	0.71
17:C5:18:ARG:HH11	20:C8:90:ASN:ND2	4.44	0.71
28:D6:51:ARG:HG2	28:D6:51:ARG:HH21	2.37	0.71
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.39	0.71
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	1.74	0.71
36:5:3165:A:H2'	36:5:3166:C:H6	1.55	0.71
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.73	0.71
1:2:1511:U:H2'	1:2:1512:G:H8	1.53	0.71
36:1:1585:C:H2'	36:1:1586:G:C8	2.25	0.71
36:1:3143:C:O2'	87:1:3901:OHX:N2	2.23	0.71
36:5:1522:U:H4'	36:5:1523:U:OP2	1.90	0.71
36:1:1814:A:OP1	87:1:4088:OHX:N2	2.23	0.71
36:5:1817:G:OP1	87:5:4175:OHX:N1	2.23	0.71
36:5:1630:U:O4'	36:5:1813:A:N6	2.23	0.71
3:S1:56:SER:OG	3:S1:58:SER:OG	5.81	0.71
36:5:1930:A:O2'	87:5:3923:OHX:N3	2.23	0.71
36:1:1230:G:H1	36:1:1279:C:H42	1.37	0.71
5:S3:164:VAL:O	5:S3:168:ILE:HG23	4.59	0.71
18:C6:58:ASP:O	18:C6:60:PHE:N	2.21	0.71
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	1.73	0.71
36:1:409:A:OP2	87:1:4055:OHX:N5	2.23	0.71
2:S0:11:PRO:HA	2:S0:14:ALA:HB3	1.71	0.71
4:S2:65:GLU:HB2	4:S2:68:ILE:HG13	2.29	0.71
63:N7:136:PHE:CZ	70:O4:89:ILE:HG12	5.03	0.71
50:M4:14:LEU:H	50:M4:19:ARG:NH1	1.89	0.71
36:5:2278:C:H2'	36:5:2279:A:H5''	1.70	0.71
36:1:2218:G:H2'	36:1:2219:A:H8	1.52	0.71
26:D4:8:ARG:HH12	26:D4:68:LYS:HE3	1.56	0.71
69:O3:70:LYS:NZ	36:5:586:C:OP2	236.65	0.71
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.26	0.71
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.71	0.71
36:5:1790:G:H2'	36:5:1791:C:C6	2.25	0.71
36:5:1818:U:H2'	36:5:1819:U:H6	1.55	0.71
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	3.25	0.71
1:2:523:G:O2'	1:2:529:A:N6	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2531:C:H3'	36:5:2532:U:H5	1.56	0.71
37:7:86:U:O2	87:7:219:OHX:N4	2.23	0.71
10:S8:82:VAL:HG21	10:S8:103:GLN:HG3	1.72	0.71
19:C7:17:ILE:HG23	19:C7:58:MET:HE1	1.73	0.71
20:C8:33:THR:HA	20:C8:38:VAL:HG22	5.40	0.71
18:C6:95:LYS:HG2	18:C6:96:TYR:CZ	5.76	0.71
46:L9:178:GLY:HA3	46:L9:180:TYR:CZ	3.11	0.71
47:M0:76:MET:HE3	47:M0:148:VAL:HG13	1.71	0.71
1:2:1580:C:H4'	18:C6:137:ARG:HB2	1.73	0.71
42:L5:50:ARG:HD3	42:L5:65:ILE:HB	1.71	0.71
42:L5:79:TYR:O	42:L5:82:GLU:HG3	2.46	0.71
48:M1:132:ASN:HA	48:M1:154:THR:HG21	1.73	0.71
48:M1:9:MET:O	48:M1:11:ASP:N	3.53	0.71
52:M6:84:LEU:O	52:M6:87:MET:N	2.33	0.71
34:SR:84:SER:OG	34:SR:85:TRP:N	2.22	0.71
52:M6:28:LEU:HD11	52:M6:88:VAL:HG22	2.62	0.71
1:2:1514:U:H5'	1:2:1515:A:N3	2.06	0.71
36:1:980:A:H2'	36:1:981:U:N1	2.06	0.71
56:N0:50:LYS:HG2	37:7:77:G:O5'	304.56	0.71
36:1:267:G:O4'	51:M5:50:ARG:HD2	1.90	0.71
1:6:1339:C:O2'	1:6:1341:A:N7	2.23	0.71
1:6:697:C:H2'	1:6:698:U:H6	1.54	0.71
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.47	0.71
36:5:2768:U:H2'	36:5:2769:A:H8	1.55	0.71
87:1:4198:OHX:N2	87:O1:202:OHX:N5	2.38	0.71
41:L4:316:ASN:OD1	41:L4:318:LEU:N	3.54	0.71
24:D2:22:LYS:HG3	29:D7:3:LEU:HA	1.71	0.71
36:1:33:G:O2'	36:1:51:A:N6	2.24	0.71
5:S3:168:ILE:HB	5:S3:189:MET:HB2	5.70	0.71
36:5:357:A:N6	36:5:362:U:O4	2.15	0.71
12:C0:16:PHE:HD2	12:C0:76:LEU:HB2	1.53	0.71
17:C5:43:ARG:NH2	1:6:1552:U:OP2	403.09	0.71
73:O7:70:VAL:HA	73:O7:73:ARG:HG3	2.34	0.71
6:S4:68:ARG:HD3	6:S4:76:VAL:HG11	1.71	0.71
18:C6:113:ASP:HA	18:C6:116:LEU:HD12	5.78	0.71
1:2:1291:G:O5'	1:2:1291:G:H8	1.74	0.71
1:6:676:G:H2'	1:6:677:G:H8	1.55	0.71
39:L2:3:ARG:HD3	36:5:911:C:N4	178.19	0.71
36:1:1945:A:H2'	36:1:1946:A:C8	2.25	0.71
36:5:1024:G:N2	36:5:1026:A:OP2	2.23	0.71
49:M3:6:ASN:O	54:M8:164:ARG:NH1	3.61	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2533:G:H2'	36:5:2534:G:C8	2.26	0.71
27:D5:93:SER:OG	27:D5:94:LYS:N	2.24	0.71
64:N8:92:LYS:O	64:N8:93:SER:HB3	1.90	0.71
18:C6:83:GLN:HE22	18:C6:119:ALA:HA	1.70	0.71
36:5:196:G:N2	36:5:198:A:H3'	2.05	0.71
36:1:735:A:H2'	36:1:736:A:H8	1.55	0.71
1:2:459:G:OP1	26:D4:109:LYS:NZ	2.24	0.71
44:L7:44:ILE:HG12	44:L7:180:SER:HB3	1.73	0.71
36:5:185:C:H2'	36:5:186:U:H6	1.55	0.71
36:1:3037:U:H2'	36:1:3038:U:H6	1.56	0.71
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	2.48	0.71
40:L3:113:GLU:HG2	40:L3:176:ALA:HB2	3.76	0.71
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	2.36	0.71
33:E1:103:LEU:HD23	33:E1:105:TYR:HD2	2.90	0.71
8:S6:20:ASP:HB3	8:S6:23:ARG:HG3	4.03	0.71
10:S8:7:SER:HB2	1:6:336:G:H21	299.42	0.71
36:1:239:G:O2'	36:1:240:U:OP1	2.08	0.71
36:5:667:C:H2'	36:5:667:C:O2	1.91	0.71
36:5:953:G:H2'	36:5:1117:G:H5''	1.73	0.71
1:6:1385:G:N7	87:6:2126:OHX:N6	2.38	0.71
36:5:673:U:H2'	36:5:674:G:H8	1.54	0.71
56:N0:169:SER:OG	56:N0:170:THR:N	3.31	0.71
41:L4:50:TYR:CD1	36:5:339:C:H4'	115.03	0.71
35:SM:72:ARG:NH1	1:6:1460:A:O3'	326.61	0.71
1:2:1622:G:H2'	1:2:1623:C:C6	2.25	0.71
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.23	0.71
8:S6:159:ARG:NH2	1:6:79:C:OP1	349.75	0.71
32:E0:51:ASN:HB3	32:E0:53:LYS:HG2	6.96	0.71
15:C3:29:SER:HB3	15:C3:32:SER:HB3	5.64	0.71
53:M7:70:THR:HG23	53:M7:72:GLN:H	1.55	0.71
8:S6:78:THR:HG22	8:S6:79:LYS:HD3	4.50	0.71
58:N2:39:ASP:O	58:N2:40:HIS:ND1	2.24	0.71
1:6:1727:G:O6	87:6:2152:OHX:N6	2.24	0.71
25:D3:96:VAL:HG12	25:D3:127:VAL:HG21	4.22	0.70
1:2:1757:G:H21	36:1:2255:A:H1'	1.55	0.70
1:6:1273:G:H4'	1:6:1274:C:H3'	1.71	0.70
48:M1:81:GLU:O	48:M1:84:LEU:N	3.02	0.70
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.63	0.70
23:D1:11:LEU:HD12	23:D1:12:TYR:HB3	1.73	0.70
20:C8:141:THR:HG21	1:6:1174:C:OP2	353.28	0.70
57:N1:63:VAL:H	57:N1:75:ILE:HD13	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:53:SER:OG	41:L4:53:SER:O	3.00	0.70
36:1:3123:A:O2'	46:L9:40:HIS:ND1	2.23	0.70
49:M3:9:ILE:HD11	64:N8:45:MET:HE1	1.72	0.70
58:N2:22:PRO:HB3	58:N2:93:ILE:HG21	1.73	0.70
36:5:2662:G:N2	36:5:2708:C:O2	2.20	0.70
36:1:2831:G:N2	36:1:2857:C:O2	2.22	0.70
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.66	0.70
1:2:270:C:O2	1:2:285:G:N2	2.17	0.70
37:3:7:G:H5'	42:L5:33:ARG:HD2	1.72	0.70
1:2:649:U:O2'	1:2:650:U:O5'	2.07	0.70
1:2:1795:U:H5'	28:D6:79:ILE:HD11	1.73	0.70
1:2:542:A:H2'	1:2:543:C:H5'	1.73	0.70
1:2:248:U:OP1	87:2:2093:OHX:N6	2.24	0.70
1:6:1309:C:H2'	1:6:1310:U:H6	1.56	0.70
44:L7:25:GLN:H	44:L7:28:ALA:HB3	1.54	0.70
61:N5:131:ASP:OD2	61:N5:132:ALA:N	2.23	0.70
42:L5:124:GLU:O	42:L5:126:GLU:N	2.20	0.70
19:C7:108:ASP:HA	19:C7:111:LYS:HB2	3.95	0.70
1:6:1584:G:N2	1:6:1611:A:OP2	2.21	0.70
39:L2:5:ILE:HG22	39:L2:208:ASP:O	1.91	0.70
11:S9:65:LYS:HA	11:S9:70:LEU:HD21	1.72	0.70
36:5:173:G:HO2'	36:5:174:C:H6	1.37	0.70
22:D0:87:HIS:ND1	1:6:1383:G:OP1	442.11	0.70
54:M8:109:GLY:HA2	54:M8:112:ALA:HB3	2.85	0.70
62:N6:79:ALA:HB1	62:N6:98:ASN:HB3	2.65	0.70
1:6:269:G:H2'	1:6:270:C:H6	1.56	0.70
8:S6:14:LYS:HB3	8:S6:16:PHE:HE2	2.89	0.70
36:5:1222:G:H8	36:5:1222:G:OP2	1.74	0.70
36:5:920:A:H3'	36:5:922:U:C5	2.26	0.70
61:N5:80:ASN:O	61:N5:125:ARG:HG2	3.41	0.70
16:C4:32:ASP:N	16:C4:37:GLU:O	2.25	0.70
23:D1:79:LEU:HD22	23:D1:82:VAL:HG21	1.73	0.70
2:S0:162:CYS:SG	2:S0:163:ASN:N	2.64	0.70
36:5:1184:A:OP2	87:5:4092:OHX:N6	2.24	0.70
34:SR:101:GLN:OE1	34:SR:102:ARG:N	3.53	0.70
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.26	0.70
40:L3:81:THR:HG22	40:L3:321:PHE:HA	4.27	0.70
36:1:3023:U:H2'	36:1:3024:A:C8	2.26	0.70
1:2:590:C:OP1	32:E0:43:ARG:NH1	2.24	0.70
38:4:79:A:H2'	38:4:80:A:H1'	1.74	0.70
47:M0:207:GLU:O	47:M0:209:ASN:N	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1554:U:H4'	36:1:1555:U:OP1	1.90	0.70
53:M7:32:THR:HG21	53:M7:87:SER:CB	2.22	0.70
10:S8:42:ARG:HG2	10:S8:58:LEU:HB2	5.52	0.70
1:2:1479:A:H2'	1:2:1480:G:H8	1.57	0.70
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.06	0.70
1:2:177:U:O3'	8:S6:191:ARG:NH1	2.25	0.70
36:1:2310:U:OP1	87:1:4137:OHX:N2	2.23	0.70
36:1:2534:G:O6	87:1:3996:OHX:N4	2.25	0.70
3:S1:148:ASN:OD1	1:6:1066:C:O2'	349.15	0.70
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.26	0.70
1:2:516:G:OP2	87:2:2070:OHX:N6	2.24	0.70
1:6:1028:C:N4	1:6:1792:G:O6	2.19	0.70
36:1:3288:G:O2'	36:1:3289:G:OP2	2.10	0.70
36:5:1085:A:H8	36:5:1085:A:H5''	1.56	0.70
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.23	0.70
1:6:1114:G:O2'	1:6:1130:G:O6	2.10	0.70
55:M9:182:ASP:O	55:M9:184:LEU:N	3.10	0.70
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.23	0.70
44:L7:173:LEU:HB3	44:L7:178:ILE:HB	2.60	0.70
43:L6:30:LEU:HD13	43:L6:34:LEU:HD13	1.72	0.70
1:2:1555:A:H5''	17:C5:44:ARG:HD3	1.73	0.70
15:C3:99:ARG:NH2	15:C3:119:GLU:OE1	2.24	0.70
3:S1:130:SER:OG	3:S1:180:THR:N	4.41	0.70
35:SM:68:ARG:HD3	1:6:1460:A:P	335.89	0.70
36:1:3141:A:C2	36:1:3144:G:H1'	2.25	0.70
48:M1:70:THR:N	37:7:39:C:O2	306.75	0.70
1:6:1220:C:H2'	1:6:1221:A:H8	1.55	0.70
76:Q0:103:LEU:HD13	76:Q0:110:CYS:HA	2.72	0.70
10:S8:113:PHE:HD1	10:S8:121:LEU:HD21	3.68	0.70
36:5:873:C:H5''	36:5:874:U:O5'	1.91	0.70
10:S8:43:ILE:HG13	10:S8:57:ALA:HA	3.43	0.70
1:6:38:C:H2'	1:6:39:A:H5'	1.72	0.70
36:1:383:G:N2	36:1:386:A:OP2	2.18	0.70
25:D3:35:GLY:O	25:D3:37:ALA:N	2.24	0.70
53:M7:138:LYS:NZ	53:M7:140:GLU:HB2	3.23	0.70
53:M7:52:LEU:H	53:M7:52:LEU:HD12	3.21	0.70
41:L4:179:LEU:HD22	41:L4:183:LYS:HG2	1.74	0.70
41:L4:209:TYR:CE2	41:L4:229:ASN:HB2	2.67	0.70
8:S6:119:GLN:OE1	8:S6:120:GLU:N	4.41	0.70
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.25	0.70
57:N1:54:HIS:CE1	57:N1:55:LYS:HB3	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:156:ASP:HB2	45:L8:183:LYS:NZ	2.69	0.70
11:S9:28:LEU:HD11	32:E0:39:LEU:HB3	1.74	0.70
64:N8:82:ILE:HG22	64:N8:87:ARG:HG3	3.13	0.70
22:D0:30:LYS:HB3	22:D0:33:GLN:NE2	2.05	0.70
36:5:3121:U:H1'	36:5:3122:A:H5''	1.73	0.70
61:N5:42:ARG:HG3	36:5:15:C:H5''	103.00	0.70
1:2:422:G:OP1	87:2:2042:OHX:N6	2.24	0.70
36:1:735:A:H2'	36:1:736:A:C8	2.26	0.70
27:D5:54:VAL:HA	27:D5:57:TYR:CD1	2.42	0.70
68:O2:39:ASP:O	68:O2:41:VAL:N	2.24	0.70
36:5:3191:G:O6	87:5:4139:OHX:N6	2.24	0.70
19:C7:62:GLN:HB3	19:C7:63:LYS:HD2	1.71	0.70
1:2:1586:A:H3'	1:2:1587:A:H8	1.57	0.70
42:L5:61:ILE:HD13	42:L5:79:TYR:CE1	3.55	0.70
4:S2:156:THR:HG21	4:S2:224:PHE:CD1	2.26	0.70
20:C8:138:THR:OG1	1:6:1459:C:OP2	349.76	0.70
69:O3:75:HIS:CE1	69:O3:82:ARG:HH21	2.09	0.70
36:1:2661:G:H1	36:1:2709:C:N4	1.89	0.70
42:L5:260:PHE:CE2	37:7:121:U:H5'	321.78	0.70
36:5:1239:C:H42	36:5:1249:G:H1	1.38	0.70
61:N5:60:TYR:CD2	71:O5:25:LYS:HB3	2.27	0.70
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	2.22	0.70
36:1:385:A:H2'	36:1:386:A:C8	2.26	0.70
1:2:1233:G:OP2	87:2:2152:OHX:N5	2.24	0.70
49:M3:12:ASN:OD1	49:M3:12:ASN:N	2.48	0.70
1:6:1398:U:H3'	1:6:1399:C:H4'	1.73	0.70
40:L3:92:TYR:OH	40:L3:180:GLU:OE1	2.10	0.70
1:6:1219:A:H62	1:6:1264:G:H21	1.40	0.70
46:L9:47:LYS:HE3	46:L9:50:ASN:HA	3.05	0.70
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.25	0.70
11:S9:117:GLY:O	11:S9:119:ALA:N	2.36	0.70
6:S4:57:ASN:CB	6:S4:60:GLU:H	2.04	0.70
17:C5:42:ARG:NH2	1:6:1550:A:OP2	392.93	0.70
52:M6:84:LEU:C	52:M6:86:GLY:H	1.94	0.70
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	1.92	0.70
37:3:49:G:N7	42:L5:58:LYS:HG3	2.05	0.70
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.26	0.70
53:M7:62:ARG:HG2	53:M7:63:PHE:CD1	2.26	0.70
58:N2:37:LEU:O	58:N2:41:ILE:HG13	1.92	0.70
47:M0:210:ILE:HG23	47:M0:217:PHE:CD2	2.27	0.70
41:L4:48:GLN:NE2	36:5:337:G:O4'	97.01	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:556:U:H5'	36:1:557:A:C2	2.27	0.70
22:D0:28:SER:OG	22:D0:29:THR:N	2.23	0.70
1:2:1559:A:C6	20:C8:134:ARG:HD2	2.26	0.70
1:6:489:C:O2'	1:6:490:C:O4'	2.10	0.70
36:1:5:G:N2	38:4:154:C:O2	2.18	0.70
53:M7:3:ARG:HG2	53:M7:3:ARG:HH21	4.31	0.70
36:1:3281:U:H2'	36:1:3282:U:C6	2.26	0.70
27:D5:41:ILE:HG13	27:D5:42:LEU:HG	1.72	0.70
27:D5:43:ASP:O	27:D5:46:LYS:N	2.25	0.70
7:S5:30:PRO:HB2	7:S5:33:VAL:HB	1.74	0.70
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	1.80	0.70
31:D9:24:CYS:SG	31:D9:25:SER:N	2.64	0.70
48:M1:95:ASN:N	48:M1:95:ASN:OD1	3.04	0.70
55:M9:6:THR:O	55:M9:8:LYS:N	3.89	0.70
50:M4:20:VAL:HG23	50:M4:66:THR:OG1	3.89	0.70
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	1.74	0.70
49:M3:122:LYS:NZ	71:O5:119:LYS:O	3.86	0.70
1:6:488:G:O2'	1:6:500:C:N4	2.25	0.70
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.74	0.70
49:M3:2:ALA:HB1	64:N8:33:GLY:N	2.07	0.70
42:L5:43:LYS:O	42:L5:46:THR:OG1	2.96	0.70
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.25	0.70
55:M9:64:ARG:O	55:M9:67:ALA:N	3.79	0.70
71:O5:13:SER:H	71:O5:16:GLN:HB2	3.03	0.70
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	3.00	0.70
9:S7:96:ARG:CZ	9:S7:124:LYS:HB3	2.21	0.70
1:6:1354:G:H5'	1:6:1355:C:OP2	1.92	0.70
54:M8:86:THR:HB	54:M8:105:ARG:HB2	3.25	0.70
1:2:823:G:O2'	1:2:824:G:O4'	2.09	0.70
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.92	0.70
36:1:1114:U:OP2	87:1:3965:OHX:N4	2.25	0.70
1:2:1539:G:H5'	1:2:1539:G:H8	1.56	0.70
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	2.05	0.70
36:1:1722:U:H5'	55:M9:100:ARG:HD3	1.74	0.70
68:O2:76:VAL:HG13	68:O2:81:ASP:HB2	4.68	0.70
9:S7:131:PHE:O	9:S7:133:THR:N	2.25	0.70
1:2:1001:A:H2'	1:2:1002:G:C8	2.27	0.70
1:2:926:A:H1'	1:2:988:A:N1	2.07	0.70
72:O6:88:GLU:O	72:O6:91:ASN:N	2.25	0.70
36:5:3366:G:H2'	36:5:3367:C:C6	2.27	0.70
54:M8:115:VAL:O	54:M8:118:GLY:N	2.44	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:18:ILE:HD12	8:S6:24:ILE:HG12	1.74	0.70
1:6:358:U:H5''	1:6:359:A:OP1	1.92	0.70
45:L8:121:SER:O	45:L8:124:ASP:N	4.82	0.70
36:5:3154:C:C6	36:5:3156:U:H5'	2.27	0.70
87:1:3993:OHX:N5	37:3:86:U:O2	2.25	0.69
44:L7:40:LYS:HA	44:L7:43:ILE:HD12	3.04	0.69
36:1:2704:A:OP2	87:1:3870:OHX:N2	2.25	0.69
1:2:1593:A:H2'	1:2:1594:G:C8	2.27	0.69
34:SR:16:HIS:HB3	34:SR:308:ASN:HB3	1.72	0.69
41:L4:82:THR:OG1	41:L4:83:GLY:N	3.83	0.69
1:2:1573:A:H4'	1:2:1574:G:H5'	1.74	0.69
48:M1:24:GLY:HA2	48:M1:65:ILE:HG23	2.12	0.69
29:D7:37:CYS:O	29:D7:39:GLY:N	2.29	0.69
36:5:2318:U:O4	87:5:3992:OHX:N6	2.25	0.69
36:1:1349:G:H2'	36:1:1350:A:C4	2.27	0.69
1:2:656:G:O2'	1:2:657:U:O4'	2.10	0.69
36:1:2255:A:H5'	36:1:2261:G:H22	1.57	0.69
1:6:980:G:O6	87:6:2059:OHX:N1	2.25	0.69
47:M0:29:SER:OG	47:M0:31:ILE:N	2.25	0.69
44:L7:158:LYS:HZ2	44:L7:158:LYS:HB3	4.41	0.69
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	2.32	0.69
41:L4:138:ARG:HH21	41:L4:240:PRO:HB2	2.29	0.69
46:L9:102:ASN:HA	46:L9:136:PHE:HZ	1.57	0.69
36:5:1633:C:H2'	36:5:1634:G:H8	1.57	0.69
1:6:1696:G:H2'	1:6:1698:G:O6	1.92	0.69
68:O2:121:ASN:ND2	68:O2:121:ASN:O	3.37	0.69
9:S7:20:VAL:HG21	9:S7:46:ILE:HD12	3.72	0.69
36:1:3174:A:OP1	69:O3:97:SER:OG	2.08	0.69
49:M3:73:ARG:HD2	36:5:76:G:H3'	80.68	0.69
36:5:939:U:O2'	36:5:2402:A:N1	2.25	0.69
71:O5:78:LYS:HA	71:O5:81:ARG:HB2	1.74	0.69
71:O5:28:LEU:HA	71:O5:31:LEU:HB2	1.73	0.69
1:2:705:U:H2'	1:2:706:A:C8	2.27	0.69
36:1:2534:G:N2	36:1:2535:A:N7	2.40	0.69
69:O3:88:ASN:HB2	36:5:429:U:H5'	215.19	0.69
36:5:2359:C:H2'	36:5:2360:C:C6	2.27	0.69
40:L3:288:GLY:O	40:L3:290:ASP:N	2.24	0.69
1:2:1078:C:H2'	1:2:1079:U:C6	2.27	0.69
34:SR:159:ASN:O	34:SR:161:LYS:N	5.01	0.69
1:2:444:C:N4	1:2:459:G:OP2	2.25	0.69
6:S4:11:ARG:O	6:S4:12:LEU:HB2	1.96	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:12:VAL:HG22	26:D4:23:PHE:HB3	1.73	0.69
50:M4:73:PRO:HD2	50:M4:76:ALA:HB2	1.72	0.69
17:C5:17:TYR:HE1	17:C5:18:ARG:HE	1.39	0.69
1:6:1213:G:O2'	1:6:1244:A:N6	2.25	0.69
44:L7:73:GLY:O	57:N1:143:THR:HG22	1.93	0.69
36:5:1573:G:C6	36:5:1574:C:H1'	2.27	0.69
39:L2:213:GLY:HA3	36:5:2967:A:OP1	207.73	0.69
4:S2:49:LYS:O	4:S2:50:ILE:HG13	1.93	0.69
56:N0:66:GLU:HG2	56:N0:98:SER:HA	3.34	0.69
36:1:1145:G:H5'	68:O2:46:PHE:CE1	2.27	0.69
24:D2:94:LEU:HD11	24:D2:102:VAL:HG23	1.72	0.69
14:C2:136:ILE:HA	14:C2:139:HIS:HB3	2.37	0.69
1:2:304:U:H2'	1:2:305:C:H6	1.57	0.69
1:2:291:G:H2'	1:2:292:U:C6	2.27	0.69
55:M9:128:LYS:NZ	36:5:1721:U:O4	231.31	0.69
1:2:973:A:H2'	1:2:974:A:H8	1.56	0.69
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.57	0.69
1:2:144:U:HO2'	1:2:145:A:H8	1.40	0.69
47:M0:166:ILE:HG22	47:M0:167:LEU:H	2.59	0.69
36:1:2730:G:OP2	87:1:3910:OHX:N1	2.26	0.69
11:S9:29:LYS:HA	32:E0:40:TYR:CE2	2.27	0.69
36:5:2659:G:O6	87:5:3903:OHX:N4	2.25	0.69
46:L9:49:ASN:ND2	46:L9:49:ASN:O	2.25	0.69
45:L8:65:LEU:HD12	51:M5:25:VAL:HG22	4.02	0.69
19:C7:45:ARG:HH21	1:6:1331:A:H5''	415.02	0.69
20:C8:53:ASP:HB3	20:C8:56:LYS:HD2	1.72	0.69
3:S1:37:THR:HG21	3:S1:185:THR:HB	3.13	0.69
1:2:1070:C:O2'	29:D7:17:ARG:O	2.10	0.69
1:2:1255:G:O2'	14:C2:47:GLU:OE1	2.10	0.69
59:N3:118:VAL:O	59:N3:137:VAL:N	2.26	0.69
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.73	0.69
39:L2:245:LEU:HD12	39:L2:246:LEU:H	2.29	0.69
1:2:1383:G:OP1	22:D0:89:ARG:NH1	2.26	0.69
1:2:91:G:H2'	1:2:92:A:H8	1.55	0.69
25:D3:22:ASN:HB3	1:6:609:U:H5	336.37	0.69
53:M7:69:ARG:NH1	36:5:2389:C:H1'	190.18	0.69
3:S1:196:GLU:HA	3:S1:199:ASN:HB2	1.74	0.69
22:D0:15:GLN:O	22:D0:16:GLN:HB2	2.60	0.69
36:1:1740:U:H1'	36:1:1741:A:H2	1.58	0.69
40:L3:347:SER:O	40:L3:348:ARG:HG2	4.97	0.69
36:1:2883:U:P	40:L3:10:ARG:HH21	2.15	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:20:ILE:HD13	46:L9:25:VAL:HG22	4.62	0.69
7:S5:61:TYR:HE1	7:S5:165:LEU:HD22	1.57	0.69
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.27	0.69
1:2:975:C:OP1	15:C3:112:LYS:NZ	2.24	0.69
3:S1:28:GLU:HB3	3:S1:48:VAL:HB	1.75	0.69
4:S2:63:VAL:HG13	4:S2:68:ILE:HD12	2.17	0.69
48:M1:96:PHE:CD1	48:M1:160:VAL:HG22	2.90	0.69
8:S6:153:VAL:O	8:S6:155:ASP:N	2.25	0.69
18:C6:47:LYS:HE2	18:C6:114:ARG:HH22	1.57	0.69
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.97	0.69
40:L3:117:ARG:NH2	40:L3:176:ALA:O	2.50	0.69
22:D0:21:LYS:HA	22:D0:94:GLU:HG2	1.75	0.69
57:N1:25:VAL:HG11	57:N1:48:ILE:HD11	4.12	0.69
44:L7:173:LEU:O	44:L7:178:ILE:HB	1.93	0.69
51:M5:5:LYS:HB3	72:O6:36:ARG:NH1	2.60	0.69
10:S8:62:THR:HA	10:S8:76:THR:O	2.88	0.69
36:5:358:G:H5'	36:5:359:U:OP2	1.92	0.69
1:2:1533:C:H4'	1:2:1539:G:N1	2.06	0.69
1:2:1120:U:H3	1:2:1127:G:H1	1.41	0.69
1:2:894:U:H2'	1:2:895:G:C8	2.27	0.69
62:N6:41:ALA:O	62:N6:125:LYS:NZ	4.39	0.69
4:S2:94:GLN:HE22	4:S2:96:THR:HG22	6.66	0.69
49:M3:75:PHE:O	49:M3:79:GLU:HB2	1.92	0.69
24:D2:23:ARG:O	24:D2:65:LEU:N	2.89	0.69
38:4:36:G:OP2	71:O5:86:ARG:HB2	1.93	0.69
46:L9:116:ASN:O	46:L9:119:GLY:N	2.73	0.69
36:5:2181:C:H2'	36:5:2182:A:C8	2.27	0.69
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.57	0.69
1:2:327:U:O2'	13:C1:10:GLU:HG2	1.93	0.69
24:D2:16:ASN:O	24:D2:20:THR:OG1	2.10	0.69
1:2:383:G:N7	87:2:2130:OHX:N4	2.41	0.69
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.50	0.69
1:6:1736:G:H2'	1:6:1737:G:H8	1.58	0.69
53:M7:102:ALA:HB1	53:M7:107:LEU:HB2	2.32	0.69
19:C7:36:ASP:N	19:C7:36:ASP:OD2	2.24	0.69
46:L9:34:LEU:HD11	46:L9:149:ASN:HB3	1.74	0.69
36:5:1519:G:H2'	36:5:1520:G:H8	1.57	0.69
1:6:85:A:OP1	87:6:2195:OHX:N4	2.25	0.69
19:C7:52:GLY:O	19:C7:55:THR:OG1	3.63	0.69
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.22	0.69
66:O0:33:SER:OG	66:O0:34:LEU:N	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:871:G:O2'	29:D7:67:THR:O	2.08	0.69
59:N3:80:ARG:HB2	59:N3:99:ALA:HB3	2.38	0.69
36:5:2248:C:OP2	87:5:3973:OHX:N6	2.26	0.69
49:M3:161:ASP:HB2	64:N8:144:VAL:HG12	2.03	0.69
48:M1:143:ARG:NH2	37:7:5:G:OP1	292.82	0.69
6:S4:246:LEU:HD13	6:S4:251:GLU:HG2	1.85	0.69
1:6:250:C:H2'	1:6:251:A:C8	2.28	0.69
1:6:1153:G:N7	87:6:2140:OHX:N2	2.40	0.69
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.17	0.69
36:5:2236:G:OP1	87:5:4243:OHX:N3	2.25	0.69
5:S3:158:ILE:H	5:S3:158:ILE:HD13	1.71	0.69
36:5:801:A:O2'	87:5:4023:OHX:N1	2.25	0.69
32:E0:18:THR:HG21	1:6:584:C:H1'	390.15	0.69
1:6:545:A:N6	1:6:594:A:O4'	2.26	0.69
43:L6:78:ARG:HG3	43:L6:78:ARG:HH11	1.57	0.69
19:C7:31:ASN:HD22	19:C7:55:THR:HG23	1.57	0.69
18:C6:55:VAL:HG22	18:C6:59:LYS:HE3	1.73	0.69
12:C0:12:HIS:NE2	12:C0:49:LEU:HD21	3.49	0.69
12:C0:56:LYS:HB3	12:C0:67:THR:HG23	6.84	0.69
1:2:979:A:N3	1:2:1775:U:O2'	2.25	0.69
1:2:626:U:H2'	1:2:627:C:H6	1.57	0.69
43:L6:172:HIS:HB3	69:O3:43:PHE:CD2	2.28	0.69
34:SR:200:ASN:N	34:SR:200:ASN:OD1	2.26	0.69
34:SR:226:ALA:O	34:SR:228:LYS:NZ	4.50	0.69
34:SR:288:HIS:CE1	34:SR:290:VAL:HG12	3.85	0.69
44:L7:222:HIS:O	44:L7:224:ILE:N	2.96	0.69
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	3.36	0.69
40:L3:116:ARG:NH2	40:L3:174:LYS:HD3	2.08	0.69
49:M3:164:GLU:O	64:N8:139:ARG:NH2	5.53	0.69
52:M6:24:ALA:O	52:M6:28:LEU:HD12	2.29	0.69
52:M6:8:VAL:HA	52:M6:34:VAL:HG13	2.05	0.69
1:6:1765:A:OP1	87:6:2131:OHX:N6	2.25	0.69
36:5:928:C:H2'	36:5:929:A:C8	2.26	0.69
39:L2:209:HIS:HD2	39:L2:211:HIS:HB2	1.56	0.69
1:6:531:C:H2'	1:6:532:U:H5'	1.75	0.69
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.07	0.69
39:L2:192:LYS:HD3	39:L2:193:ARG:HH22	3.24	0.69
24:D2:72:CYS:HB3	24:D2:129:VAL:HG13	1.75	0.69
70:O4:57:LEU:HD12	70:O4:61:GLN:HB3	3.25	0.69
36:5:1790:G:O6	87:5:4192:OHX:N4	2.25	0.69
36:5:1209:G:H2'	36:5:1210:U:O4'	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:836:U:H2'	1:2:837:G:H8	1.57	0.69
8:S6:161:GLU:HG3	8:S6:170:THR:HG22	7.30	0.69
36:5:128:G:O6	87:5:3928:OHX:N4	2.26	0.69
1:6:604:A:OP2	87:6:2156:OHX:N4	2.25	0.69
36:5:668:G:OP1	87:5:4136:OHX:N1	2.26	0.69
1:2:381:C:OP1	11:S9:2:PRO:HB3	1.93	0.69
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.25	0.69
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.97	0.69
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.74	0.69
1:2:658:C:O2	1:2:676:G:N2	2.17	0.69
1:2:1621:U:H2'	1:2:1622:G:H8	1.57	0.69
34:SR:255:ALA:HB2	34:SR:292:LEU:HD21	2.97	0.69
39:L2:156:LYS:NZ	36:5:2157:G:O2'	205.73	0.69
49:M3:50:PRO:HG3	71:O5:118:ILE:HD11	1.73	0.69
64:N8:149:ALA:HB3	72:O6:15:LYS:HB2	3.05	0.69
51:M5:143:ARG:NH2	71:O5:91:ALA:O	3.38	0.69
39:L2:6:ARG:HH12	39:L2:199:THR:H	1.41	0.69
54:M8:167:SER:HB3	54:M8:172:PHE:CE1	4.79	0.69
52:M6:72:HIS:O	52:M6:74:ARG:NH1	2.70	0.69
36:1:2767:U:OP2	87:1:4131:OHX:N2	2.25	0.69
45:L8:78:PHE:C	45:L8:80:TYR:H	1.96	0.69
1:2:324:U:OP1	13:C1:133:LYS:NZ	2.23	0.69
36:5:3305:A:H2'	36:5:3306:U:H6	1.58	0.69
1:6:1353:U:N3	1:6:1372:U:O4	2.18	0.69
1:2:453:U:O4	87:2:2038:OHX:N5	2.26	0.69
44:L7:66:LYS:O	44:L7:68:ASP:N	3.75	0.69
36:1:2255:A:OP1	87:1:3934:OHX:N3	2.26	0.69
36:1:2836:C:H5	36:1:2852:C:H42	1.38	0.69
26:D4:21:LYS:HB2	26:D4:75:VAL:HB	4.71	0.69
21:C9:15:ILE:HD11	21:C9:63:ARG:HD2	2.94	0.69
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.75	0.69
3:S1:67:GLU:HA	3:S1:85:LYS:HA	3.08	0.69
3:S1:65:VAL:HG12	3:S1:87:ARG:HA	1.73	0.69
52:M6:110:PRO:O	52:M6:113:ASP:N	5.43	0.69
38:4:36:G:C8	71:O5:86:ARG:HG3	2.27	0.69
36:1:25:U:O4	87:1:3871:OHX:N3	2.26	0.69
53:M7:131:ARG:HH11	53:M7:131:ARG:HG3	1.58	0.69
45:L8:71:VAL:N	45:L8:234:GLY:O	2.50	0.69
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.74	0.69
41:L4:215:ILE:HG23	41:L4:216:VAL:HG23	5.32	0.69
1:2:698:U:O4	87:2:2097:OHX:N3	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1702:U:N3	36:1:1743:G:O6	2.19	0.69
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	1.93	0.68
36:1:2836:C:H4'	47:M0:157:TYR:CE2	2.28	0.68
19:C7:25:THR:HG21	19:C7:30:THR:HB	5.16	0.68
7:S5:176:THR:OG1	7:S5:177:ILE:N	2.25	0.68
12:C0:54:TYR:O	12:C0:69:THR:N	2.71	0.68
64:N8:66:ALA:HB1	64:N8:69:TRP:HB2	4.02	0.68
38:4:85:G:N1	62:N6:112:ASP:OD2	2.21	0.68
1:2:658:C:N4	1:2:676:G:O6	2.26	0.68
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	1.74	0.68
3:S1:109:LYS:O	3:S1:112:SER:OG	3.75	0.68
1:6:1268:G:N2	1:6:1441:C:O2	2.18	0.68
22:D0:20:ILE:HD11	22:D0:95:ALA:H	1.57	0.68
39:L2:70:ARG:NH2	36:5:2522:G:O6	175.04	0.68
87:1:4198:OHX:N4	87:O1:202:OHX:N1	2.41	0.68
3:S1:195:LYS:O	3:S1:199:ASN:N	2.25	0.68
1:2:836:U:H2'	1:2:837:G:C8	2.27	0.68
36:5:2603:G:O6	87:5:3899:OHX:N1	2.26	0.68
36:5:2396:G:O6	36:5:2984:C:N4	2.19	0.68
36:5:2399:A:H2'	36:5:2400:G:O4'	1.93	0.68
36:1:2563:G:H5''	45:L8:27:THR:HG23	1.74	0.68
1:2:1641:C:N4	1:2:1760:G:H1	1.90	0.68
41:L4:50:TYR:CD2	41:L4:109:TRP:HH2	2.53	0.68
18:C6:36:ILE:O	18:C6:39:VAL:HG23	2.87	0.68
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.69	0.68
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	1.58	0.68
55:M9:38:ARG:HA	55:M9:41:ILE:HG22	1.74	0.68
17:C5:123:TYR:OH	20:C8:126:ARG:NH1	2.26	0.68
50:M4:42:LYS:NZ	36:5:1186:G:OP2	307.38	0.68
50:M4:38:ILE:O	56:N0:95:ARG:NH2	2.24	0.68
43:L6:170:LYS:O	43:L6:172:HIS:N	2.49	0.68
38:8:52:A:C2	38:8:53:A:H1'	2.28	0.68
34:SR:101:GLN:NE2	34:SR:137:LYS:O	3.09	0.68
36:5:353:G:O2'	36:5:354:U:OP2	2.11	0.68
36:1:3024:A:H5''	36:1:3025:C:OP2	1.93	0.68
71:O5:49:LYS:NZ	38:8:64:U:H5'	46.19	0.68
71:O5:48:ARG:HA	71:O5:51:ILE:HD12	3.52	0.68
36:5:174:C:N4	36:5:244:G:H1	1.91	0.68
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.28	0.68
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.26	0.68
36:1:15:C:OP1	61:N5:42:ARG:NH2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:1:4198:OHX:N2	87:O1:202:OHX:N1	2.42	0.68
1:6:647:G:N2	1:6:687:G:H22	1.91	0.68
60:N4:88:ASP:O	60:N4:91:LYS:N	6.23	0.68
55:M9:150:GLN:HA	55:M9:153:LYS:HB3	2.91	0.68
39:L2:115:ASN:O	39:L2:115:ASN:ND2	2.26	0.68
3:S1:125:VAL:HG11	3:S1:173:THR:HG23	1.73	0.68
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.64	0.68
28:D6:77:CYS:O	28:D6:81:ALA:N	3.59	0.68
11:S9:119:ALA:O	11:S9:124:HIS:ND1	4.99	0.68
1:2:116:U:H2'	1:2:117:U:C6	2.28	0.68
36:1:738:A:H2'	36:1:739:G:C8	2.28	0.68
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	4.39	0.68
54:M8:18:ALA:HB1	54:M8:19:PRO:HD2	1.93	0.68
18:C6:60:PHE:HA	18:C6:63:ILE:HD11	1.90	0.68
7:S5:162:VAL:HG22	7:S5:167:ARG:HG3	1.76	0.68
1:2:1550:A:P	17:C5:42:ARG:HH22	2.17	0.68
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.29	0.68
1:6:868:G:N2	1:6:960:U:O2	2.23	0.68
59:N3:120:LYS:H	59:N3:137:VAL:CG2	3.33	0.68
43:L6:153:PRO:O	43:L6:154:LEU:HB2	1.92	0.68
36:5:1238:C:H2'	36:5:1239:C:O4'	1.93	0.68
36:1:17:G:H4'	71:O5:75:TYR:HE1	1.58	0.68
36:5:864:G:OP2	87:5:3912:OHX:N4	2.26	0.68
36:5:3154:C:C5	36:5:3156:U:H3'	2.27	0.68
9:S7:138:LYS:HB3	24:D2:54:ASP:HB3	4.76	0.68
66:O0:15:ALA:O	66:O0:19:LYS:HG2	1.92	0.68
70:O4:71:THR:HG22	70:O4:77:GLY:HA3	1.75	0.68
44:L7:95:ILE:HD12	44:L7:133:TYR:CE1	2.85	0.68
26:D4:104:SER:HB3	26:D4:107:GLN:HB2	1.75	0.68
1:2:513:U:H2'	1:2:514:G:C8	2.29	0.68
36:1:970:A:OP1	65:N9:18:ARG:NE	2.26	0.68
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.28	0.68
17:C5:65:LEU:O	87:C5:201:OHX:N1	2.25	0.68
17:C5:28:MET:O	17:C5:29:SER:HB3	1.94	0.68
55:M9:104:ARG:NH1	36:5:1949:G:OP1	218.93	0.68
40:L3:296:THR:HG22	40:L3:298:PHE:N	2.08	0.68
40:L3:294:GLY:H	40:L3:304:THR:HA	1.58	0.68
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.74	0.68
34:SR:84:SER:O	34:SR:110:VAL:N	2.26	0.68
3:S1:83:LYS:NZ	16:C4:116:GLU:OE2	2.18	0.68
52:M6:110:PRO:O	52:M6:112:TYR:N	3.52	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:122:THR:CG2	1:6:1558:U:H3	366.87	0.68
41:L4:289:ILE:O	41:L4:295:ILE:HD12	1.92	0.68
1:2:800:U:H2'	1:2:801:G:C8	2.29	0.68
1:2:1559:A:H4'	1:2:1559:A:OP1	1.93	0.68
34:SR:117:LYS:HG2	34:SR:118:LYS:H	1.59	0.68
1:6:5:U:H2'	1:6:6:G:H8	1.59	0.68
55:M9:120:TYR:O	55:M9:122:VAL:N	2.27	0.68
6:S4:137:PRO:HG2	6:S4:150:PRO:HD2	1.74	0.68
1:2:39:A:O2'	1:2:40:A:OP2	2.11	0.68
1:2:55:A:H1'	1:2:426:G:N2	2.07	0.68
1:2:933:A:H2	1:2:944:A:H61	1.41	0.68
11:S9:139:GLN:NE2	11:S9:140:ILE:O	2.23	0.68
7:S5:33:VAL:O	7:S5:35:GLN:N	2.69	0.68
42:L5:196:ARG:O	42:L5:199:ILE:N	3.00	0.68
19:C7:108:ASP:O	19:C7:112:SER:OG	2.06	0.68
2:S0:62:ARG:HD3	23:D1:37:ALA:HB3	4.93	0.68
4:S2:88:LYS:HB3	4:S2:95:ARG:HB2	1.73	0.68
36:1:978:G:O2'	36:1:979:U:O2	2.11	0.68
71:O5:34:GLN:OE1	71:O5:38:ARG:NH2	5.60	0.68
45:L8:33:ASN:HB3	45:L8:38:GLN:HG3	2.23	0.68
36:1:2766:U:O4	87:1:4037:OHX:N2	2.26	0.68
1:2:488:G:N2	1:2:500:C:O2	2.26	0.68
58:N2:17:VAL:HG12	58:N2:19:VAL:HG13	1.74	0.68
1:6:1691:A:H2'	1:6:1692:G:C8	2.28	0.68
4:S2:168:ARG:NE	1:6:1098:U:OP2	383.90	0.68
74:O8:43:PHE:CE2	74:O8:56:ILE:HD12	5.12	0.68
36:5:1544:G:N7	87:5:4196:OHX:N5	2.42	0.68
39:L2:14:SER:OG	39:L2:15:ILE:N	2.38	0.68
41:L4:140:HIS:CE1	41:L4:246:ARG:HG2	4.24	0.68
42:L5:85:ARG:NH2	42:L5:250:ASP:OD1	2.26	0.68
1:6:1458:G:H5''	1:6:1459:C:OP2	1.94	0.68
56:N0:90:MET:CG	36:5:1213:G:H4'	318.54	0.68
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	1.75	0.68
43:L6:176:PHE:H	50:M4:117:ARG:NH2	5.02	0.68
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.27	0.68
49:M3:74:GLY:HA3	49:M3:98:ASP:HB3	1.75	0.68
36:5:3358:U:H2'	36:5:3359:A:H8	1.59	0.68
55:M9:93:VAL:O	55:M9:97:ARG:HG3	1.93	0.68
41:L4:347:THR:HG21	44:L7:64:GLN:HE22	1.59	0.68
59:N3:15:LEU:HB3	59:N3:51:ALA:HB1	1.76	0.68
36:1:2120:A:OP2	87:1:4008:OHX:N2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1015:U:OP1	87:6:2059:OHX:N3	2.26	0.68
10:S8:167:ALA:HA	10:S8:184:LEU:H	1.59	0.68
43:L6:56:LYS:HG2	43:L6:57:HIS:H	2.89	0.68
5:S3:204:ASP:OD1	1:6:1330:G:N2	419.66	0.68
1:2:312:A:H4'	1:2:313:U:H5''	1.74	0.68
16:C4:43:THR:HG23	16:C4:46:MET:HG3	2.76	0.68
3:S1:70:LEU:HD21	3:S1:79:HIS:CD2	2.27	0.68
2:S0:185:ARG:H	23:D1:44:ARG:HA	1.58	0.68
34:SR:67:ILE:HB	34:SR:85:TRP:CD1	2.29	0.68
52:M6:121:PRO:O	52:M6:124:LEU:N	3.74	0.68
36:1:1486:G:O6	87:1:3976:OHX:N5	2.26	0.68
49:M3:59:ARG:NH2	49:M3:67:ARG:O	3.75	0.68
36:5:754:G:H2'	36:5:755:A:C8	2.27	0.68
36:1:1804:A:H2'	36:1:1805:C:H6	1.57	0.68
70:O4:41:ARG:HA	70:O4:56:THR:HG22	1.74	0.68
60:N4:31:PHE:HZ	60:N4:40:PHE:CD1	2.16	0.68
2:S0:126:PRO:HA	2:S0:133:ILE:HD11	2.30	0.68
36:1:1342:C:H2'	36:1:1343:A:C8	2.28	0.68
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	3.14	0.68
52:M6:46:GLU:HB3	52:M6:134:LYS:HD3	2.63	0.68
36:1:1439:U:H2'	36:1:1440:G:C8	2.28	0.68
5:S3:92:GLN:OE1	5:S3:92:GLN:N	3.87	0.68
1:2:839:U:H2'	1:2:840:U:H5'	1.76	0.68
36:5:3195:U:H1'	36:5:3196:U:OP1	1.94	0.68
1:2:474:A:OP2	11:S9:44:ARG:NH1	2.19	0.68
1:2:397:A:H5''	10:S8:47:ARG:HH11	1.58	0.68
10:S8:114:GLU:HG2	10:S8:120:THR:HA	1.76	0.68
15:C3:16:ILE:HD12	1:6:959:U:H4'	345.67	0.68
49:M3:65:TYR:OH	36:5:700:C:OP1	108.87	0.68
49:M3:99:HIS:H	49:M3:99:HIS:CD2	2.28	0.68
2:S0:142:PRO:HG3	23:D1:32:VAL:HG13	1.75	0.68
20:C8:144:ARG:O	35:SM:68:ARG:NH2	2.26	0.68
6:S4:100:ARG:HH12	6:S4:118:GLU:HG2	1.59	0.68
36:1:1321:G:H5''	56:N0:117:ARG:HH22	1.59	0.68
59:N3:120:LYS:H	59:N3:137:VAL:HG23	2.69	0.68
34:SR:293:ALA:HB3	34:SR:302:PHE:HB2	1.75	0.68
52:M6:125:ARG:O	52:M6:127:LEU:N	2.27	0.68
1:2:1001:A:H2'	1:2:1002:G:H8	1.58	0.68
1:2:1080:U:H3	1:2:1091:A:H2	1.41	0.68
1:2:1237:G:N1	1:2:1248:C:N3	2.34	0.68
57:N1:119:ALA:O	57:N1:121:ALA:N	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.28	0.68
1:2:524:U:N3	1:2:527:A:OP2	2.24	0.68
13:C1:130:PRO:O	1:6:336:G:H5'	298.71	0.68
41:L4:351:PRO:HA	44:L7:71:ALA:HA	2.28	0.68
36:1:1211:U:H2'	36:1:1212:A:C8	2.28	0.68
36:1:960:U:O2'	36:1:961:C:H5'	1.94	0.68
12:C0:87:VAL:O	12:C0:90:THR:N	5.71	0.68
41:L4:311:HIS:CD2	44:L7:162:PRO:HG2	2.46	0.68
49:M3:64:LYS:HG3	64:N8:69:TRP:CD1	2.29	0.68
4:S2:225:LEU:HD12	24:D2:68:ARG:HA	4.00	0.68
37:3:40:C:H5'	48:M1:43:GLN:HG2	1.76	0.68
36:1:1629:U:O3'	63:N7:115:LYS:NZ	2.27	0.68
34:SR:8:VAL:HG23	34:SR:316:MET:HG3	1.76	0.68
87:5:3987:OHX:N6	38:8:111:A:O2'	2.26	0.68
36:5:2514:U:H6	36:5:2514:U:OP1	1.77	0.68
49:M3:180:ARG:NE	49:M3:184:GLU:OE1	4.04	0.68
68:O2:13:HIS:HD2	68:O2:15:LYS:H	1.42	0.68
36:1:651:G:O2'	36:1:1435:A:OP1	2.12	0.68
36:1:2376:G:H2'	36:1:2377:G:C8	2.28	0.68
36:5:651:G:O2'	36:5:1435:A:OP1	2.12	0.68
7:S5:216:GLU:OE2	7:S5:219:ARG:NH2	3.46	0.68
32:E0:14:VAL:O	32:E0:17:GLN:N	3.21	0.68
36:5:1306:G:O2'	36:5:1307:G:H5''	1.93	0.68
47:M0:142:ASP:OD1	47:M0:178:ARG:NH2	2.41	0.68
44:L7:160:ARG:HD2	44:L7:203:TRP:CE2	2.29	0.68
17:C5:14:THR:OG1	17:C5:21:ASP:HB3	1.94	0.68
1:6:868:G:O6	87:6:2062:OHX:N1	2.26	0.68
4:S2:53:ILE:HD11	4:S2:73:LEU:HB2	1.74	0.68
71:O5:62:GLN:O	71:O5:66:VAL:HG23	1.94	0.68
50:M4:88:ALA:O	50:M4:93:LYS:NZ	4.37	0.68
34:SR:29:GLN:HG3	34:SR:32:LEU:HD22	2.58	0.68
1:2:1783:C:H2'	1:2:1784:C:H6	1.59	0.68
36:1:18:G:OP2	61:N5:46:TYR:OH	2.08	0.68
87:2:2031:OHX:N6	87:2:2146:OHX:N5	2.42	0.68
1:2:1235:C:H5'	33:E1:146:SER:HB2	1.73	0.68
49:M3:6:ASN:OD1	54:M8:164:ARG:HD2	1.94	0.68
30:D8:18:ARG:NE	1:6:1616:G:O2'	359.72	0.68
36:1:1238:C:N4	36:1:1245:A:OP2	2.27	0.68
11:S9:153:GLU:HA	11:S9:156:ILE:HD11	1.76	0.67
45:L8:238:LEU:HB3	45:L8:243:GLN:HG2	1.75	0.67
73:O7:25:ARG:HG3	75:O9:51:ILE:HD12	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:14:PHE:CZ	21:C9:132:LEU:HD12	5.93	0.67
15:C3:55:ARG:NH1	15:C3:56:ASP:OD1	3.13	0.67
77:Q1:2:ARG:NH1	1:6:1773:C:OP2	309.59	0.67
36:5:1665:C:N4	36:5:1784:G:H1	1.89	0.67
36:1:1603:A:H61	61:N5:71:THR:HG21	1.59	0.67
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.27	0.67
3:S1:144:ARG:HG2	3:S1:206:PRO:HB3	2.26	0.67
1:2:1291:G:N2	1:2:1324:G:H1	1.91	0.67
26:D4:117:LYS:HG2	1:6:159:U:H5'	332.63	0.67
45:L8:193:LYS:HB3	36:5:7:C:H5''	121.54	0.67
51:M5:38:ARG:HG2	51:M5:62:TYR:CE2	2.29	0.67
26:D4:52:LYS:O	26:D4:54:ALA:N	3.01	0.67
1:6:1265:G:N7	87:6:2201:OHX:N4	2.42	0.67
10:S8:16:ALA:HB2	1:6:354:C:H5''	296.13	0.67
13:C1:6:THR:OG1	13:C1:7:VAL:N	2.26	0.67
87:1:3871:OHX:N1	73:O7:46:SER:OG	2.26	0.67
5:S3:132:LYS:O	5:S3:156:PHE:N	2.52	0.67
36:5:1348:U:O2'	36:5:1350:A:OP2	2.12	0.67
45:L8:150:LEU:HD21	45:L8:218:ILE:HD13	2.95	0.67
39:L2:20:THR:OG1	39:L2:20:THR:O	2.08	0.67
40:L3:56:ILE:HD13	40:L3:76:VAL:HG21	1.75	0.67
16:C4:127:ARG:HD3	1:6:990:C:O2'	282.01	0.67
36:1:2836:C:H4'	47:M0:157:TYR:CD2	2.29	0.67
47:M0:76:MET:CE	47:M0:148:VAL:HA	3.81	0.67
6:S4:46:VAL:HA	6:S4:50:ASN:HB2	2.66	0.67
39:L2:42:ARG:HD2	39:L2:87:PHE:HD1	1.58	0.67
49:M3:126:PHE:O	71:O5:114:ARG:NH2	2.52	0.67
36:5:712:G:H2'	36:5:713:U:C6	2.29	0.67
11:S9:65:LYS:HZ2	1:6:650:U:H5'	421.16	0.67
8:S6:148:SER:O	8:S6:150:GLU:N	2.25	0.67
10:S8:138:ASN:HB3	10:S8:142:LYS:HE3	1.76	0.67
34:SR:195:HIS:NE2	34:SR:213:SER:OG	4.29	0.67
21:C9:42:GLY:O	21:C9:84:LYS:HB2	1.94	0.67
36:1:2261:G:O2'	36:1:2263:C:N4	2.26	0.67
36:1:1846:C:C4	53:M7:136:ILE:HD11	2.30	0.67
11:S9:27:GLU:HB3	11:S9:39:LYS:HD2	1.76	0.67
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.27	0.67
68:O2:105:ARG:NH1	68:O2:125:ARG:HD2	2.08	0.67
40:L3:299:ASP:OD2	40:L3:303:LYS:NZ	3.55	0.67
41:L4:220:ARG:NH1	36:5:211:A:OP1	75.79	0.67
72:O6:90:MET:C	72:O6:92:ASN:H	3.03	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:844:A:H2'	1:2:845:G:C8	2.28	0.67
1:6:1266:U:O4	87:6:2201:OHX:N6	2.28	0.67
10:S8:146:ARG:NH2	1:6:186:C:OP1	275.55	0.67
87:2:2031:OHX:N6	87:2:2146:OHX:N2	2.42	0.67
57:N1:13:TYR:O	87:5:3906:OHX:N4	261.81	0.67
62:N6:113:LYS:HB2	38:8:84:C:H1'	20.98	0.67
5:S3:128:GLU:O	5:S3:130:GLY:N	2.26	0.67
25:D3:64:PRO:O	87:6:2164:OHX:N2	360.89	0.67
26:D4:12:VAL:HG23	26:D4:23:PHE:HB3	3.25	0.67
1:2:333:A:OP1	10:S8:31:ARG:NH2	2.27	0.67
41:L4:77:VAL:HB	41:L4:85:SER:HA	1.74	0.67
15:C3:86:GLU:HA	15:C3:89:TYR:HB3	1.75	0.67
66:O0:30:THR:HG21	66:O0:89:VAL:HG22	1.76	0.67
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	2.25	0.67
25:D3:11:SER:O	25:D3:15:LEU:HD12	3.52	0.67
87:5:4102:OHX:N5	38:8:140:G:O6	2.27	0.67
76:Q0:128:LYS:HE2	36:5:2900:A:H5'	340.90	0.67
1:2:828:U:N3	1:2:829:A:N7	2.43	0.67
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.58	0.67
46:L9:8:GLN:HB2	46:L9:55:VAL:HG23	1.76	0.67
36:5:1049:C:H2'	36:5:1050:U:H6	1.58	0.67
15:C3:26:PHE:CE1	15:C3:28:LEU:HD13	4.77	0.67
41:L4:347:THR:OG1	36:5:520:U:O4	319.79	0.67
20:C8:19:ASN:ND2	35:SM:11:ASP:O	2.26	0.67
36:1:1064:A:H62	36:1:1096:U:H3	1.41	0.67
1:6:235:G:H2'	1:6:236:A:H8	1.59	0.67
11:S9:164:PHE:HE2	1:6:512:A:H4'	454.49	0.67
6:S4:56:LEU:HB2	6:S4:60:GLU:HG3	4.33	0.67
41:L4:232:SER:OG	41:L4:233:LEU:N	2.45	0.67
1:2:1385:G:N7	87:2:2132:OHX:N3	2.42	0.67
3:S1:97:LEU:HD13	3:S1:98:THR:H	1.59	0.67
63:N7:22:LYS:HE2	63:N7:134:LEU:HB2	1.75	0.67
34:SR:59:ARG:NH1	34:SR:95:ALA:O	2.28	0.67
39:L2:149:ARG:HH21	39:L2:252:THR:HG23	1.59	0.67
36:1:2226:U:H2'	36:1:2227:C:C6	2.29	0.67
78:Q2:35:LEU:HD23	78:Q2:35:LEU:H	1.58	0.67
4:S2:186:LYS:HA	4:S2:189:GLN:HB2	3.07	0.67
36:5:3085:G:OP2	87:5:3901:OHX:N1	2.27	0.67
36:5:3358:U:H2'	36:5:3359:A:C8	2.29	0.67
1:2:1:U:O4	11:S9:54:ARG:HG3	1.94	0.67
1:6:250:C:H2'	1:6:251:A:H8	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.29	0.67
61:N5:49:LYS:NZ	61:N5:53:HIS:HB2	4.79	0.67
1:2:922:G:H2'	1:2:923:A:C8	2.29	0.67
47:M0:208:ASN:HB3	47:M0:211:ARG:NH1	6.00	0.67
41:L4:138:ARG:HG3	41:L4:244:LEU:O	1.93	0.67
42:L5:86:TYR:CG	42:L5:247:ILE:HG13	3.00	0.67
42:L5:90:HIS:HB3	42:L5:226:TYR:CE1	2.29	0.67
17:C5:18:ARG:HG2	20:C8:92:ILE:HA	2.65	0.67
17:C5:22:LEU:O	17:C5:25:LEU:HB2	2.46	0.67
23:D1:51:VAL:HG11	23:D1:78:LEU:HD21	2.29	0.67
55:M9:46:LYS:O	55:M9:48:GLY:N	4.56	0.67
39:L2:79:ASN:ND2	39:L2:166:ILE:O	2.27	0.67
51:M5:157:LYS:NZ	36:5:58:G:OP1	85.05	0.67
49:M3:104:ARG:HG3	72:O6:22:PRO:HD3	1.76	0.67
4:S2:243:TYR:HB3	4:S2:246:GLU:HG3	1.84	0.67
49:M3:52:ASP:OD1	49:M3:52:ASP:N	2.73	0.67
23:D1:87:ARG:O	29:D7:14:SER:OG	2.51	0.67
1:2:1041:G:H2'	1:2:1042:G:C8	2.29	0.67
36:5:1488:G:H5''	36:5:1838:G:O6	1.94	0.67
36:5:2507:C:O2'	36:5:2508:U:OP1	2.12	0.67
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	3.29	0.67
36:5:3326:G:H2'	36:5:3327:G:C8	2.30	0.67
55:M9:23:TRP:HB3	55:M9:51:VAL:HG22	1.74	0.67
2:S0:9:LEU:HD22	2:S0:10:THR:H	1.60	0.67
55:M9:105:LEU:HD13	55:M9:135:LYS:HD2	1.77	0.67
57:N1:82:ASN:HB3	65:N9:16:ALA:HB1	3.43	0.67
43:L6:166:LYS:NZ	36:5:3214:U:H6	274.25	0.67
29:D7:56:CYS:HB2	29:D7:61:THR:HG22	1.76	0.67
8:S6:2:LYS:HB3	8:S6:108:VAL:HG23	1.75	0.67
53:M7:168:LEU:HD22	53:M7:176:ILE:HD11	1.76	0.67
51:M5:43:THR:OG1	51:M5:131:GLU:OE2	2.11	0.67
36:1:3383:G:N2	67:O1:105:GLN:OE1	2.27	0.67
36:5:975:C:H2'	36:5:976:U:C6	2.29	0.67
36:1:1488:G:H1	36:1:1854:C:H42	1.41	0.67
36:1:169:U:HO2'	36:1:170:G:H8	1.41	0.67
36:1:1064:A:H4'	36:1:1065:A:O5'	1.93	0.67
72:O6:35:ASN:HA	72:O6:38:LYS:HD3	2.62	0.67
62:N6:88:GLU:HG3	62:N6:94:SER:OG	3.08	0.67
75:O9:26:TRP:HA	75:O9:29:LEU:HD23	3.27	0.67
20:C8:140:THR:O	20:C8:143:ARG:HD3	2.88	0.67
1:6:219:A:HO2'	1:6:220:A:H8	1.39	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:377:G:O6	87:2:2078:OHX:N5	2.28	0.67
9:S7:173:TYR:CE2	9:S7:177:THR:HG21	2.30	0.67
25:D3:42:PRO:HA	25:D3:81:LYS:HD2	1.77	0.67
36:1:3090:U:OP1	40:L3:270:ARG:NH2	2.28	0.67
53:M7:25:SER:O	53:M7:29:THR:HG23	1.94	0.67
47:M0:48:LEU:HD22	47:M0:49:CYS:H	1.59	0.67
45:L8:162:LEU:HD23	51:M5:7:LEU:HD21	1.77	0.67
26:D4:20:ARG:HD2	26:D4:74:LEU:HD22	2.62	0.67
1:6:1171:A:O2'	1:6:1570:A:O2'	2.01	0.67
61:N5:126:LEU:HD11	61:N5:132:ALA:HB2	3.15	0.67
23:D1:69:LEU:O	23:D1:73:ALA:N	2.48	0.67
36:1:2818:U:H6	36:1:2818:U:H5'	1.59	0.67
4:S2:96:THR:OG1	4:S2:97:ARG:N	3.99	0.67
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.28	0.67
52:M6:179:ALA:O	52:M6:183:ALA:HB2	1.95	0.67
1:2:1083:G:H1	1:2:1090:C:N4	1.93	0.67
36:1:147:U:O2'	51:M5:41:ARG:NH1	2.27	0.67
60:N4:33:ASN:OD1	60:N4:36:SER:N	3.03	0.67
87:5:4016:OHX:N6	87:5:4211:OHX:N2	2.43	0.67
25:D3:19:ARG:HH11	1:6:609:U:H6	339.87	0.67
49:M3:179:PHE:O	49:M3:183:ARG:HD2	4.80	0.67
36:5:2941:A:H5''	36:5:2943:G:H4'	1.77	0.67
36:5:3305:A:H2'	36:5:3306:U:C6	2.29	0.67
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.60	0.67
64:N8:6:THR:OG1	64:N8:8:THR:HG23	2.45	0.67
18:C6:21:HIS:HB2	18:C6:23:LYS:NZ	9.55	0.67
7:S5:132:VAL:HA	7:S5:135:ASP:HB2	1.76	0.67
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	1.75	0.67
15:C3:11:ILE:O	15:C3:13:SER:N	4.69	0.67
73:O7:53:ALA:HA	73:O7:56:ARG:HB2	1.77	0.67
36:5:835:G:N2	36:5:857:G:H1'	2.10	0.67
25:D3:7:ARG:HD3	1:6:1102:G:OP2	350.10	0.67
13:C1:99:ARG:HB2	25:D3:9:LEU:O	1.95	0.67
36:5:1801:U:H2'	36:5:1802:C:H6	1.60	0.67
87:2:2031:OHX:N4	87:2:2146:OHX:N1	2.43	0.67
25:D3:22:ASN:HB3	1:6:609:U:C5	337.07	0.67
36:5:1523:U:OP2	36:5:1604:G:O2'	2.10	0.67
23:D1:56:SER:HB3	23:D1:59:VAL:HG23	4.06	0.67
8:S6:211:LEU:O	8:S6:215:ARG:HB2	1.95	0.67
34:SR:24:ALA:HB2	34:SR:72:THR:HA	2.44	0.67
58:N2:20:SER:OG	58:N2:21:SER:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:951:A:OP2	36:5:1367:G:N2	2.26	0.67
78:Q2:66:LYS:HG2	36:5:2793:G:H5''	209.90	0.67
4:S2:83:ILE:HG12	4:S2:100:ALA:HB2	1.75	0.67
36:5:2895:G:N2	36:5:2906:C:O2	2.26	0.67
36:1:1366:A:C2	36:1:1367:G:C4	2.83	0.67
13:C1:136:ARG:NE	1:6:304:U:OP1	310.16	0.67
67:O1:79:ARG:HA	67:O1:89:LEU:HD12	1.76	0.67
66:O0:43:ILE:HD11	66:O0:92:ILE:HG12	1.76	0.67
55:M9:43:LYS:HE2	36:5:1765:U:C5	90.95	0.67
36:5:511:G:N2	36:5:580:C:N3	2.39	0.67
71:O5:23:ASP:O	71:O5:27:GLU:N	2.79	0.67
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.76	0.67
40:L3:245:GLY:HA3	40:L3:248:LYS:HZ1	1.59	0.67
36:1:1815:U:O2'	36:1:1816:A:OP2	2.13	0.67
36:1:3164:C:O2'	36:1:3165:A:H8	1.77	0.67
36:5:2439:A:OP1	36:5:2439:A:H4'	1.95	0.67
36:1:2794:G:N7	87:1:3935:OHX:N2	2.43	0.67
51:M5:94:TYR:CE2	51:M5:96:ARG:HB3	2.30	0.67
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.77	0.67
39:L2:49:VAL:N	39:L2:58:LEU:O	2.26	0.67
39:L2:200:ARG:HH21	39:L2:200:ARG:HG3	4.30	0.67
1:2:1754:A:O2'	32:E0:2:ALA:N	2.28	0.66
75:O9:43:ASN:OD1	75:O9:44:TRP:N	2.81	0.66
11:S9:151:ASP:OD1	11:S9:152:SER:N	5.01	0.66
42:L5:63:GLN:HB3	42:L5:65:ILE:HD11	2.41	0.66
17:C5:15:HIS:CD2	17:C5:109:PRO:HB2	2.79	0.66
6:S4:141:THR:O	6:S4:143:ASP:N	2.28	0.66
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.30	0.66
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.17	0.66
39:L2:117:GLU:HB2	39:L2:162:ALA:HB1	2.57	0.66
6:S4:19:LEU:HD13	1:6:788:A:H2'	390.28	0.66
36:1:3377:G:O6	87:1:4035:OHX:N4	2.27	0.66
45:L8:36:ILE:HG22	45:L8:37:GLY:H	1.58	0.66
9:S7:103:SER:OG	9:S7:104:ARG:N	2.23	0.66
45:L8:129:PRO:HB3	36:5:121:A:C2	101.58	0.66
9:S7:124:LYS:NZ	9:S7:127:GLU:OE1	2.27	0.66
64:N8:16:SER:HA	36:5:942:U:C4	170.87	0.66
73:O7:19:CYS:SG	89:O7:101:ZN:ZN	1.83	0.66
54:M8:176:ARG:HG3	36:5:2763:U:H5'	181.78	0.66
50:M4:26:GLY:N	50:M4:29:ALA:HB2	2.10	0.66
45:L8:48:ARG:NH2	36:5:2526:C:O2	184.41	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:29:GLY:O	46:L9:32:GLY:N	2.29	0.66
36:5:1519:G:H2'	36:5:1520:G:C8	2.31	0.66
1:2:477:A:H2'	1:2:478:A:H8	1.61	0.66
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.25	0.66
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.55	0.66
17:C5:15:HIS:HD2	17:C5:109:PRO:HB2	2.88	0.66
49:M3:128:ARG:NH2	71:O5:109:ILE:O	2.27	0.66
16:C4:105:LEU:HA	16:C4:108:SER:HB3	1.77	0.66
4:S2:179:VAL:HG23	4:S2:196:VAL:O	4.43	0.66
1:2:1423:U:H5''	5:S3:151:LYS:HE3	1.77	0.66
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.77	0.66
41:L4:161:LYS:NZ	36:5:210:U:OP2	77.16	0.66
36:5:917:A:OP2	87:5:4208:OHX:N1	2.29	0.66
61:N5:57:LEU:H	61:N5:61:LYS:HD2	4.81	0.66
22:D0:31:VAL:HG23	22:D0:32:LYS:HD2	5.50	0.66
22:D0:44:ASN:HA	22:D0:47:GLN:HB3	3.21	0.66
1:6:274:G:H2'	1:6:275:C:H6	1.59	0.66
36:5:1815:U:H1'	36:5:1816:A:O5'	1.95	0.66
9:S7:67:LEU:O	9:S7:71:HIS:ND1	2.29	0.66
1:2:7:G:H1	1:2:17:C:H42	1.43	0.66
36:1:12:A:OP1	87:1:4202:OHX:N6	2.28	0.66
36:1:3317:U:H4'	36:1:3318:G:O5'	1.93	0.66
49:M3:129:ASN:HD22	49:M3:131:LYS:HE3	1.61	0.66
25:D3:131:SER:HB2	1:6:30:G:H4'	371.82	0.66
25:D3:68:ILE:HG22	25:D3:70:LYS:NZ	2.10	0.66
21:C9:38:LYS:O	21:C9:39:THR:OG1	2.13	0.66
21:C9:77:ASN:HB3	21:C9:96:ALA:H	1.61	0.66
3:S1:33:LYS:HB3	3:S1:97:LEU:HD22	1.77	0.66
2:S0:195:TRP:NE1	2:S0:197:ILE:HB	2.34	0.66
36:1:1764:U:H3'	36:1:1765:U:H5''	1.76	0.66
1:2:1453:G:H21	17:C5:99:GLY:HA2	1.59	0.66
6:S4:177:ALA:O	6:S4:179:LYS:N	4.38	0.66
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.26	0.66
1:6:529:A:H2'	1:6:530:C:H6	1.61	0.66
1:6:485:A:N6	1:6:486:G:N3	2.43	0.66
1:2:139:C:H4'	1:2:140:A:O5'	1.94	0.66
1:6:1621:U:H2'	1:6:1622:G:C8	2.29	0.66
36:1:540:U:H2'	36:1:541:U:C6	2.29	0.66
1:2:1095:U:O2	24:D2:12:ASN:ND2	2.28	0.66
38:4:79:A:H5''	71:O5:43:LYS:NZ	2.10	0.66
36:1:429:U:H5'	69:O3:88:ASN:HB2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:95:ILE:HD12	44:L7:133:TYR:HE1	2.40	0.66
64:N8:14:HIS:O	64:N8:16:SER:N	2.28	0.66
6:S4:159:THR:HB	6:S4:227:VAL:HG23	1.77	0.66
1:6:1433:G:H2'	1:6:1434:U:C6	2.31	0.66
40:L3:109:HIS:N	40:L3:200:GLU:OE2	3.18	0.66
45:L8:91:PHE:CZ	45:L8:185:ARG:HB3	3.40	0.66
36:5:1782:U:H2'	36:5:1783:U:C6	2.30	0.66
1:2:1370:U:O4	87:2:2121:OHX:N1	2.28	0.66
25:D3:130:VAL:O	25:D3:131:SER:HB3	2.54	0.66
47:M0:85:PHE:HA	47:M0:140:THR:HG22	1.76	0.66
44:L7:212:GLY:N	36:5:1168:U:OP1	259.48	0.66
72:O6:44:VAL:HG12	72:O6:48:ALA:HB2	3.31	0.66
49:M3:35:ARG:NH1	36:5:685:G:OP1	82.67	0.66
19:C7:15:ALA:HA	19:C7:18:GLU:HB2	1.77	0.66
46:L9:124:ARG:NH1	46:L9:164:ILE:O	2.29	0.66
1:6:1275:A:H8	1:6:1275:A:OP2	1.78	0.66
17:C5:30:THR:O	17:C5:34:VAL:HG13	1.96	0.66
17:C5:33:PHE:CD1	17:C5:36:LEU:HD21	3.89	0.66
33:E1:126:CYS:HB3	33:E1:130:VAL:HG21	3.26	0.66
43:L6:7:PRO:O	43:L6:9:TRP:N	3.28	0.66
62:N6:57:LEU:HD23	62:N6:67:GLU:HG3	2.13	0.66
53:M7:4:TYR:OH	53:M7:16:SER:OG	3.56	0.66
36:5:2897:A:HO2'	36:5:2898:G:P	2.17	0.66
1:2:1508:U:O4	87:2:2031:OHX:N6	2.28	0.66
1:2:1665:U:O4	87:2:2136:OHX:N4	2.28	0.66
1:2:484:C:N4	1:2:503:G:H22	1.93	0.66
5:S3:10:LYS:O	5:S3:13:ALA:N	2.67	0.66
61:N5:68:THR:OG1	61:N5:68:THR:O	2.11	0.66
36:1:3353:G:H4'	36:1:3354:U:OP2	1.94	0.66
46:L9:20:ILE:HG23	46:L9:25:VAL:HG13	1.77	0.66
28:D6:7:SER:HB3	1:6:1796:C:H6	339.90	0.66
1:2:478:A:HO2'	11:S9:124:HIS:HD1	0.66	0.66
27:D5:38:HIS:HE1	27:D5:70:LYS:HD3	1.59	0.66
42:L5:252:ALA:O	42:L5:253:PHE:HB3	1.95	0.66
3:S1:69:CYS:SG	3:S1:70:LEU:N	2.68	0.66
36:1:1632:A:H2'	36:1:1633:C:C6	2.30	0.66
8:S6:57:ASP:O	8:S6:59:GLN:N	3.94	0.66
1:2:273:G:H1	1:2:283:U:H3	1.43	0.66
4:S2:107:SER:O	4:S2:192:GLY:HA3	2.76	0.66
1:6:387:A:OP2	1:6:387:A:H8	1.78	0.66
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:973:A:H2'	1:6:974:A:H8	1.61	0.66
36:5:1110:U:H2'	36:5:1111:U:C6	2.30	0.66
38:4:79:A:H5''	71:O5:43:LYS:HZ2	1.60	0.66
36:1:520:U:O4	41:L4:347:THR:HB	1.95	0.66
68:O2:19:ARG:HH22	36:5:1433:A:P	165.36	0.66
36:1:1596:C:O2	36:1:1611:G:N2	2.24	0.66
8:S6:84:TYR:OH	8:S6:91:GLU:O	2.11	0.66
38:4:75:G:OP2	75:O9:31:THR:OG1	2.12	0.66
47:M0:170:LYS:HE3	47:M0:176:LEU:N	6.50	0.66
1:6:15:U:H2'	1:6:16:G:O4'	1.95	0.66
73:O7:80:THR:O	38:8:95:G:N2	37.18	0.66
40:L3:66:LYS:NZ	59:N3:120:LYS:HE2	2.10	0.66
1:2:987:G:N2	1:2:1013:A:OP1	2.27	0.66
70:O4:108:GLN:O	70:O4:110:GLU:N	2.28	0.66
3:S1:81:PHE:HD2	3:S1:82:ARG:HG3	2.05	0.66
4:S2:89:GLN:HA	4:S2:94:GLN:HA	2.38	0.66
36:5:3288:G:OP2	36:5:3288:G:H2'	1.95	0.66
53:M7:112:LEU:HG	53:M7:150:VAL:HB	2.74	0.66
36:5:64:G:N2	36:5:322:U:H2'	2.11	0.66
24:D2:105:THR:HG22	1:6:804:A:N3	365.14	0.66
45:L8:94:PHE:CE2	45:L8:200:LEU:HG	2.30	0.66
54:M8:21:SER:OG	36:5:673:U:OP1	150.34	0.66
68:O2:44:ARG:NH1	36:5:1145:G:OP1	207.86	0.66
3:S1:165:ARG:O	3:S1:169:SER:OG	2.12	0.66
41:L4:304:GLN:O	41:L4:306:THR:N	2.89	0.66
1:2:891:A:H2'	1:2:892:A:H8	1.61	0.66
71:O5:79:ASP:N	71:O5:79:ASP:OD1	3.20	0.66
41:L4:207:VAL:O	41:L4:227:THR:HA	2.71	0.66
40:L3:227:GLU:HG3	40:L3:270:ARG:HD3	2.84	0.66
40:L3:233:TRP:HE1	40:L3:266:ARG:H	3.21	0.66
28:D6:23:CYS:SG	28:D6:74:CYS:N	3.50	0.66
54:M8:64:VAL:HB	54:M8:88:THR:O	2.46	0.66
49:M3:100:ARG:NH1	36:5:76:G:O2'	83.83	0.66
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.59	0.66
1:2:793:A:H5''	1:2:794:U:C6	2.31	0.66
1:6:1095:U:O4	87:6:2187:OHX:N2	2.29	0.66
36:1:503:C:H42	36:1:588:G:H1	1.44	0.66
36:1:495:G:H22	36:1:619:A:H1'	1.61	0.66
58:N2:59:ASP:OD1	58:N2:61:THR:OG1	2.14	0.66
24:D2:5:SER:O	24:D2:7:LEU:N	3.30	0.66
36:5:3391:A:N3	36:5:3391:A:H2'	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:157:ASP:OD1	11:S9:158:PHE:N	4.30	0.66
44:L7:159:GLN:O	44:L7:160:ARG:HB3	1.96	0.66
1:2:1532:U:OP2	27:D5:77:ARG:NH1	2.28	0.66
18:C6:36:ILE:O	18:C6:38:LEU:N	2.89	0.66
7:S5:124:LEU:HD21	27:D5:59:TYR:HB2	1.77	0.66
12:C0:24:LYS:O	12:C0:26:ASP:N	2.48	0.66
20:C8:94:ASP:OD2	20:C8:96:LYS:N	3.15	0.66
48:M1:80:LEU:HD12	48:M1:167:TYR:OH	2.44	0.66
1:6:1747:G:O6	87:6:2132:OHX:N5	2.28	0.66
70:O4:46:ASP:OD1	70:O4:80:ARG:NH1	2.21	0.66
43:L6:51:ARG:NH1	43:L6:163:PHE:HB2	2.83	0.66
9:S7:164:TYR:O	9:S7:166:LEU:N	3.09	0.66
36:1:2818:U:H6	36:1:2818:U:C5'	2.09	0.66
37:3:75:G:O2'	37:3:104:A:N6	2.28	0.66
36:1:2157:G:N2	36:1:2178:A:OP2	2.22	0.66
46:L9:128:VAL:HG22	46:L9:134:ILE:HD12	1.78	0.66
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	6.12	0.66
56:N0:82:ASP:HB3	56:N0:87:THR:HB	1.78	0.66
62:N6:5:SER:OG	62:N6:6:LEU:N	2.22	0.66
1:2:275:C:O2	1:2:276:C:N4	2.29	0.66
36:1:3170:A:H61	36:1:3280:U:H3	1.43	0.66
18:C6:31:VAL:HG22	18:C6:67:VAL:HB	4.12	0.66
36:5:2676:A:H4'	36:5:2677:G:O5'	1.95	0.66
36:1:2528:G:N7	87:1:4182:OHX:N3	2.44	0.66
63:N7:62:VAL:O	63:N7:66:THR:OG1	2.61	0.66
2:S0:200:ASP:HA	2:S0:203:PHE:CD1	2.79	0.66
1:6:718:U:H5'	1:6:719:U:H5	1.60	0.66
36:1:3278:C:H2'	36:1:3278:C:O2	1.94	0.66
11:S9:107:ARG:NH2	11:S9:148:VAL:O	2.22	0.66
10:S8:40:ALA:H	10:S8:61:GLU:HB3	1.59	0.66
36:1:1108:U:H2'	36:1:1109:U:C6	2.21	0.66
1:6:1599:C:O2	87:6:2135:OHX:N2	2.28	0.66
3:S1:36:SER:HB3	3:S1:231:LEU:HB3	1.77	0.66
4:S2:73:LEU:O	4:S2:76:LEU:HD22	2.29	0.66
62:N6:31:LEU:O	62:N6:50:ILE:HG22	2.72	0.66
36:5:3091:A:N3	36:5:3093:C:O2'	2.27	0.66
59:N3:87:ARG:HH22	59:N3:137:VAL:HG23	1.61	0.66
69:O3:52:VAL:HG21	69:O3:99:ARG:NH1	2.25	0.66
39:L2:102:LEU:HD12	39:L2:166:ILE:HD11	1.77	0.66
3:S1:107:THR:O	3:S1:109:LYS:N	2.74	0.66
36:5:855:U:H2'	36:5:856:G:H8	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:182:ASN:OD1	52:M6:186:ALA:HB2	6.68	0.66
36:1:17:G:H4'	71:O5:75:TYR:CE1	2.30	0.66
36:1:1658:G:H2'	36:1:1659:U:C6	2.31	0.66
1:2:1:U:C4	11:S9:54:ARG:HG3	2.31	0.66
36:1:994:G:N2	36:1:995:U:O4	2.28	0.66
40:L3:159:ARG:HB3	40:L3:182:GLN:HA	1.78	0.66
1:2:452:A:OP2	87:2:2038:OHX:N5	2.29	0.66
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.49	0.66
1:2:1331:A:N6	5:S3:160:SER:OG	2.29	0.66
8:S6:43:ASP:O	8:S6:46:LYS:N	2.29	0.66
87:5:3937:OHX:N1	87:5:4228:OHX:N3	2.44	0.66
47:M0:36:LEU:HD12	47:M0:87:LEU:HB3	2.24	0.66
41:L4:334:PHE:HA	41:L4:339:LEU:HG	1.78	0.66
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	2.34	0.66
7:S5:50:GLU:O	7:S5:65:ARG:NH2	2.28	0.66
22:D0:63:LEU:HB3	31:D9:34:TYR:CE2	2.30	0.66
42:L5:269:SER:O	42:L5:272:TYR:N	2.28	0.66
34:SR:89:LEU:HG	34:SR:110:VAL:HG11	1.78	0.66
36:1:591:G:N2	36:1:612:U:OP1	2.27	0.66
52:M6:85:ARG:HD3	52:M6:90:HIS:CD2	2.31	0.66
64:N8:103:ASP:O	64:N8:106:ALA:N	2.28	0.66
36:1:1947:G:H1	36:1:2101:C:N4	1.94	0.66
64:N8:78:LEU:O	64:N8:80:THR:N	2.38	0.66
36:5:2372:A:H5''	36:5:2373:A:H5'	1.77	0.66
50:M4:97:SER:O	50:M4:99:TRP:N	3.00	0.66
46:L9:188:THR:O	46:L9:188:THR:OG1	2.12	0.66
36:5:1845:G:H3'	36:5:1846:C:H5'	1.78	0.66
36:1:1208:U:C4	76:Q0:108:THR:HG21	2.31	0.65
46:L9:189:GLU:C	46:L9:191:LEU:H	2.00	0.65
78:Q2:50:PHE:O	87:Q2:502:OHX:N1	5.05	0.65
47:M0:176:LEU:HD11	47:M0:199:PHE:HE1	1.59	0.65
13:C1:45:PRO:HG3	13:C1:115:PHE:CE2	4.06	0.65
36:1:1348:U:C5	54:M8:31:LYS:HE3	2.30	0.65
43:L6:2:SER:N	36:5:1385:C:HO2'	137.14	0.65
54:M8:50:LYS:O	54:M8:53:PHE:N	2.26	0.65
19:C7:57:LEU:O	19:C7:61:ILE:HG13	1.96	0.65
20:C8:32:LEU:O	20:C8:35:ILE:HD12	2.39	0.65
46:L9:166:ARG:HD2	46:L9:168:ARG:HH12	8.20	0.65
1:2:972:G:O2'	36:1:847:A:N1	2.30	0.65
1:6:1702:A:H5'	1:6:1703:C:C5	2.26	0.65
50:M4:89:ALA:HB1	50:M4:92:GLU:OE2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:292:ALA:HB1	40:L3:295:ALA:HB3	1.78	0.65
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.81	0.65
36:5:2307:G:O6	87:5:3980:OHX:N1	2.29	0.65
52:M6:126:VAL:HG22	52:M6:127:LEU:HD23	1.76	0.65
36:1:939:U:O2'	36:1:2402:A:N1	2.30	0.65
1:2:1080:U:O2'	1:2:1081:A:H5'	1.96	0.65
54:M8:151:ARG:O	54:M8:153:PHE:N	2.29	0.65
36:1:3107:U:P	76:Q0:112:LYS:HE3	2.35	0.65
2:S0:106:SER:O	2:S0:115:PHE:HA	2.91	0.65
39:L2:68:LYS:HD3	39:L2:70:ARG:HH21	6.74	0.65
47:M0:50:VAL:HG23	47:M0:167:LEU:HD23	1.77	0.65
49:M3:131:LYS:H	49:M3:131:LYS:HE2	1.61	0.65
1:2:396:G:N1	1:2:399:A:OP2	2.29	0.65
1:6:1240:U:O4	87:6:2101:OHX:N5	2.29	0.65
47:M0:60:LEU:O	47:M0:127:ALA:N	2.62	0.65
36:1:1259:A:N6	36:1:1260:A:N1	2.43	0.65
36:1:2107:A:H2	36:1:3344:A:C8	2.13	0.65
53:M7:138:LYS:HZ3	53:M7:140:GLU:HB2	3.47	0.65
11:S9:89:ASP:C	11:S9:91:LYS:H	1.99	0.65
36:5:1168:U:O2'	36:5:1169:A:H5'	1.97	0.65
10:S8:166:TYR:O	10:S8:184:LEU:HB2	3.11	0.65
42:L5:211:LEU:O	42:L5:214:ASP:N	3.15	0.65
21:C9:57:ARG:HH21	21:C9:80:TYR:HB3	1.60	0.65
21:C9:5:SER:OG	21:C9:6:VAL:N	2.33	0.65
16:C4:103:ARG:HE	28:D6:52:ASP:HB2	6.25	0.65
66:O0:30:THR:HG22	66:O0:91:SER:HB3	3.65	0.65
71:O5:7:TYR:O	71:O5:10:ARG:N	2.28	0.65
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.49	0.65
57:N1:57:TYR:HA	57:N1:60:LYS:HD3	1.77	0.65
73:O7:52:LYS:HD2	73:O7:56:ARG:HH21	1.61	0.65
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	3.65	0.65
9:S7:178:GLY:O	1:6:641:G:O2'	394.49	0.65
1:6:882:U:H2'	1:6:883:C:C6	2.31	0.65
56:N0:83:SER:OG	56:N0:86:GLY:O	2.13	0.65
36:1:3068:U:OP2	55:M9:59:SER:OG	2.13	0.65
55:M9:66:HIS:O	55:M9:68:GLN:N	2.29	0.65
36:5:2604:U:H2'	36:5:2605:G:O4'	1.97	0.65
36:5:2305:G:N2	36:5:2305:G:OP2	2.29	0.65
35:SM:81:THR:O	35:SM:81:THR:OG1	2.10	0.65
26:D4:63:GLN:HG3	26:D4:64:PHE:N	2.20	0.65
40:L3:76:VAL:HG11	40:L3:323:MET:HE3	2.64	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:12:VAL:HG12	46:L9:16:VAL:HG23	1.79	0.65
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	2.04	0.65
44:L7:89:ILE:HG12	44:L7:134:VAL:HA	1.79	0.65
19:C7:31:ASN:ND2	19:C7:55:THR:HG23	2.12	0.65
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.27	0.65
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.83	0.65
17:C5:26:LEU:O	17:C5:28:MET:N	4.23	0.65
63:N7:87:LEU:HB2	63:N7:127:ASN:HD21	1.60	0.65
66:O0:58:TYR:OH	70:O4:97:GLU:OE2	2.13	0.65
37:3:73:C:O2	56:N0:13:ARG:NH1	2.29	0.65
34:SR:38:ARG:HA	34:SR:67:ILE:HG23	1.78	0.65
1:2:992:A:OP1	87:2:2035:OHX:N2	2.29	0.65
36:5:1237:G:H22	36:5:1251:A:H2	1.43	0.65
36:1:1688:U:H2'	36:1:1689:U:C6	2.30	0.65
36:1:289:A:H2'	36:1:290:G:H8	1.61	0.65
49:M3:75:PHE:O	49:M3:76:THR:OG1	2.14	0.65
39:L2:36:GLU:OE1	39:L2:163:ARG:NH1	2.29	0.65
36:1:2429:G:OP2	87:1:3986:OHX:N4	2.28	0.65
64:N8:74:ASN:HB3	64:N8:76:ASP:H	1.59	0.65
36:1:1488:G:N2	36:1:1854:C:N3	2.44	0.65
36:5:335:G:C2	36:5:336:A:H1'	2.31	0.65
51:M5:190:THR:O	51:M5:194:GLN:HG2	1.95	0.65
65:N9:50:THR:HG22	36:5:1073:U:H1'	205.77	0.65
1:6:269:G:H2'	1:6:270:C:C6	2.30	0.65
36:5:2207:A:N6	36:5:2236:G:H1	1.95	0.65
1:2:1311:U:O2'	1:2:1313:A:N7	2.22	0.65
2:S0:143:VAL:N	2:S0:157:ASP:OD1	2.25	0.65
18:C6:73:GLY:O	18:C6:75:VAL:N	3.67	0.65
1:2:1285:U:O2'	1:2:1286:U:OP1	2.12	0.65
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.25	0.65
11:S9:134:ILE:HD13	11:S9:141:VAL:H	4.30	0.65
47:M0:156:ARG:NH1	47:M0:163:GLN:O	2.89	0.65
45:L8:239:GLY:O	45:L8:241:LYS:N	2.29	0.65
18:C6:101:SER:O	18:C6:105:LEU:N	2.29	0.65
21:C9:134:ARG:HD2	21:C9:135:ILE:HG23	1.77	0.65
5:S3:94:ARG:HH21	35:SM:134:ASP:HB2	1.59	0.65
1:2:864:U:H5	29:D7:22:LYS:HG2	1.61	0.65
2:S0:36:TYR:OH	2:S0:56:LYS:HE3	2.91	0.65
4:S2:140:ARG:HB3	4:S2:221:THR:HB	3.20	0.65
63:N7:15:ARG:HD2	63:N7:79:HIS:NE2	2.11	0.65
70:O4:44:CYS:HB2	70:O4:81:CYS:HB3	3.21	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:44:ALA:HB2	57:N1:53:PRO:HG2	1.78	0.65
57:N1:15:PHE:CE2	57:N1:44:ALA:HB3	2.32	0.65
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.78	0.65
1:2:991:G:OP2	87:2:2131:OHX:N1	2.28	0.65
52:M6:110:PRO:HD2	52:M6:111:PRO:HD2	5.14	0.65
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.29	0.65
64:N8:77:LYS:O	64:N8:79:TRP:N	2.79	0.65
44:L7:81:HIS:ND1	44:L7:138:TYR:CG	3.04	0.65
87:1:4198:OHX:N6	87:O1:202:OHX:N5	2.44	0.65
40:L3:3:HIS:O	40:L3:3:HIS:ND1	3.50	0.65
36:1:494:G:O2'	36:1:495:G:OP2	2.11	0.65
36:1:678:G:O6	87:1:3973:OHX:N4	2.29	0.65
36:1:2918:G:H2'	36:1:2919:A:H8	1.62	0.65
34:SR:278:PHE:CD1	34:SR:286:GLU:HG2	5.02	0.65
36:5:3283:U:H2'	36:5:3284:G:C8	2.32	0.65
7:S5:92:ARG:HG2	7:S5:92:ARG:HH11	3.06	0.65
21:C9:57:ARG:HH11	21:C9:57:ARG:HB2	1.76	0.65
77:Q1:22:ALA:O	77:Q1:24:SER:N	2.29	0.65
1:2:1228:G:H3'	1:2:1229:G:C8	2.31	0.65
56:N0:144:LEU:HB3	36:5:534:U:C5	346.75	0.65
36:5:3246:G:O6	87:5:4212:OHX:N5	2.30	0.65
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	3.41	0.65
69:O3:45:LEU:HD23	69:O3:71:VAL:HG12	2.03	0.65
69:O3:49:ILE:HD11	69:O3:71:VAL:HG23	1.77	0.65
38:4:53:A:H2'	38:4:54:A:H8	1.61	0.65
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.29	0.65
38:8:107:G:H5''	38:8:138:A:H5'	1.79	0.65
36:1:2768:U:OP2	87:1:4131:OHX:N6	2.29	0.65
56:N0:87:THR:C	56:N0:88:HIS:CD2	3.14	0.65
36:5:2662:G:O6	87:5:3894:OHX:N3	2.29	0.65
1:2:853:G:N7	55:M9:173:ARG:NH2	2.44	0.65
75:O9:26:TRP:HZ3	75:O9:30:ARG:HD3	2.60	0.65
1:6:1324:G:N7	87:6:2108:OHX:N2	2.43	0.65
24:D2:73:GLY:HA3	24:D2:128:PHE:CE1	2.30	0.65
52:M6:65:ASN:OD1	52:M6:67:THR:N	2.24	0.65
36:5:1552:G:OP2	87:5:4001:OHX:N6	2.28	0.65
36:1:254:A:H2'	36:1:255:A:C8	2.32	0.65
36:5:2442:G:N2	36:5:2506:U:O4	2.29	0.65
1:2:929:A:C8	16:C4:123:SER:HA	2.32	0.65
1:2:542:A:C8	1:2:543:C:H3'	2.32	0.65
1:6:538:A:C8	1:6:543:C:N4	2.64	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:49:ARG:O	6:S4:53:LYS:HA	1.97	0.65
10:S8:34:ALA:HB1	10:S8:36:THR:HG22	1.76	0.65
41:L4:269:SER:O	41:L4:270:SER:OG	2.12	0.65
17:C5:52:LYS:HE3	17:C5:54:ALA:HB3	9.15	0.65
36:1:316:U:O2'	72:O6:30:LYS:NZ	2.22	0.65
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.62	0.65
20:C8:145:ARG:HD3	35:SM:68:ARG:HH22	3.71	0.65
6:S4:36:HIS:CE1	6:S4:86:PHE:H	4.41	0.65
42:L5:270:LYS:HE2	42:L5:272:TYR:O	10.50	0.65
1:2:1013:A:H2'	1:2:1014:G:O4'	1.97	0.65
39:L2:205:ASN:HB3	39:L2:206:PRO:HD2	1.78	0.65
38:4:41:A:H61	38:4:103:G:C2'	2.09	0.65
40:L3:35:ASP:OD2	40:L3:37:ARG:HD2	1.96	0.65
1:2:734:A:H5"	1:2:735:C:OP1	1.96	0.65
36:1:1582:C:H3'	36:1:1582:C:P	2.37	0.65
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.78	0.65
40:L3:350:ALA:O	40:L3:351:LEU:HB2	1.97	0.65
1:6:647:G:O6	87:6:2172:OHX:N1	2.30	0.65
45:L8:210:ALA:HA	45:L8:213:LYS:HE3	5.08	0.65
36:1:966:U:N3	36:1:967:A:N7	2.45	0.65
36:1:269:G:O6	87:1:4078:OHX:N3	2.30	0.65
36:1:2907:G:OP1	87:1:4144:OHX:N4	2.30	0.65
1:6:1013:A:H2'	1:6:1014:G:O4'	1.97	0.65
11:S9:125:ALA:HA	11:S9:128:LEU:HD12	3.96	0.65
11:S9:9:SER:O	1:6:471:A:O2'	391.36	0.65
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.46	0.65
45:L8:172:LYS:HZ2	72:O6:39:PHE:HE1	1.43	0.65
27:D5:77:ARG:NH2	1:6:1534:G:N7	349.86	0.65
7:S5:57:SER:HA	30:D8:53:ILE:HB	2.22	0.65
1:2:1430:U:O4'	22:D0:72:ASN:ND2	2.30	0.65
5:S3:103:GLU:HA	5:S3:106:LYS:HB3	2.51	0.65
1:6:950:C:H2'	1:6:951:A:C8	2.31	0.65
2:S0:76:ILE:HB	2:S0:123:VAL:HG22	2.73	0.65
36:1:348:A:H1'	36:1:352:A:C2	2.32	0.65
36:1:2103:U:H2'	36:1:2104:A:C8	2.32	0.65
36:1:2926:A:O2'	36:1:2927:C:H5'	1.96	0.65
75:O9:27:ILE:HA	75:O9:30:ARG:HG3	2.11	0.65
36:1:1347:U:H4'	41:L4:305:ALA:HB2	1.79	0.65
36:1:495:G:N2	36:1:619:A:H1'	2.10	0.65
36:1:254:A:H2'	36:1:255:A:H8	1.60	0.65
36:1:2606:G:OP1	39:L2:233:GLN:NE2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:675:C:O2'	36:1:679:U:OP1	2.12	0.65
36:5:2329:C:H2'	36:5:2330:C:H6	1.61	0.65
36:5:709:A:H8	36:5:709:A:O5'	1.80	0.65
36:5:993:G:C4	36:5:2637:A:C2	2.85	0.65
67:O1:74:ARG:NH1	67:O1:109:VAL:HG21	2.12	0.65
11:S9:135:ALA:HB1	11:S9:139:GLN:O	1.96	0.65
36:1:2836:C:H5	36:1:2852:C:N4	1.95	0.65
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.30	0.65
1:6:821:U:O4	1:6:851:U:N3	2.15	0.65
16:C4:84:ARG:NH2	16:C4:86:THR:O	4.61	0.65
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.78	0.65
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.29	0.65
44:L7:80:GLN:HB2	57:N1:136:ARG:H	3.42	0.65
36:1:2401:A:O3'	41:L4:68:GLY:HA2	1.95	0.65
1:6:649:U:H3	1:6:685:A:N6	1.94	0.65
2:S0:119:ARG:HH21	4:S2:240:LEU:HD23	2.58	0.65
2:S0:126:PRO:HG2	2:S0:152:PRO:HD2	1.78	0.65
1:2:802:G:O2'	24:D2:107:SER:OG	2.08	0.65
63:N7:51:LEU:HB2	63:N7:65:ARG:HD3	1.79	0.65
57:N1:118:GLU:OE2	57:N1:122:GLN:NE2	6.99	0.65
58:N2:37:LEU:HB3	58:N2:41:ILE:HD11	1.78	0.65
53:M7:3:ARG:HD2	36:5:398:A:H5'	124.19	0.65
40:L3:347:SER:O	40:L3:349:LYS:N	2.30	0.65
14:C2:134:SER:HA	14:C2:137:MET:HB3	1.79	0.65
36:1:49:A:OP1	49:M3:16:LYS:NZ	2.30	0.65
15:C3:42:ARG:HH21	15:C3:80:LEU:HD21	1.61	0.65
36:5:1182:A:H2'	36:5:1183:C:H6	1.62	0.65
1:2:162:A:H2'	1:2:163:G:N3	2.11	0.65
43:L6:22:ARG:HD3	36:5:608:A:C6	243.37	0.65
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	3.43	0.65
53:M7:47:TYR:O	53:M7:50:GLN:N	2.64	0.65
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	1.97	0.65
21:C9:32:GLY:H	21:C9:34:VAL:HG12	1.62	0.65
66:O0:39:SER:C	66:O0:40:LYS:HD2	2.17	0.65
5:S3:222:VAL:HG23	34:SR:192:PHE:HA	1.77	0.65
52:M6:14:HIS:CE1	52:M6:119:VAL:HG12	2.32	0.65
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	1.65	0.65
36:5:3160:U:H3	36:5:3290:G:H1	1.44	0.65
57:N1:109:VAL:HG13	36:5:1063:G:C6	246.41	0.65
26:D4:60:PHE:O	1:6:523:G:H5'	412.58	0.65
1:2:336:G:N2	1:2:338:C:H5'	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:30:LYS:HB3	22:D0:33:GLN:HE21	1.61	0.65
36:5:1613:A:H2'	36:5:1614:C:C6	2.31	0.65
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.30	0.65
63:N7:104:PRO:O	63:N7:106:GLN:N	2.29	0.65
39:L2:234:LYS:NZ	36:5:2162:U:OP1	195.34	0.65
1:6:432:G:C6	1:6:433:C:C4	2.85	0.65
66:O0:74:ASN:ND2	66:O0:86:ARG:HG3	3.86	0.65
36:1:2582:C:H2'	36:1:2583:C:C6	2.31	0.65
25:D3:52:ILE:HD12	25:D3:75:GLN:HB3	4.35	0.65
36:1:1466:G:O6	87:1:3879:OHX:N4	2.29	0.65
36:5:1170:A:OP2	87:5:3997:OHX:N6	2.30	0.65
41:L4:314:LYS:HG3	44:L7:162:PRO:HB3	1.79	0.65
44:L7:116:PHE:CZ	44:L7:144:ILE:HG23	3.02	0.65
10:S8:122:GLY:H	10:S8:157:GLU:HG3	1.62	0.65
12:C0:71:GLU:OE2	12:C0:71:GLU:N	2.29	0.65
17:C5:30:THR:HG23	17:C5:86:VAL:HG21	1.77	0.65
22:D0:67:THR:OG1	22:D0:68:ARG:N	4.49	0.65
36:1:155:G:H5"	36:1:156:G:N7	2.12	0.65
14:C2:63:VAL:HG11	14:C2:94:ALA:HB2	1.77	0.65
8:S6:164:LYS:HB3	8:S6:167:LYS:H	1.61	0.65
56:N0:26:ARG:HD3	57:N1:150:THR:HG22	4.73	0.65
36:1:2734:A:OP1	87:1:4006:OHX:N3	2.30	0.65
52:M6:156:LEU:HD13	36:5:3243:A:C8	265.09	0.65
76:Q0:97:ARG:HB2	76:Q0:120:GLN:O	2.59	0.65
10:S8:56:ARG:HH22	1:6:332:U:P	286.60	0.65
48:M1:54:VAL:O	48:M1:56:THR:N	2.29	0.65
70:O4:60:ARG:HA	36:5:1802:C:O2'	155.56	0.65
48:M1:138:VAL:O	48:M1:140:ARG:N	2.30	0.65
1:6:826:U:O4	87:6:2070:OHX:N3	2.30	0.65
87:2:2031:OHX:N4	87:2:2146:OHX:N2	2.45	0.65
36:1:1826:C:H2'	36:1:1827:C:C6	2.31	0.65
42:L5:290:ILE:O	42:L5:293:LEU:N	3.57	0.65
47:M0:206:LEU:O	47:M0:210:ILE:HG13	1.97	0.65
71:O5:19:SER:HA	71:O5:22:VAL:HG23	3.13	0.65
9:S7:99:LEU:HD23	9:S7:100:PRO:HD2	1.79	0.65
1:6:833:U:O4	87:6:2105:OHX:N5	2.29	0.65
36:1:1035:G:H2'	36:1:1036:A:H8	1.62	0.65
36:1:2701:U:OP1	57:N1:22:HIS:HB3	1.97	0.65
49:M3:38:ALA:HA	49:M3:41:THR:HB	1.77	0.65
36:1:1624:G:O2'	36:1:1643:A:N1	2.21	0.65
20:C8:135:GLY:HA3	1:6:1559:A:H5"	366.04	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1151:A:H4'	1:6:1766:A:N7	2.12	0.65
11:S9:152:SER:O	11:S9:154:LYS:N	2.30	0.64
36:5:2851:A:H2'	36:5:2852:C:C6	2.31	0.64
1:2:1529:C:H2'	1:2:1530:C:C6	2.32	0.64
20:C8:62:THR:OG1	20:C8:64:GLU:HB2	4.44	0.64
21:C9:70:GLN:H	21:C9:70:GLN:HE21	2.14	0.64
16:C4:84:ARG:HA	16:C4:119:THR:HG22	1.79	0.64
36:1:2754:G:OP2	87:1:4006:OHX:N6	2.31	0.64
18:C6:120:ASP:OD1	18:C6:121:SER:N	2.30	0.64
3:S1:144:ARG:CB	3:S1:208:GLN:HG2	4.12	0.64
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	2.38	0.64
40:L3:139:GLN:C	40:L3:141:GLY:H	2.01	0.64
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.30	0.64
1:6:485:A:C5	1:6:486:G:H1'	2.32	0.64
79:Q3:20:SER:O	79:Q3:23:ARG:N	2.30	0.64
41:L4:296:GLN:HA	41:L4:299:ILE:HG12	1.79	0.64
41:L4:301:PRO:O	54:M8:39:ARG:NH1	3.88	0.64
36:5:372:A:H2'	36:5:373:A:H8	1.62	0.64
36:5:160:G:H2'	36:5:161:G:O4'	1.96	0.64
36:1:1230:G:H1	36:1:1279:C:N4	1.94	0.64
36:5:594:U:C5'	36:5:609:G:H1	2.10	0.64
36:1:1580:A:H1'	36:1:1581:C:H5	1.61	0.64
7:S5:150:GLY:O	7:S5:152:GLY:N	4.04	0.64
36:1:671:U:H3	36:1:791:A:H61	1.43	0.64
41:L4:205:PRO:HG2	41:L4:225:VAL:HG22	4.00	0.64
36:1:2741:C:H4'	78:Q2:19:LYS:HA	1.79	0.64
25:D3:57:LEU:O	25:D3:71:CYS:N	2.22	0.64
32:E0:28:LYS:NZ	1:6:542:A:N1	427.56	0.64
41:L4:329:PRO:HG2	44:L7:45:LEU:HD23	5.21	0.64
10:S8:168:CYS:HB3	10:S8:182:TYR:CE2	3.07	0.64
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.64	0.64
61:N5:94:GLN:O	61:N5:97:LYS:HB3	2.77	0.64
31:D9:33:LYS:O	31:D9:35:GLY:N	2.29	0.64
16:C4:99:GLN:O	16:C4:102:LEU:N	3.11	0.64
4:S2:56:ILE:HG22	4:S2:61:LEU:HB2	3.34	0.64
55:M9:6:THR:HG23	55:M9:9:ARG:NH2	2.12	0.64
34:SR:81:LEU:HG	34:SR:91:LEU:HD13	2.60	0.64
49:M3:124:ILE:HD13	71:O5:117:ALA:H	1.62	0.64
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	1.80	0.64
39:L2:183:GLY:O	39:L2:186:PHE:N	2.29	0.64
73:O7:63:ARG:HD3	73:O7:65:ARG:HD3	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:193:ARG:NH2	36:5:2181:C:OP1	196.58	0.64
37:3:40:C:O2'	48:M1:72:ARG:HG3	1.97	0.64
36:1:2273:G:N2	36:1:2311:G:H2'	2.12	0.64
2:S0:101:ARG:HH21	1:6:1320:U:H3'	399.12	0.64
36:1:679:U:H2'	36:1:680:G:H8	1.61	0.64
4:S2:161:LYS:HB2	4:S2:166:THR:HB	2.10	0.64
36:5:1068:C:H2'	36:5:1069:C:C6	2.31	0.64
36:5:1901:A:H5''	36:5:1902:G:OP2	1.98	0.64
59:N3:9:THR:OG1	59:N3:10:LYS:N	2.27	0.64
54:M8:71:LEU:HD22	54:M8:99:THR:HG21	1.77	0.64
41:L4:3:ARG:HH11	41:L4:22:LEU:HB3	1.61	0.64
66:O0:54:SER:O	66:O0:57:GLU:HB2	1.97	0.64
4:S2:139:ILE:HD11	4:S2:218:ILE:HB	1.80	0.64
36:1:2258:U:H2'	36:1:2259:A:O4'	1.97	0.64
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.31	0.64
47:M0:170:LYS:NZ	57:N1:159:PHE:HB2	2.12	0.64
26:D4:20:ARG:HH11	26:D4:22:GLN:NE2	4.34	0.64
73:O7:18:LEU:HD11	75:O9:51:ILE:HG22	2.56	0.64
1:2:1542:G:H22	1:2:1568:C:H1'	1.62	0.64
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	3.18	0.64
7:S5:97:LEU:O	7:S5:99:MET:N	2.30	0.64
42:L5:105:ILE:O	42:L5:109:THR:HG23	1.98	0.64
1:2:1438:G:H2'	1:2:1439:C:C6	2.32	0.64
12:C0:13:GLN:NE2	12:C0:17:GLN:OE1	6.70	0.64
71:O5:7:TYR:O	71:O5:9:LEU:N	2.30	0.64
18:C6:113:ASP:OD2	18:C6:115:THR:N	2.30	0.64
34:SR:248:ASN:ND2	34:SR:297:ASP:O	2.29	0.64
36:1:3151:U:H4'	36:1:3294:A:H1'	1.78	0.64
45:L8:159:PRO:HB3	51:M5:26:ARG:HH12	5.13	0.64
36:5:130:A:H2'	36:5:131:C:C6	2.32	0.64
67:O1:72:ARG:O	67:O1:96:VAL:HG22	1.97	0.64
87:5:4016:OHX:N5	87:5:4211:OHX:N1	2.45	0.64
38:8:25:G:H2'	38:8:26:U:O4'	1.97	0.64
55:M9:70:LYS:O	55:M9:73:GLY:N	2.25	0.64
36:5:2880:U:H2'	36:5:2881:C:H6	1.62	0.64
9:S7:111:LYS:HB3	9:S7:113:PRO:HD3	1.79	0.64
1:6:138:A:N6	1:6:266:A:H61	1.95	0.64
36:5:3253:G:O6	87:5:4232:OHX:N1	2.31	0.64
39:L2:173:GLY:O	39:L2:176:ASP:HB2	3.20	0.64
64:N8:131:SER:HB3	64:N8:134:ALA:HB2	1.79	0.64
5:S3:124:ARG:HD3	35:SM:124:GLN:HA	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2883:U:OP1	40:L3:10:ARG:NH2	2.29	0.64
40:L3:230:THR:HA	40:L3:235:THR:HG22	1.80	0.64
44:L7:86:VAL:HG13	44:L7:134:VAL:HG21	1.78	0.64
13:C1:33:ARG:HH11	13:C1:61:THR:HG21	3.63	0.64
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.77	0.64
7:S5:59:VAL:O	7:S5:61:TYR:N	3.05	0.64
21:C9:5:SER:N	21:C9:8:ASP:OD1	2.30	0.64
34:SR:206:PRO:HG2	34:SR:247:PRO:HA	1.79	0.64
52:M6:39:GLU:HG2	52:M6:40:GLU:HG2	1.78	0.64
1:2:888:U:H2'	1:2:889:U:H6	1.61	0.64
3:S1:144:ARG:HB3	3:S1:208:GLN:HB3	1.79	0.64
78:Q2:40:LYS:NZ	78:Q2:44:ASP:OD1	2.30	0.64
1:2:1291:G:N2	1:2:1324:G:H22	1.95	0.64
36:1:2219:A:H2'	36:1:2220:A:C8	2.31	0.64
53:M7:108:ASP:O	53:M7:111:LYS:N	3.11	0.64
1:2:583:C:H2'	1:2:584:C:H6	1.62	0.64
36:5:249:U:O2'	36:5:250:U:OP2	2.15	0.64
16:C4:132:ARG:NE	1:6:1788:G:N7	297.66	0.64
36:5:372:A:H2'	36:5:373:A:C8	2.32	0.64
1:6:336:G:OP2	87:6:2160:OHX:N4	2.31	0.64
44:L7:145:ARG:HA	44:L7:185:ILE:HD11	1.79	0.64
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	1.80	0.64
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	3.10	0.64
36:5:1897:G:N2	36:5:2338:C:O2	2.30	0.64
36:5:904:A:H2'	36:5:905:U:H6	1.63	0.64
58:N2:29:ASP:OD2	58:N2:32:SER:N	3.30	0.64
36:1:2674:A:H5''	48:M1:105:GLY:HA3	1.78	0.64
6:S4:131:LEU:HD13	6:S4:135:GLY:HA2	2.82	0.64
36:1:2655:U:H5'	78:Q2:3:ASN:O	1.97	0.64
46:L9:47:LYS:HE3	46:L9:50:ASN:H	1.62	0.64
64:N8:22:ILE:HG13	36:5:1114:U:OP1	187.67	0.64
41:L4:330:TYR:CE1	44:L7:49:ALA:HB2	2.32	0.64
13:C1:134:THR:O	13:C1:136:ARG:HD2	2.57	0.64
1:2:249:U:OP1	13:C1:34:TRP:NE1	2.25	0.64
52:M6:130:LYS:HG3	52:M6:131:PRO:N	4.05	0.64
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	2.11	0.64
5:S3:42:THR:OG1	5:S3:45:LYS:O	4.41	0.64
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.32	0.64
3:S1:129:THR:HG23	3:S1:135:LEU:HD12	6.21	0.64
36:5:741:U:H2'	36:5:742:G:O4'	1.98	0.64
26:D4:62:THR:HA	26:D4:69:SER:HA	1.94	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:860:G:O4'	39:L2:181:LYS:NZ	2.30	0.64
36:1:2644:C:C2	47:M0:116:ARG:HD3	2.32	0.64
11:S9:49:LEU:HA	11:S9:52:ILE:HD12	1.77	0.64
36:1:1403:C:H42	36:1:1408:G:H1	1.44	0.64
36:5:1695:U:O2'	36:5:1749:A:N1	2.30	0.64
1:2:1105:C:N4	25:D3:4:GLY:HA2	2.13	0.64
65:N9:28:LYS:HD2	65:N9:29:TYR:H	1.88	0.64
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.26	0.64
1:2:940:A:H2'	1:2:941:A:H8	1.63	0.64
9:S7:98:ILE:HG12	9:S7:121:VAL:HG21	2.02	0.64
40:L3:199:PHE:C	40:L3:201:LYS:H	2.31	0.64
38:8:130:C:H2'	38:8:131:A:H8	1.60	0.64
36:1:1240:A:H61	36:1:1244:A:H5''	1.63	0.64
36:5:1944:U:H2'	36:5:1945:A:C8	2.32	0.64
13:C1:119:VAL:HG12	13:C1:120:GLY:H	2.14	0.64
1:6:1305:U:OP2	1:6:1306:C:N4	2.29	0.64
25:D3:90:ASP:OD2	25:D3:91:GLY:N	2.30	0.64
1:6:1011:G:OP2	87:6:2125:OHX:N3	2.31	0.64
28:D6:37:LYS:HG2	28:D6:72:HIS:CD2	2.89	0.64
41:L4:254:ALA:O	41:L4:257:LYS:N	2.95	0.64
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.31	0.64
18:C6:29:ILE:HG23	18:C6:65:ILE:HB	1.78	0.64
7:S5:158:GLN:HG2	30:D8:66:LEU:HD21	1.78	0.64
38:4:45:C:H2'	38:4:46:G:C8	2.33	0.64
17:C5:25:LEU:HA	17:C5:28:MET:SD	2.37	0.64
1:2:1773:C:H2'	1:2:1774:G:C8	2.33	0.64
36:1:406:G:H1'	38:4:16:G:N2	2.13	0.64
2:S0:10:THR:OG1	2:S0:13:ASP:OD2	2.16	0.64
2:S0:180:GLU:O	2:S0:184:LEU:N	3.32	0.64
6:S4:118:GLU:O	6:S4:120:SER:N	2.30	0.64
43:L6:154:LEU:HD23	43:L6:157:GLN:HB2	4.42	0.64
18:C6:106:LYS:O	18:C6:108:ALA:N	2.55	0.64
36:1:2177:G:HO2'	36:1:2178:A:P	2.20	0.64
36:1:209:A:H4'	36:1:211:A:C8	2.32	0.64
51:M5:112:ASN:OD1	38:8:141:C:O2'	103.95	0.64
41:L4:302:ALA:HB2	54:M8:39:ARG:HH12	2.36	0.64
62:N6:100:HIS:ND1	62:N6:102:SER:HB3	3.45	0.64
36:5:299:G:N7	87:5:4184:OHX:N1	2.45	0.64
36:1:1178:G:O6	69:O3:20:LYS:NZ	2.27	0.64
11:S9:26:ALA:O	11:S9:30:LEU:N	2.30	0.64
1:6:138:A:H61	1:6:266:A:H61	1.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2696:A:H2'	36:1:2697:A:C8	2.32	0.64
66:O0:74:ASN:OD1	66:O0:75:ASN:ND2	2.30	0.64
36:5:2564:G:N2	36:5:2577:C:O2	2.30	0.64
33:E1:139:LEU:HD13	33:E1:152:ALA:H	1.63	0.64
1:6:1108:G:OP2	87:6:2180:OHX:N2	2.30	0.64
41:L4:41:SER:OG	41:L4:111:VAL:HG11	2.62	0.64
36:5:2412:G:N2	36:5:2810:C:O2	2.26	0.64
1:6:53:G:H2'	1:6:54:C:O4'	1.98	0.64
36:1:1103:A:N3	36:1:1103:A:H2'	2.13	0.64
44:L7:160:ARG:HB2	44:L7:203:TRP:CE3	2.33	0.64
36:1:1389:G:N2	36:1:1390:A:N1	2.45	0.64
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.11	0.64
62:N6:30:LEU:O	62:N6:32:SER:N	2.26	0.64
35:SM:73:SER:OG	35:SM:74:LYS:HD2	1.98	0.64
56:N0:117:ARG:NH2	36:5:1321:G:O3'	283.70	0.64
18:C6:54:LEU:HD12	18:C6:108:ALA:HB1	1.79	0.64
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.54	0.64
34:SR:74:THR:O	34:SR:77:GLY:N	2.79	0.64
40:L3:139:GLN:O	40:L3:142:ALA:N	2.31	0.64
26:D4:2:SER:OG	26:D4:2:SER:O	2.15	0.64
45:L8:190:VAL:O	45:L8:191:ASN:HB2	1.98	0.64
9:S7:24:PHE:O	9:S7:27:LEU:N	2.84	0.64
36:5:1596:C:H2'	36:5:1597:C:C6	2.32	0.64
36:5:1390:A:H4'	36:5:1391:C:H5''	1.78	0.64
87:1:4198:OHX:N6	87:O1:202:OHX:N3	2.46	0.64
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.31	0.64
1:2:1098:U:P	4:S2:168:ARG:HH21	2.20	0.64
4:S2:169:LEU:HD23	4:S2:198:THR:HG22	2.15	0.64
36:1:1095:U:H4'	36:1:1096:U:H5''	1.80	0.64
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.63	0.64
49:M3:158:ALA:O	64:N8:124:ILE:HD11	2.18	0.64
36:5:1622:U:H2'	36:5:1623:G:C8	2.32	0.64
36:1:919:U:OP1	36:1:2138:A:N6	2.30	0.64
36:5:3089:C:H2'	36:5:3090:U:O4'	1.98	0.64
1:2:1546:G:OP1	20:C8:127:HIS:NE2	2.29	0.64
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.13	0.64
26:D4:49:LYS:N	26:D4:49:LYS:HD3	2.97	0.64
41:L4:209:TYR:OH	41:L4:229:ASN:HB2	1.97	0.64
18:C6:127:LYS:HE3	18:C6:131:GLY:O	4.17	0.64
27:D5:59:TYR:CE2	27:D5:61:SER:HB3	2.26	0.64
62:N6:24:SER:OG	62:N6:75:ARG:NH1	3.20	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:42:LYS:O	50:M4:60:LEU:HB2	2.44	0.64
56:N0:44:PHE:C	56:N0:46:GLN:H	3.26	0.64
59:N3:36:ILE:HG23	59:N3:58:VAL:HG21	2.33	0.64
9:S7:59:ALA:HA	9:S7:91:ILE:HG22	1.79	0.64
34:SR:243:LEU:HD22	34:SR:252:LEU:HD11	2.88	0.64
36:1:2318:U:O4	87:1:4039:OHX:N2	2.31	0.64
1:2:732:G:O2'	1:2:733:A:O4'	2.15	0.64
36:5:410:U:O4	87:5:4097:OHX:N1	2.31	0.64
36:1:3122:A:N1	46:L9:70:THR:HG21	2.12	0.64
36:1:2896:A:P	76:Q0:102:ARG:HH21	2.21	0.64
76:Q0:93:LYS:HA	76:Q0:105:PRO:HB3	1.78	0.64
36:1:2738:A:H4'	65:N9:37:PRO:HB2	1.80	0.64
29:D7:15:GLU:OE2	29:D7:24:LEU:N	2.27	0.64
47:M0:201:SER:OG	47:M0:203:LYS:N	2.45	0.64
36:5:688:G:H8	36:5:688:G:O5'	1.81	0.64
65:N9:11:ASN:O	65:N9:11:ASN:ND2	2.77	0.64
36:1:524:U:O4	36:1:568:G:N2	2.29	0.64
87:5:3900:OHX:N2	38:8:2:A:OP2	2.30	0.64
45:L8:239:GLY:O	45:L8:242:ALA:N	2.25	0.64
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.33	0.64
1:2:1528:U:H5'	7:S5:108:LEU:HD12	1.79	0.64
46:L9:117:PHE:O	46:L9:120:ASP:HB2	2.24	0.64
61:N5:98:ALA:O	61:N5:102:LEU:N	2.62	0.64
61:N5:105:VAL:HG13	61:N5:130:TYR:CG	2.33	0.64
1:2:1202:A:OP2	87:2:2111:OHX:N2	2.31	0.64
1:2:955:A:H4'	1:2:1073:G:O2'	1.97	0.64
49:M3:64:LYS:HD3	49:M3:65:TYR:CE1	3.93	0.64
71:O5:101:THR:HG1	71:O5:102:GLU:H	3.86	0.64
1:2:917:U:H5''	16:C4:20:TYR:HE2	1.63	0.64
31:D9:5:ASN:O	31:D9:7:TRP:N	2.31	0.64
34:SR:29:GLN:HB2	34:SR:32:LEU:HB2	4.75	0.64
39:L2:42:ARG:HD2	39:L2:87:PHE:CD2	4.47	0.64
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	1.79	0.64
8:S6:102:VAL:HG13	8:S6:106:LEU:HD12	1.79	0.64
64:N8:36:GLY:N	36:5:40:A:OP2	173.98	0.64
49:M3:56:PRO:HG2	49:M3:72:GLY:HA3	1.80	0.64
8:S6:199:GLN:O	8:S6:202:ARG:N	2.31	0.64
36:5:1878:G:O2'	36:5:1879:A:OP1	2.08	0.64
54:M8:90:ASP:C	54:M8:92:ARG:H	2.01	0.64
45:L8:97:TYR:O	45:L8:132:VAL:HG12	1.98	0.64
38:8:70:G:O2'	38:8:87:G:N2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:5:GLU:HA	34:SR:317:THR:HA	3.38	0.64
63:N7:10:VAL:O	63:N7:83:THR:HB	3.65	0.64
36:5:383:G:O6	87:5:4121:OHX:N1	2.31	0.64
36:5:1014:U:H2'	36:5:1015:U:H5'	1.80	0.64
1:6:1120:U:H2'	1:6:1121:C:H6	1.63	0.64
11:S9:74:ASN:HA	11:S9:77:ILE:HD12	3.07	0.64
1:6:1160:A:H2'	1:6:1161:C:H6	1.62	0.64
26:D4:56:SER:HB3	26:D4:74:LEU:HB2	2.26	0.64
10:S8:82:VAL:HG13	10:S8:101:ILE:HG22	5.56	0.64
5:S3:168:ILE:HD12	5:S3:168:ILE:O	1.97	0.64
4:S2:203:LYS:HD3	4:S2:206:THR:HG23	2.60	0.64
61:N5:113:LEU:HD23	61:N5:123:TYR:HE2	3.05	0.64
40:L3:221:THR:HG22	40:L3:273:HIS:O	5.16	0.64
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	3.67	0.64
34:SR:78:ALA:O	34:SR:94:VAL:N	2.31	0.64
1:2:1012:U:H5''	39:L2:248:GLY:HA2	1.80	0.64
40:L3:83:PRO:HB3	40:L3:202:THR:CG2	2.27	0.64
4:S2:80:VAL:HB	4:S2:102:VAL:HG22	3.88	0.64
36:5:541:U:O4	87:5:4008:OHX:N3	2.31	0.64
36:1:2310:U:O4	87:1:3966:OHX:N2	2.31	0.64
54:M8:153:PHE:O	54:M8:161:LYS:HG2	4.77	0.64
40:L3:28:ARG:HH21	40:L3:30:LYS:HE2	1.63	0.64
38:4:23:U:OP2	62:N6:16:ARG:NE	2.20	0.64
46:L9:67:ALA:HA	46:L9:70:THR:HG23	1.78	0.64
1:6:1418:G:O6	87:6:2051:OHX:N4	2.31	0.64
36:1:1489:A:C6	36:1:1854:C:N4	2.66	0.64
36:1:2703:A:H62	42:L5:23:ARG:HG2	1.61	0.64
1:6:189:C:H42	1:6:197:A:H2	1.46	0.64
36:5:373:A:N1	36:5:394:G:H4'	2.12	0.64
69:O3:13:HIS:HA	69:O3:30:ILE:HD13	2.73	0.64
87:1:4198:OHX:N4	87:O1:202:OHX:N3	2.46	0.64
1:2:111:U:H1'	1:2:304:U:C2	2.33	0.64
55:M9:149:ALA:O	55:M9:153:LYS:N	2.40	0.64
1:2:1616:G:H2'	1:2:1617:U:O4'	1.96	0.64
36:1:3340:G:O6	87:1:4051:OHX:N4	2.31	0.64
54:M8:94:PHE:CE2	64:N8:119:PRO:HD3	2.33	0.64
47:M0:215:GLU:OE1	47:M0:215:GLU:N	4.19	0.64
36:5:325:A:H5''	36:5:326:U:OP2	1.97	0.64
41:L4:38:VAL:O	41:L4:42:VAL:HG23	2.18	0.63
36:5:1313:G:O2'	36:5:1318:A:N1	2.29	0.63
20:C8:62:THR:O	20:C8:65:GLU:N	3.01	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:92:TYR:CD1	46:L9:142:ASP:HB3	4.66	0.63
75:O9:10:LYS:NZ	36:5:1833:G:OP1	103.63	0.63
35:SM:34:LYS:NZ	36:1:2707:C:OP1	2.30	0.63
5:S3:104:SER:OG	5:S3:105:MET:N	2.26	0.63
3:S1:137:ILE:HD11	3:S1:172:LEU:HD22	1.98	0.63
23:D1:41:GLU:O	23:D1:44:ARG:NH2	6.31	0.63
23:D1:35:ASN:HB3	23:D1:50:TYR:CD2	4.63	0.63
6:S4:180:LEU:HD22	6:S4:181:VAL:H	1.63	0.63
34:SR:22:SER:OG	34:SR:69:GLN:O	3.85	0.63
36:1:2424:A:H8	36:1:2424:A:O5'	1.81	0.63
40:L3:111:SER:HB3	40:L3:114:VAL:HG23	1.78	0.63
36:1:612:U:H2'	36:1:613:G:H8	1.62	0.63
36:5:835:G:C2	36:5:857:G:N3	2.66	0.63
33:E1:98:VAL:HG21	1:6:1252:C:N4	434.92	0.63
2:S0:126:PRO:HB2	2:S0:152:PRO:HB2	3.82	0.63
36:1:3120:C:H3'	76:Q0:111:ARG:HH21	1.62	0.63
36:5:1454:A:N6	36:5:1879:A:O2'	2.31	0.63
36:1:1340:G:H2'	36:1:1341:U:C6	2.33	0.63
65:N9:50:THR:O	65:N9:53:ALA:N	3.88	0.63
38:4:79:A:O3'	38:4:80:A:H4'	1.97	0.63
19:C7:36:ASP:N	19:C7:36:ASP:OD1	3.89	0.63
57:N1:12:ARG:NH1	57:N1:13:TYR:OH	3.16	0.63
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.33	0.63
57:N1:45:ASN:H	57:N1:95:HIS:CE1	2.16	0.63
16:C4:13:VAL:N	16:C4:77:THR:OG1	2.89	0.63
33:E1:82:LYS:O	33:E1:84:VAL:N	4.95	0.63
1:6:841:U:H2'	1:6:842:C:C6	2.33	0.63
10:S8:154:SER:O	10:S8:156:VAL:N	2.30	0.63
45:L8:53:PRO:HG3	61:N5:32:PHE:HD2	1.62	0.63
60:N4:25:ASP:OD2	60:N4:25:ASP:N	4.08	0.63
36:1:1197:A:N3	36:1:1197:A:H2'	2.11	0.63
44:L7:101:LYS:NZ	36:5:983:A:O3'	229.56	0.63
36:5:140:C:H2'	36:5:141:C:C6	2.32	0.63
32:E0:16:SER:OG	32:E0:16:SER:O	2.12	0.63
36:1:1899:G:O2'	36:1:2334:U:O4	2.15	0.63
36:1:2334:U:C2'	36:1:2335:G:H5'	2.29	0.63
11:S9:77:ILE:HD11	11:S9:93:LEU:HD13	4.30	0.63
36:5:2836:C:H5	36:5:2852:C:N4	1.95	0.63
5:S3:170:THR:HG22	5:S3:187:LYS:HA	5.48	0.63
55:M9:23:TRP:CE3	55:M9:51:VAL:HG23	4.13	0.63
17:C5:40:ARG:NH1	1:6:1556:A:O2'	385.43	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:22:ARG:NH2	31:D9:36:LEU:O	3.32	0.63
8:S6:121:LEU:H	8:S6:125:THR:HB	2.74	0.63
16:C4:18:ARG:HG2	16:C4:82:LYS:HB2	1.78	0.63
48:M1:92:ARG:O	48:M1:95:ASN:HB2	1.96	0.63
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	3.46	0.63
36:1:2374:C:H5	36:1:2941:A:C2	2.15	0.63
1:2:924:A:O2'	1:2:987:G:OP1	2.13	0.63
39:L2:152:SER:N	36:5:2157:G:O6	217.78	0.63
39:L2:142:ASP:O	39:L2:144:ASN:N	3.51	0.63
36:1:1481:A:H61	70:O4:2:ALA:HB1	1.63	0.63
40:L3:132:LYS:NZ	36:5:3292:A:O3'	207.75	0.63
52:M6:178:VAL:O	52:M6:181:ALA:N	3.50	0.63
36:5:2205:U:HO2'	36:5:2205:U:H6	1.46	0.63
36:5:171:G:O6	36:5:247:C:N4	2.32	0.63
1:6:1453:G:H2'	1:6:1454:G:H8	1.63	0.63
36:1:2274:U:OP2	36:1:2311:G:N2	2.27	0.63
22:D0:44:ASN:HD21	22:D0:103:ILE:HD11	4.32	0.63
36:5:1715:A:C8	36:5:1717:U:H5''	2.33	0.63
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	2.19	0.63
1:2:109:G:C6	1:2:110:U:N3	2.67	0.63
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.26	0.63
36:5:256:G:H2'	36:5:257:U:H6	1.63	0.63
1:2:162:A:H3'	1:2:163:G:H21	1.63	0.63
1:6:1136:U:O2'	1:6:1137:A:H5'	1.98	0.63
35:SM:89:ARG:O	35:SM:91:THR:N	2.31	0.63
78:Q2:15:LYS:HD3	78:Q2:15:LYS:H	1.63	0.63
36:1:3306:U:H2'	36:1:3307:A:H5''	1.79	0.63
36:1:2884:C:H42	36:1:2938:G:H1	1.44	0.63
1:2:1649:G:N7	87:2:2051:OHX:N1	2.45	0.63
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	2.71	0.63
28:D6:69:ASN:ND2	28:D6:71:LEU:HD21	4.01	0.63
47:M0:193:ASP:HB3	47:M0:196:PHE:O	3.41	0.63
36:1:1334:U:OP1	44:L7:206:LYS:HE3	1.98	0.63
10:S8:110:ARG:NH1	10:S8:114:GLU:OE2	2.32	0.63
20:C8:40:ARG:HB3	21:C9:45:MET:SD	2.38	0.63
7:S5:65:ARG:HE	7:S5:65:ARG:HA	5.24	0.63
36:1:3325:G:O6	87:1:3936:OHX:N1	2.31	0.63
42:L5:227:LEU:O	42:L5:230:ASP:N	3.07	0.63
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.57	0.63
6:S4:73:ASP:OD1	6:S4:89:VAL:N	2.22	0.63
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:176:PHE:H	50:M4:117:ARG:HH22	4.87	0.63
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.32	0.63
69:O3:71:VAL:HG13	69:O3:81:VAL:HG11	1.79	0.63
69:O3:49:ILE:HA	69:O3:99:ARG:O	2.34	0.63
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	3.08	0.63
36:1:916:G:C6	39:L2:207:VAL:HG11	2.34	0.63
47:M0:101:LYS:O	47:M0:102:MET:HB3	1.98	0.63
56:N0:154:HIS:HA	56:N0:170:THR:HB	1.79	0.63
58:N2:37:LEU:HD12	58:N2:41:ILE:HD11	5.12	0.63
36:1:395:A:H5''	36:1:396:A:OP2	1.99	0.63
1:2:856:A:N6	9:S7:96:ARG:HB3	2.13	0.63
24:D2:82:LYS:O	24:D2:84:GLY:N	2.25	0.63
43:L6:69:PHE:CZ	36:5:3267:A:H2'	260.65	0.63
36:1:719:U:H5''	36:1:719:U:C6	2.34	0.63
1:6:1285:U:O2'	1:6:1286:U:OP1	2.14	0.63
36:1:1297:C:H2'	36:1:1298:C:H6	1.63	0.63
1:6:388:G:H1	1:6:409:C:H42	1.46	0.63
36:1:3358:U:H2'	36:1:3359:A:O4'	1.99	0.63
40:L3:229:VAL:HG22	40:L3:233:TRP:HD1	2.30	0.63
46:L9:47:LYS:NZ	50:M4:5:SER:O	4.92	0.63
41:L4:64:SER:OG	41:L4:65:TRP:N	2.29	0.63
1:2:1158:C:N4	1:2:1163:A:H61	1.95	0.63
20:C8:60:GLU:HG3	20:C8:61:LEU:HD23	1.79	0.63
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.09	0.63
55:M9:25:ASP:OD1	55:M9:25:ASP:N	2.31	0.63
61:N5:121:LYS:HD3	61:N5:123:TYR:CE2	2.33	0.63
16:C4:30:VAL:HG13	16:C4:39:ILE:HG13	1.80	0.63
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	2.36	0.63
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	2.87	0.63
70:O4:80:ARG:HG3	70:O4:88:ARG:HH21	3.02	0.63
38:4:65:A:O3'	71:O5:10:ARG:NH2	2.32	0.63
62:N6:40:ARG:HG3	62:N6:45:ILE:O	1.99	0.63
43:L6:165:LEU:HD22	43:L6:169:ASP:HB3	1.80	0.63
51:M5:170:LYS:HZ3	36:5:288:C:P	122.87	0.63
46:L9:129:ARG:CG	46:L9:129:ARG:HH11	3.91	0.63
70:O4:16:ARG:HB3	70:O4:37:LYS:HD3	1.79	0.63
36:1:1933:A:OP2	87:1:3885:OHX:N6	2.31	0.63
6:S4:103:TYR:HE2	6:S4:184:THR:HG22	3.14	0.63
59:N3:63:LYS:NZ	36:5:2295:A:OP1	270.96	0.63
36:5:2775:U:H2'	36:5:2776:C:C6	2.33	0.63
36:5:2533:G:H2'	36:5:2534:G:H8	1.61	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:117:ASN:OD1	61:N5:119:THR:HG23	3.40	0.63
34:SR:161:LYS:HB3	34:SR:164:ASP:HB3	1.80	0.63
40:L3:347:SER:HB3	40:L3:350:ALA:HB3	2.20	0.63
36:5:2160:G:H2'	36:5:2161:G:C8	2.32	0.63
54:M8:179:ARG:O	54:M8:181:SER:N	2.60	0.63
36:1:1240:A:H61	36:1:1244:A:C5'	2.11	0.63
49:M3:18:TRP:O	49:M3:20:GLU:N	3.02	0.63
1:2:1776:A:H2'	1:2:1777:G:C8	2.34	0.63
36:1:2538:U:O2'	36:1:2541:U:N3	2.30	0.63
29:D7:43:ILE:H	29:D7:43:ILE:HD13	4.31	0.63
1:2:344:A:H2'	1:2:345:U:C6	2.34	0.63
78:Q2:46:LYS:NZ	36:5:44:U:O2	165.05	0.63
11:S9:31:ALA:HA	11:S9:36:LEU:HB2	4.84	0.63
13:C1:22:ASN:OD1	13:C1:24:LYS:N	2.97	0.63
36:1:738:A:H2'	36:1:739:G:H8	1.63	0.63
27:D5:71:ILE:HG23	27:D5:73:GLY:H	6.86	0.63
46:L9:100:ASN:HD21	46:L9:102:ASN:HD21	1.47	0.63
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.65	0.63
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.81	0.63
1:2:1553:G:O6	17:C5:43:ARG:NH1	2.31	0.63
12:C0:46:LEU:HA	12:C0:49:LEU:HB2	1.79	0.63
17:C5:67:ALA:O	17:C5:69:GLU:N	2.27	0.63
20:C8:132:ARG:NH2	1:6:1173:C:OP1	344.03	0.63
34:SR:74:THR:HG22	34:SR:115:ILE:HD13	3.63	0.63
49:M3:165:SER:C	49:M3:167:PHE:H	2.00	0.63
8:S6:73:ILE:HD12	8:S6:75:LEU:HD21	2.23	0.63
36:1:73:C:C2	49:M3:59:ARG:HD3	2.34	0.63
36:5:1772:U:H5''	36:5:1773:C:H5'	1.80	0.63
10:S8:9:HIS:O	10:S8:10:LYS:HB2	1.98	0.63
45:L8:182:GLY:HA3	45:L8:185:ARG:HB2	3.96	0.63
68:O2:91:THR:HB	68:O2:92:TYR:HD2	3.03	0.63
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.74	0.63
36:1:2626:A:H5'	36:1:2627:C:H5''	1.80	0.63
36:1:3060:C:O2	36:1:3332:U:O2'	2.17	0.63
36:1:2718:U:H2'	36:1:2719:U:C6	2.34	0.63
36:5:2584:G:H3'	36:5:2585:G:H4'	1.80	0.63
50:M4:37:GLU:HG2	56:N0:72:VAL:HG21	2.76	0.63
1:2:1758:U:O4	88:2:2181:GET:N12	2.32	0.63
40:L3:227:GLU:HG3	40:L3:270:ARG:CD	3.78	0.63
11:S9:39:LYS:HE3	1:6:592:A:OP1	410.08	0.63
47:M0:3:ARG:NH1	47:M0:63:GLU:HG3	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.81	0.63
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	2.11	0.63
67:O1:103:GLY:HA2	36:5:3325:G:H5''	178.67	0.63
67:O1:60:TRP:O	67:O1:62:ARG:N	2.31	0.63
1:2:1555:A:OP2	17:C5:47:ARG:NH2	2.31	0.63
36:1:268:A:H4'	36:1:270:U:H1'	1.80	0.63
47:M0:23:ASN:HD21	47:M0:96:VAL:HG21	2.14	0.63
36:1:1671:C:OP1	55:M9:60:LYS:NZ	2.32	0.63
40:L3:275:ARG:NH1	36:5:3045:G:O3'	234.81	0.63
68:O2:75:LEU:HD22	68:O2:95:GLU:O	3.56	0.63
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	1.80	0.63
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.41	0.63
64:N8:26:ARG:NH1	36:5:938:C:H5''	180.69	0.63
36:1:2131:A:N6	79:Q3:18:TYR:HA	2.14	0.63
36:1:1803:C:H2'	36:1:1804:A:H8	1.64	0.63
47:M0:99:ILE:HD13	47:M0:101:LYS:HB2	2.98	0.63
51:M5:35:VAL:HA	51:M5:65:ARG:HD3	1.81	0.63
76:Q0:103:LEU:HD22	76:Q0:104:PRO:HD2	1.79	0.63
1:2:1294:G:O2'	1:2:1321:A:N1	2.27	0.63
65:N9:41:ARG:O	65:N9:43:HIS:N	4.11	0.63
1:2:860:U:O4'	9:S7:114:ARG:NH1	2.32	0.63
36:1:1158:A:O5'	36:1:1158:A:H8	1.82	0.63
36:1:1094:U:O2'	36:1:1095:U:O5'	2.13	0.63
36:1:2802:A:C8	78:Q2:56:PRO:HB3	2.33	0.63
42:L5:277:LEU:HB3	42:L5:281:GLU:OE2	3.46	0.63
17:C5:83:MET:HB3	17:C5:116:LEU:HD12	2.62	0.63
79:Q3:81:SER:HA	79:Q3:84:ARG:HB2	1.81	0.63
75:O9:8:ARG:NH2	38:8:112:U:OP2	111.83	0.63
1:2:1746:A:H2'	1:2:1747:G:O4'	1.98	0.63
36:1:2741:C:HO2'	78:Q2:20:HIS:HD1	1.45	0.63
26:D4:84:LYS:HB3	26:D4:85:PHE:HD2	5.99	0.63
19:C7:51:ALA:O	19:C7:55:THR:OG1	2.38	0.63
1:2:1365:C:O2'	18:C6:30:LYS:NZ	2.26	0.63
42:L5:85:ARG:NH1	42:L5:86:TYR:OH	2.32	0.63
40:L3:358:TRP:CH2	60:N4:15:PRO:HD2	2.33	0.63
50:M4:122:VAL:O	50:M4:126:GLN:HG3	1.98	0.63
1:2:1290:U:H2'	1:2:1291:G:N7	2.14	0.63
52:M6:112:TYR:O	52:M6:115:LYS:N	2.89	0.63
8:S6:198:ALA:O	8:S6:202:ARG:HG3	2.59	0.63
54:M8:35:PHE:HA	54:M8:38:ARG:NH2	2.14	0.63
22:D0:96:PRO:O	22:D0:100:VAL:HG23	3.50	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3120:C:HO2'	36:1:3121:U:H6	1.46	0.63
57:N1:118:GLU:O	57:N1:122:GLN:HB2	1.99	0.63
36:5:2397:A:H8	36:5:2941:A:N1	1.97	0.63
53:M7:105:LYS:HB3	53:M7:107:LEU:HD22	3.71	0.63
55:M9:115:ILE:HD12	55:M9:142:ILE:HD13	1.80	0.63
73:O7:29:VAL:O	73:O7:32:LYS:HG2	2.18	0.63
1:2:891:A:H2'	1:2:892:A:C8	2.33	0.63
18:C6:73:GLY:O	18:C6:76:SER:N	3.16	0.63
36:1:153:U:O3'	36:1:158:G:H4'	1.98	0.63
37:3:87:G:N2	37:3:95:A:C4	2.66	0.63
36:1:2574:G:H2'	36:1:2575:G:H8	1.62	0.63
36:5:2137:U:C2	36:5:2141:U:H5	2.17	0.63
8:S6:186:ARG:O	8:S6:190:GLN:HG2	1.99	0.63
47:M0:174:THR:HA	47:M0:196:PHE:HE2	2.11	0.63
44:L7:151:ARG:NH1	44:L7:244:ASN:O	3.50	0.63
44:L7:179:LEU:O	44:L7:180:SER:HB3	2.44	0.63
41:L4:74:ILE:HG21	41:L4:93:MET:HE1	1.79	0.63
1:2:1591:C:H2'	1:2:1592:A:C8	2.33	0.63
15:C3:114:ARG:O	15:C3:118:ILE:HG13	2.46	0.63
15:C3:46:THR:H	15:C3:49:GLN:HB2	1.64	0.63
36:1:700:C:OP1	49:M3:65:TYR:OH	2.13	0.63
1:2:913:G:O2'	1:2:914:G:O5'	2.12	0.63
55:M9:35:ALA:HB2	55:M9:44:LEU:HD21	1.79	0.63
34:SR:197:SER:HB2	34:SR:216:LYS:HB3	2.74	0.63
79:Q3:56:THR:HA	79:Q3:63:THR:HA	2.00	0.63
1:2:1290:U:H2'	1:2:1291:G:C8	2.34	0.63
1:2:1145:U:O2'	4:S2:89:GLN:O	2.10	0.63
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.80	0.63
36:1:286:U:H2'	36:1:287:G:H8	1.62	0.63
36:1:58:G:OP1	51:M5:157:LYS:NZ	2.32	0.63
1:6:607:G:H5'	1:6:613:G:N2	2.14	0.63
36:5:2373:A:N3	36:5:2824:G:O2'	2.31	0.63
34:SR:96:THR:CG2	34:SR:98:GLU:HB3	3.05	0.63
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	1.81	0.63
36:1:1035:G:H2'	36:1:1036:A:C8	2.34	0.63
42:L5:279:LYS:HG2	42:L5:282:ARG:CZ	2.28	0.63
42:L5:233:ALA:O	42:L5:235:SER:N	2.31	0.63
36:1:742:G:N7	87:1:3975:OHX:N1	2.47	0.63
36:5:441:U:H2'	36:5:442:G:C8	2.34	0.63
62:N6:82:VAL:O	62:N6:84:LYS:N	3.38	0.63
36:1:259:C:H2'	36:1:260:C:C6	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:240:ALA:HA	36:5:2154:U:O3'	217.91	0.63
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.17	0.63
45:L8:101:THR:HG23	45:L8:103:ALA:HB3	1.80	0.63
47:M0:148:VAL:O	47:M0:151:GLY:N	2.31	0.63
10:S8:36:THR:HA	10:S8:58:LEU:HA	1.80	0.63
19:C7:50:ILE:O	19:C7:53:TYR:N	3.42	0.63
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.95	0.63
21:C9:102:ARG:NH2	1:6:1502:G:O6	406.63	0.63
28:D6:60:PRO:C	28:D6:62:TYR:H	2.02	0.63
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.77	0.63
68:O2:24:ARG:NH1	68:O2:25:TYR:OH	2.32	0.63
23:D1:71:ARG:O	23:D1:75:ASN:HB3	1.98	0.63
2:S0:60:ALA:HA	2:S0:63:ILE:HD12	2.45	0.63
55:M9:99:LEU:HD11	55:M9:103:ARG:HH21	1.64	0.63
55:M9:99:LEU:HA	55:M9:102:LEU:HD12	3.28	0.63
36:1:2827:U:O4	87:1:3868:OHX:N6	2.32	0.63
72:O6:56:ARG:NH2	72:O6:76:ARG:HH11	1.97	0.63
3:S1:141:ALA:HA	3:S1:209:ASN:O	5.20	0.63
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	1.81	0.63
26:D4:10:ARG:HD2	1:6:778:G:O6	428.63	0.63
38:4:129:C:H2'	38:4:130:C:H6	1.63	0.63
36:1:2735:U:H2'	36:1:2736:A:H8	1.62	0.63
56:N0:171:PHE:HE2	36:5:3205:G:C6	316.46	0.63
1:6:260:U:H3'	1:6:261:U:H5''	1.81	0.63
34:SR:96:THR:HG23	34:SR:98:GLU:HB3	2.95	0.63
66:O0:74:ASN:ND2	66:O0:86:ARG:HD3	2.13	0.63
36:1:330:G:OP2	87:1:4042:OHX:N2	2.32	0.63
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.81	0.63
8:S6:32:ILE:HA	8:S6:52:ILE:HG22	1.78	0.63
1:2:472:U:OP1	11:S9:11:THR:N	2.32	0.62
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	1.81	0.62
45:L8:140:VAL:O	45:L8:144:GLU:HG3	1.98	0.62
1:6:210:A:H2'	1:6:211:U:C6	2.33	0.62
1:6:1310:U:H1'	1:6:1316:G:N2	2.14	0.62
19:C7:58:MET:HA	19:C7:61:ILE:HD12	1.80	0.62
73:O7:24:ARG:HH12	36:5:362:U:H5	120.30	0.62
55:M9:159:ALA:HB1	55:M9:163:ARG:HH22	6.54	0.62
1:6:1564:U:H2'	1:6:1565:C:H6	1.63	0.62
30:D8:12:VAL:HG11	30:D8:50:GLU:HA	2.07	0.62
36:1:1722:U:H5''	55:M9:99:LEU:HD12	1.81	0.62
20:C8:138:THR:HB	1:6:1459:C:H2'	345.76	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:78:LYS:O	57:N1:85:LEU:N	2.89	0.62
51:M5:113:LEU:O	51:M5:114:ARG:HD3	1.98	0.62
64:N8:115:LYS:NZ	36:5:782:U:O3'	152.54	0.62
52:M6:47:PHE:CD1	52:M6:47:PHE:C	2.72	0.62
22:D0:25:THR:HG22	22:D0:27:THR:HG22	1.81	0.62
22:D0:34:LEU:O	22:D0:36:ASN:N	3.34	0.62
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.58	0.62
49:M3:175:SER:O	49:M3:178:LYS:N	2.32	0.62
5:S3:123:VAL:HG13	5:S3:134:CYS:SG	2.39	0.62
36:5:2792:A:N7	87:5:3985:OHX:N4	2.46	0.62
36:1:2386:A:OP1	87:1:4024:OHX:N2	2.31	0.62
51:M5:72:LYS:HD3	36:5:2166:A:O3'	157.47	0.62
1:6:86:A:H2'	1:6:87:C:H6	1.65	0.62
1:2:446:A:H5"	6:S4:57:ASN:OD1	1.99	0.62
41:L4:138:ARG:HD2	41:L4:245:GLY:O	1.98	0.62
41:L4:29:PRO:O	41:L4:124:SER:OG	2.27	0.62
43:L6:30:LEU:HD11	43:L6:57:HIS:CG	3.26	0.62
73:O7:14:LYS:HD2	75:O9:51:ILE:HD11	1.81	0.62
20:C8:27:LYS:O	20:C8:31:ALA:N	2.71	0.62
1:2:1438:G:H2'	1:2:1439:C:H6	1.64	0.62
21:C9:63:ARG:NH1	1:6:1481:C:OP2	405.65	0.62
15:C3:46:THR:OG1	15:C3:49:GLN:NE2	5.06	0.62
64:N8:64:GLN:O	64:N8:66:ALA:N	2.31	0.62
54:M8:108:ALA:O	54:M8:110:ALA:N	3.33	0.62
60:N4:56:ARG:HB3	60:N4:61:LYS:HB2	1.82	0.62
57:N1:9:SER:O	57:N1:55:LYS:HE3	3.54	0.62
42:L5:266:ALA:HA	37:7:1:G:C4	315.10	0.62
1:2:77:U:OP2	87:2:2150:OHX:N2	2.31	0.62
72:O6:60:LEU:HD12	72:O6:69:ALA:HA	1.79	0.62
3:S1:206:PRO:O	3:S1:207:LEU:HB2	1.99	0.62
1:2:1682:U:O2'	1:2:1683:C:OP2	2.14	0.62
1:6:780:A:H3'	1:6:781:U:H5'	1.81	0.62
10:S8:26:LYS:HG2	10:S8:29:LEU:HD13	4.70	0.62
36:1:595:G:H1	36:1:609:G:H5"	1.63	0.62
22:D0:32:LYS:O	22:D0:36:ASN:HB2	1.99	0.62
36:1:190:U:O4	62:N6:103:LYS:NZ	2.24	0.62
41:L4:320:ASN:HB3	41:L4:323:VAL:HG13	3.31	0.62
1:2:711:U:H1'	1:2:712:G:H5'	1.81	0.62
1:6:877:G:H5'	1:6:937:C:H1'	1.80	0.62
70:O4:66:SER:O	70:O4:69:HIS:HB2	3.35	0.62
59:N3:5:GLY:O	59:N3:7:GLN:NE2	6.94	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1714:A:H2'	1:6:1715:G:O4'	2.00	0.62
1:6:1314:U:OP1	87:6:2191:OHX:N1	2.32	0.62
25:D3:63:GLN:HA	25:D3:65:ASN:N	2.14	0.62
1:2:38:C:H2'	1:2:39:A:H5'	1.81	0.62
36:1:1430:U:H2'	64:N8:9:ARG:NH2	2.14	0.62
41:L4:180:LYS:HA	36:5:1386:A:N3	119.75	0.62
1:2:1539:G:C8	1:2:1539:G:H5'	2.33	0.62
46:L9:161:LEU:O	46:L9:163:GLN:N	2.33	0.62
42:L5:85:ARG:HH12	42:L5:253:PHE:H	1.46	0.62
42:L5:99:TYR:OH	42:L5:168:ASP:OD2	2.15	0.62
1:6:1202:A:OP1	87:6:2135:OHX:N2	2.31	0.62
17:C5:30:THR:O	17:C5:33:PHE:HB3	2.40	0.62
5:S3:58:VAL:O	5:S3:60:GLY:N	3.68	0.62
15:C3:124:ARG:O	15:C3:127:ARG:HB3	3.05	0.62
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.00	0.62
48:M1:152:HIS:HE1	37:7:55:A:N3	326.28	0.62
70:O4:85:VAL:HG13	70:O4:88:ARG:HG3	1.80	0.62
43:L6:13:GLU:OE2	68:O2:89:THR:N	4.04	0.62
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	2.03	0.62
35:SM:68:ARG:C	35:SM:70:ASN:H	2.02	0.62
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.64	0.62
60:N4:50:ALA:HB3	36:5:3333:G:O2'	219.87	0.62
9:S7:157:LYS:O	9:S7:159:VAL:N	2.73	0.62
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	2.63	0.62
57:N1:39:ILE:HG13	57:N1:102:ARG:HD2	6.01	0.62
36:1:3024:A:H3'	36:1:3025:C:H6	1.64	0.62
46:L9:98:PRO:HD2	46:L9:116:ASN:HD22	4.88	0.62
40:L3:39:LYS:HB2	40:L3:40:PRO:HD2	3.03	0.62
13:C1:72:THR:HG22	13:C1:124:THR:HA	1.81	0.62
87:2:2031:OHX:N3	87:2:2146:OHX:N5	2.47	0.62
33:E1:135:HIS:HB2	33:E1:138:ARG:HB2	1.80	0.62
36:1:249:U:H1'	36:1:250:U:O2	1.99	0.62
36:1:3119:U:OP2	87:1:3892:OHX:N4	2.32	0.62
36:5:335:G:N2	36:5:336:A:H1'	2.14	0.62
37:7:3:U:H2'	37:7:4:U:C6	2.32	0.62
1:2:138:A:C6	1:2:142:G:H1'	2.34	0.62
36:5:2531:C:H3'	36:5:2532:U:C5	2.32	0.62
74:O8:39:ARG:HH12	74:O8:63:LYS:HE2	9.42	0.62
74:O8:65:LEU:HA	74:O8:68:SER:OG	2.00	0.62
36:1:1269:U:OP1	36:1:1273:A:N6	2.31	0.62
36:5:1782:U:H2'	36:5:1783:U:H6	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:175:ALA:HA	54:M8:179:ARG:HD2	4.05	0.62
49:M3:151:ALA:O	49:M3:153:ASP:N	4.34	0.62
38:4:74:U:O2	87:4:229:OHX:N3	2.32	0.62
36:1:90:C:OP1	64:N8:59:ARG:NH1	2.32	0.62
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.80	0.62
26:D4:86:GLU:OE2	26:D4:90:ARG:NH1	2.63	0.62
1:6:736:C:H2'	1:6:737:A:H8	1.63	0.62
36:5:1582:C:H3'	36:5:1582:C:H6	1.64	0.62
10:S8:2:GLY:N	1:6:392:G:OP1	291.07	0.62
36:1:2965:U:H5''	36:1:2966:G:OP2	1.98	0.62
73:O7:12:HIS:O	73:O7:12:HIS:ND1	2.30	0.62
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.23	0.62
10:S8:69:SER:HB3	13:C1:20:PHE:HZ	1.63	0.62
18:C6:51:PRO:HA	18:C6:109:PHE:HE1	1.63	0.62
42:L5:109:THR:HA	42:L5:112:LYS:HG2	1.81	0.62
16:C4:46:MET:O	16:C4:48:VAL:N	2.28	0.62
16:C4:82:LYS:HB3	16:C4:118:VAL:HG11	1.82	0.62
62:N6:118:LEU:O	62:N6:121:ARG:N	2.53	0.62
6:S4:86:PHE:O	6:S4:87:MET:HB2	1.98	0.62
60:N4:23:ARG:HG2	60:N4:24:GLY:H	2.95	0.62
36:1:289:A:H2'	36:1:290:G:C8	2.33	0.62
38:8:15:G:C6	38:8:16:G:N1	2.67	0.62
36:5:2939:G:H2'	36:5:2940:A:H5'	1.80	0.62
87:M5:303:OHX:N4	71:O5:97:ALA:O	5.82	0.62
36:1:1340:G:H2'	36:1:1341:U:H6	1.65	0.62
27:D5:92:ILE:HG13	27:D5:100:ILE:HG22	2.77	0.62
13:C1:138:ASN:O	13:C1:140:VAL:HG23	5.78	0.62
36:5:822:G:H1	36:5:903:U:H3	1.48	0.62
1:2:939:A:H2'	1:2:940:A:C8	2.34	0.62
21:C9:138:GLN:O	21:C9:141:GLU:HG3	5.42	0.62
44:L7:120:THR:OG1	44:L7:121:LYS:N	2.30	0.62
13:C1:74:THR:O	13:C1:74:THR:OG1	3.42	0.62
36:1:781:G:N7	87:1:3941:OHX:N5	2.47	0.62
36:5:1246:G:O2'	36:5:1264:G:OP2	2.16	0.62
36:1:325:A:H5''	36:1:326:U:OP2	1.98	0.62
36:5:3056:U:OP2	87:5:3936:OHX:N2	2.32	0.62
36:1:664:U:H2'	36:1:665:A:C8	2.35	0.62
1:6:471:A:OP2	87:6:2107:OHX:N5	2.33	0.62
13:C1:17:PRO:HG3	13:C1:63:LEU:HD21	1.81	0.62
54:M8:30:VAL:O	54:M8:34:THR:HG23	3.06	0.62
20:C8:63:GLN:HA	20:C8:66:LEU:HG	5.21	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:30:PRO:O	67:O1:32:ALA:N	2.33	0.62
42:L5:107:ARG:NH2	42:L5:120:LYS:HA	2.13	0.62
17:C5:44:ARG:HE	17:C5:52:LYS:HZ2	1.45	0.62
68:O2:40:SER:O	68:O2:42:VAL:N	2.32	0.62
55:M9:100:ARG:O	55:M9:104:ARG:HB2	2.00	0.62
63:N7:22:LYS:NZ	63:N7:132:SER:OG	6.25	0.62
17:C5:129:GLY:HA3	35:SM:74:LYS:HG2	4.12	0.62
6:S4:114:ILE:HD12	6:S4:118:GLU:HG2	2.79	0.62
59:N3:84:SER:HA	59:N3:94:TYR:HB3	2.22	0.62
9:S7:51:VAL:HG11	9:S7:168:SER:HA	1.81	0.62
34:SR:69:GLN:N	34:SR:83:ALA:O	2.32	0.62
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.13	0.62
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	1.80	0.62
36:1:2218:G:N2	36:1:2227:C:O2	2.32	0.62
36:1:75:G:OP1	49:M3:58:VAL:HG22	1.99	0.62
38:8:58:G:H5''	38:8:98:U:O2	2.00	0.62
37:7:36:C:H2'	37:7:37:G:C8	2.33	0.62
15:C3:138:ASN:O	15:C3:140:LYS:N	3.39	0.62
36:5:3065:G:O6	87:5:4100:OHX:N6	2.32	0.62
87:5:4016:OHX:N3	87:5:4211:OHX:N4	2.48	0.62
2:S0:110:TYR:O	2:S0:112:THR:N	2.71	0.62
36:5:979:U:H1'	36:5:980:A:C8	2.33	0.62
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	4.10	0.62
36:1:1224:C:N3	36:1:3116:G:N1	2.46	0.62
36:5:236:G:C2	36:5:237:G:H1'	2.34	0.62
53:M7:62:ARG:O	53:M7:64:ASN:N	2.33	0.62
25:D3:107:PHE:CE1	25:D3:123:LYS:HB3	2.34	0.62
36:1:517:G:N2	36:1:574:U:O2	2.32	0.62
55:M9:119:LEU:O	55:M9:123:LEU:HG	1.98	0.62
45:L8:81:THR:O	45:L8:222:PHE:HZ	3.96	0.62
20:C8:135:GLY:CA	1:6:1559:A:H5''	365.09	0.62
68:O2:91:THR:HG22	68:O2:92:TYR:CD2	2.35	0.62
1:6:241:U:H2'	1:6:242:U:C6	2.34	0.62
13:C1:27:THR:HG21	13:C1:29:LYS:HZ2	1.64	0.62
1:2:1748:G:O6	87:2:2105:OHX:N4	2.32	0.62
36:1:1195:A:HO2'	36:1:1196:C:H5	1.45	0.62
36:5:1385:C:H5''	36:5:1386:A:H5''	1.82	0.62
18:C6:63:ILE:HD12	18:C6:65:ILE:HD11	2.90	0.62
7:S5:56:ALA:HA	7:S5:59:VAL:HG22	4.75	0.62
67:O1:33:VAL:O	67:O1:35:GLU:N	2.91	0.62
42:L5:243:ALA:O	42:L5:247:ILE:HD12	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:104:ASN:O	19:C7:106:THR:N	3.23	0.62
36:1:1874:A:H3'	55:M9:20:ARG:HD2	1.81	0.62
1:2:1484:G:N2	1:2:1485:C:N3	2.47	0.62
72:O6:51:SER:H	72:O6:54:GLU:HB2	1.65	0.62
57:N1:100:LYS:O	57:N1:103:GLN:N	2.33	0.62
57:N1:26:HIS:ND1	37:7:10:C:OP2	271.32	0.62
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.79	0.62
47:M0:100:ASN:HD21	47:M0:118:ALA:HA	2.40	0.62
1:6:1508:U:H2'	1:6:1509:C:C6	2.35	0.62
36:1:2948:C:O2'	40:L3:242:THR:HA	1.99	0.62
36:1:1807:G:C6	36:1:1808:G:N1	2.67	0.62
1:2:280:U:O2'	1:2:281:G:OP2	2.17	0.62
34:SR:161:LYS:HE3	34:SR:164:ASP:CB	2.30	0.62
55:M9:123:LEU:O	55:M9:127:SER:OG	2.47	0.62
36:5:595:G:H1	36:5:609:G:H5''	1.62	0.62
49:M3:21:ARG:HB3	51:M5:196:THR:HG23	1.80	0.62
36:1:36:C:OP2	51:M5:83:LYS:NZ	2.32	0.62
36:1:1497:C:H2'	36:1:1498:A:C8	2.34	0.62
36:1:2111:G:H8	36:1:2111:G:H5'	1.65	0.62
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.65	0.62
13:C1:78:THR:HA	13:C1:84:ILE:HG22	1.82	0.62
36:1:1916:U:H2'	36:1:1917:C:C6	2.35	0.62
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.82	0.62
36:1:1449:A:C2	36:1:2356:A:C4	2.88	0.62
75:O9:43:ASN:CG	75:O9:46:ARG:HG3	2.20	0.62
7:S5:205:SER:C	7:S5:207:THR:H	2.39	0.62
5:S3:179:GLN:NE2	1:6:1438:G:O2'	394.32	0.62
22:D0:67:THR:HB	1:6:1199:G:O6	402.12	0.62
1:2:872:G:N2	1:2:956:C:O2	2.32	0.62
23:D1:74:GLN:O	23:D1:77:GLY:N	2.96	0.62
63:N7:4:PHE:HB2	63:N7:9:LYS:HE3	3.74	0.62
1:2:1588:G:N2	1:2:1608:U:O2	2.32	0.62
8:S6:176:GLN:HG2	1:6:169:A:H5''	328.01	0.62
29:D7:59:CYS:O	29:D7:61:THR:N	2.67	0.62
1:6:151:G:N2	1:6:163:G:N2	2.48	0.62
36:1:1685:C:H2'	36:1:1686:U:C6	2.35	0.62
45:L8:156:ASP:O	45:L8:183:LYS:NZ	5.40	0.62
36:5:1801:U:H2'	36:5:1802:C:C6	2.34	0.62
22:D0:87:HIS:HB3	22:D0:89:ARG:NH1	2.14	0.62
87:5:4016:OHX:N5	87:5:4211:OHX:N2	2.47	0.62
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2683:U:H2'	36:1:2684:C:H6	1.64	0.62
1:6:196:G:O2'	1:6:197:A:O4'	2.14	0.62
53:M7:27:LYS:HB3	53:M7:63:PHE:HB3	1.81	0.62
61:N5:38:LEU:HD12	38:8:147:U:H4'	122.50	0.62
36:1:539:C:H2'	36:1:540:U:C6	2.35	0.62
1:6:697:C:H2'	1:6:698:U:C6	2.35	0.62
55:M9:109:TYR:OH	36:5:2093:A:N1	237.37	0.62
38:8:82:U:O2	38:8:87:G:H4'	2.00	0.62
36:1:2105:G:O2'	36:1:2106:A:H5'	2.00	0.62
1:6:707:A:H2'	1:6:708:C:O4'	2.00	0.62
1:2:867:G:H21	15:C3:87:ASP:HB3	1.64	0.62
36:5:3131:U:H2'	36:5:3131:U:O2	1.98	0.62
25:D3:103:LEU:HD13	25:D3:126:LYS:HG3	3.85	0.62
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.04	0.62
11:S9:81:VAL:HG13	11:S9:86:LEU:O	2.49	0.62
1:6:119:A:H1'	1:6:397:A:C5	2.34	0.62
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.62	0.62
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	4.21	0.62
43:L6:43:LEU:HD13	69:O3:102:LEU:HB2	1.80	0.62
1:2:1542:G:N2	1:2:1568:C:H1'	2.14	0.62
4:S2:203:LYS:O	4:S2:205:ARG:N	3.03	0.62
38:4:45:C:H2'	38:4:46:G:H8	1.64	0.62
61:N5:127:THR:OG1	61:N5:129:ASP:HB2	2.24	0.62
17:C5:12:PHE:CG	17:C5:13:LYS:N	2.68	0.62
17:C5:19:GLY:N	20:C8:93:THR:O	2.33	0.62
17:C5:67:ALA:C	17:C5:69:GLU:H	2.03	0.62
1:2:1459:C:N4	20:C8:139:LYS:HG3	2.15	0.62
6:S4:157:ASN:HD21	6:S4:222:LEU:HD11	5.55	0.62
56:N0:92:LYS:HE3	56:N0:110:MET:SD	3.37	0.62
1:2:66:U:C5	8:S6:173:PRO:HG3	2.35	0.62
36:1:2131:A:H61	79:Q3:18:TYR:HA	1.65	0.62
1:2:585:A:H2'	1:2:586:G:C8	2.34	0.62
13:C1:90:TYR:OH	1:6:307:G:OP1	325.38	0.62
64:N8:83:PRO:O	64:N8:85:ASP:N	2.31	0.62
42:L5:34:LYS:HA	57:N1:27:LEU:HD11	2.32	0.62
36:5:190:U:O2'	36:5:191:U:OP2	2.15	0.62
1:6:274:G:H2'	1:6:275:C:C6	2.35	0.62
56:N0:82:ASP:N	56:N0:82:ASP:OD2	2.33	0.62
42:L5:33:ARG:NH1	37:7:7:G:OP1	271.03	0.62
36:1:3164:C:O2'	36:1:3165:A:OP2	2.13	0.62
36:1:383:G:N2	36:1:385:A:H3'	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:229:ALA:HB3	39:L2:234:LYS:HG3	1.82	0.62
8:S6:52:ILE:HG23	8:S6:109:LEU:HD11	4.37	0.62
1:6:391:A:H2'	1:6:392:G:O4'	1.98	0.62
36:1:3098:G:H5''	40:L3:278:ILE:HD11	1.81	0.62
61:N5:137:ASN:HB3	61:N5:142:ILE:HD11	1.81	0.62
14:C2:74:LEU:HD21	33:E1:106:TYR:HB3	3.82	0.62
4:S2:128:GLY:O	4:S2:131:ILE:N	2.96	0.62
66:O0:76:GLU:OE1	66:O0:76:GLU:N	2.32	0.62
36:1:3078:U:H4'	36:1:3079:U:O5'	1.99	0.62
36:1:108:A:O2'	36:1:109:A:H2'	2.00	0.62
36:1:2655:U:H1'	36:1:2656:A:C2	2.34	0.62
36:1:1467:A:O2'	36:1:1469:C:OP1	2.18	0.62
64:N8:4:ARG:NH2	36:5:1427:U:OP2	135.43	0.62
18:C6:28:LEU:O	18:C6:65:ILE:N	2.25	0.62
20:C8:41:ARG:HD3	1:6:1565:C:OP1	369.94	0.62
21:C9:50:ALA:HA	21:C9:53:TRP:HD1	3.37	0.62
1:6:1701:A:H3'	1:6:1702:A:H5''	1.80	0.62
70:O4:79:SER:HB3	70:O4:80:ARG:HE	3.30	0.62
68:O2:119:VAL:O	68:O2:122:PRO:HD3	3.90	0.62
69:O3:49:ILE:HG22	69:O3:85:PHE:HE1	2.74	0.62
36:5:2274:U:OP2	87:5:3980:OHX:N5	2.33	0.62
52:M6:110:PRO:O	52:M6:111:PRO:C	3.97	0.62
49:M3:46:ILE:HG12	49:M3:49:ARG:NH1	5.49	0.62
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.82	0.62
74:O8:44:LYS:NZ	36:5:1751:G:O6	128.94	0.62
36:1:2314:U:O2'	36:1:2315:G:OP1	2.17	0.62
2:S0:30:GLN:NE2	2:S0:151:SER:O	9.75	0.62
36:5:90:C:C2'	36:5:91:G:H5'	2.29	0.62
47:M0:93:PRO:HB2	47:M0:125:LEU:HB2	3.90	0.62
54:M8:89:ASP:HB2	54:M8:109:GLY:HA3	1.81	0.62
45:L8:132:VAL:HG21	45:L8:198:ALA:HB1	1.81	0.62
36:5:1421:G:C2	36:5:1422:G:C8	2.88	0.62
1:2:358:U:O2'	1:2:360:A:OP1	2.15	0.62
36:5:3134:A:OP1	87:5:3921:OHX:N5	2.33	0.62
7:S5:153:GLY:C	7:S5:155:ALA:H	3.57	0.62
51:M5:10:LEU:O	51:M5:10:LEU:HD22	2.00	0.62
87:5:4028:OHX:N1	87:5:4075:OHX:N2	2.48	0.62
49:M3:13:HIS:CD2	36:5:86:G:C6	134.86	0.62
3:S1:158:SER:O	3:S1:161:ILE:N	2.33	0.62
36:5:324:A:H8	36:5:324:A:O5'	1.83	0.62
58:N2:103:TYR:OH	36:5:1677:G:OP2	146.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:391:A:C5	36:1:392:G:C8	2.87	0.62
76:Q0:119:ASN:O	76:Q0:121:LEU:N	2.33	0.62
7:S5:166:ARG:NH2	1:6:1164:G:OP1	345.16	0.62
6:S4:7:LYS:NZ	1:6:119:A:H61	341.40	0.62
43:L6:39:VAL:O	43:L6:87:THR:OG1	3.70	0.62
1:6:1171:A:HO2'	1:6:1570:A:HO2'	1.31	0.62
7:S5:192:GLU:OE2	27:D5:63:SER:OG	2.86	0.62
7:S5:51:VAL:HG22	7:S5:131:GLN:HB2	3.06	0.62
42:L5:237:GLU:O	42:L5:241:THR:N	2.89	0.62
17:C5:86:VAL:HG23	17:C5:88:GLU:H	2.51	0.62
16:C4:21:ALA:HA	16:C4:26:THR:HG22	1.80	0.62
1:2:180:A:H2'	1:2:181:A:O4'	2.00	0.62
73:O7:72:ARG:C	73:O7:74:PHE:H	3.03	0.62
1:2:1588:G:H1	1:2:1608:U:H3	1.47	0.62
41:L4:359:LEU:HD23	41:L4:360:LYS:HG2	1.82	0.62
72:O6:57:LEU:HD21	72:O6:73:ALA:HB2	1.81	0.62
36:5:3165:A:H61	36:5:3285:C:N4	1.97	0.62
36:5:1648:A:N6	36:5:1807:G:O2'	2.32	0.62
71:O5:92:LEU:HB3	71:O5:96:GLU:O	2.00	0.62
38:4:103:G:O6	87:4:227:OHX:N4	2.33	0.62
37:7:36:C:H2'	37:7:37:G:H8	1.65	0.62
48:M1:59:ILE:HB	48:M1:65:ILE:HD11	2.54	0.62
48:M1:48:SER:N	48:M1:66:ALA:O	2.31	0.62
5:S3:6:SER:HB3	5:S3:9:ARG:HB2	2.41	0.62
1:2:1235:C:H2'	33:E1:138:ARG:NH2	2.15	0.62
38:4:124:G:OP2	87:4:234:OHX:N4	2.33	0.62
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.31	0.62
42:L5:68:THR:HB	42:L5:71:GLY:O	2.00	0.62
36:1:1227:C:H5'	36:1:1228:C:OP2	2.00	0.62
42:L5:285:ARG:NH1	37:7:62:U:O3'	341.29	0.62
28:D6:91:ASP:OD1	28:D6:91:ASP:N	2.33	0.62
1:2:1305:U:OP2	1:2:1306:C:N4	2.33	0.62
36:1:600:G:N7	87:1:4094:OHX:N1	2.48	0.62
49:M3:192:GLU:O	49:M3:194:GLU:N	2.33	0.62
51:M5:68:ARG:NH2	36:5:292:U:OP2	148.71	0.62
10:S8:147:ALA:C	10:S8:149:SER:H	2.24	0.62
1:2:818:C:N4	1:2:819:G:O6	2.33	0.62
1:6:816:G:OP1	87:6:2146:OHX:N3	2.33	0.62
25:D3:51:GLY:HA2	25:D3:77:ILE:HD12	4.42	0.61
1:2:463:U:H2'	1:2:464:A:C8	2.34	0.61
44:L7:239:LEU:O	44:L7:242:SER:OG	4.20	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:93:A:H1'	6:S4:3:ARG:O	2.00	0.61
41:L4:63:GLU:O	41:L4:76:ARG:N	2.30	0.61
36:1:3375:A:H5'	36:1:3375:A:C8	2.35	0.61
67:O1:44:MET:O	67:O1:46:THR:N	3.41	0.61
1:2:1199:G:C5	31:D9:40:ARG:HD3	2.34	0.61
1:6:1202:A:O2'	1:6:1205:C:N4	2.33	0.61
20:C8:114:GLU:HA	20:C8:117:LYS:HB2	1.82	0.61
23:D1:9:VAL:HG22	23:D1:10:GLU:H	1.64	0.61
62:N6:28:ARG:HB2	62:N6:75:ARG:CZ	3.23	0.61
41:L4:354:VAL:O	41:L4:358:THR:HG23	3.10	0.61
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.15	0.61
69:O3:75:HIS:HE1	69:O3:82:ARG:HH21	1.46	0.61
8:S6:136:LYS:HZ3	1:6:65:A:P	337.43	0.61
26:D4:118:ILE:HG22	26:D4:119:PHE:H	1.65	0.61
39:L2:136:ILE:HD12	39:L2:136:ILE:H	1.65	0.61
39:L2:96:LEU:HD21	39:L2:107:VAL:HG12	4.76	0.61
66:O0:98:SER:OG	66:O0:100:ILE:HG23	1.99	0.61
8:S6:57:ASP:OD1	8:S6:72:ARG:NH1	2.88	0.61
36:5:2916:U:O2'	36:5:2917:G:H5'	2.00	0.61
59:N3:48:ARG:HG3	59:N3:48:ARG:NH1	2.69	0.61
71:O5:93:THR:OG1	71:O5:96:GLU:OE1	4.92	0.61
1:6:500:C:O2'	1:6:501:U:O4'	2.18	0.61
1:2:788:A:OP1	6:S4:106:LYS:NZ	2.33	0.61
76:Q0:77:ILE:HG23	76:Q0:78:ILE:H	3.92	0.61
13:C1:40:LEU:HB3	13:C1:42:PHE:HE2	3.64	0.61
31:D9:26:SER:C	31:D9:28:THR:H	2.04	0.61
1:2:1498:G:OP2	21:C9:74:GLY:HA3	2.00	0.61
24:D2:36:LYS:HB3	24:D2:110:ILE:HD12	2.55	0.61
38:4:121:U:O2'	38:4:122:U:H5'	1.99	0.61
42:L5:115:LEU:O	42:L5:117:GLU:N	4.69	0.61
42:L5:44:TYR:HA	57:N1:33:VAL:HG11	3.37	0.61
1:6:219:A:C6	1:6:843:U:H1'	2.35	0.61
87:5:3937:OHX:N2	87:5:4228:OHX:N6	2.48	0.61
36:1:1243:G:N2	36:1:1244:A:N7	2.48	0.61
3:S1:157:GLN:O	3:S1:161:ILE:HD12	5.43	0.61
1:6:1368:G:O6	87:6:2089:OHX:N1	2.32	0.61
43:L6:68:PRO:HG3	43:L6:145:LEU:HD12	2.73	0.61
1:2:71:A:C6	1:2:72:A:C5	2.88	0.61
74:O8:32:ASN:O	74:O8:32:ASN:ND2	2.31	0.61
36:5:1378:U:O2'	36:5:1379:G:H5'	1.99	0.61
19:C7:71:PHE:CE2	19:C7:74:GLN:HB2	5.11	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:278:U:O2	1:2:279:G:N1	2.33	0.61
21:C9:85:SER:C	21:C9:87:GLY:H	2.02	0.61
6:S4:79:ASP:O	6:S4:81:THR:N	3.06	0.61
47:M0:208:ASN:CB	47:M0:211:ARG:HH11	6.07	0.61
36:1:1115:G:O6	87:1:3965:OHX:N6	2.33	0.61
49:M3:31:LYS:HB3	49:M3:35:ARG:HH21	1.66	0.61
30:D8:16:LEU:HG	30:D8:28:VAL:HA	1.81	0.61
7:S5:205:SER:O	7:S5:205:SER:OG	2.65	0.61
23:D1:83:TRP:HH2	23:D1:85:TYR:HD2	1.98	0.61
36:5:531:G:N2	36:5:532:A:N3	2.48	0.61
18:C6:82:ARG:HH12	18:C6:115:THR:HB	5.21	0.61
39:L2:79:ASN:H	39:L2:82:VAL:HG11	3.21	0.61
39:L2:83:HIS:HB2	79:Q3:63:THR:O	1.99	0.61
49:M3:93:ILE:HG22	49:M3:94:GLY:H	4.55	0.61
36:5:1565:G:N2	36:5:1566:A:H1'	2.14	0.61
48:M1:26:SER:OG	48:M1:63:GLU:OE2	2.18	0.61
20:C8:45:LEU:HD11	20:C8:49:LYS:HE3	2.16	0.61
22:D0:36:ASN:HA	22:D0:39:SER:HB3	3.61	0.61
1:6:193:U:C2	1:6:195:G:H1'	2.35	0.61
87:1:4183:OHX:N1	53:M7:62:ARG:O	2.32	0.61
71:O5:13:SER:OG	71:O5:15:GLU:N	2.33	0.61
57:N1:12:ARG:HD2	57:N1:13:TYR:CE2	2.35	0.61
36:1:1347:U:H5''	41:L4:303:GLY:H	1.64	0.61
36:1:1307:G:C2	36:1:1308:A:C2	2.88	0.61
36:1:2714:G:H2'	36:1:2751:G:H21	1.65	0.61
36:1:3103:A:OP2	87:1:4166:OHX:N1	2.33	0.61
2:S0:206:ASP:H	2:S0:207:PRO:HA	5.15	0.61
1:6:580:A:O2'	1:6:582:U:OP1	2.17	0.61
34:SR:51:ASP:HB2	34:SR:52:GLN:NE2	2.15	0.61
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.65	0.61
26:D4:109:LYS:NZ	1:6:459:G:OP1	357.96	0.61
28:D6:69:ASN:HD21	28:D6:71:LEU:HD21	3.92	0.61
41:L4:283:THR:HB	41:L4:285:ASP:H	1.66	0.61
5:S3:190:ARG:HH11	5:S3:190:ARG:HG2	1.65	0.61
1:2:1472:C:H4'	1:2:1473:U:H5'	1.82	0.61
1:2:1278:G:H2'	1:2:1279:C:O4'	2.00	0.61
40:L3:334:ARG:O	40:L3:336:VAL:HG23	2.00	0.61
36:1:1949:G:C2	36:1:1950:U:C2	2.89	0.61
36:1:2859:U:H4'	36:1:2860:U:OP1	1.99	0.61
36:1:437:G:H2'	36:1:438:A:O4'	1.99	0.61
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.02	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:79:ALA:CB	57:N1:137:GLU:HA	2.30	0.61
36:5:3242:G:H5'	36:5:3245:A:C8	2.28	0.61
59:N3:17:LEU:O	59:N3:52:ALA:N	2.41	0.61
8:S6:141:ILE:HD12	8:S6:153:VAL:HG11	1.83	0.61
9:S7:147:ASN:OD1	9:S7:147:ASN:N	2.37	0.61
1:2:1512:G:H2'	1:2:1513:G:C8	2.34	0.61
36:1:1672:U:OP1	55:M9:64:ARG:NE	2.33	0.61
1:2:946:U:OP1	3:S1:165:ARG:NH2	2.33	0.61
23:D1:66:ASP:O	23:D1:68:SER:N	3.80	0.61
1:2:710:U:H2'	1:2:711:U:H5'	1.82	0.61
36:1:1563:C:O2	36:1:1577:G:N2	2.25	0.61
74:O8:32:ASN:ND2	74:O8:35:GLY:H	4.68	0.61
1:6:108:A:OP2	87:6:2095:OHX:N4	2.33	0.61
36:1:1820:U:O2'	36:1:1821:U:OP2	2.18	0.61
1:2:603:U:H2'	1:2:604:A:H8	1.65	0.61
44:L7:174:GLY:C	44:L7:176:TYR:H	2.04	0.61
36:1:27:C:O2'	36:1:327:A:N3	2.31	0.61
36:1:2717:U:OP1	87:1:3983:OHX:N6	2.33	0.61
1:6:200:A:H2'	1:6:201:G:O4'	1.99	0.61
1:6:1768:G:O3'	87:6:2149:OHX:N2	2.32	0.61
14:C2:55:GLY:HA2	14:C2:85:LYS:HD3	2.88	0.61
36:1:61:A:H2'	36:1:62:A:O4'	2.00	0.61
36:1:2656:A:O2'	36:1:2657:A:H5''	2.00	0.61
53:M7:23:ARG:HE	53:M7:125:GLN:HG3	1.86	0.61
1:2:442:C:H2'	1:2:443:C:C6	2.33	0.61
6:S4:57:ASN:HB3	1:6:446:A:H5''	385.27	0.61
10:S8:189:LEU:O	10:S8:193:LEU:HG	3.27	0.61
27:D5:89:ILE:HB	27:D5:101:TYR:CD1	2.36	0.61
7:S5:113:ILE:HD13	7:S5:190:ILE:HG13	3.41	0.61
48:M1:108:GLU:HG2	48:M1:122:ILE:HG21	2.41	0.61
5:S3:141:LYS:HD3	5:S3:179:GLN:HG3	1.81	0.61
24:D2:51:GLU:HB3	29:D7:8:LEU:HD21	4.15	0.61
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.10	0.61
55:M9:104:ARG:CZ	55:M9:104:ARG:HB3	2.31	0.61
44:L7:80:GLN:HG3	57:N1:136:ARG:H	1.63	0.61
72:O6:56:ARG:O	72:O6:60:LEU:HB2	1.99	0.61
79:Q3:44:LYS:O	79:Q3:46:THR:OG1	2.33	0.61
1:6:151:G:H22	1:6:163:G:N2	1.98	0.61
36:5:286:U:H2'	36:5:287:G:C8	2.35	0.61
38:8:137:C:OP2	87:8:234:OHX:N4	2.33	0.61
51:M5:159:ARG:HA	51:M5:162:ARG:HH21	2.50	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:387:A:H5''	1:6:389:G:OP2	2.01	0.61
70:O4:8:ARG:NH1	70:O4:8:ARG:HG2	2.14	0.61
64:N8:74:ASN:ND2	64:N8:115:LYS:HB2	2.15	0.61
4:S2:50:ILE:HD11	4:S2:239:PRO:HB2	1.82	0.61
1:6:315:A:O2'	87:6:2165:OHX:N1	2.33	0.61
1:2:58:U:H3	1:2:89:G:H1	1.49	0.61
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	1.82	0.61
36:5:1135:A:C2	36:5:1136:A:C8	2.88	0.61
15:C3:30:SER:OG	15:C3:31:GLU:N	4.41	0.61
36:1:3164:C:H1'	36:1:3165:A:H5'	1.82	0.61
1:2:973:A:H2'	1:2:974:A:C8	2.35	0.61
1:2:707:A:H2'	1:2:708:C:H5''	1.80	0.61
50:M4:37:GLU:HB3	56:N0:72:VAL:HG21	1.81	0.61
36:5:2561:A:HO2'	36:5:2562:A:H8	1.47	0.61
41:L4:264:SER:OG	41:L4:267:VAL:N	2.32	0.61
42:L5:15:ARG:NE	36:5:1003:A:O4'	292.83	0.61
50:M4:49:PRO:O	50:M4:52:GLY:N	2.32	0.61
36:5:3376:A:OP2	87:5:3930:OHX:N4	2.32	0.61
24:D2:9:ASP:OD1	1:6:1036:A:H1'	357.99	0.61
40:L3:224:HIS:HB2	40:L3:270:ARG:HG2	1.81	0.61
1:2:1545:A:H2'	1:2:1546:G:H8	1.66	0.61
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.74	0.61
47:M0:66:GLU:CD	47:M0:69:ARG:HH21	2.04	0.61
1:6:1160:A:H2'	1:6:1161:C:C6	2.36	0.61
50:M4:72:LEU:HD21	50:M4:81:VAL:HA	1.82	0.61
1:6:1542:G:N2	1:6:1568:C:H1'	2.15	0.61
12:C0:70:GLU:O	12:C0:73:VAL:HB	2.00	0.61
5:S3:70:THR:HG23	5:S3:86:LEU:HD13	3.82	0.61
3:S1:27:LYS:NZ	3:S1:48:VAL:O	2.28	0.61
70:O4:97:GLU:O	70:O4:99:LYS:N	2.34	0.61
60:N4:56:ARG:O	60:N4:58:HIS:N	3.81	0.61
69:O3:73:ARG:CD	69:O3:82:ARG:HD2	2.30	0.61
39:L2:3:ARG:HG2	39:L2:4:VAL:H	1.64	0.61
25:D3:24:TRP:HZ3	25:D3:34:LEU:HD21	1.65	0.61
51:M5:8:GLU:HG3	51:M5:50:ARG:NH1	4.24	0.61
36:5:1944:U:H2'	36:5:1945:A:H8	1.64	0.61
36:5:140:C:H2'	36:5:141:C:H6	1.65	0.61
1:6:1690:G:H1	1:6:1711:C:H42	1.47	0.61
49:M3:70:ARG:HD2	49:M3:71:ALA:O	2.00	0.61
1:6:1576:A:H2'	1:6:1577:A:O4'	1.99	0.61
46:L9:176:LEU:HD22	76:Q0:86:ALA:HB1	4.46	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2436:U:O4	87:5:4227:OHX:N4	2.34	0.61
5:S3:116:ARG:HG3	35:SM:111:GLY:HA3	1.83	0.61
64:N8:21:ARG:HD2	36:5:1369:A:H5'	185.62	0.61
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.29	0.61
44:L7:219:LYS:HE2	36:5:1169:A:H4'	252.58	0.61
6:S4:61:VAL:O	6:S4:64:ILE:HB	2.01	0.61
54:M8:33:TYR:O	54:M8:37:ALA:N	3.12	0.61
1:6:1170:G:C6	1:6:1574:G:C5	2.88	0.61
7:S5:200:ASN:O	7:S5:205:SER:HB3	4.02	0.61
72:O6:28:TYR:C	72:O6:30:LYS:H	2.04	0.61
77:Q1:3:ALA:HB3	1:6:1773:C:OP1	312.22	0.61
1:2:919:A:H5'	16:C4:18:ARG:HH12	1.65	0.61
1:2:1142:A:H5''	28:D6:2:PRO:HG3	1.81	0.61
36:5:675:C:O2'	36:5:679:U:OP1	2.19	0.61
54:M8:82:VAL:HG12	54:M8:139:ILE:HG23	2.76	0.61
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.66	0.61
1:2:1050:G:OP1	29:D7:70:LYS:NZ	2.23	0.61
55:M9:19:LYS:C	55:M9:21:LYS:H	2.04	0.61
55:M9:4:LEU:HD22	55:M9:33:ALA:HB2	2.93	0.61
56:N0:10:ILE:HG12	56:N0:26:ARG:HB2	2.08	0.61
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	1.81	0.61
62:N6:35:LEU:HD22	62:N6:106:ILE:HD12	1.82	0.61
39:L2:111:THR:HB	39:L2:136:ILE:HD13	1.82	0.61
36:5:3285:C:H3'	36:5:3286:G:H5''	1.81	0.61
36:1:1098:A:P	57:N1:108:ARG:HH22	2.23	0.61
36:5:2261:G:O6	87:5:3943:OHX:N5	2.34	0.61
36:1:147:U:O4	45:L8:183:LYS:NZ	2.30	0.61
36:5:3382:U:O2'	36:5:3383:G:O5'	2.13	0.61
36:1:2736:A:O2'	57:N1:68:THR:HG21	1.99	0.61
36:1:387:A:H2'	36:1:388:G:H8	1.65	0.61
1:2:839:U:C2'	1:2:840:U:H5'	2.31	0.61
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.41	0.61
43:L6:24:ALA:N	36:5:607:A:OP1	247.01	0.61
36:1:1154:A:H5''	36:1:1155:C:H5	1.64	0.61
36:1:2280:A:H5''	36:1:2281:A:OP2	2.01	0.61
36:5:2682:C:O2'	36:5:2683:U:OP1	2.16	0.61
1:2:1658:G:O6	87:2:2103:OHX:N5	2.33	0.61
1:2:38:C:C2'	1:2:39:A:H5'	2.30	0.61
28:D6:31:PRO:O	28:D6:34:LYS:N	2.34	0.61
1:6:454:U:OP1	1:6:455:C:N4	2.25	0.61
44:L7:228:SER:HA	44:L7:232:ARG:NH2	2.90	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:167:ALA:HA	10:S8:184:LEU:N	2.14	0.61
10:S8:60:ILE:HD13	10:S8:179:CYS:HB2	3.03	0.61
41:L4:181:VAL:HG21	41:L4:224:GLY:HA3	1.86	0.61
41:L4:42:VAL:HA	41:L4:45:ASN:HD22	1.66	0.61
43:L6:133:GLU:O	43:L6:137:ASP:HB2	2.92	0.61
36:1:1313:G:O2'	36:1:1318:A:N1	2.28	0.61
21:C9:32:GLY:N	21:C9:34:VAL:HG12	2.16	0.61
21:C9:49:ASP:OD1	21:C9:51:GLU:HB2	6.53	0.61
33:E1:124:PRO:O	33:E1:126:CYS:N	2.68	0.61
3:S1:103:MET:O	3:S1:214:LYS:HA	2.55	0.61
70:O4:100:ILE:HA	70:O4:103:LYS:HG2	1.82	0.61
1:2:1186:U:OP1	1:2:1456:C:O2'	2.18	0.61
69:O3:73:ARG:CG	69:O3:82:ARG:HD2	2.31	0.61
9:S7:91:ILE:HD12	9:S7:92:PHE:H	3.22	0.61
36:1:2374:C:C5	36:1:2941:A:C6	2.89	0.61
42:L5:270:LYS:C	42:L5:272:TYR:H	3.05	0.61
34:SR:44:SER:OG	34:SR:59:ARG:N	2.94	0.61
36:5:2275:A:C2	36:5:2312:A:C4	2.88	0.61
1:2:25:C:O2'	1:2:366:A:O2'	2.16	0.61
58:N2:49:ASN:O	58:N2:51:GLY:N	3.26	0.61
26:D4:5:VAL:HG22	26:D4:32:ARG:HH22	1.65	0.61
36:5:18:G:N2	38:8:142:C:C2	2.69	0.61
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.36	0.61
22:D0:44:ASN:HD22	22:D0:102:ARG:HH21	7.29	0.61
36:5:562:C:H2'	36:5:563:U:H6	1.65	0.61
1:2:805:U:O2'	24:D2:78:ARG:NH1	2.34	0.61
36:1:417:A:H2'	36:1:418:A:C8	2.35	0.61
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.46	0.61
74:O8:58:ASP:HB3	74:O8:61:LYS:CD	5.03	0.61
21:C9:42:GLY:HA2	21:C9:84:LYS:HE2	2.16	0.61
36:1:1093:A:O2'	36:1:1094:U:O5'	2.17	0.61
36:5:1064:A:H4'	36:5:1065:A:O5'	1.99	0.61
43:L6:46:ARG:HG3	43:L6:47:PHE:CD1	2.36	0.61
36:1:706:A:H4'	36:1:781:G:O2'	2.01	0.61
37:7:106:U:H2'	37:7:107:C:O4'	2.00	0.61
65:N9:31:SER:OG	65:N9:33:LYS:HB2	2.95	0.61
36:5:2931:C:H2'	36:5:2932:U:O4'	2.00	0.61
1:6:1070:C:H2'	1:6:1071:U:O4'	2.01	0.61
38:4:106:C:H5'	38:4:108:C:OP2	2.00	0.61
36:1:3176:G:N2	36:1:3212:C:O2	2.23	0.61
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1276:U:O5'	5:S3:147:ALA:HB2	2.00	0.61
57:N1:6:GLY:HA3	36:5:2631:U:OP1	237.02	0.61
47:M0:3:ARG:HH22	36:5:2854:U:P	291.68	0.61
36:1:561:C:H2'	36:1:562:C:C6	2.36	0.61
18:C6:8:GLN:OE1	18:C6:21:HIS:ND1	4.46	0.61
7:S5:36:ALA:O	7:S5:39:GLU:N	2.32	0.61
20:C8:125:ILE:HD11	35:SM:57:ASN:HB3	3.11	0.61
21:C9:127:ASN:HA	21:C9:130:ARG:HH11	7.44	0.61
48:M1:82:ARG:HG2	48:M1:112:LEU:HB2	1.83	0.61
5:S3:94:ARG:NE	5:S3:125:TYR:OH	2.34	0.61
5:S3:42:THR:O	5:S3:44:THR:N	3.77	0.61
3:S1:30:PHE:HD1	3:S1:96:LEU:HD22	1.66	0.61
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	1.83	0.61
54:M8:63:SER:OG	54:M8:64:VAL:N	2.30	0.61
1:6:754:A:OP1	1:6:754:A:H4'	2.01	0.61
4:S2:152:HIS:CD2	4:S2:153:SER:H	2.18	0.61
36:5:1875:G:H2'	36:5:1876:U:C6	2.36	0.61
57:N1:83:ARG:HH11	57:N1:85:LEU:HD21	1.66	0.61
60:N4:20:LEU:HD12	60:N4:30:ARG:HG2	2.34	0.61
64:N8:111:LYS:HA	64:N8:129:PHE:O	2.41	0.61
53:M7:173:ARG:HA	53:M7:176:ILE:HD12	1.83	0.61
36:1:2314:U:HO2'	36:1:2315:G:P	2.24	0.61
13:C1:6:THR:HB	13:C1:9:SER:HB3	1.83	0.61
64:N8:60:TYR:CD2	64:N8:63:LYS:HD2	2.35	0.61
40:L3:239:PRO:O	40:L3:242:THR:HG22	4.40	0.61
36:5:1470:U:OP1	87:5:3952:OHX:N6	2.34	0.61
38:4:5:U:H2'	38:4:6:U:H6	1.63	0.61
1:2:531:C:H2'	1:2:532:U:H5''	1.82	0.61
58:N2:31:ALA:HA	58:N2:58:GLU:OE1	2.01	0.61
1:6:1672:G:N7	87:6:2064:OHX:N4	2.48	0.61
1:2:304:U:H2'	1:2:305:C:C6	2.35	0.61
1:6:647:G:H22	1:6:687:G:H1	1.47	0.61
5:S3:10:LYS:O	5:S3:14:ASP:N	2.50	0.61
1:6:1018:U:H2'	1:6:1019:A:C8	2.34	0.61
36:1:2111:G:O6	36:1:3333:G:H3'	2.00	0.61
13:C1:78:THR:HG22	13:C1:84:ILE:HG21	1.82	0.61
43:L6:92:SER:OG	43:L6:93:VAL:N	2.31	0.61
36:5:2370:G:N7	87:5:3904:OHX:N6	2.48	0.61
36:1:1394:A:H2'	36:1:1395:G:O4'	2.01	0.61
36:1:2113:A:OP2	87:1:3960:OHX:N1	2.34	0.61
34:SR:10:ARG:HG3	34:SR:314:GLN:HB2	5.20	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2369:G:H2'	36:1:2370:G:C8	2.36	0.61
36:5:871:U:H2'	36:5:872:U:O4'	2.01	0.61
1:6:1688:U:H2'	1:6:1689:A:H8	1.66	0.61
47:M0:37:GLY:O	47:M0:39:LYS:N	2.33	0.61
41:L4:179:LEU:HD13	36:5:1386:A:N6	120.79	0.61
41:L4:44:LYS:O	41:L4:47:ARG:HD3	2.00	0.61
1:6:1318:G:H5''	1:6:1318:G:H8	1.66	0.61
40:L3:363:SER:OG	40:L3:364:LYS:N	2.77	0.61
1:2:1672:G:N7	87:2:2044:OHX:N5	2.49	0.61
36:1:2689:A:C8	36:1:2702:A:N6	2.69	0.61
1:2:953:G:OP2	15:C3:94:LYS:NZ	2.31	0.61
1:6:1762:A:C2	1:6:1763:A:C8	2.88	0.61
1:2:899:G:H1	1:2:910:C:N4	1.98	0.61
16:C4:102:LEU:HD22	16:C4:105:LEU:HD11	1.83	0.61
16:C4:32:ASP:O	16:C4:35:GLY:N	2.33	0.61
28:D6:51:ARG:NH2	28:D6:51:ARG:HG2	2.90	0.61
3:S1:27:LYS:HD2	3:S1:47:LEU:HB3	1.83	0.61
59:N3:92:PHE:CE1	36:5:3051:U:H1'	245.36	0.61
54:M8:85:GLY:O	54:M8:104:LEU:HB2	2.00	0.61
66:O0:42:ILE:HG22	66:O0:91:SER:HA	1.83	0.61
79:Q3:29:LEU:HD23	79:Q3:69:TYR:CG	4.39	0.61
1:6:1231:U:O5'	1:6:1259:U:H1'	2.00	0.61
1:6:1451:C:O2'	1:6:1452:U:H5'	2.01	0.61
18:C6:115:THR:HG21	18:C6:120:ASP:HB2	1.82	0.61
57:N1:102:ARG:O	57:N1:105:PHE:N	2.43	0.61
51:M5:153:ASP:OD2	51:M5:154:PRO:HD2	2.00	0.61
38:4:104:A:H3'	38:4:105:A:H5''	1.82	0.61
48:M1:15:GLU:HB3	48:M1:130:VAL:HG13	1.83	0.61
40:L3:37:ARG:HG3	40:L3:185:GLY:O	2.00	0.61
8:S6:195:VAL:O	8:S6:198:ALA:N	2.74	0.61
36:5:3119:U:H2'	36:5:3121:U:OP1	2.00	0.61
36:1:1699:A:OP1	87:1:4178:OHX:N1	2.34	0.61
10:S8:136:SER:HB3	10:S8:139:ALA:HB3	2.58	0.61
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CH2	2.36	0.61
23:D1:65:SER:O	23:D1:68:SER:N	2.34	0.61
36:5:252:U:H4'	36:5:253:A:H5'	1.83	0.61
36:1:790:U:H2'	36:1:791:A:O4'	2.01	0.61
36:5:1901:A:O2'	36:5:2918:G:OP1	2.16	0.61
74:O8:32:ASN:HB3	74:O8:38:PHE:HD2	1.66	0.61
36:1:2714:G:H2'	36:1:2751:G:N2	2.16	0.61
45:L8:112:GLU:O	45:L8:116:VAL:N	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:54:LEU:HD13	54:M8:58:ASN:HB3	1.83	0.61
36:5:24:G:H2'	36:5:25:U:O4'	2.01	0.61
36:5:24:G:OP2	87:5:3902:OHX:N6	2.34	0.61
21:C9:129:GLN:NE2	1:6:1358:G:H1'	432.73	0.61
2:S0:21:ASN:HB3	2:S0:24:LEU:HD22	2.75	0.61
36:1:3348:G:H22	36:1:3357:U:H3	1.49	0.61
36:5:1499:C:H2'	36:5:1500:G:H8	1.64	0.61
65:N9:14:ARG:NH1	65:N9:18:ARG:HD3	2.16	0.61
44:L7:143:THR:HG22	44:L7:241:LYS:HD2	1.83	0.61
45:L8:63:LYS:O	45:L8:66:SER:N	2.36	0.61
41:L4:194:TYR:O	41:L4:195:ARG:HG3	2.00	0.61
1:2:1163:A:N3	1:2:1613:U:O2'	2.32	0.61
1:2:1357:A:H61	1:2:1366:U:H3	1.49	0.61
7:S5:44:ASN:HB2	7:S5:46:TRP:CZ3	2.36	0.61
1:2:1552:U:H1'	1:2:1598:U:H4'	1.81	0.61
29:D7:50:ALA:O	29:D7:52:THR:N	2.34	0.61
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.33	0.61
23:D1:36:VAL:HB	23:D1:51:VAL:HB	2.81	0.61
2:S0:172:LEU:HD22	2:S0:176:LEU:HD11	1.83	0.61
40:L3:221:THR:HG23	40:L3:273:HIS:H	4.24	0.61
54:M8:83:VAL:HG12	54:M8:85:GLY:H	1.70	0.61
56:N0:80:ARG:HB3	56:N0:122:HIS:HB2	1.83	0.61
70:O4:102:LYS:HE3	36:5:2551:U:OP1	228.64	0.61
1:2:1291:G:H2'	1:2:1292:G:C8	2.34	0.61
72:O6:45:ARG:HH22	72:O6:54:GLU:CD	2.03	0.61
52:M6:179:ALA:O	52:M6:182:ASN:ND2	7.31	0.61
57:N1:129:LYS:HD3	36:5:1097:G:C5'	249.06	0.61
36:1:1686:U:OP1	58:N2:42:LYS:NZ	2.26	0.61
58:N2:50:LEU:HD23	58:N2:54:VAL:HB	5.65	0.61
54:M8:185:LYS:HD3	54:M8:186:VAL:HG23	2.19	0.61
4:S2:149:GLY:HA2	23:D1:3:ASN:HD22	7.95	0.61
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.36	0.61
36:5:2537:U:O2'	36:5:2538:U:O4'	2.09	0.61
9:S7:110:GLN:HG2	1:6:811:A:N7	338.96	0.61
36:5:970:A:H2'	36:5:971:G:H8	1.65	0.61
36:5:2440:G:H2'	36:5:2441:A:C8	2.36	0.61
36:1:1560:G:H2'	36:1:1561:G:H5'	1.83	0.61
36:5:2584:G:H4'	36:5:2584:G:OP1	2.01	0.61
36:1:1519:G:H2'	36:1:1520:G:H8	1.64	0.61
1:2:605:A:OP2	1:2:606:A:O2'	2.15	0.61
26:D4:80:ALA:HA	26:D4:83:LYS:HB2	2.42	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1018:G:H2'	36:5:1019:G:O4'	2.01	0.61
36:5:412:G:C6	36:5:413:U:C4	2.88	0.61
40:L3:10:ARG:NH2	40:L3:263:SER:HB2	2.05	0.60
1:6:992:A:OP1	87:6:2057:OHX:N1	2.34	0.60
44:L7:51:TYR:HB3	44:L7:55:TYR:HE2	3.02	0.60
1:6:782:U:O2'	1:6:783:G:OP2	2.19	0.60
6:S4:7:LYS:HZ3	1:6:119:A:H61	340.69	0.60
87:1:4079:OHX:N1	72:O6:28:TYR:O	2.34	0.60
1:2:902:G:N2	1:2:907:A:OP2	2.34	0.60
3:S1:30:PHE:CZ	3:S1:94:LYS:HA	2.35	0.60
36:5:1438:U:H2'	36:5:1439:U:C6	2.36	0.60
68:O2:25:TYR:O	68:O2:28:VAL:HG23	3.14	0.60
23:D1:12:TYR:CZ	23:D1:14:PRO:HG3	2.34	0.60
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.61	0.60
4:S2:140:ARG:NH2	4:S2:228:ASN:HD21	1.98	0.60
40:L3:220:VAL:O	40:L3:334:ARG:NH1	2.33	0.60
66:O0:49:PRO:HG2	66:O0:52:ARG:HB3	2.72	0.60
34:SR:260:ILE:HB	34:SR:274:LEU:HD12	2.77	0.60
56:N0:166:LYS:HG3	56:N0:167:ARG:O	5.83	0.60
39:L2:148:VAL:N	39:L2:156:LYS:O	3.18	0.60
40:L3:162:VAL:HG21	40:L3:181:ILE:HD12	2.63	0.60
36:1:73:C:N3	49:M3:59:ARG:NH1	2.48	0.60
1:6:633:U:HO2'	1:6:1102:G:HO2'	1.45	0.60
36:1:3024:A:H3'	36:1:3025:C:C6	2.35	0.60
1:6:649:U:H2'	1:6:650:U:H5	1.66	0.60
45:L8:195:SER:OG	45:L8:197:VAL:O	2.40	0.60
36:5:2971:A:H5''	36:5:2972:G:C5'	2.31	0.60
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.83	0.60
36:5:3083:G:H2'	36:5:3084:C:O4'	2.00	0.60
1:6:1494:C:H2'	1:6:1495:C:C6	2.36	0.60
36:5:839:C:H1'	36:5:1724:U:OP1	2.01	0.60
1:2:1231:U:H4'	1:2:1258:U:H6	1.66	0.60
36:1:336:A:H5''	36:1:336:A:H8	1.66	0.60
15:C3:83:GLU:HG3	15:C3:84:ILE:H	3.07	0.60
43:L6:148:GLU:HA	43:L6:151:LYS:HD2	1.82	0.60
36:5:1815:U:O2'	36:5:1816:A:OP2	2.19	0.60
36:1:3163:A:H2'	36:1:3164:C:H5'	1.82	0.60
36:1:1439:U:H2'	36:1:1440:G:H8	1.66	0.60
36:5:1667:A:H2'	36:5:1668:G:C8	2.36	0.60
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.01	0.60
37:3:95:A:C2	37:3:96:U:C2	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:77:ARG:HD2	6:S4:82:TYR:CD1	5.13	0.60
36:5:600:G:N7	87:5:4120:OHX:N2	2.49	0.60
1:6:517:U:O4	87:6:2106:OHX:N4	2.34	0.60
78:Q2:8:ARG:HH11	78:Q2:8:ARG:HG2	1.64	0.60
36:1:2544:U:H2'	36:1:2545:C:C6	2.36	0.60
36:5:307:A:H61	36:5:2782:U:H3	1.46	0.60
59:N3:30:GLY:HA3	59:N3:66:LYS:HD2	2.96	0.60
64:N8:21:ARG:NH1	36:5:1369:A:OP1	184.29	0.60
16:C4:131:GLY:O	16:C4:133:ARG:N	3.28	0.60
1:2:544:A:H5''	1:2:545:A:OP2	2.00	0.60
11:S9:109:LEU:HD21	11:S9:134:ILE:HD11	1.83	0.60
47:M0:36:LEU:O	47:M0:87:LEU:N	2.33	0.60
36:5:685:G:N2	36:5:696:C:C2	2.69	0.60
41:L4:39:PHE:HE2	41:L4:43:ASN:HB2	2.15	0.60
19:C7:60:ARG:NH1	1:6:1401:A:OP1	410.79	0.60
1:2:1530:C:OP1	27:D5:95:HIS:HB2	2.01	0.60
42:L5:151:GLN:OE1	42:L5:152:ARG:N	2.34	0.60
1:6:794:U:H4'	1:6:795:U:OP2	1.99	0.60
48:M1:90:GLN:HB3	48:M1:172:LEU:HD11	1.83	0.60
70:O4:85:VAL:O	70:O4:89:ILE:HG13	2.88	0.60
68:O2:87:MET:O	68:O2:88:HIS:ND1	2.33	0.60
55:M9:14:VAL:O	55:M9:16:GLY:N	2.35	0.60
36:5:231:G:O6	87:5:4128:OHX:N4	2.34	0.60
36:1:3001:C:P	40:L3:120:LYS:HZ1	2.23	0.60
18:C6:113:ASP:HA	18:C6:116:LEU:HB2	3.37	0.60
35:SM:30:THR:O	36:1:2666:C:H5''	2.00	0.60
9:S7:143:LEU:O	24:D2:42:GLN:NE2	2.73	0.60
64:N8:30:GLY:HA2	36:5:40:A:C6	179.58	0.60
36:1:286:U:H2'	36:1:287:G:C8	2.37	0.60
39:L2:202:VAL:HB	39:L2:211:HIS:HB3	1.83	0.60
36:5:1745:C:H2'	36:5:1746:U:C6	2.37	0.60
36:5:1861:G:OP2	87:5:3991:OHX:N2	2.35	0.60
1:6:404:G:H2'	1:6:405:C:C6	2.34	0.60
69:O3:21:ARG:HG3	69:O3:21:ARG:HH11	1.65	0.60
36:1:1352:A:H4'	36:1:1353:U:OP1	2.00	0.60
36:5:2359:C:H2'	36:5:2360:C:H6	1.66	0.60
36:1:1740:U:H1'	36:1:1741:A:C2	2.37	0.60
22:D0:53:LYS:CB	22:D0:92:ASP:HB2	3.23	0.60
36:1:1268:G:N2	36:1:1269:U:O4	2.24	0.60
9:S7:150:GLN:HB3	9:S7:181:ILE:HD12	1.82	0.60
36:1:2138:A:C5	73:O7:3:LYS:HB3	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1491:A:N6	36:1:1837:U:O4	2.18	0.60
61:N5:73:MET:HE1	61:N5:142:ILE:HA	1.83	0.60
3:S1:32:ILE:HB	3:S1:43:VAL:HB	1.82	0.60
1:2:1031:U:H4'	1:2:1032:G:OP2	2.01	0.60
45:L8:89:GLU:HG3	45:L8:92:LYS:HD2	1.82	0.60
47:M0:112:GLN:C	47:M0:114:GLY:H	4.78	0.60
12:C0:32:HIS:CD2	12:C0:33:GLU:H	4.72	0.60
1:2:237:C:H5''	1:2:238:U:H5'	1.83	0.60
36:1:3218:A:H5''	36:1:3219:G:C5	2.36	0.60
36:1:1194:G:OP1	87:1:3964:OHX:N1	2.34	0.60
21:C9:2:PRO:O	1:6:1360:A:O2'	429.88	0.60
47:M0:89:VAL:HG13	47:M0:136:PHE:HE1	1.76	0.60
47:M0:139:ARG:HD2	47:M0:173:PHE:CE2	3.25	0.60
44:L7:127:LEU:HA	44:L7:130:ILE:HG12	1.82	0.60
41:L4:280:ILE:HD12	54:M8:29:LEU:HD12	2.83	0.60
1:6:1533:C:H4'	1:6:1539:G:N1	2.16	0.60
1:2:391:A:H2'	1:2:392:G:H8	1.67	0.60
17:C5:114:HIS:ND1	17:C5:118:GLU:OE2	2.34	0.60
20:C8:114:GLU:O	20:C8:118:LYS:N	3.18	0.60
3:S1:70:LEU:HB3	3:S1:79:HIS:HB2	6.31	0.60
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.65	0.60
40:L3:269:GLN:NE2	40:L3:271:GLY:O	2.34	0.60
61:N5:71:THR:HA	61:N5:74:LYS:HB2	3.52	0.60
62:N6:40:ARG:O	62:N6:44:GLY:N	2.41	0.60
14:C2:67:THR:O	14:C2:69:ALA:N	2.27	0.60
42:L5:256:THR:OG1	42:L5:258:LYS:NZ	2.34	0.60
1:2:150:U:OP1	26:D4:123:LYS:HE2	2.02	0.60
41:L4:219:LEU:O	41:L4:221:ASN:N	2.34	0.60
8:S6:57:ASP:HB3	8:S6:106:LEU:HD23	1.83	0.60
72:O6:62:ARG:HH12	72:O6:98:ARG:HH11	1.47	0.60
36:1:2225:U:H2'	36:1:2226:U:C6	2.35	0.60
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.82	0.60
36:1:3023:U:H2'	36:1:3024:A:H8	1.62	0.60
6:S4:106:LYS:HB2	6:S4:108:ARG:HG3	4.26	0.60
36:5:409:A:OP2	87:5:4097:OHX:N3	2.34	0.60
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.34	0.60
32:E0:55:ARG:HB3	32:E0:58:PRO:HG3	1.81	0.60
57:N1:118:GLU:O	57:N1:122:GLN:NE2	5.47	0.60
20:C8:8:GLN:C	20:C8:10:SER:H	2.81	0.60
79:Q3:49:ARG:HD3	79:Q3:51:ALA:O	2.55	0.60
10:S8:12:SER:OG	10:S8:13:ALA:N	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:966:U:C2	36:1:967:A:N7	2.69	0.60
36:1:679:U:H2'	36:1:680:G:C8	2.36	0.60
36:5:2435:G:N2	36:5:2436:U:O2	2.34	0.60
36:1:1316:C:OP1	52:M6:129:LEU:HD12	2.01	0.60
11:S9:108:ARG:O	11:S9:111:THR:OG1	2.19	0.60
1:6:1351:G:C6	1:6:1375:A:C2	2.88	0.60
30:D8:13:ILE:HD11	30:D8:31:GLU:HB2	3.15	0.60
61:N5:91:ASN:O	61:N5:95:ILE:HG13	2.02	0.60
12:C0:15:LEU:O	12:C0:19:GLY:N	2.34	0.60
8:S6:12:SER:HB2	8:S6:124:LEU:HD12	1.82	0.60
2:S0:184:LEU:HD11	23:D1:39:VAL:HG12	1.83	0.60
1:2:1300:A:H5''	4:S2:86:VAL:HG11	1.81	0.60
36:5:3010:U:O2'	36:5:3011:A:H2'	2.01	0.60
38:4:82:U:OP1	71:O5:5:LYS:NZ	2.34	0.60
40:L3:60:LEU:HD23	40:L3:67:PHE:HB3	1.82	0.60
1:2:1460:A:C5	35:SM:76:VAL:HG13	2.36	0.60
31:D9:6:VAL:O	31:D9:8:PHE:N	4.90	0.60
56:N0:14:LEU:HG	56:N0:56:GLY:HA2	2.86	0.60
69:O3:29:LEU:HD22	69:O3:75:HIS:CD2	2.36	0.60
9:S7:166:LEU:O	9:S7:168:SER:N	2.35	0.60
18:C6:115:THR:HB	18:C6:118:ILE:O	2.01	0.60
36:1:499:G:H2'	36:1:500:C:C6	2.37	0.60
24:D2:79:PHE:H	24:D2:125:ILE:HG22	1.65	0.60
36:1:76:G:H3'	49:M3:73:ARG:HG3	1.81	0.60
51:M5:57:GLN:HB3	51:M5:139:HIS:CE1	2.37	0.60
39:L2:5:ILE:HD11	39:L2:232:GLY:HA2	2.16	0.60
61:N5:56:ARG:O	61:N5:61:LYS:HD2	2.02	0.60
36:5:2130:G:N2	36:5:2132:C:OP1	2.34	0.60
76:Q0:97:ARG:HG3	76:Q0:120:GLN:O	2.01	0.60
1:6:846:G:H2'	1:6:847:A:C8	2.36	0.60
1:2:1512:G:H2'	1:2:1513:G:H8	1.67	0.60
19:C7:33:ARG:HH21	34:SR:109:ASP:CG	2.59	0.60
38:4:10:A:H2'	38:4:11:C:H6	1.65	0.60
36:5:119:U:H4'	36:5:120:G:H5''	1.83	0.60
87:5:3937:OHX:N2	87:5:4228:OHX:N4	2.48	0.60
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.84	0.60
36:5:2823:G:O6	87:5:3948:OHX:N4	2.34	0.60
1:6:792:U:OP1	87:6:2200:OHX:N4	2.34	0.60
1:2:1335:U:H2'	1:2:1336:A:H8	1.66	0.60
36:1:1235:U:H3	36:1:1263:A:H62	1.49	0.60
3:S1:154:SER:O	3:S1:154:SER:OG	2.15	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:102:VAL:HG12	25:D3:127:VAL:HG12	1.83	0.60
36:5:2712:U:H2'	36:5:2713:U:H6	1.66	0.60
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.84	0.60
11:S9:126:ARG:O	11:S9:130:THR:HG22	2.00	0.60
19:C7:15:ALA:O	19:C7:19:ARG:HG2	2.00	0.60
1:6:1470:C:O2'	1:6:1471:A:OP1	2.15	0.60
67:O1:12:TYR:HA	67:O1:106:THR:HG22	1.82	0.60
1:6:1427:A:O2'	1:6:1428:G:OP1	2.18	0.60
1:6:1438:G:H2'	1:6:1439:C:O4'	2.00	0.60
5:S3:55:THR:HG21	5:S3:90:ARG:HG2	2.50	0.60
77:Q1:24:SER:O	77:Q1:25:LYS:HB2	4.40	0.60
1:6:1142:A:N6	1:6:1143:A:N1	2.49	0.60
40:L3:62:ARG:HG2	40:L3:62:ARG:O	3.42	0.60
36:5:3245:A:H2	36:5:3246:G:C4	2.20	0.60
60:N4:50:ALA:HA	60:N4:55:PHE:CE1	2.51	0.60
40:L3:291:GLU:OE1	40:L3:292:ALA:N	2.28	0.60
18:C6:102:LYS:O	18:C6:106:LYS:N	2.97	0.60
39:L2:249:SER:OG	39:L2:250:GLN:N	2.35	0.60
1:2:1325:A:OP2	19:C7:11:ARG:NH1	2.34	0.60
53:M7:168:LEU:HD13	53:M7:173:ARG:HG2	1.83	0.60
36:1:1063:G:C6	57:N1:109:VAL:HG22	2.36	0.60
60:N4:39:LEU:O	60:N4:42:GLN:N	2.34	0.60
64:N8:74:ASN:CG	64:N8:115:LYS:HB2	2.21	0.60
49:M3:140:SER:OG	49:M3:142:ALA:N	2.48	0.60
44:L7:139:PRO:CA	44:L7:237:ASN:HD21	2.15	0.60
36:1:250:U:H5	36:1:251:G:N7	1.98	0.60
1:6:1734:U:H2'	1:6:1735:U:C6	2.35	0.60
36:5:2719:U:O2'	36:5:2720:G:O5'	2.19	0.60
10:S8:72:ILE:HD12	10:S8:74:LYS:HD3	1.82	0.60
36:5:2101:C:O2'	36:5:2102:U:OP1	2.19	0.60
36:5:2880:U:H2'	36:5:2881:C:C6	2.36	0.60
52:M6:92:THR:OG1	52:M6:95:GLY:N	2.41	0.60
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.37	0.60
44:L7:93:ASN:O	44:L7:94:LYS:HG2	4.62	0.60
87:5:3937:OHX:N5	87:5:4228:OHX:N6	2.50	0.60
54:M8:69:ARG:O	54:M8:72:LYS:N	2.32	0.60
21:C9:20:SER:OG	21:C9:24:ARG:NH2	6.74	0.60
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.12	0.60
59:N3:26:ALA:O	59:N3:115:THR:N	2.30	0.60
36:1:3301:U:O4	87:1:3897:OHX:N5	2.35	0.60
36:1:1621:A:H61	36:1:1823:A:H61	1.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:104:ASN:O	68:O2:107:VAL:HG12	4.73	0.60
36:5:3026:G:O6	87:5:3935:OHX:N6	2.34	0.60
47:M0:35:ASP:OD1	47:M0:88:ARG:HG3	2.00	0.60
1:6:1579:U:H2'	1:6:1580:C:C6	2.35	0.60
65:N9:14:ARG:HH21	65:N9:18:ARG:HD3	3.72	0.60
1:2:398:G:OP2	10:S8:47:ARG:NH1	2.22	0.60
42:L5:227:LEU:O	42:L5:229:ASP:N	2.80	0.60
20:C8:115:ARG:O	20:C8:119:ILE:HG12	2.02	0.60
24:D2:57:ARG:NH2	29:D7:26:GLN:OE1	3.50	0.60
36:1:156:G:P	72:O6:27:SER:OG	2.59	0.60
1:2:902:G:H2'	1:2:903:U:C6	2.35	0.60
3:S1:97:LEU:HD13	3:S1:232:HIS:CG	5.38	0.60
19:C7:107:SER:O	19:C7:111:LYS:N	3.78	0.60
2:S0:15:GLN:HA	2:S0:18:LEU:HD12	1.83	0.60
1:2:129:U:N3	1:2:177:U:O4	2.34	0.60
63:N7:15:ARG:HH21	70:O4:83:ASN:HB3	4.15	0.60
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.37	0.60
64:N8:43:ILE:HD13	64:N8:43:ILE:H	1.67	0.60
43:L6:152:THR:OG1	43:L6:155:LEU:HB2	2.88	0.60
34:SR:216:LYS:O	34:SR:218:GLY:N	2.34	0.60
1:2:987:G:C2	39:L2:249:SER:HB2	2.37	0.60
39:L2:147:ARG:HH12	39:L2:155:LYS:HE2	4.88	0.60
36:5:211:A:O4'	36:5:229:G:H1'	2.01	0.60
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.02	0.60
57:N1:102:ARG:HG2	57:N1:106:LEU:HD11	3.98	0.60
49:M3:113:VAL:O	49:M3:116:LEU:N	2.99	0.60
26:D4:8:ARG:HH11	26:D4:28:LEU:HG	1.65	0.60
36:1:2131:A:H61	79:Q3:18:TYR:H	1.50	0.60
38:4:104:A:C8	38:4:105:A:C8	2.90	0.60
70:O4:61:GLN:O	70:O4:63:ALA:N	2.85	0.60
2:S0:72:ASP:OD1	4:S2:40:LYS:HE2	2.02	0.60
36:1:2550:U:C6	45:L8:37:GLY:HA3	2.37	0.60
58:N2:90:ARG:C	58:N2:92:TRP:H	2.34	0.60
42:L5:55:PHE:CE2	42:L5:158:ARG:HG3	2.36	0.60
39:L2:57:PRO:HG2	39:L2:78:ALA:HB3	3.41	0.60
69:O3:21:ARG:HH11	69:O3:21:ARG:CG	2.15	0.60
45:L8:97:TYR:HE1	45:L8:130:TYR:HB3	1.66	0.60
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	2.10	0.60
4:S2:199:GLN:O	4:S2:200:SER:HB3	2.01	0.60
9:S7:170:GLN:HA	9:S7:181:ILE:HG22	1.84	0.60
36:5:3238:G:H8	36:5:3238:G:H5''	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:42:ARG:HG2	15:C3:42:ARG:HH11	4.36	0.60
36:1:772:U:H2'	36:1:773:G:C8	2.37	0.60
1:2:874:C:OP1	3:S1:159:SER:OG	2.17	0.60
87:1:3971:OHX:N4	55:M9:87:ALA:O	2.34	0.60
1:6:1466:G:H2'	1:6:1467:C:H6	1.66	0.60
36:1:2571:U:O2'	36:1:2572:C:O2	2.19	0.60
36:1:2116:G:N3	36:1:2116:G:H5''	2.17	0.60
36:5:966:U:N3	36:5:967:A:N7	2.49	0.60
36:5:3193:C:H1'	36:5:3200:G:N2	2.17	0.60
28:D6:30:ILE:HD13	28:D6:74:CYS:HA	2.61	0.60
1:2:545:A:N6	1:2:594:A:O5'	2.32	0.60
36:1:1010:G:C6	36:1:1011:A:N7	2.69	0.60
1:6:1161:C:H2'	1:6:1162:C:C6	2.37	0.60
41:L4:330:TYR:O	41:L4:333:VAL:HG13	3.08	0.60
10:S8:167:ALA:HB1	10:S8:182:TYR:O	2.33	0.60
36:1:1348:U:H5	54:M8:31:LYS:HE3	1.66	0.60
36:1:936:A:H2'	36:1:938:C:C4	2.37	0.60
1:6:1388:A:H4'	1:6:1389:C:O5'	2.00	0.60
18:C6:28:LEU:HD11	18:C6:30:LYS:HD2	4.91	0.60
7:S5:116:HIS:HE2	27:D5:95:HIS:CD2	2.20	0.60
42:L5:194:LEU:O	42:L5:197:SER:HB3	2.67	0.60
1:2:1252:C:H2'	1:2:1253:U:H6	1.67	0.60
16:C4:19:ILE:HG12	16:C4:28:VAL:HG22	1.83	0.60
3:S1:30:PHE:CE2	3:S1:94:LYS:HA	2.37	0.60
36:1:1632:A:H2'	36:1:1633:C:H6	1.67	0.60
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	3.75	0.60
68:O2:121:ASN:OD1	68:O2:121:ASN:N	2.35	0.60
62:N6:112:ASP:HB3	62:N6:115:ARG:HB2	4.79	0.60
1:2:1183:A:N6	1:2:1184:A:N1	2.49	0.60
20:C8:145:ARG:HB2	35:SM:68:ARG:NH2	2.16	0.60
20:C8:145:ARG:H	35:SM:72:ARG:NH2	8.96	0.60
36:1:2503:G:H1'	36:1:2504:U:C5	2.34	0.60
44:L7:79:ALA:HB2	57:N1:137:GLU:HA	1.82	0.60
57:N1:63:VAL:HG12	57:N1:64:VAL:N	2.44	0.60
8:S6:179:VAL:HG21	1:6:140:A:H1'	327.70	0.60
52:M6:42:ASN:OD1	52:M6:125:ARG:NH1	2.96	0.60
40:L3:81:THR:CG2	40:L3:205:VAL:HG21	3.08	0.60
49:M3:167:PHE:CD1	64:N8:132:LYS:HG3	4.30	0.60
50:M4:109:ARG:HH22	36:5:3211:C:P	295.56	0.60
36:5:856:G:N1	36:5:857:G:N2	2.50	0.60
36:1:2148:U:H6	36:1:2148:U:OP2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:89:ARG:HG2	71:O5:89:ARG:HH11	1.67	0.60
36:1:2898:G:H5''	36:1:2899:C:C5'	2.31	0.60
67:O1:10:ARG:HG2	67:O1:108:VAL:HG22	1.84	0.60
10:S8:150:ALA:O	10:S8:152:ILE:N	2.33	0.60
36:1:2896:A:OP2	76:Q0:102:ARG:NH2	2.32	0.60
36:5:2196:C:O2'	36:5:2270:A:N3	2.30	0.60
50:M4:46:ILE:HD13	50:M4:58:ILE:HG21	1.82	0.60
1:2:329:G:H1	1:2:339:C:H42	1.50	0.60
2:S0:81:PHE:HE2	2:S0:167:LYS:H	1.50	0.60
19:C7:70:SER:HA	19:C7:74:GLN:OE1	2.01	0.60
36:5:2371:G:O6	87:5:3904:OHX:N6	2.34	0.60
36:1:306:A:C2	36:1:307:A:C8	2.89	0.60
1:2:481:A:H2'	1:2:482:U:O4'	2.01	0.60
73:O7:31:LYS:O	73:O7:33:THR:HG23	2.02	0.60
36:5:3146:G:H2'	36:5:3147:G:H8	1.66	0.60
1:2:115:G:OP1	1:2:115:G:H8	1.84	0.60
1:2:933:A:OP1	28:D6:70:LYS:NZ	2.34	0.60
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.01	0.60
47:M0:35:ASP:HB3	47:M0:86:HIS:HE2	1.66	0.60
7:S5:34:GLN:HA	7:S5:37:GLN:OE1	2.02	0.60
21:C9:29:GLU:OE1	21:C9:110:LYS:NZ	2.30	0.60
21:C9:61:VAL:HG12	21:C9:65:ILE:HD11	3.09	0.60
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.45	0.60
1:2:12:U:H2'	1:2:13:C:C6	2.36	0.60
2:S0:142:PRO:HG3	23:D1:32:VAL:HG22	3.23	0.60
59:N3:80:ARG:NE	59:N3:97:ASP:OD2	2.34	0.60
34:SR:212:ALA:HB2	34:SR:222:LEU:HD13	3.11	0.60
34:SR:91:LEU:O	34:SR:100:TYR:N	2.30	0.60
40:L3:105:VAL:HG11	40:L3:148:LEU:HD13	1.88	0.60
36:1:285:A:H3'	36:1:285:A:H8	1.65	0.60
48:M1:102:PHE:O	48:M1:129:VAL:HG13	5.16	0.60
40:L3:34:LYS:HG2	40:L3:35:ASP:N	2.16	0.60
1:6:1261:G:N2	1:6:1262:U:O2	2.35	0.60
1:2:1433:G:H2'	1:2:1434:U:H6	1.66	0.60
57:N1:19:PHE:CE1	57:N1:20:ARG:HG2	2.37	0.60
36:1:1051:U:H4'	57:N1:19:PHE:CE2	2.37	0.60
31:D9:56:ARG:HG3	1:6:1418:G:O2'	406.24	0.60
10:S8:142:LYS:NZ	1:6:187:G:OP2	272.37	0.60
40:L3:187:SER:HB3	40:L3:190:GLU:HG3	2.08	0.60
69:O3:13:HIS:NE2	69:O3:28:SER:OG	2.34	0.60
40:L3:92:TYR:CE1	40:L3:159:ARG:HD2	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:394:G:N2	36:1:396:A:H3'	2.17	0.60
9:S7:35:LYS:O	9:S7:37:GLU:N	2.30	0.60
36:1:1596:C:H2'	36:1:1597:C:C6	2.37	0.60
13:C1:74:THR:HB	13:C1:122:ILE:HD13	4.56	0.60
1:2:1381:U:H4'	22:D0:59:PRO:HG3	1.84	0.60
36:1:3003:G:OP2	40:L3:26:ARG:NH2	2.34	0.60
1:6:921:U:O4	87:6:2186:OHX:N3	2.35	0.60
46:L9:151:VAL:O	46:L9:152:GLU:C	2.88	0.60
66:O0:22:LYS:HD3	66:O0:94:GLU:HB2	1.84	0.60
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	4.20	0.60
5:S3:202:LEU:O	5:S3:204:ASP:N	2.99	0.60
7:S5:59:VAL:C	7:S5:61:TYR:H	2.33	0.60
36:1:1460:A:H5'	67:O1:51:LEU:O	2.02	0.60
1:6:1202:A:OP1	87:6:2135:OHX:N1	2.35	0.60
55:M9:19:LYS:O	55:M9:21:LYS:N	2.34	0.60
38:4:69:U:OP2	87:O7:103:OHX:N3	2.35	0.60
35:SM:66:ALA:O	35:SM:70:ASN:HB2	2.02	0.60
6:S4:65:LEU:O	6:S4:67:GLN:N	2.34	0.60
44:L7:77:VAL:HG23	57:N1:139:ARG:HG2	1.84	0.60
57:N1:15:PHE:HE2	57:N1:44:ALA:HB3	1.66	0.60
36:5:2279:A:H2'	36:5:2288:G:O6	2.02	0.60
36:5:2310:U:OP1	87:5:4193:OHX:N4	2.34	0.60
35:SM:30:THR:OG1	35:SM:30:THR:O	2.16	0.60
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	2.77	0.60
36:5:1572:U:HO2'	36:5:1573:G:H8	1.50	0.60
71:O5:41:LEU:O	71:O5:44:ILE:HG22	2.22	0.60
36:1:2897:A:OP2	76:Q0:124:LYS:NZ	2.31	0.60
36:5:1375:G:N3	36:5:1407:A:H2	1.99	0.60
36:5:2661:G:H2'	36:5:2662:G:H8	1.66	0.60
36:1:3163:A:N6	36:1:3164:C:H41	1.99	0.60
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.02	0.60
25:D3:108:GLY:HA2	1:6:600:U:OP2	358.33	0.60
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.69	0.60
40:L3:199:PHE:O	40:L3:201:LYS:N	2.78	0.60
40:L3:125:SER:OG	40:L3:126:LYS:N	3.12	0.60
3:S1:122:GLU:HG2	3:S1:140:ILE:HG13	1.82	0.60
10:S8:147:ALA:O	10:S8:149:SER:N	2.69	0.60
54:M8:54:LEU:HB3	54:M8:58:ASN:HB2	1.83	0.60
36:5:2715:A:C2	36:5:2753:G:C6	2.90	0.60
36:5:1643:A:O2'	36:5:1644:C:O5'	2.19	0.60
36:5:2431:C:H42	36:5:2598:G:H1	1.47	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:E0:15:LYS:NZ	1:6:585:A:OP1	388.28	0.60
11:S9:134:ILE:HG12	11:S9:135:ALA:N	2.16	0.60
47:M0:72:ALA:O	47:M0:76:MET:HG2	4.05	0.60
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.49	0.60
44:L7:89:ILE:HD11	44:L7:135:ALA:H	1.67	0.60
36:1:1157:G:OP2	44:L7:90:LYS:NZ	2.34	0.60
41:L4:281:ILE:HG13	41:L4:282:SER:N	2.17	0.60
20:C8:23:ASP:OD1	20:C8:25:ASN:N	4.80	0.60
7:S5:140:THR:HG22	7:S5:211:ILE:HD13	1.84	0.60
7:S5:205:SER:O	7:S5:207:THR:N	2.88	0.60
7:S5:64:VAL:HG12	7:S5:65:ARG:HD3	1.84	0.60
75:O9:10:LYS:HD3	36:5:1833:G:H5''	106.83	0.60
31:D9:36:LEU:HD12	31:D9:37:ASN:N	2.17	0.60
77:Q1:11:ARG:HH21	1:6:1127:G:P	292.78	0.60
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	2.05	0.60
28:D6:2:PRO:HB3	1:6:1142:A:H5''	347.63	0.60
1:2:66:U:O2	8:S6:160:ARG:NE	2.21	0.60
18:C6:82:ARG:NH2	18:C6:114:ARG:HB2	2.76	0.60
79:Q3:75:ALA:O	79:Q3:78:THR:N	2.35	0.60
40:L3:117:ARG:NH2	40:L3:175:LYS:HG2	3.01	0.60
8:S6:75:LEU:O	8:S6:94:ARG:HD3	2.02	0.60
26:D4:8:ARG:NH1	26:D4:28:LEU:HG	2.17	0.60
26:D4:29:HIS:CE1	26:D4:34:ASN:H	2.20	0.60
71:O5:75:TYR:CE1	36:5:17:G:H4'	81.44	0.60
38:8:45:C:O2'	38:8:46:G:O5'	2.12	0.60
36:5:1611:G:H2'	36:5:1612:A:H8	1.65	0.60
36:1:1808:G:O6	87:1:3982:OHX:N3	2.35	0.60
50:M4:98:SER:O	50:M4:102:LYS:HB2	2.02	0.60
27:D5:53:GLU:O	27:D5:56:THR:N	6.08	0.60
9:S7:100:PRO:O	9:S7:112:ARG:NE	3.35	0.60
74:O8:43:PHE:HB2	74:O8:54:LEU:HB3	2.46	0.60
62:N6:88:GLU:HA	62:N6:94:SER:HB3	4.14	0.60
36:1:1577:G:H2'	36:1:1578:C:O4'	2.02	0.60
36:5:1276:U:OP2	87:5:4002:OHX:N1	2.35	0.60
79:Q3:45:LYS:HB3	79:Q3:45:LYS:NZ	2.17	0.60
1:2:1392:U:H2'	1:2:1393:C:C6	2.37	0.60
36:5:1070:U:C2'	36:5:1071:U:H5'	2.31	0.60
1:6:1526:A:O5'	1:6:1526:A:H8	1.84	0.60
6:S4:23:LEU:HD13	11:S9:4:ALA:HB3	1.82	0.60
37:3:27:A:P	42:L5:57:ASN:H	2.25	0.60
8:S6:200:ALA:O	8:S6:203:GLU:HB2	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:29:LEU:O	39:L2:123:ARG:NH2	2.34	0.60
1:2:1757:G:H2'	36:1:2255:A:O2'	2.00	0.59
53:M7:48:LEU:HD13	53:M7:88:VAL:HG13	3.51	0.59
28:D6:10:ARG:NE	1:6:1797:A:OP2	330.04	0.59
47:M0:68:ALA:HB1	47:M0:155:ALA:HB1	3.37	0.59
36:1:1008:U:O2'	47:M0:35:ASP:OD2	2.17	0.59
13:C1:53:TYR:OH	13:C1:58:CYS:SG	2.56	0.59
10:S8:42:ARG:HB3	10:S8:59:ARG:HB2	2.09	0.59
41:L4:280:ILE:HD11	54:M8:23:ASN:HD21	3.38	0.59
5:S3:166:ASP:O	5:S3:190:ARG:NH2	4.07	0.59
36:1:530:G:N7	87:1:3921:OHX:N6	2.50	0.59
16:C4:38:THR:N	1:6:895:G:O2'	260.70	0.59
63:N7:126:LYS:O	63:N7:127:ASN:HB2	2.02	0.59
20:C8:145:ARG:HB2	35:SM:72:ARG:HE	5.01	0.59
7:S5:73:THR:HG23	18:C6:114:ARG:HD2	1.83	0.59
39:L2:148:VAL:O	39:L2:156:LYS:N	3.39	0.59
40:L3:166:ILE:HD11	40:L3:173:GLN:HB3	1.84	0.59
52:M6:26:GLN:HG3	52:M6:31:GLN:HB3	4.65	0.59
36:5:2808:A:H4'	36:5:2809:C:C5'	2.32	0.59
39:L2:201:GLY:O	39:L2:204:MET:HG3	2.02	0.59
26:D4:37:LYS:NZ	1:6:523:G:OP2	412.96	0.59
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	3.02	0.59
13:C1:40:LEU:HB3	13:C1:42:PHE:CE2	4.15	0.59
36:1:1049:C:H2'	36:1:1050:U:C6	2.33	0.59
36:5:1709:C:O2'	36:5:1710:C:O5'	2.16	0.59
36:1:523:A:O2'	56:N0:69:PRO:HD2	2.02	0.59
70:O4:10:ARG:HD2	75:O9:4:GLN:OE1	2.02	0.59
36:5:2444:C:N4	36:5:2503:G:H1	1.98	0.59
36:5:2572:C:O2'	36:5:2573:G:OP2	2.17	0.59
1:2:10:G:H2'	1:2:11:A:C8	2.37	0.59
36:1:25:U:O4	87:1:3871:OHX:N4	2.34	0.59
78:Q2:59:HIS:O	78:Q2:61:LYS:N	2.35	0.59
47:M0:124:GLY:O	47:M0:125:LEU:HD23	2.02	0.59
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	3.59	0.59
1:6:217:A:C8	1:6:218:A:C8	2.90	0.59
36:5:3391:A:C2	36:5:3392:U:C6	2.90	0.59
87:5:3937:OHX:N5	87:5:4228:OHX:N3	2.49	0.59
36:1:2107:A:C2	36:1:3344:A:H8	2.20	0.59
1:2:1196:A:H4'	1:2:1197:C:H5''	1.84	0.59
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HG2	5.22	0.59
36:5:510:G:O6	87:5:4018:OHX:N2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:873:C:H5''	36:1:874:U:H4'	1.83	0.59
36:5:1269:U:O2'	36:5:1271:A:N7	2.29	0.59
1:6:1431:C:H1'	1:6:1437:U:O4	2.02	0.59
47:M0:98:ARG:HG3	47:M0:98:ARG:HH11	1.65	0.59
36:1:3040:A:OP1	59:N3:12:ARG:N	2.35	0.59
36:1:3335:A:C2	36:1:3336:A:C4	2.90	0.59
12:C0:84:GLU:O	35:SM:155:LEU:N	8.50	0.59
45:L8:105:LYS:O	45:L8:109:LEU:HG	2.02	0.59
1:2:1561:U:OP1	87:2:2179:OHX:N3	2.35	0.59
25:D3:98:GLU:O	25:D3:100:ASP:N	2.34	0.59
28:D6:82:ARG:HB2	28:D6:85:ARG:NH2	9.46	0.59
1:6:1160:A:O5'	87:6:2189:OHX:N2	2.35	0.59
44:L7:132:PRO:HA	44:L7:229:PHE:CG	2.37	0.59
19:C7:19:ARG:HG3	19:C7:20:TYR:CE1	2.36	0.59
7:S5:94:THR:HA	7:S5:97:LEU:HD12	4.33	0.59
42:L5:205:SER:HB3	42:L5:236:LEU:HD23	1.83	0.59
1:6:1429:G:H2'	1:6:1430:U:C6	2.37	0.59
20:C8:90:ASN:O	20:C8:95:GLY:HA2	2.02	0.59
31:D9:38:ILE:HG22	31:D9:42:CYS:HB3	3.28	0.59
5:S3:65:ARG:HH12	12:C0:56:LYS:NZ	2.00	0.59
20:C8:125:ILE:HA	35:SM:61:ILE:HG22	1.84	0.59
15:C3:13:SER:OG	87:6:2062:OHX:N2	338.66	0.59
3:S1:36:SER:OG	3:S1:231:LEU:O	4.74	0.59
38:4:15:G:C6	38:4:16:G:N1	2.70	0.59
23:D1:73:ALA:HB3	23:D1:79:LEU:HD12	1.85	0.59
2:S0:198:MET:SD	2:S0:199:PRO:HD2	2.71	0.59
36:5:676:G:O2'	36:5:678:G:O2'	2.16	0.59
4:S2:142:GLY:O	4:S2:153:SER:N	2.63	0.59
6:S4:195:ILE:O	6:S4:196:VAL:HG23	4.17	0.59
49:M3:59:ARG:NH1	36:5:73:C:N3	94.92	0.59
39:L2:204:MET:HG2	36:5:914:A:C2	195.23	0.59
1:2:583:C:H2'	1:2:584:C:C6	2.37	0.59
1:2:558:U:O2'	1:2:559:C:O5'	2.14	0.59
38:4:3:A:H2'	38:4:4:C:H6	1.68	0.59
49:M3:155:GLU:HG2	64:N8:90:TYR:OH	3.91	0.59
4:S2:44:LEU:HD22	4:S2:243:TYR:HB2	4.17	0.59
22:D0:45:ALA:HB1	22:D0:50:LEU:HD12	1.83	0.59
36:1:2207:A:H2'	36:1:2208:A:H8	1.66	0.59
36:1:3074:G:OP1	87:1:4038:OHX:N1	2.34	0.59
36:1:1536:G:N2	36:1:1586:G:H1'	2.16	0.59
36:5:196:G:H22	36:5:198:A:H3'	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:235:G:H2'	1:6:236:A:C8	2.37	0.59
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.67	0.59
36:5:499:G:H2'	36:5:500:C:H6	1.65	0.59
45:L8:135:GLY:O	45:L8:139:VAL:HG23	2.62	0.59
34:SR:245:PHE:HD1	34:SR:251:TRP:O	3.19	0.59
1:6:578:U:O2	87:6:2159:OHX:N3	2.34	0.59
36:1:2395:G:H5''	40:L3:255:TRP:CD1	2.37	0.59
1:2:1754:A:C5	88:2:2181:GET:H21	2.37	0.59
27:D5:47:TYR:CE2	27:D5:51:LEU:HD11	3.47	0.59
11:S9:76:LEU:O	11:S9:80:LEU:N	2.85	0.59
1:6:93:A:C6	1:6:398:G:C6	2.91	0.59
41:L4:209:TYR:CZ	41:L4:229:ASN:HB2	2.36	0.59
54:M8:43:PRO:HD2	36:5:729:C:OP1	191.88	0.59
54:M8:43:PRO:O	54:M8:45:ASN:N	2.35	0.59
43:L6:54:TYR:CE2	43:L6:63:LEU:HD22	2.37	0.59
73:O7:18:LEU:HA	73:O7:25:ARG:N	2.15	0.59
7:S5:135:ASP:O	7:S5:139:ASN:HB2	2.48	0.59
42:L5:148:ILE:CG2	42:L5:151:GLN:HB3	4.13	0.59
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	293.60	0.59
4:S2:130:ILE:O	4:S2:134:LEU:HD23	2.02	0.59
48:M1:149:GLY:O	48:M1:153:LYS:HD2	5.15	0.59
36:1:1636:U:H5''	63:N7:73:LYS:NZ	2.16	0.59
55:M9:43:LYS:O	55:M9:47:ASN:N	3.08	0.59
73:O7:72:ARG:O	73:O7:74:PHE:N	3.23	0.59
14:C2:62:LEU:HD11	14:C2:72:ILE:HG23	1.83	0.59
42:L5:261:THR:OG1	42:L5:263:GLU:HB2	2.02	0.59
34:SR:35:SER:O	34:SR:43:ILE:N	2.30	0.59
36:5:511:G:H1	36:5:580:C:N4	1.97	0.59
40:L3:113:GLU:HB3	40:L3:176:ALA:HB2	1.84	0.59
36:1:2219:A:H2'	36:1:2220:A:H8	1.66	0.59
49:M3:104:ARG:HG3	72:O6:22:PRO:HG2	4.15	0.59
36:5:2898:G:H5''	36:5:2899:C:H5'	1.83	0.59
1:2:827:C:H2'	1:2:828:U:C6	2.37	0.59
1:6:828:U:H1'	1:6:845:G:H22	1.66	0.59
1:6:106:U:H2'	1:6:107:C:O4'	2.03	0.59
36:1:1327:C:O3'	69:O3:76:GLY:HA2	2.02	0.59
55:M9:61:SER:OG	55:M9:62:ARG:N	3.28	0.59
36:1:168:U:H2'	36:1:169:U:H5	1.66	0.59
36:1:539:C:H2'	36:1:540:U:H6	1.66	0.59
36:1:2108:C:H1'	36:1:3344:A:C8	2.36	0.59
36:1:677:A:H4'	36:1:678:G:O5'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:60:LEU:HD21	17:C5:92:SER:HB3	1.84	0.59
1:6:1311:U:O2	1:6:1315:U:C2	2.54	0.59
44:L7:136:TYR:O	44:L7:231:ASN:HA	2.02	0.59
36:5:825:U:O4	87:5:3958:OHX:N2	2.36	0.59
57:N1:8:ARG:HG3	36:5:2757:U:H4'	239.32	0.59
43:L6:160:SER:OG	43:L6:161:ALA:N	2.72	0.59
36:5:2319:U:HO2'	36:5:2320:A:H8	1.47	0.59
63:N7:64:LYS:O	63:N7:67:LYS:HG2	2.02	0.59
36:5:3389:U:H6	36:5:3389:U:OP2	1.86	0.59
76:Q0:99:CYS:HB3	76:Q0:114:LYS:HD3	1.83	0.59
36:1:2359:C:H2'	36:1:2360:C:C6	2.37	0.59
36:5:2358:A:O5'	36:5:2358:A:H8	1.85	0.59
53:M7:41:LEU:O	53:M7:44:ALA:HB3	2.02	0.59
36:1:115:A:O2'	51:M5:5:LYS:NZ	2.36	0.59
41:L4:235:LEU:O	41:L4:239:ALA:HB3	2.01	0.59
1:6:1473:U:H4'	1:6:1474:G:OP2	2.01	0.59
21:C9:125:SER:OG	21:C9:126:GLU:N	2.98	0.59
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	2.20	0.59
1:2:975:C:H5''	15:C3:109:LYS:HE2	1.85	0.59
4:S2:54:GLU:O	4:S2:58:LEU:HB2	2.95	0.59
48:M1:100:GLY:HA3	48:M1:154:THR:O	2.02	0.59
48:M1:160:VAL:HG13	48:M1:171:VAL:HG21	5.09	0.59
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	2.38	0.59
36:1:1764:U:H5''	55:M9:43:LYS:NZ	2.17	0.59
40:L3:67:PHE:CE2	59:N3:88:ARG:HB2	2.37	0.59
35:SM:78:ASP:O	35:SM:80:ALA:N	3.19	0.59
4:S2:90:THR:C	4:S2:92:ALA:H	2.04	0.59
36:1:2661:G:H2'	36:1:2662:G:H8	1.66	0.59
56:N0:31:ALA:HB1	56:N0:36:ILE:HG22	2.42	0.59
36:1:353:G:N7	73:O7:55:ARG:HD3	2.17	0.59
36:5:2821:C:H42	36:5:2869:U:H3	1.49	0.59
36:1:3122:A:H1'	46:L9:63:LYS:NZ	2.17	0.59
36:1:3122:A:O2'	46:L9:63:LYS:HD2	2.02	0.59
24:D2:71:LYS:NZ	1:6:1099:U:H5''	373.10	0.59
62:N6:89:LYS:N	62:N6:93:ALA:O	3.15	0.59
36:1:24:G:H2'	36:1:25:U:O4'	2.02	0.59
2:S0:108:THR:HG23	2:S0:135:GLU:HG2	3.99	0.59
36:1:953:G:H2'	36:1:1117:G:H5''	1.85	0.59
36:5:2881:C:H2'	36:5:2882:U:C6	2.37	0.59
1:2:527:A:OP1	87:2:2053:OHX:N4	2.35	0.59
8:S6:14:LYS:HD2	8:S6:123:GLY:HA3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:89:GLU:O	10:S8:93:THR:OG1	2.15	0.59
59:N3:10:LYS:NZ	59:N3:53:SER:OG	2.30	0.59
1:6:983:A:H2'	1:6:984:G:H8	1.67	0.59
38:8:130:C:H2'	38:8:131:A:C8	2.36	0.59
8:S6:3:LEU:HD22	8:S6:111:LEU:HD11	2.35	0.59
36:5:3393:U:H2'	36:5:3394:U:H6	1.67	0.59
42:L5:140:ARG:HB2	42:L5:140:ARG:HH21	2.43	0.59
1:6:1041:G:H2'	1:6:1042:G:C8	2.37	0.59
40:L3:115:LYS:O	40:L3:118:PHE:HD1	3.29	0.59
51:M5:106:VAL:HG21	51:M5:132:VAL:HG21	1.84	0.59
51:M5:117:ASN:HD21	51:M5:166:ALA:HB2	2.68	0.59
20:C8:78:HIS:HB2	20:C8:79:TYR:CD2	2.38	0.59
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	2.79	0.59
53:M7:125:GLN:HA	53:M7:125:GLN:HE21	2.33	0.59
44:L7:155:LYS:HB2	44:L7:203:TRP:CE3	2.37	0.59
36:1:1430:U:O4	64:N8:3:SER:OG	2.13	0.59
12:C0:72:GLY:O	12:C0:74:GLU:N	3.10	0.59
17:C5:43:ARG:NH1	1:6:1553:G:O6	397.38	0.59
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.32	0.59
15:C3:89:TYR:CE2	15:C3:93:LYS:HD2	3.54	0.59
36:5:1639:C:O2'	36:5:1640:G:H5'	2.02	0.59
2:S0:6:THR:HA	2:S0:8:ASP:OD1	2.02	0.59
1:2:1174:C:OP2	20:C8:141:THR:HG21	2.02	0.59
6:S4:229:GLY:HA2	6:S4:235:TYR:HE2	1.67	0.59
40:L3:296:THR:HG21	40:L3:357:LYS:O	2.44	0.59
50:M4:126:GLN:NE2	36:5:3261:C:OP1	296.02	0.59
69:O3:6:ARG:HD2	69:O3:8:TYR:O	3.61	0.59
9:S7:56:LYS:HD2	9:S7:88:ARG:NH2	2.18	0.59
40:L3:81:THR:HG23	40:L3:81:THR:O	3.36	0.59
3:S1:191:GLU:HB2	3:S1:194:ASN:CG	2.22	0.59
1:6:778:G:O2'	1:6:779:U:H5'	2.01	0.59
37:3:28:C:O3'	48:M1:135:GLY:HA2	2.02	0.59
48:M1:137:ARG:NH1	37:7:28:C:OP1	301.61	0.59
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.38	0.59
49:M3:183:ARG:HA	49:M3:186:ARG:HB2	2.59	0.59
55:M9:90:PRO:HG2	55:M9:93:VAL:HG21	3.46	0.59
1:6:1397:U:C5	1:6:1399:C:C2	2.90	0.59
36:1:2700:G:O2'	57:N1:47:SER:HA	2.02	0.59
36:1:1020:G:O6	36:1:1032:C:N4	2.29	0.59
36:5:1336:U:H2'	36:5:1337:A:H8	1.68	0.59
1:2:1111:G:OP2	87:2:2164:OHX:N3	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:11:A:C2'	1:6:12:U:H5'	2.32	0.59
38:8:132:G:H2'	38:8:133:G:H8	1.68	0.59
39:L2:67:TYR:CD2	39:L2:67:TYR:N	3.26	0.59
57:N1:114:ALA:O	57:N1:117:ALA:N	3.80	0.59
38:4:150:G:OP2	61:N5:25:LYS:NZ	2.26	0.59
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.14	0.59
37:7:15:C:H1'	37:7:66:A:C2	2.38	0.59
47:M0:135:ILE:HG21	47:M0:159:PHE:CE2	2.67	0.59
41:L4:38:VAL:HG11	41:L4:118:LYS:HA	2.51	0.59
41:L4:157:GLU:OE2	41:L4:211:GLU:N	2.36	0.59
67:O1:29:ALA:HB3	67:O1:64:VAL:HG12	3.93	0.59
42:L5:109:THR:OG1	42:L5:110:LEU:N	2.33	0.59
42:L5:84:PRO:C	42:L5:86:TYR:H	2.06	0.59
28:D6:62:TYR:HE2	28:D6:65:PRO:HD3	2.77	0.59
2:S0:177:LEU:O	2:S0:181:VAL:HG13	4.01	0.59
1:2:127:G:H21	1:2:178:U:H1'	1.67	0.59
1:2:1449:U:H2'	1:2:1450:U:C6	2.38	0.59
6:S4:100:ARG:NH1	6:S4:118:GLU:OE1	2.34	0.59
41:L4:361:HIS:CG	41:L4:362:ASP:N	3.08	0.59
1:2:168:A:OP1	8:S6:137:ARG:HB2	2.01	0.59
34:SR:306:THR:C	34:SR:308:ASN:H	2.05	0.59
34:SR:33:LEU:HB2	34:SR:47:LEU:HD11	1.84	0.59
62:N6:4:GLN:HB3	36:5:229:G:H5''	68.15	0.59
36:5:3290:G:O6	87:5:4096:OHX:N5	2.35	0.59
36:1:2916:U:H2'	36:1:2917:G:H8	1.68	0.59
40:L3:138:ALA:O	40:L3:140:ASP:N	2.36	0.59
49:M3:103:ASN:HD22	49:M3:109:PHE:HB2	2.86	0.59
26:D4:5:VAL:HG22	26:D4:32:ARG:HH12	1.67	0.59
1:2:741:C:O2'	1:2:742:U:O4'	2.18	0.59
10:S8:116:HIS:O	10:S8:146:ARG:NH1	3.52	0.59
63:N7:104:PRO:O	63:N7:107:ARG:N	2.35	0.59
55:M9:59:SER:O	55:M9:59:SER:OG	2.20	0.59
36:5:1072:G:H2'	36:5:1073:U:H6	1.66	0.59
36:1:546:C:H5'	36:1:547:G:H5'	1.85	0.59
1:6:1340:U:H4'	1:6:1341:A:H5''	1.85	0.59
36:5:167:U:H2'	36:5:168:U:C6	2.38	0.59
36:5:2105:G:H2'	36:5:2106:A:H8	1.67	0.59
3:S1:93:GLY:O	3:S1:95:ASN:N	2.73	0.59
36:1:341:G:OP2	41:L4:191:LYS:NZ	2.35	0.59
64:N8:4:ARG:HG2	64:N8:5:PHE:CE1	2.37	0.59
1:2:1338:C:H1'	1:2:1410:A:C4	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1394:G:C6	1:6:1405:G:C6	2.90	0.59
1:2:1586:A:H3'	1:2:1587:A:C8	2.37	0.59
7:S5:61:TYR:CE2	7:S5:164:PRO:HG2	2.82	0.59
42:L5:196:ARG:NH2	42:L5:237:GLU:OE2	2.33	0.59
17:C5:108:ARG:O	17:C5:111:MET:N	2.72	0.59
1:6:869:A:H2'	1:6:870:C:O4'	2.03	0.59
71:O5:101:THR:HG23	71:O5:104:GLN:HB2	1.85	0.59
1:2:895:G:H1	1:2:917:U:H3	1.50	0.59
3:S1:228:LEU:O	3:S1:231:LEU:HB3	6.26	0.59
63:N7:38:PHE:CE2	63:N7:40:HIS:HB3	2.74	0.59
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.83	0.59
35:SM:64:LYS:C	35:SM:66:ALA:H	2.45	0.59
50:M4:84:LYS:NZ	36:5:560:G:OP1	359.66	0.59
41:L4:361:HIS:CG	41:L4:362:ASP:H	3.04	0.59
34:SR:35:SER:OG	34:SR:43:ILE:HB	2.03	0.59
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	1.83	0.59
61:N5:39:LYS:HG3	36:5:13:A:H4'	118.24	0.59
40:L3:95:THR:OG1	40:L3:98:GLY:O	2.20	0.59
1:2:734:A:O2'	1:2:735:C:H5'	2.03	0.59
39:L2:224:THR:HG22	39:L2:237:LEU:HB2	1.83	0.59
22:D0:31:VAL:HA	22:D0:34:LEU:HB3	2.12	0.59
76:Q0:104:PRO:HB2	76:Q0:107:ALA:HB2	1.85	0.59
36:1:1618:G:H4'	38:4:129:C:H1'	1.85	0.59
36:1:1826:C:H2'	36:1:1827:C:H6	1.66	0.59
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG23	1.85	0.59
36:5:300:G:H2'	36:5:301:G:H8	1.66	0.59
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.21	0.59
36:1:1560:G:C2'	36:1:1561:G:H5'	2.32	0.59
38:4:109:A:C2	38:4:114:G:C6	2.89	0.59
1:2:489:C:H42	1:2:497:G:H22	1.49	0.59
1:2:1407:U:H2'	1:2:1408:G:O4'	2.02	0.59
36:1:634:C:O2'	68:O2:47:ARG:HD2	2.03	0.59
59:N3:75:PRO:HD2	59:N3:103:ALA:O	3.31	0.59
36:1:202:G:N7	87:1:3945:OHX:N4	2.49	0.59
11:S9:143:ILE:HG12	1:6:768:C:C2	418.01	0.59
47:M0:154:ARG:NH2	36:5:2838:A:OP1	329.04	0.59
47:M0:156:ARG:HH11	47:M0:156:ARG:CG	3.78	0.59
1:6:445:A:H2'	1:6:446:A:C8	2.32	0.59
1:2:1339:C:O2'	1:2:1341:A:N7	2.35	0.59
36:1:566:G:H2'	36:1:567:G:H8	1.66	0.59
1:2:902:G:H1	16:C4:51:ASP:CG	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:73:LYS:HZ1	36:5:1637:A:P	209.42	0.59
70:O4:103:LYS:O	70:O4:107:GLU:HG3	3.28	0.59
35:SM:74:LYS:HD2	35:SM:74:LYS:H	1.67	0.59
6:S4:181:VAL:HG21	6:S4:195:ILE:HG13	1.84	0.59
6:S4:98:ASN:OD1	6:S4:116:ASP:HA	3.68	0.59
50:M4:90:VAL:O	50:M4:93:LYS:N	2.60	0.59
9:S7:164:TYR:CZ	9:S7:165:LYS:HG2	2.38	0.59
9:S7:56:LYS:HB2	9:S7:88:ARG:HH11	2.26	0.59
3:S1:197:ILE:O	3:S1:201:THR:OG1	2.13	0.59
58:N2:42:LYS:HG2	58:N2:46:ALA:HA	4.24	0.59
26:D4:29:HIS:CE1	26:D4:68:LYS:H	3.22	0.59
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.54	0.59
64:N8:75:LEU:O	64:N8:77:LYS:N	3.23	0.59
87:2:2036:OHX:N2	10:S8:17:LYS:O	2.36	0.59
78:Q2:28:TYR:HE1	78:Q2:30:ALA:HA	3.34	0.59
42:L5:95:TRP:CZ2	42:L5:181:PRO:HD3	3.67	0.59
36:1:3095:U:H2'	36:1:3096:C:C6	2.37	0.59
36:5:1110:U:O4	87:5:3986:OHX:N4	2.36	0.59
36:5:1816:A:H2'	36:5:1816:A:N3	2.17	0.59
1:2:303:U:O2'	1:2:304:U:H5'	2.03	0.59
36:1:3317:U:O2'	87:1:4023:OHX:N3	2.36	0.59
36:1:1597:C:H2'	36:1:1598:G:C8	2.37	0.59
87:5:3937:OHX:N1	87:5:4228:OHX:N4	2.50	0.59
36:1:1240:A:H3'	36:1:1241:U:H5'	1.85	0.59
36:1:1535:A:OP2	87:1:3876:OHX:N1	2.36	0.59
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.36	0.59
8:S6:200:ALA:HA	8:S6:203:GLU:HG3	1.85	0.59
7:S5:133:VAL:HG22	7:S5:198:LEU:HD13	1.90	0.59
20:C8:50:ALA:C	20:C8:52:VAL:H	3.66	0.59
49:M3:57:VAL:HG12	49:M3:112:ASN:HD21	4.03	0.59
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.83	0.59
7:S5:124:LEU:O	7:S5:125:THR:OG1	2.20	0.59
36:1:1473:G:OP1	55:M9:23:TRP:HA	2.02	0.59
22:D0:63:LEU:HD22	31:D9:34:TYR:CZ	3.10	0.59
5:S3:54:ARG:HA	5:S3:90:ARG:HH22	1.68	0.59
15:C3:101:HIS:ND1	1:6:951:A:H1'	283.47	0.59
72:O6:26:ILE:O	72:O6:28:TYR:N	2.35	0.59
23:D1:25:LYS:HG2	23:D1:26:ALA:H	4.49	0.59
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.70	0.59
6:S4:180:LEU:N	6:S4:229:GLY:O	2.30	0.59
36:5:3245:A:C2	36:5:3246:G:C2	2.91	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:51:ARG:HH12	43:L6:163:PHE:HB2	2.87	0.59
1:2:569:C:H2'	1:2:570:A:C8	2.29	0.59
40:L3:116:ARG:HD2	40:L3:122:TRP:CG	2.37	0.59
40:L3:165:GLN:HB2	40:L3:168:LYS:HG3	5.71	0.59
36:1:1486:G:H21	70:O4:6:THR:HG22	1.68	0.59
34:SR:299:GLN:NE2	34:SR:315:VAL:O	2.35	0.59
40:L3:144:ILE:HG22	40:L3:148:LEU:HD22	2.94	0.59
69:O3:60:ARG:HD2	36:5:3275:U:C6	218.79	0.59
36:1:290:G:H4'	51:M5:69:GLY:O	2.02	0.59
39:L2:202:VAL:HG22	39:L2:217:GLN:HG2	2.87	0.59
1:6:529:A:H2'	1:6:530:C:C6	2.37	0.59
39:L2:30:ARG:NH2	39:L2:41:ILE:HG21	3.25	0.59
54:M8:171:LYS:HE2	36:5:89:A:OP2	146.09	0.59
13:C1:40:LEU:HD13	1:6:246:G:N3	329.83	0.59
48:M1:22:SER:HA	48:M1:66:ALA:HB1	2.44	0.59
36:1:2618:G:O4'	65:N9:3:LYS:NZ	2.35	0.59
1:6:355:G:OP1	87:6:2071:OHX:N5	2.35	0.59
24:D2:78:ARG:O	24:D2:124:LYS:HD3	2.03	0.59
38:4:126:A:O2'	38:4:128:U:OP2	2.20	0.59
68:O2:103:LYS:O	68:O2:106:VAL:HG22	5.14	0.59
62:N6:90:VAL:C	62:N6:92:GLY:H	2.06	0.59
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	9.01	0.59
45:L8:119:GLY:C	45:L8:121:SER:H	2.06	0.59
36:5:1460:A:H2'	36:5:1461:A:O4'	2.03	0.59
24:D2:26:LEU:HD11	24:D2:60:LYS:HB3	5.76	0.59
36:5:595:G:C8	36:5:609:G:C6	2.90	0.59
87:5:4028:OHX:N1	87:5:4075:OHX:N4	2.51	0.59
14:C2:57:ALA:HB3	14:C2:85:LYS:HE2	1.84	0.59
1:2:482:U:H2'	1:2:483:A:H8	1.68	0.59
36:1:1207:G:N7	87:1:4061:OHX:N2	2.50	0.59
5:S3:22:ASN:O	5:S3:26:THR:N	2.85	0.59
36:5:723:U:H2'	36:5:724:U:H5'	1.85	0.59
36:1:1131:G:C2	36:1:2373:A:C4	2.91	0.59
36:5:2819:A:H2'	36:5:2820:A:H5'	1.84	0.59
43:L6:107:ALA:O	43:L6:109:GLU:HG3	3.86	0.59
36:1:2869:U:H5''	36:1:2870:C:OP2	2.03	0.59
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.28	0.59
1:6:329:G:H2'	1:6:330:G:H8	1.67	0.59
43:L6:131:LYS:HG2	43:L6:133:GLU:H	1.68	0.59
1:2:1158:C:OP2	87:2:2173:OHX:N5	2.35	0.59
48:M1:86:VAL:C	48:M1:88:GLU:H	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.68	0.59
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.84	0.59
3:S1:179:SER:HB3	3:S1:183:GLN:HB2	1.84	0.59
4:S2:140:ARG:HH12	4:S2:229:LEU:HD11	5.36	0.59
54:M8:44:PHE:HD1	54:M8:139:ILE:HD11	3.39	0.59
68:O2:96:ILE:H	68:O2:121:ASN:HD21	1.50	0.59
50:M4:19:ARG:HB3	50:M4:35:ILE:HG13	3.52	0.59
1:6:72:A:H2'	1:6:73:U:H1'	1.85	0.59
41:L4:359:LEU:HA	56:N0:8:GLN:OE1	2.37	0.59
59:N3:93:LEU:H	59:N3:93:LEU:HD23	1.98	0.59
36:5:3170:A:C2	36:5:3281:U:C2	2.91	0.59
42:L5:270:LYS:HB3	37:7:1:G:O2'	322.77	0.59
39:L2:97:ASN:HA	79:Q3:87:ARG:HH12	2.81	0.59
49:M3:90:ALA:HA	49:M3:93:ILE:HD12	5.18	0.59
45:L8:156:ASP:HB2	45:L8:183:LYS:HZ1	3.39	0.59
36:5:1709:C:H2'	36:5:1710:C:C6	2.37	0.59
36:5:437:G:H2'	36:5:438:A:C1'	2.33	0.59
64:N8:96:LYS:O	64:N8:98:THR:N	2.36	0.59
59:N3:125:LEU:HB3	59:N3:126:TRP:CD1	2.37	0.59
36:5:776:U:H5	36:5:2719:U:O2	1.86	0.59
36:5:197:G:N2	36:5:372:A:C8	2.70	0.59
1:2:1230:A:H2'	1:2:1258:U:C5	2.36	0.59
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.03	0.59
36:1:1278:A:O2'	36:1:1279:C:O5'	2.14	0.59
55:M9:180:LYS:HG2	55:M9:184:LEU:HD12	3.75	0.59
34:SR:165:ASP:O	34:SR:166:SER:HB2	3.94	0.59
1:2:17:C:O2'	1:2:1137:A:N1	2.33	0.59
36:5:595:G:H22	36:5:609:G:H5''	1.68	0.59
36:5:595:G:N1	36:5:609:G:H5''	2.17	0.59
3:S1:157:GLN:O	3:S1:159:SER:N	2.36	0.59
74:O8:32:ASN:HD22	74:O8:35:GLY:H	4.37	0.59
17:C5:77:ARG:HA	17:C5:95:GLY:HA3	1.84	0.59
36:5:717:C:H2'	36:5:718:G:O4'	2.01	0.59
36:1:535:G:O2'	36:1:554:A:N6	2.35	0.59
37:7:109:G:O5'	37:7:109:G:H8	1.85	0.59
36:1:2209:U:O2'	36:1:2210:G:OP1	2.21	0.59
1:6:1122:G:N7	87:6:2167:OHX:N6	2.50	0.59
51:M5:73:ARG:NH1	51:M5:88:GLY:O	2.65	0.58
53:M7:122:ALA:HB3	53:M7:143:PRO:C	2.23	0.58
36:1:2852:C:H5''	36:1:2853:A:OP2	2.03	0.58
47:M0:150:GLU:HG3	47:M0:154:ARG:HE	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1474:G:N2	1:6:1475:A:N3	2.51	0.58
17:C5:106:GLU:HG2	17:C5:108:ARG:HH12	1.68	0.58
48:M1:109:HIS:O	48:M1:112:LEU:HD22	3.88	0.58
5:S3:68:GLU:HB3	5:S3:72:LEU:HD12	3.87	0.58
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	2.87	0.58
1:6:1139:A:C5	1:6:1140:G:C8	2.91	0.58
4:S2:76:LEU:HD23	4:S2:133:LYS:HE2	1.85	0.58
63:N7:43:VAL:O	63:N7:72:ILE:HA	2.02	0.58
66:O0:31:VAL:O	66:O0:35:ARG:HG3	2.03	0.58
55:M9:15:VAL:HG12	55:M9:17:VAL:HG23	1.84	0.58
11:S9:163:PRO:HD3	11:S9:169:PRO:O	2.03	0.58
49:M3:168:ARG:NH1	49:M3:172:LEU:HD11	2.36	0.58
36:1:1485:G:OP2	87:1:4154:OHX:N1	2.36	0.58
36:5:1364:C:H2'	36:5:1365:G:H8	1.68	0.58
71:O5:28:LEU:HB3	71:O5:47:VAL:HG21	1.85	0.58
76:Q0:127:LEU:HD23	76:Q0:128:LYS:H	1.68	0.58
13:C1:40:LEU:HD13	1:6:246:G:C4	330.73	0.58
48:M1:61:ARG:O	48:M1:62:ASN:HB2	2.18	0.58
36:1:855:U:H2'	36:1:856:G:O4'	2.03	0.58
40:L3:30:LYS:O	87:5:4101:OHX:N1	249.79	0.58
38:8:9:A:H2'	38:8:10:A:H8	1.68	0.58
40:L3:31:ALA:O	40:L3:339:ARG:NH1	3.02	0.58
36:1:3298:C:H2'	36:1:3299:A:O4'	2.03	0.58
52:M6:89:SER:O	52:M6:92:THR:HG23	2.03	0.58
44:L7:93:ASN:OD1	44:L7:93:ASN:N	2.35	0.58
44:L7:93:ASN:O	44:L7:94:LYS:HB2	2.02	0.58
9:S7:173:TYR:HE1	9:S7:179:LYS:HB2	1.99	0.58
36:1:3362:A:H3'	36:1:3363:U:H6	1.68	0.58
36:1:13:A:H5'	36:1:14:U:OP2	2.02	0.58
49:M3:162:ASN:N	49:M3:162:ASN:OD1	2.23	0.58
36:5:47:C:O5'	36:5:47:C:H6	1.86	0.58
57:N1:2:GLY:N	36:5:2626:A:OP1	234.39	0.58
1:6:990:C:OP2	87:6:2125:OHX:N2	2.37	0.58
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	5.71	0.58
46:L9:91:ARG:HH21	46:L9:91:ARG:HG3	1.68	0.58
42:L5:110:LEU:HD13	42:L5:171:LEU:HD23	1.86	0.58
42:L5:82:GLU:O	42:L5:85:ARG:HB3	2.58	0.58
1:2:1429:G:H1'	22:D0:74:GLU:CD	2.24	0.58
5:S3:60:GLY:HA3	5:S3:65:ARG:H	1.68	0.58
36:1:71:A:OP2	64:N8:64:GLN:NE2	2.36	0.58
36:1:655:C:H2'	36:1:656:A:C8	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1719:G:H2'	36:1:1720:U:O4'	2.02	0.58
70:O4:81:CYS:O	70:O4:81:CYS:SG	2.77	0.58
6:S4:88:ASP:HA	6:S4:122:LYS:HZ2	2.69	0.58
1:6:74:U:N3	1:6:76:A:H5''	2.18	0.58
34:SR:302:PHE:HE1	34:SR:312:VAL:HG13	5.24	0.58
34:SR:73:LEU:HD23	34:SR:79:TYR:O	2.93	0.58
36:1:2818:U:C6	36:1:2818:U:H5'	2.38	0.58
40:L3:83:PRO:O	40:L3:165:GLN:HG3	2.03	0.58
1:6:414:C:H2'	1:6:415:C:O4'	2.03	0.58
36:5:855:U:H2'	36:5:856:G:C8	2.37	0.58
44:L7:139:PRO:HA	44:L7:237:ASN:ND2	2.16	0.58
63:N7:54:THR:O	63:N7:57:HIS:HB2	2.03	0.58
36:1:2767:U:O2'	78:Q2:30:ALA:O	2.20	0.58
51:M5:12:ARG:HG2	36:5:268:A:C4	126.91	0.58
36:5:2768:U:O2'	36:5:2769:A:O5'	2.18	0.58
58:N2:89:LEU:O	58:N2:93:ILE:HG13	2.04	0.58
22:D0:52:LYS:HD2	1:6:1345:A:P	469.54	0.58
4:S2:169:LEU:CD2	4:S2:198:THR:HG22	2.33	0.58
74:O8:64:LYS:HG3	74:O8:65:LEU:N	5.54	0.58
36:5:2906:C:H2'	36:5:2907:G:O4'	2.03	0.58
36:5:1851:G:OP1	87:5:4034:OHX:N5	2.35	0.58
2:S0:21:ASN:HB3	2:S0:24:LEU:HB2	2.96	0.58
36:5:2228:A:H2'	36:5:2229:A:H8	1.68	0.58
1:2:1421:A:H5'	5:S3:159:HIS:O	2.02	0.58
36:5:2981:U:C2'	36:5:2982:A:H5'	2.33	0.58
46:L9:150:SER:OG	46:L9:153:ASP:HB2	2.87	0.58
36:5:719:U:H6	36:5:719:U:H5''	1.68	0.58
6:S4:21:ASP:OD2	6:S4:21:ASP:N	2.36	0.58
20:C8:84:TRP:HA	20:C8:89:GLN:OE1	2.03	0.58
36:5:2344:U:H2'	36:5:2345:A:C8	2.38	0.58
1:6:492:A:H2'	1:6:493:U:H5''	1.85	0.58
36:1:2334:U:O2'	36:1:2335:G:H5'	2.04	0.58
36:1:3198:U:H1'	46:L9:21:LYS:HB2	1.85	0.58
46:L9:9:GLN:HB3	46:L9:52:LEU:HD21	2.40	0.58
75:O9:45:ARG:NH2	36:5:1841:A:O2'	127.23	0.58
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	1.86	0.58
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.80	0.58
41:L4:209:TYR:HE1	36:5:689:U:O4	89.20	0.58
43:L6:80:ASN:O	43:L6:82:ARG:N	3.02	0.58
1:2:1339:C:O2'	1:2:1340:U:OP1	2.21	0.58
1:6:820:U:O2'	1:6:821:U:H5''	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:100:ASN:OD1	46:L9:101:VAL:N	2.36	0.58
1:2:912:U:H4'	1:2:913:G:H8	1.68	0.58
16:C4:45:GLY:HA2	16:C4:54:GLU:HG3	1.84	0.58
2:S0:7:PHE:HE1	23:D1:39:VAL:HG21	5.17	0.58
63:N7:81:LEU:HD12	70:O4:93:PHE:CD2	2.38	0.58
70:O4:98:GLN:O	70:O4:98:GLN:NE2	2.35	0.58
36:5:1764:U:C4	36:5:1765:U:H1'	2.38	0.58
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.67	0.58
36:5:3279:A:N6	36:5:3280:U:C4	2.72	0.58
8:S6:64:LYS:HB2	8:S6:97:VAL:CG2	3.98	0.58
51:M5:58:GLY:O	51:M5:135:VAL:HA	3.58	0.58
51:M5:135:VAL:HG11	51:M5:151:ILE:HG21	1.86	0.58
51:M5:140:LYS:O	51:M5:144:ARG:HD2	2.03	0.58
1:6:1092:A:O2'	1:6:1093:A:H3'	2.02	0.58
36:1:2190:U:H2'	36:1:2191:U:O4'	2.03	0.58
48:M1:41:SER:C	48:M1:43:GLN:H	2.35	0.58
87:2:2031:OHX:N3	87:2:2146:OHX:N1	2.50	0.58
36:1:1806:A:H2'	36:1:1807:G:O4'	2.03	0.58
6:S4:254:ARG:HH11	6:S4:254:ARG:HB3	4.85	0.58
44:L7:92:ILE:HG22	44:L7:93:ASN:HB3	1.85	0.58
55:M9:116:ASP:O	55:M9:118:HIS:N	3.40	0.58
2:S0:32:HIS:O	2:S0:32:HIS:ND1	2.36	0.58
36:1:253:A:H2'	36:1:254:A:O4'	2.03	0.58
13:C1:109:VAL:HG23	13:C1:137:PHE:C	2.48	0.58
1:6:1715:G:C6	1:6:1716:C:N4	2.71	0.58
51:M5:97:SER:OG	51:M5:98:LEU:N	2.36	0.58
14:C2:55:GLY:N	35:SM:172:VAL:O	2.36	0.58
1:6:1688:U:H2'	1:6:1689:A:C8	2.38	0.58
37:7:15:C:C2	37:7:66:A:N1	2.71	0.58
36:5:241:G:H2'	36:5:242:C:C6	2.38	0.58
6:S4:213:SER:O	6:S4:214:LEU:HD12	2.03	0.58
33:E1:134:ASN:H	1:6:1251:U:H4'	442.51	0.58
1:2:759:U:H2'	1:2:760:A:H8	1.68	0.58
36:1:1409:G:O2'	36:1:1410:U:H5'	2.02	0.58
36:5:2953:U:H2'	36:5:2954:U:H2'	1.84	0.58
1:6:550:A:OP2	87:6:2053:OHX:N2	2.36	0.58
1:2:1354:G:C2	1:2:1372:U:C4	2.91	0.58
1:6:565:C:C2	87:6:2164:OHX:N4	2.71	0.58
1:2:434:G:H5'	25:D3:78:LYS:HB3	1.85	0.58
36:1:3187:A:H5''	50:M4:8:LYS:HD2	1.84	0.58
36:5:2164:A:H61	36:5:2170:U:H3	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:36:ARG:O	72:O6:40:VAL:HG23	2.22	0.58
18:C6:127:LYS:NZ	18:C6:131:GLY:O	2.30	0.58
30:D8:8:THR:HB	30:D8:56:LEU:HB2	1.85	0.58
46:L9:163:GLN:O	46:L9:166:ARG:HG3	2.69	0.58
36:1:2689:A:N7	36:1:2702:A:C6	2.72	0.58
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.69	0.58
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.86	0.58
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.85	0.58
6:S4:194:THR:O	6:S4:210:ILE:HG23	5.37	0.58
53:M7:177:ALA:O	53:M7:179:GLN:N	2.36	0.58
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.29	0.58
24:D2:77:PRO:HG3	25:D3:7:ARG:HG3	1.83	0.58
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.26	0.58
10:S8:29:LEU:HD12	1:6:400:A:N6	295.49	0.58
1:2:736:C:H42	1:2:737:A:H62	1.52	0.58
9:S7:21:ALA:HA	9:S7:24:PHE:HD2	3.35	0.58
36:1:2437:G:N2	36:1:2511:A:H1'	2.19	0.58
34:SR:108:SER:OG	34:SR:127:ARG:HB2	2.03	0.58
36:1:1629:U:C6	63:N7:112:LYS:HG2	2.38	0.58
38:4:79:A:H2'	38:4:80:A:C1'	2.32	0.58
1:6:260:U:H3'	1:6:261:U:C5'	2.32	0.58
42:L5:279:LYS:HG2	42:L5:282:ARG:NH2	2.19	0.58
1:2:819:G:H4'	1:2:820:U:OP1	2.01	0.58
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.02	0.58
1:6:644:C:N4	1:6:690:G:H1	2.01	0.58
72:O6:4:LYS:HE2	72:O6:14:GLY:HA3	1.86	0.58
36:1:333:G:N2	36:1:334:A:H1'	2.17	0.58
36:5:999:G:H2'	36:5:1000:C:C6	2.37	0.58
38:4:157:U:H5'	38:4:158:U:OP2	2.03	0.58
42:L5:134:ALA:HB2	42:L5:141:PRO:HD3	2.83	0.58
25:D3:127:VAL:O	25:D3:130:VAL:HG22	2.37	0.58
3:S1:152:ARG:HB3	1:6:1799:U:H3	339.50	0.58
47:M0:191:LYS:O	47:M0:197:VAL:HG22	2.02	0.58
6:S4:4:GLY:HA3	1:6:93:A:O2'	329.95	0.58
36:5:1424:C:H2'	36:5:1425:U:O4'	2.03	0.58
41:L4:262:TRP:CH2	41:L4:271:LYS:HE3	2.65	0.58
1:2:1474:G:H2'	1:2:1475:A:C8	2.38	0.58
18:C6:27:GLY:HA2	18:C6:60:PHE:O	3.20	0.58
18:C6:28:LEU:HD12	18:C6:64:ASP:HB3	1.84	0.58
7:S5:58:LEU:HD22	7:S5:168:VAL:HG23	1.84	0.58
7:S5:83:ARG:HA	7:S5:86:GLN:OE1	5.47	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.38	0.58
17:C5:22:LEU:HD23	17:C5:23:GLU:H	4.88	0.58
15:C3:91:LEU:HB3	15:C3:122:ILE:HG12	2.15	0.58
16:C4:41:ARG:NH2	1:6:916:U:O4	264.64	0.58
16:C4:16:VAL:O	16:C4:30:VAL:HG23	2.04	0.58
16:C4:50:ALA:O	16:C4:52:ARG:N	2.36	0.58
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	2.49	0.58
4:S2:54:GLU:HA	4:S2:57:PHE:HD2	1.68	0.58
4:S2:58:LEU:HA	23:D1:12:TYR:HE1	2.05	0.58
70:O4:99:LYS:HG2	70:O4:103:LYS:HE3	1.86	0.58
35:SM:72:ARG:NH2	1:6:1461:C:P	328.02	0.58
66:O0:11:ASN:O	66:O0:14:LEU:N	4.20	0.58
8:S6:73:ILE:HB	8:S6:75:LEU:HD21	3.64	0.58
40:L3:88:GLY:O	40:L3:161:LEU:N	2.36	0.58
40:L3:36:ASP:OD1	40:L3:39:LYS:HG2	3.69	0.58
35:SM:51:ARG:NH1	36:1:2677:G:H1'	2.19	0.58
64:N8:78:LEU:C	64:N8:80:THR:H	2.40	0.58
36:5:221:A:C4	36:5:224:C:C4	2.91	0.58
1:2:1258:U:OP1	12:C0:1:MET:N	2.28	0.58
36:1:3074:G:H2'	36:1:3075:G:H8	1.69	0.58
44:L7:60:ARG:HA	44:L7:63:ILE:HG13	1.86	0.58
65:N9:46:ALA:HB2	36:5:1074:U:H1'	208.39	0.58
19:C7:67:ARG:NH1	1:6:1398:U:O2'	405.32	0.58
45:L8:121:SER:O	45:L8:123:GLN:N	2.81	0.58
6:S4:151:ASP:O	6:S4:154:ILE:HB	3.09	0.58
6:S4:160:VAL:HA	6:S4:172:PHE:HA	2.40	0.58
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	3.75	0.58
36:1:1580:A:H5'	36:1:2522:G:N7	2.18	0.58
42:L5:279:LYS:NZ	42:L5:282:ARG:HH12	3.75	0.58
1:2:1044:U:H3	1:2:1074:G:H1	1.51	0.58
36:1:709:A:H8	36:1:709:A:O5'	1.86	0.58
37:7:79:A:N6	37:7:101:G:O2'	2.36	0.58
36:5:2734:A:OP1	87:5:4041:OHX:N6	2.37	0.58
78:Q2:10:THR:HG22	78:Q2:23:HIS:CE1	3.27	0.58
40:L3:230:THR:HB	40:L3:247:ARG:NH1	3.25	0.58
46:L9:28:VAL:HG12	46:L9:33:THR:CB	5.72	0.58
53:M7:138:LYS:HD2	53:M7:140:GLU:HB2	1.84	0.58
28:D6:22:ARG:NH2	28:D6:27:SER:O	4.61	0.58
11:S9:152:SER:C	11:S9:154:LYS:H	2.07	0.58
36:5:2851:A:H2'	36:5:2852:C:H6	1.68	0.58
47:M0:175:ASN:CG	47:M0:176:LEU:H	4.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:91:GLY:HA2	44:L7:111:ILE:HD12	1.86	0.58
43:L6:56:LYS:HG2	43:L6:57:HIS:N	3.01	0.58
5:S3:162:GLN:N	5:S3:163:PRO:HD2	2.25	0.58
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.37	0.58
42:L5:50:ARG:NH2	42:L5:147:ASP:OD2	2.37	0.58
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.84	0.58
1:2:1502:G:O6	21:C9:102:ARG:NH2	2.37	0.58
36:1:299:G:N7	87:1:4079:OHX:N2	2.52	0.58
3:S1:129:THR:HB	3:S1:180:THR:HA	1.84	0.58
41:L4:91:GLY:HA3	41:L4:94:CYS:SG	2.44	0.58
1:6:1696:G:N2	1:6:1704:U:O2	2.36	0.58
68:O2:105:ARG:NH1	68:O2:125:ARG:HD3	3.22	0.58
56:N0:141:LYS:O	56:N0:143:PHE:N	2.79	0.58
59:N3:89:ASP:OD1	59:N3:91:VAL:HG22	2.04	0.58
1:2:168:A:H2'	1:2:169:A:C8	2.38	0.58
39:L2:89:TYR:CZ	36:5:2551:U:C2	223.24	0.58
52:M6:113:ASP:OD2	52:M6:114:LYS:N	3.75	0.58
49:M3:106:GLN:N	72:O6:20:MET:HG3	2.17	0.58
36:5:437:G:H2'	36:5:438:A:H1'	1.86	0.58
36:1:2534:G:O6	87:1:3996:OHX:N2	2.37	0.58
87:5:4016:OHX:N3	87:5:4211:OHX:N1	2.51	0.58
68:O2:63:THR:HA	68:O2:66:LEU:HD12	2.11	0.58
36:5:1064:A:H5''	36:5:1066:G:C8	2.39	0.58
36:1:1941:C:H1'	36:1:3362:A:C8	2.38	0.58
36:5:1623:G:C2	36:5:1823:A:C2	2.91	0.58
10:S8:153:GLU:HB3	10:S8:156:VAL:H	4.69	0.58
36:5:1264:G:N2	36:5:1265:U:O4	2.37	0.58
36:5:2218:G:H2'	36:5:2219:A:H8	1.67	0.58
36:5:2228:A:H2'	36:5:2229:A:C8	2.39	0.58
1:6:493:U:H5	1:6:496:G:N2	2.01	0.58
6:S4:94:ALA:HB1	26:D4:16:PRO:HB2	1.85	0.58
36:5:3360:C:C2'	36:5:3361:G:H5'	2.32	0.58
1:6:1257:U:O2'	1:6:1258:U:O4'	2.20	0.58
36:5:653:A:OP1	87:5:3977:OHX:N2	2.37	0.58
36:5:2245:C:H2'	36:5:2246:G:O4'	2.04	0.58
36:1:279:U:H2'	36:1:280:U:C6	2.38	0.58
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.24	0.58
11:S9:155:HIS:O	11:S9:157:ASP:N	2.36	0.58
36:1:113:C:OP1	51:M5:147:ARG:NE	2.37	0.58
41:L4:123:ALA:O	41:L4:126:ILE:HB	2.03	0.58
43:L6:58:LEU:HD21	43:L6:64:LEU:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:526:C:H2'	36:1:527:A:O4'	2.03	0.58
42:L5:211:LEU:O	42:L5:213:ASP:N	2.81	0.58
42:L5:32:GLN:O	42:L5:36:LEU:HD12	2.03	0.58
5:S3:177:MET:CG	5:S3:178:ARG:H	3.84	0.58
68:O2:85:LEU:HB2	68:O2:117:ILE:HD13	2.14	0.58
1:2:1589:C:H2'	1:2:1590:G:C8	2.38	0.58
40:L3:72:VAL:HG12	59:N3:88:ARG:O	2.45	0.58
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.21	0.58
1:2:1291:G:OP1	4:S2:97:ARG:NH2	2.35	0.58
1:2:1683:C:O2'	1:2:1684:U:O5'	2.19	0.58
51:M5:93:LYS:NZ	36:5:2600:C:OP1	154.82	0.58
51:M5:174:ILE:HG21	36:5:63:A:H5''	102.30	0.58
36:1:2402:A:OP2	87:1:4086:OHX:N6	2.36	0.58
40:L3:183:LEU:HD23	40:L3:191:LYS:HB3	1.84	0.58
36:5:438:A:H2'	36:5:494:G:N2	2.15	0.58
52:M6:51:LYS:HD2	52:M6:144:SER:OG	4.36	0.58
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.85	0.58
1:6:1494:C:H2'	1:6:1495:C:H6	1.67	0.58
36:1:1054:A:H5''	36:1:2637:A:H61	1.67	0.58
36:1:550:A:N1	36:1:551:A:N6	2.51	0.58
36:1:33:G:H1'	36:1:52:A:H61	1.69	0.58
1:2:639:U:O2'	1:2:640:U:OP2	2.19	0.58
36:1:1210:U:OP1	46:L9:62:ARG:NH1	2.36	0.58
36:5:126:U:H2'	36:5:127:G:O4'	2.04	0.58
36:1:1441:G:O6	87:1:3926:OHX:N1	2.37	0.58
36:5:1552:G:H5''	36:5:1553:U:OP2	2.03	0.58
1:2:1637:C:N1	35:SM:90:ALA:HA	2.19	0.58
34:SR:50:ASP:O	34:SR:52:GLN:N	2.36	0.58
36:5:241:G:N2	36:5:242:C:C2	2.72	0.58
42:L5:119:TYR:CD1	42:L5:141:PRO:HB3	2.38	0.58
36:5:2801:A:O2'	36:5:2802:A:H2'	2.04	0.58
36:1:83:U:H2'	36:1:84:U:O4'	2.02	0.58
1:6:892:A:H2'	1:6:893:U:O4'	2.03	0.58
1:6:628:G:H8	1:6:628:G:O5'	1.86	0.58
64:N8:117:ARG:HG3	36:5:716:A:N7	151.87	0.58
36:1:1071:U:O2'	36:1:1072:G:OP2	2.21	0.58
36:5:5:G:C6	38:8:155:A:C2	2.92	0.58
42:L5:222:LEU:HD23	42:L5:222:LEU:H	1.69	0.58
1:2:448:C:OP1	6:S4:28:ALA:HA	2.04	0.58
28:D6:90:GLU:HB3	28:D6:93:LYS:NZ	5.26	0.58
44:L7:65:ALA:HB1	44:L7:76:TYR:CD1	3.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:23:CYS:HB3	28:D6:26:CYS:HB2	5.51	0.58
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.18	0.58
1:2:1367:G:C2	1:2:1368:G:C8	2.91	0.58
7:S5:25:LEU:HB2	18:C6:27:GLY:HA3	1.86	0.58
1:6:1503:A:H2'	1:6:1504:G:O4'	2.04	0.58
23:D1:83:TRP:HH2	23:D1:85:TYR:CD2	2.90	0.58
55:M9:4:LEU:HB3	55:M9:7:GLN:HB2	1.86	0.58
41:L4:354:VAL:O	41:L4:358:THR:OG1	2.17	0.58
42:L5:270:LYS:HG3	42:L5:273:ARG:N	6.94	0.58
39:L2:42:ARG:HD2	39:L2:87:PHE:CD1	2.38	0.58
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.38	0.58
49:M3:123:ILE:HG22	71:O5:118:ILE:HA	1.85	0.58
51:M5:60:VAL:O	51:M5:61:ILE:HD13	3.20	0.58
36:1:3141:A:N1	36:1:3144:G:H1'	2.18	0.58
76:Q0:77:ILE:HG23	76:Q0:78:ILE:N	3.61	0.58
44:L7:27:ALA:O	44:L7:31:ALA:N	2.31	0.58
36:1:3120:C:O2'	36:1:3121:U:H6	1.85	0.58
74:O8:51:LEU:N	36:5:1613:A:OP1	133.67	0.58
1:6:195:G:H2'	1:6:196:G:H5''	1.85	0.58
1:2:823:G:O2'	1:2:824:G:O5'	2.22	0.58
1:6:1107:G:C5	1:6:1108:G:C6	2.92	0.58
36:1:2138:A:C8	73:O7:3:LYS:HG2	2.39	0.58
36:1:761:A:C6	36:1:771:A:H1'	2.39	0.58
36:5:274:G:O6	87:5:4060:OHX:N1	2.37	0.58
28:D6:90:GLU:O	28:D6:93:LYS:HB2	2.04	0.58
67:O1:98:VAL:HG13	67:O1:100:SER:N	2.18	0.58
16:C4:112:ILE:HG22	16:C4:113:GLY:H	2.11	0.58
1:2:1121:C:H2'	1:2:1122:G:C8	2.38	0.58
45:L8:177:TYR:HE2	45:L8:223:ALA:HA	1.78	0.58
36:5:1345:G:N7	87:5:4061:OHX:N5	2.51	0.58
34:SR:49:GLY:HA2	34:SR:54:PHE:CE1	4.54	0.58
25:D3:43:PHE:HZ	25:D3:104:LEU:HB2	3.00	0.58
28:D6:10:ARG:NH2	28:D6:35:ALA:O	4.51	0.58
11:S9:110:GLN:HA	11:S9:129:ILE:CD1	2.33	0.58
11:S9:136:VAL:HG22	11:S9:156:ILE:HG23	2.54	0.58
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.85	0.58
44:L7:184:LEU:O	44:L7:186:HIS:N	2.36	0.58
18:C6:4:VAL:HG11	18:C6:23:LYS:HB2	5.58	0.58
7:S5:113:ILE:HG23	7:S5:191:ALA:HB2	1.84	0.58
7:S5:142:PRO:HG3	7:S5:214:LYS:HB2	3.88	0.58
42:L5:53:VAL:HG21	42:L5:162:ALA:HB1	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:88:LEU:HG	15:C3:125:LEU:HD13	3.45	0.58
68:O2:26:HIS:HB2	36:5:655:C:OP1	163.70	0.58
23:D1:83:TRP:CH2	23:D1:85:TYR:HD2	2.63	0.58
20:C8:18:LEU:O	20:C8:20:THR:N	3.08	0.58
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.39	0.58
68:O2:83:GLU:O	68:O2:86:THR:OG1	2.22	0.58
1:2:1460:A:H5'	1:2:1461:C:OP2	2.04	0.58
36:1:3259:U:C6	36:1:3259:U:H5'	2.33	0.58
34:SR:255:ALA:HA	34:SR:260:ILE:HA	3.15	0.58
40:L3:169:THR:HG23	40:L3:169:THR:O	2.91	0.58
4:S2:88:LYS:NZ	1:6:1302:U:OP2	385.19	0.58
1:6:1767:G:OP1	1:6:1770:U:H4'	2.03	0.58
72:O6:88:GLU:O	72:O6:90:MET:N	2.37	0.58
76:Q0:80:PRO:O	76:Q0:82:LEU:N	4.48	0.58
39:L2:64:ARG:HH12	45:L8:38:GLN:HA	3.08	0.58
42:L5:220:SER:O	42:L5:220:SER:OG	4.74	0.58
22:D0:24:ILE:HG23	22:D0:116:VAL:HG22	1.85	0.58
34:SR:108:SER:OG	34:SR:109:ASP:N	2.37	0.58
10:S8:12:SER:HA	10:S8:18:ARG:HH12	1.67	0.58
54:M8:141:ARG:HD3	36:5:743:C:O2	175.56	0.58
55:M9:67:ALA:O	55:M9:71:ARG:HG2	2.04	0.58
45:L8:132:VAL:HG23	45:L8:199:ALA:H	1.69	0.58
1:6:696:C:H4'	1:6:697:C:C6	2.39	0.58
13:C1:131:ILE:HB	13:C1:135:VAL:HG12	2.65	0.58
15:C3:62:GLN:HB2	15:C3:65:VAL:HB	1.86	0.58
44:L7:64:GLN:HA	44:L7:67:ARG:HG3	3.49	0.58
1:2:484:C:H42	1:2:504:U:H3	1.50	0.58
4:S2:187:LEU:HD21	4:S2:218:ILE:HD11	1.86	0.58
42:L5:274:GLN:OE1	37:7:60:G:N2	333.08	0.58
10:S8:32:GLN:NE2	1:6:1675:C:O2	271.71	0.58
36:5:2136:C:O2'	36:5:2137:U:H5'	2.04	0.58
36:1:665:A:H1'	49:M3:14:PHE:CE1	2.39	0.58
37:7:70:U:C2	37:7:71:G:C8	2.91	0.58
36:5:1352:A:H4'	36:5:1353:U:OP1	2.03	0.58
1:2:122:U:O4	87:2:2049:OHX:N3	2.36	0.58
36:1:2810:C:H2'	36:1:2811:A:H5'	1.85	0.58
30:D8:5:THR:O	30:D8:7:VAL:N	3.18	0.58
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.37	0.58
36:1:2253:G:H1	36:1:2263:C:H42	1.52	0.58
1:2:1474:G:H2'	1:2:1475:A:H8	1.69	0.58
20:C8:42:TYR:N	1:6:1566:U:OP1	359.87	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:38:THR:HG21	18:C6:57:LEU:HG	3.16	0.58
7:S5:36:ALA:O	7:S5:38:THR:N	2.37	0.58
1:2:1560:U:O2'	87:2:2111:OHX:N3	2.36	0.58
5:S3:98:ALA:CB	5:S3:171:ALA:H	3.18	0.58
64:N8:64:GLN:HB2	64:N8:67:HIS:NE2	2.19	0.58
72:O6:30:LYS:HE3	36:5:266:A:H2'	102.63	0.58
16:C4:71:CYS:O	16:C4:75:GLY:N	3.78	0.58
19:C7:106:THR:HA	19:C7:109:LEU:HB3	3.14	0.58
23:D1:18:SER:O	23:D1:72:LEU:HD11	3.71	0.58
4:S2:137:ILE:HG13	4:S2:138:PRO:HD2	3.34	0.58
63:N7:3:LYS:HG2	66:O0:35:ARG:O	3.43	0.58
1:2:1186:U:OP2	1:2:1456:C:H1'	2.04	0.58
36:1:3000:A:O3'	40:L3:120:LYS:NZ	2.37	0.58
56:N0:14:LEU:O	56:N0:16:THR:HG22	2.04	0.58
36:5:3224:G:O6	87:5:3994:OHX:N6	2.37	0.58
34:SR:214:ALA:HB1	34:SR:240:VAL:HB	2.86	0.58
40:L3:46:PHE:CE2	40:L3:205:VAL:HG22	3.54	0.58
36:5:38:U:OP1	36:5:935:U:O2'	2.20	0.58
36:5:3275:U:O2'	36:5:3276:G:N1	2.37	0.58
51:M5:54:LYS:O	51:M5:56:LYS:N	2.36	0.58
72:O6:21:THR:OG1	72:O6:21:THR:O	2.47	0.58
46:L9:94:TYR:CD1	46:L9:94:TYR:N	2.71	0.58
70:O4:41:ARG:HE	70:O4:56:THR:HG21	2.50	0.58
36:5:3084:C:H3'	36:5:3085:G:H8	1.69	0.58
36:1:733:G:O5'	36:1:733:G:H8	1.86	0.58
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.37	0.58
1:2:712:G:N2	1:2:726:C:O2'	2.36	0.58
36:1:686:G:OP2	49:M3:39:ARG:NH2	2.37	0.58
37:3:61:G:H2'	37:3:62:U:H6	1.69	0.58
1:2:763:G:N2	1:2:773:C:O2	2.37	0.58
49:M3:57:VAL:HG12	49:M3:112:ASN:ND2	4.73	0.58
40:L3:17:LEU:HG	40:L3:18:PRO:HA	1.85	0.58
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	2.35	0.58
36:1:3379:C:H4'	40:L3:315:GLY:HA2	1.86	0.58
36:5:436:A:C2	36:5:624:G:C2	2.91	0.58
36:1:2267:C:H2'	36:1:2268:U:O4'	2.04	0.58
35:SM:43:ASP:O	35:SM:46:LYS:HB3	2.04	0.58
36:5:2578:U:OP1	87:5:4125:OHX:N4	2.37	0.58
1:6:595:G:OP2	87:6:2107:OHX:N6	2.37	0.57
44:L7:210:PRO:HA	44:L7:242:SER:O	2.87	0.57
45:L8:245:LYS:HE3	45:L8:246:MET:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:57:ASN:HD22	6:S4:60:GLU:HG3	1.69	0.57
46:L9:102:ASN:HA	46:L9:136:PHE:CZ	2.38	0.57
36:5:1475:A:H2'	36:5:1476:G:H5'	1.85	0.57
49:M3:64:LYS:HA	64:N8:69:TRP:CE3	2.59	0.57
1:6:1746:A:OP2	87:6:2132:OHX:N1	2.37	0.57
8:S6:116:LYS:NZ	8:S6:120:GLU:OE2	2.29	0.57
16:C4:103:ARG:CZ	28:D6:49:ALA:HA	4.91	0.57
4:S2:53:ILE:HG23	4:S2:56:ILE:HD12	1.86	0.57
4:S2:59:HIS:HB2	4:S2:61:LEU:HD11	3.18	0.57
63:N7:22:LYS:HG3	63:N7:49:TYR:OH	2.08	0.57
57:N1:72:VAL:CG2	57:N1:74:VAL:HG23	2.34	0.57
59:N3:87:ARG:HH12	59:N3:137:VAL:HG21	1.69	0.57
72:O6:81:THR:HB	72:O6:84:LYS:NZ	4.37	0.57
16:C4:125:SER:OG	16:C4:126:THR:N	2.35	0.57
39:L2:80:GLU:HB2	39:L2:170:ALA:HA	1.85	0.57
36:1:2409:G:H1	36:1:2812:C:N4	1.97	0.57
40:L3:117:ARG:NH1	40:L3:175:LYS:HD3	2.19	0.57
1:6:36:C:H2'	1:6:37:U:O4'	2.03	0.57
8:S6:56:ASN:ND2	8:S6:60:GLY:O	2.28	0.57
72:O6:86:LYS:HD3	72:O6:89:GLU:OE2	3.46	0.57
1:6:676:G:H2'	1:6:677:G:C8	2.39	0.57
36:1:1696:A:H2'	36:1:1697:A:C8	2.39	0.57
23:D1:17:CYS:HB2	23:D1:24:ILE:HD11	1.86	0.57
59:N3:39:VAL:O	59:N3:42:SER:HB3	2.02	0.57
1:6:1513:G:O2'	1:6:1515:A:H1'	2.03	0.57
1:6:642:G:N2	1:6:692:C:O2	2.29	0.57
38:4:10:A:H2'	38:4:11:C:C6	2.39	0.57
33:E1:91:ILE:HG12	33:E1:92:LYS:H	2.49	0.57
36:5:2997:G:O2'	36:5:3396:U:OP1	2.19	0.57
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.28	0.57
24:D2:53:ILE:HG12	24:D2:60:LYS:HB2	1.86	0.57
36:1:1095:U:O2	57:N1:128:LEU:N	2.37	0.57
48:M1:125:MET:SD	48:M1:127:PHE:HE1	3.01	0.57
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.19	0.57
35:SM:88:ARG:NH2	35:SM:89:ARG:HA	2.19	0.57
37:3:60:G:C2	37:3:61:G:C8	2.91	0.57
1:6:1715:G:O6	1:6:1716:C:N4	2.37	0.57
61:N5:137:ASN:HA	61:N5:141:TYR:H	1.68	0.57
5:S3:116:ARG:HH11	5:S3:116:ARG:HG3	3.73	0.57
36:1:85:A:O2'	87:1:4139:OHX:N6	2.36	0.57
37:3:77:G:HO2'	37:3:78:U:P	2.27	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1057:U:H3	1:2:1061:A:H2	1.50	0.57
1:6:836:U:H2'	1:6:837:G:C8	2.39	0.57
36:1:193:C:H2'	36:1:194:U:C6	2.38	0.57
41:L4:342:LYS:O	41:L4:342:LYS:HG3	4.44	0.57
36:5:1482:A:H4'	36:5:1483:G:OP2	2.03	0.57
36:5:792:G:H2'	36:5:793:C:C6	2.38	0.57
36:1:1306:G:C5	52:M6:62:THR:HA	2.39	0.57
53:M7:36:ILE:O	53:M7:39:TRP:CD1	2.94	0.57
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.03	0.57
41:L4:192:GLY:O	41:L4:195:ARG:N	2.71	0.57
56:N0:70:THR:O	56:N0:70:THR:OG1	3.03	0.57
21:C9:70:GLN:N	21:C9:70:GLN:HE21	2.77	0.57
42:L5:63:GLN:HB2	42:L5:65:ILE:HD11	1.86	0.57
12:C0:69:THR:OG1	12:C0:71:GLU:OE2	2.21	0.57
17:C5:44:ARG:HH21	17:C5:52:LYS:NZ	1.99	0.57
31:D9:22:ARG:NE	31:D9:36:LEU:O	2.35	0.57
23:D1:15:ARG:O	23:D1:16:LYS:HE3	2.04	0.57
6:S4:105:VAL:HG13	6:S4:243:GLY:HA2	1.86	0.57
36:1:2640:A:H2'	36:1:2641:U:C6	2.40	0.57
36:5:2192:C:O2'	36:5:2312:A:N1	2.23	0.57
72:O6:79:SER:HB3	72:O6:82:ARG:CG	6.01	0.57
1:2:1000:C:C5	1:2:1003:A:H2'	2.39	0.57
1:2:1470:C:C2	1:2:1573:A:N7	2.72	0.57
40:L3:83:PRO:HB3	40:L3:202:THR:HG23	1.86	0.57
8:S6:70:PRO:HD3	8:S6:101:ILE:HD12	2.54	0.57
58:N2:43:VAL:O	58:N2:45:GLY:N	2.87	0.57
26:D4:35:VAL:HG11	26:D4:40:LEU:HD21	1.86	0.57
36:1:1696:A:C2	36:1:1697:A:C5	2.92	0.57
46:L9:129:ARG:HG2	46:L9:129:ARG:NH1	4.57	0.57
32:E0:49:LEU:HD12	32:E0:51:ASN:H	1.69	0.57
36:1:1489:A:OP1	70:O4:10:ARG:HD3	2.04	0.57
1:6:190:C:N4	1:6:196:G:O6	2.37	0.57
36:1:2946:A:H5''	36:1:2947:G:H5'	1.85	0.57
42:L5:68:THR:HG22	42:L5:70:THR:N	2.19	0.57
50:M4:22:LEU:HD23	50:M4:99:TRP:CZ2	3.57	0.57
8:S6:79:LYS:HD3	8:S6:79:LYS:H	4.48	0.57
1:6:1736:G:H2'	1:6:1737:G:C8	2.38	0.57
36:1:1782:U:H2'	36:1:1783:U:O4'	2.04	0.57
36:5:593:C:O2'	36:5:594:U:OP1	2.20	0.57
36:1:610:G:C8	41:L4:312:VAL:HG21	2.39	0.57
36:1:2621:G:C2'	36:1:2622:C:H5'	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1152:G:H22	36:5:1200:A:H61	1.51	0.57
36:5:1882:G:H2'	36:5:1883:A:H8	1.70	0.57
1:2:1545:A:H2'	1:2:1546:G:C8	2.38	0.57
13:C1:44:THR:O	13:C1:44:THR:OG1	2.21	0.57
10:S8:191:PHE:O	10:S8:194:ARG:HB3	2.92	0.57
41:L4:23:PRO:HD3	41:L4:255:PHE:CE1	2.39	0.57
19:C7:25:THR:OG1	19:C7:27:ASP:N	3.46	0.57
30:D8:42:ARG:HE	30:D8:56:LEU:HD13	6.38	0.57
42:L5:152:ARG:O	42:L5:154:THR:HG22	4.70	0.57
31:D9:38:ILE:HB	31:D9:43:PHE:HB2	3.22	0.57
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.03	0.57
63:N7:135:ARG:NE	36:5:2556:C:O2'	200.03	0.57
55:M9:133:LYS:HE2	55:M9:134:HIS:CE1	5.71	0.57
63:N7:89:VAL:HG11	63:N7:93:LYS:HE3	1.85	0.57
62:N6:49:PRO:O	62:N6:115:ARG:NH2	2.37	0.57
38:4:52:A:N1	75:O9:35:ILE:HD13	2.19	0.57
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	1.86	0.57
1:2:1537:C:N3	87:2:2154:OHX:N3	2.52	0.57
72:O6:5:THR:OG1	72:O6:7:ILE:HG12	2.03	0.57
51:M5:143:ARG:HH21	71:O5:92:LEU:HD23	1.68	0.57
26:D4:8:ARG:O	26:D4:10:ARG:HG3	2.04	0.57
36:5:2696:A:H2'	36:5:2697:A:C8	2.38	0.57
76:Q0:90:ASN:N	76:Q0:90:ASN:OD1	2.52	0.57
34:SR:116:ASP:OD2	34:SR:120:SER:N	2.37	0.57
37:7:52:G:O2'	37:7:53:U:H5'	2.04	0.57
14:C2:88:LEU:H	14:C2:140:PHE:HE1	1.87	0.57
1:6:1382:A:HO2'	1:6:1383:G:H8	1.51	0.57
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.03	0.57
6:S4:146:THR:HG21	1:6:123:G:N2	339.84	0.57
1:6:315:A:C2	1:6:353:A:C5	2.92	0.57
36:5:582:G:O6	87:5:4211:OHX:N5	2.36	0.57
53:M7:69:ARG:HD3	36:5:3308:C:O2	186.53	0.57
42:L5:128:GLU:HG3	42:L5:192:PRO:HB3	5.47	0.57
45:L8:28:HIS:O	36:5:2563:G:H5'	207.46	0.57
45:L8:218:ILE:O	45:L8:221:ASN:N	3.03	0.57
36:5:1366:A:C2	36:5:1367:G:C4	2.92	0.57
31:D9:41:GLN:HG2	1:6:1433:G:C8	398.19	0.57
36:5:3216:G:N1	36:5:3259:U:OP1	2.30	0.57
40:L3:126:LYS:HB2	36:5:3295:A:OP2	195.02	0.57
36:1:533:A:C8	36:1:535:G:C8	2.92	0.57
36:1:559:A:H2'	36:1:560:G:O5'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:117:LEU:O	33:E1:118:ARG:HB2	2.02	0.57
36:5:1585:C:H5''	38:8:109:A:O2'	2.03	0.57
62:N6:55:GLU:HB3	62:N6:107:THR:OG1	2.24	0.57
1:2:130:C:O2'	1:2:131:C:OP1	2.21	0.57
42:L5:3:PHE:O	42:L5:6:ASP:N	2.34	0.57
21:C9:133:ASP:OD2	21:C9:133:ASP:N	2.56	0.57
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.04	0.57
1:2:1734:U:H2'	1:2:1735:U:O4'	2.04	0.57
11:S9:77:ILE:O	11:S9:81:VAL:HG23	2.13	0.57
11:S9:81:VAL:HG22	11:S9:86:LEU:HD23	1.85	0.57
36:5:359:U:C2	36:5:920:A:C6	2.93	0.57
18:C6:58:ASP:OD2	18:C6:59:LYS:N	2.36	0.57
7:S5:93:LEU:HD23	7:S5:172:ILE:HG23	3.93	0.57
36:1:973:A:OP1	54:M8:12:ARG:NH1	2.37	0.57
42:L5:123:GLU:HA	42:L5:248:ARG:NH1	2.19	0.57
21:C9:104:VAL:O	21:C9:108:LEU:N	3.28	0.57
5:S3:55:THR:O	5:S3:59:LEU:N	2.65	0.57
36:1:1709:C:H2'	36:1:1710:C:C6	2.38	0.57
1:6:1255:G:O2'	1:6:1256:A:O5'	2.17	0.57
17:C5:127:ARG:NH2	35:SM:65:THR:OG1	3.41	0.57
36:1:2722:U:H4'	57:N1:88:ARG:HB2	1.86	0.57
40:L3:296:THR:CG2	40:L3:298:PHE:H	2.42	0.57
9:S7:93:LEU:HD21	9:S7:129:LEU:HD23	1.97	0.57
8:S6:132:ARG:O	1:6:68:A:N6	331.30	0.57
18:C6:95:LYS:HG2	18:C6:96:TYR:CE1	5.83	0.57
34:SR:301:LEU:HB3	34:SR:313:TRP:HB2	2.48	0.57
29:D7:61:THR:OG1	29:D7:62:ILE:N	2.88	0.57
64:N8:103:ASP:HA	64:N8:126:LYS:HB2	2.09	0.57
1:2:595:G:H2'	1:2:596:C:C6	2.39	0.57
40:L3:41:VAL:HG11	40:L3:194:TRP:CG	2.39	0.57
60:N4:37:ALA:O	60:N4:41:LYS:HG3	2.04	0.57
60:N4:31:PHE:CZ	60:N4:40:PHE:CD1	2.92	0.57
1:6:1346:A:C2	1:6:1371:A:C4	2.92	0.57
33:E1:149:LYS:N	33:E1:149:LYS:HE3	5.39	0.57
87:5:4016:OHX:N6	87:5:4211:OHX:N4	2.53	0.57
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.86	0.57
30:D8:22:ARG:HD2	1:6:1619:C:C2	342.34	0.57
36:1:550:A:N6	36:1:551:A:H62	2.01	0.57
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	3.45	0.57
36:1:3170:A:C2'	36:1:3171:U:H5'	2.34	0.57
40:L3:347:SER:C	40:L3:349:LYS:H	2.89	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:63:LYS:HA	74:O8:66:ILE:HG13	2.73	0.57
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.42	0.57
36:1:577:C:OP1	44:L7:142:SER:OG	2.19	0.57
6:S4:214:LEU:HD13	6:S4:244:ILE:HG21	1.85	0.57
1:2:1354:G:N3	1:2:1372:U:N3	2.52	0.57
36:5:891:G:C6	36:5:892:U:C4	2.92	0.57
3:S1:219:LYS:HZ1	79:Q3:92:ALA:H	12.91	0.57
51:M5:37:HIS:CE1	51:M5:63:ARG:HB3	2.40	0.57
1:6:1680:G:O6	87:6:2196:OHX:N4	2.37	0.57
36:1:186:U:H5'	36:1:187:A:OP2	2.04	0.57
36:5:92:G:H5'	36:5:93:C:O5'	2.04	0.57
3:S1:152:ARG:HB3	1:6:1799:U:N3	339.31	0.57
47:M0:86:HIS:ND1	47:M0:139:ARG:HD3	2.41	0.57
44:L7:154:GLY:O	44:L7:160:ARG:HA	2.03	0.57
45:L8:68:ARG:O	45:L8:69:LEU:HB3	4.73	0.57
1:6:1582:U:C4	1:6:1614:A:C8	2.93	0.57
5:S3:53:THR:O	5:S3:90:ARG:NH2	2.38	0.57
2:S0:185:ARG:HG3	23:D1:45:ALA:HB3	1.86	0.57
63:N7:3:LYS:HE3	66:O0:36:GLN:HG3	1.85	0.57
36:5:1317:A:C4	36:5:1319:G:N7	2.72	0.57
52:M6:36:VAL:HG11	52:M6:108:ILE:HG23	1.87	0.57
36:5:3224:G:N7	87:5:3994:OHX:N6	2.52	0.57
39:L2:97:ASN:HA	79:Q3:87:ARG:NH1	3.18	0.57
3:S1:107:THR:N	16:C4:116:GLU:OE1	3.29	0.57
49:M3:90:ALA:HB1	49:M3:95:ILE:HD12	1.86	0.57
51:M5:169:LYS:HG2	51:M5:172:ARG:HH12	1.69	0.57
1:6:1220:C:H2'	1:6:1221:A:C8	2.37	0.57
40:L3:152:LYS:CG	40:L3:192:VAL:HG11	3.06	0.57
4:S2:238:SER:OG	4:S2:238:SER:O	3.61	0.57
58:N2:90:ARG:O	58:N2:92:TRP:N	2.34	0.57
22:D0:26:LEU:HD23	22:D0:114:VAL:HG13	1.85	0.57
25:D3:29:TYR:CE2	25:D3:33:LEU:HD11	2.39	0.57
42:L5:40:HIS:ND1	57:N1:69:LYS:HA	2.32	0.57
61:N5:38:LEU:HD22	61:N5:40:LEU:HD22	5.13	0.57
36:5:160:G:N2	36:5:262:U:C2	2.73	0.57
87:6:2064:OHX:N1	87:6:2152:OHX:N4	2.52	0.57
36:1:3165:A:O2'	36:1:3166:C:O4'	2.19	0.57
1:6:1263:G:H2'	1:6:1264:G:O4'	2.03	0.57
36:1:3169:U:H2'	36:1:3170:A:O4'	2.04	0.57
44:L7:64:GLN:HA	44:L7:67:ARG:HD2	1.86	0.57
5:S3:11:LEU:HD12	22:D0:86:ILE:HD13	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:42:ARG:HH11	15:C3:42:ARG:CG	3.94	0.57
36:1:721:G:C2	36:1:722:G:C8	2.93	0.57
36:5:2681:U:C2'	36:5:2682:C:H5'	2.34	0.57
1:6:644:C:H42	1:6:690:G:H1	1.50	0.57
36:1:2810:C:C2'	36:1:2811:A:H5'	2.34	0.57
33:E1:109:ASP:O	33:E1:111:GLU:N	2.37	0.57
1:2:76:A:H2'	1:2:80:A:H62	1.69	0.57
73:O7:58:THR:O	73:O7:61:THR:HG23	2.05	0.57
36:5:308:A:H5'	36:5:2223:A:O2'	2.05	0.57
36:1:2895:G:N2	36:1:2906:C:O2	2.38	0.57
20:C8:87:ASN:OD1	20:C8:88:ARG:N	2.38	0.57
36:5:2987:A:H2'	36:5:2988:C:H6	1.64	0.57
52:M6:62:THR:HA	36:5:1306:G:C6	234.08	0.57
36:1:2352:A:H2'	36:1:2353:G:C8	2.39	0.57
1:6:478:A:C2	1:6:479:C:C2	2.93	0.57
47:M0:46:PHE:HB3	47:M0:140:THR:HA	1.85	0.57
36:1:1171:G:N7	87:1:3959:OHX:N2	2.52	0.57
44:L7:144:ILE:O	44:L7:148:VAL:HG23	2.23	0.57
51:M5:31:ARG:HB2	51:M5:129:TYR:OH	2.04	0.57
1:2:1534:G:OP2	27:D5:74:SER:OG	2.22	0.57
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.05	0.57
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.23	0.57
17:C5:33:PHE:O	17:C5:35:LYS:N	2.58	0.57
21:C9:31:PRO:HB2	21:C9:33:TYR:CE1	3.35	0.57
77:Q1:5:TRP:CG	1:6:1783:C:H5	301.70	0.57
3:S1:62:LYS:O	3:S1:64:ARG:N	2.38	0.57
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.02	0.57
4:S2:226:THR:HB	4:S2:228:ASN:HD22	6.65	0.57
63:N7:17:ARG:NH2	63:N7:18:TYR:OH	2.38	0.57
36:5:1414:G:O6	87:5:4142:OHX:N1	2.37	0.57
39:L2:174:ARG:HA	79:Q3:69:TYR:CE2	2.94	0.57
40:L3:62:ARG:O	40:L3:68:HIS:HB2	2.89	0.57
1:2:1174:C:H42	1:2:1465:C:N4	2.03	0.57
7:S5:76:ARG:HD3	18:C6:122:ARG:NH2	2.61	0.57
1:6:415:C:O2'	1:6:418:G:O6	2.19	0.57
71:O5:21:LEU:HD21	71:O5:55:LEU:HG	1.87	0.57
36:5:2255:A:H5'	36:5:2261:G:N2	2.19	0.57
25:D3:20:ARG:O	25:D3:24:TRP:CD1	2.58	0.57
46:L9:170:LYS:O	46:L9:172:ILE:HG22	2.49	0.57
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.54	0.57
1:6:1208:A:N1	1:6:1455:G:N2	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3057:U:O2'	36:5:3059:G:OP1	2.21	0.57
38:8:15:G:OP2	87:8:218:OHX:N3	2.38	0.57
1:2:187:G:H1'	1:2:199:G:H22	1.69	0.57
1:6:190:C:H1'	1:6:191:C:H5'	1.86	0.57
50:M4:65:LEU:HD11	56:N0:152:LEU:HD12	2.19	0.57
69:O3:19:SER:OG	69:O3:20:LYS:N	4.09	0.57
65:N9:4:SER:O	65:N9:5:LYS:O	2.21	0.57
41:L4:317:PRO:O	41:L4:319:LYS:N	2.38	0.57
15:C3:30:SER:O	15:C3:34:ILE:HG13	3.10	0.57
15:C3:67:THR:O	15:C3:69:ASN:N	2.37	0.57
1:6:736:C:H2'	1:6:737:A:C8	2.40	0.57
36:1:874:U:OP1	40:L3:241:LYS:HG3	2.04	0.57
54:M8:147:ARG:NH2	36:5:670:C:OP1	164.27	0.57
79:Q3:39:CYS:SG	79:Q3:42:CYS:N	3.55	0.57
1:2:47:A:N7	1:2:98:U:O2'	2.36	0.57
32:E0:20:LYS:HD2	32:E0:21:VAL:H	4.48	0.57
36:1:1454:A:H5''	36:1:1455:U:H5'	1.86	0.57
51:M5:76:PRO:O	51:M5:78:GLY:N	2.80	0.57
25:D3:90:ASP:HB2	1:6:568:G:H4'	374.82	0.57
52:M6:59:ARG:NH1	36:5:1307:G:OP1	254.34	0.57
36:1:2167:A:H8	36:1:2167:A:O5'	1.87	0.57
75:O9:43:ASN:OD1	75:O9:45:ARG:N	2.60	0.57
28:D6:79:ILE:CA	28:D6:84:VAL:HG11	2.33	0.57
36:1:2851:A:H2'	36:1:2852:C:C6	2.39	0.57
44:L7:169:ILE:O	44:L7:172:ASN:N	2.94	0.57
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.86	0.57
41:L4:33:ASP:O	41:L4:36:HIS:N	2.37	0.57
1:2:1358:G:H2'	1:2:1359:C:C6	2.40	0.57
7:S5:128:ASN:O	7:S5:130:ILE:N	2.90	0.57
7:S5:34:GLN:O	7:S5:38:THR:OG1	3.27	0.57
42:L5:106:ALA:HA	42:L5:171:LEU:HD12	3.13	0.57
42:L5:104:LEU:HD11	42:L5:108:ARG:NH2	2.20	0.57
17:C5:15:HIS:ND1	17:C5:16:SER:N	3.96	0.57
5:S3:136:VAL:HG22	5:S3:186:VAL:HG13	1.86	0.57
1:2:312:A:C2	1:2:314:C:H2'	2.39	0.57
3:S1:35:PRO:HG3	3:S1:98:THR:O	2.04	0.57
54:M8:88:THR:HA	54:M8:107:THR:CG2	2.35	0.57
36:1:624:G:O6	87:1:4163:OHX:N5	2.38	0.57
63:N7:29:HIS:ND1	63:N7:40:HIS:NE2	2.71	0.57
66:O0:70:PHE:O	66:O0:72:GLY:N	2.37	0.57
73:O7:72:ARG:NH1	38:8:95:G:OP2	51.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1524:A:H2'	1:2:1525:A:C8	2.40	0.57
79:Q3:32:GLN:HB3	79:Q3:69:TYR:O	2.04	0.57
4:S2:90:THR:N	4:S2:93:GLY:O	2.32	0.57
26:D4:122:GLY:C	26:D4:124:ARG:N	2.90	0.57
48:M1:38:GLU:HG3	48:M1:43:GLN:O	2.04	0.57
11:S9:53:ARG:HB3	11:S9:53:ARG:NH2	3.59	0.57
42:L5:215:ASP:O	42:L5:217:GLU:N	4.37	0.57
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	2.65	0.57
1:2:91:G:H2'	1:2:92:A:C8	2.37	0.57
10:S8:138:ASN:HA	10:S8:141:ARG:HD3	3.18	0.57
36:5:182:U:H2'	36:5:183:G:C8	2.40	0.57
52:M6:172:ARG:HD2	36:5:3190:C:H5''	306.99	0.57
36:1:1052:U:H5''	36:1:1053:A:OP2	2.05	0.57
36:5:513:G:H2'	36:5:514:G:O4'	2.04	0.57
27:D5:56:THR:H	27:D5:103:ARG:HE	1.50	0.57
36:5:1622:U:H2'	36:5:1623:G:H8	1.70	0.57
62:N6:71:SER:N	62:N6:83:ASP:H	2.72	0.57
36:5:999:G:C6	36:5:1000:C:N4	2.73	0.57
21:C9:68:ARG:HD3	1:6:1523:G:O6	418.37	0.57
1:2:1054:U:H2'	1:2:1055:U:H6	1.70	0.57
36:5:2123:G:N7	87:5:4094:OHX:N1	2.52	0.57
36:5:831:G:O6	87:5:3919:OHX:N2	2.37	0.57
39:L2:220:GLY:O	39:L2:221:LYS:HG3	2.05	0.57
36:1:795:G:O6	87:1:3895:OHX:N3	2.38	0.57
36:1:923:C:H42	36:1:926:A:H1'	1.68	0.57
1:2:372:G:H1'	1:2:612:U:O2	2.04	0.57
78:Q2:12:CYS:SG	78:Q2:74:CYS:CB	2.93	0.57
40:L3:235:THR:O	40:L3:235:THR:HG22	3.07	0.57
51:M5:79:ALA:HB1	51:M5:81:TYR:CE1	2.63	0.57
1:6:88:U:H2'	1:6:89:G:H8	1.69	0.57
45:L8:61:GLN:HA	45:L8:64:ILE:HB	1.86	0.57
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	1.86	0.57
41:L4:193:LYS:O	41:L4:198:ARG:HG2	3.83	0.57
7:S5:43:PHE:HB3	7:S5:46:TRP:H	2.36	0.57
5:S3:29:LEU:O	5:S3:31:GLU:N	3.56	0.57
3:S1:34:ALA:N	3:S1:41:ARG:O	2.23	0.57
1:2:1068:C:H2'	1:2:1069:A:C8	2.39	0.57
1:2:1449:U:O4	87:2:2029:OHX:N1	2.37	0.57
6:S4:163:ASP:HB3	6:S4:166:SER:O	2.05	0.57
43:L6:154:LEU:O	43:L6:157:GLN:N	2.38	0.57
44:L7:224:ILE:HG22	56:N0:36:ILE:HD13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:368:G:OP2	87:5:3920:OHX:N4	2.37	0.57
36:1:2554:A:H5''	39:L2:87:PHE:CE2	2.40	0.57
40:L3:167:ARG:C	40:L3:169:THR:H	2.08	0.57
49:M3:50:PRO:HB3	49:M3:138:VAL:O	2.30	0.57
62:N6:2:ALA:N	36:5:212:G:OP2	78.16	0.57
36:1:609:G:H4'	36:1:609:G:OP1	2.05	0.57
60:N4:6:ASP:HB3	60:N4:10:GLY:H	1.70	0.57
37:3:36:C:O2'	37:3:37:G:H5'	2.04	0.57
1:6:1498:G:H1	1:6:1509:C:H42	1.53	0.57
38:4:124:G:OP2	87:4:234:OHX:N2	2.38	0.57
42:L5:287:ALA:HA	42:L5:290:ILE:HD11	1.85	0.57
22:D0:37:VAL:HG21	22:D0:112:VAL:HG21	3.79	0.57
18:C6:77:GLN:O	18:C6:81:ILE:HG23	2.04	0.57
17:C5:56:PHE:HD1	17:C5:57:MET:HG2	1.69	0.57
1:6:1314:U:O2'	1:6:1315:U:OP2	2.23	0.57
36:5:2431:C:N4	36:5:2598:G:H1	2.03	0.57
49:M3:57:VAL:HG23	49:M3:147:ILE:HG23	4.93	0.57
3:S1:134:VAL:HB	3:S1:219:LYS:H	4.01	0.57
49:M3:169:THR:O	49:M3:173:ALA:N	2.56	0.57
78:Q2:68:VAL:O	78:Q2:85:LEU:HB2	3.80	0.57
1:2:20:G:H5'	1:2:571:G:C8	2.39	0.57
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.04	0.57
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.73	0.57
32:E0:7:SER:C	32:E0:9:ALA:H	3.49	0.57
36:1:578:A:H5''	36:1:579:G:O5'	2.05	0.57
20:C8:110:ARG:HA	20:C8:113:LEU:HD12	4.04	0.57
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	2.85	0.57
44:L7:216:VAL:HG23	44:L7:217:PRO:N	2.19	0.57
45:L8:240:ASN:O	45:L8:243:GLN:N	3.86	0.57
51:M5:16:SER:O	51:M5:18:VAL:N	3.15	0.57
41:L4:34:ILE:O	41:L4:38:VAL:HG23	2.05	0.57
43:L6:55:LEU:HD12	43:L6:64:LEU:HD12	2.47	0.57
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.85	0.57
71:O5:50:SER:O	71:O5:53:CYS:N	2.72	0.57
17:C5:130:ARG:CZ	35:SM:74:LYS:HD3	2.35	0.57
36:1:2723:U:H5'	57:N1:88:ARG:O	2.03	0.57
66:O0:99:ASP:HB2	66:O0:103:THR:HG23	3.47	0.57
40:L3:47:LEU:HG	40:L3:335:ILE:HD11	2.22	0.57
13:C1:97:TYR:CE1	25:D3:15:LEU:HB3	2.39	0.57
26:D4:27:VAL:HG12	26:D4:29:HIS:CD2	3.47	0.57
1:6:384:G:C6	1:6:385:A:C6	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2717:U:O2'	36:5:2718:U:H5'	2.05	0.57
64:N8:133:LEU:HD11	64:N8:137:LYS:HZ1	1.70	0.57
47:M0:4:ARG:NH1	36:5:2828:G:O2'	263.77	0.57
1:6:822:U:H2'	1:6:823:G:H5''	1.86	0.57
36:5:847:A:C6	36:5:848:A:C6	2.92	0.57
14:C2:77:GLY:HA3	33:E1:108:VAL:HG11	4.69	0.57
62:N6:9:SER:OG	36:5:336:A:OP2	80.10	0.57
8:S6:76:LEU:HD22	8:S6:92:ARG:HB3	1.87	0.57
11:S9:29:LYS:HG2	32:E0:44:PHE:CZ	4.16	0.57
1:2:946:U:H5''	3:S1:165:ARG:NH2	2.20	0.57
5:S3:128:GLU:C	5:S3:130:GLY:H	2.08	0.57
9:S7:67:LEU:HD11	9:S7:94:ALA:HB2	1.87	0.57
36:5:904:A:H2'	36:5:905:U:C6	2.38	0.57
36:5:3393:U:O2'	36:5:3394:U:O4'	2.23	0.57
36:5:2681:U:H2'	36:5:2682:C:H5'	1.85	0.57
3:S1:145:LYS:HG2	3:S1:154:SER:HB3	1.86	0.57
51:M5:36:ILE:HG12	51:M5:106:VAL:HG12	4.61	0.57
40:L3:257:PRO:HD2	40:L3:261:MET:HE3	1.85	0.57
36:5:179:C:H2'	36:5:180:C:C6	2.40	0.57
1:6:1085:G:O6	87:6:2054:OHX:N3	2.37	0.57
36:1:1501:U:O5'	36:1:1501:U:H6	1.88	0.57
60:N4:63:ILE:O	60:N4:65:GLU:N	3.03	0.57
78:Q2:98:LYS:HE3	36:5:2656:A:H4'	250.54	0.57
1:6:538:A:C4	1:6:543:C:H5	2.22	0.57
47:M0:150:GLU:OE2	47:M0:153:ARG:NE	2.31	0.57
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.20	0.57
1:6:340:U:H2'	1:6:341:A:C8	2.39	0.57
6:S4:31:PRO:HG2	6:S4:38:LEU:HD12	3.95	0.57
36:1:404:G:H1	38:4:19:C:H42	1.52	0.57
41:L4:35:VAL:O	41:L4:38:VAL:N	3.45	0.57
43:L6:56:LYS:H	43:L6:64:LEU:HB3	2.55	0.57
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.05	0.57
46:L9:92:TYR:CG	46:L9:142:ASP:HB3	3.70	0.57
36:1:3375:A:H5'	36:1:3375:A:H8	1.70	0.57
17:C5:51:SER:OG	17:C5:53:PRO:HD2	6.54	0.57
51:M5:46:ASP:N	51:M5:46:ASP:OD2	2.28	0.57
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.39	0.57
2:S0:139:VAL:O	2:S0:141:ILE:N	2.38	0.57
4:S2:63:VAL:HG11	4:S2:69:ILE:HG23	1.86	0.57
54:M8:114:ILE:HG21	54:M8:121:CYS:SG	3.12	0.57
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1207:C:N4	1:6:1456:C:H5	1.95	0.57
50:M4:20:VAL:HG13	50:M4:68:LEU:O	2.05	0.57
36:1:1127:G:H2'	36:1:1129:A:OP2	2.05	0.57
4:S2:90:THR:O	4:S2:92:ALA:N	2.37	0.57
43:L6:164:SER:O	43:L6:166:LYS:NZ	2.38	0.57
34:SR:294:TRP:CZ3	34:SR:301:LEU:HB2	2.39	0.57
52:M6:38:ALA:HA	52:M6:41:LEU:HD22	1.85	0.57
1:2:992:A:H2	1:2:1012:U:H3	1.53	0.57
39:L2:43:GLY:O	39:L2:88:ILE:N	2.54	0.57
52:M6:26:GLN:O	52:M6:31:GLN:HB3	2.23	0.57
36:1:3393:U:H2'	36:1:3394:U:C6	2.29	0.57
39:L2:62:VAL:HA	39:L2:73:GLU:HA	2.40	0.57
1:6:1079:U:C4	1:6:1080:U:C4	2.92	0.57
40:L3:274:SER:OG	36:5:3139:A:OP1	229.65	0.57
8:S6:193:LEU:O	8:S6:196:ARG:HB3	2.04	0.57
70:O4:61:GLN:HA	70:O4:64:THR:HG23	1.87	0.57
41:L4:286:VAL:O	41:L4:289:ILE:N	2.38	0.57
36:5:528:U:H2'	36:5:529:A:C8	2.40	0.57
25:D3:23:ARG:HB3	25:D3:29:TYR:CE1	2.40	0.57
36:1:1795:U:OP1	39:L2:191:LEU:HD22	2.05	0.57
36:1:1223:A:C6	36:1:1224:C:C5	2.93	0.57
53:M7:66:SER:O	53:M7:67:ILE:O	3.53	0.57
1:2:409:C:C2'	1:2:410:A:H5'	2.35	0.57
36:5:160:G:N2	36:5:261:U:O2	2.37	0.57
1:2:112:A:N6	1:2:113:U:O4	2.37	0.57
36:5:789:A:H2'	36:5:790:U:C6	2.40	0.57
15:C3:62:GLN:HG3	15:C3:65:VAL:HG22	5.47	0.57
1:2:639:U:P	9:S7:117:THR:HG1	2.28	0.57
40:L3:347:SER:HB3	40:L3:350:ALA:H	3.05	0.57
1:2:1637:C:N3	35:SM:93:ARG:HG3	2.20	0.57
1:2:1648:A:H2'	1:2:1649:G:C8	2.40	0.57
57:N1:6:GLY:HA3	36:5:2631:U:P	236.97	0.57
65:N9:12:GLN:NE2	36:5:954:U:H1'	212.83	0.57
1:6:1041:G:OP1	87:6:2181:OHX:N4	2.38	0.57
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	2.03	0.57
2:S0:69:ASN:OD1	2:S0:69:ASN:N	3.03	0.57
58:N2:82:LYS:HE2	36:5:1682:U:O2	159.06	0.57
7:S5:210:ALA:HA	7:S5:213:LYS:HB2	2.77	0.57
36:1:2261:G:N3	36:1:2262:A:N6	2.52	0.56
46:L9:186:PHE:N	46:L9:186:PHE:CD2	2.78	0.56
53:M7:23:ARG:NE	53:M7:125:GLN:HG3	2.67	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.74	0.56
47:M0:152:LEU:O	47:M0:155:ALA:N	3.38	0.56
41:L4:154:THR:HG22	41:L4:157:GLU:HG3	3.53	0.56
54:M8:41:ASP:OD1	54:M8:42:ALA:N	2.38	0.56
1:6:1573:A:H8	1:6:1573:A:O5'	1.88	0.56
36:1:973:A:H2'	36:1:974:G:O4'	2.05	0.56
20:C8:125:ILE:HD11	35:SM:57:ASN:ND2	2.20	0.56
5:S3:94:ARG:NH2	35:SM:134:ASP:O	6.28	0.56
36:5:699:A:H2'	36:5:700:C:O4'	2.05	0.56
4:S2:108:ASN:OD1	4:S2:141:ARG:NH1	3.83	0.56
1:6:751:G:H2'	1:6:752:A:H8	1.70	0.56
4:S2:153:SER:OG	4:S2:195:ASP:O	2.19	0.56
36:1:1729:A:N6	66:O0:49:PRO:HD3	2.19	0.56
66:O0:42:ILE:CG1	66:O0:67:VAL:HG22	3.10	0.56
39:L2:174:ARG:HA	79:Q3:69:TYR:HE2	2.38	0.56
56:N0:133:ALA:N	56:N0:135:VAL:HG23	4.30	0.56
56:N0:42:TRP:O	56:N0:46:GLN:HB2	3.75	0.56
59:N3:79:VAL:HB	59:N3:118:VAL:HG13	2.42	0.56
38:4:53:A:H2'	38:4:54:A:C8	2.39	0.56
34:SR:33:LEU:HB3	34:SR:45:TRP:HB2	1.87	0.56
41:L4:84:ARG:HB2	36:5:365:A:H4'	123.60	0.56
41:L4:159:ILE:HG22	41:L4:161:LYS:H	1.69	0.56
49:M3:170:LEU:HD11	64:N8:147:LEU:HD21	3.96	0.56
70:O4:37:LYS:HE3	70:O4:58:ARG:HH12	1.69	0.56
56:N0:28:ARG:HH11	56:N0:99:ARG:NE	2.03	0.56
59:N3:57:MET:HE3	59:N3:126:TRP:CH2	5.90	0.56
2:S0:129:ASP:N	2:S0:129:ASP:OD1	2.37	0.56
36:5:312:C:H1'	36:5:2778:G:N2	2.20	0.56
36:5:406:G:N2	38:8:16:G:C4	2.73	0.56
1:6:804:A:C2	1:6:805:U:C2	2.93	0.56
36:1:582:G:O6	87:1:4171:OHX:N2	2.38	0.56
36:5:980:A:H2'	36:5:981:U:N1	2.20	0.56
58:N2:80:THR:HG21	58:N2:95:PHE:HD2	5.81	0.56
29:D7:11:THR:OG1	29:D7:14:SER:OG	2.22	0.56
36:5:687:U:H2'	36:5:688:G:C8	2.40	0.56
70:O4:65:VAL:HG13	70:O4:69:HIS:ND1	2.20	0.56
36:5:2651:G:C4	36:5:2796:G:C2	2.93	0.56
18:C6:9:THR:HG21	18:C6:87:LYS:O	2.45	0.56
9:S7:7:LYS:HE3	9:S7:7:LYS:HA	5.96	0.56
52:M6:3:VAL:HG13	52:M6:4:GLU:OE1	2.05	0.56
8:S6:55:GLY:O	8:S6:63:MET:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:52:VAL:HG12	41:L4:103:THR:OG1	2.04	0.56
1:6:86:A:OP2	87:6:2195:OHX:N1	2.38	0.56
47:M0:72:ALA:HB2	47:M0:155:ALA:HB2	1.86	0.56
44:L7:168:ILE:O	44:L7:172:ASN:ND2	2.38	0.56
44:L7:184:LEU:CD1	44:L7:202:LEU:HD21	2.34	0.56
51:M5:24:ARG:HA	51:M5:27:VAL:HG12	1.87	0.56
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.05	0.56
36:1:1431:G:OP2	64:N8:9:ARG:NH2	2.28	0.56
43:L6:86:ALA:H	69:O3:107:ILE:HG22	4.76	0.56
1:2:1388:A:C5	1:2:1411:A:C6	2.93	0.56
73:O7:10:LYS:HB2	36:5:818:C:H5''	155.22	0.56
20:C8:57:ARG:NH1	1:6:1534:G:OP1	342.70	0.56
7:S5:71:ALA:HB3	7:S5:111:VAL:HG13	1.87	0.56
46:L9:143:GLU:O	46:L9:144:ILE:O	4.83	0.56
1:2:1274:C:C5	35:SM:96:ARG:HG2	2.40	0.56
36:1:301:G:H2'	36:1:302:U:O4'	2.05	0.56
1:2:624:G:C6	1:2:625:C:C4	2.93	0.56
70:O4:21:LYS:HB2	70:O4:35:VAL:HG22	1.86	0.56
36:1:1432:C:O2'	36:1:1433:A:H5''	2.05	0.56
36:5:654:C:H42	36:5:1441:G:H1	1.52	0.56
23:D1:42:GLU:O	23:D1:44:ARG:N	3.52	0.56
4:S2:53:ILE:O	4:S2:56:ILE:N	2.39	0.56
70:O4:81:CYS:C	70:O4:84:CYS:HB2	3.06	0.56
71:O5:66:VAL:HA	71:O5:69:LEU:CD2	2.35	0.56
79:Q3:29:LEU:HD12	79:Q3:29:LEU:H	3.22	0.56
36:1:3037:U:H2'	36:1:3038:U:C6	2.38	0.56
57:N1:82:ASN:OD1	57:N1:82:ASN:N	2.70	0.56
18:C6:120:ASP:O	18:C6:122:ARG:N	4.30	0.56
36:5:2407:C:O2	36:5:2818:U:N3	2.23	0.56
36:1:2177:G:O2'	36:1:2178:A:OP2	2.23	0.56
39:L2:143:GLU:HB3	39:L2:145:LYS:HE2	4.51	0.56
39:L2:45:VAL:HA	39:L2:61:VAL:HA	1.86	0.56
87:1:3976:OHX:N1	87:1:4154:OHX:N2	2.54	0.56
1:6:417:A:O5'	1:6:417:A:H8	1.88	0.56
8:S6:108:VAL:HG11	1:6:153:G:O2'	304.49	0.56
26:D4:27:VAL:O	26:D4:68:LYS:HA	2.70	0.56
57:N1:90:ASN:ND2	36:5:2736:A:H1'	222.14	0.56
36:5:1752:A:OP2	87:5:4074:OHX:N3	2.39	0.56
36:1:215:G:H5'	62:N6:12:ARG:HG3	1.88	0.56
1:2:588:U:H2'	1:2:589:C:C6	2.40	0.56
36:5:1946:A:N6	36:5:1947:G:O6	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:28:ASP:O	48:M1:32:ARG:HG3	2.04	0.56
57:N1:14:MET:SD	57:N1:58:GLN:HG2	2.44	0.56
34:SR:133:VAL:O	34:SR:141:LEU:N	2.85	0.56
36:1:3170:A:H2'	36:1:3171:U:H5'	1.87	0.56
24:D2:28:ARG:HG2	24:D2:29:PRO:HG3	2.92	0.56
36:1:1064:A:H5''	36:1:1066:G:O4'	2.06	0.56
61:N5:49:LYS:HZ2	61:N5:53:HIS:HB2	5.14	0.56
36:5:256:G:H2'	36:5:257:U:C6	2.40	0.56
36:5:1852:G:C6	36:5:1853:U:C4	2.93	0.56
37:3:61:G:OP1	42:L5:276:LYS:NZ	2.24	0.56
42:L5:280:GLU:N	42:L5:280:GLU:OE2	4.22	0.56
1:6:496:G:N7	1:6:497:G:N2	2.53	0.56
36:5:1243:G:H3'	36:5:1244:A:H5''	1.87	0.56
1:6:367:A:H2'	1:6:368:U:O4'	2.05	0.56
1:6:1192:C:H2'	1:6:1193:A:C8	2.39	0.56
70:O4:3:GLN:NE2	70:O4:30:LEU:O	4.28	0.56
16:C4:11:SER:OG	16:C4:12:GLN:NE2	7.01	0.56
36:5:27:C:O2'	36:5:327:A:N3	2.35	0.56
1:6:310:C:H2'	1:6:311:U:H6	1.70	0.56
32:E0:15:LYS:O	32:E0:17:GLN:N	2.37	0.56
36:1:2254:U:H2'	36:1:2261:G:N2	2.19	0.56
1:2:462:G:N7	87:2:2143:OHX:N1	2.54	0.56
1:2:1797:A:N6	28:D6:84:VAL:O	2.30	0.56
47:M0:38:LYS:HB3	47:M0:41:ALA:HB2	1.87	0.56
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.38	0.56
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.05	0.56
44:L7:214:TRP:CE2	44:L7:219:LYS:HD3	5.21	0.56
13:C1:48:ALA:HA	13:C1:53:TYR:HE2	1.70	0.56
1:2:397:A:O3'	10:S8:50:GLY:HA2	2.06	0.56
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.37	0.56
41:L4:25:VAL:C	41:L4:27:SER:H	2.09	0.56
41:L4:31:ARG:HB3	41:L4:34:ILE:HG13	2.25	0.56
41:L4:80:GLY:HA2	41:L4:85:SER:OG	3.55	0.56
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.05	0.56
7:S5:122:ASN:HB2	7:S5:129:PRO:HD3	1.87	0.56
1:6:1469:A:H2'	1:6:1470:C:C6	2.41	0.56
7:S5:92:ARG:HH11	7:S5:92:ARG:CG	3.35	0.56
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	1.99	0.56
1:2:1548:G:OP1	17:C5:18:ARG:NH1	2.37	0.56
22:D0:63:LEU:HB3	31:D9:34:TYR:HE2	1.68	0.56
31:D9:27:HIS:CD2	31:D9:27:HIS:H	2.22	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:868:G:H1	1:2:960:U:H3	1.53	0.56
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.04	0.56
2:S0:49:ASN:HB3	2:S0:52:LYS:HE2	1.87	0.56
61:N5:71:THR:HG21	36:5:1603:A:N6	91.48	0.56
36:5:185:C:H2'	36:5:186:U:C6	2.37	0.56
11:S9:168:ARG:HH21	11:S9:174:ARG:NH1	9.47	0.56
40:L3:102:LEU:HD21	40:L3:150:ARG:HD3	1.85	0.56
1:6:76:A:H3'	87:6:2199:OHX:N1	2.20	0.56
62:N6:43:TYR:O	62:N6:125:LYS:N	2.32	0.56
62:N6:36:SER:O	62:N6:38:GLU:N	2.60	0.56
72:O6:74:LYS:HD2	72:O6:80:PHE:CD2	2.40	0.56
39:L2:250:GLN:CD	39:L2:251:LYS:H	4.81	0.56
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.76	0.56
36:5:1234:G:OP2	36:5:1235:U:H3'	2.04	0.56
64:N8:129:PHE:CZ	72:O6:9:ILE:HB	5.53	0.56
1:6:158:U:O2'	1:6:160:C:OP2	2.15	0.56
40:L3:141:GLY:O	40:L3:143:GLY:N	2.83	0.56
36:5:1646:G:O2'	36:5:1647:A:OP2	2.17	0.56
36:5:64:G:H22	36:5:322:U:H2'	1.71	0.56
39:L2:3:ARG:HB2	39:L2:207:VAL:HG23	1.85	0.56
39:L2:6:ARG:O	39:L2:8:GLN:N	2.37	0.56
36:1:3006:A:C2	36:1:3141:A:C4	2.93	0.56
1:6:1038:U:H5''	1:6:1039:A:OP2	2.04	0.56
1:6:649:U:H2'	1:6:650:U:C5	2.41	0.56
1:6:1446:A:O2'	1:6:1448:G:N7	2.32	0.56
36:1:1946:A:H2'	36:1:1947:G:C8	2.40	0.56
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.53	0.56
41:L4:142:VAL:HB	41:L4:145:ILE:HG12	1.87	0.56
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.91	0.56
36:1:644:G:H2'	36:1:2372:A:N7	2.21	0.56
1:6:389:G:C6	1:6:390:G:C5	2.93	0.56
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.20	0.56
56:N0:30:PHE:CE1	56:N0:103:VAL:HG21	2.40	0.56
1:6:844:A:O5'	1:6:844:A:H8	1.88	0.56
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.20	0.56
9:S7:14:THR:HG23	9:S7:17:GLU:H	1.70	0.56
22:D0:31:VAL:O	22:D0:35:GLU:N	2.85	0.56
2:S0:110:TYR:CE2	4:S2:64:LYS:HB3	3.31	0.56
42:L5:113:LEU:C	42:L5:115:LEU:H	3.24	0.56
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.74	0.56
36:5:300:G:H2'	36:5:301:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:62:C:O2	87:4:231:OHX:N5	2.38	0.56
44:L7:60:ARG:NH2	36:5:516:A:O3'	305.47	0.56
44:L7:98:LYS:HG2	44:L7:129:LEU:HD21	1.85	0.56
58:N2:33:TYR:CE2	58:N2:63:VAL:HG21	3.46	0.56
36:1:1554:U:O5'	36:1:1554:U:H6	1.88	0.56
11:S9:29:LYS:HA	32:E0:40:TYR:HE2	1.69	0.56
5:S3:119:ALA:O	5:S3:123:VAL:HG23	2.22	0.56
54:M8:157:PRO:C	54:M8:159:LYS:H	2.90	0.56
1:6:1240:U:O2	1:6:1242:A:H5''	2.05	0.56
36:1:671:U:H2'	36:1:672:A:C8	2.39	0.56
4:S2:109:GLY:HA2	4:S2:139:ILE:HG22	2.75	0.56
1:6:1283:U:C2	1:6:1284:C:H5	2.23	0.56
36:5:2137:U:C6	36:5:2141:U:O4	2.58	0.56
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.05	0.56
87:5:4028:OHX:N5	87:5:4075:OHX:N6	2.54	0.56
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	3.97	0.56
36:1:531:G:N2	36:1:532:A:C4	2.74	0.56
36:1:1681:U:H2'	36:1:1682:U:O4'	2.05	0.56
36:5:1748:G:O6	87:5:4180:OHX:N4	2.37	0.56
36:1:2396:G:OP1	36:1:2397:A:H4'	2.05	0.56
70:O4:32:ALA:O	70:O4:33:GLN:HB2	2.06	0.56
36:5:2259:A:H2'	36:5:2260:U:H6	1.70	0.56
3:S1:146:GLN:O	3:S1:149:GLN:N	2.96	0.56
33:E1:95:HIS:CG	33:E1:96:LYS:H	2.23	0.56
48:M1:117:ASP:O	48:M1:119:SER:N	2.39	0.56
36:5:574:U:H2'	36:5:575:G:H8	1.70	0.56
21:C9:52:GLY:HA3	21:C9:55:TYR:HD2	3.05	0.56
36:1:2862:U:H2'	36:1:2863:G:O4'	2.06	0.56
46:L9:186:PHE:N	46:L9:186:PHE:HD2	2.55	0.56
28:D6:74:CYS:SG	28:D6:77:CYS:N	2.78	0.56
44:L7:107:ARG:HE	44:L7:204:PRO:HG3	1.69	0.56
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.38	0.56
51:M5:18:VAL:HG13	51:M5:19:LEU:H	1.70	0.56
41:L4:251:THR:O	41:L4:254:ALA:HB3	2.05	0.56
54:M8:45:ASN:O	54:M8:48:VAL:N	2.48	0.56
43:L6:40:LEU:HD13	43:L6:84:VAL:HG21	1.87	0.56
4:S2:205:ARG:NH2	1:6:7:G:N7	370.86	0.56
67:O1:15:ASN:O	67:O1:19:ARG:HG3	2.36	0.56
1:2:1593:A:H2'	1:2:1594:G:H8	1.67	0.56
17:C5:20:VAL:HG12	17:C5:24:LYS:HB3	5.60	0.56
1:2:1277:G:H4'	5:S3:183:GLY:H	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:20:HIS:CG	68:O2:42:VAL:HG21	2.91	0.56
19:C7:105:GLN:O	19:C7:109:LEU:N	3.31	0.56
4:S2:207:LEU:O	4:S2:209:ASN:N	2.38	0.56
40:L3:13:HIS:HB3	40:L3:16:PHE:HD1	3.27	0.56
36:1:1719:G:N7	55:M9:121:HIS:HE1	2.02	0.56
68:O2:86:THR:HG23	68:O2:115:LEU:HB3	1.87	0.56
14:C2:42:ALA:N	14:C2:122:VAL:O	2.66	0.56
17:C5:127:ARG:O	17:C5:130:ARG:NH1	5.69	0.56
6:S4:36:HIS:CD2	6:S4:85:GLY:HA3	3.24	0.56
6:S4:67:GLN:HB3	6:S4:69:HIS:NE2	5.08	0.56
69:O3:43:PHE:HD2	69:O3:44:TYR:CD2	2.24	0.56
18:C6:94:GLN:HA	18:C6:102:LYS:HD2	1.87	0.56
40:L3:286:GLY:O	40:L3:320:ASP:HA	4.83	0.56
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	1.87	0.56
41:L4:159:ILE:HD12	41:L4:165:ALA:HA	1.87	0.56
8:S6:64:LYS:HD2	8:S6:97:VAL:HG21	2.57	0.56
36:5:2232:A:H2'	36:5:2233:A:O4'	2.04	0.56
52:M6:85:ARG:HD2	52:M6:90:HIS:CE1	3.08	0.56
57:N1:130:ARG:HD3	36:5:1098:A:OP2	254.72	0.56
36:1:285:A:H3'	36:1:285:A:C8	2.40	0.56
36:5:28:C:O2'	36:5:29:C:O5'	2.24	0.56
1:6:1081:A:N3	1:6:1082:C:H5	2.03	0.56
1:6:385:A:H2'	1:6:386:G:C8	2.40	0.56
36:5:2971:A:H5''	36:5:2972:G:H5'	1.87	0.56
36:1:1128:U:OP1	47:M0:4:ARG:NH2	2.33	0.56
2:S0:128:SER:HB3	2:S0:129:ASP:OD1	3.39	0.56
1:6:804:A:C6	1:6:805:U:C4	2.94	0.56
59:N3:54:LEU:HB2	59:N3:81:GLN:HG3	1.88	0.56
69:O3:20:LYS:NZ	36:5:1178:G:O6	243.43	0.56
13:C1:56:LYS:HG3	13:C1:57:LYS:HG3	2.17	0.56
58:N2:33:TYR:OH	58:N2:80:THR:OG1	5.10	0.56
1:6:138:A:H2'	1:6:139:C:H5'	1.87	0.56
36:1:2795:U:O2	36:1:2800:G:O2'	2.12	0.56
39:L2:200:ARG:CG	39:L2:200:ARG:HH21	3.48	0.56
1:6:1240:U:C2	1:6:1242:A:H5''	2.40	0.56
57:N1:17:ARG:HG2	57:N1:17:ARG:HH11	3.50	0.56
48:M1:37:LEU:HD12	48:M1:67:VAL:HG23	1.87	0.56
37:3:87:G:H21	56:N0:119:ARG:HH21	1.52	0.56
36:1:1498:A:O2'	36:1:1499:C:H5'	2.05	0.56
56:N0:34:GLU:O	56:N0:38:LYS:HG3	2.05	0.56
54:M8:60:PRO:HG3	54:M8:144:ARG:HG2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:217:ASP:O	34:SR:219:GLU:HG2	2.05	0.56
6:S4:170:THR:O	6:S4:171:ASP:HB2	3.22	0.56
36:5:1494:U:C2	36:5:1835:A:C2	2.94	0.56
38:4:113:U:H5'	75:O9:7:PHE:HB3	1.87	0.56
36:5:665:A:H2'	36:5:666:A:H8	1.70	0.56
36:5:1259:A:N6	36:5:1260:A:N1	2.53	0.56
1:6:1003:A:H4'	1:6:1004:U:O5'	2.05	0.56
36:1:3241:G:C4	36:1:3245:A:C2	2.93	0.56
41:L4:103:THR:HG22	41:L4:107:ARG:NH2	3.07	0.56
41:L4:98:ARG:HD2	41:L4:99:MET:O	2.05	0.56
1:2:1546:G:OP1	20:C8:123:ARG:NH1	2.38	0.56
26:D4:18:LEU:HB2	26:D4:20:ARG:HG2	3.71	0.56
1:6:1535:U:O2'	1:6:1536:G:O5'	2.23	0.56
7:S5:112:ARG:HD2	18:C6:43:ILE:HD12	3.96	0.56
36:1:3380:U:H2'	36:1:3381:U:C6	2.40	0.56
42:L5:212:ALA:HB2	42:L5:219:PHE:CD2	6.31	0.56
28:D6:51:ARG:NH2	30:D8:60:GLU:OE1	6.75	0.56
3:S1:229:MET:O	3:S1:232:HIS:N	3.17	0.56
23:D1:86:SER:HB2	29:D7:6:ASP:HB3	4.94	0.56
20:C8:18:LEU:HD12	20:C8:102:ALA:HB2	4.37	0.56
43:L6:7:PRO:C	43:L6:9:TRP:H	2.78	0.56
1:6:1232:U:H2'	1:6:1233:G:O4'	2.06	0.56
6:S4:229:GLY:HA2	6:S4:235:TYR:CE2	2.41	0.56
56:N0:138:GLN:O	56:N0:140:VAL:N	2.39	0.56
34:SR:67:ILE:HD12	34:SR:85:TRP:CD2	2.40	0.56
40:L3:81:THR:HG22	40:L3:321:PHE:CA	5.07	0.56
26:D4:124:ARG:O	26:D4:127:LYS:N	3.54	0.56
8:S6:58:LYS:HB2	8:S6:59:GLN:NE2	2.20	0.56
51:M5:172:ARG:HH11	36:5:30:G:P	108.18	0.56
26:D4:59:GLY:O	26:D4:60:PHE:HB2	2.05	0.56
36:5:391:A:C5	36:5:392:G:C8	2.93	0.56
46:L9:103:ILE:HG22	46:L9:103:ILE:O	2.64	0.56
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.87	0.56
1:2:827:C:H2'	1:2:828:U:H6	1.70	0.56
48:M1:143:ARG:HG2	48:M1:144:CYS:SG	2.46	0.56
64:N8:90:TYR:CD1	64:N8:100:PRO:HD3	4.33	0.56
36:5:1554:U:C2'	36:5:1581:C:H2'	2.35	0.56
36:5:3004:C:N3	36:5:3144:G:N2	2.53	0.56
1:2:1497:U:OP2	87:2:2031:OHX:N1	2.38	0.56
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.39	0.56
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:122:U:H2'	38:4:123:G:H8	1.71	0.56
3:S1:115:ARG:O	3:S1:118:GLN:HG2	2.23	0.56
15:C3:65:VAL:HG23	15:C3:66:ILE:HG23	6.90	0.56
36:1:1240:A:H3'	36:1:1241:U:C5'	2.35	0.56
1:6:907:A:N1	1:6:1008:G:H1'	2.21	0.56
87:5:4028:OHX:N3	87:5:4075:OHX:N6	2.54	0.56
34:SR:50:ASP:HB2	34:SR:53:LYS:O	3.30	0.56
78:Q2:63:LYS:NZ	36:5:2761:G:N7	211.79	0.56
1:2:833:U:O4	87:2:2037:OHX:N1	2.38	0.56
36:5:1534:A:OP1	87:5:3918:OHX:N1	2.39	0.56
36:5:2947:G:OP2	36:5:2947:G:H4'	2.04	0.56
36:1:2942:C:H6	36:1:2942:C:O5'	1.88	0.56
36:1:3269:U:H5'	36:1:3269:U:O2	2.05	0.56
64:N8:18:GLY:O	36:5:1370:G:H5''	174.88	0.56
36:1:1293:U:O2'	36:1:1294:A:H5'	2.06	0.56
11:S9:83:VAL:HG23	11:S9:85:VAL:HG23	1.87	0.56
44:L7:39:GLU:OE1	44:L7:43:ILE:HD11	8.24	0.56
54:M8:23:ASN:O	54:M8:26:LEU:N	2.43	0.56
20:C8:28:ILE:HD12	20:C8:28:ILE:H	5.12	0.56
7:S5:110:ALA:O	7:S5:113:ILE:N	2.38	0.56
23:D1:74:GLN:CG	23:D1:79:LEU:HB2	3.73	0.56
2:S0:124:THR:HG23	2:S0:174:TRP:HE1	1.71	0.56
36:1:3145:C:H2'	36:1:3146:G:H8	1.69	0.56
56:N0:26:ARG:NH1	57:N1:150:THR:HG21	3.08	0.56
36:1:2224:A:OP1	72:O6:74:LYS:NZ	2.35	0.56
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.05	0.56
40:L3:236:LYS:NZ	36:5:2340:U:OP1	234.52	0.56
1:6:416:A:H4'	1:6:417:A:OP2	2.05	0.56
36:5:1364:C:H2'	36:5:1365:G:C8	2.40	0.56
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.86	0.56
36:1:2148:U:O2'	39:L2:182:ALA:HB2	2.05	0.56
46:L9:172:ILE:HG13	46:L9:172:ILE:O	3.79	0.56
36:5:2209:U:C2	36:5:2210:G:C8	2.94	0.56
36:1:1870:C:O2	36:1:3066:U:O2'	2.21	0.56
36:1:3275:U:H5''	69:O3:68:TRP:CZ2	2.38	0.56
54:M8:109:GLY:O	54:M8:112:ALA:HB3	2.06	0.56
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.65	0.56
22:D0:109:GLU:HG3	22:D0:110:PRO:HD2	1.87	0.56
45:L8:178:ALA:HA	45:L8:222:PHE:CD2	2.40	0.56
36:1:2649:A:O2'	36:1:2650:U:H5'	2.05	0.56
1:6:1236:A:H3'	1:6:1237:G:H8	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1685:G:O6	1:6:1716:C:N4	2.38	0.56
65:N9:23:LYS:O	65:N9:25:LYS:N	2.38	0.56
36:5:385:A:C2	36:5:386:A:C4	2.93	0.56
36:1:827:A:H2'	36:1:828:A:C8	2.41	0.56
36:1:184:U:H2'	36:1:185:C:H6	1.70	0.56
1:2:568:G:O5'	25:D3:90:ASP:HA	2.06	0.56
36:1:950:G:N7	36:1:1367:G:C6	2.74	0.56
36:1:2352:A:C6	36:1:2353:G:C6	2.93	0.56
1:6:427:C:C4	1:6:428:A:N7	2.74	0.56
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	1.88	0.56
36:1:1040:A:N3	47:M0:198:LYS:NZ	2.43	0.56
41:L4:333:VAL:HG22	41:L4:337:GLU:HG3	1.87	0.56
6:S4:57:ASN:HB2	6:S4:60:GLU:HB2	1.87	0.56
10:S8:168:CYS:SG	10:S8:169:ILE:N	2.79	0.56
19:C7:20:TYR:CD1	19:C7:38:ILE:HD11	2.40	0.56
36:1:561:C:OP1	50:M4:77:ARG:HG3	2.06	0.56
7:S5:81:ARG:HD2	1:6:1615:C:H2'	373.49	0.56
18:C6:101:SER:O	18:C6:101:SER:OG	3.91	0.56
18:C6:21:HIS:HB2	18:C6:23:LYS:HZ1	9.98	0.56
20:C8:26:ILE:HG13	20:C8:31:ALA:HB2	2.75	0.56
7:S5:123:VAL:HG11	27:D5:59:TYR:HB2	4.75	0.56
7:S5:190:ILE:H	7:S5:190:ILE:CD1	3.08	0.56
67:O1:36:ILE:O	67:O1:39:PHE:N	2.39	0.56
42:L5:83:LEU:O	42:L5:87:GLY:N	3.12	0.56
66:O0:44:ILE:O	66:O0:70:PHE:HB3	2.68	0.56
1:2:1207:C:H42	1:2:1456:C:N4	2.03	0.56
6:S4:157:ASN:ND2	6:S4:222:LEU:HD21	3.80	0.56
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.41	0.56
52:M6:118:VAL:HG23	56:N0:164:SER:O	2.06	0.56
41:L4:55:LYS:HD2	41:L4:59:GLN:NE2	4.68	0.56
1:2:888:U:H2'	1:2:889:U:C6	2.41	0.56
36:5:3288:G:O2'	36:5:3289:G:P	2.64	0.56
51:M5:163:GLY:O	51:M5:172:ARG:NH1	2.38	0.56
40:L3:95:THR:C	40:L3:97:ARG:H	2.01	0.56
36:5:3017:A:C5	36:5:3018:C:C5	2.93	0.56
1:2:782:U:H4'	1:2:783:G:H5''	1.87	0.56
42:L5:155:THR:HB	42:L5:179:ARG:HD3	1.87	0.56
36:1:1803:C:H2'	36:1:1804:A:C8	2.41	0.56
60:N4:6:ASP:HA	60:N4:13:ILE:HD11	2.02	0.56
1:6:1489:U:H2'	1:6:1514:U:O4	2.06	0.56
22:D0:39:SER:HA	22:D0:42:VAL:HG12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1216:C:C5	1:2:1444:A:C2	2.94	0.56
55:M9:62:ARG:HH11	55:M9:62:ARG:HB2	3.43	0.56
36:5:1556:C:H3'	36:5:1557:A:H5''	1.88	0.56
72:O6:33:ALA:HB1	72:O6:38:LYS:HD2	1.88	0.56
39:L2:58:LEU:HD23	39:L2:77:ILE:HA	1.87	0.56
50:M4:39:ILE:HB	50:M4:43:LYS:O	2.05	0.56
61:N5:133:LEU:O	61:N5:136:ALA:HB3	2.56	0.56
1:2:72:A:C2	1:2:73:U:N3	2.73	0.56
36:1:2369:G:H2'	36:1:2370:G:O4'	2.04	0.56
36:1:511:G:H2'	36:1:512:U:C6	2.41	0.56
44:L7:57:THR:O	44:L7:61:ASN:ND2	4.10	0.56
36:5:419:G:O3'	36:5:420:G:OP2	2.24	0.56
36:1:304:G:H5'	36:1:304:G:N3	2.21	0.56
56:N0:113:ARG:NH2	36:5:1187:C:OP1	311.19	0.56
36:1:625:G:OP1	87:1:4045:OHX:N1	2.38	0.56
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	2.04	0.56
36:5:794:U:O5'	36:5:794:U:H6	1.88	0.56
36:1:1728:G:C4	66:O0:85:PHE:CE1	2.93	0.56
36:1:2228:A:H2'	36:1:2229:A:C8	2.41	0.56
20:C8:35:ILE:HB	20:C8:38:VAL:CG1	4.44	0.56
7:S5:124:LEU:HD11	27:D5:59:TYR:HD1	1.71	0.56
7:S5:139:ASN:OD1	7:S5:203:LYS:HA	2.05	0.56
7:S5:149:VAL:HG12	7:S5:158:GLN:H	2.06	0.56
76:Q0:122:ARG:CG	76:Q0:122:ARG:HH11	2.12	0.56
2:S0:145:ALA:HB3	2:S0:159:ALA:HA	1.87	0.56
54:M8:108:ALA:C	54:M8:110:ALA:H	3.30	0.56
36:1:1733:G:H2'	36:1:1734:G:H8	1.71	0.56
35:SM:80:ALA:HB1	1:6:1178:G:N2	335.01	0.56
57:N1:40:VAL:HG21	57:N1:96:ILE:HG23	1.86	0.56
36:5:269:G:N2	36:5:295:A:OP2	2.33	0.56
36:1:2422:C:O5'	78:Q2:52:GLY:HA2	2.06	0.56
1:6:158:U:O2'	1:6:159:U:H3'	2.06	0.56
51:M5:57:GLN:HG2	38:8:143:U:O3'	97.82	0.56
51:M5:183:THR:O	51:M5:183:THR:OG1	3.05	0.56
36:5:916:G:N7	36:5:924:G:C5	2.74	0.56
26:D4:42:GLU:HG3	26:D4:52:LYS:HE3	2.53	0.56
46:L9:94:TYR:N	46:L9:94:TYR:HD1	2.03	0.56
37:7:26:C:O2	37:7:57:G:N1	2.39	0.56
1:6:973:A:H2'	1:6:974:A:C8	2.40	0.56
10:S8:150:ALA:C	10:S8:152:ILE:H	2.09	0.56
9:S7:14:THR:O	9:S7:18:LEU:HG	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2234:G:HO2'	36:1:2603:G:HO2'	1.52	0.56
1:6:1477:G:C6	1:6:1478:G:C6	2.94	0.56
59:N3:71:LYS:NZ	36:5:2293:C:OP2	279.92	0.56
63:N7:103:GLN:HB2	63:N7:106:GLN:OE1	4.24	0.56
58:N2:33:TYR:CE1	58:N2:37:LEU:HD11	2.41	0.56
1:2:126:A:N1	1:2:292:U:H1'	2.20	0.56
53:M7:11:PRO:O	53:M7:14:SER:N	3.57	0.56
36:5:1838:G:H4'	36:5:1839:A:N3	2.21	0.56
36:1:1940:G:O6	36:1:2107:A:N6	2.38	0.56
52:M6:65:ASN:OD1	52:M6:67:THR:HB	3.22	0.56
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.06	0.56
36:5:1019:G:H2'	36:5:1020:G:C8	2.40	0.56
36:1:949:C:OP1	54:M8:10:HIS:ND1	2.39	0.56
36:1:1119:C:H2'	36:1:1120:A:H8	1.71	0.56
45:L8:203:VAL:HG13	45:L8:207:ASP:HB2	2.19	0.56
36:5:1445:U:H5''	36:5:1446:A:OP2	2.04	0.56
36:1:908:G:C6	36:1:925:A:C8	2.93	0.56
36:1:1148:G:OP2	87:1:4165:OHX:N4	2.39	0.56
36:5:2885:C:C2'	36:5:2886:U:H5'	2.36	0.56
28:D6:10:ARG:HG3	28:D6:34:LYS:HG2	3.87	0.56
45:L8:236:GLY:O	45:L8:237:ILE:HB	4.62	0.56
13:C1:53:TYR:CD1	13:C1:113:PRO:HG2	2.41	0.56
26:D4:49:LYS:H	26:D4:49:LYS:HD3	2.70	0.56
43:L6:42:LEU:HD23	43:L6:42:LEU:N	3.26	0.56
49:M3:99:HIS:HB2	36:5:156:G:O4'	77.79	0.56
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	3.08	0.56
1:2:1772:C:C5'	77:Q1:2:ARG:HD2	2.34	0.56
19:C7:106:THR:O	19:C7:109:LEU:HB3	2.05	0.56
54:M8:101:VAL:HB	54:M8:106:PHE:HZ	1.70	0.56
39:L2:130:SER:O	39:L2:130:SER:OG	3.17	0.56
11:S9:168:ARG:HD2	11:S9:169:PRO:O	6.35	0.56
1:6:1133:A:N3	1:6:1650:U:O2'	2.38	0.56
59:N3:93:LEU:O	59:N3:94:TYR:HB3	2.73	0.56
37:7:119:U:H2'	37:7:120:C:C6	2.41	0.56
36:1:31:C:H2'	36:1:32:U:C6	2.41	0.56
40:L3:163:HIS:HB3	40:L3:178:LEU:HD12	1.87	0.56
72:O6:54:GLU:O	72:O6:58:ILE:HG23	2.33	0.56
36:1:860:G:OP1	79:Q3:18:TYR:OH	2.22	0.56
46:L9:156:GLN:HE21	46:L9:160:ASP:CG	2.10	0.56
36:5:213:A:H2'	36:5:214:G:O4'	2.06	0.56
36:5:89:A:H61	36:5:97:U:H3	1.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:90:U:H2'	37:7:90:U:O2	2.05	0.56
36:5:2142:A:H4'	36:5:2143:A:O5'	2.06	0.56
36:1:705:A:N6	64:N8:74:ASN:HD21	2.04	0.56
54:M8:38:ARG:HG2	54:M8:39:ARG:HG2	1.88	0.56
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.41	0.56
39:L2:48:ILE:HA	39:L2:59:ALA:HA	1.87	0.56
36:5:645:A:C5'	36:5:2372:A:H62	2.19	0.56
65:N9:5:LYS:NZ	36:5:1135:A:OP2	227.82	0.56
58:N2:23:THR:OG1	58:N2:28:PHE:HB3	3.96	0.56
9:S7:152:VAL:HG23	9:S7:182:VAL:O	2.05	0.56
6:S4:136:VAL:HG13	6:S4:149:TYR:CE1	2.41	0.56
4:S2:168:ARG:HD2	1:6:1097:U:H6	380.42	0.56
36:1:2376:G:C6	36:1:2377:G:O6	2.58	0.56
45:L8:150:LEU:HD22	45:L8:151:VAL:H	1.71	0.56
36:1:3221:C:O2	36:1:3264:G:N2	2.38	0.56
1:2:599:A:H4'	25:D3:106:GLY:O	2.06	0.56
87:5:3900:OHX:N5	38:8:1:A:OP1	2.39	0.56
38:8:81:U:H3	38:8:83:C:H5	1.53	0.56
1:2:1008:G:P	16:C4:135:ARG:HE	2.29	0.56
1:6:1466:G:H2'	1:6:1467:C:C6	2.40	0.56
36:1:2267:C:C4	36:1:2268:U:C2	2.93	0.56
1:6:321:C:O3'	87:6:2111:OHX:N5	2.39	0.56
1:2:1535:U:O2'	1:2:1536:G:N3	2.33	0.56
59:N3:104:ASN:OD1	59:N3:106:LYS:N	2.37	0.56
1:2:1364:G:H8	1:2:1364:G:O5'	1.89	0.56
13:C1:123:VAL:HG22	13:C1:142:VAL:HG22	4.00	0.56
1:2:192:U:O2'	1:2:193:U:O5'	2.22	0.56
36:1:3199:G:C2	36:1:3200:G:C8	2.94	0.56
46:L9:25:VAL:HG23	46:L9:36:LYS:O	2.05	0.56
36:5:1498:A:C2	36:5:1499:C:C2	2.94	0.56
28:D6:37:LYS:HG2	28:D6:72:HIS:HD2	2.01	0.56
28:D6:87:ARG:HB2	28:D6:92:ARG:HG2	1.87	0.56
11:S9:63:ASP:O	11:S9:69:ARG:HD3	2.06	0.56
44:L7:160:ARG:HD2	44:L7:203:TRP:CG	2.84	0.56
10:S8:50:GLY:HA2	1:6:397:A:H4'	314.80	0.56
41:L4:146:PRO:HG2	41:L4:150:LEU:HD21	2.38	0.56
1:2:1384:A:H2'	1:2:1385:G:O4'	2.05	0.56
1:2:813:U:H5'	15:C3:76:LYS:HD3	1.86	0.56
27:D5:60:VAL:HA	27:D5:64:VAL:HG21	2.43	0.56
7:S5:57:SER:O	7:S5:59:VAL:N	2.33	0.56
7:S5:68:ILE:HD12	7:S5:70:VAL:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:90:MET:HG3	46:L9:181:VAL:HA	4.28	0.56
42:L5:211:LEU:HD22	42:L5:219:PHE:HB2	4.39	0.56
1:2:1553:G:O2'	1:2:1555:A:N7	2.35	0.56
17:C5:44:ARG:NH2	17:C5:82:ASN:O	3.30	0.56
55:M9:99:LEU:HD11	55:M9:103:ARG:NH2	2.21	0.56
50:M4:85:TRP:CD1	50:M4:90:VAL:HG13	2.41	0.56
50:M4:92:GLU:O	50:M4:95:ALA:HB3	2.36	0.56
69:O3:9:VAL:HG21	69:O3:44:TYR:HE1	2.70	0.56
8:S6:136:LYS:NZ	1:6:65:A:O5'	336.91	0.56
34:SR:19:TRP:O	34:SR:21:THR:HG23	2.06	0.56
1:2:1347:U:C2	1:2:1517:U:C5	2.94	0.56
1:2:365:G:C2	1:2:366:A:C8	2.94	0.56
36:1:3294:A:H5''	36:1:3294:A:H8	1.71	0.56
52:M6:183:ALA:O	52:M6:186:ALA:N	3.90	0.56
36:5:1161:G:H1'	36:5:1365:G:N2	2.21	0.56
51:M5:150:TRP:O	51:M5:152:CYS:N	2.39	0.56
39:L2:242:ARG:NH2	36:5:2241:U:O3'	236.30	0.56
70:O4:61:GLN:O	70:O4:64:THR:N	2.71	0.56
60:N4:42:GLN:HB3	60:N4:44:LYS:HE3	1.88	0.56
4:S2:40:LYS:HG2	4:S2:247:ALA:HB1	3.08	0.56
45:L8:32:LYS:O	36:5:2549:G:N2	207.64	0.56
1:6:33:U:O4	87:6:2092:OHX:N4	2.39	0.56
62:N6:19:TYR:CE2	36:5:216:G:H4'	73.08	0.56
1:2:195:G:H2'	1:2:196:G:H5'	1.87	0.56
57:N1:68:THR:HG23	57:N1:69:LYS:N	2.80	0.56
1:2:1294:G:H4'	2:S0:108:THR:HB	1.88	0.56
34:SR:135:THR:N	34:SR:139:GLN:O	2.28	0.56
1:2:533:U:C4'	26:D4:33:ALA:HB2	2.36	0.56
13:C1:132:SER:HB3	13:C1:135:VAL:HB	3.73	0.56
61:N5:49:LYS:O	61:N5:51:VAL:N	2.37	0.56
1:2:484:C:N4	1:2:504:U:H3	2.04	0.56
47:M0:201:SER:OG	47:M0:202:LYS:N	2.38	0.56
36:5:323:A:H2'	36:5:324:A:C8	2.41	0.56
19:C7:71:PHE:CE1	19:C7:73:LEU:HD22	2.40	0.56
34:SR:52:GLN:HG2	34:SR:53:LYS:H	1.71	0.56
36:5:1033:U:H2'	36:5:1034:U:H5'	1.88	0.56
1:2:1360:A:H4'	21:C9:3:GLY:H	1.70	0.56
36:5:179:C:H2'	36:5:180:C:H6	1.71	0.56
36:5:1054:A:OP1	87:5:4080:OHX:N4	2.39	0.56
73:O7:47:TYR:HB3	73:O7:49:TRP:NE1	2.20	0.56
36:1:1798:A:H2'	36:1:1799:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:13:ILE:HG12	59:N3:85:TRP:CD1	5.15	0.56
51:M5:181:ASN:OD1	36:5:100:A:H4'	116.45	0.56
65:N9:45:HIS:CE1	36:5:1075:A:C4	196.35	0.56
6:S4:240:LYS:CD	6:S4:240:LYS:H	2.17	0.56
36:1:3233:C:H2'	36:1:3234:A:C8	2.42	0.56
1:2:641:G:H2'	1:2:642:G:H8	1.71	0.56
36:1:1838:G:H5''	36:1:1839:A:OP1	2.06	0.56
44:L7:173:LEU:HG	44:L7:178:ILE:HD12	3.03	0.55
10:S8:76:THR:HB	10:S8:105:ASP:HB2	1.87	0.55
41:L4:11:LEU:HD23	41:L4:11:LEU:N	2.21	0.55
43:L6:85:ILE:HG23	69:O3:107:ILE:HG21	3.69	0.55
42:L5:86:TYR:CD1	42:L5:247:ILE:HG13	2.85	0.55
21:C9:28:LEU:HD13	21:C9:30:VAL:HG13	1.88	0.55
1:2:917:U:H5''	16:C4:20:TYR:CE2	2.41	0.55
28:D6:60:PRO:O	28:D6:62:TYR:N	2.38	0.55
1:6:754:A:N6	1:6:793:A:H62	2.04	0.55
48:M1:92:ARG:HH21	48:M1:173:ASP:CG	2.09	0.55
1:6:874:C:OP1	87:6:2060:OHX:N1	2.40	0.55
52:M6:159:LYS:O	52:M6:162:VAL:HB	2.86	0.55
69:O3:49:ILE:HG13	69:O3:100:ILE:HG13	1.88	0.55
8:S6:136:LYS:HG3	8:S6:173:PRO:HB3	1.88	0.55
34:SR:34:LEU:HD12	34:SR:43:ILE:O	2.60	0.55
52:M6:39:GLU:HG2	52:M6:39:GLU:O	3.03	0.55
36:1:1485:G:C2	70:O4:4:ARG:NH1	2.74	0.55
49:M3:85:LEU:HD13	49:M3:120:GLN:OE1	2.06	0.55
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	1.88	0.55
76:Q0:78:ILE:HG23	76:Q0:83:LYS:HD2	3.67	0.55
36:1:595:G:C8	36:1:609:G:C6	2.94	0.55
37:7:57:G:H3'	37:7:58:C:H6	1.70	0.55
41:L4:284:SER:O	41:L4:286:VAL:N	3.27	0.55
22:D0:24:ILE:HG12	22:D0:116:VAL:HG13	1.88	0.55
36:1:2207:A:H2'	36:1:2208:A:C8	2.42	0.55
34:SR:149:ASP:HB3	34:SR:174:ASN:HB2	1.88	0.55
1:6:1414:U:O2'	1:6:1416:G:OP2	2.14	0.55
78:Q2:31:GLY:O	78:Q2:33:ALA:N	2.39	0.55
56:N0:50:LYS:NZ	37:7:76:A:N3	300.46	0.55
36:5:2363:A:C6	36:5:2364:G:C6	2.94	0.55
47:M0:19:LYS:HE3	47:M0:26:VAL:HG13	1.86	0.55
8:S6:26:VAL:HG21	8:S6:40:ALA:HB1	1.87	0.55
49:M3:9:ILE:HG13	64:N8:49:HIS:NE2	3.54	0.55
1:6:702:G:N7	87:6:2103:OHX:N4	2.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:14:LYS:HB3	71:O5:15:GLU:OE1	8.87	0.55
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.44	0.55
36:1:3343:G:C4	36:1:3361:G:N2	2.74	0.55
36:1:608:A:C4	43:L6:22:ARG:NH1	2.75	0.55
36:1:2582:C:OP2	87:1:4147:OHX:N6	2.39	0.55
36:5:3216:G:O6	36:5:3259:U:H2'	2.06	0.55
36:1:1148:G:H2'	36:1:1149:G:H5'	1.87	0.55
36:5:604:G:N7	87:5:4163:OHX:N2	2.54	0.55
38:4:26:U:H2'	38:4:27:U:C6	2.41	0.55
10:S8:11:ARG:NH1	10:S8:15:GLY:O	2.54	0.55
5:S3:35:SER:OG	5:S3:51:ARG:NH2	4.27	0.55
1:2:879:G:H2'	1:2:880:C:O4'	2.06	0.55
3:S1:167:VAL:O	3:S1:171:ILE:N	2.86	0.55
39:L2:51:ASP:HB3	39:L2:54:ARG:HB3	1.88	0.55
25:D3:59:ILE:O	25:D3:69:ARG:N	2.31	0.55
20:C8:2:SER:O	20:C8:2:SER:OG	4.08	0.55
1:2:426:G:N2	1:2:459:G:O2'	2.31	0.55
47:M0:36:LEU:HD13	47:M0:87:LEU:HD13	1.88	0.55
44:L7:206:LYS:HD3	36:5:1334:U:OP1	233.18	0.55
44:L7:51:TYR:CD1	44:L7:186:HIS:CD2	3.59	0.55
26:D4:20:ARG:HA	26:D4:76:TYR:HA	2.02	0.55
1:2:1671:A:H2'	1:2:1672:G:O4'	2.07	0.55
2:S0:140:ASN:ND2	4:S2:62:PRO:HD3	4.39	0.55
68:O2:96:ILE:N	68:O2:121:ASN:HD21	2.04	0.55
38:4:66:A:H2'	38:4:67:U:C6	2.40	0.55
1:6:1450:U:H2'	1:6:1451:C:C6	2.40	0.55
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.21	0.55
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	3.27	0.55
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.05	0.55
40:L3:358:TRP:CZ3	60:N4:15:PRO:HD2	2.41	0.55
8:S6:138:ALA:O	8:S6:141:ILE:N	3.05	0.55
79:Q3:59:CYS:O	79:Q3:61:LYS:HG2	6.38	0.55
36:1:2607:G:H2'	36:1:2608:G:H8	1.70	0.55
52:M6:8:VAL:HA	52:M6:34:VAL:O	2.06	0.55
51:M5:170:LYS:C	51:M5:172:ARG:H	2.10	0.55
51:M5:42:PRO:HG3	51:M5:61:ILE:HG13	2.62	0.55
36:1:89:A:OP2	54:M8:171:LYS:NZ	2.32	0.55
34:SR:116:ASP:HA	34:SR:156:VAL:HG11	2.88	0.55
22:D0:44:ASN:ND2	22:D0:103:ILE:HD11	4.20	0.55
36:1:581:U:C4	87:1:4171:OHX:N4	2.74	0.55
36:1:2908:G:N7	87:1:3874:OHX:N4	2.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:143:VAL:HG23	23:D1:60:ARG:HH22	1.71	0.55
36:5:595:G:H2'	36:5:596:C:C6	2.40	0.55
1:6:491:C:H42	1:6:497:G:H21	1.54	0.55
36:5:703:G:O2'	36:5:787:G:H4'	2.07	0.55
53:M7:20:SER:HB3	53:M7:21:TYR:CD2	2.42	0.55
36:1:3291:G:O2'	36:1:3292:A:H5'	2.07	0.55
36:5:3362:A:H2'	36:5:3363:U:O4'	2.06	0.55
36:1:3046:A:H2'	36:1:3047:U:O4'	2.05	0.55
36:1:1484:U:O5'	36:1:1484:U:H6	1.89	0.55
1:2:884:A:O5'	1:2:884:A:H8	1.90	0.55
68:O2:59:SER:OG	36:5:1405:U:OP2	185.98	0.55
36:1:1507:G:H1'	53:M7:139:TYR:CE1	2.41	0.55
6:S4:11:ARG:HH11	6:S4:20:LEU:HB3	2.85	0.55
1:6:991:G:OP2	87:6:2177:OHX:N2	2.39	0.55
44:L7:48:ASN:HA	44:L7:51:TYR:HD2	2.85	0.55
41:L4:188:ARG:HD2	41:L4:193:LYS:H	3.89	0.55
43:L6:76:LEU:HD11	43:L6:141:VAL:HG21	2.70	0.55
1:2:1475:A:H2'	1:2:1476:C:H6	1.71	0.55
1:2:1539:G:H1	20:C8:27:LYS:HD2	1.71	0.55
36:5:1475:A:C2'	36:5:1476:G:H5'	2.37	0.55
1:2:1273:G:N7	1:2:1430:U:H3'	2.22	0.55
17:C5:18:ARG:NH1	1:6:1548:G:OP1	372.99	0.55
20:C8:91:ASP:CG	20:C8:94:ASP:HB3	4.90	0.55
48:M1:108:GLU:HA	48:M1:122:ILE:HG23	2.33	0.55
23:D1:33:GLN:HG3	23:D1:53:TYR:O	2.70	0.55
23:D1:85:TYR:CE1	29:D7:6:ASP:HB2	2.75	0.55
4:S2:152:HIS:O	4:S2:194:GLU:HB3	5.01	0.55
68:O2:111:ARG:NH1	68:O2:115:LEU:HD21	2.20	0.55
36:5:1764:U:C5	36:5:1765:U:H1'	2.42	0.55
79:Q3:28:LYS:O	79:Q3:32:GLN:HG3	3.35	0.55
14:C2:119:SER:OG	14:C2:120:VAL:N	2.39	0.55
17:C5:128:HIS:HD2	35:SM:71:ASN:HD22	3.78	0.55
6:S4:71:LYS:HB2	6:S4:76:VAL:HA	1.88	0.55
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.88	0.55
1:6:147:A:C6	1:6:148:A:C2	2.94	0.55
34:SR:21:THR:HA	34:SR:290:VAL:HG23	1.88	0.55
72:O6:80:PHE:O	72:O6:83:ALA:HB3	2.87	0.55
36:1:3210:A:H5''	50:M4:109:ARG:HH12	1.72	0.55
50:M4:108:ARG:HH21	52:M6:197:LEU:HA	2.22	0.55
8:S6:74:LYS:O	8:S6:75:LEU:HD23	2.07	0.55
79:Q3:13:LYS:HE3	79:Q3:14:TYR:CZ	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:680:U:C2	1:6:682:C:N4	2.75	0.55
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.37	0.55
71:O5:21:LEU:HD11	71:O5:55:LEU:HD21	3.40	0.55
1:2:1085:G:N7	87:2:2028:OHX:N2	2.54	0.55
36:1:645:A:C6	36:1:2372:A:C2	2.94	0.55
43:L6:17:ALA:O	36:5:591:G:O2'	211.77	0.55
36:1:705:A:H62	64:N8:74:ASN:HD21	1.54	0.55
64:N8:82:ILE:CG2	64:N8:87:ARG:HG3	3.55	0.55
87:5:3968:OHX:N3	87:5:4237:OHX:N5	2.54	0.55
36:5:2197:C:C5	36:5:2242:A:C5	2.94	0.55
70:O4:38:LEU:HD22	70:O4:38:LEU:H	1.70	0.55
1:2:142:G:N3	1:2:142:G:H2'	2.21	0.55
56:N0:41:TYR:CE2	56:N0:45:LEU:HD23	3.59	0.55
22:D0:37:VAL:O	22:D0:41:ILE:HG13	5.40	0.55
29:D7:23:THR:OG1	29:D7:24:LEU:N	2.38	0.55
36:1:426:G:OP1	68:O2:15:LYS:NZ	2.38	0.55
1:6:982:U:O4	1:6:983:A:N6	2.39	0.55
64:N8:131:SER:HB3	64:N8:134:ALA:CB	2.53	0.55
12:C0:29:GLN:OE1	12:C0:39:ASN:ND2	2.38	0.55
36:1:1531:C:O5'	36:1:1531:C:H6	1.88	0.55
3:S1:23:PRO:HB3	3:S1:26:ARG:HH22	3.10	0.55
87:5:4050:OHX:N5	87:5:4194:OHX:N6	2.54	0.55
1:2:1114:G:O2'	1:2:1130:G:O6	2.19	0.55
1:2:1765:A:OP1	87:2:2092:OHX:N5	2.40	0.55
6:S4:253:ASP:O	6:S4:256:ARG:N	2.99	0.55
17:C5:75:PRO:HA	17:C5:93:VAL:HB	1.96	0.55
1:6:363:G:OP1	87:6:2116:OHX:N1	2.40	0.55
51:M5:105:ARG:HG2	51:M5:108:ARG:HH22	1.70	0.55
36:1:1397:C:C2'	36:1:1398:U:H5'	2.35	0.55
45:L8:58:VAL:HG11	51:M5:33:LYS:HE2	3.28	0.55
40:L3:14:LEU:HD13	40:L3:262:TRP:CH2	3.01	0.55
36:5:3198:U:H4'	36:5:3199:G:OP2	2.04	0.55
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	3.72	0.55
26:D4:103:ALA:HB1	26:D4:107:GLN:OE1	3.64	0.55
28:D6:34:LYS:O	28:D6:35:ALA:HB3	4.46	0.55
47:M0:46:PHE:HB3	47:M0:140:THR:O	2.74	0.55
36:1:728:G:OP1	87:1:4101:OHX:N5	2.40	0.55
43:L6:97:ASN:O	43:L6:99:GLU:HG3	2.06	0.55
5:S3:211:PRO:HG3	19:C7:20:TYR:CE1	3.14	0.55
42:L5:64:ILE:HD13	42:L5:105:ILE:HD12	1.87	0.55
5:S3:61:GLU:HB2	5:S3:64:ARG:HB3	3.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:103:ARG:HE	28:D6:52:ASP:CB	6.64	0.55
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.07	0.55
55:M9:134:HIS:CE1	55:M9:137:ALA:HB2	2.42	0.55
20:C8:145:ARG:HG2	35:SM:72:ARG:HH21	9.93	0.55
36:5:559:A:H2'	36:5:560:G:O5'	2.07	0.55
40:L3:58:ARG:HA	40:L3:357:LYS:HB2	3.15	0.55
43:L6:146:ILE:HG22	43:L6:147:ALA:N	2.21	0.55
42:L5:262:LYS:O	42:L5:264:GLN:N	2.39	0.55
8:S6:177:ARG:NH2	1:6:143:G:N7	311.26	0.55
34:SR:305:TYR:CD2	34:SR:311:ARG:HG3	3.73	0.55
3:S1:113:MET:HE3	3:S1:211:HIS:NE2	3.14	0.55
70:O4:5:VAL:HG22	70:O4:6:THR:N	2.15	0.55
36:5:835:G:H22	36:5:857:G:H1'	1.70	0.55
36:5:2144:A:H1'	36:5:2281:A:N6	2.22	0.55
60:N4:6:ASP:HB3	60:N4:11:ALA:H	2.61	0.55
4:S2:145:GLY:O	4:S2:147:ASN:N	5.22	0.55
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.95	0.55
22:D0:102:ARG:HG3	22:D0:103:ILE:N	4.37	0.55
1:6:1529:C:H2'	1:6:1530:C:C6	2.41	0.55
46:L9:8:GLN:OE1	46:L9:72:LYS:HD3	2.06	0.55
53:M7:67:ILE:HG23	53:M7:82:ARG:CZ	4.52	0.55
36:1:1180:A:H61	36:1:1325:U:H3	1.53	0.55
50:M4:97:SER:O	50:M4:100:ALA:N	3.22	0.55
8:S6:76:LEU:CD1	1:6:1673:G:H5'	289.02	0.55
1:6:217:A:O2'	1:6:218:A:O5'	2.24	0.55
1:6:219:A:H2'	1:6:831:U:O2	2.06	0.55
36:1:1243:G:HO2'	36:1:1271:A:HO2'	1.54	0.55
22:D0:119:ALA:C	22:D0:121:ASN:H	2.09	0.55
36:5:2631:U:H2'	36:5:2632:G:H8	1.70	0.55
12:C0:77:ARG:NH2	12:C0:84:GLU:O	4.78	0.55
36:1:1069:C:H2'	36:1:1070:U:H6	1.70	0.55
36:5:34:A:H2'	36:5:35:A:O4'	2.06	0.55
87:1:4108:OHX:N4	65:N9:6:ASN:OD1	2.40	0.55
36:5:2955:U:C2	36:5:2956:A:C8	2.95	0.55
59:N3:33:ASN:HB2	59:N3:64:LYS:H	4.95	0.55
46:L9:23:ARG:NH2	46:L9:42:ASP:OD2	3.96	0.55
36:5:94:G:H2'	36:5:95:A:C8	2.41	0.55
28:D6:23:CYS:SG	28:D6:73:TYR:HA	2.93	0.55
1:6:475:A:C6	1:6:476:U:C2	2.94	0.55
47:M0:170:LYS:HZ3	57:N1:159:PHE:HB2	1.70	0.55
41:L4:118:LYS:O	41:L4:122:THR:HG23	2.83	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:60:ARG:O	19:C7:63:LYS:N	2.38	0.55
20:C8:22:VAL:HG12	20:C8:23:ASP:O	2.32	0.55
20:C8:40:ARG:NH1	20:C8:40:ARG:HG2	2.42	0.55
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.06	0.55
42:L5:213:ASP:HB3	42:L5:214:ASP:OD2	5.42	0.55
1:2:1429:G:H1'	22:D0:74:GLU:CG	2.36	0.55
1:2:579:A:N7	5:S3:178:ARG:HD3	2.21	0.55
36:5:658:G:OP1	87:8:227:OHX:N5	2.40	0.55
2:S0:124:THR:O	2:S0:146:LEU:HB2	3.17	0.55
54:M8:44:PHE:CD1	54:M8:139:ILE:HD11	3.69	0.55
1:6:1699:G:N2	1:6:1701:A:H3'	2.20	0.55
1:2:1483:A:H4'	18:C6:71:GLY:HA2	1.89	0.55
50:M4:115:PHE:CE1	50:M4:119:GLN:NE2	3.05	0.55
34:SR:16:HIS:NE2	34:SR:43:ILE:HG13	3.26	0.55
1:2:1011:G:OP2	87:2:2090:OHX:N5	2.40	0.55
36:5:8:C:H1'	38:8:152:G:N2	2.22	0.55
51:M5:170:LYS:HD3	51:M5:170:LYS:C	4.78	0.55
24:D2:66:ASN:OD1	24:D2:67:GLY:N	2.33	0.55
64:N8:114:GLY:O	64:N8:137:LYS:HE3	5.89	0.55
1:6:845:G:H2'	1:6:846:G:H8	1.72	0.55
2:S0:102:PHE:O	2:S0:103:THR:HB	2.24	0.55
1:2:201:G:N2	1:2:202:A:N3	2.54	0.55
36:5:236:G:H2'	36:5:237:G:O4'	2.07	0.55
36:1:1870:C:H1'	36:1:3066:U:O2'	2.06	0.55
45:L8:138:HIS:CE1	36:5:119:U:C2	102.25	0.55
36:1:733:G:O2'	36:1:735:A:N6	2.35	0.55
9:S7:154:LEU:HD11	9:S7:183:PHE:HD1	3.58	0.55
1:2:1311:U:H1'	1:2:1315:U:O2	2.06	0.55
1:2:739:G:O6	87:2:2097:OHX:N4	2.39	0.55
36:5:822:G:H2'	36:5:823:C:C6	2.41	0.55
1:2:1305:U:O4'	1:2:1314:U:N3	2.39	0.55
36:1:1079:A:H4'	42:L5:140:ARG:O	2.07	0.55
36:1:1412:G:H2'	36:1:1413:G:H8	1.71	0.55
36:1:278:U:H2'	36:1:279:U:C6	2.41	0.55
56:N0:131:LYS:HB2	56:N0:134:ASP:OD2	2.06	0.55
36:5:2378:C:H2'	36:5:2379:U:H6	1.72	0.55
2:S0:154:GLU:O	2:S0:156:VAL:HG12	5.22	0.55
36:5:2115:G:O5'	36:5:2115:G:H8	1.90	0.55
36:1:900:G:H1'	36:1:1589:A:N6	2.22	0.55
7:S5:100:ASN:O	7:S5:102:ARG:N	2.40	0.55
1:6:129:U:OP2	1:6:129:U:H2'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:46:A:N6	1:2:433:C:H4'	2.22	0.55
1:6:567:A:H2'	1:6:568:G:O4'	2.07	0.55
53:M7:130:TYR:CD1	53:M7:130:TYR:N	2.74	0.55
28:D6:79:ILE:HD13	28:D6:84:VAL:HG21	1.89	0.55
44:L7:158:LYS:NZ	44:L7:159:GLN:H	2.58	0.55
6:S4:57:ASN:CB	1:6:446:A:H5''	386.14	0.55
41:L4:139:GLY:O	41:L4:180:LYS:HE2	6.08	0.55
1:2:1566:U:H4'	20:C8:37:GLY:O	2.07	0.55
7:S5:205:SER:O	7:S5:207:THR:HG23	2.20	0.55
36:1:1027:A:C5	36:1:1029:G:H1'	2.41	0.55
31:D9:14:TYR:HE1	1:6:1553:G:H4'	407.02	0.55
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.89	0.55
15:C3:148:ALA:O	15:C3:150:VAL:N	3.91	0.55
16:C4:34:SER:O	16:C4:36:LYS:N	2.32	0.55
16:C4:99:GLN:OE1	28:D6:46:GLU:HB3	4.64	0.55
3:S1:61:LEU:O	3:S1:63:GLY:N	2.40	0.55
48:M1:100:GLY:HA3	48:M1:154:THR:OG1	2.78	0.55
63:N7:76:ASN:O	63:N7:79:HIS:HB2	2.52	0.55
55:M9:38:ARG:HH21	36:5:1603:A:P	110.81	0.55
55:M9:31:GLU:O	55:M9:34:GLN:HB2	2.36	0.55
79:Q3:33:GLN:HG3	79:Q3:34:HIS:CD2	2.41	0.55
1:6:1227:A:C8	1:6:1256:A:N6	2.74	0.55
36:5:3170:A:N6	36:5:3171:U:O4	2.38	0.55
1:6:82:U:H2'	1:6:83:G:O4'	2.06	0.55
18:C6:103:ASN:O	18:C6:107:LYS:N	3.68	0.55
66:O0:99:ASP:O	66:O0:102:THR:N	3.36	0.55
36:5:579:G:O2'	36:5:580:C:H5'	2.06	0.55
57:N1:103:GLN:HA	57:N1:106:LEU:HD12	5.90	0.55
36:5:1572:U:O2'	36:5:1573:G:H8	1.89	0.55
40:L3:37:ARG:O	40:L3:186:GLY:HA2	2.14	0.55
1:2:811:A:C2	1:2:858:G:H1'	2.42	0.55
64:N8:80:THR:C	64:N8:82:ILE:H	2.10	0.55
50:M4:99:TRP:CD1	50:M4:103:ILE:HD11	3.20	0.55
15:C3:28:LEU:O	15:C3:32:SER:OG	4.42	0.55
74:O8:54:LEU:HD21	74:O8:56:ILE:HD11	1.88	0.55
36:5:1780:G:N2	36:5:1781:C:C2	2.75	0.55
36:1:3220:G:C5	36:1:3266:G:C2	2.95	0.55
1:6:221:A:H5''	1:6:833:U:H1'	1.89	0.55
8:S6:50:PHE:CD2	8:S6:111:LEU:HD22	4.58	0.55
1:2:1334:U:H2'	1:2:1335:U:C6	2.41	0.55
1:2:763:G:H8	1:2:763:G:O5'	1.90	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:511:G:C6	36:1:512:U:C4	2.95	0.55
1:2:1060:U:H2'	1:2:1061:A:O4'	2.07	0.55
46:L9:44:THR:HG22	36:5:3186:A:C2	327.04	0.55
11:S9:40:LYS:HA	11:S9:43:TYR:CD2	2.40	0.55
36:1:1161:G:O3'	68:O2:54:LYS:HE3	2.06	0.55
36:1:2609:A:C4	36:1:2610:G:C8	2.95	0.55
15:C3:35:GLU:O	15:C3:39:LYS:N	3.44	0.55
10:S8:65:PHE:HA	10:S8:181:GLY:O	2.06	0.55
25:D3:63:GLN:HA	25:D3:65:ASN:H	1.71	0.55
36:5:2712:U:H2'	36:5:2713:U:C6	2.41	0.55
36:5:2659:G:H4'	36:5:2751:G:O2'	2.06	0.55
78:Q2:21:THR:HG21	78:Q2:76:LYS:HD2	5.70	0.55
78:Q2:9:LYS:HA	78:Q2:21:THR:O	2.07	0.55
25:D3:69:ARG:NH1	25:D3:116:ASP:OD2	2.40	0.55
76:Q0:99:CYS:SG	76:Q0:115:CYS:SG	3.04	0.55
51:M5:84:PRO:HD2	36:5:44:U:OP1	165.89	0.55
53:M7:125:GLN:O	53:M7:140:GLU:HB3	4.50	0.55
47:M0:208:ASN:HA	47:M0:211:ARG:HG2	3.74	0.55
36:5:1114:U:OP2	87:5:4003:OHX:N5	2.40	0.55
65:N9:14:ARG:HH12	36:5:952:A:P	208.81	0.55
45:L8:242:ALA:HA	45:L8:245:LYS:HB3	2.93	0.55
13:C1:60:PHE:N	13:C1:60:PHE:CD2	3.96	0.55
26:D4:12:VAL:HG23	26:D4:23:PHE:CB	3.84	0.55
36:1:728:G:H5''	54:M8:43:PRO:HB3	1.89	0.55
38:4:21:C:N4	38:4:22:U:O4	2.40	0.55
5:S3:206:VAL:HG22	19:C7:41:ILE:HG23	3.52	0.55
73:O7:25:ARG:HE	75:O9:51:ILE:HD11	1.69	0.55
18:C6:6:SER:HB3	18:C6:23:LYS:HA	1.89	0.55
21:C9:118:PRO:O	21:C9:120:GLY:N	2.39	0.55
36:1:3088:G:H2'	36:1:3089:C:C6	2.42	0.55
21:C9:77:ASN:HA	21:C9:96:ALA:HB3	1.87	0.55
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.07	0.55
16:C4:102:LEU:HD11	28:D6:53:LEU:HD21	2.56	0.55
36:5:1441:G:O6	87:5:3959:OHX:N2	2.39	0.55
23:D1:25:LYS:HD2	23:D1:27:ASP:OD2	3.94	0.55
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.21	0.55
63:N7:95:VAL:HG23	63:N7:96:VAL:HG23	5.74	0.55
68:O2:120:THR:O	68:O2:122:PRO:HD3	2.07	0.55
55:M9:7:GLN:HE21	55:M9:35:ALA:HB3	1.95	0.55
36:5:1317:A:C2	36:5:1319:G:C6	2.94	0.55
18:C6:115:THR:HA	18:C6:118:ILE:HG23	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.23	0.55
34:SR:220:ILE:HD13	34:SR:243:LEU:HD21	2.92	0.55
39:L2:42:ARG:HG3	39:L2:89:TYR:CE1	2.53	0.55
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.07	0.55
36:5:3163:A:C6	36:5:3164:C:N4	2.75	0.55
58:N2:12:ALA:HB2	58:N2:68:THR:HG22	5.68	0.55
26:D4:101:GLU:CD	26:D4:102:LYS:HE2	2.27	0.55
71:O5:42:PRO:O	71:O5:45:LYS:N	2.27	0.55
36:1:3139:A:H8	36:1:3139:A:C5'	2.20	0.55
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.88	0.55
57:N1:20:ARG:O	57:N1:21:LYS:HG2	2.06	0.55
36:5:738:A:H2'	36:5:739:G:H8	1.71	0.55
78:Q2:71:ARG:HH21	78:Q2:80:ARG:HD3	4.64	0.55
10:S8:12:SER:OG	10:S8:14:THR:N	2.40	0.55
36:1:1538:G:OP2	87:1:4134:OHX:N4	2.40	0.55
1:2:50:C:H1'	1:2:430:G:H22	1.71	0.55
36:5:1659:U:H3	36:5:1790:G:H1	1.54	0.55
58:N2:28:PHE:O	58:N2:30:PRO:HD3	2.30	0.55
42:L5:294:ALA:C	42:L5:296:GLN:H	2.10	0.55
1:2:1065:A:H4'	3:S1:205:PHE:CD2	2.42	0.55
1:6:432:G:C5	1:6:433:C:C4	2.95	0.55
1:2:5:U:OP2	4:S2:204:THR:OG1	2.25	0.55
37:3:16:U:O4	37:3:17:A:N6	2.40	0.55
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.07	0.55
1:2:1334:U:H2'	1:2:1335:U:H6	1.71	0.55
59:N3:75:PRO:HB2	59:N3:103:ALA:O	2.05	0.55
59:N3:13:ILE:HD13	59:N3:14:SER:N	5.65	0.55
36:5:601:U:H2'	36:5:602:A:O4'	2.06	0.55
36:5:2730:G:N3	36:5:2799:A:C2	2.75	0.55
36:5:2667:A:C2	36:5:2690:G:C4	2.95	0.55
2:S0:114:SER:O	2:S0:116:LYS:HG2	2.07	0.55
36:1:2886:U:C6	36:1:2911:A:N7	2.75	0.55
25:D3:141:GLU:OE1	25:D3:144:ARG:NH1	14.89	0.55
59:N3:121:GLU:N	59:N3:121:GLU:OE1	3.35	0.55
36:1:1317:A:C2	36:1:1319:G:C6	2.95	0.55
46:L9:84:LYS:O	46:L9:187:ILE:HB	2.07	0.55
46:L9:17:THR:HG21	50:M4:3:THR:O	2.32	0.55
28:D6:38:ARG:HH11	28:D6:38:ARG:HG3	1.72	0.55
47:M0:34:TYR:HB3	47:M0:89:VAL:HB	1.88	0.55
44:L7:157:ASN:O	44:L7:159:GLN:HG2	2.47	0.55
45:L8:165:PHE:HZ	51:M5:3:ALA:HB1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.42	0.55
36:5:359:U:O2	36:5:920:A:N6	2.40	0.55
36:1:1234:G:H1	36:1:1254:C:N4	1.97	0.55
1:2:1479:A:H2'	1:2:1480:G:C8	2.39	0.55
1:2:1609:U:H2'	1:2:1610:G:O4'	2.07	0.55
17:C5:18:ARG:HG2	20:C8:90:ASN:O	2.06	0.55
5:S3:141:LYS:HE3	5:S3:179:GLN:OE1	5.96	0.55
1:2:1274:C:H41	35:SM:95:SER:HA	1.70	0.55
1:2:977:A:N6	1:2:1025:A:C8	2.75	0.55
1:6:915:A:OP1	87:6:2075:OHX:N6	2.40	0.55
48:M1:11:ASP:O	48:M1:12:LEU:HB3	3.29	0.55
1:2:1229:G:HO2'	1:2:1255:G:H22	1.49	0.55
36:5:1319:G:C6	36:5:1320:C:C4	2.95	0.55
50:M4:121:MET:CE	36:5:3214:U:H2'	277.85	0.55
9:S7:165:LYS:O	9:S7:168:SER:OG	2.21	0.55
34:SR:43:ILE:HG22	34:SR:44:SER:O	3.03	0.55
52:M6:76:PRO:HB3	52:M6:138:LEU:HG	1.89	0.55
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	3.33	0.55
26:D4:114:ARG:O	26:D4:117:LYS:HB2	3.11	0.55
36:5:856:G:C6	36:5:857:G:C2	2.94	0.55
49:M3:69:VAL:HB	49:M3:149:GLN:NE2	2.19	0.55
72:O6:15:LYS:HG2	36:5:73:C:C5	97.95	0.55
13:C1:99:ARG:HD3	25:D3:8:GLY:O	2.84	0.55
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.39	0.55
36:1:2193:U:O2	36:1:2315:G:N2	2.40	0.55
1:2:775:G:H1	1:2:785:U:H3	1.55	0.55
36:5:214:G:O6	36:5:226:C:N4	2.25	0.55
70:O4:57:LEU:HD12	70:O4:61:GLN:CB	3.37	0.55
1:2:1558:U:N3	17:C5:122:THR:OG1	2.38	0.55
36:5:3084:C:OP2	87:5:3901:OHX:N3	2.40	0.55
70:O4:8:ARG:CG	70:O4:8:ARG:HH11	2.17	0.55
1:2:214:G:O6	87:2:2116:OHX:N5	2.40	0.55
6:S4:128:LYS:O	6:S4:140:VAL:HG23	2.07	0.55
36:5:1877:U:H5''	36:5:1878:G:H5'	1.88	0.55
1:2:1219:A:O2'	12:C0:48:SER:HA	2.07	0.55
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.21	0.55
34:SR:161:LYS:HE3	34:SR:164:ASP:HB3	1.88	0.55
6:S4:155:LYS:HZ1	1:6:244:A:P	342.40	0.55
55:M9:117:LYS:O	55:M9:120:TYR:HB3	2.10	0.55
36:1:1670:C:H4'	36:1:1860:G:OP1	2.07	0.55
51:M5:94:TYR:CE2	51:M5:96:ARG:HB2	3.00	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3283:U:H2'	36:5:3284:G:H8	1.71	0.55
13:C1:75:VAL:HA	13:C1:86:ILE:HG22	1.88	0.55
22:D0:117:VAL:HG12	22:D0:118:VAL:HG12	6.35	0.55
61:N5:69:SER:H	61:N5:72:ALA:HB3	2.62	0.55
1:6:1435:G:H4'	1:6:1436:A:H5'	1.88	0.55
36:1:1716:U:O2'	36:1:1717:U:H4'	2.07	0.55
39:L2:238:ILE:N	39:L2:238:ILE:HD12	2.22	0.55
36:1:2114:C:OP1	36:1:2114:C:H4'	2.06	0.55
36:5:1501:U:H6	36:5:1501:U:O5'	1.90	0.55
36:1:1220:U:H4'	36:1:1221:A:H5''	1.89	0.55
25:D3:96:VAL:HG13	25:D3:127:VAL:HG11	1.89	0.55
36:1:2716:U:O2'	78:Q2:10:THR:OG1	2.05	0.55
40:L3:229:VAL:CG1	40:L3:235:THR:HG21	2.70	0.55
46:L9:49:ASN:C	46:L9:51:GLN:H	2.06	0.55
36:1:2355:G:H4'	53:M7:139:TYR:CD2	2.41	0.55
36:1:2355:G:OP1	53:M7:141:SER:HB3	2.06	0.55
32:E0:28:LYS:HE3	32:E0:31:LYS:HE3	3.62	0.55
27:D5:61:SER:H	27:D5:64:VAL:CG2	2.68	0.55
7:S5:43:PHE:H	7:S5:46:TRP:H	1.83	0.55
42:L5:146:LEU:HB3	36:5:2746:A:C2	259.22	0.55
12:C0:13:GLN:O	12:C0:16:PHE:N	3.16	0.55
12:C0:38:LYS:HB2	12:C0:41:TYR:CD1	2.41	0.55
23:D1:11:LEU:HD12	23:D1:12:TYR:N	3.46	0.55
54:M8:106:PHE:HB3	54:M8:110:ALA:HB3	4.71	0.55
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	2.71	0.55
70:O4:81:CYS:O	70:O4:84:CYS:HB2	3.80	0.55
59:N3:96:GLU:HB2	60:N4:21:PHE:HE1	3.28	0.55
34:SR:18:GLY:N	34:SR:308:ASN:OD1	3.85	0.55
36:5:2314:U:O4	87:5:3973:OHX:N5	2.39	0.55
52:M6:121:PRO:HG3	56:N0:164:SER:HB3	1.89	0.55
52:M6:121:PRO:CA	52:M6:124:LEU:HD23	3.51	0.55
39:L2:114:SER:O	39:L2:116:VAL:N	3.32	0.55
39:L2:134:VAL:HG23	39:L2:149:ARG:O	4.77	0.55
36:5:3159:C:H2'	36:5:3160:U:H6	1.71	0.55
1:6:1146:G:C6	1:6:1147:A:C6	2.95	0.55
36:1:3004:C:O2'	36:1:3005:A:H5'	2.07	0.55
36:1:2315:G:C2	36:1:2316:G:N7	2.74	0.55
35:SM:25:ILE:HG12	37:3:39:C:H5'	1.89	0.55
35:SM:25:ILE:HG22	48:M1:46:VAL:HB	1.89	0.55
36:1:595:G:H2'	36:1:596:C:H6	1.71	0.55
41:L4:234:ASN:OD1	36:5:693:A:H4'	105.78	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:137:GLY:O	44:L7:139:PRO:HD3	2.33	0.55
36:5:1049:C:C2	36:5:1050:U:C5	2.95	0.55
87:6:2064:OHX:N2	87:6:2152:OHX:N6	2.55	0.55
55:M9:143:ILE:C	55:M9:145:ALA:H	2.63	0.55
73:O7:22:CYS:HB3	73:O7:37:CYS:HB3	3.43	0.55
38:8:81:U:H1'	38:8:82:U:H5''	1.88	0.55
78:Q2:38:GLN:NE2	78:Q2:38:GLN:HA	2.37	0.55
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.89	0.55
14:C2:49:THR:HB	33:E1:106:TYR:HE1	3.25	0.55
43:L6:142:ASP:O	43:L6:145:LEU:N	3.80	0.55
74:O8:32:ASN:ND2	74:O8:34:ALA:HB3	5.40	0.55
54:M8:79:LYS:HG2	54:M8:136:ASN:OD1	2.07	0.55
39:L2:29:LEU:HB2	39:L2:123:ARG:HA	1.88	0.55
46:L9:150:SER:HG	46:L9:153:ASP:H	1.49	0.55
36:1:898:U:C4	36:1:899:U:C5	2.95	0.55
1:6:1167:G:H1	1:6:1578:U:H3	1.54	0.55
40:L3:71:GLU:OE1	60:N4:1:MET:HB2	2.07	0.55
36:1:906:A:OP1	87:1:3999:OHX:N1	2.39	0.55
25:D3:126:LYS:HB3	25:D3:131:SER:N	2.22	0.55
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.40	0.55
36:1:1319:G:C6	36:1:1320:C:N4	2.75	0.55
41:L4:98:ARG:HB3	41:L4:98:ARG:CZ	3.17	0.55
28:D6:94:ASN:HD21	28:D6:96:ALA:HB3	2.05	0.55
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.07	0.55
45:L8:61:GLN:HB2	51:M5:28:TRP:HH2	2.39	0.55
1:6:1317:C:H2'	1:6:1318:G:O4'	2.07	0.55
1:6:1317:C:O2'	1:6:1400:A:N3	2.31	0.55
1:2:1474:G:O2'	1:2:1475:A:O5'	2.18	0.55
18:C6:36:ILE:C	18:C6:38:LEU:H	2.23	0.55
7:S5:34:GLN:HG2	18:C6:57:LEU:CD1	2.37	0.55
7:S5:189:THR:O	7:S5:193:THR:HG23	2.69	0.55
1:2:1280:C:H2'	1:2:1281:G:C8	2.42	0.55
67:O1:20:LEU:O	67:O1:23:VAL:HG23	2.92	0.55
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	7.23	0.55
36:1:2651:G:H5''	36:1:2652:U:O4'	2.07	0.55
11:S9:171:ARG:HH11	11:S9:174:ARG:HB3	4.07	0.55
57:N1:54:HIS:O	57:N1:56:PHE:N	2.41	0.55
57:N1:82:ASN:HA	65:N9:21:ILE:HD13	1.89	0.55
18:C6:47:LYS:HZ3	18:C6:50:GLU:CD	2.10	0.55
36:1:31:C:H2'	36:1:32:U:H6	1.71	0.55
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:166:ILE:HG21	40:L3:174:LYS:O	2.07	0.55
36:5:990:U:O4	87:5:4179:OHX:N6	2.40	0.55
49:M3:117:LYS:O	49:M3:121:SER:OG	2.24	0.55
25:D3:27:ASN:O	25:D3:30:LYS:N	3.03	0.55
36:5:549:U:H2'	36:5:550:A:C8	2.42	0.55
36:1:595:G:N1	36:1:609:G:H5''	2.21	0.55
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.42	0.55
4:S2:175:GLY:O	11:S9:53:ARG:NE	4.36	0.55
22:D0:96:PRO:O	22:D0:99:ILE:HG12	6.11	0.55
36:1:523:A:H2'	36:1:523:A:N3	2.21	0.55
36:1:1852:G:C6	36:1:1853:U:C4	2.95	0.55
36:1:830:A:OP1	87:1:4010:OHX:N4	2.40	0.55
36:1:1673:G:N2	36:1:1775:G:H1'	2.22	0.55
1:6:1264:G:H8	1:6:1264:G:O5'	1.90	0.55
1:6:142:G:H5'	1:6:142:G:N3	2.23	0.55
9:S7:138:LYS:O	9:S7:139:ARG:NE	2.32	0.55
74:O8:10:GLN:HG2	74:O8:13:GLU:OE1	4.89	0.55
36:1:1783:U:H2'	36:1:1784:G:C8	2.42	0.55
21:C9:40:SER:O	21:C9:42:GLY:N	2.40	0.55
36:5:595:G:N2	36:5:609:G:H5''	2.22	0.55
1:6:1690:G:O6	1:6:1711:C:N4	2.40	0.55
1:2:1029:U:O2'	1:2:1031:U:OP2	2.21	0.55
36:5:2819:A:C2'	36:5:2820:A:H5'	2.37	0.55
36:1:1879:A:H4'	36:1:1880:U:OP2	2.06	0.55
45:L8:93:LEU:HD21	45:L8:211:LEU:HD23	5.80	0.55
36:5:3341:U:H5''	36:5:3342:A:OP2	2.07	0.55
87:1:3972:OHX:N3	87:1:4155:OHX:N1	2.55	0.55
11:S9:13:SER:HB3	11:S9:47:PHE:CD1	2.42	0.55
1:2:491:C:H42	1:2:496:G:H1	1.55	0.55
36:1:1077:U:OP1	65:N9:38:LYS:HE2	2.07	0.55
74:O8:47:GLY:C	74:O8:49:SER:H	2.09	0.55
36:1:175:C:H42	36:1:243:G:H1	1.54	0.55
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.38	0.55
1:2:577:G:H3'	1:2:577:G:C8	2.42	0.55
38:8:49:G:O6	38:8:76:C:N4	2.33	0.55
14:C2:95:LYS:HA	14:C2:117:GLY:HA2	3.26	0.55
40:L3:212:ASN:OD1	40:L3:354:VAL:N	3.29	0.54
36:5:3194:C:O2'	36:5:3195:U:H2'	2.07	0.54
75:O9:44:TRP:CE2	75:O9:45:ARG:HG2	5.17	0.54
16:C4:127:ARG:HB2	28:D6:22:ARG:HH12	1.71	0.54
28:D6:28:LYS:HG3	28:D6:29:SER:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:146:PHE:CZ	1:6:765:G:C6	430.02	0.54
47:M0:160:PRO:HB3	36:5:2854:U:O3'	289.98	0.54
44:L7:52:GLN:HA	44:L7:55:TYR:HD2	2.46	0.54
10:S8:38:ILE:HD11	10:S8:81:VAL:HG23	1.89	0.54
36:1:739:G:H2'	36:1:740:G:H8	1.72	0.54
7:S5:81:ARG:O	7:S5:81:ARG:HG2	3.86	0.54
36:1:3325:G:H1	36:1:3381:U:H3	1.55	0.54
61:N5:105:VAL:HG22	61:N5:130:TYR:CD1	4.90	0.54
21:C9:15:ILE:O	21:C9:19:ALA:N	2.30	0.54
36:1:846:A:H2'	36:1:847:A:O4'	2.07	0.54
2:S0:25:GLY:HA3	2:S0:46:HIS:HB2	1.88	0.54
4:S2:213:ALA:O	4:S2:216:VAL:HG23	4.19	0.54
54:M8:81:VAL:HG13	54:M8:101:VAL:HG13	1.90	0.54
62:N6:51:ARG:NH1	38:8:71:A:OP2	33.84	0.54
71:O5:66:VAL:HA	71:O5:69:LEU:HD23	1.89	0.54
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.66	0.54
36:5:3181:C:H2'	36:5:3182:G:C8	2.41	0.54
59:N3:120:LYS:N	59:N3:137:VAL:HG23	3.50	0.54
59:N3:58:VAL:HG23	59:N3:59:MET:N	2.77	0.54
9:S7:74:GLN:HG2	9:S7:131:PHE:HD2	5.38	0.54
36:5:511:G:C2	36:5:512:U:C2	2.95	0.54
36:1:863:C:H2'	36:1:864:G:O4'	2.07	0.54
36:1:3028:G:H2'	36:1:3029:A:C8	2.42	0.54
38:8:140:G:H2'	38:8:141:C:O4'	2.07	0.54
4:S2:44:LEU:HD21	4:S2:246:GLU:O	2.07	0.54
4:S2:43:ARG:O	4:S2:45:VAL:N	2.40	0.54
1:6:1515:A:H5''	1:6:1516:A:OP2	2.06	0.54
25:D3:139:LYS:NZ	1:6:32:U:OP1	392.48	0.54
1:2:90:C:H2'	1:2:91:G:C8	2.43	0.54
36:5:1528:G:O2'	36:5:1588:A:N3	2.33	0.54
42:L5:180:PHE:HB3	42:L5:195:LEU:HD13	1.89	0.54
50:M4:94:TRP:CZ2	50:M4:100:ALA:HB2	2.42	0.54
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.06	0.54
36:5:648:C:H4'	36:5:2397:A:C2	2.42	0.54
24:D2:114:GLU:O	24:D2:117:ARG:HB3	2.72	0.54
36:5:1667:A:H2'	36:5:1668:G:H8	1.72	0.54
36:1:1939:G:C6	36:1:1940:G:C5	2.95	0.54
48:M1:21:ILE:HG13	48:M1:37:LEU:HD11	1.89	0.54
46:L9:151:VAL:HG23	46:L9:152:GLU:H	3.04	0.54
36:1:511:G:H2'	36:1:512:U:H6	1.71	0.54
36:1:2764:C:H5''	64:N8:55:LYS:HG3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1004:U:H3'	1:6:1005:A:H5''	1.89	0.54
36:5:1546:A:N6	36:5:1547:G:C2	2.75	0.54
36:5:2390:A:H2'	36:5:2391:G:O4'	2.07	0.54
36:1:2270:A:C6	36:1:2271:A:C6	2.95	0.54
36:1:1651:U:H5''	39:L2:71:LEU:HD22	1.88	0.54
52:M6:170:LYS:O	52:M6:173:ALA:HB3	2.06	0.54
1:6:577:G:H3'	1:6:577:G:H8	1.70	0.54
78:Q2:83:LEU:HD23	78:Q2:84:THR:H	1.85	0.54
36:5:2173:U:H5''	36:5:2174:G:O5'	2.07	0.54
40:L3:56:ILE:HD11	40:L3:359:ILE:HD13	1.89	0.54
26:D4:105:ARG:HH11	26:D4:109:LYS:HE2	1.71	0.54
11:S9:121:SER:O	11:S9:123:HIS:N	2.39	0.54
11:S9:124:HIS:NE2	11:S9:128:LEU:HD21	2.58	0.54
47:M0:160:PRO:HD3	36:5:2854:U:H4'	294.45	0.54
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.60	0.54
18:C6:131:GLY:HA3	18:C6:136:SER:O	2.06	0.54
20:C8:65:GLU:O	20:C8:68:ARG:N	2.39	0.54
75:O9:13:MET:O	75:O9:16:ALA:HB3	2.98	0.54
21:C9:30:VAL:HG12	21:C9:54:PHE:CD2	4.08	0.54
1:6:958:U:O2'	1:6:960:U:OP2	2.24	0.54
36:1:1638:A:H5''	36:1:1639:C:OP2	2.06	0.54
3:S1:24:PHE:HA	3:S1:27:LYS:HG3	3.80	0.54
2:S0:163:ASN:O	2:S0:165:ARG:N	2.85	0.54
2:S0:195:TRP:HE1	2:S0:197:ILE:HD12	4.54	0.54
4:S2:170:ILE:O	4:S2:196:VAL:HG23	2.64	0.54
63:N7:36:HIS:H	63:N7:37:PRO:HD3	4.19	0.54
36:5:1764:U:H3'	36:5:1765:U:C5'	2.36	0.54
1:2:1450:U:HO2'	31:D9:8:PHE:HD1	1.55	0.54
6:S4:98:ASN:HB2	6:S4:114:ILE:O	2.06	0.54
37:7:119:U:H2'	37:7:120:C:H6	1.71	0.54
36:1:1480:G:H21	36:1:1872:C:H5	1.55	0.54
1:2:1517:U:OP2	1:2:1518:C:N4	2.33	0.54
49:M3:75:PHE:H	49:M3:97:VAL:HA	2.00	0.54
36:1:2428:U:O2'	36:1:2429:G:H5'	2.07	0.54
6:S4:187:ARG:O	6:S4:189:LEU:N	2.39	0.54
9:S7:6:ALA:HB1	9:S7:9:LEU:HD12	1.89	0.54
22:D0:50:LEU:HD22	22:D0:95:ALA:HA	1.89	0.54
87:1:4003:OHX:N6	87:1:4171:OHX:N1	2.56	0.54
36:1:1614:C:H2'	36:1:1615:C:H6	1.72	0.54
5:S3:113:LEU:HD11	5:S3:117:ARG:HD2	1.89	0.54
1:2:421:A:H2'	1:2:422:G:H5'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:275:C:H2'	1:2:276:C:C5	2.43	0.54
36:1:2697:A:H2'	36:1:2698:G:C8	2.41	0.54
36:5:1845:G:N1	36:5:1849:C:O2'	2.40	0.54
45:L8:41:GLN:OE1	45:L8:41:GLN:N	2.40	0.54
61:N5:137:ASN:HA	61:N5:140:GLY:HA2	2.16	0.54
87:5:4028:OHX:N5	87:5:4075:OHX:N2	2.55	0.54
1:2:482:U:H3	1:2:505:A:N6	2.05	0.54
36:1:871:U:H2'	36:1:872:U:O4'	2.07	0.54
59:N3:75:PRO:HG2	59:N3:105:PRO:HD3	1.89	0.54
87:1:4151:OHX:N4	37:3:102:A:OP1	2.39	0.54
74:O8:77:ARG:O	74:O8:78:LEU:HB2	2.08	0.54
36:5:1907:C:C5	36:5:1908:A:C5	2.96	0.54
1:2:1201:G:N2	1:2:1599:C:H2'	2.22	0.54
44:L7:193:PRO:HB2	44:L7:194:HIS:CD2	2.42	0.54
36:5:833:G:N2	36:5:834:U:H1'	2.22	0.54
36:5:722:G:N7	87:5:4007:OHX:N3	2.55	0.54
53:M7:52:LEU:CD1	53:M7:88:VAL:HG11	2.57	0.54
11:S9:109:LEU:HB3	11:S9:146:PHE:HB3	1.89	0.54
64:N8:22:ILE:O	64:N8:24:LYS:HE2	2.51	0.54
44:L7:39:GLU:O	44:L7:41:ARG:N	2.97	0.54
51:M5:2:GLY:HA3	36:5:116:A:OP2	106.29	0.54
10:S8:184:LEU:O	10:S8:189:LEU:HD22	2.35	0.54
41:L4:120:TYR:O	41:L4:124:SER:HB2	2.07	0.54
41:L4:180:LYS:O	41:L4:184:SER:HB3	3.05	0.54
54:M8:26:LEU:O	54:M8:30:VAL:HG23	2.07	0.54
43:L6:56:LYS:NZ	43:L6:101:PHE:O	3.10	0.54
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.88	0.54
20:C8:64:GLU:HB3	20:C8:68:ARG:HH12	5.25	0.54
7:S5:63:GLN:NE2	7:S5:88:PRO:HG3	2.23	0.54
46:L9:90:MET:HE3	46:L9:181:VAL:HG22	1.90	0.54
5:S3:177:MET:HB3	5:S3:180:GLY:O	3.76	0.54
24:D2:30:SER:N	24:D2:59:GLY:O	4.14	0.54
23:D1:83:TRP:CH2	23:D1:85:TYR:CD2	3.50	0.54
2:S0:56:LYS:HD2	2:S0:158:VAL:HG23	1.90	0.54
63:N7:82:PRO:HD2	66:O0:59:TYR:OH	2.07	0.54
1:6:1458:G:C2	1:6:1459:C:C4	2.95	0.54
35:SM:83:LYS:HG2	35:SM:84:LYS:H	4.65	0.54
34:SR:295:SER:HB2	34:SR:302:PHE:HE2	1.73	0.54
36:1:2414:G:C2	36:1:2807:U:O2	2.61	0.54
39:L2:83:HIS:CD2	39:L2:86:GLN:HG3	2.42	0.54
64:N8:111:LYS:HG3	64:N8:129:PHE:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:75:PHE:HA	49:M3:101:ARG:HH12	2.07	0.54
38:8:58:G:H2'	38:8:99:C:O2'	2.08	0.54
13:C1:101:GLU:HG3	13:C1:103:ARG:HD2	4.72	0.54
36:1:1015:U:O2'	36:1:1017:C:OP2	2.22	0.54
34:SR:116:ASP:OD1	34:SR:120:SER:OG	2.23	0.54
39:L2:224:THR:O	39:L2:224:THR:OG1	2.59	0.54
32:E0:53:LYS:HD3	32:E0:55:ARG:HD2	8.59	0.54
62:N6:16:ARG:NH1	36:5:216:G:OP1	84.86	0.54
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.41	0.54
1:6:703:G:H2'	1:6:704:C:O4'	2.07	0.54
58:N2:23:THR:O	58:N2:26:GLY:N	3.15	0.54
74:O8:39:ARG:NH1	74:O8:63:LYS:HE2	9.99	0.54
2:S0:200:ASP:O	2:S0:203:PHE:HB2	2.40	0.54
36:1:1297:C:H2'	36:1:1298:C:C6	2.41	0.54
70:O4:65:VAL:HG22	70:O4:66:SER:H	3.34	0.54
36:5:2936:A:H2'	36:5:2937:G:C8	2.43	0.54
1:2:1535:U:H1'	1:2:1536:G:C2	2.42	0.54
46:L9:59:ASN:HB2	50:M4:41:GLN:NE2	2.23	0.54
36:1:371:G:O6	87:1:4179:OHX:N4	2.40	0.54
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.33	0.54
36:5:849:C:H2'	36:5:850:U:C6	2.42	0.54
37:7:24:A:O5'	37:7:24:A:H8	1.90	0.54
36:5:2520:A:H2'	36:5:2521:U:C6	2.42	0.54
1:2:1643:U:C5	1:2:1644:C:C5	2.95	0.54
32:E0:2:ALA:O	32:E0:4:VAL:HG22	2.08	0.54
40:L3:212:ASN:HB3	40:L3:281:LYS:HZ2	2.80	0.54
46:L9:79:ILE:O	46:L9:82:VAL:HG12	2.07	0.54
28:D6:18:VAL:HG11	28:D6:33:ASP:HB3	3.63	0.54
28:D6:30:ILE:HD11	28:D6:34:LYS:O	2.08	0.54
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.41	0.54
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	3.01	0.54
44:L7:186:HIS:O	44:L7:190:THR:HG23	2.07	0.54
26:D4:14:SER:HA	26:D4:21:LYS:HE3	1.90	0.54
6:S4:57:ASN:HB2	6:S4:60:GLU:HG3	1.89	0.54
41:L4:177:ASP:O	41:L4:180:LYS:N	2.25	0.54
41:L4:262:TRP:CZ3	41:L4:271:LYS:HE3	2.85	0.54
36:1:361:A:OP1	73:O7:24:ARG:NH1	2.41	0.54
18:C6:29:ILE:HA	18:C6:65:ILE:O	2.07	0.54
1:2:1480:G:H4'	21:C9:11:ALA:CB	2.37	0.54
7:S5:40:ILE:O	7:S5:42:LEU:N	2.76	0.54
44:L7:28:ALA:O	44:L7:32:ALA:N	3.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:60:TRP:CZ3	67:O1:64:VAL:HG13	4.24	0.54
21:C9:108:LEU:HB3	21:C9:114:VAL:HG22	5.65	0.54
5:S3:31:GLU:HG2	5:S3:107:PHE:CE1	3.97	0.54
36:5:113:C:H3'	36:5:154:U:O4	2.08	0.54
1:2:310:C:O2'	1:2:311:U:H5'	2.07	0.54
3:S1:103:MET:H	3:S1:215:VAL:HG13	1.72	0.54
40:L3:223:GLY:HA2	40:L3:271:GLY:HA3	2.47	0.54
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	2.34	0.54
6:S4:208:VAL:HG11	6:S4:225:VAL:HG21	2.91	0.54
59:N3:17:LEU:HD21	59:N3:98:ASN:OD1	2.17	0.54
34:SR:122:ILE:HG13	34:SR:136:ILE:HG22	1.88	0.54
34:SR:263:PHE:N	34:SR:263:PHE:HD2	2.05	0.54
56:N0:43:TYR:OH	37:7:96:U:OP1	295.18	0.54
73:O7:53:ALA:HB2	73:O7:56:ARG:NH1	2.23	0.54
36:1:1480:G:N2	36:1:1872:C:H5	2.06	0.54
40:L3:139:GLN:O	40:L3:141:GLY:N	2.40	0.54
36:5:61:A:N6	36:5:62:A:C2	2.75	0.54
39:L2:119:LYS:HB2	39:L2:122:ASP:HB3	1.89	0.54
79:Q3:17:ARG:HB3	79:Q3:18:TYR:CE1	2.56	0.54
36:1:3139:A:H8	36:1:3139:A:H5''	1.72	0.54
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.42	0.54
44:L7:33:ARG:HH12	44:L7:34:LYS:HE2	3.92	0.54
46:L9:37:ASN:OD1	46:L9:38:LEU:N	2.40	0.54
75:O9:4:GLN:HG2	36:5:1588:A:C6	125.94	0.54
56:N0:171:PHE:CE2	36:5:3205:G:C6	315.63	0.54
50:M4:23:ILE:HD13	50:M4:63:VAL:HG22	1.89	0.54
50:M4:21:VAL:HG22	50:M4:33:ALA:O	2.07	0.54
21:C9:18:TYR:O	21:C9:22:LEU:HD22	2.08	0.54
36:5:259:C:H2'	36:5:260:C:C6	2.43	0.54
15:C3:26:PHE:CZ	15:C3:28:LEU:HB2	2.42	0.54
37:3:64:A:H5''	47:M0:206:LEU:H	1.73	0.54
1:6:219:A:O2'	1:6:220:A:H8	1.89	0.54
36:1:256:G:N7	87:1:4158:OHX:N4	2.55	0.54
36:1:3300:U:H5''	36:1:3301:U:OP2	2.07	0.54
17:C5:77:ARG:HG2	17:C5:102:PHE:CG	2.42	0.54
36:1:3242:G:C2	36:1:3245:A:C8	2.95	0.54
87:5:4050:OHX:N1	87:5:4194:OHX:N2	2.56	0.54
36:1:242:C:O2'	36:1:243:G:H8	1.90	0.54
35:SM:97:THR:HG22	35:SM:99:LYS:CG	2.38	0.54
36:1:865:U:C5	36:1:866:A:N7	2.75	0.54
1:6:1660:A:H2'	1:6:1661:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:553:G:C6	1:2:554:C:N3	2.75	0.54
1:6:29:U:H2'	1:6:30:G:C8	2.43	0.54
25:D3:70:LYS:HD3	25:D3:93:LEU:HD22	1.88	0.54
40:L3:53:MET:HB3	40:L3:76:VAL:O	2.07	0.54
20:C8:88:ARG:NH1	20:C8:112:ASP:OD1	2.41	0.54
1:2:37:U:H2'	1:2:38:C:O4'	2.07	0.54
11:S9:124:HIS:ND1	11:S9:128:LEU:HD11	4.50	0.54
44:L7:47:ARG:HB3	44:L7:51:TYR:CE2	3.41	0.54
44:L7:119:VAL:HG12	57:N1:135:PRO:HG3	1.90	0.54
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	1.89	0.54
36:1:1420:C:O2'	36:1:1421:G:O5'	2.24	0.54
41:L4:151:VAL:HG13	41:L4:250:TRP:O	2.90	0.54
49:M3:31:LYS:HG3	38:8:30:C:OP1	85.71	0.54
5:S3:168:ILE:HD11	5:S3:187:LYS:HE3	6.27	0.54
7:S5:62:VAL:HG12	7:S5:64:VAL:HG22	4.43	0.54
61:N5:62:VAL:HG12	61:N5:63:ILE:N	2.22	0.54
1:2:1281:G:O3'	22:D0:76:SER:OG	2.26	0.54
1:2:1550:A:OP1	17:C5:42:ARG:NH2	2.41	0.54
20:C8:91:ASP:OD1	20:C8:93:THR:N	2.41	0.54
21:C9:128:GLY:O	21:C9:132:LEU:N	2.40	0.54
3:S1:185:THR:HG22	3:S1:189:ILE:HD11	1.90	0.54
3:S1:65:VAL:HG23	3:S1:86:LEU:O	5.01	0.54
68:O2:122:PRO:O	68:O2:123:LYS:HB2	4.73	0.54
62:N6:32:SER:CA	62:N6:49:PRO:HA	3.45	0.54
6:S4:166:SER:O	6:S4:168:LYS:HG2	4.75	0.54
50:M4:113:THR:HB	50:M4:116:GLU:H	4.44	0.54
34:SR:122:ILE:O	34:SR:134:TRP:N	2.36	0.54
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.41	0.54
1:2:1010:C:OP2	87:2:2131:OHX:N6	2.41	0.54
1:2:889:U:H2'	1:2:890:C:C6	2.42	0.54
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.88	0.54
45:L8:190:VAL:HB	45:L8:192:GLN:HG2	5.45	0.54
48:M1:38:GLU:C	48:M1:40:LEU:H	2.10	0.54
4:S2:44:LEU:HA	4:S2:47:ALA:HB3	1.90	0.54
36:1:3165:A:H2'	36:1:3166:C:C6	2.42	0.54
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	3.53	0.54
1:2:263:C:H4'	1:2:292:U:H5'	1.89	0.54
24:D2:117:ARG:HB2	24:D2:117:ARG:NH1	5.54	0.54
55:M9:143:ILE:O	55:M9:145:ALA:N	2.78	0.54
1:6:720:G:OP2	1:6:720:G:N2	2.27	0.54
1:2:23:G:H21	1:2:368:U:H5'	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:17:ARG:CG	57:N1:17:ARG:HH11	2.72	0.54
45:L8:53:PRO:HG3	61:N5:32:PHE:CD2	2.42	0.54
36:5:2681:U:O5'	36:5:2681:U:H6	1.89	0.54
39:L2:67:TYR:HD1	36:5:2524:A:C2	183.07	0.54
37:7:15:C:H1'	37:7:66:A:H2	1.72	0.54
6:S4:213:SER:O	6:S4:213:SER:OG	2.22	0.54
6:S4:95:THR:HG22	26:D4:16:PRO:HG2	1.90	0.54
38:8:155:A:H2'	38:8:156:U:O4'	2.07	0.54
52:M6:3:VAL:O	52:M6:4:GLU:HB2	4.39	0.54
6:S4:253:ASP:O	6:S4:257:ALA:N	2.40	0.54
26:D4:89:TYR:CE1	1:6:525:A:H5''	396.32	0.54
26:D4:89:TYR:O	26:D4:92:VAL:HG22	5.27	0.54
36:5:2765:C:H2'	36:5:2766:U:H6	1.72	0.54
36:5:1934:G:O6	87:5:3911:OHX:N2	2.40	0.54
1:2:253:A:H2'	1:2:254:A:C8	2.42	0.54
36:1:518:G:N2	36:1:518:G:OP2	2.39	0.54
59:N3:74:MET:CE	59:N3:102:ILE:HD12	2.38	0.54
1:6:953:G:H2'	1:6:954:G:H8	1.72	0.54
78:Q2:12:CYS:HB3	78:Q2:17:CYS:HB3	1.89	0.54
78:Q2:23:HIS:HA	78:Q2:73:GLU:O	2.06	0.54
78:Q2:12:CYS:SG	78:Q2:79:THR:OG1	2.64	0.54
40:L3:227:GLU:CG	40:L3:270:ARG:HD3	2.21	0.54
36:1:1894:U:O2'	36:1:3054:U:OP1	2.19	0.54
36:1:2166:A:H4'	51:M5:72:LYS:HD3	1.90	0.54
67:O1:9:THR:O	67:O1:109:VAL:HB	2.99	0.54
1:2:463:U:H2'	1:2:464:A:H8	1.71	0.54
47:M0:160:PRO:HD3	36:5:2854:U:C5'	294.04	0.54
47:M0:175:ASN:HB3	47:M0:176:LEU:HD23	2.12	0.54
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.08	0.54
10:S8:168:CYS:HB3	10:S8:182:TYR:CZ	2.42	0.54
36:1:1381:A:H2'	36:1:1382:G:H8	1.73	0.54
41:L4:120:TYR:HD1	41:L4:120:TYR:O	2.21	0.54
41:L4:30:ILE:N	54:M8:25:TYR:OH	2.77	0.54
54:M8:22:ASP:HA	54:M8:27:LYS:HE3	3.25	0.54
1:2:1165:G:O6	1:2:1166:A:N6	2.40	0.54
1:2:1477:G:O2'	21:C9:47:PRO:HA	2.08	0.54
1:2:1533:C:H4'	1:2:1539:G:C6	2.42	0.54
67:O1:55:LEU:HD21	67:O1:73:LEU:HD23	1.90	0.54
61:N5:105:VAL:HG12	61:N5:106:ASP:O	2.07	0.54
47:M0:20:SER:OG	47:M0:22:TYR:N	2.35	0.54
1:2:907:A:C2	1:2:908:U:C2	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:7:PHE:CZ	23:D1:43:GLY:HA2	3.17	0.54
63:N7:23:VAL:HG12	63:N7:45:GLY:CA	2.37	0.54
66:O0:29:SER:O	66:O0:32:LYS:HB2	2.07	0.54
55:M9:6:THR:O	55:M9:9:ARG:N	3.89	0.54
71:O5:5:LYS:HD2	71:O5:8:GLU:CD	5.08	0.54
59:N3:80:ARG:HH11	59:N3:80:ARG:HG3	1.72	0.54
39:L2:98:VAL:HG13	39:L2:167:GLY:HA3	2.21	0.54
36:1:3174:A:H2'	36:1:3175:U:H5'	1.88	0.54
49:M3:49:ARG:HG2	49:M3:50:PRO:HD3	1.90	0.54
57:N1:103:GLN:O	57:N1:107:GLU:HB2	2.77	0.54
36:5:705:A:H4'	36:5:706:A:OP1	2.06	0.54
1:6:650:U:H2'	1:6:651:G:H5'	1.88	0.54
13:C1:101:GLU:OE1	13:C1:103:ARG:NE	3.59	0.54
41:L4:145:ILE:HD13	41:L4:247:PHE:HE1	1.72	0.54
36:5:2134:G:C2	36:5:2135:U:C6	2.95	0.54
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.08	0.54
36:1:2618:G:N3	65:N9:3:LYS:NZ	2.53	0.54
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.45	0.54
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	2.76	0.54
36:1:1889:G:H2'	36:1:1890:U:C6	2.43	0.54
36:1:2948:C:O2'	36:1:2949:U:H5'	2.07	0.54
36:1:734:C:H2'	36:1:735:A:O4'	2.07	0.54
1:6:1727:G:H2'	1:6:1728:A:C8	2.43	0.54
36:5:1845:G:C6	36:5:1849:C:C6	2.96	0.54
36:5:608:A:H5''	36:5:609:G:OP2	2.08	0.54
36:1:3358:U:H2'	36:1:3359:A:C1'	2.38	0.54
49:M3:18:TRP:CG	49:M3:19:GLN:N	3.22	0.54
1:6:892:A:C6	1:6:893:U:C4	2.96	0.54
48:M1:117:ASP:C	48:M1:119:SER:H	2.10	0.54
7:S5:157:ARG:HB2	7:S5:224:ASN:ND2	4.06	0.54
36:5:1164:G:H2'	36:5:1165:A:H8	1.71	0.54
38:4:1:A:OP1	87:4:225:OHX:N2	2.41	0.54
36:5:1491:A:HO2'	36:5:1843:C:HO2'	1.56	0.54
88:2:2181:GET:H832	88:2:2181:GET:H933	1.88	0.54
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	3.06	0.54
36:1:1362:G:H4'	44:L7:159:GLN:O	2.08	0.54
44:L7:89:ILE:HG22	44:L7:219:LYS:HZ3	1.73	0.54
1:2:1480:G:H4'	21:C9:11:ALA:HB1	1.90	0.54
7:S5:144:GLU:HA	7:S5:162:VAL:HG13	3.30	0.54
7:S5:61:TYR:CE1	7:S5:165:LEU:HD22	2.41	0.54
5:S3:61:GLU:HB2	5:S3:64:ARG:HE	3.48	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:67:HIS:H	64:N8:67:HIS:CD2	2.24	0.54
1:2:624:G:C2	1:2:625:C:C2	2.96	0.54
2:S0:124:THR:O	2:S0:146:LEU:HB3	2.07	0.54
38:4:65:A:C5	38:4:66:A:C8	2.96	0.54
73:O7:82:SER:HA	38:8:95:G:O2'	37.21	0.54
1:6:72:A:H2'	1:6:73:U:C1'	2.38	0.54
56:N0:9:VAL:O	56:N0:26:ARG:HA	2.43	0.54
34:SR:234:LEU:HD23	34:SR:263:PHE:CD1	3.47	0.54
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.27	0.54
66:O0:10:ILE:O	66:O0:14:LEU:HB2	4.60	0.54
53:M7:169:THR:O	53:M7:173:ARG:HG3	2.07	0.54
53:M7:175:ARG:O	53:M7:179:GLN:HB2	2.08	0.54
36:5:2897:A:O2'	36:5:2898:G:H3'	2.08	0.54
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.42	0.54
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	1.90	0.54
76:Q0:110:CYS:SG	76:Q0:111:ARG:N	2.81	0.54
36:1:1890:U:C2	36:1:1891:A:C8	2.95	0.54
1:2:1259:U:H2'	1:2:1260:U:H6	1.73	0.54
1:2:322:G:O4'	1:2:323:A:H8	1.91	0.54
68:O2:10:VAL:HG13	68:O2:11:LYS:N	2.22	0.54
75:O9:26:TRP:O	75:O9:28:ARG:N	2.41	0.54
62:N6:77:LYS:HD3	75:O9:31:THR:HG21	1.90	0.54
10:S8:89:GLU:CD	10:S8:92:ARG:HH21	2.11	0.54
63:N7:10:VAL:O	63:N7:83:THR:HG22	2.07	0.54
43:L6:46:ARG:HG2	43:L6:47:PHE:CE2	3.37	0.54
36:1:1498:A:H2'	36:1:1499:C:C6	2.43	0.54
36:1:93:C:C2	64:N8:55:LYS:NZ	2.76	0.54
73:O7:58:THR:O	73:O7:61:THR:OG1	3.26	0.54
36:1:3159:C:O2'	36:1:3395:G:N2	2.40	0.54
45:L8:184:ALA:O	45:L8:188:THR:HG23	4.28	0.54
21:C9:4:VAL:HG21	21:C9:140:LEU:HD21	4.94	0.54
36:5:3053:G:O6	87:5:4167:OHX:N4	2.41	0.54
36:5:1499:C:H2'	36:5:1500:G:C8	2.42	0.54
1:6:53:G:H1	1:6:427:C:H42	1.55	0.54
26:D4:104:SER:N	26:D4:107:GLN:OE1	3.38	0.54
47:M0:150:GLU:CG	47:M0:154:ARG:HE	2.20	0.54
44:L7:150:LYS:HG2	44:L7:151:ARG:HG3	3.18	0.54
44:L7:152:GLY:C	44:L7:153:PHE:HD2	2.11	0.54
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	2.66	0.54
51:M5:27:VAL:HB	51:M5:122:ASN:HD21	1.73	0.54
36:5:1382:G:N1	36:5:1425:U:O2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:157:GLU:HG3	41:L4:251:THR:HG21	1.89	0.54
43:L6:78:ARG:HG3	43:L6:78:ARG:NH1	2.23	0.54
36:5:362:U:H2'	36:5:362:U:O2	2.08	0.54
20:C8:14:ILE:H	20:C8:24:GLY:HA3	1.73	0.54
7:S5:164:PRO:HG3	30:D8:52:ASP:HB3	1.88	0.54
67:O1:54:GLU:HA	67:O1:57:GLN:HG3	1.89	0.54
36:1:2747:A:OP1	42:L5:176:SER:OG	2.25	0.54
42:L5:80:SER:O	42:L5:83:LEU:HG	3.01	0.54
1:2:1500:C:H2'	1:2:1501:C:C6	2.43	0.54
22:D0:70:THR:HG23	1:6:1280:C:O2'	388.17	0.54
48:M1:110:ILE:HG22	48:M1:114:ILE:HG22	3.12	0.54
5:S3:108:LYS:O	5:S3:111:ASN:N	2.96	0.54
16:C4:84:ARG:HB3	16:C4:118:VAL:HG23	4.00	0.54
2:S0:49:ASN:OD1	2:S0:52:LYS:HG3	2.07	0.54
2:S0:60:ALA:O	2:S0:64:ILE:HG13	2.08	0.54
63:N7:27:LYS:HD3	63:N7:97:SER:HA	3.47	0.54
71:O5:62:GLN:HA	71:O5:65:ALA:HB3	1.90	0.54
73:O7:72:ARG:HA	73:O7:75:LYS:HB3	2.48	0.54
1:2:1525:A:H5'	21:C9:93:HIS:HB2	1.90	0.54
11:S9:174:ARG:HA	11:S9:174:ARG:NE	2.22	0.54
6:S4:157:ASN:CG	6:S4:222:LEU:HD21	3.51	0.54
9:S7:50:ASP:OD1	9:S7:50:ASP:N	2.41	0.54
1:2:1584:G:H5''	18:C6:122:ARG:HG2	1.89	0.54
34:SR:236:ALA:O	34:SR:261:LYS:NZ	3.24	0.54
1:2:1015:U:H5''	1:2:1016:C:OP2	2.07	0.54
36:1:3180:A:H5'	52:M6:116:LYS:HB2	1.89	0.54
36:1:1176:C:OP1	52:M6:25:LYS:HE3	2.08	0.54
49:M3:84:GLY:O	49:M3:85:LEU:HB3	2.06	0.54
36:1:2151:C:O2'	36:1:2243:A:N1	2.35	0.54
26:D4:36:SER:O	26:D4:40:LEU:HG	2.54	0.54
79:Q3:20:SER:O	79:Q3:22:LEU:N	2.40	0.54
71:O5:21:LEU:O	71:O5:24:LEU:N	2.74	0.54
24:D2:2:THR:HG23	1:6:967:A:H4'	332.02	0.54
17:C5:79:HIS:O	17:C5:81:ARG:N	2.40	0.54
55:M9:173:ARG:HH21	55:M9:177:VAL:CG2	8.97	0.54
34:SR:161:LYS:O	34:SR:161:LYS:HG2	2.08	0.54
36:1:1209:G:C6	36:1:1210:U:C4	2.96	0.54
74:O8:8:ILE:O	74:O8:11:PHE:HB3	2.34	0.54
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	1.90	0.54
13:C1:27:THR:HG22	1:6:838:G:H4'	281.55	0.54
36:5:2929:C:C2	36:5:2930:A:C8	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:151:VAL:O	46:L9:154:VAL:N	3.63	0.54
36:5:899:U:O4	87:5:3958:OHX:N5	2.40	0.54
33:E1:118:ARG:H	33:E1:118:ARG:HH11	2.48	0.54
54:M8:57:ILE:HD13	54:M8:147:ARG:NE	2.22	0.54
36:5:420:G:OP1	36:5:420:G:OP2	2.26	0.54
36:1:1715:A:H4'	36:1:1716:U:OP1	2.06	0.54
1:2:297:U:H2'	1:2:298:C:C6	2.43	0.54
36:1:2134:G:C2	36:1:2135:U:C6	2.96	0.54
1:2:1182:U:H4'	17:C5:124:THR:OG1	2.08	0.54
87:5:4006:OHX:N6	87:5:4195:OHX:N2	2.56	0.54
24:D2:40:VAL:HA	24:D2:43:LYS:HG2	4.08	0.54
1:2:1653:C:N4	1:2:1654:G:C6	2.76	0.54
25:D3:54:LEU:O	25:D3:98:GLU:HG2	2.69	0.54
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.41	0.54
45:L8:141:ALA:O	45:L8:145:ASN:ND2	2.41	0.54
36:5:685:G:C2	36:5:696:C:N3	2.76	0.54
41:L4:209:TYR:HD2	41:L4:211:GLU:N	2.06	0.54
41:L4:25:VAL:C	41:L4:27:SER:N	2.61	0.54
36:1:1256:G:O6	36:1:1261:G:N2	2.40	0.54
1:2:1164:G:C2	1:2:1165:G:C5	2.96	0.54
55:M9:25:ASP:C	55:M9:27:ASN:H	2.11	0.54
42:L5:205:SER:OG	42:L5:206:GLN:N	2.40	0.54
31:D9:44:ARG:HA	31:D9:47:ALA:HB2	1.89	0.54
2:S0:179:ARG:O	2:S0:183:ARG:N	2.53	0.54
2:S0:185:ARG:HG3	23:D1:47:PRO:HD3	1.89	0.54
48:M1:172:LEU:O	48:M1:173:ASP:HB2	2.53	0.54
55:M9:100:ARG:O	55:M9:103:ARG:HB3	2.08	0.54
70:O4:97:GLU:C	70:O4:99:LYS:H	2.10	0.54
55:M9:14:VAL:HG11	55:M9:42:ARG:HD3	1.89	0.54
1:2:1183:A:N3	1:2:1210:C:O2'	2.34	0.54
56:N0:135:VAL:O	56:N0:141:LYS:NZ	3.23	0.54
44:L7:75:TYR:HB2	57:N1:141:VAL:CG2	3.67	0.54
59:N3:79:VAL:HG22	59:N3:99:ALA:O	2.27	0.54
39:L2:84:THR:HB	36:5:2554:A:C2	209.11	0.54
36:1:209:A:OP1	41:L4:161:LYS:NZ	2.41	0.54
61:N5:58:ASP:O	61:N5:61:LYS:N	2.41	0.54
76:Q0:80:PRO:O	76:Q0:83:LYS:N	4.29	0.54
1:2:595:G:OP2	87:2:2076:OHX:N3	2.41	0.54
36:1:1791:C:H2'	36:1:1792:C:C5	2.43	0.54
36:1:595:G:H2'	36:1:596:C:C6	2.42	0.54
67:O1:13:THR:HG21	67:O1:104:LEU:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:47:C:H2'	37:7:48:U:H6	1.73	0.54
70:O4:87:GLU:OE1	70:O4:91:ARG:NH2	2.39	0.54
36:5:1618:G:N2	36:5:1827:C:C2	2.76	0.54
42:L5:40:HIS:CE1	57:N1:69:LYS:HB2	2.43	0.54
50:M4:100:ALA:HA	50:M4:103:ILE:HG13	2.69	0.54
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	3.88	0.54
55:M9:128:LYS:NZ	36:5:1723:A:OP1	229.82	0.54
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	1.90	0.54
1:2:1431:C:H5'	1:2:1431:C:H6	1.72	0.54
1:2:763:G:C6	1:2:764:U:C4	2.96	0.54
36:5:2606:G:N3	36:5:2606:G:H2'	2.23	0.54
36:5:2325:G:C2	36:5:2326:A:C8	2.96	0.54
36:1:1471:U:H2'	36:1:1472:U:C6	2.42	0.54
1:2:42:G:O6	87:2:2040:OHX:N4	2.40	0.54
78:Q2:12:CYS:SG	78:Q2:74:CYS:HB2	2.48	0.54
36:1:3051:U:H5''	60:N4:18:GLY:H	1.73	0.54
46:L9:29:GLY:O	46:L9:31:ARG:N	2.81	0.54
36:1:94:G:OP2	64:N8:54:GLY:N	2.38	0.54
36:1:1841:A:H2	75:O9:45:ARG:HH12	1.56	0.54
1:6:590:C:H2'	1:6:591:A:C8	2.43	0.54
44:L7:207:LEU:O	36:5:1334:U:H5''	241.25	0.54
44:L7:169:ILE:O	44:L7:173:LEU:N	2.51	0.54
41:L4:44:LYS:CB	41:L4:47:ARG:HH11	2.70	0.54
36:1:562:C:H2'	36:1:563:U:C6	2.39	0.54
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.54	0.54
36:1:1107:C:H2'	36:1:1108:U:H6	1.73	0.54
42:L5:64:ILE:CG2	42:L5:75:LEU:HB3	2.38	0.54
12:C0:50:THR:HA	12:C0:55:VAL:O	2.07	0.54
17:C5:69:GLU:HA	87:C5:201:OHX:N5	6.11	0.54
17:C5:89:MET:O	17:C5:107:ILE:HD11	6.95	0.54
21:C9:14:PHE:O	21:C9:17:ALA:HB3	2.08	0.54
70:O4:19:LYS:NZ	36:5:1784:G:O3'	168.27	0.54
1:2:905:A:H2'	1:2:906:A:O4'	2.07	0.54
28:D6:51:ARG:NH1	30:D8:60:GLU:HG2	3.94	0.54
2:S0:183:ARG:HG3	2:S0:188:LEU:HD12	4.15	0.54
54:M8:66:ARG:HH21	36:5:744:A:P	169.24	0.54
36:1:621:A:O2'	87:1:4163:OHX:N1	2.40	0.54
20:C8:126:ARG:NH2	20:C8:131:LEU:HD22	5.49	0.54
6:S4:115:THR:HG23	6:S4:118:GLU:H	1.73	0.54
56:N0:16:THR:HG23	56:N0:19:VAL:HB	1.90	0.54
43:L6:154:LEU:HA	43:L6:157:GLN:OE1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:168:GLY:O	43:L6:170:LYS:HG3	4.11	0.54
50:M4:113:THR:HG22	50:M4:114:ASP:N	4.74	0.54
1:6:1146:G:C5	1:6:1147:A:C5	2.96	0.54
58:N2:49:ASN:C	58:N2:51:GLY:H	2.59	0.54
36:5:2599:U:H2'	36:5:2600:C:C6	2.43	0.54
36:5:3243:A:O2'	36:5:3244:A:H8	1.90	0.54
38:8:138:A:C2	38:8:139:U:C2	2.95	0.54
71:O5:34:GLN:HG2	71:O5:38:ARG:HH21	6.22	0.54
1:6:913:G:H8	36:5:2205:U:N3	2.06	0.54
48:M1:43:GLN:OE1	48:M1:71:VAL:HG13	2.08	0.54
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.31	0.54
68:O2:33:ARG:NH1	36:5:944:C:H4'	162.04	0.54
2:S0:30:GLN:HG2	2:S0:150:ASP:HA	6.18	0.54
6:S4:103:TYR:CE2	6:S4:184:THR:HG22	3.80	0.54
5:S3:9:ARG:HH22	1:6:1514:U:H5	437.95	0.54
36:1:2592:G:HO2'	36:1:2593:A:H8	1.56	0.54
1:6:613:G:H4'	1:6:614:C:OP1	2.08	0.54
1:6:1418:G:O6	87:6:2051:OHX:N6	2.41	0.54
56:N0:88:HIS:HD2	56:N0:88:HIS:N	2.86	0.54
36:5:645:A:H5'	36:5:2372:A:H62	1.72	0.54
36:1:3091:A:H2'	36:1:3094:A:N7	2.23	0.54
8:S6:1:MET:N	8:S6:1:MET:HE3	5.15	0.54
45:L8:199:ALA:C	45:L8:200:LEU:HG	3.74	0.54
1:2:525:A:C6	1:2:526:A:C6	2.96	0.54
1:6:373:G:H21	1:6:604:A:P	2.30	0.54
44:L7:66:LYS:O	44:L7:67:ARG:C	3.29	0.54
24:D2:113:HIS:O	24:D2:117:ARG:N	2.40	0.54
1:2:1617:U:H2'	1:2:1618:C:H6	1.73	0.54
36:5:1845:G:N2	36:5:1851:G:C4	2.76	0.54
18:C6:11:GLY:HA3	18:C6:80:ALA:O	2.08	0.54
57:N1:45:ASN:OD1	57:N1:47:SER:OG	2.25	0.54
38:8:82:U:O2'	38:8:87:G:H5'	2.08	0.54
36:1:2625:C:O2'	36:1:2626:A:OP2	2.22	0.54
8:S6:53:SER:OG	8:S6:110:ALA:O	3.04	0.54
3:S1:156:ALA:HB3	3:S1:161:ILE:HD11	2.40	0.54
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.43	0.54
36:1:1693:C:HO2'	36:1:1772:U:HO2'	1.51	0.54
36:1:242:C:O2'	36:1:243:G:O5'	2.26	0.54
36:1:3273:A:C2	36:1:3274:A:C4	2.96	0.54
13:C1:2:SER:O	13:C1:3:THR:OG1	5.00	0.54
36:5:2291:A:C5	36:5:2292:U:C5	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:130:ARG:HG2	15:C3:137:PRO:HA	2.59	0.54
36:1:2099:A:C5	36:1:2100:A:C2	2.96	0.54
1:2:234:G:C6	1:2:235:G:H1'	2.42	0.54
1:6:462:G:C6	1:6:463:U:C4	2.96	0.53
11:S9:142:ASN:O	11:S9:144:PRO:HD3	2.98	0.53
11:S9:81:VAL:O	11:S9:83:VAL:N	2.41	0.53
11:S9:87:SER:OG	11:S9:88:GLU:N	3.79	0.53
44:L7:86:VAL:CG1	44:L7:134:VAL:HG21	2.38	0.53
1:6:116:U:H2'	1:6:117:U:C6	2.42	0.53
26:D4:20:ARG:HD3	26:D4:76:TYR:CZ	2.43	0.53
36:1:1387:G:C2	36:1:1388:U:C5	2.96	0.53
41:L4:25:VAL:HG13	41:L4:276:LEU:HD21	3.17	0.53
41:L4:50:TYR:HD2	41:L4:109:TRP:HH2	2.54	0.53
7:S5:99:MET:HG3	7:S5:180:ARG:NH2	3.70	0.53
67:O1:17:HIS:O	67:O1:19:ARG:N	3.17	0.53
67:O1:36:ILE:HD12	67:O1:59:ILE:HD11	1.88	0.53
1:6:1429:G:C5	1:6:1430:U:C4	2.96	0.53
5:S3:20:GLU:OE2	5:S3:76:ARG:NE	3.37	0.53
5:S3:20:GLU:O	5:S3:23:GLU:N	2.41	0.53
15:C3:46:THR:H	15:C3:49:GLN:CD	2.89	0.53
4:S2:207:LEU:O	4:S2:210:THR:N	2.41	0.53
55:M9:101:VAL:HA	55:M9:104:ARG:NH1	2.23	0.53
36:1:1720:U:P	55:M9:110:ARG:HH12	2.31	0.53
63:N7:41:ALA:O	63:N7:43:VAL:HG13	3.89	0.53
55:M9:4:LEU:O	55:M9:7:GLN:HG2	4.76	0.53
20:C8:132:ARG:HG3	20:C8:138:THR:HG21	1.90	0.53
17:C5:130:ARG:NH1	35:SM:71:ASN:OD1	2.41	0.53
1:6:72:A:H3'	1:6:73:U:O4'	2.08	0.53
1:2:86:A:N3	1:2:147:A:H2	2.06	0.53
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.83	0.53
34:SR:224:ASN:HB3	34:SR:229:LYS:O	2.08	0.53
36:1:2667:A:N6	36:1:2687:G:H1'	2.23	0.53
36:1:364:G:OP1	41:L4:60:THR:HG23	2.08	0.53
1:2:1167:G:C2	1:2:1168:U:C2	2.96	0.53
36:1:1483:G:C8	36:1:1485:G:C8	2.97	0.53
36:5:1805:C:H2'	36:5:1806:A:C8	2.43	0.53
46:L9:96:HIS:C	46:L9:96:HIS:ND1	2.89	0.53
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.23	0.53
1:6:679:U:H2'	1:6:680:U:O4'	2.09	0.53
39:L2:179:LEU:HD12	39:L2:185:ALA:HA	5.90	0.53
1:2:29:U:H2'	1:2:30:G:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2307:G:O2'	36:1:2310:U:OP2	2.27	0.53
61:N5:33:ARG:HG2	36:5:1580:A:H61	149.37	0.53
32:E0:55:ARG:CB	32:E0:58:PRO:HG3	2.38	0.53
36:1:1493:G:HO2'	36:1:1494:U:H5	1.52	0.53
55:M9:62:ARG:CZ	55:M9:62:ARG:HB2	2.38	0.53
55:M9:68:GLN:HA	55:M9:71:ARG:NH1	4.97	0.53
36:5:3189:G:H2'	36:5:3190:C:H6	1.73	0.53
54:M8:164:ARG:NH2	36:5:1110:U:OP1	168.37	0.53
45:L8:97:TYR:HB3	45:L8:131:ALA:HA	1.90	0.53
1:2:346:G:O6	87:2:2125:OHX:N5	2.41	0.53
36:1:1742:U:O4	87:1:4092:OHX:N6	2.42	0.53
1:6:5:U:H2'	1:6:6:G:C8	2.40	0.53
45:L8:221:ASN:OD1	45:L8:225:LYS:NZ	6.52	0.53
36:5:3041:U:O2'	36:5:3042:U:H5'	2.08	0.53
36:5:3041:U:H2'	36:5:3042:U:C6	2.43	0.53
36:5:3216:G:C4	36:5:3259:U:C4	2.96	0.53
36:1:772:U:H2'	36:1:773:G:H8	1.71	0.53
74:O8:32:ASN:HB3	74:O8:38:PHE:CD2	2.43	0.53
40:L3:101:SER:HB2	36:5:3147:G:O4'	238.91	0.53
36:5:665:A:H2'	36:5:666:A:C8	2.43	0.53
1:2:1150:G:N2	1:2:1768:G:H2'	2.23	0.53
51:M5:105:ARG:NH1	36:5:1547:G:OP2	131.32	0.53
36:1:1589:A:C5	70:O4:13:TYR:CE2	2.96	0.53
1:6:1660:A:H2'	1:6:1661:U:H6	1.72	0.53
36:5:1934:G:N7	87:5:3911:OHX:N2	2.55	0.53
21:C9:137:ALA:HA	21:C9:140:LEU:HD23	6.46	0.53
15:C3:70:LYS:O	15:C3:74:ILE:HG13	2.08	0.53
6:S4:15:PRO:HD2	6:S4:18:TRP:CE3	2.62	0.53
12:C0:25:LYS:HD2	12:C0:27:PHE:CZ	2.44	0.53
32:E0:29:LYS:HZ1	32:E0:35:TYR:HE2	7.03	0.53
55:M9:165:LYS:NZ	1:6:850:A:H4'	304.41	0.53
11:S9:175:ARG:HD3	11:S9:179:ARG:CZ	2.38	0.53
36:1:2322:C:O5'	36:1:2322:C:H6	1.92	0.53
1:6:561:G:H2'	1:6:562:G:H5'	1.90	0.53
18:C6:127:LYS:HD2	18:C6:132:LYS:O	2.08	0.53
20:C8:13:HIS:HB3	20:C8:25:ASN:OD1	3.35	0.53
30:D8:31:GLU:O	30:D8:33:LEU:N	4.25	0.53
61:N5:59:SER:HA	61:N5:62:VAL:HB	2.44	0.53
42:L5:240:TYR:O	42:L5:243:ALA:N	2.41	0.53
21:C9:6:VAL:HB	21:C9:14:PHE:CE1	2.43	0.53
1:2:1199:G:C4	31:D9:40:ARG:HD3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:94:ARG:O	5:S3:101:GLN:NE2	3.49	0.53
5:S3:178:ARG:HE	5:S3:178:ARG:N	1.96	0.53
5:S3:64:ARG:O	5:S3:68:GLU:HG3	2.08	0.53
47:M0:20:SER:O	47:M0:24:ARG:HG2	2.08	0.53
54:M8:134:GLY:N	54:M8:135:GLN:OE1	2.52	0.53
63:N7:81:LEU:HD12	70:O4:93:PHE:CE2	2.44	0.53
68:O2:124:GLY:O	68:O2:126:LEU:N	2.70	0.53
17:C5:126:VAL:HG13	17:C5:127:ARG:N	2.57	0.53
36:5:3182:G:H2'	36:5:3183:A:O4'	2.08	0.53
56:N0:8:GLN:HB2	56:N0:64:ILE:HD11	2.23	0.53
36:1:1167:U:P	69:O3:73:ARG:HH22	2.31	0.53
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.08	0.53
4:S2:98:PHE:O	4:S2:118:ALA:N	2.89	0.53
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.06	0.53
36:1:2219:A:O2'	36:1:2220:A:H5'	2.08	0.53
39:L2:211:HIS:C	39:L2:213:GLY:H	4.21	0.53
45:L8:160:ILE:O	45:L8:164:VAL:HG13	2.10	0.53
37:3:31:U:H4'	42:L5:218:ARG:NH2	2.24	0.53
1:2:1497:U:C2	1:2:1498:G:C8	2.95	0.53
45:L8:50:VAL:HG22	45:L8:52:TRP:CD2	2.66	0.53
36:1:1851:G:H5''	36:1:1852:G:OP2	2.08	0.53
75:O9:2:ALA:O	75:O9:4:GLN:N	3.34	0.53
38:4:121:U:H2'	38:4:122:U:C6	2.43	0.53
36:5:377:A:N1	36:5:400:G:N7	2.56	0.53
9:S7:110:GLN:NE2	1:6:811:A:C4	335.45	0.53
1:2:532:U:H2'	1:2:533:U:O4'	2.07	0.53
42:L5:187:THR:HG23	42:L5:189:GLU:HB2	1.89	0.53
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	1.90	0.53
34:SR:117:LYS:HG2	34:SR:118:LYS:N	2.22	0.53
75:O9:26:TRP:CZ3	75:O9:30:ARG:HD3	3.20	0.53
1:2:7:G:H1	1:2:17:C:N4	2.05	0.53
40:L3:109:HIS:HD1	40:L3:109:HIS:H	2.26	0.53
36:5:1781:C:H2'	36:5:1782:U:C6	2.43	0.53
41:L4:112:LYS:HG3	51:M5:202:TYR:HB3	1.89	0.53
36:1:2574:G:H2'	36:1:2575:G:C8	2.43	0.53
1:2:505:A:N3	1:2:505:A:H2'	2.23	0.53
36:5:416:A:H61	38:8:7:U:H3	1.55	0.53
39:L2:54:ARG:HH11	39:L2:54:ARG:HG3	2.19	0.53
87:1:3972:OHX:N6	87:1:4155:OHX:N4	2.57	0.53
38:8:74:U:O2	87:8:224:OHX:N5	2.41	0.53
36:5:725:G:N2	36:5:746:A:C4	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:380:MET:HE3	36:5:3369:G:N1	224.68	0.53
68:O2:61:LYS:HB2	68:O2:61:LYS:NZ	2.45	0.53
36:1:378:A:OP2	87:1:4173:OHX:N3	2.41	0.53
8:S6:180:THR:OG1	8:S6:182:GLN:N	2.41	0.53
36:1:2775:U:H2'	36:1:2776:C:C6	2.43	0.53
47:M0:55:ASN:C	47:M0:131:ILE:HG23	3.73	0.53
41:L4:283:THR:HB	41:L4:285:ASP:N	2.22	0.53
41:L4:282:SER:OG	41:L4:283:THR:N	2.41	0.53
1:2:1475:A:H61	1:2:1532:U:H3	1.54	0.53
7:S5:189:THR:OG1	7:S5:191:ALA:HB3	3.69	0.53
67:O1:77:ARG:HD2	67:O1:89:LEU:HD23	2.47	0.53
42:L5:242:SER:OG	42:L5:243:ALA:N	2.41	0.53
21:C9:73:VAL:HG21	21:C9:102:ARG:HG3	1.90	0.53
5:S3:177:MET:HG3	5:S3:178:ARG:N	4.80	0.53
36:1:156:G:O2'	36:1:157:A:H4'	2.09	0.53
3:S1:127:VAL:HG22	3:S1:128:LYS:H	1.73	0.53
38:4:15:G:C6	38:4:16:G:C2	2.96	0.53
2:S0:4:PRO:HB3	2:S0:6:THR:HG23	8.21	0.53
63:N7:82:PRO:HB2	66:O0:62:LEU:CD1	2.38	0.53
68:O2:78:ASN:OD1	68:O2:78:ASN:N	2.37	0.53
55:M9:37:SER:OG	55:M9:38:ARG:N	2.41	0.53
1:6:1229:G:O2'	1:6:1255:G:N2	2.38	0.53
14:C2:28:LEU:HD22	14:C2:32:LEU:HG	1.90	0.53
14:C2:75:VAL:O	14:C2:79:ALA:N	3.08	0.53
11:S9:168:ARG:HD3	11:S9:174:ARG:NE	8.10	0.53
36:5:3245:A:H2	36:5:3246:G:C2	2.26	0.53
36:5:3242:G:C5'	36:5:3245:A:H8	2.14	0.53
9:S7:131:PHE:HB3	9:S7:132:PRO:HD3	1.90	0.53
9:S7:155:ASP:OD2	9:S7:157:LYS:HE2	2.08	0.53
42:L5:262:LYS:O	42:L5:265:TYR:N	2.41	0.53
18:C6:122:ARG:HG2	1:6:1584:G:H5''	395.32	0.53
34:SR:13:LEU:HD13	34:SR:45:TRP:CD2	2.44	0.53
34:SR:293:ALA:N	34:SR:302:PHE:O	2.33	0.53
8:S6:5:ILE:O	8:S6:13:GLN:HA	2.74	0.53
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.90	0.53
52:M6:190:VAL:O	52:M6:194:LEU:HD12	2.08	0.53
64:N8:28:HIS:CD2	36:5:936:A:OP1	161.26	0.53
57:N1:101:CYS:HB3	36:5:990:U:O4'	254.03	0.53
49:M3:74:GLY:HA3	49:M3:98:ASP:HB2	2.68	0.53
36:1:1813:A:OP1	36:1:1817:G:O2'	2.20	0.53
76:Q0:125:LYS:NZ	36:5:2898:G:O6	328.98	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:740:A:C2'	1:2:741:C:H5''	2.36	0.53
40:L3:152:LYS:HD3	40:L3:189:SER:HA	2.09	0.53
36:1:1919:G:N7	87:1:4013:OHX:N5	2.55	0.53
34:SR:149:ASP:CG	34:SR:150:TRP:H	3.02	0.53
36:1:1488:G:H1	36:1:1854:C:N4	2.04	0.53
62:N6:5:SER:OG	62:N6:7:ASP:N	2.35	0.53
55:M9:89:LEU:HD12	55:M9:90:PRO:HD2	2.61	0.53
65:N9:50:THR:O	65:N9:54:LEU:HB2	2.07	0.53
15:C3:65:VAL:O	15:C3:67:THR:N	4.34	0.53
36:1:384:A:C5	36:1:1465:A:C2	2.96	0.53
18:C6:140:LYS:HD3	18:C6:142:TYR:CZ	3.41	0.53
36:1:2521:U:C2'	36:1:2522:G:H5'	2.38	0.53
36:5:3218:A:H5''	36:5:3219:G:C5	2.43	0.53
1:6:1425:A:O5'	1:6:1425:A:H8	1.91	0.53
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.38	0.53
59:N3:26:ALA:O	59:N3:115:THR:HG23	3.74	0.53
39:L2:67:TYR:HD2	39:L2:67:TYR:N	3.08	0.53
1:2:1057:U:H1'	1:2:1058:U:H2'	1.90	0.53
36:5:420:G:O5'	36:5:420:G:OP2	2.26	0.53
36:1:1220:U:H5''	36:1:1222:G:O4'	2.08	0.53
1:2:577:G:H3'	1:2:577:G:H8	1.72	0.53
62:N6:73:VAL:HG22	62:N6:80:VAL:HG22	1.90	0.53
18:C6:126:PRO:O	18:C6:128:LYS:NZ	2.27	0.53
1:2:212:U:OP2	87:2:2096:OHX:N2	2.41	0.53
36:1:3041:U:H2'	36:1:3042:U:C6	2.43	0.53
1:6:755:A:O2'	1:6:756:A:H5''	2.09	0.53
40:L3:240:ARG:NH1	40:L3:240:ARG:HG2	2.22	0.53
36:1:1829:G:H5''	36:1:1830:G:OP1	2.09	0.53
11:S9:182:GLU:HG3	11:S9:183:ALA:H	2.12	0.53
11:S9:182:GLU:O	11:S9:184:SER:N	3.75	0.53
36:1:3051:U:C2	36:1:3052:G:C8	2.96	0.53
51:M5:73:ARG:NH1	51:M5:92:LEU:HD21	2.24	0.53
1:6:546:U:H2'	1:6:547:U:C6	2.37	0.53
11:S9:89:ASP:HB2	11:S9:90:LYS:HE2	1.90	0.53
20:C8:28:ILE:HD13	20:C8:54:LEU:HA	6.81	0.53
21:C9:70:GLN:N	21:C9:70:GLN:NE2	3.05	0.53
5:S3:76:ARG:HD2	5:S3:77:PHE:CE2	5.04	0.53
1:2:950:C:H4'	15:C3:104:ARG:HH22	1.73	0.53
29:D7:19:HIS:CE1	29:D7:21:LEU:HG	2.44	0.53
28:D6:44:ILE:HB	28:D6:65:PRO:HG2	5.64	0.53
4:S2:224:PHE:HZ	24:D2:95:PRO:HG3	3.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:69:ILE:HD11	4:S2:133:LYS:HB3	1.95	0.53
1:6:1050:G:H1	1:6:1068:C:H42	1.57	0.53
1:6:871:G:C2	1:6:957:G:N3	2.77	0.53
38:4:81:U:H1'	38:4:82:U:H3'	1.90	0.53
62:N6:111:LEU:HD23	62:N6:116:LYS:HG3	3.37	0.53
71:O5:61:GLN:O	71:O5:65:ALA:N	2.42	0.53
14:C2:62:LEU:HA	14:C2:120:VAL:HA	2.38	0.53
56:N0:148:LEU:HD22	56:N0:149:LYS:N	5.23	0.53
1:6:76:A:H2'	87:6:2199:OHX:N2	2.23	0.53
59:N3:23:MET:HB2	59:N3:98:ASN:O	2.08	0.53
9:S7:155:ASP:CG	9:S7:156:SER:H	2.11	0.53
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	1.91	0.53
49:M3:123:ILE:H	49:M3:123:ILE:HD13	4.49	0.53
36:5:62:A:H2'	36:5:63:A:C8	2.43	0.53
51:M5:151:ILE:O	51:M5:151:ILE:HG12	4.09	0.53
36:5:778:U:O2'	36:5:779:G:H5'	2.09	0.53
39:L2:187:HIS:CE1	36:5:1794:G:N1	195.33	0.53
79:Q3:18:TYR:HA	36:5:2131:A:N6	225.96	0.53
6:S4:104:ASP:HB2	6:S4:108:ARG:H	2.67	0.53
71:O5:30:GLU:O	71:O5:32:LYS:N	2.41	0.53
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.13	0.53
1:2:1090:C:H2'	1:2:1091:A:H5''	1.90	0.53
1:2:220:A:C2	1:2:842:C:H1'	2.43	0.53
64:N8:79:TRP:HZ3	64:N8:87:ARG:HG2	4.75	0.53
1:6:354:C:H2'	1:6:355:G:O4'	2.08	0.53
4:S2:149:GLY:CA	23:D1:3:ASN:HD22	8.29	0.53
6:S4:185:GLY:N	6:S4:189:LEU:HD13	2.75	0.53
36:1:2208:A:N1	87:1:4043:OHX:N2	2.56	0.53
36:5:1024:G:H3'	36:5:1024:G:N3	2.23	0.53
36:1:1615:C:H2'	36:1:1616:U:C6	2.43	0.53
22:D0:51:VAL:HG22	22:D0:94:GLU:N	4.93	0.53
36:5:3189:G:H2'	36:5:3190:C:O4'	2.08	0.53
36:1:1095:U:H4'	36:1:1096:U:C5'	2.38	0.53
36:1:674:G:H2'	36:1:675:C:O4'	2.08	0.53
42:L5:279:LYS:HE3	42:L5:282:ARG:NH1	2.22	0.53
1:2:1306:C:H2'	1:2:1306:C:OP2	2.08	0.53
36:1:872:U:H2'	36:1:873:C:C6	2.44	0.53
1:2:372:G:H1'	1:2:612:U:C2	2.44	0.53
36:1:1364:C:O2'	54:M8:9:GLN:OE1	2.23	0.53
36:1:1126:G:OP2	47:M0:14:ASN:ND2	2.42	0.53
1:2:223:U:H2'	1:2:224:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:279:U:H2'	36:5:280:U:C6	2.44	0.53
56:N0:74:ASN:O	56:N0:129:ILE:N	2.40	0.53
66:O0:60:ALA:HB1	66:O0:65:THR:HG22	1.89	0.53
1:6:278:U:H2'	1:6:278:U:OP2	2.08	0.53
1:2:1728:A:H2'	1:2:1729:C:O4'	2.09	0.53
36:5:2623:G:C4	36:5:2624:G:C8	2.97	0.53
28:D6:70:LYS:HE2	28:D6:72:HIS:NE2	5.37	0.53
1:6:540:G:O2'	1:6:542:A:OP2	2.27	0.53
36:1:696:C:OP1	41:L4:272:VAL:N	2.22	0.53
41:L4:122:THR:CG2	41:L4:235:LEU:HB2	2.38	0.53
1:2:1401:A:OP1	19:C7:60:ARG:NH1	2.40	0.53
7:S5:112:ARG:NH2	18:C6:43:ILE:HG23	2.24	0.53
7:S5:37:GLN:HB3	18:C6:53:LEU:HB3	4.10	0.53
20:C8:46:VAL:HG21	20:C8:73:MET:HG2	1.89	0.53
27:D5:89:ILE:HB	27:D5:101:TYR:CG	2.44	0.53
7:S5:140:THR:HA	7:S5:214:LYS:HD2	1.91	0.53
31:D9:14:TYR:HD2	31:D9:14:TYR:O	3.10	0.53
5:S3:98:ALA:O	5:S3:100:ALA:N	2.41	0.53
15:C3:94:LYS:O	15:C3:98:VAL:HG23	2.09	0.53
3:S1:100:PHE:HB3	3:S1:181:LEU:HD13	5.27	0.53
3:S1:78:ASP:O	3:S1:79:HIS:ND1	2.41	0.53
2:S0:82:GLY:O	2:S0:86:VAL:HG13	2.16	0.53
20:C8:105:VAL:HG22	20:C8:106:GLU:N	4.34	0.53
1:6:752:A:H2'	1:6:753:A:C8	2.44	0.53
48:M1:151:SER:O	48:M1:152:HIS:HB2	2.58	0.53
63:N7:5:LEU:HD22	63:N7:25:ILE:CD1	2.39	0.53
40:L3:66:LYS:HZ3	59:N3:120:LYS:HE2	1.74	0.53
42:L5:270:LYS:HD3	37:7:2:G:H4'	321.29	0.53
34:SR:224:ASN:ND2	34:SR:226:ALA:HB3	4.06	0.53
49:M3:165:SER:HB3	49:M3:168:ARG:HG2	4.41	0.53
52:M6:171:LYS:O	52:M6:175:THR:HG23	3.02	0.53
36:1:612:U:H2'	36:1:613:G:C8	2.41	0.53
36:5:1805:C:H2'	36:5:1806:A:H8	1.73	0.53
51:M5:56:LYS:HE3	51:M5:142:ILE:HD12	1.89	0.53
36:1:645:A:C6	36:1:649:A:C8	2.96	0.53
34:SR:156:VAL:HG22	34:SR:169:ILE:HG22	1.90	0.53
36:1:609:G:C6	41:L4:308:LYS:HD3	2.43	0.53
36:5:1581:C:OP2	36:5:1581:C:H4'	2.07	0.53
47:M0:100:ASN:ND2	47:M0:118:ALA:O	2.42	0.53
49:M3:140:SER:OG	49:M3:141:ALA:N	3.16	0.53
54:M8:115:VAL:O	54:M8:117:ALA:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:103:LYS:HE3	36:5:217:U:O2	80.57	0.53
62:N6:59:VAL:HG23	62:N6:60:ARG:HG2	6.61	0.53
46:L9:155:SER:O	46:L9:158:ALA:HB3	2.11	0.53
1:6:189:C:N4	1:6:197:A:H2	2.06	0.53
50:M4:97:SER:O	50:M4:98:SER:C	2.80	0.53
52:M6:96:LYS:O	52:M6:99:LEU:N	2.76	0.53
23:D1:64:GLU:OE1	29:D7:2:VAL:HG13	2.25	0.53
64:N8:93:SER:OG	64:N8:93:SER:O	2.26	0.53
36:5:2705:A:OP2	87:5:3894:OHX:N2	2.41	0.53
1:6:373:G:N2	1:6:603:U:O3'	2.42	0.53
36:1:1743:G:H2'	36:1:1744:G:H8	1.73	0.53
64:N8:14:HIS:ND1	64:N8:14:HIS:N	2.83	0.53
45:L8:181:LYS:HD3	38:8:154:C:H5''	148.56	0.53
36:5:2763:U:C2'	36:5:2764:C:H5'	2.38	0.53
1:6:1238:A:O2'	1:6:1239:U:OP1	2.27	0.53
36:5:993:G:C5	36:5:2637:A:C2	2.96	0.53
49:M3:21:ARG:NH1	51:M5:191:TRP:CH2	3.43	0.53
17:C5:60:LEU:HD21	17:C5:92:SER:CB	2.39	0.53
1:2:1008:G:OP1	16:C4:135:ARG:NE	2.41	0.53
36:5:2319:U:O2'	36:5:2320:A:C8	2.58	0.53
65:N9:45:HIS:CE1	36:5:1075:A:C5	195.33	0.53
53:M7:21:TYR:N	53:M7:21:TYR:CD2	2.77	0.53
36:1:274:G:H2'	36:1:275:U:O4'	2.09	0.53
36:1:2989:U:H2'	36:1:2990:G:O4'	2.09	0.53
36:5:3200:G:H2'	36:5:3201:C:O4'	2.07	0.53
47:M0:140:THR:OG1	47:M0:144:ASN:HB3	2.09	0.53
41:L4:328:ASN:ND2	41:L4:328:ASN:O	4.04	0.53
44:L7:160:ARG:HB2	44:L7:203:TRP:CZ3	2.43	0.53
36:1:112:U:O2'	36:1:113:C:H5''	2.09	0.53
1:6:340:U:H2'	1:6:341:A:H8	1.73	0.53
1:6:93:A:H4'	1:6:94:U:OP2	2.06	0.53
13:C1:22:ASN:HB3	13:C1:25:VAL:HG23	3.09	0.53
19:C7:32:LYS:NZ	1:6:1388:A:OP2	435.70	0.53
36:1:526:C:OP2	87:1:4095:OHX:N5	2.42	0.53
1:2:1533:C:N4	1:2:1534:G:O6	2.41	0.53
18:C6:131:GLY:HA2	18:C6:138:PHE:CD1	2.42	0.53
36:1:976:U:H2'	36:1:977:C:O4'	2.08	0.53
42:L5:253:PHE:CZ	42:L5:255:PRO:HB3	2.44	0.53
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.43	0.53
5:S3:143:ARG:HB2	5:S3:148:LYS:NZ	11.56	0.53
15:C3:88:LEU:O	15:C3:89:TYR:C	2.78	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:310:C:C5	1:2:311:U:H5	2.26	0.53
23:D1:50:TYR:HB2	23:D1:52:THR:HG22	2.06	0.53
1:6:751:G:H2'	1:6:752:A:C8	2.44	0.53
50:M4:20:VAL:HG11	50:M4:90:VAL:CG1	4.76	0.53
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	1.90	0.53
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.66	0.53
38:4:52:A:O3'	75:O9:19:GLN:HG2	2.09	0.53
34:SR:239:GLU:HG2	34:SR:241:PHE:CE1	3.02	0.53
34:SR:255:ALA:HB2	34:SR:292:LEU:HD23	1.89	0.53
34:SR:32:LEU:HD21	34:SR:94:VAL:HG11	2.69	0.53
36:5:2962:U:OP1	87:5:3973:OHX:N4	2.42	0.53
36:5:347:G:C6	36:5:348:A:C6	2.97	0.53
72:O6:56:ARG:HG2	72:O6:60:LEU:HD13	8.81	0.53
79:Q3:56:THR:HG22	79:Q3:63:THR:CG2	2.38	0.53
4:S2:97:ARG:HB2	4:S2:118:ALA:O	2.09	0.53
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.40	0.53
51:M5:15:GLN:HB3	72:O6:51:SER:HB2	1.89	0.53
49:M3:124:ILE:HG23	49:M3:124:ILE:O	3.41	0.53
51:M5:172:ARG:HB3	51:M5:174:ILE:HG12	2.24	0.53
22:D0:27:THR:O	22:D0:113:ASP:HB3	2.08	0.53
36:1:221:A:N6	62:N6:103:LYS:HZ1	2.07	0.53
36:1:1881:A:H2'	36:1:1882:G:C8	2.41	0.53
36:1:2830:G:H2'	36:1:2831:G:H8	1.73	0.53
36:1:3170:A:C6	36:1:3171:U:C4	2.97	0.53
41:L4:92:ASN:OD1	36:5:803:C:O2'	147.75	0.53
45:L8:53:PRO:HD3	61:N5:32:PHE:CG	3.68	0.53
36:1:3057:U:O2'	36:1:3059:G:OP1	2.27	0.53
36:5:1582:C:H3'	36:5:1582:C:C6	2.43	0.53
51:M5:66:VAL:CG2	51:M5:98:LEU:HD12	2.38	0.53
1:6:1360:A:H2'	1:6:1361:U:O4'	2.09	0.53
6:S4:22:LYS:HB3	6:S4:23:LEU:HD22	1.89	0.53
49:M3:57:VAL:HG23	49:M3:147:ILE:HD13	3.94	0.53
34:SR:272:ASP:OD1	34:SR:273:ASP:N	3.11	0.53
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	2.67	0.53
53:M7:20:SER:HB3	53:M7:21:TYR:HD2	1.72	0.53
36:5:1517:G:O2'	36:5:1518:U:H5'	2.09	0.53
40:L3:170:PRO:HG2	40:L3:314:TYR:CE1	2.78	0.53
1:2:717:C:H2'	1:2:718:U:H5''	1.91	0.53
50:M4:134:ALA:O	50:M4:136:ALA:N	2.42	0.53
1:6:802:G:C6	1:6:803:A:C6	2.96	0.53
40:L3:383:LEU:O	40:L3:386:ASP:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:35:TYR:CD2	13:C1:49:ILE:HG12	2.91	0.53
36:1:2407:C:H6	36:1:2407:C:O5'	1.92	0.53
36:5:769:G:C6	36:5:770:G:C6	2.96	0.53
6:S4:199:GLU:HB3	6:S4:207:LEU:HB2	4.66	0.53
38:4:145:U:H2'	38:4:146:U:C6	2.44	0.53
1:2:1177:C:O3'	1:2:1189:A:N6	2.42	0.53
36:1:1571:A:H2'	36:1:1572:U:O4'	2.09	0.53
36:1:2419:A:H1'	36:1:2804:A:O4'	2.09	0.53
36:1:2741:C:O2'	78:Q2:20:HIS:ND1	2.33	0.53
46:L9:81:GLY:HA2	46:L9:85:GLY:H	2.91	0.53
1:2:538:A:H5'	1:2:543:C:N4	2.20	0.53
11:S9:121:SER:O	11:S9:124:HIS:N	2.65	0.53
47:M0:46:PHE:HB3	47:M0:140:THR:CA	2.38	0.53
44:L7:40:LYS:HD2	44:L7:170:GLU:OE1	3.95	0.53
44:L7:235:PHE:CD2	44:L7:235:PHE:N	3.73	0.53
45:L8:64:ILE:HG22	45:L8:65:LEU:N	2.22	0.53
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.17	0.53
41:L4:237:GLN:HG2	41:L4:246:ARG:NH2	4.11	0.53
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.08	0.53
52:M6:130:LYS:O	52:M6:133:ARG:HG2	2.08	0.53
20:C8:41:ARG:CD	21:C9:46:PRO:HD3	2.39	0.53
7:S5:145:ASP:O	7:S5:160:VAL:N	2.29	0.53
67:O1:68:GLU:HG3	67:O1:69:TYR:H	1.74	0.53
61:N5:96:LYS:HE3	61:N5:107:VAL:HB	2.86	0.53
42:L5:53:VAL:O	42:L5:54:ARG:NH1	2.38	0.53
5:S3:101:GLN:OE1	5:S3:122:VAL:HG13	2.72	0.53
5:S3:102:ALA:O	5:S3:105:MET:HB2	2.67	0.53
1:2:908:U:H2'	1:2:909:U:H5'	1.90	0.53
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.09	0.53
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	1.90	0.53
2:S0:40:ALA:HA	2:S0:46:HIS:HA	2.92	0.53
4:S2:108:ASN:HA	4:S2:141:ARG:HH11	1.73	0.53
38:4:70:G:H5''	62:N6:28:ARG:CZ	2.38	0.53
62:N6:27:ARG:CZ	62:N6:78:PHE:CE2	2.92	0.53
1:6:1184:A:H3'	1:6:1185:U:H5''	1.90	0.53
50:M4:14:LEU:HB2	50:M4:16:GLU:OE1	2.08	0.53
56:N0:138:GLN:C	56:N0:140:VAL:H	2.10	0.53
56:N0:27:MET:SD	56:N0:44:PHE:HB2	2.77	0.53
60:N4:50:ALA:HA	60:N4:55:PHE:CD1	2.59	0.53
36:1:2807:U:O2'	36:1:2808:A:H5''	2.09	0.53
1:2:990:C:H2'	1:2:991:G:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:250:GLN:NE2	39:L2:251:LYS:HB2	7.39	0.53
79:Q3:74:ALA:O	79:Q3:77:ALA:HB3	2.08	0.53
36:1:2183:A:O2'	39:L2:235:ALA:HA	2.08	0.53
41:L4:67:THR:OG1	41:L4:68:GLY:N	2.39	0.53
1:2:1348:A:H2'	1:2:1349:G:O4'	2.09	0.53
36:5:1825:G:O2'	36:5:1826:C:H5'	2.09	0.53
36:5:776:U:H5	36:5:2719:U:C2	2.27	0.53
11:S9:54:ARG:CZ	11:S9:55:ALA:HA	2.38	0.53
36:5:1792:C:H2'	36:5:1795:U:O4	2.08	0.53
34:SR:64:HIS:CD2	34:SR:68:VAL:HG22	2.44	0.53
1:6:514:G:O2'	1:6:515:A:O5'	2.25	0.53
42:L5:156:GLY:HA2	42:L5:181:PRO:HG3	1.89	0.53
56:N0:171:PHE:CE2	36:5:3205:G:C5	315.09	0.53
58:N2:34:ALA:HA	58:N2:37:LEU:HD13	1.89	0.53
36:5:1722:U:C4	36:5:1723:A:N7	2.77	0.53
36:5:3063:C:H2'	36:5:3064:U:C6	2.43	0.53
41:L4:92:ASN:O	36:5:659:G:H4'	140.92	0.53
45:L8:81:THR:OG1	45:L8:181:LYS:HB2	2.93	0.53
36:1:255:A:O2'	36:1:256:G:H5'	2.09	0.53
3:S1:114:VAL:HG11	1:6:930:A:O2'	308.75	0.53
37:3:87:G:N1	37:3:95:A:C6	2.76	0.53
36:1:3134:A:OP1	87:1:3902:OHX:N4	2.42	0.53
1:2:1111:G:H1	1:2:1134:C:H42	1.57	0.53
1:2:192:U:HO2'	1:2:193:U:P	2.32	0.53
21:C9:4:VAL:HG11	21:C9:137:ALA:HB2	1.90	0.53
36:1:2796:G:H4'	36:1:2798:C:C6	2.44	0.53
1:2:1596:C:OP1	31:D9:16:LYS:HG2	2.09	0.53
36:1:2366:C:H5'	40:L3:259:HIS:CE1	2.44	0.53
26:D4:77:ASN:O	26:D4:78:SER:HB3	3.20	0.53
36:5:145:G:O6	87:5:4013:OHX:N5	2.42	0.53
1:6:553:G:C6	1:6:554:C:N4	2.77	0.53
1:2:1642:G:O6	88:2:2181:GET:H231	2.08	0.53
36:5:1307:G:C2	36:5:1308:A:C2	2.97	0.53
36:5:3199:G:C2	36:5:3200:G:C8	2.97	0.53
11:S9:116:LEU:O	11:S9:118:LEU:HD12	2.55	0.53
51:M5:5:LYS:HB3	72:O6:36:ARG:HH11	2.38	0.53
26:D4:21:LYS:HB2	26:D4:75:VAL:HG13	1.90	0.53
43:L6:58:LEU:O	43:L6:60:ASP:N	2.42	0.53
73:O7:17:THR:O	73:O7:25:ARG:HA	2.08	0.53
27:D5:71:ILE:HG23	27:D5:75:LEU:HD12	1.89	0.53
27:D5:73:GLY:HA2	27:D5:76:ALA:HB3	2.47	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:121:ILE:HG21	7:S5:129:PRO:HA	3.00	0.53
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	6.22	0.53
42:L5:85:ARG:HH22	42:L5:252:ALA:HB3	1.73	0.53
1:2:1602:C:H2'	1:2:1603:U:O4'	2.09	0.53
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.24	0.53
17:C5:33:PHE:O	17:C5:36:LEU:HD22	3.85	0.53
2:S0:57:LEU:HD11	2:S0:173:ILE:HG23	1.89	0.53
2:S0:89:PHE:HE2	2:S0:177:LEU:HD13	1.74	0.53
59:N3:86:ARG:NH1	59:N3:90:GLY:HA2	2.24	0.53
68:O2:82:LEU:HD22	68:O2:117:ILE:HD12	1.90	0.53
55:M9:41:ILE:HA	55:M9:44:LEU:HD22	1.90	0.53
6:S4:125:LYS:HB2	6:S4:226:PHE:CE2	2.43	0.53
50:M4:50:LYS:NZ	50:M4:91:CYS:HB2	2.24	0.53
56:N0:80:ARG:HB2	56:N0:124:LEU:HD11	1.90	0.53
34:SR:212:ALA:HA	34:SR:221:MET:O	2.36	0.53
36:5:354:U:H3	36:5:365:A:H62	1.55	0.53
72:O6:82:ARG:O	72:O6:85:ALA:HB3	3.32	0.53
39:L2:112:ILE:HG13	39:L2:135:ILE:HG23	1.90	0.53
8:S6:13:GLN:CD	1:6:151:G:H21	311.96	0.53
66:O0:17:VAL:HG21	66:O0:100:ILE:HD13	3.27	0.53
3:S1:144:ARG:HG2	3:S1:207:LEU:H	1.74	0.53
36:1:3178:A:H5'	52:M6:5:PRO:HD2	1.91	0.53
71:O5:112:PRO:O	71:O5:114:ARG:HG2	2.54	0.53
38:8:116:G:N2	38:8:137:C:O2	2.42	0.53
1:6:1270:G:H1'	1:6:1447:C:O2	2.08	0.53
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.78	0.53
1:2:703:G:C2'	1:2:704:C:H5'	2.38	0.53
1:2:1558:U:H3	17:C5:122:THR:HG1	1.54	0.53
36:1:595:G:C8	36:1:609:G:C5	2.97	0.53
36:1:836:A:OP2	36:1:856:G:N2	2.41	0.53
9:S7:25:VAL:O	9:S7:29:ASN:N	2.48	0.53
1:2:1512:G:C6	1:2:1513:G:C6	2.97	0.53
54:M8:115:VAL:C	54:M8:117:ALA:H	2.11	0.53
73:O7:21:ARG:HH11	73:O7:44:THR:HG23	1.74	0.53
36:1:1613:A:H2'	36:1:1614:C:H6	1.73	0.53
42:L5:23:ARG:NH2	36:5:2703:A:OP2	283.57	0.53
38:8:26:U:H2'	38:8:27:U:C6	2.43	0.53
56:N0:82:ASP:HB3	56:N0:87:THR:HA	1.91	0.53
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.41	0.53
27:D5:93:SER:HB3	27:D5:100:ILE:HG22	1.91	0.53
38:4:155:A:H2'	38:4:156:U:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1207:G:N2	36:5:1209:G:C5	2.77	0.53
75:O9:30:ARG:HB2	75:O9:33:ASN:HB2	1.91	0.53
36:1:718:G:C2	36:1:721:G:H1'	2.44	0.53
36:1:776:U:C5	36:1:2719:U:O2	2.62	0.53
42:L5:278:SER:O	42:L5:281:GLU:HB2	2.09	0.53
1:6:1724:U:O2'	1:6:1725:U:H5'	2.09	0.53
34:SR:52:GLN:HG2	34:SR:53:LYS:N	2.36	0.53
33:E1:118:ARG:HG3	33:E1:134:ASN:ND2	7.93	0.53
87:5:4050:OHX:N1	87:5:4194:OHX:N4	2.56	0.53
1:6:127:G:H4'	1:6:128:U:OP2	2.09	0.53
59:N3:74:MET:HE3	59:N3:102:ILE:HD12	1.90	0.53
50:M4:133:LYS:HD2	36:5:3227:A:O2'	302.62	0.53
36:5:3228:C:H4'	36:5:3229:G:O5'	2.09	0.53
36:5:3027:A:H2'	36:5:3028:G:O4'	2.09	0.53
34:SR:128:ASP:O	34:SR:130:THR:HG23	2.09	0.53
36:1:2118:C:H5''	36:1:2119:A:OP2	2.09	0.53
7:S5:20:PHE:CE2	7:S5:22:PRO:HG3	3.00	0.53
1:6:434:G:N2	1:6:436:A:H3'	2.23	0.53
36:5:893:C:O5'	36:5:893:C:H6	1.92	0.53
1:2:431:C:H3'	1:2:432:G:H8	1.74	0.53
28:D6:26:CYS:CB	28:D6:77:CYS:SG	2.77	0.53
11:S9:66:ASP:O	11:S9:68:LYS:N	2.77	0.53
65:N9:14:ARG:NH2	65:N9:18:ARG:HH11	3.79	0.53
1:6:448:C:H2'	1:6:449:C:C6	2.44	0.53
1:2:1330:G:N1	5:S3:204:ASP:OD1	2.38	0.53
5:S3:206:VAL:HG22	19:C7:41:ILE:HG12	1.90	0.53
19:C7:66:VAL:O	19:C7:68:GLY:N	3.29	0.53
36:5:818:C:N3	36:5:920:A:H5'	2.24	0.53
55:M9:168:ALA:C	55:M9:170:ARG:H	2.12	0.53
1:2:1475:A:H2'	1:2:1476:C:C6	2.44	0.53
30:D8:11:LYS:HA	30:D8:53:ILE:HA	3.23	0.53
21:C9:58:ALA:HB1	21:C9:108:LEU:HD21	1.91	0.53
5:S3:65:ARG:O	5:S3:68:GLU:HB2	2.11	0.53
2:S0:52:LYS:O	2:S0:55:GLU:N	3.68	0.53
4:S2:106:ASP:CG	4:S2:108:ASN:H	2.13	0.53
40:L3:221:THR:CG2	40:L3:273:HIS:H	3.31	0.53
48:M1:14:ILE:HD12	48:M1:14:ILE:H	1.74	0.53
63:N7:13:VAL:HA	63:N7:80:LEU:HD23	1.89	0.53
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.93	0.53
55:M9:20:ARG:HG2	36:5:1875:G:OP2	136.29	0.53
14:C2:89:ILE:HG12	14:C2:90:LYS:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1184:A:O3'	1:2:1185:U:H4'	2.09	0.53
34:SR:263:PHE:N	34:SR:263:PHE:CD2	2.76	0.53
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.09	0.53
36:1:31:C:N3	36:1:53:G:N1	2.36	0.53
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.25	0.53
39:L2:108:PRO:HG2	79:Q3:86:LEU:HD22	2.16	0.53
49:M3:49:ARG:O	49:M3:137:GLN:NE2	2.42	0.53
36:1:289:A:C2	51:M5:93:LYS:HG3	2.44	0.53
36:1:3027:A:H2'	36:1:3028:G:C8	2.43	0.53
1:2:1101:G:N2	24:D2:2:THR:O	2.42	0.53
42:L5:155:THR:HG23	37:7:36:C:H4'	270.65	0.53
24:D2:8:ALA:CB	24:D2:74:VAL:HG11	3.33	0.53
10:S8:5:ARG:NH1	1:6:332:U:O2'	298.56	0.53
36:5:1710:C:H2'	36:5:1711:C:H6	1.74	0.53
41:L4:295:ILE:HD12	54:M8:132:PRO:HG3	5.67	0.53
22:D0:99:ILE:HA	22:D0:102:ARG:HB3	2.46	0.53
36:5:2152:A:C6	36:5:2185:G:C6	2.97	0.53
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.35	0.53
36:1:1814:A:H4'	36:1:1815:U:H5'	1.90	0.53
10:S8:21:PHE:O	10:S8:22:ARG:HG3	2.09	0.53
36:1:397:A:H5''	36:1:398:A:H3'	1.91	0.53
9:S7:127:GLU:HA	9:S7:135:ILE:HD11	2.84	0.53
36:1:2730:G:H4'	54:M8:184:PHE:CD1	2.43	0.53
1:2:1311:U:H1'	1:2:1315:U:C2	2.44	0.53
2:S0:81:PHE:HB3	2:S0:170:ILE:HD13	1.90	0.53
36:1:966:U:C2	36:1:967:A:C8	2.97	0.53
36:5:1182:A:H2'	36:5:1183:C:C6	2.42	0.53
66:O0:74:ASN:HD22	66:O0:86:ARG:HG3	3.45	0.53
36:1:1244:A:O2'	36:1:1249:G:O6	2.17	0.53
37:3:26:C:H5''	37:3:27:A:OP2	2.09	0.53
21:C9:89:ARG:HG3	21:C9:89:ARG:HH11	3.67	0.53
3:S1:146:GLN:HB3	3:S1:149:GLN:OE1	2.09	0.53
36:1:3046:A:C5	36:1:3047:U:C5	2.96	0.53
17:C5:75:PRO:HD3	17:C5:93:VAL:HG11	3.94	0.53
1:6:1496:U:H4'	1:6:1519:U:O2'	2.09	0.53
34:SR:179:LYS:HD3	34:SR:188:ILE:HD13	4.66	0.53
6:S4:258:GLN:O	6:S4:260:GLY:N	4.87	0.53
6:S4:37:LYS:HB2	6:S4:40:GLU:HG3	2.30	0.53
36:1:2569:A:H8	36:1:2569:A:OP2	1.91	0.53
36:1:379:C:H2'	36:1:380:U:H6	1.74	0.53
1:2:720:G:H1'	1:2:721:U:H5''	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:287:G:O2'	1:2:288:A:P	2.67	0.53
46:L9:80:THR:O	46:L9:84:LYS:N	2.87	0.53
36:1:2356:A:C2	36:1:2357:A:C8	2.96	0.53
47:M0:46:PHE:HB3	47:M0:140:THR:C	2.53	0.53
1:6:398:G:H2'	1:6:399:A:H5'	1.91	0.53
10:S8:104:ILE:O	10:S8:164:ARG:HA	5.18	0.53
41:L4:39:PHE:CG	41:L4:242:ALA:HB2	2.79	0.53
43:L6:30:LEU:HD11	43:L6:57:HIS:CD2	3.78	0.53
43:L6:85:ILE:HG23	69:O3:107:ILE:HB	1.91	0.53
1:2:1337:A:H5'	1:2:1338:C:OP2	2.09	0.53
19:C7:5:ARG:O	19:C7:10:LYS:HE3	2.99	0.53
1:6:1504:G:C6	1:6:1505:A:C6	2.96	0.53
17:C5:43:ARG:CG	17:C5:43:ARG:HH11	3.36	0.53
22:D0:69:LYS:HE3	22:D0:80:GLU:HG3	6.49	0.53
1:2:955:A:H2'	1:2:956:C:O4'	2.08	0.53
36:5:70:A:O5'	36:5:101:G:O2'	2.23	0.53
2:S0:123:VAL:O	2:S0:146:LEU:HB2	2.09	0.53
4:S2:99:LYS:HG3	4:S2:117:THR:HG22	1.91	0.53
4:S2:227:PRO:O	4:S2:229:LEU:N	2.68	0.53
40:L3:221:THR:HB	40:L3:273:HIS:H	1.74	0.53
62:N6:28:ARG:HB2	62:N6:75:ARG:NH2	2.50	0.53
1:2:1178:G:H2'	1:2:1179:G:O4'	2.08	0.53
59:N3:24:ASN:N	59:N3:98:ASN:O	2.26	0.53
43:L6:89:THR:HG21	50:M4:115:PHE:CB	2.35	0.53
8:S6:176:GLN:HG2	1:6:169:A:C5'	327.88	0.53
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.41	0.53
36:1:230:U:H2'	36:1:231:G:O4'	2.09	0.53
1:2:1168:U:OP1	87:2:2117:OHX:N2	2.42	0.53
1:2:632:U:H2'	1:2:633:U:O4'	2.09	0.53
1:6:488:G:H2'	1:6:498:G:O6	2.08	0.53
46:L9:129:ARG:O	46:L9:132:VAL:HG12	5.74	0.53
1:2:273:G:N2	1:2:283:U:O2	2.34	0.53
76:Q0:124:LYS:NZ	36:5:2897:A:OP2	324.71	0.53
13:C1:40:LEU:HD22	1:6:246:G:N2	325.40	0.53
1:2:386:G:P	10:S8:25:ARG:HH22	2.33	0.53
20:C8:76:PRO:O	20:C8:81:ILE:HB	2.69	0.53
41:L4:294:GLU:O	41:L4:297:SER:N	2.38	0.53
1:6:636:A:C2	1:6:861:U:C2	2.97	0.53
49:M3:140:SER:HG	49:M3:143:ALA:N	2.01	0.53
37:7:30:G:N2	37:7:48:U:C2	2.77	0.53
5:S3:6:SER:HA	1:6:1514:U:H1'	441.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:69:ILE:HD12	57:N1:28:SER:HB2	1.91	0.53
46:L9:72:LYS:O	46:L9:76:ASP:HB2	2.09	0.53
36:1:1809:A:H2'	36:1:1810:A:O4'	2.08	0.53
36:1:1753:G:C4	36:1:1754:G:C8	2.96	0.53
45:L8:94:PHE:CZ	45:L8:200:LEU:HG	2.44	0.53
61:N5:117:ASN:HA	75:O9:14:ALA:HB1	2.69	0.53
13:C1:83:THR:HA	13:C1:110:HIS:HA	1.90	0.53
22:D0:38:SER:O	22:D0:41:ILE:N	3.14	0.53
1:2:809:A:C6	1:2:810:G:C6	2.97	0.53
34:SR:161:LYS:HE3	34:SR:164:ASP:HB2	1.90	0.53
24:D2:28:ARG:HG2	24:D2:28:ARG:HH11	1.73	0.53
1:2:1287:A:N6	1:2:1329:A:H5'	2.23	0.53
1:2:1329:A:H8	1:2:1329:A:O5'	1.90	0.53
36:1:2674:A:H2'	36:1:2675:C:C6	2.44	0.53
8:S6:10:ASN:ND2	8:S6:127:THR:O	2.35	0.53
1:2:344:A:H2'	1:2:345:U:H6	1.73	0.53
36:1:1148:G:C2	36:1:1156:C:C2	2.97	0.53
39:L2:128:ARG:NH1	36:5:2177:G:OP2	195.91	0.53
36:1:1863:G:N1	36:1:1866:C:OP2	2.35	0.53
36:1:3372:A:C6	36:1:3373:U:C4	2.97	0.53
36:1:430:U:N3	36:1:630:A:C2	2.76	0.53
48:M1:75:LYS:O	48:M1:78:GLU:HB2	2.08	0.53
37:3:11:A:O2'	37:3:12:U:H3'	2.08	0.53
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	2.06	0.52
36:5:729:C:O5'	36:5:729:C:H6	1.92	0.52
36:1:694:C:OP2	41:L4:118:LYS:HE2	2.08	0.52
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.10	0.52
1:2:1389:C:OP2	19:C7:45:ARG:HG3	2.08	0.52
52:M6:16:VAL:HG12	52:M6:17:GLY:N	2.24	0.52
36:5:920:A:H3'	36:5:922:U:H5	1.72	0.52
1:2:1166:A:H5''	7:S5:101:GLY:H	1.74	0.52
42:L5:246:ALA:O	42:L5:249:ALA:HB3	2.18	0.52
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	2.45	0.52
1:2:950:C:H4'	15:C3:104:ARG:NH2	2.24	0.52
1:2:959:U:C4	29:D7:32:PHE:HE2	2.28	0.52
36:1:156:G:C5	49:M3:99:HIS:CE1	2.97	0.52
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.32	0.52
63:N7:21:LYS:NZ	63:N7:47:GLU:O	2.38	0.52
47:M0:12:GLN:HB3	47:M0:128:ARG:NH2	2.24	0.52
1:2:1298:U:O2'	4:S2:212:LYS:NZ	2.38	0.52
1:2:1298:U:O3'	4:S2:212:LYS:NZ	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.98	0.52
2:S0:172:LEU:O	2:S0:175:TYR:HB3	2.37	0.52
54:M8:83:VAL:C	54:M8:85:GLY:H	2.51	0.52
55:M9:46:LYS:C	55:M9:48:GLY:H	3.44	0.52
69:O3:41:ALA:O	69:O3:43:PHE:N	2.42	0.52
9:S7:58:LEU:HG	9:S7:88:ARG:HB3	1.90	0.52
1:6:140:A:OP2	1:6:140:A:H4'	2.09	0.52
1:6:147:A:N6	1:6:148:A:N1	2.56	0.52
18:C6:99:GLU:O	18:C6:102:LYS:N	3.15	0.52
39:L2:145:LYS:O	39:L2:146:THR:OG1	2.20	0.52
3:S1:109:LYS:HA	3:S1:112:SER:HB3	1.90	0.52
1:6:1079:U:H2'	1:6:1080:U:C6	2.44	0.52
1:2:843:U:H2'	1:2:844:A:C8	2.44	0.52
1:6:1270:G:H1	1:6:1440:C:N4	2.07	0.52
1:2:1092:A:H5'	87:2:2175:OHX:N1	2.25	0.52
36:1:2103:U:H2'	36:1:2104:A:H8	1.72	0.52
24:D2:2:THR:O	24:D2:4:SER:OG	4.45	0.52
40:L3:379:PHE:HE2	60:N4:11:ALA:HA	1.75	0.52
36:5:1579:C:H2'	36:5:1580:A:C8	2.36	0.52
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.40	0.52
2:S0:129:ASP:O	2:S0:131:GLN:N	2.42	0.52
1:2:576:G:OP2	35:SM:102:THR:HG21	2.08	0.52
46:L9:45:PHE:CE1	46:L9:55:VAL:HG13	3.27	0.52
59:N3:35:TYR:CD2	59:N3:63:LYS:HD3	2.44	0.52
36:1:1565:G:N2	36:1:1566:A:H1'	2.23	0.52
5:S3:113:LEU:CD1	5:S3:117:ARG:HB3	2.40	0.52
34:SR:40:LYS:HA	34:SR:68:VAL:HG23	1.90	0.52
36:1:996:A:C2	36:1:1054:A:C4	2.97	0.52
68:O2:41:VAL:HG12	68:O2:46:PHE:HB2	6.65	0.52
6:S4:154:ILE:HG12	6:S4:172:PHE:CD2	2.44	0.52
36:5:2207:A:H62	36:5:2236:G:H1	1.55	0.52
41:L4:215:ILE:O	41:L4:218:ALA:HB3	2.09	0.52
4:S2:157:LYS:HA	4:S2:169:LEU:O	2.28	0.52
39:L2:229:ALA:HB1	39:L2:233:GLN:HB3	1.90	0.52
1:2:1637:C:C2	35:SM:90:ALA:HA	2.44	0.52
44:L7:121:LYS:O	44:L7:124:LEU:N	2.41	0.52
36:1:1519:G:H8	36:1:1519:G:H5''	1.73	0.52
36:1:2144:A:C4	36:1:2281:A:C6	2.97	0.52
35:SM:43:ASP:OD2	35:SM:46:LYS:N	2.41	0.52
36:1:1077:U:O2'	36:1:1078:U:H5'	2.09	0.52
44:L7:191:VAL:HA	44:L7:195:PHE:CD2	2.67	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1204:A:H2	36:5:2834:G:N3	2.06	0.52
1:6:730:G:N7	87:6:2104:OHX:N3	2.57	0.52
36:1:496:C:H6	36:1:496:C:H3'	1.74	0.52
36:1:2786:G:N7	87:1:4041:OHX:N1	2.56	0.52
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	2.27	0.52
1:6:569:C:H2'	1:6:570:A:O4'	2.10	0.52
36:1:1887:A:H4'	40:L3:227:GLU:HA	1.90	0.52
45:L8:101:THR:CG2	45:L8:103:ALA:HB3	2.39	0.52
40:L3:264:VAL:HG23	40:L3:265:ALA:N	2.46	0.52
36:1:2352:A:H2'	36:1:2353:G:H8	1.75	0.52
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.37	0.52
11:S9:123:HIS:ND1	32:E0:37:ARG:CZ	3.33	0.52
11:S9:143:ILE:HG22	11:S9:145:SER:H	2.90	0.52
36:5:1332:A:H2'	36:5:1333:C:C6	2.44	0.52
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.02	0.52
54:M8:26:LEU:O	54:M8:28:LEU:N	3.07	0.52
43:L6:40:LEU:HB2	43:L6:52:VAL:HG12	1.92	0.52
43:L6:53:VAL:O	43:L6:65:ILE:HB	2.09	0.52
19:C7:4:VAL:HG13	1:6:1402:G:H5'	401.26	0.52
18:C6:137:ARG:HH11	18:C6:137:ARG:HG3	2.27	0.52
30:D8:65:ARG:HG3	30:D8:66:LEU:N	2.24	0.52
12:C0:49:LEU:O	12:C0:52:LYS:HG2	2.10	0.52
21:C9:105:LEU:O	21:C9:109:GLU:HG3	5.85	0.52
1:2:1118:G:O6	87:2:2148:OHX:N1	2.42	0.52
16:C4:83:ILE:HG22	16:C4:117:ASP:HA	3.37	0.52
3:S1:137:ILE:CD1	3:S1:172:LEU:HD22	2.72	0.52
40:L3:221:THR:O	40:L3:272:TYR:HA	2.25	0.52
55:M9:7:GLN:HA	55:M9:10:LEU:HB2	3.08	0.52
34:SR:305:TYR:CD2	34:SR:311:ARG:HD2	2.44	0.52
52:M6:126:VAL:C	52:M6:127:LEU:HD23	2.29	0.52
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.09	0.52
41:L4:158:SER:HA	41:L4:213:ASN:O	2.40	0.52
46:L9:75:VAL:HA	46:L9:78:MET:HE1	1.91	0.52
40:L3:122:TRP:O	40:L3:127:LYS:HE3	3.57	0.52
1:2:1132:A:OP1	25:D3:30:LYS:HE3	2.10	0.52
36:1:643:U:H2'	36:1:644:G:O4'	2.09	0.52
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.42	0.52
36:5:1106:G:C5	36:5:1107:C:C5	2.97	0.52
36:1:1544:G:OP1	51:M5:127:TYR:OH	2.22	0.52
36:5:1674:G:C2	36:5:1774:C:N3	2.77	0.52
38:4:129:C:O2'	38:4:130:C:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:63:THR:O	68:O2:66:LEU:HB2	2.08	0.52
36:5:2376:G:H2'	36:5:2377:G:C8	2.44	0.52
45:L8:128:LYS:HG2	45:L8:129:PRO:HD2	3.49	0.52
1:2:323:A:OP2	10:S8:10:LYS:HG3	2.09	0.52
36:5:673:U:H2'	36:5:674:G:C8	2.39	0.52
48:M1:142:LYS:HE3	36:5:2664:C:OP2	283.34	0.52
42:L5:48:LYS:HZ1	36:5:2749:G:P	242.00	0.52
36:1:1302:A:N7	36:1:2857:C:O2'	2.38	0.52
1:6:269:G:C6	1:6:287:G:C2	2.97	0.52
68:O2:46:PHE:CE2	36:5:1145:G:H5'	208.95	0.52
36:1:1562:C:O2'	36:1:1563:C:O5'	2.22	0.52
16:C4:77:THR:O	16:C4:110:LEU:HD22	3.62	0.52
10:S8:153:GLU:HG2	10:S8:155:SER:OG	5.40	0.52
37:7:62:U:O2'	37:7:63:A:H5'	2.09	0.52
41:L4:263:GLY:HA2	41:L4:267:VAL:HG13	5.23	0.52
1:6:1230:A:N6	1:6:1257:U:H3	2.07	0.52
1:2:1151:A:H4'	1:2:1766:A:N7	2.25	0.52
1:2:288:A:H2'	1:2:289:U:C6	2.44	0.52
36:5:163:C:H2'	36:5:164:A:C8	2.44	0.52
36:1:1246:G:OP1	36:1:1246:G:H8	1.92	0.52
69:O3:16:TYR:CG	69:O3:25:PRO:HA	2.87	0.52
1:6:425:A:H8	1:6:425:A:H5'	1.73	0.52
13:C1:69:LYS:NZ	1:6:797:G:H4'	334.54	0.52
12:C0:80:LEU:O	12:C0:82:LEU:N	2.42	0.52
37:7:67:G:C6	37:7:68:C:C4	2.97	0.52
1:2:435:C:H2'	1:2:436:A:H8	1.69	0.52
36:1:2261:G:H21	36:1:2262:A:N6	2.04	0.52
1:2:1564:U:H2'	1:2:1565:C:C6	2.44	0.52
36:5:1307:G:O2'	36:5:1308:A:N7	2.36	0.52
36:5:3195:U:O2'	36:5:3196:U:H5'	2.09	0.52
46:L9:84:LYS:HE2	46:L9:189:GLU:HG3	10.33	0.52
11:S9:123:HIS:O	11:S9:127:VAL:HG23	2.09	0.52
11:S9:86:LEU:HD13	11:S9:99:LEU:HD11	4.68	0.52
47:M0:78:THR:OG1	47:M0:79:VAL:HG23	3.01	0.52
43:L6:84:VAL:O	69:O3:105:SER:OG	2.28	0.52
1:2:1586:A:H1'	1:2:1611:A:N6	2.25	0.52
20:C8:46:VAL:HG12	20:C8:69:ILE:HG23	1.90	0.52
20:C8:61:LEU:HB3	20:C8:66:LEU:HG	1.91	0.52
67:O1:29:ALA:O	67:O1:32:ALA:HB3	2.10	0.52
61:N5:114:VAL:HB	75:O9:10:LYS:NZ	3.99	0.52
1:6:1429:G:C6	1:6:1430:U:C4	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:67:ALA:O	87:C5:201:OHX:N2	2.42	0.52
31:D9:33:LYS:HG2	31:D9:34:TYR:CD2	5.50	0.52
48:M1:110:ILE:O	48:M1:112:LEU:N	2.69	0.52
36:1:68:C:N4	36:1:315:C:O5'	2.41	0.52
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.09	0.52
36:1:408:A:O2'	36:1:409:A:H5'	2.09	0.52
1:2:12:U:H3	1:2:1142:A:H61	1.55	0.52
55:M9:134:HIS:ND1	55:M9:136:ARG:HB3	2.24	0.52
55:M9:17:VAL:HG13	55:M9:18:GLY:O	5.45	0.52
1:2:1451:C:H2'	1:2:1452:U:H6	1.74	0.52
1:6:1132:A:H2'	1:6:1133:A:H8	1.73	0.52
36:1:3188:G:H2'	36:1:3189:G:H8	1.75	0.52
36:1:2728:G:O6	57:N1:78:LYS:HE3	2.09	0.52
36:5:3261:C:H2'	36:5:3262:U:H6	1.73	0.52
69:O3:41:ALA:O	69:O3:44:TYR:N	2.42	0.52
39:L2:96:LEU:HD23	79:Q3:83:ILE:HG23	1.91	0.52
1:2:158:U:O2'	1:2:159:U:H3'	2.09	0.52
36:5:1806:A:H2'	36:5:1807:G:O4'	2.09	0.52
79:Q3:11:THR:HG23	79:Q3:14:TYR:HD2	1.75	0.52
1:2:546:U:H2'	1:2:547:U:O4'	2.09	0.52
11:S9:28:LEU:HD12	32:E0:43:ARG:HD2	4.63	0.52
70:O4:52:GLN:HE21	36:5:1738:C:C1'	194.34	0.52
64:N8:133:LEU:HD11	64:N8:137:LYS:NZ	2.24	0.52
52:M6:73:PHE:HD1	36:5:3007:U:H5'	246.99	0.52
1:2:1433:G:C2	1:2:1434:U:C4	2.98	0.52
36:1:3121:U:O2	36:1:3122:A:C8	2.62	0.52
1:2:90:C:H2'	1:2:91:G:H8	1.73	0.52
36:5:981:U:H2'	36:5:982:C:H6	1.75	0.52
36:1:1493:G:C6	75:O9:2:ALA:HB2	2.44	0.52
59:N3:35:TYR:CD2	59:N3:63:LYS:HE2	3.44	0.52
1:2:770:A:OP2	87:2:2138:OHX:N6	2.42	0.52
36:5:1597:C:H42	36:5:1610:G:H1	1.57	0.52
10:S8:138:ASN:HA	10:S8:141:ARG:CD	2.62	0.52
53:M7:64:ASN:C	53:M7:64:ASN:OD1	2.48	0.52
36:5:1052:U:O2	37:7:103:A:O2'	2.26	0.52
36:5:2882:U:H2'	36:5:2883:U:C6	2.43	0.52
36:5:2881:C:H2'	36:5:2882:U:H6	1.74	0.52
1:6:699:U:O4	87:6:2078:OHX:N1	2.43	0.52
53:M7:3:ARG:NH2	53:M7:3:ARG:HG2	4.56	0.52
36:1:3170:A:C2	36:1:3281:U:C2	2.98	0.52
9:S7:117:THR:O	9:S7:120:ALA:N	2.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:137:PRO:O	6:S4:149:TYR:N	3.04	0.52
4:S2:157:LYS:NZ	4:S2:168:ARG:HH12	2.06	0.52
36:1:2800:G:H5''	36:1:2801:A:OP1	2.09	0.52
1:2:892:A:H2'	1:2:893:U:C6	2.45	0.52
36:1:3264:G:H2'	36:1:3265:C:O4'	2.09	0.52
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	9.81	0.52
43:L6:19:LYS:HG2	36:5:593:C:OP2	221.30	0.52
4:S2:161:LYS:CB	4:S2:166:THR:HB	2.78	0.52
1:6:18:C:C4	1:6:19:A:N7	2.77	0.52
35:SM:90:ALA:O	35:SM:91:THR:OG1	2.26	0.52
36:5:3216:G:H5''	36:5:3219:G:N2	2.23	0.52
43:L6:69:PHE:HA	43:L6:74:VAL:H	1.87	0.52
49:M3:61:PRO:HD2	49:M3:70:ARG:HH21	2.89	0.52
54:M8:70:ALA:HA	54:M8:73:GLN:HE21	1.75	0.52
37:3:77:G:O2'	37:3:78:U:OP2	2.23	0.52
26:D4:92:VAL:HG22	26:D4:97:ALA:O	2.09	0.52
8:S6:213:ALA:O	8:S6:217:SER:N	3.88	0.52
79:Q3:53:GLY:O	79:Q3:66:GLY:N	2.53	0.52
36:5:625:G:N2	36:5:1401:A:OP1	2.43	0.52
2:S0:88:LYS:HE2	2:S0:201:LEU:HD21	3.39	0.52
36:1:2562:A:C2	45:L8:31:PRO:HD3	2.45	0.52
36:5:3271:G:H8	36:5:3271:G:O5'	1.93	0.52
24:D2:97:ARG:HH11	24:D2:97:ARG:HG2	4.45	0.52
39:L2:223:SER:OG	39:L2:223:SER:O	2.34	0.52
36:5:2612:U:H6	36:5:2612:U:O5'	1.92	0.52
1:6:587:C:H2'	1:6:588:U:O4'	2.08	0.52
36:1:2123:G:N7	87:1:4199:OHX:N2	2.57	0.52
49:M3:25:HIS:O	51:M5:201:ARG:HD2	2.09	0.52
1:6:42:G:N7	87:6:2068:OHX:N5	2.58	0.52
55:M9:171:ASP:O	55:M9:174:ALA:N	3.28	0.52
25:D3:68:ILE:HD12	32:E0:10:ARG:NH2	2.21	0.52
36:1:1317:A:H3'	36:1:1317:A:OP2	2.10	0.52
36:5:1888:U:C4	36:5:1889:G:C8	2.97	0.52
53:M7:48:LEU:HD12	53:M7:92:GLN:HG2	5.06	0.52
44:L7:206:LYS:O	36:5:1334:U:H5''	240.81	0.52
87:5:4087:OHX:N4	87:7:219:OHX:N1	2.58	0.52
44:L7:210:PRO:HG3	44:L7:239:LEU:HD21	1.92	0.52
1:2:1410:A:H2'	1:2:1411:A:O4'	2.09	0.52
5:S3:167:PHE:HA	5:S3:190:ARG:NE	2.68	0.52
18:C6:4:VAL:HG12	18:C6:5:PRO:HD2	1.92	0.52
18:C6:22:VAL:CG2	18:C6:65:ILE:HG23	5.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:10:ALA:HB3	30:D8:54:LEU:HB3	1.91	0.52
36:5:3108:G:C2	36:5:3127:A:C2	2.97	0.52
38:4:58:G:N2	38:4:59:A:N1	2.46	0.52
1:6:1429:G:H2'	1:6:1430:U:H6	1.74	0.52
12:C0:54:TYR:H	12:C0:71:GLU:CG	2.38	0.52
12:C0:61:TRP:CD2	31:D9:23:VAL:HG22	3.10	0.52
31:D9:31:ILE:HG22	31:D9:36:LEU:HD11	1.90	0.52
48:M1:81:GLU:OE1	48:M1:167:TYR:HE2	1.92	0.52
15:C3:93:LYS:HE2	15:C3:150:VAL:HG11	1.92	0.52
63:N7:128:GLN:O	63:N7:132:SER:OG	2.26	0.52
63:N7:76:ASN:OD1	63:N7:77:TYR:N	2.78	0.52
70:O4:101:VAL:O	70:O4:104:VAL:HG12	2.09	0.52
1:2:1209:C:H6	1:2:1209:C:O5'	1.93	0.52
20:C8:145:ARG:HG2	35:SM:72:ARG:NH2	9.67	0.52
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.44	0.52
6:S4:141:THR:C	6:S4:143:ASP:H	2.12	0.52
9:S7:164:TYR:CE1	9:S7:165:LYS:HG2	2.44	0.52
18:C6:115:THR:O	18:C6:117:LEU:N	2.42	0.52
52:M6:45:GLY:O	52:M6:136:THR:OG1	2.27	0.52
36:5:365:A:H2'	36:5:366:A:C8	2.45	0.52
52:M6:195:ALA:O	52:M6:198:GLY:N	2.69	0.52
3:S1:105:PHE:HZ	3:S1:211:HIS:HD1	3.71	0.52
36:5:1063:G:H2'	36:5:1097:G:N2	2.25	0.52
51:M5:59:PHE:CE2	51:M5:142:ILE:HD11	3.48	0.52
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.44	0.52
1:2:32:U:H5'	1:2:547:U:OP1	2.09	0.52
1:2:730:G:H21	1:2:731:C:H5''	1.74	0.52
36:5:437:G:O5'	36:5:437:G:H8	1.92	0.52
4:S2:239:PRO:HA	4:S2:242:ILE:HB	3.10	0.52
1:6:846:G:H2'	1:6:847:A:H8	1.72	0.52
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.09	0.52
1:2:1237:G:N2	1:2:1248:C:O2	2.36	0.52
38:4:121:U:H2'	38:4:122:U:H6	1.74	0.52
37:3:5:G:OP1	42:L5:27:LYS:NZ	2.39	0.52
36:5:233:C:H2'	36:5:234:G:O4'	2.09	0.52
70:O4:38:LEU:N	70:O4:38:LEU:HD22	2.24	0.52
1:2:274:G:C2	1:2:275:C:H1'	2.44	0.52
1:2:685:A:O2'	1:2:686:C:OP1	2.26	0.52
36:1:1780:G:H2'	36:1:1781:C:H6	1.74	0.52
36:5:2763:U:H2'	36:5:2764:C:H5'	1.91	0.52
36:1:2538:U:H4'	36:1:2539:C:OP2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1335:U:H2'	1:2:1336:A:C8	2.44	0.52
20:C8:72:ILE:HG12	20:C8:79:TYR:CD2	4.49	0.52
36:5:515:C:H42	36:5:575:G:H1	1.57	0.52
36:5:1228:C:H1'	36:5:1282:G:N2	2.24	0.52
61:N5:69:SER:O	61:N5:70:GLU:C	3.03	0.52
1:6:577:G:H3'	1:6:577:G:C8	2.43	0.52
1:2:206:A:OP2	87:2:2101:OHX:N5	2.43	0.52
15:C3:113:PHE:O	15:C3:116:ILE:N	2.42	0.52
16:C4:63:ALA:O	16:C4:65:GLN:N	2.39	0.52
1:6:253:A:H2'	1:6:254:A:H8	1.73	0.52
59:N3:25:CYS:HB3	59:N3:32:ARG:O	2.09	0.52
36:5:2591:A:O2'	36:5:2592:G:H5'	2.10	0.52
56:N0:75:PHE:HB2	56:N0:94:ILE:O	2.39	0.52
1:6:660:G:H2'	1:6:661:A:H4'	1.92	0.52
1:2:1725:U:O2	1:2:1725:U:H2'	2.09	0.52
42:L5:136:GLU:H	42:L5:136:GLU:CD	5.07	0.52
9:S7:39:ARG:CZ	55:M9:189:ALA:HB2	6.50	0.52
49:M3:132:ALA:O	49:M3:134:GLU:N	2.97	0.52
36:1:2355:G:H5''	53:M7:140:GLU:O	2.09	0.52
36:5:1520:G:C2'	36:5:1521:G:H5'	2.40	0.52
1:2:443:C:P	26:D4:105:ARG:HB2	2.50	0.52
1:2:478:A:C4'	11:S9:127:VAL:HG21	2.39	0.52
1:6:328:A:H2'	1:6:329:G:H8	1.75	0.52
19:C7:59:LYS:NZ	1:6:1392:U:OP1	425.04	0.52
52:M6:133:ARG:HD2	36:5:1315:U:O2'	292.75	0.52
42:L5:200:PHE:O	42:L5:240:TYR:HD2	2.46	0.52
42:L5:65:ILE:HG22	42:L5:66:SER:O	2.41	0.52
55:M9:137:ALA:HA	55:M9:140:GLU:HB2	2.75	0.52
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.49	0.52
1:6:1045:C:C2	1:6:1074:G:C2	2.97	0.52
36:5:2249:G:C8	36:5:2249:G:H3'	2.43	0.52
62:N6:39:LEU:HD13	62:N6:43:TYR:CE2	2.43	0.52
52:M6:85:ARG:HD2	52:M6:90:HIS:ND1	2.97	0.52
36:1:2152:A:O2'	36:1:2243:A:O2'	2.16	0.52
26:D4:101:GLU:OE2	26:D4:102:LYS:HE2	2.09	0.52
36:1:2276:G:C5	36:1:2277:C:C5	2.97	0.52
36:1:2278:C:C2	36:1:2307:G:N2	2.78	0.52
60:N4:31:PHE:CG	60:N4:37:ALA:HB2	2.44	0.52
52:M6:55:HIS:O	52:M6:56:ASP:C	2.48	0.52
54:M8:130:ARG:C	54:M8:132:PRO:HD3	2.30	0.52
11:S9:53:ARG:HB3	11:S9:53:ARG:CZ	2.94	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:77:ILE:HD13	59:N3:126:TRP:CE2	2.45	0.52
42:L5:217:GLU:O	42:L5:220:SER:OG	2.21	0.52
1:6:1497:U:C2	1:6:1498:G:C8	2.98	0.52
36:1:250:U:C5	36:1:251:G:N7	2.76	0.52
36:5:223:U:OP1	36:5:225:C:N4	2.38	0.52
46:L9:69:ARG:HD3	46:L9:72:LYS:HD3	3.38	0.52
36:5:2767:U:O4	87:5:4113:OHX:N3	2.42	0.52
36:1:375:A:OP2	62:N6:89:LYS:HE3	2.10	0.52
55:M9:68:GLN:HA	55:M9:71:ARG:HH12	5.67	0.52
15:C3:26:PHE:HZ	15:C3:28:LEU:HD12	1.74	0.52
1:2:1790:A:O2'	1:2:1791:A:H5'	2.10	0.52
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.10	0.52
30:D8:18:ARG:HG3	30:D8:26:THR:HG23	4.44	0.52
36:5:595:G:H2'	36:5:596:C:H6	1.73	0.52
36:1:1576:G:N7	36:1:1577:G:C5	2.78	0.52
36:1:1576:G:H2'	36:1:1577:G:O4'	2.08	0.52
38:8:83:C:H4'	38:8:85:G:C2	2.45	0.52
29:D7:34:ASP:OD1	29:D7:34:ASP:N	2.42	0.52
36:5:2137:U:C2	36:5:2141:U:C5	2.97	0.52
64:N8:59:ARG:NH2	78:Q2:38:GLN:OE1	2.73	0.52
41:L4:264:SER:OG	41:L4:267:VAL:HG12	3.93	0.52
38:4:108:C:H2'	38:4:109:A:O4'	2.09	0.52
12:C0:29:GLN:HB3	12:C0:39:ASN:HB3	3.41	0.52
36:5:588:G:H4'	36:5:589:A:C4	2.45	0.52
44:L7:136:TYR:CE2	44:L7:231:ASN:HB2	2.91	0.52
87:1:3972:OHX:N5	87:1:4155:OHX:N2	2.58	0.52
36:5:721:G:C2	36:5:722:G:C8	2.98	0.52
1:2:231:U:O2'	1:2:232:U:H5''	2.10	0.52
76:Q0:109:ASN:HB3	76:Q0:119:ASN:HA	4.26	0.52
36:1:1103:A:OP2	36:1:1103:A:H4'	2.09	0.52
41:L4:330:TYR:CZ	44:L7:49:ALA:HA	2.60	0.52
36:1:116:A:OP1	51:M5:5:LYS:HB2	2.09	0.52
1:2:116:U:O2	1:2:333:A:H2	1.93	0.52
10:S8:38:ILE:HD13	10:S8:80:GLY:HA2	2.43	0.52
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.42	0.52
41:L4:141:ARG:N	41:L4:177:ASP:OD1	3.11	0.52
41:L4:181:VAL:O	41:L4:182:LEU:HB2	2.10	0.52
41:L4:24:ALA:O	41:L4:26:PHE:N	3.18	0.52
1:2:1338:C:N4	1:2:1339:C:H41	2.06	0.52
1:2:1388:A:N7	1:2:1411:A:N6	2.58	0.52
1:6:1308:G:O6	1:6:1317:C:N4	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1318:G:C8	1:6:1318:G:H5''	2.44	0.52
19:C7:2:GLY:O	19:C7:4:VAL:HG23	4.22	0.52
36:1:359:U:O2'	73:O7:16:HIS:ND1	2.38	0.52
42:L5:36:LEU:HD23	36:5:2748:A:N3	255.99	0.52
1:2:1502:G:C2	1:2:1504:G:OP2	2.63	0.52
12:C0:21:VAL:HB	12:C0:66:TYR:CB	3.39	0.52
17:C5:40:ARG:O	17:C5:42:ARG:N	3.90	0.52
5:S3:64:ARG:HA	5:S3:67:ASN:HB2	3.86	0.52
16:C4:45:GLY:HA3	1:6:900:A:P	279.34	0.52
36:5:3045:G:N2	36:5:3097:C:C2	2.78	0.52
59:N3:86:ARG:HD3	36:5:3095:U:OP1	254.74	0.52
55:M9:101:VAL:HG22	55:M9:104:ARG:NH1	2.25	0.52
63:N7:78:ASN:OD1	66:O0:35:ARG:NH1	2.42	0.52
68:O2:120:THR:HG1	68:O2:121:ASN:N	2.07	0.52
73:O7:72:ARG:C	73:O7:74:PHE:N	3.14	0.52
14:C2:89:ILE:HG12	14:C2:90:LYS:N	2.24	0.52
11:S9:171:ARG:NH2	1:6:535:A:OP1	451.27	0.52
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	5.43	0.52
57:N1:74:VAL:N	57:N1:89:LEU:O	2.86	0.52
8:S6:153:VAL:O	8:S6:156:PHE:N	2.37	0.52
34:SR:233:THR:C	34:SR:234:LEU:HD12	3.03	0.52
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.44	0.52
36:1:2554:A:N6	79:Q3:62:LYS:HD3	2.25	0.52
64:N8:147:LEU:HB3	72:O6:7:ILE:HG13	6.04	0.52
36:1:1857:C:C4	36:1:1858:A:C6	2.98	0.52
1:2:1347:U:H3	22:D0:58:LEU:HD11	1.74	0.52
51:M5:38:ARG:HD3	51:M5:39:ALA:N	2.25	0.52
39:L2:3:ARG:HG2	39:L2:4:VAL:N	2.24	0.52
36:1:3006:A:OP1	52:M6:149:TYR:HE2	1.93	0.52
36:1:3024:A:H5'	46:L9:96:HIS:CD2	2.45	0.52
17:C5:103:ASN:ND2	35:SM:56:GLY:HA2	2.91	0.52
71:O5:49:LYS:HZ3	38:8:64:U:H5'	45.98	0.52
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	2.19	0.52
36:5:172:G:C6	36:5:247:C:C4	2.97	0.52
36:1:3386:G:H5'	67:O1:10:ARG:NH2	2.23	0.52
54:M8:130:ARG:O	54:M8:132:PRO:HD3	2.10	0.52
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.74	0.52
1:2:1248:C:H2'	1:2:1249:U:H6	1.73	0.52
36:1:3126:C:O2'	36:1:3127:A:H5'	2.09	0.52
5:S3:113:LEU:HD12	5:S3:117:ARG:HD3	4.97	0.52
38:4:139:U:H2'	38:4:140:G:H8	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:524:U:H1'	1:2:527:A:N7	2.25	0.52
1:2:112:A:C6	1:2:113:U:C4	2.98	0.52
1:2:319:U:H1'	1:2:323:A:C5	2.44	0.52
10:S8:10:LYS:HG2	13:C1:133:LYS:HE2	3.62	0.52
36:1:1599:G:H1	36:1:1608:C:H42	1.58	0.52
1:2:1637:C:C4	35:SM:93:ARG:HG3	2.44	0.52
36:1:2281:A:N3	36:1:2974:U:O2'	2.38	0.52
2:S0:20:ALA:O	2:S0:21:ASN:HB2	2.08	0.52
36:1:1305:U:C6	40:L3:257:PRO:HG3	2.44	0.52
44:L7:57:THR:OG1	44:L7:58:ALA:N	2.42	0.52
87:5:4061:OHX:N5	87:5:4138:OHX:N2	2.57	0.52
1:2:253:A:H2'	1:2:254:A:H8	1.74	0.52
21:C9:137:ALA:O	21:C9:140:LEU:HB2	3.78	0.52
6:S4:15:PRO:HD2	6:S4:18:TRP:CZ3	2.99	0.52
36:5:164:A:H8	36:5:164:A:O5'	1.93	0.52
1:2:411:C:N4	1:2:412:A:C6	2.77	0.52
76:Q0:92:ASP:N	76:Q0:92:ASP:OD1	2.43	0.52
36:1:2093:A:H3'	36:1:2093:A:N3	2.24	0.52
1:6:1642:G:N7	87:6:2050:OHX:N5	2.57	0.52
1:2:1755:A:OP1	25:D3:63:GLN:HB3	2.09	0.52
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.42	0.52
11:S9:109:LEU:O	11:S9:113:VAL:HB	2.10	0.52
47:M0:68:ALA:O	47:M0:136:PHE:HE2	2.20	0.52
43:L6:78:ARG:NH1	36:5:3272:C:OP2	248.21	0.52
1:2:1368:G:OP1	21:C9:69:LYS:NZ	2.34	0.52
7:S5:121:ILE:HD11	7:S5:195:ALA:HA	2.05	0.52
46:L9:124:ARG:HG2	46:L9:164:ILE:HG23	4.67	0.52
67:O1:16:LEU:HD12	67:O1:19:ARG:HB2	3.33	0.52
75:O9:5:LYS:HG2	75:O9:13:MET:HE3	1.92	0.52
1:2:1499:G:C6	1:2:1500:C:C4	2.98	0.52
5:S3:29:LEU:HD21	5:S3:58:VAL:HG13	5.67	0.52
1:2:953:G:H2'	1:2:954:G:H8	1.74	0.52
36:1:317:A:O2'	36:1:318:A:H5'	2.10	0.52
8:S6:120:GLU:HG3	8:S6:125:THR:HG22	4.36	0.52
54:M8:134:GLY:O	54:M8:137:THR:HG23	2.88	0.52
55:M9:102:LEU:O	55:M9:106:LEU:HB2	2.29	0.52
62:N6:27:ARG:CZ	62:N6:78:PHE:HE2	2.22	0.52
9:S7:164:TYR:C	9:S7:166:LEU:H	2.76	0.52
9:S7:46:ILE:HG23	9:S7:59:ALA:O	2.10	0.52
9:S7:56:LYS:HB2	9:S7:88:ARG:NH1	2.25	0.52
52:M6:39:GLU:HG2	52:M6:40:GLU:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1291:G:N2	1:6:1291:G:OP2	2.41	0.52
4:S2:118:ALA:CB	4:S2:124:ALA:HB2	2.91	0.52
36:1:1176:C:H2'	36:1:1177:G:N2	2.24	0.52
51:M5:170:LYS:O	51:M5:172:ARG:N	2.42	0.52
36:1:56:G:H4'	51:M5:158:HIS:HB2	1.92	0.52
1:2:559:C:N4	1:2:586:G:H1	2.02	0.52
40:L3:196:ARG:C	40:L3:198:HIS:H	2.33	0.52
1:2:400:A:H5''	10:S8:25:ARG:HA	1.90	0.52
70:O4:16:ARG:CZ	70:O4:16:ARG:HB3	4.21	0.52
36:1:2770:G:C2'	36:1:2771:U:H5'	2.40	0.52
64:N8:98:THR:OG1	64:N8:98:THR:O	3.25	0.52
57:N1:19:PHE:CD1	57:N1:20:ARG:HG2	2.44	0.52
2:S0:26:ALA:HB2	2:S0:148:ASP:OD2	3.37	0.52
1:2:803:A:C4	9:S7:104:ARG:HG3	2.44	0.52
1:2:1236:A:C4	1:2:1237:G:C8	2.97	0.52
36:5:2299:A:OP2	87:5:3955:OHX:N1	2.43	0.52
1:6:639:U:H1'	1:6:640:U:C5	2.45	0.52
1:2:190:C:O2'	1:2:191:C:OP2	2.25	0.52
50:M4:97:SER:H	50:M4:101:LYS:HD2	6.76	0.52
9:S7:96:ARG:HB3	1:6:856:A:N6	364.10	0.52
73:O7:3:LYS:HE3	36:5:2138:A:C8	172.91	0.52
35:SM:88:ARG:HH22	35:SM:89:ARG:HD3	1.75	0.52
1:2:61:A:O2'	1:2:62:A:H5'	2.10	0.52
1:6:1313:A:H2'	1:6:1315:U:H5'	1.92	0.52
36:5:3295:A:H2'	36:5:3296:A:C8	2.44	0.52
42:L5:140:ARG:O	36:5:1079:A:H4'	236.84	0.52
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.43	0.52
36:5:1070:U:C4	36:5:1071:U:C4	2.97	0.52
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.45	0.52
48:M1:115:LYS:HB2	48:M1:115:LYS:NZ	2.24	0.52
87:5:4006:OHX:N4	87:5:4195:OHX:N2	2.57	0.52
36:1:126:U:H2'	36:1:127:G:O4'	2.09	0.52
36:1:1914:G:O2'	55:M9:82:LYS:O	2.28	0.52
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.09	0.52
36:1:3010:U:H3'	36:1:3010:U:C6	2.44	0.52
25:D3:103:LEU:HD22	25:D3:104:LEU:N	2.25	0.52
20:C8:4:VAL:HG11	27:D5:82:HIS:ND1	4.20	0.52
67:O1:9:THR:HB	67:O1:109:VAL:HB	1.92	0.52
53:M7:122:ALA:HB3	53:M7:143:PRO:O	2.10	0.52
28:D6:5:ARG:HH12	1:6:1795:U:H3'	337.36	0.52
1:6:454:U:O2'	1:6:455:C:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:128:LYS:O	44:L7:130:ILE:N	2.43	0.52
45:L8:233:TRP:HZ2	51:M5:17:ASP:OD2	1.92	0.52
10:S8:159:GLN:HE22	10:S8:166:TYR:HB2	2.60	0.52
10:S8:39:GLY:O	10:S8:61:GLU:HB3	3.92	0.52
36:1:1381:A:H5''	41:L4:197:ARG:NH1	2.24	0.52
7:S5:145:ASP:CA	7:S5:221:ALA:HB2	2.39	0.52
7:S5:163:SER:HB2	30:D8:46:GLY:HA3	1.92	0.52
7:S5:169:ASN:ND2	1:6:1613:U:OP1	361.12	0.52
7:S5:173:ALA:O	7:S5:177:ILE:HD12	2.68	0.52
7:S5:42:LEU:HB2	7:S5:45:LYS:HD2	4.84	0.52
20:C8:90:ASN:ND2	20:C8:90:ASN:O	4.83	0.52
21:C9:14:PHE:HD2	21:C9:15:ILE:HG13	4.50	0.52
5:S3:55:THR:CG2	5:S3:90:ARG:HG2	2.85	0.52
16:C4:26:THR:O	16:C4:44:GLY:N	2.37	0.52
16:C4:50:ALA:HB3	16:C4:53:ASP:HB2	1.91	0.52
3:S1:60:ALA:HB3	3:S1:61:LEU:HD13	1.91	0.52
41:L4:94:CYS:HB3	36:5:1438:U:H4'	141.32	0.52
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	3.17	0.52
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.92	0.52
2:S0:55:GLU:HG2	23:D1:79:LEU:HD23	1.97	0.52
4:S2:127:ALA:HA	4:S2:130:ILE:HB	2.49	0.52
36:1:1729:A:H5''	66:O0:27:TYR:HB3	1.92	0.52
70:O4:80:ARG:NH2	36:5:1652:G:O4'	187.12	0.52
38:4:69:U:H3	38:4:89:A:H61	1.56	0.52
14:C2:72:ILE:HG22	14:C2:76:GLU:OE1	2.09	0.52
6:S4:194:THR:O	6:S4:195:ILE:HB	2.10	0.52
8:S6:173:PRO:HG3	1:6:66:U:C5	333.63	0.52
34:SR:44:SER:OG	34:SR:58:VAL:HG13	5.73	0.52
52:M6:12:LYS:NZ	36:5:3184:A:OP2	292.56	0.52
1:6:413:U:H2'	1:6:414:C:C6	2.45	0.52
36:5:2812:C:O2'	36:5:2813:A:H5'	2.09	0.52
36:1:3043:C:P	59:N3:48:ARG:HH22	2.32	0.52
72:O6:51:SER:O	72:O6:54:GLU:N	2.43	0.52
36:5:1804:A:H2'	36:5:1805:C:C6	2.45	0.52
39:L2:5:ILE:HG13	39:L2:7:ASN:OD1	2.49	0.52
36:1:2131:A:H61	79:Q3:18:TYR:N	2.07	0.52
71:O5:85:THR:O	71:O5:86:ARG:C	2.48	0.52
55:M9:88:ARG:HG3	55:M9:88:ARG:NH1	3.77	0.52
71:O5:49:LYS:NZ	38:8:63:G:O2'	48.50	0.52
36:1:1947:G:H1	36:1:2101:C:H42	1.56	0.52
4:S2:126:ARG:HA	4:S2:129:ILE:HD12	3.65	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:18:LEU:CD2	43:L6:18:LEU:H	2.18	0.52
42:L5:56:THR:OG1	42:L5:59:ASP:O	2.22	0.52
4:S2:238:SER:O	4:S2:241:ASP:N	2.64	0.52
13:C1:6:THR:O	13:C1:8:GLN:N	2.37	0.52
1:2:1488:G:H5'	1:2:1489:U:OP1	2.09	0.52
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.92	0.52
2:S0:101:ARG:NH2	1:6:1320:U:H3'	399.79	0.52
1:6:1321:A:H4'	1:6:1322:A:O5'	2.10	0.52
34:SR:140:CYS:SG	34:SR:141:LEU:N	3.57	0.52
36:1:120:G:O6	45:L8:128:LYS:HB2	2.09	0.52
36:5:3155:U:HO2'	36:5:3156:U:H6	1.58	0.52
1:2:1065:A:H4'	3:S1:205:PHE:CE2	2.44	0.52
1:2:922:G:H2'	1:2:923:A:H8	1.73	0.52
33:E1:120:GLU:HA	33:E1:131:PHE:HA	1.92	0.52
1:6:1042:G:H1	1:6:1076:A:H61	1.58	0.52
36:5:1883:A:C2	36:5:1884:A:C4	2.98	0.52
32:E0:20:LYS:NZ	32:E0:21:VAL:H	2.07	0.52
1:2:564:G:O2'	1:2:577:G:H4'	2.10	0.52
3:S1:170:GLU:O	3:S1:174:LYS:HE3	2.10	0.52
36:5:2922:G:N7	87:5:4146:OHX:N2	2.57	0.52
16:C4:15:GLY:H	16:C4:79:VAL:HA	1.75	0.52
36:5:51:A:H2'	36:5:52:A:H8	1.75	0.52
36:5:927:C:O5'	36:5:927:C:H6	1.92	0.52
1:6:1483:A:H2'	1:6:1484:G:C8	2.45	0.52
36:1:3351:U:H4'	36:1:3352:U:OP1	2.09	0.52
1:2:432:G:C2	1:2:433:C:C2	2.98	0.52
1:2:565:C:O2	87:2:2039:OHX:N5	2.43	0.52
1:2:567:A:P	32:E0:10:ARG:HH21	2.32	0.52
1:6:1799:U:H4'	1:6:1800:A:C2'	2.27	0.52
53:M7:130:TYR:HD1	53:M7:130:TYR:N	2.07	0.52
53:M7:52:LEU:HD11	53:M7:88:VAL:CG1	2.77	0.52
53:M7:24:VAL:HG12	53:M7:86:LYS:HG2	5.00	0.52
1:2:542:A:H8	1:2:543:C:H3'	1.73	0.52
36:1:599:C:OP1	41:L4:332:LYS:NZ	2.37	0.52
7:S5:68:ILE:HD13	7:S5:69:PHE:N	5.09	0.52
46:L9:137:SER:HB2	46:L9:143:GLU:CB	2.65	0.52
75:O9:10:LYS:O	75:O9:13:MET:HB2	2.08	0.52
12:C0:15:LEU:HD11	12:C0:46:LEU:HD21	5.60	0.52
21:C9:132:LEU:O	21:C9:135:ILE:HG13	2.09	0.52
21:C9:76:LEU:HD22	21:C9:80:TYR:CE2	2.45	0.52
5:S3:175:VAL:HG12	5:S3:184:ILE:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1113:A:H5''	77:Q1:6:ARG:NH2	2.20	0.52
3:S1:33:LYS:O	3:S1:98:THR:OG1	5.10	0.52
38:4:14:C:H5''	38:4:15:G:OP2	2.10	0.52
54:M8:81:VAL:HG22	54:M8:101:VAL:HG22	4.70	0.52
1:6:753:A:H2'	1:6:754:A:O4'	2.10	0.52
73:O7:72:ARG:O	73:O7:75:LYS:N	3.03	0.52
14:C2:124:LYS:O	14:C2:126:TRP:N	2.43	0.52
40:L3:68:HIS:CD2	40:L3:69:LYS:HD3	5.31	0.52
1:2:1209:C:N4	1:2:1210:C:N4	2.58	0.52
1:2:1460:A:C4	17:C5:128:HIS:CD2	2.97	0.52
35:SM:70:ASN:O	35:SM:72:ARG:N	2.43	0.52
1:6:1132:A:H2'	1:6:1133:A:C8	2.45	0.52
36:5:3181:C:H2'	36:5:3182:G:H8	1.75	0.52
34:SR:59:ARG:HB2	34:SR:61:PHE:CE2	2.45	0.52
34:SR:90:ARG:HD3	34:SR:99:THR:OG1	2.10	0.52
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.95	0.52
36:5:1646:G:H1'	36:5:1808:G:N2	2.25	0.52
49:M3:119:TYR:O	49:M3:122:LYS:N	2.61	0.52
51:M5:176:LYS:HE2	36:5:66:A:H1'	98.31	0.52
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.45	0.52
39:L2:6:ARG:C	39:L2:8:GLN:H	2.13	0.52
37:7:110:G:C6	37:7:111:U:C4	2.98	0.52
39:L2:117:GLU:HG2	39:L2:124:GLY:H	1.74	0.52
36:5:2255:A:O2'	36:5:2256:A:OP2	2.26	0.52
36:1:801:A:O2'	87:1:3981:OHX:N2	2.43	0.52
1:2:400:A:H8	10:S8:24:LYS:O	1.91	0.52
1:6:1454:G:N2	1:6:1455:G:H1'	2.25	0.52
36:1:856:G:C6	36:1:857:G:N1	2.77	0.52
36:1:2273:G:O6	87:1:4137:OHX:N5	2.42	0.52
36:5:2827:U:O2	36:5:2827:U:H2'	2.10	0.52
46:L9:8:GLN:NE2	46:L9:69:ARG:HG2	2.88	0.52
36:5:202:G:N2	36:5:203:G:N3	2.57	0.52
55:M9:173:ARG:HH21	55:M9:177:VAL:HG21	8.62	0.52
36:5:874:U:H3	36:5:2978:U:H5''	1.74	0.52
45:L8:180:VAL:HG13	45:L8:186:LEU:HD11	3.06	0.52
36:1:671:U:H3	36:1:791:A:N6	2.08	0.52
49:M3:36:ARG:NH1	36:5:687:U:H5	76.13	0.52
1:6:1169:G:H1'	1:6:1576:A:H61	1.74	0.52
73:O7:27:PHE:HE1	73:O7:33:THR:HA	2.13	0.52
21:C9:89:ARG:NH1	21:C9:89:ARG:HG3	3.98	0.52
1:2:1044:U:O2	1:2:1074:G:N2	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1240:A:O2'	36:5:1241:U:H5'	2.10	0.52
36:1:1119:C:H2'	36:1:1120:A:C8	2.44	0.52
52:M6:173:ALA:O	52:M6:176:LYS:HB3	2.80	0.52
36:5:2591:A:C2'	36:5:2592:G:H5'	2.40	0.52
1:2:1205:C:H2'	31:D9:17:GLY:HA3	1.92	0.52
36:1:1328:C:H2'	36:1:1329:U:C6	2.45	0.52
1:2:408:C:O2'	1:2:1732:A:H4'	2.09	0.52
36:1:2547:A:H2'	36:1:2548:C:H5'	1.91	0.52
1:6:1105:C:H2'	1:6:1106:U:C6	2.45	0.52
36:5:828:A:O2'	36:5:829:U:H5'	2.10	0.52
36:5:1911:A:H2	36:5:2122:G:C8	2.28	0.52
1:6:585:A:H2'	1:6:586:G:C8	2.44	0.52
40:L3:56:ILE:HG12	40:L3:356:LEU:HD22	1.92	0.52
52:M6:59:ARG:NH1	36:5:1307:G:P	253.55	0.52
36:1:3187:A:OP1	46:L9:23:ARG:HG3	2.09	0.52
46:L9:26:LYS:HB2	36:5:3198:U:C4	327.50	0.52
53:M7:137:ASN:HD21	36:5:2357:A:H5''	154.93	0.52
87:6:2125:OHX:N6	87:6:2177:OHX:N5	2.58	0.52
47:M0:42:THR:HG23	47:M0:45:GLU:HG3	4.47	0.52
47:M0:36:LEU:CD1	47:M0:87:LEU:HB3	2.83	0.52
44:L7:235:PHE:HD2	44:L7:235:PHE:N	3.91	0.52
7:S5:132:VAL:HG13	7:S5:202:ALA:HB2	1.92	0.52
46:L9:91:ARG:HG3	46:L9:91:ARG:HH11	4.66	0.52
67:O1:73:LEU:HD13	67:O1:93:VAL:HG11	3.83	0.52
75:O9:9:ILE:O	75:O9:11:GLN:N	2.44	0.52
36:1:2746:A:H2'	36:1:2747:A:O4'	2.10	0.52
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.92	0.52
12:C0:12:HIS:CD2	12:C0:49:LEU:HD11	4.34	0.52
48:M1:81:GLU:O	48:M1:83:GLY:N	2.69	0.52
5:S3:58:VAL:O	5:S3:66:ILE:HG12	2.10	0.52
23:D1:51:VAL:HG12	23:D1:53:TYR:HE1	3.10	0.52
66:O0:30:THR:HA	66:O0:33:SER:HB3	2.51	0.52
66:O0:55:GLU:HG3	70:O4:90:ILE:HG21	2.62	0.52
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.10	0.52
55:M9:5:ARG:CZ	55:M9:5:ARG:HB2	3.77	0.52
36:1:1603:A:N6	61:N5:71:THR:HG21	2.24	0.52
38:4:52:A:H4'	75:O9:19:GLN:HA	1.91	0.52
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.10	0.52
52:M6:112:TYR:O	52:M6:114:LYS:N	3.19	0.52
52:M6:164:SER:O	52:M6:167:TYR:HB3	2.09	0.52
40:L3:142:ALA:O	40:L3:145:GLU:N	3.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:6:PRO:HD2	25:D3:15:LEU:HD21	1.92	0.52
39:L2:245:LEU:HD12	39:L2:246:LEU:N	2.38	0.52
1:6:531:C:C2'	1:6:532:U:H5'	2.40	0.52
26:D4:67:GLY:O	26:D4:68:LYS:HB2	2.54	0.52
71:O5:29:ALA:O	71:O5:33:VAL:HG23	2.13	0.52
36:5:2203:U:H2'	36:5:2204:C:C6	2.45	0.52
1:2:830:U:C2	1:2:831:U:C5	2.98	0.52
36:1:3084:C:OP2	87:1:3887:OHX:N5	2.43	0.52
11:S9:48:GLN:O	11:S9:52:ILE:HG13	2.09	0.52
36:1:944:C:OP1	68:O2:33:ARG:NH1	2.31	0.52
10:S8:117:TYR:HD1	10:S8:150:ALA:HB2	2.16	0.52
9:S7:9:LEU:HD13	9:S7:21:ALA:HB2	5.16	0.52
1:6:1043:A:C5	1:6:1044:U:C4	2.97	0.52
36:5:1725:C:H2'	36:5:1726:C:H6	1.75	0.52
36:1:1699:A:H2'	36:1:1700:G:H8	1.75	0.52
36:1:2703:A:H8	36:1:2703:A:O5'	1.92	0.52
36:1:3251:U:H2'	36:1:3252:G:O4'	2.09	0.52
36:5:161:G:H5'	36:5:162:G:OP2	2.10	0.52
65:N9:50:THR:HG21	36:5:1072:G:H21	207.38	0.52
8:S6:79:LYS:N	8:S6:79:LYS:HD3	4.83	0.52
87:6:2064:OHX:N5	87:6:2152:OHX:N3	2.57	0.52
1:6:1398:U:H3'	1:6:1399:C:C4'	2.39	0.52
1:2:1308:G:H22	1:2:1318:G:H1'	1.75	0.52
24:D2:53:ILE:HG13	24:D2:54:ASP:N	2.24	0.52
9:S7:173:TYR:HA	9:S7:176:LEU:HD12	3.48	0.52
36:1:3220:G:O2'	36:1:3221:C:H5'	2.10	0.52
40:L3:86:VAL:HG12	40:L3:199:PHE:HA	1.91	0.52
36:5:3266:G:C6	36:5:3267:A:C6	2.97	0.52
36:1:718:G:OP2	36:1:718:G:H8	1.93	0.52
59:N3:66:LYS:O	59:N3:68:GLU:N	2.43	0.52
36:5:425:G:N2	36:5:635:G:H1'	2.25	0.52
36:1:2373:A:H3'	36:1:2373:A:OP2	2.09	0.52
36:5:2345:A:O2'	36:5:2346:C:H5'	2.08	0.52
1:6:491:C:N4	1:6:497:G:H21	2.08	0.52
21:C9:52:GLY:HA2	21:C9:55:TYR:CE2	2.45	0.52
36:5:2422:C:H2'	36:5:2423:U:C6	2.44	0.52
1:2:1222:C:H2'	1:2:1223:A:H8	1.75	0.52
36:1:2198:A:C8	36:1:2270:A:H1'	2.45	0.52
36:5:1908:A:N6	36:5:1909:A:C6	2.78	0.52
36:1:3321:C:C4	36:1:3322:A:N7	2.78	0.52
1:2:51:A:H2'	1:2:51:A:N3	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:13:ALA:O	24:D2:25:VAL:HG11	2.09	0.52
36:1:137:G:H2'	36:1:138:U:C6	2.45	0.52
36:5:1093:A:N3	36:5:1096:U:N3	2.57	0.52
36:5:1569:U:H5'	36:5:1570:U:H6	1.75	0.52
36:5:1757:A:C2	36:5:1769:G:C2	2.97	0.52
36:1:3012:A:H2'	36:1:3012:A:N3	2.25	0.52
5:S3:216:PRO:HG2	5:S3:217:ILE:HG13	1.92	0.52
25:D3:54:LEU:CD1	25:D3:82:LYS:HD3	5.29	0.51
36:1:1319:G:C4	36:1:1320:C:C5	2.98	0.51
36:1:3191:G:C4	36:1:3202:G:N2	2.78	0.51
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.92	0.51
53:M7:129:THR:HG22	53:M7:139:TYR:HB2	5.59	0.51
44:L7:184:LEU:C	44:L7:186:HIS:H	2.12	0.51
41:L4:24:ALA:O	41:L4:27:SER:N	2.62	0.51
1:6:1309:C:H2'	1:6:1310:U:C6	2.41	0.51
7:S5:84:LYS:HE3	7:S5:92:ARG:HH12	1.75	0.51
67:O1:19:ARG:NH1	36:5:3324:C:OP1	173.82	0.51
21:C9:111:ILE:HG23	21:C9:113:ILE:HG12	1.92	0.51
15:C3:3:ARG:NH1	15:C3:10:GLY:O	4.91	0.51
15:C3:88:LEU:O	15:C3:91:LEU:HB2	2.10	0.51
3:S1:65:VAL:O	16:C4:34:SER:HA	2.09	0.51
3:S1:76:SER:OG	3:S1:78:ASP:HB2	4.84	0.51
66:O0:33:SER:OG	66:O0:39:SER:HB2	2.09	0.51
66:O0:43:ILE:HG22	66:O0:70:PHE:HB2	1.92	0.51
66:O0:58:TYR:O	66:O0:61:MET:HG3	2.62	0.51
40:L3:68:HIS:O	40:L3:69:LYS:HB2	3.36	0.51
1:6:1458:G:N2	1:6:1459:C:C2	2.78	0.51
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	1.91	0.51
9:S7:51:VAL:HG12	9:S7:171:ALA:HB3	1.92	0.51
34:SR:205:SER:O	34:SR:207:ASP:N	2.42	0.51
34:SR:22:SER:HB3	34:SR:36:ALA:HB3	1.91	0.51
34:SR:85:TRP:N	34:SR:85:TRP:CD1	2.76	0.51
72:O6:9:ILE:HD13	72:O6:10:GLY:N	4.76	0.51
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.52	0.51
36:1:1857:C:H3'	36:1:1858:A:C8	2.45	0.51
36:5:811:U:H2'	36:5:812:G:C8	2.45	0.51
36:5:2211:U:H5	36:5:2234:G:O6	1.93	0.51
40:L3:135:ALA:O	40:L3:138:ALA:N	4.20	0.51
51:M5:38:ARG:NH2	51:M5:60:VAL:HG22	2.26	0.51
24:D2:67:GLY:C	24:D2:69:LEU:H	2.55	0.51
1:2:736:C:H42	1:2:737:A:N6	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2971:A:H3'	36:5:2971:A:N3	2.25	0.51
64:N8:80:THR:O	64:N8:82:ILE:N	2.43	0.51
36:5:1081:U:HO2'	36:5:1082:U:C5'	2.23	0.51
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.75	0.51
1:2:1344:A:O2'	1:2:1345:A:OP1	2.23	0.51
36:5:1827:C:H2'	36:5:1828:A:C8	2.45	0.51
5:S3:113:LEU:HD13	5:S3:117:ARG:HB3	1.92	0.51
10:S8:138:ASN:CB	10:S8:142:LYS:HE3	2.39	0.51
87:1:4183:OHX:N1	53:M7:62:ARG:HG3	2.25	0.51
36:1:218:G:O6	62:N6:62:SER:HB2	2.10	0.51
36:1:1536:G:C4	36:1:1537:A:C8	2.99	0.51
58:N2:19:VAL:HG12	58:N2:105:LEU:HD13	1.93	0.51
36:1:385:A:C6	36:1:386:A:C6	2.98	0.51
48:M1:21:ILE:HG12	48:M1:125:MET:HG2	1.92	0.51
34:SR:10:ARG:HA	34:SR:10:ARG:NE	2.24	0.51
1:2:1074:G:O6	87:2:2128:OHX:N6	2.42	0.51
36:1:279:U:H2'	36:1:280:U:H6	1.75	0.51
36:1:92:G:OP2	36:1:93:C:H5''	2.10	0.51
1:6:1680:G:H8	1:6:1680:G:OP2	1.93	0.51
36:5:2608:G:C2	36:5:2609:A:C8	2.98	0.51
36:1:1567:U:H1'	36:1:1571:A:N1	2.25	0.51
1:6:1606:C:H2'	1:6:1607:G:C8	2.45	0.51
40:L3:254:ALA:O	36:5:2394:G:H4'	220.71	0.51
41:L4:110:ASN:N	41:L4:110:ASN:OD1	3.16	0.51
9:S7:32:PRO:HG2	9:S7:33:GLU:OE2	3.34	0.51
1:6:1491:U:H5'	1:6:1492:A:OP1	2.10	0.51
36:1:1392:G:O2'	36:1:1417:G:N2	2.37	0.51
46:L9:47:LYS:HB2	50:M4:7:VAL:CG2	3.66	0.51
53:M7:32:THR:HA	53:M7:58:ILE:HG21	2.01	0.51
26:D4:105:ARG:HD2	1:6:443:C:H3'	372.25	0.51
26:D4:104:SER:O	26:D4:108:ARG:HG3	5.04	0.51
11:S9:69:ARG:O	11:S9:73:GLY:HA3	2.10	0.51
11:S9:90:LYS:HB2	11:S9:95:TYR:CD1	2.45	0.51
44:L7:158:LYS:NZ	36:5:1362:G:H1'	214.94	0.51
45:L8:249:ARG:O	45:L8:253:SER:HB2	2.11	0.51
1:6:330:G:C2	1:6:331:A:C4	2.98	0.51
6:S4:49:ARG:HD2	6:S4:57:ASN:O	2.10	0.51
10:S8:34:ALA:CB	10:S8:174:GLY:HA3	2.38	0.51
10:S8:99:ALA:HB3	1:6:329:G:H5'	271.22	0.51
52:M6:130:LYS:HA	36:5:1316:C:C5	298.35	0.51
20:C8:24:GLY:C	20:C8:26:ILE:H	2.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:16:LEU:HB2	30:D8:27:GLN:HB3	1.92	0.51
46:L9:90:MET:HE2	46:L9:179:ILE:HG22	1.93	0.51
36:5:3379:C:H2'	36:5:3380:U:O4'	2.10	0.51
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.46	0.51
3:S1:35:PRO:HD2	3:S1:38:PHE:CE2	2.45	0.51
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.91	0.51
24:D2:70:ASN:HB2	24:D2:130:TYR:HD2	1.77	0.51
55:M9:43:LYS:HZ2	36:5:1765:U:H5'	91.88	0.51
17:C5:130:ARG:HH12	35:SM:71:ASN:HA	1.75	0.51
36:1:1213:G:O2'	56:N0:90:MET:HG3	2.10	0.51
50:M4:20:VAL:O	50:M4:66:THR:HG23	2.10	0.51
35:SM:31:SER:OG	36:1:2667:A:OP1	2.19	0.51
1:2:1006:C:H4'	16:C4:136:ARG:HH12	1.76	0.51
39:L2:98:VAL:HA	39:L2:166:ILE:HB	1.92	0.51
39:L2:155:LYS:NZ	39:L2:253:GLN:O	2.43	0.51
66:O0:100:ILE:HG13	66:O0:101:LEU:HD13	6.85	0.51
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.10	0.51
36:5:3290:G:N7	87:5:4096:OHX:N5	2.58	0.51
36:1:1481:A:H2'	36:1:1481:A:N3	2.24	0.51
58:N2:67:SER:OG	58:N2:69:ALA:O	2.27	0.51
36:1:3030:G:N7	87:1:4072:OHX:N6	2.58	0.51
38:4:41:A:O2'	73:O7:59:THR:HG22	2.10	0.51
1:2:729:G:C2	1:2:730:G:H8	2.28	0.51
59:N3:3:GLY:O	59:N3:6:ALA:HB3	2.09	0.51
1:2:1238:A:C2	1:2:1248:C:C2	2.98	0.51
78:Q2:28:TYR:HD2	78:Q2:69:VAL:HG11	1.74	0.51
36:5:776:U:C4	36:5:2738:A:C2	2.97	0.51
36:1:119:U:H5'	36:1:121:A:OP1	2.10	0.51
36:1:1815:U:HO2'	36:1:1816:A:P	2.32	0.51
36:5:195:U:H2'	36:5:196:G:C8	2.44	0.51
1:6:1026:A:C2	1:6:1792:G:C4	2.99	0.51
9:S7:125:ILE:O	9:S7:128:ASP:N	2.44	0.51
73:O7:26:SER:HB3	73:O7:35:SER:OG	2.52	0.51
36:1:568:G:N7	87:1:3944:OHX:N4	2.59	0.51
10:S8:154:SER:O	10:S8:158:SER:HB3	3.75	0.51
1:2:61:A:H8	1:2:269:G:HO2'	1.55	0.51
14:C2:57:ALA:HB3	14:C2:85:LYS:CE	2.40	0.51
36:5:2673:A:H61	36:5:2681:U:H3	1.57	0.51
36:5:1021:G:H22	36:5:1032:C:H1'	1.75	0.51
36:5:1335:C:H2'	36:5:1336:U:C6	2.45	0.51
36:5:2678:A:C5	36:5:2679:A:C5	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1454:A:C5'	36:1:1455:U:H5'	2.39	0.51
1:2:833:U:OP2	87:2:2141:OHX:N4	2.43	0.51
5:S3:35:SER:HB3	5:S3:51:ARG:HB2	3.87	0.51
36:1:1547:G:OP1	51:M5:108:ARG:NH2	2.43	0.51
36:1:2995:A:H2'	36:1:2996:U:H5''	1.93	0.51
36:5:1502:C:OP2	87:5:3908:OHX:N3	2.43	0.51
36:5:530:G:N7	87:5:3944:OHX:N6	2.57	0.51
36:1:2589:G:H5''	36:1:2589:G:H8	1.74	0.51
37:7:11:A:H2'	37:7:12:U:H5''	1.93	0.51
36:1:999:G:O2'	36:1:1000:C:H5'	2.10	0.51
36:1:792:G:O6	87:1:4152:OHX:N4	2.43	0.51
36:1:3228:C:H5''	50:M4:137:LYS:HZ3	1.75	0.51
73:O7:84:SER:O	73:O7:85:LYS:HB2	2.10	0.51
36:1:3374:U:OP2	67:O1:70:ARG:NH2	2.43	0.51
1:2:1641:C:N3	1:2:1760:G:N2	2.49	0.51
40:L3:53:MET:HE2	40:L3:77:THR:HG23	1.92	0.51
36:5:3197:G:C2'	36:5:3198:U:H5''	2.39	0.51
1:6:427:C:O2'	87:6:2183:OHX:N3	2.43	0.51
1:2:765:G:O2'	11:S9:149:ARG:NH2	2.42	0.51
41:L4:179:LEU:O	41:L4:179:LEU:HD22	2.10	0.51
1:2:1339:C:H6	1:2:1339:C:H5''	1.75	0.51
67:O1:12:TYR:CD2	67:O1:75:ILE:HD12	3.11	0.51
67:O1:33:VAL:HG13	67:O1:51:LEU:HD11	1.92	0.51
61:N5:67:ILE:HG13	61:N5:83:VAL:HG12	2.94	0.51
42:L5:148:ILE:HG23	42:L5:151:GLN:HB3	3.61	0.51
42:L5:212:ALA:HB2	42:L5:219:PHE:CG	5.70	0.51
5:S3:100:ALA:O	5:S3:104:SER:N	3.35	0.51
5:S3:31:GLU:HA	5:S3:107:PHE:CZ	3.05	0.51
29:D7:28:PRO:HB3	1:6:959:U:C5'	349.29	0.51
72:O6:25:LYS:HB2	72:O6:28:TYR:CE2	4.15	0.51
23:D1:71:ARG:HE	29:D7:4:VAL:HG11	2.19	0.51
2:S0:41:ARG:HE	2:S0:45:VAL:CG2	2.52	0.51
2:S0:63:ILE:HG23	23:D1:35:ASN:O	2.20	0.51
4:S2:35:TRP:NE1	4:S2:37:PRO:HA	2.98	0.51
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.11	0.51
4:S2:90:THR:OG1	4:S2:91:ARG:N	3.65	0.51
36:5:3224:G:N1	36:5:3262:U:C4	2.78	0.51
1:2:67:A:O3'	1:2:68:A:H3'	2.10	0.51
1:6:1588:G:N2	1:6:1589:C:H1'	2.24	0.51
34:SR:74:THR:HG21	34:SR:79:TYR:CD2	2.45	0.51
34:SR:84:SER:O	34:SR:110:VAL:HG23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:42:ARG:HG3	39:L2:89:TYR:CD1	2.45	0.51
36:5:1646:G:H1'	36:5:1808:G:H22	1.74	0.51
51:M5:172:ARG:NH1	36:5:29:C:O3'	106.20	0.51
1:6:486:G:H22	1:6:501:U:H3	1.56	0.51
46:L9:156:GLN:HG3	46:L9:160:ASP:OD2	2.09	0.51
36:1:1952:G:H3'	36:1:1953:G:H5''	1.92	0.51
36:5:173:G:O2'	36:5:174:C:O5'	2.29	0.51
36:5:1735:G:N2	36:5:1736:G:H1'	2.25	0.51
36:5:1376:C:O4'	36:5:1407:A:C2	2.63	0.51
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.11	0.51
42:L5:158:ARG:HD2	37:7:47:C:OP2	285.31	0.51
22:D0:30:LYS:HD2	22:D0:111:GLY:HA3	4.16	0.51
1:2:295:A:O2'	6:S4:140:VAL:HG11	2.09	0.51
19:C7:33:ARG:HG3	34:SR:127:ARG:NH1	2.25	0.51
36:1:2896:A:OP1	76:Q0:102:ARG:NE	2.35	0.51
63:N7:57:HIS:CE1	63:N7:65:ARG:HH21	3.60	0.51
2:S0:110:TYR:HA	2:S0:115:PHE:CE1	2.83	0.51
1:6:1334:U:C4	1:6:1335:U:C4	2.97	0.51
53:M7:67:ILE:HG22	53:M7:68:GLY:N	2.98	0.51
25:D3:107:PHE:CE2	25:D3:114:LYS:HB2	2.44	0.51
39:L2:70:ARG:NH2	39:L2:72:ARG:HD3	2.24	0.51
1:6:1622:G:C6	1:6:1623:C:C4	2.98	0.51
55:M9:143:ILE:HG22	55:M9:144:GLN:N	2.27	0.51
45:L8:81:THR:OG1	45:L8:82:LEU:N	3.49	0.51
9:S7:177:THR:HB	9:S7:179:LYS:HE3	3.97	0.51
38:8:83:C:H4'	38:8:85:G:N3	2.25	0.51
1:6:1284:C:O2	1:6:1286:U:N3	2.42	0.51
36:5:1267:U:H2'	36:5:1268:G:O4'	2.10	0.51
6:S4:94:ALA:O	6:S4:96:ASN:N	2.37	0.51
36:1:826:G:N2	36:1:827:A:H1'	2.25	0.51
1:2:494:U:O2'	1:2:495:C:O5'	2.25	0.51
24:D2:24:GLN:HA	24:D2:63:VAL:O	2.47	0.51
1:6:1628:U:H2'	1:6:1629:G:C8	2.46	0.51
36:5:752:C:H2'	36:5:753:C:H6	1.76	0.51
31:D9:4:GLU:HG2	31:D9:4:GLU:O	5.13	0.51
20:C8:2:SER:OG	20:C8:3:LEU:N	2.44	0.51
40:L3:229:VAL:HG13	40:L3:235:THR:HG21	2.15	0.51
1:2:932:U:H5'	1:2:933:A:C8	2.45	0.51
87:6:2125:OHX:N4	87:6:2177:OHX:N1	2.59	0.51
47:M0:141:LYS:O	47:M0:144:ASN:N	2.92	0.51
44:L7:90:LYS:HG3	44:L7:91:GLY:N	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:44:VAL:O	72:O6:47:ILE:N	2.62	0.51
13:C1:19:ILE:HG13	13:C1:34:TRP:HB2	3.15	0.51
26:D4:12:VAL:HA	26:D4:23:PHE:HB3	2.59	0.51
10:S8:82:VAL:HG12	10:S8:102:VAL:HA	5.54	0.51
36:5:1383:G:H2'	36:5:1384:U:H6	1.75	0.51
19:C7:26:LEU:HD13	19:C7:59:LYS:HA	2.54	0.51
36:5:3074:G:OP1	87:5:4114:OHX:N4	2.44	0.51
67:O1:17:HIS:CG	67:O1:69:TYR:HD1	2.29	0.51
36:1:699:A:H2'	36:1:700:C:O4'	2.11	0.51
1:2:1297:G:N2	1:2:1300:A:OP2	2.42	0.51
2:S0:147:THR:O	2:S0:162:CYS:N	2.43	0.51
4:S2:105:GLY:HA3	4:S2:110:HIS:O	3.26	0.51
4:S2:134:LEU:O	4:S2:136:VAL:N	2.43	0.51
9:S7:141:ARG:HG3	9:S7:141:ARG:HH11	1.74	0.51
48:M1:12:LEU:HD12	48:M1:131:MET:HE3	1.92	0.51
4:S2:152:HIS:HB2	4:S2:194:GLU:HB3	3.85	0.51
63:N7:33:SER:HB3	63:N7:36:HIS:HB2	3.30	0.51
62:N6:28:ARG:HB2	62:N6:75:ARG:HH21	1.75	0.51
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.22	0.51
60:N4:9:SER:HA	60:N4:52:THR:HG22	2.97	0.51
60:N4:21:PHE:CZ	60:N4:23:ARG:HG3	2.93	0.51
1:6:145:A:C2	1:6:146:U:C2	2.98	0.51
34:SR:264:SER:O	34:SR:268:GLN:HA	2.11	0.51
34:SR:23:LEU:HD11	34:SR:304:GLY:N	2.25	0.51
44:L7:222:HIS:C	44:L7:224:ILE:N	2.94	0.51
56:N0:40:ARG:NH1	37:7:97:A:OP1	291.32	0.51
65:N9:2:ALA:HB2	36:5:2818:U:O5'	214.19	0.51
66:O0:13:LYS:HB3	66:O0:100:ILE:HG23	1.92	0.51
52:M6:181:ALA:C	52:M6:183:ALA:H	2.09	0.51
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.70	0.51
36:5:65:A:H4'	36:5:66:A:O5'	2.10	0.51
49:M3:100:ARG:NH1	36:5:77:A:H5'	84.47	0.51
51:M5:179:LYS:O	36:5:286:U:O2'	124.87	0.51
13:C1:95:PRO:O	13:C1:97:TYR:N	2.43	0.51
36:1:1812:G:O3'	36:1:1817:G:O2'	2.29	0.51
38:4:4:C:H5'	53:M7:61:ARG:O	2.11	0.51
36:5:3318:G:H5''	36:5:3319:U:OP2	2.10	0.51
36:1:2278:C:H2'	36:1:2279:A:H5''	1.93	0.51
36:1:2286:U:O4	36:1:2288:G:H1'	2.11	0.51
36:1:3377:G:H21	40:L3:332:ARG:HH21	1.59	0.51
22:D0:87:HIS:HB3	22:D0:89:ARG:HH11	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3110:C:C2	36:1:3111:U:C6	2.98	0.51
78:Q2:26:THR:OG1	78:Q2:71:ARG:HD2	2.10	0.51
36:1:744:A:H1'	54:M8:141:ARG:HD3	1.92	0.51
50:M4:94:TRP:O	50:M4:97:SER:OG	2.22	0.51
54:M8:65:SER:OG	54:M8:90:ASP:OD2	2.21	0.51
36:5:3154:C:O2	36:5:3154:C:H2'	2.09	0.51
34:SR:182:ASN:N	34:SR:187:GLN:O	2.36	0.51
1:2:711:U:H4'	1:2:712:G:OP1	2.10	0.51
1:6:217:A:H1'	1:6:218:A:OP1	2.11	0.51
1:2:1160:A:O2'	1:2:1161:C:O5'	2.27	0.51
36:5:1845:G:C5	36:5:1849:C:C5	2.99	0.51
54:M8:71:LEU:HD22	54:M8:77:ALA:HA	1.93	0.51
3:S1:158:SER:OG	1:6:876:G:OP2	310.15	0.51
2:S0:206:ASP:H	2:S0:207:PRO:CA	4.78	0.51
36:1:1394:A:OP1	68:O2:98:HIS:NE2	2.29	0.51
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.46	0.51
36:1:873:C:H5''	36:1:874:U:O5'	2.11	0.51
36:1:1591:G:O6	36:1:1592:G:N1	2.43	0.51
51:M5:91:GLU:OE2	36:5:277:G:H5'	161.27	0.51
1:2:51:A:C2	1:2:52:U:C2	2.99	0.51
1:6:130:C:C4	1:6:131:C:C4	2.98	0.51
1:6:1695:G:H21	1:6:1706:C:N4	2.08	0.51
69:O3:11:GLY:O	69:O3:98:VAL:N	2.67	0.51
1:6:611:U:C4	1:6:612:U:C4	2.99	0.51
12:C0:10:LYS:NZ	12:C0:36:ASP:HB3	3.27	0.51
36:5:1936:A:H5''	36:5:1937:U:OP2	2.10	0.51
1:2:1600:A:H4'	1:2:1601:G:OP1	2.11	0.51
51:M5:88:GLY:HA2	78:Q2:50:PHE:CE1	2.63	0.51
47:M0:39:LYS:HZ3	47:M0:39:LYS:HB2	1.76	0.51
47:M0:75:TYR:CD2	47:M0:79:VAL:HG21	2.68	0.51
36:5:1344:G:N2	36:5:1361:U:C2	2.79	0.51
72:O6:43:LEU:CD1	72:O6:47:ILE:HD11	2.40	0.51
6:S4:49:ARG:HD3	6:S4:56:LEU:O	4.91	0.51
43:L6:130:ILE:HG22	43:L6:131:LYS:O	2.10	0.51
69:O3:105:SER:OG	69:O3:106:ASN:N	3.09	0.51
19:C7:14:LYS:HG3	19:C7:69:ILE:HG22	2.43	0.51
41:L4:77:VAL:HB	41:L4:86:GLY:H	2.31	0.51
7:S5:123:VAL:HG13	27:D5:102:THR:HG23	3.39	0.51
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.46	0.51
20:C8:90:ASN:ND2	20:C8:91:ASP:O	6.93	0.51
36:1:268:A:H5'	36:1:318:A:C2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:156:G:O2'	36:5:157:A:H4'	2.11	0.51
3:S1:214:LYS:NZ	1:6:886:U:OP1	285.71	0.51
68:O2:38:ILE:HA	68:O2:43:ARG:HH21	2.37	0.51
1:6:1140:G:OP2	87:6:2076:OHX:N1	2.44	0.51
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.20	0.51
70:O4:89:ILE:HG22	70:O4:90:ILE:N	2.25	0.51
1:2:1069:A:H2'	1:2:1070:C:O4'	2.10	0.51
36:1:1603:A:H5''	36:1:1604:G:OP2	2.10	0.51
14:C2:97:LEU:HB3	14:C2:118:ALA:HB3	2.00	0.51
17:C5:130:ARG:HD2	17:C5:130:ARG:N	3.03	0.51
36:1:2722:U:H4'	57:N1:88:ARG:CB	2.40	0.51
40:L3:298:PHE:CD2	40:L3:357:LYS:HG2	4.32	0.51
18:C6:99:GLU:OE1	34:SR:60:SER:OG	4.00	0.51
1:2:927:C:H1'	16:C4:125:SER:OG	2.10	0.51
49:M3:168:ARG:CZ	49:M3:172:LEU:HD11	2.40	0.51
52:M6:188:SER:OG	52:M6:190:VAL:HG13	2.10	0.51
1:2:1169:G:C6	1:2:1574:G:H2'	2.46	0.51
87:1:3976:OHX:N5	87:1:4154:OHX:N6	2.58	0.51
1:6:1265:G:N7	87:6:2201:OHX:N6	2.58	0.51
40:L3:38:SER:OG	40:L3:39:LYS:HE3	2.11	0.51
20:C8:45:LEU:HD23	20:C8:81:ILE:HG23	1.92	0.51
52:M6:73:PHE:CD1	36:5:3007:U:H5'	246.15	0.51
36:5:3383:G:H2'	36:5:3384:U:C6	2.46	0.51
40:L3:332:ARG:HG2	40:L3:333:LYS:HD2	2.77	0.51
33:E1:144:CYS:O	33:E1:146:SER:N	2.80	0.51
57:N1:27:LEU:C	57:N1:29:THR:H	2.12	0.51
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	2.32	0.51
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.10	0.51
57:N1:68:THR:CG2	57:N1:71:SER:HB2	2.39	0.51
15:C3:83:GLU:HG3	15:C3:84:ILE:HG23	1.91	0.51
21:C9:22:LEU:O	21:C9:25:GLN:HB3	2.10	0.51
62:N6:126:LEU:CB	71:O5:71:LYS:HD2	47.20	0.51
36:5:1816:A:C2'	36:5:1817:G:H5''	2.41	0.51
1:2:301:A:H2'	1:2:302:U:C6	2.46	0.51
1:2:323:A:C6	1:2:324:U:O4	2.63	0.51
87:6:2064:OHX:N5	87:6:2152:OHX:N6	2.58	0.51
1:2:639:U:OP1	9:S7:117:THR:OG1	2.27	0.51
74:O8:27:ILE:HD12	74:O8:41:THR:HG22	2.44	0.51
1:2:15:U:H2'	1:2:16:G:O4'	2.10	0.51
1:2:1370:U:H1'	1:2:1371:A:OP2	2.10	0.51
13:C1:109:VAL:HG21	13:C1:125:VAL:CG1	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:102:U:C5	1:2:360:A:C6	2.98	0.51
36:5:3100:U:O2	36:5:3101:G:C8	2.63	0.51
1:2:773:C:OP1	6:S4:22:LYS:N	2.33	0.51
57:N1:112:ASN:HA	57:N1:115:LYS:HD2	1.92	0.51
36:5:425:G:O6	36:5:634:C:N4	2.37	0.51
1:2:1353:U:H2'	1:2:1354:G:O4'	2.11	0.51
17:C5:64:LYS:HG3	17:C5:73:PRO:HG3	1.93	0.51
36:5:2765:C:H2'	36:5:2766:U:C6	2.46	0.51
1:6:1695:G:H21	1:6:1706:C:H41	1.58	0.51
36:1:130:A:H2'	36:1:131:C:C6	2.46	0.51
6:S4:58:GLY:H	1:6:447:U:P	382.40	0.51
39:L2:139:HIS:O	39:L2:141:PRO:HD3	2.10	0.51
69:O3:47:LYS:HA	69:O3:104:PRO:HD2	2.05	0.51
35:SM:125:ALA:HA	35:SM:128:ALA:HB3	3.18	0.51
15:C3:54:LEU:HD13	15:C3:60:VAL:HG11	3.06	0.51
25:D3:44:GLY:H	25:D3:78:LYS:NZ	3.49	0.51
1:2:477:A:OP1	32:E0:31:LYS:HG2	2.10	0.51
47:M0:144:ASN:O	47:M0:147:VAL:HB	2.10	0.51
47:M0:38:LYS:CG	47:M0:41:ALA:HB2	3.67	0.51
47:M0:61:SER:OG	47:M0:63:GLU:HG2	3.39	0.51
1:6:1163:A:H2'	1:6:1164:G:O4'	2.11	0.51
26:D4:15:ASN:HD22	26:D4:22:GLN:NE2	2.58	0.51
10:S8:55:TYR:N	10:S8:175:GLN:O	2.41	0.51
36:1:681:U:O4	41:L4:118:LYS:NZ	2.23	0.51
27:D5:39:ALA:HB1	27:D5:71:ILE:C	2.31	0.51
7:S5:25:LEU:N	7:S5:25:LEU:HD13	2.66	0.51
75:O9:5:LYS:HD3	75:O9:13:MET:CE	4.30	0.51
12:C0:12:HIS:HA	12:C0:15:LEU:HD12	6.39	0.51
12:C0:54:TYR:H	12:C0:71:GLU:HG2	1.95	0.51
22:D0:63:LEU:HD22	31:D9:34:TYR:CE1	3.72	0.51
1:2:911:U:O2'	1:2:915:A:H1'	2.10	0.51
2:S0:139:VAL:O	2:S0:141:ILE:HG13	2.09	0.51
2:S0:61:ALA:HA	2:S0:64:ILE:HD12	2.88	0.51
48:M1:96:PHE:HZ	48:M1:163:PHE:CD2	2.63	0.51
4:S2:152:HIS:H	4:S2:152:HIS:CD2	2.29	0.51
63:N7:25:ILE:HG23	63:N7:43:VAL:HG12	4.37	0.51
63:N7:95:VAL:HG23	63:N7:96:VAL:CG2	6.56	0.51
68:O2:75:LEU:HD23	68:O2:95:GLU:O	2.10	0.51
36:1:1762:C:H2'	36:1:1763:U:O4'	2.10	0.51
39:L2:177:LYS:HD3	79:Q3:69:TYR:CE1	2.60	0.51
14:C2:60:VAL:HG13	14:C2:122:VAL:HG22	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:179:LYS:O	6:S4:194:THR:HA	2.77	0.51
50:M4:88:ALA:O	50:M4:89:ALA:HB3	2.42	0.51
57:N1:42:ILE:HD11	57:N1:74:VAL:HG11	1.90	0.51
69:O3:49:ILE:HG22	69:O3:85:PHE:CE1	3.51	0.51
43:L6:165:LEU:HD12	69:O3:8:TYR:N	4.02	0.51
36:5:3170:A:C6	36:5:3171:U:C4	2.98	0.51
34:SR:191:ASP:HB2	34:SR:193:ILE:HD12	6.07	0.51
24:D2:49:GLU:O	24:D2:64:GLN:HB2	3.33	0.51
8:S6:73:ILE:HB	8:S6:75:LEU:CD2	4.11	0.51
72:O6:89:GLU:O	72:O6:93:ILE:N	2.41	0.51
36:1:2148:U:H5''	39:L2:196:TRP:CE2	2.45	0.51
46:L9:156:GLN:NE2	46:L9:156:GLN:O	2.43	0.51
46:L9:94:TYR:HE2	46:L9:98:PRO:HA	1.69	0.51
36:5:122:A:H4'	36:5:123:A:O5'	2.11	0.51
36:1:2902:A:OP1	36:1:3032:A:H1'	2.11	0.51
42:L5:132:THR:HG21	42:L5:170:GLY:CA	2.55	0.51
36:1:1804:A:H5'	70:O4:70:LYS:HB3	1.92	0.51
37:7:26:C:H2'	37:7:27:A:O4'	2.10	0.51
41:L4:302:ALA:HB2	54:M8:39:ARG:NH1	2.26	0.51
36:5:845:G:O2'	36:5:847:A:N7	2.25	0.51
45:L8:33:ASN:HA	36:5:2549:G:N2	209.78	0.51
36:1:3056:U:C2	67:O1:25:PHE:CE2	2.98	0.51
53:M7:57:ALA:HB2	53:M7:83:TRP:NE1	2.61	0.51
36:1:1536:G:C6	36:1:1537:A:N7	2.78	0.51
58:N2:98:THR:OG1	58:N2:104:ARG:HG2	2.11	0.51
41:L4:351:PRO:HG2	36:5:520:U:OP1	327.59	0.51
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.11	0.51
23:D1:30:ALA:O	23:D1:60:ARG:HD3	3.31	0.51
68:O2:11:LYS:O	68:O2:13:HIS:N	2.44	0.51
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.85	0.51
36:1:1597:C:H2'	36:1:1598:G:H8	1.74	0.51
1:2:792:U:O2'	1:2:793:A:H5'	2.10	0.51
17:C5:59:LYS:NZ	1:6:1240:U:O4	401.46	0.51
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.43	0.51
34:SR:5:GLU:HG3	34:SR:317:THR:HG23	6.61	0.51
36:1:665:A:H1'	49:M3:14:PHE:CZ	2.46	0.51
36:1:3097:C:O2'	36:1:3098:G:H5'	2.11	0.51
1:2:71:A:N1	1:2:72:A:C6	2.78	0.51
1:2:885:G:H2'	1:2:886:U:C6	2.45	0.51
36:1:1591:G:C5	36:1:1592:G:C5	2.98	0.51
65:N9:23:LYS:HD2	65:N9:24:PRO:HG3	4.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:108:ARG:HG3	51:M5:108:ARG:HH11	1.76	0.51
1:6:525:A:C6	1:6:526:A:C6	2.99	0.51
36:5:435:C:O2	36:5:625:G:N1	2.43	0.51
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CD1	2.45	0.51
36:5:2347:U:C4	36:5:2348:A:C6	2.98	0.51
4:S2:77:GLN:HB2	4:S2:190:LEU:HD21	4.16	0.51
36:5:521:A:C5	36:5:572:A:C2	2.98	0.51
32:E0:56:MET:O	32:E0:56:MET:HG3	2.11	0.51
35:SM:131:ILE:C	35:SM:133:GLU:H	3.83	0.51
1:6:1518:C:OP2	87:6:2148:OHX:N1	2.44	0.51
36:1:293:C:H2'	36:1:294:U:O4'	2.10	0.51
36:1:2356:A:H5'	53:M7:138:LYS:CE	2.38	0.51
47:M0:84:ALA:O	47:M0:144:ASN:ND2	2.44	0.51
1:6:210:A:C2	1:6:211:U:C2	2.99	0.51
1:6:302:U:C4	1:6:303:U:C5	2.99	0.51
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.91	0.51
36:1:1390:A:N6	36:1:1418:A:O2'	2.43	0.51
36:1:404:G:H2'	36:1:405:U:O4'	2.10	0.51
41:L4:281:ILE:HG22	54:M8:25:TYR:HB3	1.93	0.51
1:6:1605:G:H8	1:6:1605:G:H5''	1.74	0.51
7:S5:145:ASP:CG	7:S5:146:THR:H	2.14	0.51
42:L5:243:ALA:O	42:L5:246:ALA:HB3	2.10	0.51
42:L5:78:ALA:HA	42:L5:82:GLU:OE2	2.10	0.51
1:2:1549:C:OP2	17:C5:39:ALA:N	2.35	0.51
1:6:1200:G:H4'	1:6:1201:G:C5'	2.41	0.51
21:C9:108:LEU:O	21:C9:111:ILE:HG22	2.11	0.51
21:C9:130:ARG:O	21:C9:134:ARG:HB2	3.11	0.51
15:C3:91:LEU:O	15:C3:94:LYS:N	2.42	0.51
36:1:70:A:N1	36:1:313:A:O2'	2.36	0.51
1:2:978:A:H2'	1:2:979:A:O4'	2.10	0.51
16:C4:43:THR:OG1	1:6:900:A:OP1	279.32	0.51
1:6:927:C:H2'	1:6:928:U:C6	2.39	0.51
40:L3:21:ARG:HG3	36:5:2991:A:OP1	210.30	0.51
63:N7:73:LYS:HD2	63:N7:74:VAL:O	2.47	0.51
62:N6:24:SER:O	62:N6:27:ARG:HB2	2.25	0.51
71:O5:64:GLU:O	71:O5:68:GLN:N	4.16	0.51
35:SM:70:ASN:C	35:SM:72:ARG:H	2.13	0.51
56:N0:58:ILE:O	56:N0:60:SER:N	2.43	0.51
57:N1:65:TYR:CZ	57:N1:88:ARG:HG3	2.45	0.51
36:1:3213:A:N6	36:1:3214:U:C4	2.79	0.51
56:N0:33:ASN:N	56:N0:33:ASN:OD1	3.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.10	0.51
22:D0:105:GLN:HA	22:D0:108:ILE:CD1	6.92	0.51
8:S6:102:VAL:HG13	8:S6:106:LEU:CD1	2.41	0.51
24:D2:79:PHE:N	24:D2:125:ILE:HG22	2.24	0.51
36:1:282:G:H5''	36:1:283:G:P	2.50	0.51
1:6:1441:C:H2'	1:6:1442:U:C6	2.46	0.51
46:L9:171:ASP:HA	36:5:2899:C:C5	322.93	0.51
36:1:1046:A:C6	36:1:1049:C:C2	2.99	0.51
36:5:1591:G:H4'	36:5:1656:A:OP1	2.10	0.51
8:S6:28:PHE:CZ	8:S6:104:PRO:HB3	2.42	0.51
16:C4:87:GLY:HA2	16:C4:92:LYS:CA	2.39	0.51
42:L5:21:ARG:HG2	42:L5:25:GLU:CD	2.31	0.51
50:M4:24:LYS:HB2	50:M4:62:GLN:C	5.35	0.51
47:M0:19:LYS:CG	47:M0:26:VAL:HG11	2.40	0.51
1:6:699:U:H2'	1:6:700:C:C6	2.46	0.51
36:5:2660:G:H2'	36:5:2661:G:H8	1.75	0.51
36:1:1582:C:H3'	36:1:1582:C:OP2	2.11	0.51
60:N4:91:LYS:C	60:N4:94:ARG:H	2.14	0.51
55:M9:116:ASP:OD2	55:M9:119:LEU:HB2	2.11	0.51
41:L4:100:PHE:CZ	41:L4:101:ALA:HB2	2.46	0.51
65:N9:28:LYS:HB2	36:5:1065:A:C4	213.68	0.51
1:2:1665:U:O2	1:2:1737:G:C2	2.63	0.51
36:1:2108:C:O2'	36:1:3362:A:N6	2.43	0.51
43:L6:22:ARG:NH1	36:5:608:A:C2	241.82	0.51
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.35	0.51
75:O9:8:ARG:HH21	38:8:112:U:P	112.72	0.51
37:3:76:A:O3'	37:3:77:G:H4'	2.11	0.51
1:2:1535:U:O2'	1:2:1536:G:O4'	2.29	0.51
3:S1:23:PRO:HB3	3:S1:26:ARG:NH2	2.65	0.51
36:5:2667:A:C2	36:5:2690:G:H2'	2.45	0.51
12:C0:27:PHE:CD2	12:C0:27:PHE:N	2.79	0.51
36:5:764:U:O2'	36:5:765:C:H2'	2.09	0.51
36:1:968:G:H2'	36:1:969:C:C6	2.46	0.51
36:1:890:C:H2'	36:1:891:G:H8	1.75	0.51
36:1:1557:A:H3'	36:1:1558:A:H5''	1.92	0.51
32:E0:47:VAL:HG22	32:E0:48:THR:H	1.75	0.51
1:6:674:C:H2'	1:6:675:U:C6	2.46	0.51
1:6:1778:G:N1	1:6:1779:U:C4	2.79	0.51
42:L5:91:GLY:C	42:L5:94:ASN:HD21	2.13	0.51
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.44	0.51
36:1:2356:A:OP1	53:M7:138:LYS:HD2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:36:ILE:HG22	28:D6:73:TYR:HD2	4.82	0.51
28:D6:5:ARG:HD2	28:D6:8:ASN:O	2.09	0.51
6:S4:3:ARG:O	1:6:93:A:H1'	326.49	0.51
10:S8:114:GLU:CG	10:S8:120:THR:HA	2.41	0.51
41:L4:206:LEU:HD23	41:L4:226:GLU:HB3	1.93	0.51
41:L4:39:PHE:CD1	41:L4:242:ALA:HB2	3.05	0.51
19:C7:15:ALA:O	19:C7:19:ARG:HG3	3.48	0.51
1:6:1472:C:H41	1:6:1536:G:H1	1.59	0.51
1:6:1570:A:O5'	1:6:1570:A:H8	1.93	0.51
1:6:1571:C:O5'	1:6:1571:C:H6	1.94	0.51
30:D8:11:LYS:N	30:D8:31:GLU:O	2.30	0.51
7:S5:81:ARG:HD3	7:S5:82:PHE:CE2	2.46	0.51
46:L9:161:LEU:O	46:L9:164:ILE:HG22	2.11	0.51
42:L5:106:ALA:HA	42:L5:171:LEU:CD1	2.52	0.51
42:L5:99:TYR:CD1	42:L5:199:ILE:HG23	2.46	0.51
12:C0:9:ASN:O	12:C0:13:GLN:N	2.36	0.51
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.35	0.51
5:S3:79:TYR:CD1	5:S3:84:ILE:HB	3.58	0.51
64:N8:64:GLN:HE21	36:5:101:G:H8	117.55	0.51
77:Q1:1:MET:HB2	1:6:1783:C:OP2	309.91	0.51
77:Q1:6:ARG:CZ	77:Q1:6:ARG:HB3	5.71	0.51
3:S1:129:THR:HG23	3:S1:176:VAL:HG12	1.92	0.51
23:D1:67:ASP:HA	23:D1:70:ASN:ND2	2.25	0.51
9:S7:140:VAL:HB	24:D2:52:TYR:HB3	2.27	0.51
2:S0:180:GLU:O	2:S0:184:LEU:HB2	2.11	0.51
2:S0:63:ILE:HG12	23:D1:36:VAL:HG22	1.93	0.51
4:S2:184:VAL:HG22	4:S2:211:LEU:HD23	1.92	0.51
4:S2:60:SER:OG	23:D1:26:ALA:HA	2.10	0.51
40:L3:21:ARG:HG2	40:L3:269:GLN:CG	2.34	0.51
36:1:3045:G:O2'	40:L3:275:ARG:HD2	2.10	0.51
48:M1:9:MET:C	48:M1:11:ASP:H	2.43	0.51
48:M1:95:ASN:HB3	48:M1:103:GLY:O	3.03	0.51
63:N7:29:HIS:ND1	63:N7:40:HIS:CE1	3.89	0.51
1:2:1178:G:N2	35:SM:80:ALA:HB1	2.25	0.51
69:O3:39:GLN:OE1	69:O3:39:GLN:N	2.44	0.51
34:SR:216:LYS:C	34:SR:218:GLY:H	2.13	0.51
36:5:2275:A:C2	36:5:2312:A:C5	2.98	0.51
56:N0:33:ASN:OD1	56:N0:36:ILE:HB	3.37	0.51
73:O7:52:LYS:HG3	73:O7:55:ARG:HD2	1.92	0.51
36:5:3159:C:H2'	36:5:3160:U:O4'	2.11	0.51
52:M6:85:ARG:NH1	36:5:2382:G:OP1	238.85	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:100:ARG:NE	36:5:66:A:OP2	85.37	0.51
36:5:916:G:N7	36:5:924:G:C6	2.79	0.51
54:M8:170:ARG:HD2	64:N8:56:VAL:O	2.11	0.51
8:S6:199:GLN:O	8:S6:201:GLN:N	2.44	0.51
64:N8:90:TYR:HD1	64:N8:100:PRO:HD3	4.32	0.51
36:5:3006:A:C2	36:5:3141:A:C4	2.99	0.51
36:1:1404:G:O3'	68:O2:64:LYS:NZ	2.37	0.51
24:D2:36:LYS:O	24:D2:39:GLN:HB2	2.34	0.51
6:S4:140:VAL:HG12	6:S4:146:THR:HG22	5.73	0.51
34:SR:174:ASN:OD1	34:SR:174:ASN:N	3.63	0.51
50:M4:62:GLN:HB2	50:M4:63:VAL:HG23	1.93	0.51
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	6.09	0.51
36:5:802:C:N3	36:5:803:C:C5	2.79	0.51
36:1:1940:G:N2	36:1:3362:A:C8	2.79	0.51
36:1:674:G:O2'	41:L4:116:ASN:OD1	2.25	0.51
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.27	0.51
13:C1:122:ILE:H	13:C1:144:ALA:HB3	1.76	0.51
36:1:797:U:O2'	36:1:798:G:H5'	2.11	0.51
1:2:73:U:O2	1:2:74:U:H5'	2.11	0.51
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.44	0.51
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.45	0.51
42:L5:140:ARG:NH2	36:5:1080:A:OP2	229.38	0.51
1:2:380:U:C5	11:S9:5:PRO:HB3	2.46	0.51
36:1:873:C:H4'	36:1:874:U:OP2	2.09	0.51
1:6:690:G:C2	1:6:691:C:C4	2.98	0.51
32:E0:20:LYS:HZ3	32:E0:21:VAL:H	1.59	0.51
36:1:184:U:H2'	36:1:185:C:C6	2.46	0.51
36:5:54:C:O2'	36:5:1547:G:H1'	2.10	0.51
21:C9:4:VAL:HG21	21:C9:140:LEU:CD2	5.25	0.51
36:1:126:U:H5'	51:M5:141:ALA:HB2	1.92	0.51
1:6:1752:U:C4	1:6:1753:A:N6	2.78	0.51
48:M1:174:LYS:HD3	36:5:1016:C:N4	359.38	0.51
36:5:2656:A:C4	36:5:2658:G:N7	2.78	0.51
87:6:2125:OHX:N4	87:6:2177:OHX:N3	2.59	0.51
1:2:936:G:O6	28:D6:15:ARG:HG3	2.11	0.51
28:D6:5:ARG:O	28:D6:8:ASN:N	3.70	0.51
28:D6:94:ASN:HD21	28:D6:96:ALA:CB	3.00	0.51
47:M0:208:ASN:O	47:M0:212:GLU:HB2	2.11	0.51
47:M0:85:PHE:CB	47:M0:140:THR:HG22	2.89	0.51
26:D4:79:VAL:O	26:D4:82:ALA:HB3	2.48	0.51
10:S8:172:ARG:C	10:S8:174:GLY:N	2.97	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:339:C:OP1	41:L4:195:ARG:NH1	2.44	0.51
69:O3:103:TYR:HA	69:O3:105:SER:N	2.36	0.51
19:C7:57:LEU:HD23	19:C7:60:ARG:HD3	1.92	0.51
36:1:1233:G:N1	36:1:1234:G:O6	2.44	0.51
7:S5:34:GLN:HG2	18:C6:57:LEU:HD13	1.93	0.51
20:C8:15:LEU:HD23	20:C8:22:VAL:O	3.56	0.51
3:S1:70:LEU:HD11	3:S1:79:HIS:HB3	1.93	0.51
68:O2:24:ARG:HD3	68:O2:25:TYR:CE2	2.46	0.51
23:D1:40:ASP:OD1	23:D1:44:ARG:HB2	2.49	0.51
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.92	0.51
24:D2:41:MET:O	24:D2:45:GLY:N	2.44	0.51
20:C8:105:VAL:CG2	20:C8:106:GLU:N	4.51	0.51
1:6:1699:G:C2'	1:6:1700:C:H5'	2.41	0.51
63:N7:79:HIS:O	63:N7:80:LEU:HD23	2.64	0.51
1:6:1073:G:C2'	1:6:1074:G:H5''	2.35	0.51
55:M9:7:GLN:N	55:M9:7:GLN:OE1	2.43	0.51
56:N0:24:LEU:HD13	57:N1:148:PRO:HG3	1.92	0.51
36:1:2724:U:OP1	57:N1:57:TYR:OH	2.25	0.51
40:L3:299:ASP:O	40:L3:301:THR:N	2.41	0.51
62:N6:61:GLY:O	62:N6:64:LYS:HB2	2.10	0.51
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.90	0.51
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	1.99	0.51
57:N1:101:CYS:HB3	36:5:990:U:C1'	253.43	0.51
51:M5:59:PHE:HE2	51:M5:142:ILE:HD11	3.15	0.51
1:2:633:U:O2'	1:2:1102:G:O2'	2.28	0.51
39:L2:30:ARG:HG2	39:L2:74:GLU:HG2	1.93	0.51
74:O8:42:LYS:NZ	36:5:1750:A:OP2	139.26	0.51
79:Q3:9:GLY:O	79:Q3:12:GLY:N	3.03	0.51
25:D3:17:VAL:HG22	25:D3:20:ARG:NH2	2.69	0.51
64:N8:96:LYS:HD2	64:N8:97:GLU:OE1	2.11	0.51
1:2:861:U:O2'	24:D2:56:HIS:O	2.28	0.51
10:S8:137:LYS:CE	1:6:191:C:H42	264.34	0.51
1:2:1259:U:H2'	1:2:1260:U:C6	2.46	0.51
53:M7:64:ASN:OD1	53:M7:80:LYS:NZ	2.41	0.51
38:8:148:G:H2'	38:8:149:A:C8	2.40	0.51
69:O3:21:ARG:HG3	69:O3:21:ARG:NH1	2.22	0.51
54:M8:65:SER:HB3	54:M8:90:ASP:HB3	2.76	0.51
36:5:2996:U:OP1	36:5:2996:U:C4'	2.58	0.51
54:M8:178:ARG:HG2	64:N8:50:PRO:HB2	1.93	0.51
54:M8:21:SER:HG	36:5:673:U:P	149.60	0.51
1:6:251:A:H5''	1:6:252:U:OP2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:708:C:C2	1:2:709:C:H5	2.29	0.51
36:1:3222:U:O2'	36:1:3223:A:H5'	2.11	0.51
10:S8:92:ARG:NH2	36:1:2107:A:H4'	2.25	0.51
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.44	0.51
38:8:80:A:H2	38:8:83:C:H41	1.59	0.51
37:3:17:A:OP1	42:L5:2:ALA:HB2	2.11	0.51
8:S6:216:LEU:HD11	1:6:241:U:H5'	336.93	0.51
40:L3:216:ASP:HB3	40:L3:278:ILE:HA	1.92	0.51
33:E1:106:TYR:O	33:E1:107:LYS:HB2	2.10	0.51
1:2:604:A:H2'	1:2:605:A:O4'	2.11	0.51
1:2:763:G:N2	1:2:773:C:C2	2.78	0.51
1:2:763:G:N2	1:2:773:C:N3	2.58	0.51
36:1:670:C:P	54:M8:147:ARG:HH21	2.33	0.51
36:5:770:G:O6	87:5:4091:OHX:N6	2.44	0.51
1:2:289:U:H2'	1:2:290:G:O4'	2.11	0.51
44:L7:84:VAL:HG23	44:L7:117:VAL:HB	2.81	0.51
1:2:869:A:H2'	1:2:870:C:O4'	2.10	0.51
10:S8:87:ASN:HB3	10:S8:90:LEU:HD11	1.92	0.51
3:S1:68:VAL:HG22	3:S1:72:ASP:OD1	2.11	0.51
13:C1:46:LYS:O	13:C1:50:GLU:N	2.41	0.51
1:6:1682:U:H6	1:6:1682:U:H5''	1.75	0.51
1:2:1526:A:H5''	1:2:1527:C:OP2	2.11	0.51
13:C1:59:PRO:HB3	13:C1:66:ILE:HD11	2.92	0.51
36:5:142:C:H2'	36:5:143:G:O4'	2.11	0.51
36:1:1294:A:O2'	36:1:1295:G:H5''	2.11	0.51
11:S9:127:VAL:O	11:S9:131:GLN:HB2	2.41	0.51
41:L4:334:PHE:CE1	36:5:578:A:C5	278.21	0.51
36:5:2523:A:O2'	36:5:2587:U:H1'	2.11	0.51
6:S4:52:LEU:HD13	6:S4:54:TYR:CE2	2.46	0.51
36:1:1383:G:H4'	41:L4:240:PRO:O	2.11	0.51
54:M8:36:LEU:HB3	54:M8:45:ASN:OD1	2.11	0.51
64:N8:6:THR:HG23	64:N8:9:ARG:HG2	2.77	0.51
1:6:1406:A:H2'	1:6:1407:U:C6	2.46	0.51
5:S3:161:GLY:H	1:6:1331:A:N6	415.02	0.51
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	2.80	0.51
18:C6:25:GLY:HA3	18:C6:64:ASP:CG	2.31	0.51
30:D8:44:VAL:HG21	30:D8:48:VAL:CG2	2.68	0.51
7:S5:48:PHE:CG	7:S5:67:PRO:HB3	2.46	0.51
46:L9:117:PHE:HD2	46:L9:124:ARG:NH2	2.08	0.51
67:O1:54:GLU:N	67:O1:54:GLU:OE2	2.54	0.51
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:127:THR:O	61:N5:130:TYR:N	2.44	0.51
1:2:1280:C:H2'	1:2:1281:G:H8	1.76	0.51
20:C8:114:GLU:O	20:C8:118:LYS:HD2	2.11	0.51
22:D0:82:TYR:HB3	31:D9:52:PHE:HB3	1.93	0.51
1:2:1253:U:H4'	33:E1:143:LYS:N	2.25	0.51
36:1:315:C:N4	36:1:316:U:O4	2.44	0.51
71:O5:100:VAL:HG12	71:O5:105:ARG:HE	5.73	0.51
72:O6:30:LYS:HD3	36:5:316:U:O2'	102.72	0.51
77:Q1:21:ARG:NH1	1:6:1654:G:OP1	281.40	0.51
3:S1:223:PHE:CE2	3:S1:228:LEU:HD22	2.46	0.51
55:M9:124:TYR:CE2	36:5:1720:U:C4	234.61	0.51
1:2:1049:U:H5''	29:D7:70:LYS:HG3	1.92	0.51
1:2:1212:G:H8	1:2:1212:G:H5''	1.75	0.51
59:N3:36:ILE:HG23	59:N3:58:VAL:CG2	2.87	0.51
60:N4:14:TYR:HB3	60:N4:15:PRO:CD	2.53	0.51
69:O3:73:ARG:HD3	69:O3:82:ARG:NH1	2.22	0.51
34:SR:178:VAL:HG12	34:SR:192:PHE:HB2	1.91	0.51
36:1:2687:G:OP1	42:L5:8:LYS:HE3	2.11	0.51
72:O6:67:LYS:HA	72:O6:70:ARG:HH12	5.89	0.51
52:M6:194:LEU:O	52:M6:199:TYR:N	2.34	0.51
57:N1:100:LYS:O	57:N1:102:ARG:N	2.44	0.51
51:M5:150:TRP:CZ3	51:M5:151:ILE:HG12	2.45	0.51
1:2:778:G:N7	1:2:780:A:H5'	2.26	0.51
36:1:2190:U:C5	36:1:2191:U:C5	2.99	0.51
6:S4:104:ASP:HB2	6:S4:108:ARG:O	2.26	0.51
36:5:2155:G:H2'	36:5:2156:C:O4'	2.10	0.51
39:L2:239:ALA:HB3	36:5:2155:G:H4'	209.39	0.51
36:5:137:G:C6	36:5:138:U:C4	2.99	0.51
36:1:2961:G:C6	36:1:2962:U:C4	2.99	0.51
40:L3:379:PHE:CD1	40:L3:379:PHE:C	2.84	0.51
64:N8:75:LEU:HA	64:N8:78:LEU:HB2	1.93	0.51
11:S9:49:LEU:HD11	11:S9:53:ARG:HD3	1.93	0.51
22:D0:24:ILE:HA	22:D0:115:GLU:O	3.39	0.51
1:2:1446:A:C8	1:2:1448:G:C5	2.99	0.51
36:1:2767:U:O2'	36:1:2768:U:H5'	2.12	0.51
37:3:13:A:OP1	37:3:111:U:O2'	2.28	0.51
36:1:412:G:C6	36:1:413:U:C4	2.99	0.51
36:5:2573:G:N7	87:5:4189:OHX:N6	2.59	0.51
67:O1:7:VAL:HG12	67:O1:7:VAL:O	2.11	0.51
36:5:2997:G:C1'	36:5:3396:U:H5'	2.41	0.51
45:L8:94:PHE:O	45:L8:97:TYR:N	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:160:G:H1	36:5:261:U:H3	1.59	0.51
36:1:3165:A:H61	36:1:3285:C:H42	1.58	0.51
36:1:1350:A:H2'	36:1:1351:U:H3'	1.92	0.51
1:6:1625:C:H2'	1:6:1626:U:C6	2.46	0.51
36:1:1743:G:H2'	36:1:1744:G:C8	2.46	0.51
55:M9:120:TYR:C	55:M9:122:VAL:H	2.15	0.51
1:6:1098:U:C6	1:6:1098:U:H5''	2.46	0.51
36:5:1348:U:H5''	36:5:1355:A:H61	1.76	0.51
36:1:2697:A:C2	36:1:2698:G:C5	2.98	0.51
36:1:1576:G:N7	36:1:1577:G:C6	2.79	0.51
33:E1:139:LEU:HD13	33:E1:152:ALA:N	2.26	0.51
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.45	0.51
36:1:2626:A:OP2	36:1:2628:A:N6	2.43	0.51
36:5:2584:G:H5'	36:5:2585:G:OP2	2.11	0.51
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.19	0.51
36:5:273:A:N7	87:5:4060:OHX:N3	2.59	0.51
17:C5:77:ARG:NH1	36:1:1025:A:O4'	2.44	0.51
38:8:109:A:H2'	38:8:110:C:H5'	1.92	0.51
36:5:895:A:C6	36:5:897:U:N3	2.79	0.51
37:3:112:G:OP2	87:3:220:OHX:N1	2.44	0.51
1:6:1659:A:H8	1:6:1659:A:O5'	1.94	0.51
36:1:2928:C:H6	36:1:2928:C:H5''	1.76	0.51
36:5:1537:A:H2	36:5:1584:U:H3	1.59	0.51
1:2:1761:U:O2'	1:2:1762:A:OP2	2.24	0.50
53:M7:124:LYS:HD2	53:M7:140:GLU:OE1	2.11	0.50
28:D6:38:ARG:NH1	28:D6:83:ILE:HG22	5.41	0.50
1:6:477:A:C5	1:6:538:A:N6	2.79	0.50
1:2:544:A:H4'	32:E0:28:LYS:HZ1	1.75	0.50
47:M0:176:LEU:HD11	47:M0:199:PHE:CE1	2.44	0.50
36:1:115:A:O5'	36:1:115:A:H8	1.94	0.50
45:L8:145:ASN:O	45:L8:147:LYS:HG3	2.12	0.50
45:L8:73:PRO:O	45:L8:75:ILE:N	3.80	0.50
68:O2:99:ASN:ND2	36:5:1388:U:O2'	132.81	0.50
1:6:1534:G:H4'	1:6:1536:G:O6	2.11	0.50
18:C6:39:VAL:HG21	18:C6:48:VAL:HG11	1.92	0.50
7:S5:103:ASN:OD1	1:6:1473:U:O2'	357.50	0.50
36:5:2745:G:N2	36:5:2748:A:OP2	2.44	0.50
1:2:1274:C:H4'	1:2:1275:A:O5'	2.11	0.50
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.93	0.50
17:C5:118:GLU:HB2	17:C5:119:PHE:CE2	2.46	0.50
17:C5:37:ALA:HB1	17:C5:41:VAL:HG21	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:101:GLN:HB2	5:S3:186:VAL:HG11	3.28	0.50
1:2:1128:C:H2'	1:2:1129:U:O4'	2.11	0.50
47:M0:20:SER:HG	47:M0:22:TYR:H	1.59	0.50
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.11	0.50
16:C4:43:THR:O	16:C4:46:MET:HB2	3.56	0.50
36:5:656:A:C2	36:5:657:A:C4	2.99	0.50
36:5:677:A:N3	36:5:678:G:H1'	2.27	0.50
6:S4:186:GLY:HA3	1:6:753:A:OP1	368.88	0.50
29:D7:70:LYS:NZ	1:6:1050:G:OP1	353.35	0.50
6:S4:163:ASP:O	6:S4:165:ALA:N	2.42	0.50
56:N0:137:ARG:HD3	36:5:1213:G:OP1	325.65	0.50
57:N1:75:ILE:O	57:N1:75:ILE:HG22	4.92	0.50
36:1:346:C:C2	36:1:348:A:N7	2.79	0.50
39:L2:42:ARG:HA	39:L2:88:ILE:O	2.36	0.50
79:Q3:77:ALA:O	79:Q3:80:ARG:HB2	2.10	0.50
41:L4:219:LEU:O	41:L4:220:ARG:C	2.48	0.50
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.37	0.50
72:O6:62:ARG:HH12	72:O6:98:ARG:NH1	2.09	0.50
1:2:25:C:HO2'	1:2:366:A:HO2'	1.55	0.50
51:M5:170:LYS:O	51:M5:173:GLY:N	2.33	0.50
13:C1:91:LEU:HD23	13:C1:102:LYS:HA	3.63	0.50
35:SM:55:SER:O	35:SM:59:GLY:N	2.44	0.50
1:6:1270:G:H1	1:6:1440:C:H42	1.59	0.50
1:6:913:G:C8	36:5:2205:U:N3	2.79	0.50
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.49	0.50
36:1:3085:G:OP2	87:1:3887:OHX:N2	2.44	0.50
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.12	0.50
36:1:2932:U:P	59:N3:40:LYS:HD3	2.50	0.50
36:5:3263:G:C2	36:5:3264:G:C8	2.99	0.50
36:1:1616:U:H2'	36:1:1617:G:H8	1.76	0.50
42:L5:182:GLY:O	42:L5:190:ILE:HD12	3.16	0.50
1:2:424:C:O2	1:2:424:C:H2'	2.11	0.50
36:5:2856:G:H2'	36:5:2857:C:H6	1.76	0.50
71:O5:15:GLU:C	71:O5:18:ALA:H	3.25	0.50
1:6:647:G:H22	1:6:687:G:H22	1.58	0.50
36:1:3343:G:H21	36:1:3362:A:H2	1.58	0.50
13:C1:75:VAL:HG12	13:C1:120:GLY:H	1.76	0.50
22:D0:117:VAL:O	22:D0:118:VAL:HB	2.11	0.50
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.09	0.50
36:1:1308:A:OP2	36:1:1308:A:C8	2.64	0.50
1:2:1266:U:H2'	1:2:1267:G:C8	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:380:U:H5	11:S9:5:PRO:HB3	1.76	0.50
12:C0:77:ARG:NH2	12:C0:86:ILE:H	2.09	0.50
51:M5:102:ALA:O	51:M5:106:VAL:HG22	2.11	0.50
36:5:2121:G:H2'	36:5:2122:G:C5'	2.40	0.50
9:S7:33:GLU:H	9:S7:33:GLU:CD	2.14	0.50
38:8:68:G:C6	38:8:69:U:C4	2.99	0.50
37:3:100:C:P	56:N0:52:LYS:HZ1	2.35	0.50
1:2:1443:U:O4	87:2:2133:OHX:N6	2.44	0.50
36:5:430:U:OP2	87:5:3979:OHX:N5	2.44	0.50
55:M9:151:ARG:O	55:M9:155:LEU:HD22	2.11	0.50
54:M8:20:LYS:CG	36:5:672:A:H5'	158.68	0.50
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.25	0.50
40:L3:266:ARG:NH2	36:5:2392:C:O2'	209.27	0.50
53:M7:138:LYS:HD3	53:M7:140:GLU:CD	2.31	0.50
1:6:591:A:H2'	1:6:592:A:C8	2.46	0.50
26:D4:12:VAL:HG22	26:D4:23:PHE:CB	2.41	0.50
41:L4:153:SER:OG	41:L4:154:THR:N	2.44	0.50
41:L4:38:VAL:HG21	41:L4:121:ALA:HB2	1.93	0.50
5:S3:163:PRO:HA	5:S3:166:ASP:HB2	2.87	0.50
1:2:1165:G:C6	1:2:1166:A:N6	2.79	0.50
42:L5:148:ILE:HD12	42:L5:159:VAL:HG21	3.93	0.50
1:6:1481:C:O2'	1:6:1482:C:O5'	2.23	0.50
16:C4:51:ASP:O	16:C4:54:GLU:HB2	2.11	0.50
3:S1:86:LEU:HD12	3:S1:98:THR:HG23	1.93	0.50
41:L4:89:ALA:O	41:L4:91:GLY:N	2.43	0.50
4:S2:137:ILE:HD11	23:D1:27:ASP:OD1	2.10	0.50
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.70	0.50
2:S0:12:GLU:O	2:S0:16:LEU:HG	3.81	0.50
1:2:178:U:P	8:S6:191:ARG:HH12	2.35	0.50
36:5:678:G:H2'	36:5:679:U:H6	1.75	0.50
70:O4:82:ALA:C	70:O4:84:CYS:N	2.62	0.50
68:O2:82:LEU:O	68:O2:82:LEU:HD22	2.33	0.50
36:1:1600:U:OP2	87:M9:202:OHX:N5	2.44	0.50
62:N6:118:LEU:HD13	62:N6:121:ARG:NH1	4.45	0.50
1:2:1226:A:O2'	1:2:1227:A:OP1	2.27	0.50
14:C2:123:VAL:HG12	14:C2:126:TRP:HB3	1.93	0.50
1:6:1595:U:N3	1:6:1600:A:H2	1.98	0.50
36:1:3147:G:H4'	40:L3:102:LEU:O	2.10	0.50
36:1:3182:G:H2'	36:1:3183:A:O4'	2.11	0.50
59:N3:87:ARG:NH2	59:N3:93:LEU:HD11	2.26	0.50
69:O3:37:THR:HG1	69:O3:39:GLN:H	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.93	0.50
34:SR:63:GLY:HA3	34:SR:92:TRP:HH2	3.15	0.50
52:M6:12:LYS:HG2	52:M6:40:GLU:CB	5.64	0.50
4:S2:96:THR:O	4:S2:96:THR:OG1	2.24	0.50
1:6:523:G:O2'	1:6:529:A:N6	2.44	0.50
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.77	0.50
74:O8:28:ASN:HB2	74:O8:40:GLN:HB3	2.08	0.50
54:M8:170:ARG:O	54:M8:171:LYS:HG2	2.10	0.50
48:M1:16:LYS:HB3	48:M1:72:ARG:HD3	1.93	0.50
1:2:336:G:H21	1:2:338:C:H5'	1.75	0.50
64:N8:73:LEU:HB2	64:N8:109:TYR:CE2	2.46	0.50
1:6:1508:U:O4	87:6:2058:OHX:N4	2.44	0.50
9:S7:104:ARG:HG2	1:6:742:U:H1'	353.37	0.50
36:5:739:G:O6	87:5:3961:OHX:N6	2.43	0.50
46:L9:63:LYS:O	46:L9:66:ALA:HB3	2.10	0.50
45:L8:78:PHE:O	45:L8:79:GLN:HB3	2.54	0.50
24:D2:71:LYS:HZ2	1:6:1099:U:H5''	373.78	0.50
53:M7:27:LYS:HG2	53:M7:63:PHE:CD2	2.46	0.50
36:1:1861:G:H4'	55:M9:63:THR:OG1	2.11	0.50
36:1:1835:A:H5'	36:1:1835:A:C8	2.41	0.50
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	1.92	0.50
56:N0:155:ARG:HH11	56:N0:157:GLN:NE2	3.76	0.50
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.49	0.50
36:1:2830:G:H2'	36:1:2831:G:C8	2.45	0.50
42:L5:294:ALA:O	42:L5:296:GLN:N	2.43	0.50
36:5:1085:A:H5''	36:5:1085:A:C8	2.43	0.50
36:5:1084:A:H5''	36:5:1085:A:OP2	2.12	0.50
25:D3:38:PHE:CD1	1:6:359:A:H1'	331.44	0.50
34:SR:166:SER:OG	34:SR:184:ASN:HB3	7.99	0.50
36:5:2329:C:H2'	36:5:2330:C:C6	2.46	0.50
36:5:3298:C:H2'	36:5:3299:A:O4'	2.11	0.50
61:N5:73:MET:O	61:N5:77:GLU:N	2.38	0.50
5:S3:139:SER:O	5:S3:182:LEU:HB3	2.11	0.50
78:Q2:22:GLN:HB3	78:Q2:75:VAL:CG2	2.41	0.50
36:1:873:C:C5'	36:1:874:U:H4'	2.41	0.50
40:L3:110:LEU:O	40:L3:115:LYS:HD2	2.11	0.50
1:2:1363:U:O2'	1:2:1364:G:H5'	2.11	0.50
36:1:999:G:C6	36:1:1000:C:N4	2.79	0.50
38:8:47:C:H1'	38:8:61:A:H2'	1.93	0.50
36:5:2387:A:OP2	87:5:4014:OHX:N4	2.45	0.50
36:1:1648:A:H2'	36:1:1649:U:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:42:PRO:O	25:D3:76:LEU:HD12	2.83	0.50
25:D3:69:ARG:HD3	25:D3:117:ILE:HG12	4.01	0.50
36:5:3048:A:C5	36:5:3090:U:C5	3.00	0.50
40:L3:53:MET:HG2	40:L3:77:THR:CG2	2.52	0.50
26:D4:104:SER:OG	26:D4:107:GLN:N	3.48	0.50
28:D6:20:PRO:HB3	28:D6:29:SER:OG	2.10	0.50
28:D6:68:TYR:N	28:D6:68:TYR:CD2	2.80	0.50
36:5:1661:G:H2'	36:5:1662:G:C8	2.46	0.50
44:L7:214:TRP:CD2	44:L7:219:LYS:HD3	5.27	0.50
44:L7:44:ILE:HD11	44:L7:179:LEU:O	2.11	0.50
45:L8:66:SER:HG	51:M5:21:PHE:HZ	1.59	0.50
45:L8:172:LYS:NZ	72:O6:39:PHE:HE1	2.08	0.50
72:O6:43:LEU:HD13	72:O6:47:ILE:HD11	1.93	0.50
36:1:340:C:H2'	36:1:341:G:O4'	2.11	0.50
41:L4:173:GLY:O	41:L4:175:HIS:N	2.43	0.50
1:6:819:G:O2'	1:6:821:U:OP2	2.29	0.50
20:C8:61:LEU:CD2	20:C8:65:GLU:HB2	5.62	0.50
40:L3:385:LYS:NZ	36:5:3328:G:OP1	207.48	0.50
42:L5:111:GLN:HA	42:L5:116:ASP:HB2	1.92	0.50
1:6:1428:G:C2	1:6:1429:G:C8	2.99	0.50
21:C9:117:SER:HB2	21:C9:123:ARG:CB	2.41	0.50
21:C9:50:ALA:HA	21:C9:53:TRP:CD1	4.00	0.50
71:O5:105:ARG:O	71:O5:109:ILE:HG13	2.11	0.50
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	283.48	0.50
3:S1:41:ARG:HH21	3:S1:97:LEU:HD11	1.76	0.50
4:S2:35:TRP:HE1	4:S2:37:PRO:HA	2.66	0.50
40:L3:269:GLN:O	40:L3:269:GLN:HG3	2.10	0.50
55:M9:101:VAL:O	55:M9:104:ARG:N	3.00	0.50
36:1:437:G:O2'	36:1:438:A:H5'	2.11	0.50
6:S4:180:LEU:CD2	6:S4:181:VAL:H	2.23	0.50
36:1:3146:G:C2'	36:1:3147:G:H5'	2.42	0.50
36:1:3189:G:H2'	36:1:3190:C:C6	2.46	0.50
69:O3:44:TYR:N	69:O3:44:TYR:CD2	2.92	0.50
69:O3:73:ARG:HG2	69:O3:82:ARG:HD2	1.93	0.50
42:L5:257:GLU:C	42:L5:258:LYS:HD3	4.84	0.50
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.47	0.50
34:SR:289:ALA:HA	34:SR:305:TYR:HA	1.93	0.50
34:SR:303:ALA:N	34:SR:311:ARG:O	2.41	0.50
56:N0:167:ARG:HG3	56:N0:168:PRO:HD2	1.94	0.50
41:L4:219:LEU:O	41:L4:222:VAL:HG12	2.11	0.50
8:S6:69:LEU:O	8:S6:99:GLY:HA3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:81:VAL:HG21	24:D2:125:ILE:HB	2.36	0.50
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.11	0.50
57:N1:104:GLU:OE2	57:N1:108:ARG:HD3	3.29	0.50
49:M3:78:ALA:O	49:M3:82:ALA:N	2.44	0.50
36:5:2966:G:H2'	36:5:2967:A:C8	2.47	0.50
1:2:826:U:H2'	1:2:827:C:C6	2.46	0.50
48:M1:137:ARG:HG2	37:7:28:C:H5''	307.14	0.50
36:1:2618:G:OP1	47:M0:116:ARG:HG3	2.11	0.50
59:N3:6:ALA:HB2	59:N3:126:TRP:CH2	2.81	0.50
2:S0:26:ALA:HB1	2:S0:29:VAL:HG13	1.92	0.50
1:2:1490:C:H5	1:2:1492:A:C4	2.29	0.50
32:E0:49:LEU:H	32:E0:49:LEU:HD22	4.94	0.50
62:N6:101:PRO:O	62:N6:103:LYS:N	2.81	0.50
34:SR:109:ASP:HB2	34:SR:127:ARG:HB2	3.58	0.50
36:5:3223:A:C5	36:5:3263:G:C6	3.00	0.50
2:S0:101:ARG:HG3	2:S0:102:PHE:N	2.26	0.50
56:N0:155:ARG:HG2	56:N0:172:TYR:H	4.19	0.50
36:1:120:G:P	45:L8:133:LYS:HZ1	2.34	0.50
1:2:50:C:H1'	1:2:430:G:N2	2.26	0.50
1:6:452:A:O2'	1:6:453:U:O4'	2.26	0.50
1:2:301:A:H2'	1:2:302:U:H6	1.76	0.50
13:C1:57:LYS:HE2	13:C1:131:ILE:HG23	1.92	0.50
55:M9:144:GLN:O	55:M9:147:ALA:HB3	2.11	0.50
36:1:660:A:H2	36:1:941:G:N3	2.09	0.50
57:N1:17:ARG:HD3	57:N1:22:HIS:ND1	4.28	0.50
1:6:985:G:C2	1:6:986:G:H1'	2.45	0.50
49:M3:39:ARG:NH2	36:5:686:G:OP2	75.05	0.50
79:Q3:81:SER:HB3	79:Q3:84:ARG:NH2	8.21	0.50
1:2:74:U:H1'	1:2:75:U:H5''	1.93	0.50
1:6:1431:C:O2	1:6:1437:U:N3	2.39	0.50
44:L7:65:ALA:HB1	44:L7:76:TYR:CE1	3.04	0.50
36:5:1152:G:C8	36:5:1152:G:O5'	2.65	0.50
36:5:327:A:H2'	36:5:328:U:H6	1.77	0.50
36:1:1825:G:OP1	74:O8:49:SER:OG	2.27	0.50
40:L3:240:ARG:HG2	40:L3:240:ARG:HH11	1.76	0.50
69:O3:24:ASN:HD21	69:O3:27:VAL:HG23	1.77	0.50
36:1:3148:U:O4	87:1:4107:OHX:N2	2.44	0.50
36:1:2612:U:H2'	36:1:2613:U:O4'	2.11	0.50
41:L4:353:ALA:O	41:L4:356:THR:N	2.42	0.50
37:3:58:C:H2'	37:3:59:U:O4'	2.11	0.50
36:1:703:G:C6	36:1:704:U:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:922:U:O2	36:1:922:U:H3'	2.11	0.50
22:D0:85:ARG:HD2	31:D9:55:PHE:HE2	1.75	0.50
8:S6:31:ARG:N	8:S6:34:GLN:OE1	3.14	0.50
40:L3:53:MET:HE2	40:L3:77:THR:HG21	2.49	0.50
36:5:1888:U:H2'	36:5:1889:G:O4'	2.10	0.50
11:S9:64:GLU:HA	11:S9:69:ARG:HD3	2.11	0.50
47:M0:52:LEU:O	47:M0:135:ILE:N	2.37	0.50
47:M0:85:PHE:HA	47:M0:139:ARG:O	2.65	0.50
65:N9:14:ARG:HH21	65:N9:18:ARG:CD	4.37	0.50
87:1:4032:OHX:N4	87:1:4044:OHX:N3	2.60	0.50
6:S4:57:ASN:HB3	6:S4:59:ARG:N	2.27	0.50
41:L4:77:VAL:HG23	41:L4:87:GLN:O	2.11	0.50
1:2:1357:A:N6	1:2:1366:U:H3	2.10	0.50
27:D5:39:ALA:O	27:D5:72:GLY:N	2.42	0.50
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.12	0.50
18:C6:129:PHE:CD2	22:D0:79:TRP:HB2	3.39	0.50
33:E1:121:CYS:HB2	33:E1:141:CYS:SG	2.52	0.50
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.41	0.50
1:2:956:C:H2'	1:2:957:G:H8	1.76	0.50
4:S2:207:LEU:HD11	4:S2:211:LEU:HD12	4.55	0.50
55:M9:136:ARG:O	55:M9:140:GLU:HG3	2.11	0.50
63:N7:9:LYS:HB3	63:N7:25:ILE:HD11	4.20	0.50
68:O2:96:ILE:HB	68:O2:121:ASN:ND2	2.26	0.50
36:1:1874:A:OP1	55:M9:17:VAL:HG12	2.12	0.50
62:N6:127:GLU:HA	71:O5:68:GLN:OE1	49.46	0.50
6:S4:120:SER:O	6:S4:164:LEU:HB2	2.26	0.50
36:5:535:G:C2	36:5:555:U:C2	3.00	0.50
50:M4:50:LYS:HD2	50:M4:82:SER:OG	5.15	0.50
56:N0:14:LEU:HD23	56:N0:15:PRO:HD2	1.92	0.50
43:L6:166:LYS:O	43:L6:169:ASP:HB2	2.11	0.50
50:M4:115:PHE:HE1	50:M4:119:GLN:NE2	3.53	0.50
69:O3:43:PHE:HD2	69:O3:44:TYR:CE2	2.28	0.50
41:L4:82:THR:OG1	41:L4:84:ARG:N	4.03	0.50
72:O6:70:ARG:HD3	72:O6:84:LYS:HG2	1.93	0.50
51:M5:150:TRP:CH2	51:M5:151:ILE:HG12	2.46	0.50
51:M5:38:ARG:HH22	51:M5:60:VAL:HG22	1.75	0.50
36:5:1573:G:N1	36:5:1574:C:O2'	2.42	0.50
26:D4:40:LEU:O	26:D4:44:LEU:HB2	2.34	0.50
45:L8:195:SER:O	45:L8:197:VAL:N	2.35	0.50
48:M1:46:VAL:HG22	48:M1:68:HIS:CE1	2.63	0.50
8:S6:139:ASN:HA	8:S6:142:ARG:CG	3.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:6:ASP:OD1	60:N4:31:PHE:HA	2.12	0.50
36:5:3004:C:O2'	36:5:3005:A:H5'	2.11	0.50
15:C3:20:ARG:HE	1:6:862:A:P	353.83	0.50
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.10	0.50
76:Q0:103:LEU:CD1	76:Q0:110:CYS:HA	3.05	0.50
45:L8:79:GLN:HG2	45:L8:80:TYR:CD2	4.27	0.50
87:1:4003:OHX:N3	87:1:4171:OHX:N5	2.59	0.50
79:Q3:51:ALA:H	36:5:1795:U:H3	207.59	0.50
36:5:2542:U:C2	36:5:2543:U:C4	3.00	0.50
1:6:505:A:N1	1:6:507:U:N3	2.60	0.50
21:C9:25:GLN:CG	21:C9:27:LYS:HG3	4.84	0.50
36:5:674:G:C6	36:5:789:A:N1	2.79	0.50
25:D3:38:PHE:CE1	1:6:359:A:H1'	332.42	0.50
36:5:1464:G:N2	36:5:1466:G:H3'	2.26	0.50
36:1:1273:A:HO2'	36:1:1274:A:P	2.34	0.50
36:1:2698:G:O2'	57:N1:12:ARG:HG3	2.12	0.50
1:2:1160:A:H2'	1:2:1161:C:C6	2.46	0.50
1:6:1238:A:OP2	87:6:2101:OHX:N1	2.45	0.50
49:M3:18:TRP:CE2	49:M3:19:GLN:HG2	3.16	0.50
36:1:3060:C:H1'	36:1:3332:U:H1'	1.94	0.50
37:3:61:G:OP1	42:L5:276:LYS:HG2	2.12	0.50
36:5:1270:A:H2'	36:5:1271:A:O4'	2.12	0.50
36:5:1045:C:H6	36:5:1045:C:H5''	1.75	0.50
51:M5:63:ARG:HA	51:M5:130:PHE:O	2.31	0.50
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.11	0.50
36:5:850:U:H2'	36:5:851:C:C6	2.46	0.50
1:6:729:G:N7	87:6:2104:OHX:N5	2.59	0.50
36:5:2612:U:H2'	36:5:2613:U:O4'	2.12	0.50
36:5:330:G:OP2	87:5:4044:OHX:N1	2.45	0.50
38:8:120:C:H2'	38:8:121:U:O4'	2.11	0.50
36:1:2646:C:H5'	47:M0:119:TRP:CD2	2.46	0.50
75:O9:42:ARG:CZ	75:O9:42:ARG:HB3	2.40	0.50
1:6:1363:U:H3'	1:6:1364:G:C8	2.46	0.50
36:1:803:C:C2	36:1:804:C:C5	3.00	0.50
1:2:1251:U:H4'	33:E1:133:ALA:HB1	1.94	0.50
7:S5:66:GLN:CD	7:S5:66:GLN:H	2.15	0.50
38:4:77:A:O5'	38:4:77:A:H8	1.94	0.50
36:5:869:G:H3'	36:5:870:G:C8	2.46	0.50
40:L3:50:LYS:HE2	40:L3:330:GLY:O	2.11	0.50
36:1:754:G:C2	36:1:779:G:N3	2.79	0.50
36:1:3082:C:H2'	36:1:3083:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2253:G:N2	36:1:2264:U:C2	2.79	0.50
36:5:1520:G:H2'	36:5:1521:G:H5'	1.93	0.50
47:M0:56:GLU:C	47:M0:131:ILE:HG12	4.45	0.50
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.67	0.50
44:L7:165:ASP:H	44:L7:168:ILE:CD1	4.14	0.50
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	2.27	0.50
45:L8:77:GLN:HE22	45:L8:167:PRO:HG2	4.15	0.50
45:L8:240:ASN:O	45:L8:242:ALA:N	3.62	0.50
1:6:341:A:H2'	1:6:342:C:C6	2.46	0.50
26:D4:84:LYS:HD3	26:D4:85:PHE:HE2	5.14	0.50
36:1:564:G:H2'	36:1:565:U:O4'	2.12	0.50
1:6:1535:U:H1'	1:6:1536:G:C2	2.47	0.50
20:C8:25:ASN:N	20:C8:25:ASN:OD1	3.23	0.50
27:D5:39:ALA:HB3	27:D5:71:ILE:HD12	6.72	0.50
42:L5:214:ASP:OD2	42:L5:214:ASP:N	3.22	0.50
17:C5:17:TYR:O	17:C5:19:GLY:N	4.06	0.50
21:C9:6:VAL:HG22	21:C9:66:TYR:CE1	2.61	0.50
22:D0:82:TYR:OH	31:D9:44:ARG:HD2	4.72	0.50
5:S3:102:ALA:O	5:S3:104:SER:N	2.44	0.50
5:S3:28:GLU:OE2	12:C0:56:LYS:NZ	3.80	0.50
36:5:1784:G:H2'	36:5:1785:U:O4'	2.12	0.50
3:S1:168:ILE:O	3:S1:172:LEU:HG	2.12	0.50
3:S1:62:LYS:HD2	3:S1:91:VAL:HB	1.93	0.50
19:C7:105:GLN:O	19:C7:108:ASP:N	3.96	0.50
2:S0:11:PRO:HA	2:S0:14:ALA:CB	2.41	0.50
2:S0:5:ALA:O	2:S0:8:ASP:HB2	5.18	0.50
4:S2:133:LYS:HA	4:S2:136:VAL:HG23	2.56	0.50
1:2:128:U:OP1	1:2:178:U:H5	1.94	0.50
54:M8:107:THR:HA	36:5:676:G:OP2	135.12	0.50
36:1:1709:C:H2'	36:1:1710:C:H6	1.77	0.50
55:M9:38:ARG:O	55:M9:41:ILE:N	3.40	0.50
38:4:65:A:C2	38:4:96:A:C5	3.00	0.50
1:2:1227:A:H2	14:C2:43:ARG:HG3	1.77	0.50
40:L3:72:VAL:HA	59:N3:88:ARG:O	2.12	0.50
1:2:1458:G:H3'	1:2:1459:C:C5	2.47	0.50
6:S4:117:GLU:O	6:S4:119:ALA:N	3.22	0.50
1:6:72:A:H5'	1:6:73:U:OP2	2.11	0.50
56:N0:26:ARG:HH11	57:N1:150:THR:CG2	2.97	0.50
57:N1:85:LEU:HD12	36:5:2728:G:C8	209.75	0.50
36:5:3261:C:H2'	36:5:3262:U:C6	2.47	0.50
69:O3:42:GLN:HA	69:O3:45:LEU:HG	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:127:LEU:N	52:M6:127:LEU:HD23	2.26	0.50
51:M5:44:ARG:HH12	36:5:269:G:P	124.65	0.50
79:Q3:47:VAL:HG22	79:Q3:57:CYS:HB2	1.93	0.50
58:N2:55:THR:OG1	58:N2:66:VAL:HB	3.11	0.50
66:O0:100:ILE:HD12	66:O0:101:LEU:HB2	1.94	0.50
1:2:158:U:H1'	1:2:159:U:OP1	2.11	0.50
40:L3:136:LYS:O	40:L3:139:GLN:HG3	2.12	0.50
49:M3:87:ALA:O	49:M3:90:ALA:N	2.44	0.50
45:L8:156:ASP:CG	45:L8:183:LYS:HG2	3.24	0.50
40:L3:41:VAL:HA	40:L3:185:GLY:H	1.76	0.50
24:D2:101:TYR:HB2	24:D2:129:VAL:HG23	2.64	0.50
36:5:172:G:C6	36:5:247:C:N4	2.79	0.50
46:L9:170:LYS:HE3	36:5:2902:A:OP1	318.28	0.50
1:2:702:G:O6	1:2:737:A:N6	2.44	0.50
52:M6:35:VAL:HB	52:M6:104:VAL:HG22	1.93	0.50
17:C5:87:PRO:O	17:C5:90:ILE:HG13	3.13	0.50
10:S8:151:LYS:HZ3	10:S8:152:ILE:HD12	1.75	0.50
36:5:733:G:H5''	36:5:734:C:OP2	2.12	0.50
74:O8:17:ARG:HH22	36:5:1824:U:H4'	138.27	0.50
24:D2:15:ASN:ND2	24:D2:71:LYS:HA	2.27	0.50
68:O2:66:LEU:HD22	68:O2:70:GLY:O	2.73	0.50
55:M9:93:VAL:O	55:M9:94:VAL:C	2.67	0.50
36:5:2427:U:O2	36:5:2603:G:C2	2.64	0.50
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	5.96	0.50
74:O8:41:THR:HG21	74:O8:62:ALA:HB1	2.33	0.50
36:1:1666:G:C4	36:1:1784:G:N2	2.80	0.50
36:1:2697:A:C2	36:1:2698:G:C6	2.99	0.50
20:C8:16:ARG:NH2	20:C8:21:ASN:OD1	2.40	0.50
1:2:484:C:H41	1:2:503:G:H22	1.58	0.50
1:6:721:U:O2'	1:6:722:G:O4'	2.30	0.50
36:1:2107:A:C2	36:1:3344:A:C8	2.95	0.50
57:N1:17:ARG:HG2	57:N1:22:HIS:CG	2.46	0.50
48:M1:37:LEU:HD12	48:M1:67:VAL:HG13	5.23	0.50
36:1:1520:G:N2	36:1:1521:G:N3	2.59	0.50
36:5:2755:C:O2'	36:5:2756:C:H5'	2.10	0.50
20:C8:78:HIS:HB2	20:C8:79:TYR:HD2	1.75	0.50
36:1:559:A:OP1	36:1:559:A:H4'	2.12	0.50
87:5:4050:OHX:N3	87:5:4194:OHX:N4	2.59	0.50
36:5:763:G:H2'	36:5:764:U:C6	2.47	0.50
36:1:1539:A:C4	36:1:1583:A:C2	3.00	0.50
42:L5:143:LYS:HA	42:L5:172:TYR:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:777:U:O4	87:1:4005:OHX:N2	2.44	0.50
36:1:422:A:C2	36:1:2363:A:H4'	2.47	0.50
62:N6:86:THR:HG22	62:N6:96:PRO:HA	2.83	0.50
1:6:939:A:H2'	1:6:940:A:O4'	2.12	0.50
36:1:104:G:H4'	36:1:698:U:O2	2.11	0.50
51:M5:197:LEU:HG	51:M5:199:LEU:HG	1.94	0.50
1:6:28:A:H2'	1:6:29:U:O4'	2.11	0.50
76:Q0:96:CYS:HA	76:Q0:121:LEU:CD2	2.93	0.50
56:N0:115:ARG:HH11	36:5:1295:G:HO2'	297.25	0.50
36:1:1847:A:C5	53:M7:130:TYR:CD2	2.99	0.50
11:S9:87:SER:HB3	11:S9:90:LYS:HB2	6.01	0.50
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	2.87	0.50
55:M9:166:ASN:OD1	55:M9:170:ARG:NH2	2.95	0.50
20:C8:28:ILE:O	20:C8:32:LEU:HD12	2.11	0.50
36:5:1472:U:C2	36:5:1473:G:C8	3.00	0.50
36:1:317:A:C2	36:1:318:A:C4	2.99	0.50
16:C4:29:HIS:CB	16:C4:41:ARG:HG3	2.36	0.50
4:S2:106:ASP:OD1	4:S2:108:ASN:N	2.41	0.50
1:6:793:A:H3'	1:6:794:U:H5'	1.93	0.50
63:N7:75:VAL:HG21	63:N7:80:LEU:HD21	2.41	0.50
63:N7:15:ARG:HD2	63:N7:79:HIS:CD2	2.47	0.50
71:O5:6:ALA:O	71:O5:9:LEU:HB2	2.12	0.50
14:C2:97:LEU:HA	14:C2:100:TRP:CE3	2.37	0.50
50:M4:20:VAL:HG23	50:M4:66:THR:HG1	3.95	0.50
18:C6:143:ARG:HH12	35:SM:84:LYS:HG3	1.77	0.50
36:5:3091:A:C4	36:5:3094:A:C8	2.98	0.50
9:S7:16:LEU:O	9:S7:20:VAL:HG23	2.12	0.50
9:S7:58:LEU:HB2	9:S7:90:VAL:HG22	1.92	0.50
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.47	0.50
34:SR:240:VAL:HA	34:SR:255:ALA:O	2.11	0.50
72:O6:60:LEU:HD22	72:O6:64:SER:HB3	1.93	0.50
40:L3:162:VAL:O	40:L3:178:LEU:HD12	2.37	0.50
1:6:1146:G:C6	1:6:1147:A:C5	3.00	0.50
8:S6:67:VAL:HG12	8:S6:73:ILE:HD11	2.85	0.50
22:D0:58:LEU:HD12	22:D0:88:LYS:CD	2.41	0.50
58:N2:50:LEU:O	58:N2:52:ASN:N	2.45	0.50
36:5:288:C:H2'	36:5:289:A:C8	2.46	0.50
51:M5:57:GLN:HB3	38:8:143:U:H4'	94.55	0.50
33:E1:100:LEU:HD12	33:E1:102:VAL:HA	7.60	0.50
36:5:2130:G:OP1	87:5:4182:OHX:N5	2.45	0.50
36:5:2255:A:OP2	36:5:2261:G:N1	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:284:G:N7	8:S6:188:ARG:NH1	2.60	0.50
36:5:2959:C:C2'	36:5:2960:C:H5'	2.42	0.50
48:M1:139:THR:HG22	48:M1:146:GLY:O	2.12	0.50
56:N0:30:PHE:CD1	56:N0:103:VAL:HG21	2.46	0.50
1:6:103:A:OP1	87:6:2071:OHX:N4	2.45	0.50
45:L8:37:GLY:HA3	36:5:2550:U:C6	211.40	0.50
63:N7:54:THR:H	63:N7:57:HIS:HB2	1.75	0.50
10:S8:70:GLU:HB3	10:S8:112:TRP:CH2	4.23	0.50
1:2:609:U:C4	25:D3:26:GLU:HG3	2.46	0.50
36:1:412:G:OP1	53:M7:62:ARG:NH1	2.44	0.50
1:2:1147:A:O2'	1:2:1635:A:H2'	2.11	0.50
50:M4:58:ILE:HD11	50:M4:62:GLN:HG3	2.77	0.50
36:5:970:A:H2'	36:5:971:G:C8	2.46	0.50
42:L5:188:GLU:O	42:L5:188:GLU:HG3	2.12	0.50
36:5:2530:G:H2'	36:5:2531:C:H5'	1.94	0.50
36:1:3220:G:C5	36:1:3266:G:N2	2.79	0.50
18:C6:81:ILE:O	18:C6:84:ALA:N	3.35	0.50
36:5:3282:U:H5'	36:5:3283:U:OP2	2.12	0.50
36:5:2505:U:H2'	36:5:2506:U:C5	2.47	0.50
15:C3:132:VAL:O	15:C3:134:VAL:HG12	3.21	0.50
17:C5:57:MET:O	17:C5:60:LEU:N	3.92	0.50
87:5:4028:OHX:N3	87:5:4075:OHX:N4	2.59	0.50
1:2:1074:G:O2'	1:2:1075:C:H5'	2.11	0.50
49:M3:25:HIS:CD2	51:M5:200:TRP:CD2	3.00	0.50
36:1:1000:C:C5	36:1:1045:C:C5	3.00	0.50
47:M0:53:VAL:HG12	47:M0:54:SER:O	3.53	0.50
6:S4:10:LYS:O	6:S4:13:ALA:N	2.41	0.50
1:2:1629:G:C5	1:2:1630:U:C5	2.99	0.50
40:L3:4:ARG:HH11	40:L3:4:ARG:CB	3.92	0.50
1:2:1519:U:H3'	1:2:1520:U:H2'	1.93	0.50
1:6:273:G:H8	1:6:273:G:O5'	1.94	0.50
36:5:2875:U:O2	36:5:2875:U:H2'	2.10	0.50
1:2:361:C:H5'	1:2:361:C:H6	1.76	0.50
5:S3:95:GLY:HA3	5:S3:129:SER:OG	2.29	0.50
1:2:1739:C:H2'	1:2:1740:A:O4'	2.11	0.50
36:1:3050:U:H2'	36:1:3051:U:H6	1.76	0.50
40:L3:10:ARG:HD3	40:L3:11:HIS:O	2.11	0.50
46:L9:17:THR:HG22	50:M4:5:SER:N	4.56	0.50
36:5:1498:A:C6	36:5:1499:C:C4	2.99	0.50
53:M7:23:ARG:O	53:M7:86:LYS:NZ	2.58	0.50
1:2:935:U:O2'	1:2:936:G:H5'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1038:C:N3	36:1:1039:U:C5	2.80	0.50
47:M0:31:ILE:HB	47:M0:66:GLU:HB2	1.94	0.50
36:5:1343:A:C2	36:5:1362:G:C2	2.99	0.50
10:S8:164:ARG:O	10:S8:165:LEU:HD23	2.26	0.50
73:O7:15:SER:HG	36:5:817:A:H8	140.82	0.50
1:2:1581:C:O2'	1:2:1582:U:H5'	2.11	0.50
1:6:1541:G:C6	1:6:1542:G:N1	2.80	0.50
30:D8:11:LYS:HD3	30:D8:33:LEU:HD21	1.91	0.50
30:D8:42:ARG:NH1	30:D8:61:ARG:HE	7.23	0.50
36:5:1456:A:N1	36:5:1476:G:O2'	2.35	0.50
42:L5:108:ARG:O	42:L5:111:GLN:HB3	2.12	0.50
5:S3:79:TYR:CD2	5:S3:84:ILE:HG21	2.46	0.50
1:2:1274:C:C4	35:SM:96:ARG:HG2	2.47	0.50
1:2:1118:G:H2'	1:2:1119:G:H8	1.77	0.50
16:C4:102:LEU:HD22	16:C4:102:LEU:O	3.43	0.50
16:C4:24:ASN:O	16:C4:25:ASP:HB2	2.11	0.50
4:S2:228:ASN:HD22	23:D1:1:MET:HA	1.77	0.50
1:2:178:U:O2'	1:2:179:A:OP2	2.27	0.50
14:C2:69:ALA:HA	14:C2:71:ILE:HG23	2.49	0.50
40:L3:65:SER:C	40:L3:67:PHE:N	2.76	0.50
1:2:1459:C:C4	20:C8:139:LYS:HG3	2.46	0.50
56:N0:12:ARG:HG3	56:N0:13:ARG:O	2.12	0.50
60:N4:53:VAL:O	60:N4:57:LYS:HB2	3.28	0.50
40:L3:57:VAL:O	40:L3:357:LYS:HB2	2.12	0.50
69:O3:44:TYR:O	69:O3:71:VAL:HG11	2.12	0.50
9:S7:155:ASP:OD2	9:S7:156:SER:N	2.44	0.50
1:2:1006:C:OP1	87:2:2035:OHX:N5	2.45	0.50
46:L9:27:VAL:HG21	46:L9:78:MET:HE3	2.95	0.50
52:M6:181:ALA:O	52:M6:184:THR:HG22	2.11	0.50
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	1.94	0.50
49:M3:113:VAL:O	49:M3:116:LEU:HB2	2.12	0.50
36:5:3036:G:O6	87:5:4046:OHX:N1	2.43	0.50
1:2:580:A:C6	1:2:583:C:N3	2.80	0.50
38:4:64:U:P	71:O5:49:LYS:HZ3	2.35	0.50
38:8:41:A:H61	38:8:103:G:H1'	1.76	0.50
4:S2:189:GLN:O	4:S2:192:GLY:N	2.38	0.50
41:L4:290:ILE:HD12	54:M8:35:PHE:CD2	4.51	0.50
46:L9:40:HIS:ND1	36:5:3124:G:H5'	312.16	0.50
5:S3:113:LEU:HD21	5:S3:117:ARG:NE	2.27	0.50
1:6:104:A:H2	1:6:106:U:O4	1.94	0.50
36:5:3189:G:C5	36:5:3190:C:C5	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:125:LEU:N	47:M0:125:LEU:HD23	2.98	0.50
45:L8:97:TYR:CE1	45:L8:130:TYR:HB3	2.46	0.50
69:O3:93:THR:O	69:O3:95:GLY:N	2.45	0.50
61:N5:116:PRO:HG3	36:5:1522:U:C5	100.79	0.50
1:2:526:A:C6	1:2:527:A:C5	2.99	0.50
1:2:526:A:H2'	1:2:527:A:O4'	2.12	0.50
41:L4:216:VAL:HG23	41:L4:217:LYS:N	2.27	0.50
1:2:726:C:H2'	1:2:727:U:C4	2.47	0.50
36:1:2630:C:C4	36:1:2649:A:C2	3.00	0.50
36:5:1666:G:H2'	36:5:1667:A:C8	2.47	0.50
36:1:593:C:C4	36:1:594:U:C5	3.00	0.50
49:M3:188:ARG:NE	49:M3:192:GLU:OE2	7.62	0.50
44:L7:231:ASN:OD1	44:L7:233:GLU:HG2	2.46	0.50
24:D2:40:VAL:HG13	24:D2:43:LYS:HE2	1.94	0.50
8:S6:182:GLN:O	8:S6:182:GLN:HG3	2.12	0.50
36:1:1055:A:H4'	37:3:100:C:O2	2.12	0.50
1:6:91:G:H2'	1:6:92:A:C8	2.46	0.50
14:C2:81:ASP:O	14:C2:83:GLU:N	3.04	0.50
1:2:1778:G:C2	1:2:1779:U:C4	2.99	0.50
56:N0:47:LYS:O	56:N0:48:LEU:HD23	2.12	0.50
20:C8:48:LYS:HD3	21:C9:35:ASP:OD2	2.12	0.50
36:5:1009:A:C2	36:5:1042:U:O2	2.65	0.50
37:3:91:G:C6	37:3:92:A:C6	3.00	0.50
1:6:539:G:H8	1:6:539:G:H5''	1.77	0.50
36:1:3071:U:H2'	36:1:3072:C:C6	2.46	0.50
36:5:92:G:OP2	36:5:93:C:H5''	2.12	0.50
47:M0:157:TYR:CE1	36:5:2836:C:H4'	312.47	0.50
47:M0:83:ASP:O	47:M0:85:PHE:N	2.37	0.50
36:1:597:G:C4	36:1:598:A:C8	3.00	0.50
6:S4:57:ASN:HB2	6:S4:60:GLU:CB	2.42	0.50
36:1:339:C:P	41:L4:195:ARG:NH1	2.85	0.50
41:L4:11:LEU:HD11	41:L4:155:ASP:HB2	3.34	0.50
41:L4:179:LEU:HA	41:L4:182:LEU:HD22	1.92	0.50
43:L6:56:LYS:NZ	43:L6:99:GLU:O	2.74	0.50
18:C6:137:ARG:HG3	18:C6:137:ARG:NH1	2.69	0.50
7:S5:143:ARG:HA	7:S5:167:ARG:HD3	1.99	0.50
7:S5:51:VAL:O	7:S5:65:ARG:NH2	2.44	0.50
44:L7:25:GLN:N	44:L7:28:ALA:HB3	2.24	0.50
36:1:3087:A:OP2	87:1:4180:OHX:N5	2.44	0.50
3:S1:97:LEU:CD1	3:S1:98:THR:H	2.24	0.50
2:S0:140:ASN:HD21	4:S2:60:SER:HB3	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:7:ASN:OD1	48:M1:10:ARG:HD2	2.11	0.50
55:M9:102:LEU:HB3	55:M9:138:LEU:HD12	3.85	0.50
70:O4:85:VAL:HG13	70:O4:88:ARG:CG	2.42	0.50
36:1:1603:A:P	55:M9:38:ARG:NH1	2.85	0.50
21:C9:94:ILE:HG23	21:C9:95:ASP:O	2.11	0.50
56:N0:111:ALA:HA	56:N0:116:ALA:H	2.37	0.50
44:L7:79:ALA:HB2	57:N1:138:SER:N	2.15	0.50
57:N1:38:ASP:OD2	57:N1:98:HIS:HE1	5.51	0.50
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.93	0.50
29:D7:56:CYS:HB3	29:D7:59:CYS:O	2.12	0.50
1:2:926:A:H5''	1:2:1016:C:O2'	2.11	0.50
39:L2:103:PRO:C	39:L2:105:GLY:H	2.15	0.50
78:Q2:47:GLN:CD	78:Q2:54:THR:HG23	2.62	0.50
26:D4:131:ARG:NH2	1:6:153:G:OP2	323.24	0.50
36:5:2599:U:H2'	36:5:2600:C:H6	1.76	0.50
36:5:58:G:H1'	36:5:61:A:H5'	1.92	0.50
39:L2:205:ASN:O	39:L2:208:ASP:N	2.56	0.50
26:D4:27:VAL:HG12	26:D4:29:HIS:HD2	2.69	0.50
53:M7:2:ALA:HB1	53:M7:4:TYR:CE2	2.47	0.50
36:5:170:G:H1'	36:5:250:U:O2	2.11	0.50
18:C6:15:SER:OG	18:C6:72:GLY:N	4.71	0.50
36:5:845:G:N2	36:5:848:A:OP2	2.44	0.50
36:5:846:A:C2	36:5:847:A:H1'	2.47	0.50
38:8:15:G:H8	38:8:15:G:O5'	1.95	0.50
22:D0:101:LYS:O	22:D0:104:THR:OG1	2.30	0.50
36:5:1714:A:H4'	36:5:1715:A:OP2	2.11	0.50
10:S8:138:ASN:HA	10:S8:141:ARG:HD2	1.93	0.50
36:1:15:C:O2'	61:N5:40:LEU:HD23	2.11	0.50
70:O4:25:THR:HB	70:O4:26:PRO:HD2	1.93	0.50
25:D3:114:LYS:O	25:D3:114:LYS:HG2	4.10	0.50
36:1:1495:U:H5	36:1:1835:A:C2	2.29	0.50
36:5:2857:C:O2'	36:5:2858:U:H5'	2.11	0.50
58:N2:36:TYR:O	58:N2:40:HIS:ND1	2.97	0.50
36:5:2602:G:O6	87:5:3899:OHX:N1	2.45	0.50
36:1:1273:A:O2'	36:1:1274:A:OP1	2.24	0.50
45:L8:178:ALA:HA	45:L8:222:PHE:CE2	2.66	0.50
36:1:1259:A:N6	36:1:1260:A:C6	2.79	0.50
49:M3:18:TRP:O	49:M3:21:ARG:N	3.38	0.50
36:5:1000:C:C2	36:5:1045:C:N4	2.80	0.50
36:1:3241:G:C5	36:1:3245:A:C2	3.00	0.50
36:5:276:U:H2'	36:5:277:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:629:U:H1'	1:2:971:A:N1	2.27	0.50
1:2:164:A:H2'	1:2:165:G:O4'	2.12	0.50
1:2:1755:A:C8	1:2:1755:A:H3'	2.47	0.50
20:C8:109:LEU:O	20:C8:112:ASP:N	3.07	0.50
36:5:1889:G:N3	36:5:1889:G:H2'	2.27	0.50
1:2:478:A:O4'	11:S9:127:VAL:HG21	2.11	0.50
36:1:1336:U:OP2	87:1:4044:OHX:N4	2.45	0.50
87:1:4032:OHX:N6	87:1:4044:OHX:N3	2.60	0.50
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.69	0.50
51:M5:22:LEU:O	51:M5:25:VAL:N	3.44	0.50
45:L8:165:PHE:CZ	51:M5:3:ALA:HB1	2.47	0.50
5:S3:206:VAL:HG11	19:C7:12:ALA:HB2	1.94	0.50
36:1:1255:C:H2'	36:1:1256:G:O4'	2.11	0.50
36:1:565:U:H2'	36:1:566:G:C8	2.46	0.50
1:2:1369:U:OP1	21:C9:119:LYS:NZ	2.44	0.50
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.93	0.50
36:1:3088:G:H5'	40:L3:313:HIS:HE1	1.76	0.50
67:O1:30:PRO:O	67:O1:33:VAL:N	2.45	0.50
61:N5:96:LYS:HG3	61:N5:107:VAL:HG11	1.94	0.50
42:L5:154:THR:CG2	42:L5:157:ALA:HB2	4.50	0.50
15:C3:46:THR:OG1	15:C3:49:GLN:N	2.26	0.50
29:D7:19:HIS:HB3	29:D7:22:LYS:HB2	1.94	0.50
8:S6:12:SER:HB2	8:S6:124:LEU:HA	1.93	0.50
16:C4:50:ALA:O	16:C4:51:ASP:HB2	3.48	0.50
16:C4:18:ARG:HG3	16:C4:82:LYS:HB3	4.49	0.50
16:C4:84:ARG:NH1	16:C4:85:ALA:O	2.45	0.50
2:S0:140:ASN:HD22	4:S2:62:PRO:HD3	4.93	0.50
2:S0:41:ARG:HE	2:S0:45:VAL:HG21	2.25	0.50
4:S2:226:THR:OG1	4:S2:228:ASN:HB2	5.64	0.50
36:1:2653:C:OP2	78:Q2:88:CYS:HA	2.12	0.50
36:5:1635:G:N2	36:5:1637:A:H3'	2.26	0.50
55:M9:99:LEU:HD22	55:M9:103:ARG:HG3	6.56	0.50
35:SM:65:THR:HA	35:SM:70:ASN:HD21	2.62	0.50
1:2:1461:C:H1'	35:SM:76:VAL:HG11	1.93	0.50
36:1:1174:G:H21	52:M6:87:MET:HE2	1.77	0.50
1:6:1648:A:H2'	1:6:1649:G:H8	1.77	0.50
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.86	0.50
6:S4:176:ASP:HB2	6:S4:179:LYS:HD2	1.93	0.50
6:S4:195:ILE:HG22	6:S4:196:VAL:N	2.81	0.50
50:M4:85:TRP:CD1	50:M4:85:TRP:C	3.00	0.50
36:5:3245:A:H2	36:5:3246:G:N3	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:301:THR:O	40:L3:303:LYS:N	3.41	0.50
34:SR:81:LEU:HB3	34:SR:113:VAL:HG21	1.93	0.50
34:SR:36:ALA:HA	34:SR:42:LEU:HA	1.94	0.50
41:L4:60:THR:HG22	41:L4:61:SER:N	2.63	0.50
26:D4:126:ALA:O	26:D4:129:VAL:HB	3.71	0.50
36:5:1233:G:O2'	36:5:1234:G:H5'	2.12	0.50
1:2:1469:A:H2'	1:2:1470:C:O4'	2.12	0.50
40:L3:164:THR:HG23	40:L3:177:HIS:HB2	1.93	0.50
1:6:1764:C:C4	1:6:1767:G:C4	2.99	0.50
70:O4:76:TYR:HD1	36:5:1805:C:HO2'	190.43	0.50
36:5:282:G:H2'	36:5:286:U:H5'	1.94	0.50
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.68	0.50
51:M5:57:GLN:OE1	36:5:144:A:H1'	96.17	0.50
33:E1:98:VAL:HG22	33:E1:100:LEU:HD13	1.94	0.50
1:2:31:C:N4	1:2:32:U:O4	2.45	0.50
1:2:332:U:N3	1:2:335:U:OP2	2.37	0.50
70:O4:59:PRO:O	36:5:1802:C:O2'	157.77	0.50
14:C2:77:GLY:HA2	14:C2:80:ASN:HB2	1.93	0.50
36:1:1573:G:N1	36:1:1574:C:H1'	2.27	0.50
36:5:1596:C:H2'	36:5:1597:C:H6	1.73	0.50
5:S3:113:LEU:HD22	5:S3:114:ALA:N	2.23	0.50
1:6:1:U:O2	1:6:369:A:C8	2.65	0.50
78:Q2:71:ARG:HG3	78:Q2:80:ARG:HD3	1.94	0.50
1:6:609:U:H2'	1:6:609:U:O2	2.11	0.50
1:2:1040:G:H1	1:2:1078:C:H42	1.59	0.50
1:6:250:C:H5'	1:6:250:C:H6	1.77	0.50
1:2:839:U:C4	1:2:840:U:C5	2.99	0.50
1:6:1616:G:H2'	1:6:1617:U:O4'	2.12	0.50
52:M6:65:ASN:OD1	52:M6:66:LYS:N	2.45	0.50
1:6:983:A:N1	1:6:1019:A:C6	2.80	0.50
36:1:1587:A:C2	36:1:1590:G:C8	3.00	0.50
19:C7:76:GLU:HB3	19:C7:79:GLU:HB2	1.93	0.50
17:C5:77:ARG:HB3	17:C5:102:PHE:CD1	2.78	0.50
55:M9:56:THR:OG1	36:5:1873:U:OP1	148.71	0.50
1:6:23:G:C6	1:6:24:U:C4	3.00	0.50
64:N8:61:PHE:O	64:N8:62:HIS:HB3	2.29	0.50
44:L7:147:LEU:HD13	44:L7:205:PHE:CE1	4.18	0.50
1:6:206:A:H1'	1:6:262:U:C2	2.47	0.50
36:5:1741:A:H2'	36:5:1742:U:O4'	2.12	0.50
37:7:108:A:O5'	37:7:108:A:H8	1.95	0.50
45:L8:84:ARG:NH1	45:L8:84:ARG:HB3	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:623:U:O4	87:5:4117:OHX:N6	2.45	0.50
43:L6:75:PRO:HD2	43:L6:77:ARG:HD2	3.94	0.50
52:M6:62:THR:HG21	52:M6:68:ARG:HG3	2.10	0.49
53:M7:127:ARG:O	53:M7:139:TYR:N	2.61	0.49
53:M7:44:ALA:O	53:M7:48:LEU:HB2	3.88	0.49
28:D6:35:ALA:O	28:D6:36:ILE:HG22	2.12	0.49
11:S9:135:ALA:HA	11:S9:139:GLN:O	3.25	0.49
11:S9:37:LYS:HG3	11:S9:38:ASN:N	2.26	0.49
47:M0:48:LEU:HD23	47:M0:178:ARG:HH12	2.43	0.49
87:5:4087:OHX:N6	87:7:219:OHX:N3	2.59	0.49
26:D4:76:TYR:CE2	26:D4:85:PHE:HB2	2.47	0.49
1:2:1389:C:H4'	19:C7:49:LYS:HA	1.94	0.49
19:C7:60:ARG:NH2	19:C7:66:VAL:HG13	2.26	0.49
5:S3:189:MET:HG3	5:S3:189:MET:O	3.18	0.49
21:C9:45:MET:SD	21:C9:46:PRO:HD3	4.80	0.49
46:L9:101:VAL:CG2	46:L9:114:VAL:HG22	2.87	0.49
12:C0:35:ILE:HG21	12:C0:42:VAL:HG21	5.24	0.49
33:E1:132:LEU:HD22	33:E1:141:CYS:HB2	3.09	0.49
1:2:625:C:N3	1:2:626:U:C4	2.80	0.49
1:6:619:A:N3	1:6:1141:G:H1'	2.26	0.49
2:S0:13:ASP:O	2:S0:16:LEU:N	2.69	0.49
2:S0:7:PHE:HE2	2:S0:183:ARG:HE	1.59	0.49
2:S0:182:LEU:O	2:S0:186:GLY:HA3	2.12	0.49
63:N7:134:LEU:HD22	63:N7:135:ARG:N	2.26	0.49
63:N7:23:VAL:HB	63:N7:43:VAL:HB	1.94	0.49
66:O0:27:TYR:CD1	66:O0:52:ARG:HD3	2.86	0.49
68:O2:82:LEU:HD11	68:O2:112:ALA:HB2	2.63	0.49
71:O5:7:TYR:C	71:O5:9:LEU:N	2.66	0.49
71:O5:82:ALA:HB1	71:O5:84:LYS:HD2	2.73	0.49
14:C2:52:LEU:HB3	14:C2:78:LEU:HB3	1.94	0.49
1:6:1213:G:HO2'	1:6:1244:A:H62	1.55	0.49
6:S4:47:PHE:CD2	6:S4:90:ILE:HD12	2.47	0.49
56:N0:44:PHE:HE1	56:N0:122:HIS:ND1	3.34	0.49
9:S7:164:TYR:CZ	9:S7:165:LYS:HE2	3.08	0.49
1:2:990:C:O3'	16:C4:129:LYS:HA	2.12	0.49
16:C4:136:ARG:NH1	16:C4:136:ARG:HG3	2.27	0.49
39:L2:108:PRO:HG2	79:Q3:86:LEU:HD13	1.94	0.49
66:O0:17:VAL:HG22	66:O0:100:ILE:HG12	1.94	0.49
87:1:3976:OHX:N3	87:1:4154:OHX:N4	2.60	0.49
8:S6:69:LEU:N	8:S6:69:LEU:HD22	2.27	0.49
53:M7:169:THR:OG1	53:M7:172:GLN:HG3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:747:C:H2'	1:6:748:U:C6	2.47	0.49
57:N1:102:ARG:HH11	57:N1:102:ARG:HG3	1.76	0.49
1:6:629:U:C4	1:6:630:A:N7	2.80	0.49
36:1:2183:A:H5''	39:L2:7:ASN:HB2	1.94	0.49
26:D4:60:PHE:CE1	26:D4:71:GLY:HA3	2.94	0.49
1:6:1268:G:H1'	1:6:1448:G:H5''	1.94	0.49
17:C5:96:ILE:O	17:C5:120:SER:OG	2.19	0.49
36:5:1736:G:C6	36:5:1737:U:C4	3.01	0.49
36:1:2309:A:N3	36:1:2961:G:O2'	2.39	0.49
34:SR:129:LYS:HG2	34:SR:149:ASP:O	2.12	0.49
36:1:3106:A:H2'	36:1:3107:U:O4'	2.12	0.49
1:6:1294:G:C2	1:6:1322:A:C5	2.99	0.49
10:S8:142:LYS:NZ	1:6:187:G:N7	275.90	0.49
36:1:1794:G:O2'	36:1:1795:U:H5'	2.12	0.49
40:L3:339:ARG:NH1	40:L3:342:LEU:HD21	2.27	0.49
38:4:143:U:H2'	38:4:144:G:O4'	2.10	0.49
36:5:3205:G:H2'	36:5:3206:C:C5	2.47	0.49
36:1:3299:A:N6	36:1:3315:G:H1	2.07	0.49
1:2:1219:A:N6	1:2:1264:G:O2'	2.43	0.49
36:1:2206:G:H1	36:1:2237:C:N4	2.06	0.49
58:N2:33:TYR:CE1	58:N2:37:LEU:HD21	3.92	0.49
36:1:3284:G:C6	36:1:3285:C:C4	3.00	0.49
36:1:1351:U:O2'	36:1:1352:A:H5'	2.12	0.49
36:5:128:G:C2	36:5:129:U:C2	3.00	0.49
21:C9:42:GLY:HA2	21:C9:84:LYS:HB2	2.67	0.49
36:1:1094:U:H1'	36:1:1096:U:H2'	1.94	0.49
36:5:1346:G:C2	36:5:1359:C:C2	3.00	0.49
36:5:3042:U:OP2	36:5:3092:C:N4	2.44	0.49
36:5:592:A:C6	36:5:593:C:C4	3.00	0.49
36:1:877:C:H1'	36:1:882:A:N6	2.27	0.49
16:C4:13:VAL:HG23	16:C4:77:THR:HG23	5.47	0.49
36:1:602:A:H2'	36:1:603:A:C8	2.46	0.49
36:5:1087:G:N7	87:5:4106:OHX:N4	2.59	0.49
1:6:969:C:H4'	1:6:1104:U:O2'	2.11	0.49
36:5:575:G:N1	36:5:576:C:C4	2.80	0.49
53:M7:20:SER:C	53:M7:21:TYR:HD2	2.15	0.49
36:5:3227:A:H2'	36:5:3228:C:H5'	1.95	0.49
36:5:763:G:C4	36:5:764:U:C5	3.00	0.49
36:1:1570:U:O2	36:1:1571:A:H1'	2.12	0.49
37:3:100:C:OP2	56:N0:52:LYS:NZ	2.44	0.49
34:SR:173:GLY:O	34:SR:176:LYS:N	4.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:535:A:C2	1:2:536:C:H1'	2.47	0.49
36:1:3115:C:O2	87:1:4025:OHX:N1	2.44	0.49
36:1:1655:G:P	70:O4:40:THR:HG1	2.35	0.49
1:2:26:A:C4	1:2:27:U:C5	3.00	0.49
36:1:2579:G:O6	87:1:3927:OHX:N2	2.45	0.49
1:6:109:G:H2'	1:6:110:U:O4'	2.12	0.49
68:O2:4:LEU:HD22	68:O2:90:LYS:O	4.20	0.49
45:L8:107:GLU:O	45:L8:111:LYS:HG3	2.12	0.49
9:S7:5:GLN:HE22	9:S7:22:GLN:HA	6.66	0.49
36:5:3192:U:H2'	36:5:3193:C:C6	2.46	0.49
46:L9:49:ASN:OD1	46:L9:51:GLN:N	5.11	0.49
51:M5:75:VAL:O	36:5:2166:A:H5'	157.16	0.49
53:M7:46:LYS:O	53:M7:50:GLN:HB2	2.73	0.49
28:D6:7:SER:OG	28:D6:7:SER:O	2.98	0.49
11:S9:109:LEU:O	11:S9:112:GLN:N	4.01	0.49
44:L7:165:ASP:H	44:L7:168:ILE:HD11	4.10	0.49
1:6:116:U:H2'	1:6:117:U:H6	1.77	0.49
6:S4:54:TYR:O	26:D4:22:GLN:NE2	2.66	0.49
41:L4:261:VAL:HG12	41:L4:262:TRP:CD1	2.54	0.49
54:M8:50:LYS:O	54:M8:52:LEU:N	2.45	0.49
1:2:1165:G:C6	1:2:1166:A:C6	3.00	0.49
1:6:1536:G:C2	1:6:1538:U:C2	2.99	0.49
7:S5:90:ILE:HD11	7:S5:130:ILE:HG13	1.94	0.49
67:O1:53:PRO:O	67:O1:57:GLN:N	2.45	0.49
36:1:2689:A:C8	36:1:2702:A:C6	3.00	0.49
12:C0:61:TRP:CD1	31:D9:23:VAL:HG13	2.47	0.49
5:S3:179:GLN:OE1	5:S3:180:GLY:N	5.41	0.49
15:C3:118:ILE:O	15:C3:121:ARG:N	2.85	0.49
71:O5:101:THR:HG23	71:O5:104:GLN:CB	2.42	0.49
16:C4:30:VAL:O	16:C4:39:ILE:N	2.42	0.49
4:S2:60:SER:HB2	23:D1:15:ARG:NH2	2.27	0.49
68:O2:111:ARG:O	68:O2:114:ALA:HB3	2.12	0.49
71:O5:7:TYR:C	71:O5:9:LEU:H	2.16	0.49
17:C5:127:ARG:O	17:C5:128:HIS:HB2	3.80	0.49
6:S4:142:HIS:CG	6:S4:143:ASP:N	3.42	0.49
35:SM:83:LYS:HE3	1:6:1190:C:N3	341.70	0.49
7:S5:73:THR:HG23	18:C6:114:ARG:HB3	4.56	0.49
52:M6:136:THR:HG22	52:M6:137:THR:N	3.24	0.49
36:5:354:U:H5''	36:5:355:A:OP2	2.12	0.49
39:L2:136:ILE:HD12	39:L2:136:ILE:N	2.27	0.49
36:5:706:A:H8	36:5:706:A:O5'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2131:A:H61	79:Q3:18:TYR:CA	2.25	0.49
36:1:2277:C:H5'	36:1:2317:A:H4'	1.93	0.49
41:L4:67:THR:OG1	36:5:2402:A:H2'	174.02	0.49
46:L9:115:ARG:O	46:L9:116:ASN:HB2	3.54	0.49
48:M1:18:VAL:HG22	48:M1:70:THR:HA	1.93	0.49
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.21	0.49
35:SM:40:PRO:HG2	35:SM:41:SER:H	2.04	0.49
40:L3:379:PHE:HD1	40:L3:379:PHE:C	2.15	0.49
4:S2:55:GLU:OE1	4:S2:239:PRO:HD3	4.36	0.49
56:N0:71:LYS:O	56:N0:73:LYS:HG3	2.12	0.49
46:L9:38:LEU:O	46:L9:40:HIS:N	2.45	0.49
78:Q2:33:ALA:HA	36:5:2767:U:OP1	184.11	0.49
36:1:1854:C:O2'	36:1:1855:U:H5'	2.11	0.49
36:1:2738:A:H2'	36:1:2739:A:H8	1.76	0.49
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.43	0.49
36:1:1325:U:H5''	36:1:1325:U:H6	1.77	0.49
1:2:649:U:HO2'	1:2:650:U:P	2.34	0.49
14:C2:27:ALA:HB1	14:C2:132:GLU:HB2	1.94	0.49
41:L4:350:LYS:O	44:L7:71:ALA:HB2	2.12	0.49
24:D2:28:ARG:HG2	24:D2:29:PRO:HB3	1.94	0.49
73:O7:22:CYS:SG	73:O7:37:CYS:SG	3.78	0.49
36:1:440:A:OP1	36:1:494:G:H1'	2.11	0.49
36:1:1560:G:C2	36:1:1580:A:C2	3.00	0.49
36:1:583:G:C6	36:1:584:G:N7	2.81	0.49
36:1:665:A:N6	36:1:666:A:N6	2.60	0.49
1:6:905:A:H2'	1:6:906:A:O4'	2.11	0.49
57:N1:112:ASN:O	57:N1:115:LYS:HB2	2.11	0.49
36:5:2911:A:C2	36:5:2936:A:N6	2.80	0.49
36:5:2378:C:H2'	36:5:2379:U:C6	2.47	0.49
36:5:1908:A:H8	36:5:1908:A:O5'	1.95	0.49
59:N3:74:MET:SD	59:N3:102:ILE:HG21	5.26	0.49
78:Q2:105:GLN:O	78:Q2:106:PHE:HB2	2.11	0.49
1:6:1031:U:H4'	1:6:1032:G:OP2	2.11	0.49
1:6:1234:A:OP2	1:6:1245:G:O2'	2.31	0.49
36:5:2964:G:N7	87:5:3978:OHX:N6	2.59	0.49
36:1:2820:A:C8	36:1:2821:C:H5	2.29	0.49
61:N5:135:ILE:HG12	61:N5:135:ILE:O	4.03	0.49
37:3:56:A:O2'	48:M1:148:VAL:HG22	2.12	0.49
36:1:2781:U:H2'	36:1:2782:U:O4'	2.12	0.49
1:2:434:G:OP1	25:D3:78:LYS:HA	2.12	0.49
25:D3:57:LEU:N	25:D3:71:CYS:O	3.83	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:212:ASN:HB3	40:L3:281:LYS:NZ	3.36	0.49
76:Q0:115:CYS:SG	76:Q0:118:THR:HG22	2.80	0.49
46:L9:84:LYS:HD3	46:L9:186:PHE:CE1	4.02	0.49
46:L9:47:LYS:HG3	46:L9:48:VAL:N	2.28	0.49
11:S9:140:ILE:HG13	26:D4:65:GLY:HA3	1.94	0.49
36:5:952:A:N3	36:5:1114:U:O2'	2.42	0.49
13:C1:18:HIS:O	87:6:2130:OHX:N3	292.66	0.49
6:S4:50:ASN:O	6:S4:53:LYS:HD3	2.12	0.49
1:2:1532:U:O4	1:2:1533:C:N4	2.45	0.49
7:S5:57:SER:O	7:S5:59:VAL:HG23	2.12	0.49
55:M9:23:TRP:HE3	55:M9:51:VAL:HG23	3.56	0.49
67:O1:30:PRO:C	67:O1:32:ALA:N	2.66	0.49
67:O1:58:ALA:HA	67:O1:61:LYS:HB2	2.43	0.49
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.94	0.49
42:L5:123:GLU:HA	42:L5:248:ARG:HH12	1.77	0.49
12:C0:72:GLY:O	12:C0:75:TYR:N	2.45	0.49
20:C8:120:ARG:NH2	35:SM:58:GLU:OE2	2.99	0.49
20:C8:91:ASP:CG	20:C8:92:ILE:H	2.53	0.49
1:6:869:A:H61	1:6:958:U:H3	1.61	0.49
3:S1:180:THR:HG23	3:S1:183:GLN:NE2	9.57	0.49
1:6:795:U:C4	1:6:796:A:C5	3.00	0.49
48:M1:91:LEU:HD12	48:M1:163:PHE:CE2	2.47	0.49
36:1:226:C:H4'	62:N6:29:VAL:HG12	1.94	0.49
40:L3:65:SER:C	40:L3:67:PHE:H	2.39	0.49
36:1:1130:A:N7	36:1:1132:C:C2	2.80	0.49
57:N1:86:GLU:OE1	57:N1:88:ARG:NH1	3.27	0.49
7:S5:76:ARG:NH2	18:C6:120:ASP:OD1	3.67	0.49
52:M6:14:HIS:HE1	52:M6:119:VAL:HG12	1.77	0.49
52:M6:38:ALA:O	52:M6:41:LEU:HD22	3.19	0.49
36:1:353:G:O2'	36:1:364:G:O6	2.20	0.49
72:O6:68:ARG:O	72:O6:71:LYS:HG3	6.37	0.49
40:L3:205:VAL:HG11	40:L3:322:ILE:HD11	1.93	0.49
1:2:1005:A:H2'	1:2:1006:C:H6	1.77	0.49
40:L3:43:LEU:CD1	40:L3:43:LEU:H	2.24	0.49
36:1:2225:U:O2'	36:1:2226:U:H5'	2.13	0.49
40:L3:137:TYR:CE1	40:L3:144:ILE:HD12	2.48	0.49
49:M3:138:VAL:HB	71:O5:118:ILE:HB	1.95	0.49
36:5:63:A:C2'	36:5:64:G:H5'	2.42	0.49
36:1:2184:U:H2'	36:1:2185:G:O4'	2.12	0.49
36:5:924:G:C5	36:5:2809:C:H1'	2.47	0.49
71:O5:49:LYS:HZ1	38:8:64:U:H5'	46.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:386:G:N3	1:2:425:A:H2	2.10	0.49
35:SM:39:PRO:HB2	35:SM:40:PRO:HD2	2.74	0.49
52:M6:54:TYR:HE2	52:M6:58:LEU:HD22	2.26	0.49
23:D1:2:GLU:CD	23:D1:6:GLY:HA2	3.37	0.49
36:5:1403:C:C2	36:5:1409:G:C2	3.01	0.49
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.12	0.49
5:S3:6:SER:HB3	5:S3:9:ARG:HD3	2.70	0.49
36:1:2593:A:H4'	36:1:2594:C:O5'	2.12	0.49
24:D2:105:THR:HG21	1:6:805:U:O4'	363.51	0.49
36:5:3264:G:N2	36:5:3265:C:H1'	2.28	0.49
1:6:1294:G:O6	87:6:2073:OHX:N5	2.44	0.49
59:N3:35:TYR:N	59:N3:60:ALA:HB1	2.27	0.49
36:5:1556:C:C5	36:5:2169:G:C4	3.00	0.49
69:O3:50:ALA:HB2	69:O3:68:TRP:CE3	3.30	0.49
36:1:544:C:H1'	36:1:548:G:H22	1.77	0.49
36:5:1816:A:O2'	36:5:1817:G:H5''	2.11	0.49
54:M8:178:ARG:HG2	64:N8:51:GLY:HA3	3.13	0.49
58:N2:22:PRO:O	58:N2:28:PHE:HB3	2.12	0.49
1:6:1028:C:N3	1:6:1792:G:N1	2.58	0.49
36:5:2117:A:C8	36:5:3064:U:O2	2.65	0.49
5:S3:150:MET:HB3	5:S3:152:PHE:HE2	1.77	0.49
36:5:2440:G:N2	36:5:2508:U:O2	2.46	0.49
1:6:984:G:H2'	1:6:985:G:H8	1.75	0.49
42:L5:278:SER:OG	42:L5:280:GLU:HB2	3.59	0.49
78:Q2:38:GLN:HE21	78:Q2:38:GLN:HA	1.96	0.49
36:5:3295:A:H2'	36:5:3296:A:H8	1.77	0.49
36:5:719:U:C6	36:5:719:U:H5''	2.47	0.49
1:2:1061:A:H2'	1:2:1062:A:H5'	1.94	0.49
78:Q2:63:LYS:HD2	36:5:2796:G:O6	218.82	0.49
52:M6:174:PHE:O	52:M6:176:LYS:N	2.64	0.49
87:5:4006:OHX:N4	87:5:4195:OHX:N1	2.60	0.49
9:S7:69:GLY:HA2	9:S7:72:LYS:HD2	1.93	0.49
53:M7:26:PHE:HE1	53:M7:121:GLN:HG2	1.77	0.49
1:6:749:U:H1'	1:6:801:G:C2	2.47	0.49
1:2:506:A:H4'	1:2:507:U:OP1	2.12	0.49
1:6:813:U:H4'	1:6:814:A:OP2	2.10	0.49
74:O8:73:LEU:O	74:O8:73:LEU:HD23	4.06	0.49
27:D5:51:LEU:HD12	27:D5:51:LEU:H	2.05	0.49
53:M7:139:TYR:CZ	36:5:2355:G:H4'	147.22	0.49
47:M0:48:LEU:O	47:M0:139:ARG:HA	2.47	0.49
1:6:1162:C:H5''	1:6:1163:A:OP2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1103:A:N6	36:1:1363:A:HO2'	2.11	0.49
1:2:93:A:H4'	1:2:94:U:OP2	2.11	0.49
1:6:214:G:N7	87:6:2155:OHX:N4	2.61	0.49
10:S8:98:LYS:HB3	1:6:329:G:H5''	274.27	0.49
36:1:1381:A:H2'	36:1:1382:G:C8	2.47	0.49
1:6:1330:G:O5'	1:6:1330:G:H8	1.95	0.49
7:S5:120:ILE:HG23	27:D5:59:TYR:HE1	1.77	0.49
7:S5:120:ILE:O	7:S5:124:LEU:HG	2.12	0.49
61:N5:59:SER:HB3	61:N5:102:LEU:HD21	2.21	0.49
75:O9:5:LYS:HG2	75:O9:13:MET:CE	2.42	0.49
36:1:973:A:P	54:M8:12:ARG:HH12	2.35	0.49
12:C0:61:TRP:CG	31:D9:23:VAL:HG13	2.47	0.49
17:C5:119:PHE:HE1	20:C8:119:ILE:HG22	1.77	0.49
20:C8:91:ASP:OD1	20:C8:94:ASP:HB3	5.23	0.49
21:C9:97:SER:OG	21:C9:100:ILE:HB	2.12	0.49
15:C3:105:ASN:HD22	1:6:879:G:H1'	277.39	0.49
1:2:624:G:C8	1:2:1027:A:C6	3.00	0.49
1:2:357:G:N7	87:2:2060:OHX:N3	2.60	0.49
77:Q1:5:TRP:CG	1:6:1783:C:C5	301.36	0.49
70:O4:21:LYS:HD2	70:O4:23:VAL:HG23	1.94	0.49
3:S1:181:LEU:O	3:S1:185:THR:OG1	2.48	0.49
3:S1:34:ALA:HA	3:S1:98:THR:OG1	4.95	0.49
2:S0:195:TRP:HD1	2:S0:196:SER:N	2.17	0.49
48:M1:133:ARG:HH22	48:M1:158:ASP:CG	2.15	0.49
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.12	0.49
36:1:1601:U:OP1	55:M9:42:ARG:NH2	2.45	0.49
36:5:1186:G:H8	36:5:1186:G:H5''	1.77	0.49
36:5:559:A:H3'	36:5:559:A:C8	2.47	0.49
43:L6:154:LEU:O	43:L6:158:TYR:N	2.43	0.49
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.37	0.49
39:L2:113:VAL:HG23	39:L2:134:VAL:HG13	4.79	0.49
1:2:150:U:H2'	1:2:151:G:O4'	2.12	0.49
64:N8:128:ARG:HB3	64:N8:129:PHE:CE2	2.47	0.49
36:5:3286:G:H2'	36:5:3287:U:C6	2.48	0.49
8:S6:58:LYS:C	8:S6:60:GLY:H	2.16	0.49
36:5:3175:U:H3	36:5:3277:U:H3	1.61	0.49
70:O4:76:TYR:HD1	36:5:1805:C:O2'	189.73	0.49
1:2:747:C:C4'	24:D2:80:ASN:HD21	2.19	0.49
40:L3:97:ARG:NH2	36:5:3244:A:C4	248.90	0.49
64:N8:126:LYS:HB3	64:N8:148:ILE:CG2	2.38	0.49
6:S4:104:ASP:HB3	6:S4:106:LYS:H	2.69	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:3:A:H2'	38:4:4:C:C6	2.47	0.49
70:O4:41:ARG:O	70:O4:43:LYS:HG2	2.12	0.49
70:O4:57:LEU:HG	70:O4:62:TYR:CE1	3.57	0.49
59:N3:123:ALA:C	59:N3:125:LEU:N	2.90	0.49
36:5:3066:U:H6	36:5:3066:U:O5'	1.95	0.49
54:M8:122:ILE:CG2	54:M8:126:GLN:HB2	2.42	0.49
2:S0:110:TYR:CD1	2:S0:111:ILE:HD13	2.47	0.49
36:1:2950:G:C5	36:1:2979:U:C4	3.00	0.49
25:D3:33:LEU:HD23	25:D3:33:LEU:N	2.96	0.49
10:S8:12:SER:HA	10:S8:18:ARG:NH1	2.26	0.49
2:S0:70:PRO:HD2	2:S0:71:GLU:OE2	4.08	0.49
36:1:3075:G:C2	36:1:3076:C:C2	3.01	0.49
15:C3:25:TRP:HE3	15:C3:25:TRP:O	1.95	0.49
1:2:486:G:N2	1:2:502:U:C2	2.81	0.49
39:L2:70:ARG:HH11	39:L2:72:ARG:HE	6.52	0.49
36:5:1815:U:HO2'	36:5:1816:A:P	2.35	0.49
13:C1:129:ARG:O	13:C1:131:ILE:N	3.22	0.49
15:C3:34:ILE:O	15:C3:38:VAL:HG23	2.12	0.49
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	1.93	0.49
36:1:537:A:O2'	36:1:558:U:N3	2.45	0.49
71:O5:12:LYS:HB3	71:O5:16:GLN:HB2	2.72	0.49
9:S7:154:LEU:HD11	9:S7:183:PHE:CD1	4.24	0.49
1:2:714:G:H1	1:2:724:C:N4	2.10	0.49
36:1:2800:G:O6	64:N8:42:ARG:NH2	2.38	0.49
36:1:1939:G:H2'	36:1:1940:G:O4'	2.12	0.49
36:1:679:U:H3	36:1:701:G:H1	1.60	0.49
1:2:269:G:N7	8:S6:186:ARG:NH2	2.60	0.49
36:1:771:A:C6	36:1:772:U:C2	3.01	0.49
73:O7:28:HIS:HB3	73:O7:31:LYS:HG3	4.80	0.49
67:O1:98:VAL:HG13	67:O1:100:SER:H	1.78	0.49
37:3:79:A:C2	37:3:102:A:C4	3.00	0.49
78:Q2:25:VAL:CG1	78:Q2:70:LEU:HD22	3.32	0.49
45:L8:211:LEU:O	45:L8:215:VAL:HG23	2.12	0.49
36:5:2608:G:N3	36:5:2609:A:C8	2.80	0.49
1:2:1362:U:O2'	1:2:1363:U:H5''	2.13	0.49
36:1:1222:G:HO2'	36:1:1285:G:H1	1.60	0.49
1:6:803:A:H8	1:6:803:A:OP2	1.96	0.49
69:O3:47:LYS:HD2	69:O3:104:PRO:HD2	1.94	0.49
16:C4:107:ARG:C	16:C4:109:GLY:H	2.34	0.49
62:N6:53:ASP:HB3	62:N6:110:HIS:HB2	1.95	0.49
1:2:694:U:H3'	1:2:695:U:C5	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:265:A:C2	1:6:267:U:C4	3.00	0.49
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	2.25	0.49
66:O0:104:LEU:HD12	66:O0:105:ALA:N	2.27	0.49
36:5:4:U:H6	36:5:4:U:O5'	1.96	0.49
36:1:2960:C:OP1	87:1:4001:OHX:N3	2.45	0.49
32:E0:10:ARG:HD2	1:6:566:C:O2'	366.73	0.49
40:L3:224:HIS:HB2	40:L3:270:ARG:O	2.17	0.49
67:O1:11:GLU:HA	67:O1:74:ARG:HA	1.99	0.49
1:2:473:A:H5''	1:2:474:A:OP2	2.12	0.49
11:S9:88:GLU:HA	11:S9:91:LYS:HE3	1.95	0.49
36:5:1661:G:C2	36:5:1789:G:C2	3.01	0.49
87:1:3959:OHX:N6	44:L7:217:PRO:O	2.45	0.49
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.59	0.49
44:L7:210:PRO:HD3	44:L7:243:MET:HE2	1.95	0.49
36:1:115:A:O2'	36:1:116:A:OP1	2.26	0.49
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	2.49	0.49
26:D4:20:ARG:HD2	26:D4:74:LEU:HB3	1.95	0.49
41:L4:141:ARG:HB2	41:L4:177:ASP:HA	2.94	0.49
1:6:1406:A:H2'	1:6:1407:U:H6	1.78	0.49
19:C7:26:LEU:HD21	19:C7:62:GLN:HE21	3.92	0.49
36:1:813:G:N2	36:1:814:U:C2	2.81	0.49
18:C6:36:ILE:O	18:C6:36:ILE:HG12	2.12	0.49
7:S5:101:GLY:O	7:S5:103:ASN:N	3.43	0.49
42:L5:236:LEU:O	42:L5:239:ILE:HB	2.13	0.49
12:C0:8:ARG:HG3	12:C0:12:HIS:CE1	2.62	0.49
12:C0:16:PHE:CE1	12:C0:73:VAL:HG12	6.28	0.49
12:C0:76:LEU:HD13	12:C0:76:LEU:H	1.78	0.49
17:C5:45:PHE:CZ	17:C5:84:ILE:HG13	2.48	0.49
22:D0:69:LYS:HA	31:D9:44:ARG:NH1	2.48	0.49
48:M1:106:ILE:HD11	48:M1:108:GLU:O	2.13	0.49
5:S3:29:LEU:HD21	5:S3:65:ARG:HH21	1.77	0.49
36:1:407:A:C4	36:1:408:A:C8	3.01	0.49
2:S0:56:LYS:O	2:S0:59:LEU:N	2.44	0.49
4:S2:76:LEU:HD12	4:S2:105:GLY:HA2	2.36	0.49
4:S2:223:GLY:O	4:S2:225:LEU:N	2.46	0.49
4:S2:76:LEU:HB2	4:S2:105:GLY:CA	5.71	0.49
1:2:128:U:OP1	1:2:178:U:C5	2.66	0.49
36:5:2652:U:C5	36:5:2653:C:C4	2.99	0.49
14:C2:44:GLY:HA2	14:C2:120:VAL:O	4.09	0.49
1:6:1600:A:H4'	1:6:1601:G:OP1	2.13	0.49
57:N1:34:TYR:CE1	57:N1:98:HIS:CD2	4.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:80:ARG:NH1	59:N3:116:GLY:HA3	3.35	0.49
42:L5:269:SER:HA	37:7:22:A:C2	324.99	0.49
1:6:1586:A:H2'	1:6:1587:A:C8	2.48	0.49
18:C6:93:HIS:HB2	18:C6:102:LYS:HB2	1.95	0.49
36:1:207:U:H5''	36:1:208:C:OP2	2.12	0.49
41:L4:165:ALA:HB1	41:L4:219:LEU:HD21	1.94	0.49
36:5:3178:A:H5''	36:5:3179:U:OP1	2.13	0.49
52:M6:34:VAL:HG11	52:M6:112:TYR:HE1	1.77	0.49
1:6:414:C:C4	1:6:415:C:C5	3.00	0.49
24:D2:125:ILE:HG12	24:D2:126:LEU:N	2.28	0.49
57:N1:102:ARG:CG	57:N1:102:ARG:HH11	2.26	0.49
36:1:2148:U:H5'	39:L2:197:PRO:HB3	1.93	0.49
39:L2:192:LYS:HD3	39:L2:193:ARG:NH2	3.82	0.49
45:L8:156:ASP:HB2	45:L8:183:LYS:HZ2	2.61	0.49
4:S2:185:LYS:HD3	4:S2:189:GLN:HE22	3.18	0.49
23:D1:17:CYS:O	23:D1:21:ASN:N	2.41	0.49
60:N4:8:PHE:CE1	60:N4:39:LEU:HB3	4.05	0.49
36:1:705:A:C6	64:N8:113:LEU:HD13	2.47	0.49
9:S7:24:PHE:HE1	9:S7:38:LEU:HD21	1.78	0.49
33:E1:149:LYS:HE3	33:E1:149:LYS:H	5.18	0.49
42:L5:34:LYS:O	42:L5:38:THR:OG1	3.07	0.49
78:Q2:28:TYR:HE1	78:Q2:30:ALA:CA	3.43	0.49
36:5:1613:A:C2	36:5:1614:C:C2	3.00	0.49
36:1:1613:A:H2'	36:1:1614:C:C6	2.47	0.49
36:1:1224:C:H2'	36:1:1224:C:O2	2.12	0.49
36:1:3204:C:O2'	36:1:3205:G:H5'	2.12	0.49
36:5:1556:C:O2'	87:5:3949:OHX:N1	2.45	0.49
36:1:550:A:H61	36:1:551:A:H62	1.60	0.49
15:C3:32:SER:OG	15:C3:33:VAL:N	4.10	0.49
36:5:2661:G:O2'	36:5:2662:G:H5'	2.12	0.49
36:1:2164:A:C6	36:1:2171:G:C6	3.01	0.49
1:2:1317:C:H2'	1:2:1318:G:O4'	2.13	0.49
64:N8:44:ASN:ND2	64:N8:44:ASN:C	3.77	0.49
36:5:594:U:H5''	36:5:609:G:H1	1.76	0.49
13:C1:75:VAL:HG12	13:C1:120:GLY:N	2.27	0.49
1:6:18:C:C2	1:6:19:A:C8	3.01	0.49
36:1:2720:G:C2	36:1:2721:A:C8	3.00	0.49
36:1:2144:A:C4	36:1:2281:A:N6	2.81	0.49
1:2:1030:A:H4'	1:2:1031:U:OP2	2.13	0.49
57:N1:111:ALA:O	57:N1:115:LYS:HG3	2.13	0.49
36:1:1131:G:N2	36:1:2373:A:C5	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2404:A:N3	36:5:2405:C:H5'	2.28	0.49
36:1:279:U:O2'	36:1:280:U:H5'	2.12	0.49
40:L3:310:GLY:O	40:L3:311:PHE:C	2.50	0.49
1:6:1166:A:H2'	1:6:1167:G:O4'	2.13	0.49
12:C0:27:PHE:O	12:C0:28:ASN:HB2	2.11	0.49
2:S0:84:ARG:NH1	2:S0:201:LEU:O	2.46	0.49
47:M0:182:LEU:O	47:M0:183:LYS:C	2.81	0.49
36:1:1123:U:H2'	36:1:1124:U:H5'	1.93	0.49
36:1:1868:G:C6	36:1:1869:C:C4	3.01	0.49
20:C8:11:PHE:CZ	20:C8:59:GLY:HA3	4.24	0.49
1:6:480:G:C4	1:6:509:G:N2	2.80	0.49
36:1:3217:C:C2	53:M7:182:ILE:HG23	2.48	0.49
36:1:3224:G:N7	87:1:3894:OHX:N3	2.60	0.49
4:S2:146:THR:O	4:S2:148:LEU:N	3.42	0.49
1:2:1680:G:C2	1:2:1720:G:C2	3.00	0.49
36:1:2163:C:O2'	39:L2:11:GLY:HA3	2.12	0.49
37:7:114:U:H2'	37:7:115:G:H8	1.76	0.49
36:1:2356:A:O2'	53:M7:137:ASN:HB3	2.13	0.49
1:6:590:C:H2'	1:6:591:A:H8	1.77	0.49
42:L5:4:GLN:O	42:L5:5:LYS:HB2	4.36	0.49
44:L7:134:VAL:HG23	44:L7:135:ALA:N	2.28	0.49
44:L7:239:LEU:O	44:L7:242:SER:N	2.45	0.49
1:6:328:A:H2'	1:6:329:G:C8	2.47	0.49
64:N8:9:ARG:NH2	36:5:1431:G:N7	148.80	0.49
19:C7:60:ARG:HH22	1:6:1400:A:H4'	409.00	0.49
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.12	0.49
5:S3:72:LEU:HD22	12:C0:65:TYR:HB3	1.94	0.49
12:C0:76:LEU:N	12:C0:76:LEU:HD13	2.28	0.49
31:D9:30:LEU:HD22	31:D9:37:ASN:HA	3.72	0.49
48:M1:166:LYS:HD2	48:M1:167:TYR:CE1	4.76	0.49
16:C4:44:GLY:HA3	16:C4:59:ALA:HB1	3.06	0.49
24:D2:70:ASN:HB2	24:D2:130:TYR:CD2	2.59	0.49
2:S0:22:THR:HG22	2:S0:169:SER:HA	3.73	0.49
4:S2:72:LEU:HD12	4:S2:72:LEU:HA	1.62	0.49
1:2:1183:A:C6	1:2:1184:A:N1	2.80	0.49
1:6:1173:C:O5'	1:6:1173:C:H6	1.95	0.49
11:S9:168:ARG:HD3	11:S9:174:ARG:HD2	6.16	0.49
69:O3:71:VAL:HG13	69:O3:81:VAL:CG1	2.50	0.49
34:SR:17:ASN:N	34:SR:39:ASP:OD2	3.44	0.49
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	2.40	0.49
34:SR:83:ALA:HB2	34:SR:113:VAL:HB	2.17	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:62:ILE:O	29:D7:63:LEU:HB2	2.13	0.49
41:L4:82:THR:HG21	36:5:364:G:O2'	124.13	0.49
79:Q3:82:THR:O	79:Q3:86:LEU:HD12	3.83	0.49
36:1:3180:A:H2'	52:M6:167:TYR:HE1	1.77	0.49
39:L2:186:PHE:CE2	36:5:896:A:H4'	192.41	0.49
71:O5:24:LEU:HD12	71:O5:54:VAL:HG21	2.29	0.49
40:L3:40:PRO:C	40:L3:185:GLY:HA3	2.33	0.49
76:Q0:127:LEU:HD23	76:Q0:128:LYS:N	2.27	0.49
56:N0:28:ARG:HH11	56:N0:99:ARG:NH2	3.28	0.49
67:O1:72:ARG:HG2	67:O1:96:VAL:HG22	3.31	0.49
4:S2:44:LEU:HD21	4:S2:247:ALA:HB2	3.47	0.49
41:L4:298:ALA:HB1	54:M8:133:LYS:HZ2	2.62	0.49
15:C3:20:ARG:NE	1:6:862:A:OP1	355.38	0.49
59:N3:39:VAL:HG12	59:N3:40:LYS:N	2.93	0.49
36:1:2207:A:O2'	36:1:2208:A:H5'	2.13	0.49
76:Q0:95:VAL:HA	76:Q0:101:ALA:O	2.13	0.49
36:5:582:G:C2	36:5:583:G:C8	3.00	0.49
36:1:3056:U:OP2	87:1:3937:OHX:N3	2.45	0.49
36:1:1616:U:H2'	36:1:1617:G:C8	2.47	0.49
36:5:776:U:C4	36:5:2720:G:C4	3.01	0.49
10:S8:115:ALA:O	10:S8:143:TRP:NE1	2.44	0.49
40:L3:32:PHE:HB3	40:L3:33:PRO:HD2	2.37	0.49
1:2:1146:G:C6	1:2:1147:A:C6	3.00	0.49
50:M4:23:ILE:HD11	50:M4:46:ILE:HD12	1.93	0.49
36:5:202:G:C2	36:5:203:G:C4	3.01	0.49
36:1:121:A:C2	45:L8:129:PRO:HG3	2.48	0.49
11:S9:8:TYR:O	87:6:2184:OHX:N4	383.70	0.49
1:6:1341:A:H5'	1:6:1342:C:OP2	2.12	0.49
1:6:271:A:H5'	1:6:272:U:P	2.53	0.49
36:1:3163:A:C2'	36:1:3164:C:H5'	2.42	0.49
1:6:1354:G:C6	1:6:1355:C:C4	3.01	0.49
36:5:3156:U:O2'	36:5:3157:U:O4'	2.31	0.49
1:2:892:A:C6	1:2:893:U:C4	3.00	0.49
36:1:619:A:H4'	36:1:620:U:O4'	2.13	0.49
36:1:3062:G:C2	36:1:3063:C:C5	3.00	0.49
1:6:1687:U:H3	1:6:1714:A:H61	1.60	0.49
36:5:1265:U:H5''	36:5:1266:G:OP2	2.13	0.49
70:O4:67:LYS:HG3	36:5:1821:U:N3	168.44	0.49
1:6:1169:G:H1'	1:6:1576:A:N6	2.28	0.49
42:L5:140:ARG:HB2	42:L5:140:ARG:NH2	2.77	0.49
36:5:2405:C:O2	36:5:2819:A:N1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1305:U:N1	40:L3:257:PRO:HG3	2.28	0.49
44:L7:61:ASN:O	44:L7:65:ALA:HB2	2.71	0.49
60:N4:62:GLY:C	60:N4:63:ILE:HG13	4.72	0.49
36:5:1939:G:H2'	36:5:1940:G:O4'	2.12	0.49
36:1:241:G:C4	36:1:242:C:C5	3.00	0.49
1:6:524:U:O2'	1:6:526:A:N7	2.37	0.49
1:6:1778:G:C2	1:6:1779:U:C5	3.01	0.49
53:M7:26:PHE:C	53:M7:26:PHE:CD2	2.85	0.49
37:3:33:U:H2'	37:3:34:C:O4'	2.13	0.49
71:O5:52:ALA:O	71:O5:56:THR:N	2.35	0.49
9:S7:137:GLY:HA2	15:C3:18:TYR:CE2	3.26	0.49
36:1:2387:A:N6	36:1:2993:G:C2	2.81	0.49
36:5:1395:G:H2'	36:5:1396:C:O4'	2.12	0.49
13:C1:21:ASN:N	13:C1:21:ASN:OD1	3.49	0.49
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.45	0.49
27:D5:43:ASP:CB	27:D5:46:LYS:H	4.12	0.49
28:D6:26:CYS:HB3	28:D6:28:LYS:HB2	5.37	0.49
1:2:479:C:O2	1:2:510:G:N2	2.45	0.49
11:S9:112:GLN:HG2	11:S9:148:VAL:HG21	3.91	0.49
44:L7:151:ARG:NH2	36:5:1334:U:O2'	241.89	0.49
13:C1:60:PHE:O	13:C1:61:THR:HG23	2.84	0.49
41:L4:36:HIS:HE1	36:5:1426:C:OP1	136.18	0.49
1:6:1403:C:H2'	1:6:1404:C:H6	1.77	0.49
42:L5:22:ARG:O	42:L5:28:THR:N	2.45	0.49
50:M4:34:ALA:O	50:M4:36:VAL:HG23	3.10	0.49
20:C8:41:ARG:HD2	21:C9:46:PRO:HD3	1.93	0.49
18:C6:38:LEU:HD22	21:C9:10:ALA:HB2	2.42	0.49
30:D8:19:THR:HG21	30:D8:65:ARG:HA	2.05	0.49
7:S5:43:PHE:H	7:S5:46:TRP:N	2.67	0.49
36:1:3375:A:O2'	36:1:3378:C:H5'	2.12	0.49
17:C5:47:ARG:NH2	1:6:1555:A:OP2	402.78	0.49
17:C5:106:GLU:HG2	17:C5:108:ARG:NH1	2.27	0.49
5:S3:105:MET:O	5:S3:108:LYS:HB2	2.82	0.49
5:S3:98:ALA:O	5:S3:101:GLN:N	2.46	0.49
1:6:964:U:O4'	1:6:965:U:C2	2.66	0.49
15:C3:2:GLY:N	1:6:866:G:OP1	333.11	0.49
1:2:864:U:C5	29:D7:22:LYS:HG2	2.45	0.49
64:N8:64:GLN:NE2	36:5:101:G:H8	117.06	0.49
1:6:1746:A:H2'	1:6:1747:G:O4'	2.13	0.49
16:C4:84:ARG:O	16:C4:84:ARG:HG3	4.55	0.49
28:D6:45:VAL:O	28:D6:49:ALA:HB3	5.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:76:LEU:HB2	4:S2:105:GLY:C	5.46	0.49
48:M1:132:ASN:HA	48:M1:154:THR:CG2	2.40	0.49
63:N7:95:VAL:HG21	63:N7:113:VAL:HB	1.94	0.49
68:O2:89:THR:HG22	68:O2:117:ILE:HG12	1.94	0.49
68:O2:81:ASP:OD1	68:O2:81:ASP:N	3.00	0.49
6:S4:129:VAL:HG12	6:S4:156:VAL:CG2	2.43	0.49
6:S4:228:ILE:O	6:S4:235:TYR:HD2	2.02	0.49
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.57	0.49
60:N4:56:ARG:O	60:N4:59:HIS:N	3.50	0.49
42:L5:256:THR:HA	42:L5:257:GLU:OE1	7.95	0.49
1:2:147:A:H2'	1:2:148:A:O4'	2.13	0.49
18:C6:91:ALA:O	18:C6:94:GLN:HB3	3.20	0.49
36:5:353:G:HO2'	36:5:354:U:P	2.34	0.49
1:2:989:U:H2'	1:2:990:C:C6	2.46	0.49
72:O6:5:THR:HG23	72:O6:12:ASN:C	2.33	0.49
36:5:3160:U:C2	36:5:3291:G:N2	2.81	0.49
49:M3:69:VAL:N	49:M3:149:GLN:OE1	3.53	0.49
49:M3:97:VAL:HG12	49:M3:98:ASP:H	2.33	0.49
1:2:968:U:H5''	1:2:1033:C:O2'	2.13	0.49
39:L2:204:MET:HE3	39:L2:209:HIS:HB2	1.94	0.49
39:L2:117:GLU:OE1	39:L2:163:ARG:NE	2.44	0.49
39:L2:30:ARG:HB2	39:L2:36:GLU:OE2	2.12	0.49
39:L2:242:ARG:NH1	39:L2:243:THR:O	2.90	0.49
1:2:702:G:O2'	1:2:703:G:O4'	2.24	0.49
36:5:1745:C:H2'	36:5:1746:U:H6	1.78	0.49
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	3.00	0.49
36:1:3111:U:H5'	46:L9:155:SER:OG	2.13	0.49
46:L9:69:ARG:O	46:L9:69:ARG:HD2	3.34	0.49
1:6:1320:U:O2	1:6:1322:A:H5'	2.12	0.49
38:4:129:C:H2'	38:4:130:C:C6	2.46	0.49
10:S8:112:TRP:O	10:S8:115:ALA:N	3.21	0.49
78:Q2:71:ARG:HD3	78:Q2:72:LEU:O	6.91	0.49
50:M4:32:LEU:HD21	50:M4:94:TRP:CE2	2.46	0.49
1:2:486:G:C2	1:2:487:G:C4	3.00	0.49
1:2:134:U:H2'	1:2:135:A:O4'	2.13	0.49
36:5:2374:C:N4	36:5:2941:A:C4	2.81	0.49
36:1:239:G:N7	87:1:4034:OHX:N4	2.60	0.49
58:N2:58:GLU:HB2	58:N2:63:VAL:HG12	5.76	0.49
71:O5:15:GLU:O	71:O5:18:ALA:N	3.15	0.49
41:L4:347:THR:HG21	44:L7:64:GLN:NE2	2.25	0.49
45:L8:81:THR:HG23	45:L8:82:LEU:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:224:C:H2'	1:6:225:A:H8	1.78	0.49
36:1:620:U:C4	36:1:622:A:C6	3.00	0.49
36:5:596:C:H2'	36:5:597:G:O4'	2.13	0.49
36:5:1014:U:C2'	36:5:1015:U:H5'	2.42	0.49
36:1:717:C:H6	36:1:717:C:O5'	1.96	0.49
36:5:504:A:C2	36:5:588:G:C2	3.00	0.49
1:2:1405:G:C2	1:2:1406:A:C4	3.01	0.49
45:L8:143:ILE:HG23	45:L8:175:VAL:HG21	5.17	0.49
36:1:1148:G:C2'	36:1:1149:G:H5'	2.42	0.49
1:2:491:C:C2'	1:2:492:A:H5'	2.43	0.49
36:5:2391:G:N3	36:5:2391:G:H2'	2.28	0.49
36:5:2121:G:H2'	36:5:2122:G:H5'	1.95	0.49
1:6:1778:G:C2	1:6:1779:U:C4	3.00	0.49
1:6:1051:G:H4'	1:6:1052:U:OP1	2.12	0.49
87:8:220:OHX:N2	87:8:229:OHX:N1	2.60	0.49
36:1:435:C:H6	36:1:435:C:O5'	1.96	0.49
1:6:1643:U:C5	1:6:1644:C:C5	3.00	0.49
40:L3:129:ALA:O	36:5:3150:A:H5'	212.30	0.49
36:5:110:G:C6	36:5:111:C:C2	3.00	0.49
36:5:683:U:H2'	36:5:684:G:O4'	2.12	0.49
29:D7:31:TYR:O	29:D7:48:SER:OG	2.86	0.49
1:2:33:U:O4	87:2:2056:OHX:N3	2.45	0.49
1:6:52:U:OP2	87:6:2072:OHX:N3	2.46	0.49
78:Q2:11:TYR:HE2	78:Q2:18:ARG:C	2.55	0.49
40:L3:270:ARG:NH2	36:5:3090:U:OP1	218.90	0.49
27:D5:51:LEU:HD12	27:D5:51:LEU:N	2.59	0.49
46:L9:23:ARG:NH2	46:L9:42:ASP:H	2.11	0.49
46:L9:80:THR:O	46:L9:83:THR:N	2.85	0.49
11:S9:172:VAL:HG13	1:6:512:A:OP2	455.78	0.49
36:5:2852:C:H5''	36:5:2853:A:OP2	2.12	0.49
47:M0:142:ASP:CG	47:M0:178:ARG:HH22	2.14	0.49
10:S8:106:ALA:HB1	10:S8:160:PHE:CE1	2.47	0.49
41:L4:118:LYS:O	41:L4:121:ALA:HB3	2.13	0.49
41:L4:192:GLY:O	41:L4:194:TYR:N	3.28	0.49
1:2:1388:A:OP2	19:C7:32:LYS:NZ	2.44	0.49
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.47	0.49
36:1:812:G:O6	87:1:3984:OHX:N1	2.46	0.49
20:C8:42:TYR:CE1	20:C8:99:HIS:CD2	3.98	0.49
20:C8:70:VAL:O	20:C8:74:GLN:HG3	4.32	0.49
67:O1:46:THR:O	67:O1:48:ASP:N	4.80	0.49
42:L5:160:PHE:O	42:L5:163:LEU:HB3	2.52	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:205:SER:O	42:L5:209:GLU:HG3	2.84	0.49
17:C5:34:VAL:HG11	17:C5:45:PHE:CD2	3.33	0.49
21:C9:34:VAL:HG13	21:C9:53:TRP:HE1	4.97	0.49
21:C9:57:ARG:NH2	21:C9:80:TYR:CG	3.32	0.49
16:C4:31:THR:OG1	16:C4:32:ASP:N	2.43	0.49
2:S0:86:VAL:HG12	2:S0:174:TRP:CE2	2.47	0.49
4:S2:99:LYS:HD3	4:S2:208:GLU:OE1	2.13	0.49
37:7:55:A:H2'	37:7:56:A:O4'	2.13	0.49
36:1:1709:C:C2	36:1:1736:G:C2	3.00	0.49
62:N6:52:ARG:NH1	38:8:71:A:O2'	35.30	0.49
38:8:94:C:O2'	38:8:95:G:H5''	2.13	0.49
59:N3:80:ARG:HG3	59:N3:80:ARG:NH1	2.28	0.49
34:SR:69:GLN:HG2	34:SR:111:MET:SD	3.10	0.49
36:1:366:A:H5''	36:1:367:A:OP2	2.13	0.49
41:L4:156:LEU:O	41:L4:158:SER:N	2.69	0.49
1:2:1289:U:C4	1:2:1290:U:C5	3.01	0.49
8:S6:56:ASN:H	8:S6:108:VAL:HG23	5.79	0.49
8:S6:57:ASP:C	8:S6:59:GLN:H	4.64	0.49
40:L3:136:LYS:HB2	40:L3:144:ILE:HD11	3.52	0.49
36:5:3276:G:H4'	36:5:3277:U:OP1	2.12	0.49
71:O5:118:ILE:O	71:O5:119:LYS:HB3	2.13	0.49
36:1:285:A:C8	36:1:285:A:C3'	2.96	0.49
51:M5:180:PHE:HB3	51:M5:183:THR:HG23	3.21	0.49
36:5:705:A:C2	36:5:714:G:N3	2.81	0.49
26:D4:60:PHE:HA	26:D4:70:VAL:O	2.27	0.49
38:8:138:A:H2'	38:8:139:U:C6	2.47	0.49
73:O7:64:MET:O	73:O7:68:LYS:HD2	2.84	0.49
1:6:1268:G:C2	1:6:1270:G:N7	2.80	0.49
1:6:912:U:O5'	1:6:913:G:H5'	2.13	0.49
36:1:215:G:OP1	62:N6:12:ARG:HD2	2.12	0.49
40:L3:41:VAL:HG21	40:L3:191:LYS:HA	2.86	0.49
36:1:2676:A:H4'	36:1:2677:G:O5'	2.12	0.49
55:M9:92:GLN:O	55:M9:95:TRP:HB3	2.35	0.49
44:L7:81:HIS:ND1	44:L7:138:TYR:CD1	3.41	0.49
76:Q0:111:ARG:HG3	76:Q0:112:LYS:HD2	4.85	0.49
36:1:1391:C:C2	68:O2:103:LYS:HD2	2.48	0.49
2:S0:71:GLU:CD	2:S0:71:GLU:H	2.16	0.49
62:N6:90:VAL:HG23	62:N6:91:ASN:H	1.89	0.49
36:5:1790:G:H2'	36:5:1791:C:O4'	2.12	0.49
58:N2:93:ILE:HG22	58:N2:106:ALA:O	2.13	0.49
1:2:648:G:C4	1:2:687:G:N2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3164:C:O2'	36:1:3165:A:C8	2.63	0.49
55:M9:129:GLY:O	55:M9:131:ALA:N	5.08	0.49
58:N2:100:THR:O	58:N2:101:ASN:HB2	2.38	0.49
34:SR:50:ASP:OD2	34:SR:53:LYS:NZ	2.38	0.49
46:L9:86:TYR:CD2	46:L9:151:VAL:HG13	2.95	0.49
45:L8:148:ALA:HB3	45:L8:175:VAL:HG11	2.11	0.49
21:C9:23:GLN:HG3	21:C9:55:TYR:CE2	4.82	0.49
36:5:3354:U:H4'	36:5:3355:U:O5'	2.13	0.49
36:1:1246:G:H2'	36:1:1247:U:O4'	2.12	0.49
36:5:1452:A:H1'	36:5:2347:U:O5'	2.12	0.49
68:O2:3:SER:HB3	68:O2:71:HIS:NE2	2.28	0.49
1:6:1609:U:C5	1:6:1610:G:C5	3.00	0.49
1:2:862:A:C2	1:2:963:A:C4	3.00	0.49
1:2:1664:C:OP1	87:2:2176:OHX:N4	2.46	0.49
36:5:1212:A:C2	36:5:1294:A:C2	3.01	0.49
6:S4:200:ARG:O	6:S4:201:HIS:HB2	2.12	0.49
36:1:3248:C:O5'	36:1:3248:C:H6	1.95	0.49
36:1:3191:G:C4	36:1:3192:U:C6	3.01	0.49
36:5:1497:C:H2'	36:5:1498:A:C8	2.41	0.49
75:O9:45:ARG:NH1	36:5:1848:G:H5'	129.40	0.49
53:M7:44:ALA:O	53:M7:47:TYR:HB3	2.12	0.49
75:O9:44:TRP:CZ2	75:O9:45:ARG:HG2	4.98	0.49
1:6:88:U:H2'	1:6:89:G:C8	2.47	0.49
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.12	0.49
1:2:931:C:OP1	28:D6:70:LYS:NZ	2.30	0.49
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	4.20	0.49
10:S8:27:PHE:CE2	1:6:301:A:H5''	313.82	0.49
1:6:301:A:H2'	1:6:302:U:C6	2.47	0.49
41:L4:272:VAL:HG23	36:5:696:C:OP1	98.38	0.49
1:6:1470:C:H2'	1:6:1573:A:H62	1.78	0.49
46:L9:90:MET:HB3	46:L9:181:VAL:HA	1.95	0.49
55:M9:27:ASN:C	55:M9:29:THR:H	2.15	0.49
36:1:2663:G:H2'	36:1:2664:C:C6	2.48	0.49
17:C5:25:LEU:O	17:C5:28:MET:HE2	4.01	0.49
5:S3:97:SER:O	5:S3:100:ALA:HB3	2.11	0.49
1:2:310:C:C2'	1:2:311:U:H5'	2.43	0.49
36:5:1631:C:H42	36:5:1811:G:H1	1.61	0.49
1:2:919:A:H4'	16:C4:35:GLY:HA3	1.95	0.49
16:C4:16:VAL:HG22	16:C4:32:ASP:O	2.93	0.49
16:C4:25:ASP:OD1	16:C4:26:THR:N	3.23	0.49
16:C4:66:ASP:O	16:C4:69:ALA:HB3	4.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:35:ASN:OD1	23:D1:52:THR:HB	2.27	0.49
2:S0:180:GLU:CD	2:S0:183:ARG:HD3	2.32	0.49
40:L3:220:VAL:HG12	40:L3:272:TYR:HA	2.70	0.49
40:L3:219:ALA:HB2	40:L3:336:VAL:HG22	2.42	0.49
48:M1:6:GLN:OE1	48:M1:7:ASN:ND2	2.45	0.49
70:O4:46:ASP:H	70:O4:80:ARG:HD2	1.78	0.49
62:N6:51:ARG:HB3	62:N6:115:ARG:HH12	1.78	0.49
1:2:1185:U:C4	1:2:1458:G:H1'	2.48	0.49
40:L3:296:THR:HG21	40:L3:357:LYS:C	2.68	0.49
36:1:2661:G:O2'	36:1:2662:G:H5'	2.13	0.49
1:2:78:A:C8	8:S6:154:ARG:HG3	2.47	0.49
36:5:2407:C:H1'	36:5:2818:U:C2	2.48	0.49
39:L2:87:PHE:O	39:L2:88:ILE:HD13	2.92	0.49
52:M6:195:ALA:O	52:M6:196:ALA:C	2.60	0.49
52:M6:113:ASP:OD2	52:M6:113:ASP:N	2.46	0.49
36:5:3288:G:C4	36:5:3289:G:C8	3.00	0.49
38:4:116:G:C2	38:4:117:C:C2	3.00	0.49
39:L2:181:LYS:O	39:L2:183:GLY:N	3.23	0.49
1:6:914:G:C8	1:6:914:G:H5'	2.47	0.49
41:L4:144:LYS:HG2	41:L4:145:ILE:H	5.68	0.49
64:N8:74:ASN:HB3	64:N8:76:ASP:HB2	2.42	0.49
42:L5:14:SER:C	42:L5:16:PHE:H	2.47	0.49
24:D2:35:ILE:O	24:D2:39:GLN:HG3	2.12	0.49
36:1:1594:A:OP1	70:O4:36:LYS:NZ	2.29	0.49
1:6:640:U:C2	1:6:641:G:C8	3.01	0.49
1:6:194:U:O2	1:6:195:G:O2'	2.31	0.49
1:2:1139:A:H2'	1:2:1140:G:O4'	2.11	0.49
1:6:481:A:H2'	1:6:482:U:H6	1.78	0.49
56:N0:171:PHE:O	56:N0:172:TYR:C	4.07	0.49
36:5:2660:G:H2'	36:5:2661:G:C8	2.48	0.49
1:6:38:C:C2'	1:6:39:A:H5'	2.42	0.49
1:2:1078:C:H2'	1:2:1079:U:H6	1.78	0.49
14:C2:132:GLU:HA	14:C2:135:MET:HB2	2.22	0.49
36:1:1209:G:C5	36:1:1210:U:C4	3.01	0.49
1:6:686:C:H2'	1:6:687:G:C8	2.48	0.49
68:O2:12:LYS:O	68:O2:13:HIS:HB2	2.12	0.49
8:S6:46:LYS:O	8:S6:117:GLY:HA3	2.13	0.49
36:1:876:A:H2'	36:1:877:C:H5'	1.94	0.49
1:2:1776:A:C6	1:2:1777:G:C6	3.01	0.49
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.13	0.49
49:M3:11:LYS:HD3	36:5:86:G:O2'	142.83	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:109:A:C2	38:4:114:G:C5	3.00	0.49
36:5:2631:U:H2'	36:5:2632:G:C8	2.46	0.49
1:2:482:U:H3	1:2:505:A:H62	1.61	0.49
8:S6:200:ALA:HA	8:S6:203:GLU:CG	2.43	0.49
36:1:1131:G:C4	36:1:2373:A:C2	3.01	0.49
36:5:2176:U:C2'	36:5:2177:G:H5'	2.42	0.49
36:1:241:G:H2'	36:1:242:C:C6	2.47	0.49
37:7:113:C:H2'	37:7:114:U:O4'	2.11	0.49
1:2:1579:U:O2'	18:C6:139:GLN:HA	2.13	0.49
41:L4:164:GLU:O	41:L4:167:ALA:HB3	2.61	0.49
36:1:971:G:H2'	36:1:972:A:O4'	2.13	0.49
49:M3:10:LEU:HD23	54:M8:166:LEU:HD11	1.95	0.49
1:6:1720:G:O6	87:6:2098:OHX:N4	2.46	0.49
36:5:567:G:O6	87:5:4126:OHX:N2	2.46	0.49
1:2:241:U:H5'	1:2:242:U:OP2	2.13	0.49
1:6:1349:G:N3	1:6:1379:C:N4	2.59	0.49
47:M0:92:HIS:HB2	47:M0:94:PHE:CE2	2.48	0.49
66:O0:78:GLY:HA2	66:O0:81:VAL:HG22	1.94	0.49
1:2:1193:A:H4'	1:2:1194:A:OP2	2.11	0.49
36:1:1186:G:N3	56:N0:112:ALA:HB1	2.28	0.49
36:5:887:G:H2'	36:5:888:A:C8	2.47	0.49
20:C8:6:GLN:HE21	27:D5:44:GLN:H	8.40	0.49
36:5:1112:A:H5''	36:5:1113:G:OP2	2.13	0.49
26:D4:112:LYS:O	26:D4:116:LYS:HG3	4.26	0.49
28:D6:38:ARG:HG3	28:D6:38:ARG:NH1	2.28	0.49
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.95	0.49
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.95	0.49
44:L7:170:GLU:O	44:L7:172:ASN:N	2.45	0.49
1:6:445:A:N3	1:6:446:A:C8	2.81	0.49
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	5.12	0.49
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.37	0.49
36:1:359:U:O4	36:1:360:G:C6	2.66	0.49
36:5:817:A:H4'	36:5:818:C:OP2	2.13	0.49
73:O7:25:ARG:HG3	75:O9:50:ASN:O	4.43	0.49
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	2.21	0.49
7:S5:162:VAL:HA	30:D8:45:LYS:H	2.04	0.49
7:S5:63:GLN:OE1	7:S5:64:VAL:N	2.46	0.49
67:O1:50:ARG:HD2	67:O1:90:PHE:CE2	3.03	0.49
17:C5:89:MET:C	17:C5:107:ILE:HD11	7.59	0.49
21:C9:102:ARG:O	21:C9:106:GLN:HG3	3.31	0.49
1:2:952:A:OP1	15:C3:94:LYS:HE2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:28:TYR:C	72:O6:30:LYS:N	2.67	0.49
2:S0:124:THR:HA	2:S0:146:LEU:HG	3.90	0.49
2:S0:41:ARG:HB2	2:S0:45:VAL:HB	3.32	0.49
20:C8:36:LYS:HB3	20:C8:102:ALA:O	3.73	0.49
63:N7:46:ILE:HG13	63:N7:46:ILE:O	2.11	0.49
70:O4:46:ASP:OD2	70:O4:80:ARG:HD2	3.87	0.49
36:1:438:A:OP1	68:O2:118:LYS:NZ	2.29	0.49
55:M9:14:VAL:O	55:M9:15:VAL:C	2.52	0.49
1:6:1451:C:H2'	1:6:1452:U:C5	2.48	0.49
6:S4:166:SER:OG	6:S4:168:LYS:HG2	2.13	0.49
8:S6:163:THR:HA	8:S6:168:THR:HA	1.95	0.49
43:L6:154:LEU:HD23	43:L6:157:GLN:CB	5.19	0.49
1:2:1622:G:C4	1:2:1623:C:C5	3.00	0.49
8:S6:137:ARG:O	8:S6:141:ILE:HG13	2.34	0.49
34:SR:63:GLY:HA3	34:SR:90:ARG:NH1	2.27	0.49
1:2:1290:U:OP1	4:S2:95:ARG:HD3	2.12	0.49
52:M6:28:LEU:H	52:M6:28:LEU:HD12	1.76	0.49
36:5:713:U:O2'	36:5:754:G:OP1	2.21	0.49
36:5:2649:A:C2'	36:5:2650:U:H5'	2.43	0.49
45:L8:157:VAL:HG21	45:L8:163:VAL:HG11	1.95	0.49
40:L3:160:VAL:HB	40:L3:183:LEU:HD13	1.95	0.49
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	3.11	0.49
36:1:856:G:OP1	55:M9:92:GLN:NE2	2.44	0.49
36:5:2111:G:H4'	36:5:2112:U:OP2	2.12	0.49
36:5:782:U:H2'	36:5:783:A:O4'	2.13	0.49
2:S0:131:GLN:O	2:S0:134:LYS:N	3.75	0.49
37:3:47:C:H2'	37:3:48:U:H6	1.78	0.49
1:2:1383:G:H1'	22:D0:57:ARG:HH22	1.78	0.49
36:5:584:G:O6	87:5:4016:OHX:N1	2.46	0.49
36:5:1525:G:N2	36:5:1615:C:C2	2.81	0.49
36:5:1617:G:H1	36:5:1827:C:H42	1.61	0.49
87:1:4097:OHX:N2	40:L3:31:ALA:HB2	2.28	0.49
65:N9:7:HIS:CG	65:N9:8:THR:N	2.80	0.49
36:5:1192:C:H6	36:5:1192:C:H5'	1.78	0.49
1:6:1409:G:N2	1:6:1412:G:OP2	2.46	0.49
36:5:1943:C:H2'	36:5:1944:U:H6	1.77	0.49
1:6:1107:G:C6	1:6:1108:G:C6	3.01	0.49
60:N4:25:ASP:OD1	60:N4:25:ASP:N	2.46	0.49
74:O8:32:ASN:H	74:O8:37:PRO:HA	1.78	0.49
36:5:501:A:H2'	36:5:502:U:C6	2.47	0.49
8:S6:182:GLN:HA	8:S6:182:GLN:HE21	4.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2880:U:OP1	59:N3:47:ASN:ND2	2.46	0.49
70:O4:9:ARG:O	70:O4:11:ASN:N	2.74	0.49
26:D4:50:ALA:O	26:D4:51:GLU:HB3	2.13	0.49
36:5:2107:A:H2'	36:5:2108:C:O4'	2.13	0.49
36:1:1056:U:C4	36:1:1057:A:C8	3.01	0.49
36:1:1372:C:C2'	36:1:1373:A:H5'	2.43	0.49
1:2:1414:U:O2'	1:2:1416:G:OP2	2.21	0.49
1:2:414:C:O2	1:2:419:G:N2	2.32	0.49
36:1:1344:G:H2'	36:1:1345:G:H5''	1.95	0.49
37:3:19:C:O2'	37:3:20:A:H5'	2.12	0.49
36:1:2598:G:H5''	36:1:2599:U:OP2	2.13	0.49
25:D3:74:VAL:HG23	25:D3:83:VAL:O	2.13	0.48
36:1:3053:G:N2	36:1:3090:U:H1'	2.28	0.48
40:L3:283:TYR:CE1	40:L3:354:VAL:HG11	4.25	0.48
36:1:1444:G:H1	36:1:2359:C:H42	1.61	0.48
32:E0:36:LYS:HZ3	1:6:593:U:H5	412.62	0.48
47:M0:171:TRP:O	47:M0:174:THR:HG23	3.58	0.48
49:M3:29:ALA:O	49:M3:31:LYS:N	2.47	0.48
41:L4:31:ARG:HD3	54:M8:23:ASN:OD1	3.00	0.48
1:2:1402:G:C2	1:2:1403:C:C2	3.01	0.48
19:C7:66:VAL:HB	19:C7:69:ILE:HD11	1.95	0.48
1:2:1472:C:H5'	1:2:1474:G:O4'	2.12	0.48
1:6:1540:G:C6	1:6:1541:G:C4	3.01	0.48
1:6:1547:A:H61	1:6:1564:U:H3	1.61	0.48
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	3.16	0.48
20:C8:26:ILE:HG13	20:C8:31:ALA:CB	3.60	0.48
7:S5:51:VAL:HG21	7:S5:130:ILE:HG23	3.88	0.48
7:S5:208:SER:HB3	7:S5:211:ILE:HG12	3.78	0.48
1:2:1548:G:H2'	1:2:1549:C:C6	2.48	0.48
17:C5:86:VAL:O	17:C5:89:MET:HG3	2.13	0.48
1:6:1783:C:H2'	1:6:1784:C:C6	2.48	0.48
1:2:1142:A:H2'	1:2:1143:A:O4'	2.12	0.48
2:S0:56:LYS:NZ	2:S0:159:ALA:O	2.36	0.48
70:O4:98:GLN:OE1	70:O4:101:VAL:HG11	2.13	0.48
38:4:73:U:P	62:N6:75:ARG:HD2	2.53	0.48
33:E1:97:LYS:HE3	1:6:1231:U:C4	439.55	0.48
60:N4:24:GLY:C	60:N4:26:SER:H	2.15	0.48
1:2:66:U:O3'	8:S6:171:LYS:HE2	2.13	0.48
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.78	0.48
36:5:2190:U:O2'	36:5:2191:U:H5'	2.12	0.48
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:305:ILE:HG21	40:L3:321:PHE:CE2	4.82	0.48
40:L3:285:VAL:HG13	40:L3:322:ILE:HD13	4.29	0.48
79:Q3:44:LYS:O	79:Q3:46:THR:N	2.62	0.48
39:L2:112:ILE:HD11	79:Q3:79:VAL:CG1	5.47	0.48
36:1:2422:C:H42	36:1:2608:G:H1	1.61	0.48
36:1:208:C:H2'	36:1:209:A:O4'	2.13	0.48
52:M6:26:GLN:HG2	52:M6:33:ILE:HD11	4.66	0.48
87:1:3976:OHX:N3	87:1:4154:OHX:N6	2.60	0.48
36:1:498:A:H2'	36:1:499:G:C8	2.48	0.48
52:M6:181:ALA:C	52:M6:183:ALA:N	2.66	0.48
36:1:981:U:C6	36:1:981:U:H3'	2.48	0.48
57:N1:130:ARG:NH2	36:5:988:U:O2	254.24	0.48
39:L2:204:MET:H	39:L2:204:MET:HG2	1.33	0.48
1:6:486:G:H4'	1:6:486:G:OP1	2.13	0.48
53:M7:16:SER:HB2	53:M7:149:VAL:HG22	1.94	0.48
74:O8:40:GLN:HE21	74:O8:55:VAL:HG11	2.34	0.48
38:4:107:G:C2	38:4:116:G:C5	3.01	0.48
36:1:2402:A:C2	36:1:2871:G:C5	3.01	0.48
23:D1:2:GLU:HG3	23:D1:7:GLN:O	5.81	0.48
2:S0:126:PRO:HG2	2:S0:152:PRO:CD	2.42	0.48
64:N8:60:TYR:CE2	64:N8:63:LYS:HG3	3.77	0.48
9:S7:4:PRO:HB2	9:S7:25:VAL:HG11	3.44	0.48
1:2:1488:G:H5'	1:2:1489:U:P	2.53	0.48
1:2:1490:C:C5	1:2:1492:A:C4	3.01	0.48
22:D0:104:THR:HG22	22:D0:116:VAL:HG21	2.10	0.48
38:4:123:G:C6	38:4:131:A:C6	3.01	0.48
21:C9:18:TYR:O	21:C9:21:PHE:HB3	2.51	0.48
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.45	0.48
25:D3:38:PHE:HD1	1:6:359:A:N3	329.66	0.48
1:2:1040:G:H1	1:2:1078:C:N4	2.12	0.48
74:O8:14:LEU:O	74:O8:20:VAL:HG21	2.13	0.48
57:N1:12:ARG:HD2	57:N1:13:TYR:CZ	2.48	0.48
49:M3:129:ASN:HB3	49:M3:131:LYS:HE2	1.95	0.48
36:1:619:A:H5''	36:1:620:U:OP1	2.13	0.48
1:6:1236:A:H3'	1:6:1237:G:C8	2.48	0.48
1:6:432:G:C5	1:6:433:C:C5	3.01	0.48
36:5:2584:G:C8	36:5:2584:G:H5''	2.48	0.48
42:L5:278:SER:N	42:L5:281:GLU:OE2	2.46	0.48
61:N5:77:GLU:HG3	61:N5:133:LEU:HD23	1.95	0.48
11:S9:33:GLU:HB2	11:S9:34:PHE:CD2	2.48	0.48
36:5:3146:G:H2'	36:5:3147:G:C8	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:12:U:H2'	1:6:13:C:C6	2.48	0.48
40:L3:261:MET:SD	52:M6:64:PHE:HA	2.68	0.48
14:C2:98:GLY:HA3	14:C2:103:LEU:HD21	1.95	0.48
36:5:1241:U:O2'	36:5:1242:G:O5'	2.28	0.48
36:5:3341:U:N3	36:5:3355:U:C2	2.78	0.48
1:2:1765:A:C8	1:2:1768:G:N2	2.81	0.48
46:L9:44:THR:HG22	36:5:3186:A:H2	327.94	0.48
1:6:204:G:C4	1:6:264:G:N2	2.81	0.48
1:6:291:G:H2'	1:6:292:U:C6	2.48	0.48
1:2:232:U:H4'	1:2:233:C:OP2	2.11	0.48
36:5:1093:A:OP1	36:5:1093:A:H4'	2.12	0.48
38:8:68:G:N1	38:8:69:U:C2	2.81	0.48
22:D0:97:VAL:HG22	22:D0:98:GLN:N	3.40	0.48
49:M3:177:LYS:HB2	72:O6:11:LEU:HD22	1.94	0.48
36:1:1541:G:C6	36:1:1542:G:H1'	2.48	0.48
1:2:81:G:C6	1:2:82:U:N3	2.81	0.48
6:S4:252:ARG:HA	6:S4:255:ARG:HG3	3.40	0.48
38:8:113:U:H3'	38:8:113:U:O2	2.13	0.48
34:SR:262:VAL:O	34:SR:270:LEU:HD12	2.19	0.48
27:D5:43:ASP:HB2	27:D5:46:LYS:HD2	1.95	0.48
36:1:3199:G:H2'	36:1:3200:G:H8	1.77	0.48
46:L9:31:ARG:NH1	46:L9:187:ILE:HD12	2.28	0.48
46:L9:47:LYS:HZ3	50:M4:4:ASP:HB3	2.72	0.48
53:M7:127:ARG:NH2	36:5:1508:C:OP1	138.24	0.48
44:L7:51:TYR:C	44:L7:53:LYS:N	2.93	0.48
44:L7:51:TYR:O	44:L7:53:LYS:N	2.87	0.48
72:O6:36:ARG:HG3	72:O6:40:VAL:HG23	1.94	0.48
1:2:249:U:H3'	1:2:250:C:H5'	1.96	0.48
1:2:398:G:P	10:S8:47:ARG:HH12	2.33	0.48
36:1:341:G:O2'	38:4:22:U:O4	2.31	0.48
36:5:1383:G:H2'	36:5:1384:U:C6	2.47	0.48
41:L4:152:VAL:HG12	41:L4:153:SER:O	2.13	0.48
19:C7:51:ALA:HA	19:C7:54:THR:HG23	1.94	0.48
36:1:1318:A:OP1	52:M6:18:ARG:NH2	2.37	0.48
20:C8:61:LEU:HD22	20:C8:65:GLU:HB2	4.99	0.48
7:S5:124:LEU:HD11	27:D5:59:TYR:CD1	2.47	0.48
7:S5:49:GLU:O	7:S5:50:GLU:HB2	2.35	0.48
61:N5:102:LEU:HB2	61:N5:103:TYR:CD2	2.48	0.48
42:L5:237:GLU:HG3	42:L5:241:THR:OG1	4.08	0.48
21:C9:122:ARG:NH2	1:6:1500:C:OP1	419.69	0.48
12:C0:60:SER:O	12:C0:62:GLN:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:105:VAL:HG12	17:C5:106:GLU:O	2.55	0.48
21:C9:122:ARG:NH1	1:6:1499:G:OP1	421.36	0.48
21:C9:15:ILE:CD1	21:C9:63:ARG:HD2	3.36	0.48
5:S3:56:GLN:HB2	5:S3:90:ARG:HH12	1.78	0.48
36:1:155:G:O2'	72:O6:27:SER:HB3	2.12	0.48
77:Q1:17:ARG:O	77:Q1:21:ARG:HB2	2.13	0.48
36:1:656:A:C2	36:1:657:A:C4	3.00	0.48
2:S0:17:LEU:O	2:S0:22:THR:HG23	4.44	0.48
54:M8:138:LEU:HD22	54:M8:139:ILE:N	4.31	0.48
36:1:1721:U:H5	55:M9:103:ARG:NH1	2.10	0.48
55:M9:35:ALA:O	55:M9:40:ALA:HB3	4.70	0.48
1:2:1211:A:H2'	1:2:1212:G:O4'	2.13	0.48
6:S4:125:LYS:HE2	6:S4:157:ASN:HA	1.94	0.48
6:S4:42:LEU:HB2	6:S4:109:PHE:HD2	1.78	0.48
64:N8:43:ILE:HG13	36:5:2727:A:C2	191.69	0.48
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.41	0.48
1:2:68:A:O2'	1:2:69:G:OP2	2.23	0.48
40:L3:286:GLY:HA3	40:L3:321:PHE:CZ	2.92	0.48
79:Q3:36:ARG:HG2	79:Q3:48:LYS:HD2	1.95	0.48
36:5:293:C:H2'	36:5:294:U:O4'	2.14	0.48
36:1:3180:A:C4	52:M6:167:TYR:CE1	3.01	0.48
87:1:3976:OHX:N1	87:1:4154:OHX:N4	2.61	0.48
1:6:158:U:OP2	1:6:158:U:H6	1.96	0.48
24:D2:89:TRP:O	24:D2:93:LEU:HD23	3.00	0.48
49:M3:103:ASN:O	72:O6:22:PRO:HG3	4.21	0.48
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.43	0.48
33:E1:98:VAL:O	33:E1:99:LYS:HG3	2.13	0.48
46:L9:156:GLN:O	46:L9:160:ASP:N	2.71	0.48
1:2:79:C:OP1	8:S6:159:ARG:NH2	2.38	0.48
36:1:2897:A:H2'	36:1:2899:C:H5''	1.94	0.48
36:5:494:G:H2'	36:5:495:G:O4'	2.13	0.48
60:N4:13:ILE:HG12	60:N4:32:GLN:HB2	1.94	0.48
64:N8:79:TRP:CZ3	64:N8:87:ARG:HG2	4.81	0.48
22:D0:103:ILE:HA	22:D0:106:ILE:CG2	3.38	0.48
19:C7:33:ARG:NH2	34:SR:109:ASP:CG	3.39	0.48
36:1:3109:G:C2	36:1:3110:C:C6	3.01	0.48
36:1:3124:G:H5'	46:L9:40:HIS:ND1	2.27	0.48
36:5:2903:A:H2'	36:5:2904:U:O4'	2.12	0.48
36:1:2738:A:H2'	36:1:2739:A:C8	2.48	0.48
36:1:1629:U:O4	63:N7:111:LYS:HD2	2.12	0.48
36:1:1536:G:C5	36:1:1537:A:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:763:G:H3'	36:1:764:U:C5	2.48	0.48
39:L2:65:ASP:HB2	39:L2:72:ARG:HG2	3.53	0.48
36:1:550:A:N1	36:1:551:A:C6	2.81	0.48
13:C1:57:LYS:O	13:C1:110:HIS:CE1	2.66	0.48
47:M0:210:ILE:HD13	47:M0:217:PHE:CD2	4.02	0.48
74:O8:65:LEU:O	74:O8:68:SER:HB2	2.13	0.48
64:N8:44:ASN:O	64:N8:47:LYS:O	2.44	0.48
39:L2:176:ASP:OD1	1:6:984:G:H5''	233.62	0.48
1:2:1648:A:H2'	1:2:1649:G:H8	1.79	0.48
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.47	0.48
36:5:2608:G:H2'	36:5:2609:A:H8	1.78	0.48
59:N3:104:ASN:O	59:N3:107:GLY:N	2.34	0.48
1:6:100:A:O5'	1:6:100:A:H8	1.95	0.48
36:1:2589:G:C6	36:1:2590:A:N7	2.82	0.48
1:2:361:C:H2'	1:2:362:G:C8	2.48	0.48
1:2:1673:G:O5'	1:2:1673:G:H8	1.96	0.48
1:2:882:U:H2'	1:2:883:C:C6	2.47	0.48
36:5:3256:G:H2'	36:5:3257:C:O4'	2.13	0.48
35:SM:112:ASP:C	35:SM:114:LYS:H	2.17	0.48
1:2:243:G:O5'	1:2:243:G:H8	1.96	0.48
36:1:1849:C:H5'	36:1:1849:C:H6	1.77	0.48
45:L8:54:GLU:O	45:L8:57:ARG:N	2.45	0.48
25:D3:57:LEU:HD23	25:D3:57:LEU:HA	2.12	0.48
40:L3:247:ARG:HD3	36:5:1888:U:OP1	210.37	0.48
67:O1:11:GLU:HG2	67:O1:74:ARG:CB	2.44	0.48
53:M7:53:ASP:O	87:M7:206:OHX:N3	2.46	0.48
1:2:756:A:H2'	6:S4:12:LEU:HD12	1.96	0.48
1:2:876:G:H1'	1:2:944:A:O4'	2.13	0.48
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	1.94	0.48
28:D6:3:LYS:HE2	28:D6:6:ALA:HA	1.96	0.48
11:S9:11:THR:HB	11:S9:44:ARG:HG3	3.40	0.48
1:6:302:U:H2'	1:6:302:U:O2	2.12	0.48
10:S8:66:SER:O	10:S8:183:ILE:N	2.41	0.48
41:L4:23:PRO:HG2	41:L4:258:LEU:HD23	1.95	0.48
41:L4:280:ILE:HD11	54:M8:23:ASN:ND2	3.68	0.48
41:L4:42:VAL:HA	41:L4:45:ASN:ND2	2.28	0.48
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.68	0.48
1:2:1158:C:H42	1:2:1163:A:N6	2.00	0.48
1:2:1357:A:C2	1:2:1358:G:C4	3.01	0.48
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.96	0.48
31:D9:33:LYS:O	31:D9:36:LEU:HG	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:954:G:C2	1:2:955:A:C4	3.01	0.48
2:S0:49:ASN:ND2	2:S0:52:LYS:HG2	4.88	0.48
36:1:1601:U:P	55:M9:42:ARG:HH22	2.36	0.48
14:C2:67:THR:HB	1:6:1228:G:N7	459.96	0.48
36:5:3225:C:H2'	36:5:3226:A:C8	2.49	0.48
9:S7:162:ILE:HB	9:S7:169:PHE:HE2	1.79	0.48
8:S6:140:ASN:O	8:S6:144:PHE:HB2	3.13	0.48
34:SR:42:LEU:HB2	34:SR:61:PHE:CD2	3.83	0.48
44:L7:224:ILE:HA	56:N0:36:ILE:HD11	3.02	0.48
41:L4:8:VAL:HB	41:L4:16:THR:HG21	4.24	0.48
3:S1:107:THR:O	3:S1:108:ASP:C	2.94	0.48
1:6:1290:U:H2'	1:6:1291:G:N3	2.28	0.48
36:5:3275:U:O2'	36:5:3276:G:C2	2.65	0.48
49:M3:67:ARG:NH1	64:N8:108:GLY:HA2	2.29	0.48
49:M3:104:ARG:CG	72:O6:22:PRO:HD3	2.43	0.48
36:5:914:A:H5'	36:5:915:A:N7	2.28	0.48
36:1:96:G:H5'	49:M3:15:ARG:NH2	2.29	0.48
26:D4:41:ARG:HD3	26:D4:94:TYR:CE1	4.32	0.48
61:N5:43:ALA:N	36:5:16:A:OP1	96.77	0.48
38:4:104:A:H3'	38:4:105:A:C5'	2.43	0.48
73:O7:59:THR:HB	38:8:41:A:O2'	89.37	0.48
45:L8:161:GLU:O	45:L8:163:VAL:N	3.37	0.48
1:2:29:U:H2'	1:2:30:G:H8	1.77	0.48
25:D3:24:TRP:HZ3	25:D3:34:LEU:CD2	2.26	0.48
1:6:1261:G:O2'	1:6:1262:U:O5'	2.25	0.48
46:L9:169:ASN:O	46:L9:170:LYS:HG2	2.13	0.48
36:1:2279:A:H2'	36:1:2288:G:O6	2.13	0.48
64:N8:99:ALA:HB1	64:N8:100:PRO:HD2	2.79	0.48
36:5:1409:G:O2'	36:5:1410:U:H5'	2.14	0.48
68:O2:33:ARG:HH11	36:5:944:C:H4'	162.27	0.48
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.14	0.48
38:8:59:A:N1	38:8:100:U:H1'	2.28	0.48
36:1:2703:A:O5'	36:1:2703:A:C8	2.66	0.48
56:N0:87:THR:C	56:N0:88:HIS:CG	2.86	0.48
55:M9:62:ARG:O	55:M9:64:ARG:N	3.61	0.48
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.47	0.48
42:L5:187:THR:HB	42:L5:189:GLU:H	3.98	0.48
36:5:1052:U:H5''	36:5:1053:A:OP2	2.14	0.48
65:N9:46:ALA:O	65:N9:50:THR:HG23	3.02	0.48
36:1:33:G:H1'	36:1:52:A:N6	2.29	0.48
10:S8:7:SER:HA	1:6:338:C:H5'	295.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:9:HIS:O	10:S8:10:LYS:CB	2.60	0.48
1:2:656:G:O6	1:2:678:A:H2'	2.13	0.48
11:S9:26:ALA:O	11:S9:30:LEU:HD12	4.39	0.48
36:5:129:U:O4	87:5:3928:OHX:N4	2.46	0.48
55:M9:123:LEU:HD23	55:M9:126:GLU:OE1	4.99	0.48
1:6:224:C:H6	1:6:224:C:O5'	1.96	0.48
1:6:772:G:C6	1:6:773:C:N4	2.81	0.48
36:1:3058:U:H5'	36:1:3059:G:OP1	2.13	0.48
8:S6:3:LEU:CD2	8:S6:109:LEU:HB3	2.43	0.48
36:5:1265:U:H3	36:5:1276:U:H3	1.61	0.48
36:1:34:A:H2'	36:1:35:A:C8	2.47	0.48
74:O8:32:ASN:C	74:O8:32:ASN:HD22	2.16	0.48
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.95	0.48
36:1:825:U:O4	87:1:3938:OHX:N1	2.46	0.48
1:6:1277:G:C4	1:6:1436:A:C2	3.01	0.48
1:2:1417:A:O3'	18:C6:128:LYS:HE3	2.13	0.48
36:5:763:G:H2'	36:5:764:U:H6	1.78	0.48
6:S4:199:GLU:H	6:S4:199:GLU:HG3	1.40	0.48
55:M9:171:ASP:O	55:M9:175:GLN:N	3.18	0.48
37:7:11:A:C2'	37:7:12:U:H5''	2.42	0.48
36:5:869:G:H3'	36:5:870:G:H8	1.78	0.48
40:L3:7:GLU:O	40:L3:8:ALA:HB2	2.13	0.48
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.13	0.48
59:N3:129:VAL:O	59:N3:133:SER:OG	2.16	0.48
1:6:552:G:C6	1:6:553:G:C6	3.01	0.48
53:M7:29:THR:OG1	53:M7:119:VAL:HG21	2.13	0.48
1:2:460:A:N3	1:2:460:A:H2'	2.28	0.48
11:S9:36:LEU:HD13	11:S9:41:GLU:HB2	1.95	0.48
42:L5:5:LYS:HD3	42:L5:5:LYS:HA	3.53	0.48
47:M0:43:VAL:HG12	47:M0:171:TRP:HE1	1.79	0.48
36:1:1363:A:OP1	44:L7:160:ARG:HD3	2.14	0.48
87:1:3993:OHX:N4	87:3:222:OHX:N1	2.61	0.48
44:L7:83:LEU:HA	44:L7:119:VAL:HG23	3.16	0.48
6:S4:64:ILE:HG12	26:D4:18:LEU:HD21	4.12	0.48
26:D4:20:ARG:NH2	26:D4:76:TYR:OH	2.45	0.48
41:L4:35:VAL:HG12	41:L4:36:HIS:N	2.59	0.48
64:N8:4:ARG:NH1	64:N8:5:PHE:CZ	2.81	0.48
18:C6:58:ASP:C	18:C6:60:PHE:H	2.16	0.48
61:N5:82:LEU:HD12	61:N5:126:LEU:HD21	2.81	0.48
21:C9:28:LEU:HD23	21:C9:111:ILE:HD11	6.95	0.48
5:S3:105:MET:O	5:S3:109:LEU:HG	3.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:94:LYS:O	15:C3:96:VAL:N	2.47	0.48
1:2:905:A:O5'	1:2:905:A:H8	1.96	0.48
16:C4:82:LYS:CB	16:C4:118:VAL:HG11	2.44	0.48
66:O0:41:LEU:HD22	66:O0:42:ILE:N	2.29	0.48
66:O0:43:ILE:O	66:O0:90:VAL:N	3.16	0.48
66:O0:27:TYR:HD1	66:O0:52:ARG:HD3	2.52	0.48
68:O2:82:LEU:HD11	68:O2:112:ALA:HA	1.95	0.48
40:L3:67:PHE:HA	40:L3:70:ARG:HG3	5.63	0.48
6:S4:142:HIS:C	6:S4:144:GLY:H	3.26	0.48
6:S4:226:PHE:O	6:S4:228:ILE:HG23	4.15	0.48
42:L5:264:GLN:O	42:L5:267:ALA:N	3.04	0.48
18:C6:50:GLU:HG2	18:C6:112:TYR:HE1	3.37	0.48
34:SR:89:LEU:HB2	34:SR:103:PHE:CD2	2.64	0.48
5:S3:225:TYR:OH	34:SR:191:ASP:OD2	3.92	0.48
34:SR:153:GLN:HG2	34:SR:202:LEU:HD23	1.96	0.48
34:SR:302:PHE:CE1	34:SR:312:VAL:HG13	5.55	0.48
36:5:2249:G:OP1	87:5:4193:OHX:N6	2.47	0.48
52:M6:121:PRO:O	52:M6:124:LEU:HB2	2.88	0.48
52:M6:138:LEU:O	52:M6:138:LEU:HD12	2.13	0.48
36:5:352:A:H5'	36:5:354:U:H1'	1.95	0.48
72:O6:62:ARG:HH12	72:O6:98:ARG:CZ	3.00	0.48
51:M5:138:GLN:CA	51:M5:143:ARG:HD2	2.42	0.48
1:6:971:A:H5''	1:6:972:G:OP2	2.14	0.48
36:5:916:G:H4'	36:5:917:A:O5'	2.13	0.48
53:M7:16:SER:OG	53:M7:17:ALA:N	2.45	0.48
61:N5:46:TYR:HB2	71:O5:76:GLN:O	4.28	0.48
46:L9:159:ALA:O	46:L9:160:ASP:C	2.59	0.48
45:L8:153:ILE:HG22	45:L8:179:ILE:HG23	1.95	0.48
13:C1:103:ARG:NH1	1:6:307:G:OP1	328.10	0.48
41:L4:145:ILE:HG13	41:L4:145:ILE:O	2.12	0.48
1:6:1261:G:C2	1:6:1262:U:C2	3.01	0.48
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	4.79	0.48
45:L8:36:ILE:C	45:L8:38:GLN:H	2.15	0.48
58:N2:81:LYS:HG2	58:N2:90:ARG:NH1	2.27	0.48
36:5:2688:U:H4'	36:5:2689:A:O4'	2.13	0.48
36:5:404:G:H2'	36:5:405:U:O4'	2.13	0.48
36:5:731:U:H2'	36:5:732:C:C6	2.38	0.48
62:N6:100:HIS:CD2	36:5:217:U:H4'	71.82	0.48
1:6:315:A:O3'	1:6:316:A:H4'	2.12	0.48
36:5:267:G:C6	36:5:319:A:N7	2.81	0.48
36:1:417:A:H2'	36:1:418:A:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1585:C:O2'	36:1:1586:G:H5'	2.14	0.48
45:L8:94:PHE:HE2	45:L8:199:ALA:HA	2.84	0.48
39:L2:65:ASP:OD2	39:L2:68:LYS:N	2.47	0.48
39:L2:70:ARG:HE	39:L2:72:ARG:HD3	1.78	0.48
1:6:1620:C:C4	1:6:1621:U:C5	3.01	0.48
36:1:3164:C:N4	36:1:3286:G:C6	2.82	0.48
53:M7:11:PRO:HG2	53:M7:12:ALA:H	2.76	0.48
53:M7:131:ARG:NH1	53:M7:131:ARG:HG3	2.26	0.48
36:5:651:G:C6	36:5:652:G:C6	3.02	0.48
1:6:717:C:O2'	1:6:718:U:H4'	2.13	0.48
52:M6:67:THR:HG21	87:5:3975:OHX:N1	223.82	0.48
66:O0:74:ASN:O	66:O0:86:ARG:HB2	2.52	0.48
37:3:16:U:O2'	37:3:17:A:H5'	2.12	0.48
28:D6:88:SER:OG	28:D6:91:ASP:HB2	4.95	0.48
37:7:70:U:H2'	37:7:71:G:H8	1.78	0.48
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.47	0.48
78:Q2:70:LEU:HG	78:Q2:85:LEU:HD21	1.94	0.48
18:C6:9:THR:HG21	18:C6:88:GLY:HA2	1.95	0.48
41:L4:106:TRP:HD1	36:5:664:U:H4'	124.26	0.48
39:L2:2:GLY:HA3	36:5:2608:G:OP1	183.11	0.48
1:6:526:A:O5'	1:6:526:A:H8	1.97	0.48
50:M4:133:LYS:O	50:M4:135:LEU:N	3.65	0.48
1:2:720:G:H2'	1:2:720:G:OP2	2.13	0.48
36:5:2322:C:C2'	36:5:2323:G:H5'	2.43	0.48
34:SR:144:LEU:HD21	34:SR:186:PHE:HB3	1.94	0.48
36:5:1310:G:O6	87:5:4021:OHX:N4	2.46	0.48
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.77	0.48
40:L3:54:THR:O	40:L3:76:VAL:HG22	2.67	0.48
28:D6:75:VAL:HA	28:D6:78:ALA:HB3	1.96	0.48
1:2:510:G:H8	1:2:510:G:OP2	1.97	0.48
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	3.59	0.48
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	10.10	0.48
47:M0:140:THR:OG1	47:M0:141:LYS:O	2.31	0.48
47:M0:73:ASN:HA	47:M0:76:MET:HB2	2.72	0.48
44:L7:88:ARG:NE	44:L7:103:LEU:HD13	2.28	0.48
1:6:119:A:N3	1:6:397:A:C6	2.80	0.48
1:6:95:G:H5'	1:6:96:G:OP2	2.14	0.48
13:C1:33:ARG:HG2	13:C1:34:TRP:H	3.30	0.48
41:L4:251:THR:O	41:L4:254:ALA:N	2.90	0.48
41:L4:25:VAL:CG2	41:L4:262:TRP:HB2	3.14	0.48
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:25:THR:O	19:C7:31:ASN:ND2	2.38	0.48
1:2:1614:A:OP2	7:S5:84:LYS:NZ	2.29	0.48
20:C8:24:GLY:O	20:C8:26:ILE:HG23	2.13	0.48
20:C8:42:TYR:CE2	20:C8:46:VAL:HG21	3.28	0.48
7:S5:43:PHE:HE2	7:S5:118:LEU:CD1	3.42	0.48
76:Q0:122:ARG:O	76:Q0:122:ARG:HG3	3.17	0.48
87:2:2044:OHX:N1	87:2:2099:OHX:N3	2.61	0.48
42:L5:196:ARG:O	42:L5:197:SER:C	2.77	0.48
42:L5:83:LEU:N	42:L5:84:PRO:HD2	2.64	0.48
17:C5:65:LEU:O	87:C5:201:OHX:N2	4.78	0.48
48:M1:80:LEU:HD12	48:M1:167:TYR:CZ	2.64	0.48
5:S3:102:ALA:N	5:S3:186:VAL:HG21	3.31	0.48
3:S1:48:VAL:HG21	3:S1:61:LEU:HD21	3.50	0.48
36:1:407:A:N3	36:1:408:A:C8	2.81	0.48
23:D1:10:GLU:CD	23:D1:11:LEU:HG	2.33	0.48
4:S2:140:ARG:NH1	4:S2:229:LEU:HD11	5.03	0.48
4:S2:224:PHE:O	4:S2:226:THR:HG23	2.13	0.48
48:M1:150:ASN:C	48:M1:151:SER:O	4.28	0.48
66:O0:43:ILE:CG2	66:O0:70:PHE:HB2	2.76	0.48
1:2:1050:G:N1	1:2:1051:G:C6	2.81	0.48
14:C2:123:VAL:CG1	14:C2:126:TRP:HB3	2.43	0.48
1:2:1544:U:H4'	20:C8:132:ARG:NH2	2.28	0.48
1:2:1211:A:H1'	17:C5:99:GLY:O	2.13	0.48
36:5:531:G:N2	36:5:532:A:C2	2.81	0.48
50:M4:13:ARG:C	50:M4:14:LEU:HD23	2.33	0.48
56:N0:53:LYS:C	56:N0:55:SER:H	2.61	0.48
43:L6:155:LEU:O	43:L6:158:TYR:HB3	2.81	0.48
43:L6:170:LYS:O	43:L6:173:MET:N	2.46	0.48
43:L6:164:SER:OG	69:O3:4:SER:HB2	3.35	0.48
75:O9:35:ILE:HD11	38:8:53:A:C2	83.54	0.48
37:7:22:A:H5"	37:7:23:A:OP2	2.14	0.48
18:C6:94:GLN:O	18:C6:94:GLN:NE2	4.03	0.48
34:SR:80:ALA:O	34:SR:91:LEU:HD12	2.39	0.48
36:5:2191:U:H2'	36:5:2192:C:C6	2.49	0.48
52:M6:12:LYS:HG2	52:M6:40:GLU:HB2	5.18	0.48
41:L4:59:GLN:HB3	73:O7:52:LYS:NZ	4.14	0.48
40:L3:81:THR:HG22	40:L3:81:THR:O	2.14	0.48
39:L2:83:HIS:NE2	39:L2:86:GLN:HG3	2.28	0.48
36:1:770:G:N7	87:1:4093:OHX:N6	2.62	0.48
50:M4:123:LEU:HD13	52:M6:194:LEU:HG	1.96	0.48
72:O6:97:SER:HB3	72:O6:98:ARG:HD2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:98:ARG:HD2	72:O6:98:ARG:H	1.78	0.48
40:L3:144:ILE:O	40:L3:148:LEU:HB2	2.45	0.48
36:5:1341:U:H2'	36:5:1342:C:C6	2.49	0.48
49:M3:74:GLY:CA	49:M3:98:ASP:HB3	2.42	0.48
79:Q3:11:THR:HG21	79:Q3:23:ARG:HB3	1.95	0.48
38:4:38:U:O4	71:O5:81:ARG:HG2	2.13	0.48
36:5:150:A:H2'	36:5:151:A:H5'	1.95	0.48
45:L8:160:ILE:HD13	45:L8:164:VAL:CG1	5.87	0.48
25:D3:24:TRP:CE3	25:D3:30:LYS:HD2	2.41	0.48
48:M1:57:PHE:N	48:M1:57:PHE:CD1	2.94	0.48
36:5:1699:A:O2'	36:5:1700:G:H5'	2.14	0.48
36:1:2549:G:C2	45:L8:35:GLY:HA3	2.49	0.48
1:2:804:A:N7	24:D2:107:SER:HA	2.29	0.48
36:5:1692:U:O4	36:5:1693:C:N4	2.47	0.48
1:2:1344:A:C2	1:2:1345:A:C5	3.01	0.48
1:6:275:C:N4	1:6:276:C:N4	2.62	0.48
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.12	0.48
42:L5:180:PHE:O	42:L5:181:PRO:C	2.52	0.48
56:N0:171:PHE:HE2	36:5:3205:G:C5	315.91	0.48
42:L5:184:ASP:HB3	42:L5:187:THR:HG1	4.96	0.48
36:1:549:U:OP2	36:1:549:U:H6	1.96	0.48
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	2.12	0.48
13:C1:129:ARG:O	13:C1:131:ILE:HG13	4.21	0.48
36:1:537:A:H2'	36:1:538:G:O4'	2.14	0.48
36:1:3279:A:C6	36:1:3280:U:C4	3.02	0.48
14:C2:27:ALA:O	14:C2:132:GLU:HG3	2.13	0.48
6:S4:154:ILE:O	6:S4:155:LYS:HE2	2.13	0.48
36:5:128:G:H2'	36:5:129:U:O4'	2.14	0.48
1:2:1316:G:H2'	1:2:1317:C:C6	2.49	0.48
74:O8:10:GLN:HA	74:O8:13:GLU:CD	3.77	0.48
20:C8:16:ARG:CD	20:C8:19:ASN:HA	4.43	0.48
75:O9:23:LEU:HD13	75:O9:24:PRO:O	2.13	0.48
36:5:256:G:C4	36:5:257:U:C5	3.02	0.48
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.46	0.48
18:C6:31:VAL:HG13	18:C6:67:VAL:HG13	1.96	0.48
45:L8:213:LYS:O	45:L8:217:THR:HG22	5.63	0.48
36:1:1579:C:N3	36:1:1580:A:N6	2.62	0.48
36:1:1244:A:N6	36:1:1271:A:OP2	2.47	0.48
38:8:80:A:N3	38:8:82:U:O4	2.46	0.48
35:SM:88:ARG:O	35:SM:89:ARG:HG2	2.13	0.48
22:D0:117:VAL:HG22	22:D0:118:VAL:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:46:ARG:NH2	1:6:1253:U:OP2	454.10	0.48
40:L3:255:TRP:CD1	36:5:2395:G:H5''	216.38	0.48
78:Q2:70:LEU:HD11	78:Q2:85:LEU:HD11	1.95	0.48
14:C2:103:LEU:HG	14:C2:116:VAL:HG23	1.94	0.48
36:1:2532:U:H3	36:1:2547:A:H61	1.61	0.48
36:5:1705:U:H2'	36:5:1706:C:H5'	1.95	0.48
26:D4:57:VAL:HA	26:D4:73:GLY:HA2	1.97	0.48
36:5:1149:G:O6	87:5:4205:OHX:N3	2.46	0.48
5:S3:46:THR:N	5:S3:83:THR:O	3.70	0.48
36:5:318:A:OP1	87:5:3950:OHX:N3	2.46	0.48
36:1:662:U:H5''	36:1:663:C:OP2	2.13	0.48
38:4:17:A:C5	38:4:18:U:C5	3.01	0.48
40:L3:56:ILE:HG12	40:L3:323:MET:HE1	3.27	0.48
36:1:1304:A:C4	36:1:2939:G:H1'	2.48	0.48
53:M7:136:ILE:HA	53:M7:136:ILE:HD13	3.87	0.48
28:D6:78:ALA:HA	28:D6:83:ILE:HG13	8.44	0.48
11:S9:77:ILE:HG23	11:S9:86:LEU:HD23	3.31	0.48
44:L7:210:PRO:HG2	44:L7:214:TRP:CD2	2.49	0.48
41:L4:230:VAL:HG21	41:L4:254:ALA:HA	1.96	0.48
19:C7:10:LYS:HD3	19:C7:53:TYR:CE1	2.49	0.48
52:M6:133:ARG:NE	36:5:1189:C:N4	294.67	0.48
41:L4:80:GLY:O	36:5:357:A:H1'	129.89	0.48
36:5:524:U:H2'	36:5:525:C:H5'	1.95	0.48
7:S5:41:LYS:HE2	7:S5:69:PHE:CE1	5.68	0.48
40:L3:312:VAL:O	40:L3:313:HIS:HB2	2.13	0.48
67:O1:30:PRO:HD3	67:O1:64:VAL:HG12	4.80	0.48
38:4:59:A:H5''	38:4:61:A:C8	2.48	0.48
87:2:2044:OHX:N1	87:2:2099:OHX:N5	2.61	0.48
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.60	0.48
48:M1:85:LYS:HA	48:M1:89:TYR:CE2	2.62	0.48
5:S3:64:ARG:NH2	5:S3:65:ARG:HB2	7.66	0.48
1:2:625:C:H5''	1:2:626:U:OP2	2.14	0.48
36:5:1634:G:C6	36:5:1640:G:C6	3.02	0.48
16:C4:52:ARG:HG2	16:C4:53:ASP:N	2.29	0.48
28:D6:49:ALA:O	28:D6:51:ARG:N	3.24	0.48
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	1.96	0.48
4:S2:56:ILE:O	4:S2:60:SER:N	3.17	0.48
63:N7:3:LYS:HE3	63:N7:5:LEU:HB2	6.01	0.48
62:N6:48:LEU:HD22	62:N6:49:PRO:HD2	3.49	0.48
17:C5:129:GLY:CA	35:SM:74:LYS:HG2	4.70	0.48
1:6:1650:U:H2'	1:6:1651:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:125:LYS:HB3	6:S4:142:HIS:HB3	1.94	0.48
50:M4:19:ARG:HD2	50:M4:66:THR:O	2.13	0.48
52:M6:108:ILE:CG2	52:M6:160:ARG:NH1	4.60	0.48
56:N0:44:PHE:C	56:N0:46:GLN:N	3.36	0.48
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	2.49	0.48
56:N0:89:ASN:OD1	57:N1:155:PRO:HB3	2.13	0.48
34:SR:83:ALA:HB1	34:SR:110:VAL:HB	1.94	0.48
35:SM:31:SER:OG	35:SM:32:SER:N	2.47	0.48
36:5:344:A:H2'	36:5:345:G:H5'	1.95	0.48
39:L2:129:ALA:O	39:L2:131:GLY:N	2.85	0.48
39:L2:84:THR:HG23	79:Q3:63:THR:HB	2.31	0.48
3:S1:141:ALA:HB1	3:S1:207:LEU:HD23	1.96	0.48
78:Q2:52:GLY:O	78:Q2:54:THR:HG22	2.47	0.48
40:L3:166:ILE:HD13	40:L3:173:GLN:HG2	2.65	0.48
49:M3:174:ARG:NH1	72:O6:9:ILE:HD13	2.29	0.48
8:S6:69:LEU:HD13	8:S6:69:LEU:HA	1.60	0.48
8:S6:71:THR:O	8:S6:98:ARG:HG2	2.14	0.48
36:1:2382:G:OP1	52:M6:85:ARG:NH1	2.46	0.48
52:M6:183:ALA:HA	52:M6:186:ALA:HB3	4.23	0.48
36:1:990:U:H4'	57:N1:100:LYS:HB3	1.95	0.48
36:5:28:C:C2	36:5:29:C:C5	3.02	0.48
1:6:630:A:H5''	1:6:631:G:OP2	2.14	0.48
39:L2:202:VAL:HG21	39:L2:218:HIS:N	2.89	0.48
36:5:380:U:C2	36:5:390:G:C2	3.02	0.48
36:5:392:G:C2	36:5:393:U:C6	3.02	0.48
36:1:2190:U:C4	36:1:2191:U:C4	3.01	0.48
79:Q3:17:ARG:HB3	79:Q3:18:TYR:CD1	2.48	0.48
38:4:49:G:O3'	71:O5:35:LYS:NZ	2.46	0.48
36:1:1947:G:N2	36:1:2101:C:N3	2.50	0.48
36:1:1659:U:C2	36:1:1660:C:C5	3.01	0.48
36:5:750:G:H1	36:5:783:A:H2	1.61	0.48
36:5:3383:G:H2'	36:5:3384:U:H6	1.79	0.48
67:O1:72:ARG:HG2	67:O1:96:VAL:CG2	3.19	0.48
1:6:823:G:C8	1:6:824:G:C8	3.01	0.48
22:D0:44:ASN:HD22	22:D0:102:ARG:NH2	6.49	0.48
24:D2:36:LYS:HA	24:D2:36:LYS:HD2	2.82	0.48
74:O8:17:ARG:NE	74:O8:19:ASP:OD2	3.61	0.48
36:1:2344:U:H4'	36:1:3056:U:C5	2.49	0.48
36:1:1851:G:H8	36:1:1851:G:O5'	1.96	0.48
75:O9:4:GLN:HG2	36:5:1588:A:C5	127.19	0.48
10:S8:136:SER:O	10:S8:140:GLU:N	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1795:U:C5	79:Q3:51:ALA:HA	2.48	0.48
36:5:2196:C:C2	36:5:2242:A:C6	3.01	0.48
36:5:181:U:H1'	36:5:236:G:N2	2.27	0.48
36:1:2669:G:N7	87:1:4069:OHX:N4	2.62	0.48
36:5:202:G:N2	36:5:203:G:C4	2.82	0.48
36:1:117:U:H1'	36:1:119:U:C5	2.49	0.48
36:1:121:A:C6	45:L8:129:PRO:HG3	2.48	0.48
36:5:1072:G:H2'	36:5:1073:U:C6	2.46	0.48
36:5:1659:U:H2'	36:5:1660:C:C6	2.49	0.48
1:6:1026:A:H4'	1:6:1028:C:C5	2.48	0.48
68:O2:19:ARG:HB2	68:O2:31:ASN:O	3.73	0.48
57:N1:17:ARG:HH11	57:N1:17:ARG:HB3	4.20	0.48
1:6:772:G:H2'	1:6:773:C:C6	2.49	0.48
53:M7:74:LYS:HE2	36:5:3298:C:OP1	185.04	0.48
3:S1:120:LEU:HD21	3:S1:122:GLU:HG3	2.67	0.48
54:M8:76:ALA:O	54:M8:78:ASN:N	2.47	0.48
34:SR:250:TYR:O	34:SR:251:TRP:HD1	1.97	0.48
33:E1:118:ARG:HG3	33:E1:134:ASN:HD21	8.52	0.48
6:S4:94:ALA:HB3	26:D4:17:LEU:HD23	3.98	0.48
33:E1:111:GLU:HA	33:E1:112:GLY:HA2	1.57	0.48
70:O4:13:TYR:CE2	36:5:1589:A:C5	151.43	0.48
50:M4:135:LEU:O	50:M4:136:ALA:HB2	2.37	0.48
2:S0:88:LYS:O	2:S0:91:ALA:HB3	2.59	0.48
36:5:572:A:C5	36:5:573:C:C5	3.02	0.48
36:5:421:G:C8	36:5:2365:C:C6	3.01	0.48
36:5:2206:G:N2	36:5:2238:G:H1'	2.28	0.48
36:1:895:A:C2	36:1:897:U:C5	3.02	0.48
14:C2:37:VAL:HG12	14:C2:38:HIS:CE1	2.48	0.48
36:5:201:A:O5'	36:5:201:A:C8	2.67	0.48
57:N1:76:ILE:HA	57:N1:76:ILE:HD13	1.64	0.48
10:S8:187:GLU:O	10:S8:190:ALA:HB3	2.13	0.48
25:D3:43:PHE:CE2	25:D3:48:HIS:HA	2.48	0.48
36:5:3053:G:N1	36:5:3090:U:O2	2.47	0.48
76:Q0:96:CYS:HA	76:Q0:121:LEU:HD23	2.23	0.48
20:C8:87:ASN:ND2	20:C8:100:THR:HG23	6.19	0.48
36:5:2171:G:O6	87:5:4242:OHX:N2	2.47	0.48
53:M7:37:ASN:OD1	53:M7:117:ILE:HG22	3.26	0.48
1:2:40:A:H62	1:2:467:G:H21	1.60	0.48
36:5:1196:C:H2'	36:5:1196:C:OP2	2.14	0.48
45:L8:245:LYS:HD2	45:L8:249:ARG:CZ	2.43	0.48
6:S4:29:PRO:O	6:S4:31:PRO:HD3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:190:GLY:C	41:L4:192:GLY:H	2.16	0.48
19:C7:24:LEU:HD21	19:C7:34:LEU:HD22	1.96	0.48
1:2:1567:U:H2'	1:2:1568:C:H5'	1.94	0.48
7:S5:214:LYS:HE2	7:S5:218:GLU:OE1	2.92	0.48
67:O1:54:GLU:O	67:O1:57:GLN:HB2	2.14	0.48
21:C9:125:SER:OG	21:C9:127:ASN:N	3.29	0.48
5:S3:44:THR:HB	5:S3:45:LYS:NZ	2.29	0.48
72:O6:27:SER:OG	36:5:156:G:P	88.46	0.48
15:C3:109:LYS:O	15:C3:112:LYS:HB3	2.14	0.48
36:5:1633:C:H2'	36:5:1634:G:C8	2.45	0.48
1:6:919:A:H2'	1:6:920:U:C6	2.49	0.48
19:C7:104:ASN:ND2	19:C7:105:GLN:OE1	5.72	0.48
2:S0:63:ILE:HG22	2:S0:120:LEU:HD21	1.95	0.48
20:C8:18:LEU:O	20:C8:20:THR:HG23	3.26	0.48
63:N7:33:SER:N	63:N7:36:HIS:O	2.58	0.48
62:N6:51:ARG:HG3	62:N6:52:ARG:N	2.25	0.48
62:N6:27:ARG:NH1	62:N6:75:ARG:O	2.44	0.48
14:C2:63:VAL:HG22	14:C2:119:SER:O	4.16	0.48
14:C2:66:VAL:O	14:C2:67:THR:OG1	2.28	0.48
36:1:3038:U:C2	36:1:3039:C:C6	3.02	0.48
6:S4:91:THR:HG23	6:S4:98:ASN:ND2	4.39	0.48
56:N0:138:GLN:HA	56:N0:141:LYS:HG3	2.62	0.48
57:N1:80:VAL:O	57:N1:82:ASN:N	2.47	0.48
40:L3:58:ARG:NH1	40:L3:352:GLU:OE1	2.46	0.48
59:N3:93:LEU:HB2	60:N4:20:LEU:HD22	1.96	0.48
43:L6:170:LYS:O	43:L6:173:MET:HG2	3.96	0.48
37:3:120:C:H2'	42:L5:265:TYR:CE1	2.48	0.48
8:S6:160:ARG:HA	60:N4:85:ALA:HA	1.96	0.48
8:S6:173:PRO:HA	1:6:66:U:O5'	339.63	0.48
18:C6:120:ASP:C	18:C6:122:ARG:H	3.22	0.48
36:5:2191:U:H2'	36:5:2192:C:O4'	2.13	0.48
29:D7:59:CYS:SG	29:D7:61:THR:HB	2.54	0.48
36:1:365:A:C2	36:1:366:A:C4	3.01	0.48
66:O0:9:SER:O	66:O0:13:LYS:HG3	2.12	0.48
1:6:36:C:H2'	1:6:37:U:C6	2.49	0.48
8:S6:70:PRO:HB3	8:S6:101:ILE:HB	2.54	0.48
36:5:1646:G:HO2'	36:5:1647:A:P	2.35	0.48
1:2:747:C:O3'	24:D2:80:ASN:ND2	2.46	0.48
36:1:73:C:N3	72:O6:15:LYS:HE2	2.28	0.48
39:L2:206:PRO:HD3	39:L2:213:GLY:CA	2.43	0.48
71:O5:89:ARG:HD2	38:8:38:U:C4	68.06	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:151:A:H2'	36:5:152:U:O4'	2.14	0.48
46:L9:173:ARG:HB2	76:Q0:127:LEU:HD12	1.96	0.48
1:2:733:A:HO2'	1:2:735:C:H5	1.61	0.48
35:SM:51:ARG:CZ	35:SM:52:PRO:HD2	6.41	0.48
1:6:808:U:H2'	1:6:809:A:C8	2.49	0.48
36:1:596:C:OP1	44:L7:33:ARG:NH1	2.47	0.48
36:1:2159:U:H6	36:1:2159:U:HO2'	1.62	0.48
37:3:31:U:O2'	37:3:32:U:H5'	2.14	0.48
36:1:2509:U:C2'	36:1:2510:U:H5'	2.44	0.48
36:5:1614:C:H2'	36:5:1615:C:C6	2.48	0.48
10:S8:138:ASN:O	10:S8:141:ARG:N	2.47	0.48
1:2:1225:U:O2	1:2:1230:A:H4'	2.14	0.48
38:4:11:C:H1'	53:M7:6:ALA:HB2	1.95	0.48
36:5:2511:A:C5	36:5:2512:C:C5	3.02	0.48
50:M4:24:LYS:HB2	50:M4:62:GLN:O	4.41	0.48
1:6:700:C:H2'	1:6:701:U:O4'	2.13	0.48
23:D1:64:GLU:HG3	29:D7:3:LEU:HD23	1.96	0.48
36:5:643:U:O4	36:5:644:G:C6	2.66	0.48
5:S3:134:CYS:SG	5:S3:135:GLU:N	3.60	0.48
36:1:1668:G:C5	36:1:1669:C:C5	3.02	0.48
36:5:1845:G:H1	36:5:1849:C:HO2'	1.56	0.48
13:C1:119:VAL:O	13:C1:121:ASP:N	3.10	0.48
49:M3:157:ARG:HH11	64:N8:124:ILE:HD12	4.60	0.48
45:L8:34:PHE:CZ	45:L8:42:PRO:HD3	3.56	0.48
36:1:1490:A:C2	36:1:1491:A:H1'	2.49	0.48
36:1:1412:G:C5	36:1:1413:G:N7	2.81	0.48
38:8:132:G:H2'	38:8:133:G:C8	2.46	0.48
6:S4:95:THR:O	6:S4:97:GLU:HG3	3.45	0.48
36:5:907:G:O5'	36:5:909:G:H1'	2.14	0.48
1:2:948:G:H2'	1:2:949:C:C6	2.49	0.48
36:5:3355:U:H2'	36:5:3355:U:OP1	2.14	0.48
1:2:534:A:H2'	1:2:535:A:H8	1.78	0.48
9:S7:137:GLY:HA2	15:C3:18:TYR:CZ	2.53	0.48
1:2:413:U:H2'	1:2:414:C:C6	2.48	0.48
36:5:1919:G:N7	87:5:4067:OHX:N4	2.62	0.48
36:5:2867:C:O2'	36:5:2868:U:H5'	2.14	0.48
36:1:2290:C:H2'	36:1:2291:A:O4'	2.13	0.48
6:S4:211:LYS:NZ	6:S4:211:LYS:HB2	2.28	0.48
9:S7:44:LYS:HB3	9:S7:44:LYS:HE2	1.58	0.48
50:M4:15:VAL:O	50:M4:15:VAL:HG22	2.22	0.48
65:N9:59:LYS:HB2	65:N9:59:LYS:HE3	5.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:84:VAL:HG12	54:M8:84:VAL:O	2.19	0.48
25:D3:103:LEU:HD12	25:D3:125:VAL:HB	1.95	0.48
36:1:1466:G:H2'	36:1:1467:A:H5'	1.94	0.48
11:S9:96:VAL:O	11:S9:99:LEU:HB2	2.35	0.48
36:1:1196:C:H1'	87:1:3993:OHX:N2	2.28	0.48
1:6:211:U:H2'	1:6:212:U:H6	1.77	0.48
36:5:685:G:C2	36:5:696:C:C2	3.02	0.48
41:L4:170:LYS:HE3	41:L4:175:HIS:CE1	5.71	0.48
41:L4:179:LEU:HA	41:L4:182:LEU:CD2	2.44	0.48
41:L4:192:GLY:O	41:L4:195:ARG:HG3	4.08	0.48
41:L4:21:PRO:O	41:L4:23:PRO:HD3	2.90	0.48
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.13	0.48
36:1:907:G:H3'	87:1:3984:OHX:N2	2.29	0.48
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	2.44	0.48
1:6:1567:U:H2'	1:6:1568:C:H5'	1.96	0.48
20:C8:41:ARG:HH12	21:C9:38:LYS:HG3	1.78	0.48
36:1:1460:A:C2	36:1:1461:A:C4	3.02	0.48
36:1:1473:G:H5''	55:M9:23:TRP:CD1	2.49	0.48
67:O1:14:ILE:HG13	67:O1:19:ARG:NH1	2.29	0.48
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.96	0.48
36:1:2663:G:H2'	36:1:2664:C:O4'	2.14	0.48
17:C5:16:SER:HB2	17:C5:20:VAL:H	1.79	0.48
21:C9:76:LEU:HD22	21:C9:80:TYR:HE2	1.78	0.48
31:D9:33:LYS:C	31:D9:35:GLY:H	2.17	0.48
5:S3:72:LEU:HG	12:C0:20:VAL:HG11	1.96	0.48
1:2:872:G:H2'	1:2:873:U:O4'	2.13	0.48
36:1:268:A:C4'	36:1:270:U:H1'	2.43	0.48
72:O6:27:SER:C	72:O6:29:LYS:H	3.84	0.48
1:6:1639:C:O2	1:6:1763:A:N1	2.47	0.48
1:6:1762:A:O2'	1:6:1783:C:H5'	2.14	0.48
16:C4:25:ASP:HA	16:C4:54:GLU:O	2.14	0.48
62:N6:40:ARG:NH2	62:N6:46:LYS:HG3	2.72	0.48
1:6:1255:G:HO2'	1:6:1256:A:P	2.35	0.48
1:2:1178:G:C4	1:2:1462:G:C6	3.02	0.48
1:2:1467:C:H2'	1:2:1468:U:O4'	2.14	0.48
56:N0:92:LYS:NZ	56:N0:109:ASP:OD2	2.37	0.48
36:1:3189:G:C2	36:1:3190:C:C2	3.01	0.48
69:O3:49:ILE:CG1	69:O3:100:ILE:HG13	2.65	0.48
36:5:2278:C:C2	36:5:2307:G:N2	2.82	0.48
52:M6:76:PRO:HG3	52:M6:139:GLY:HA2	2.28	0.48
72:O6:72:VAL:O	72:O6:76:ARG:HB2	3.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:149:ARG:HA	39:L2:155:LYS:HA	3.15	0.48
58:N2:53:ALA:O	58:N2:68:THR:HG22	2.14	0.48
36:1:285:A:H5''	36:1:286:U:P	2.53	0.48
49:M3:79:GLU:HA	49:M3:113:VAL:CG2	2.44	0.48
37:7:110:G:C5	37:7:111:U:C4	3.01	0.48
61:N5:56:ARG:HH21	38:8:134:G:H5''	79.00	0.48
36:1:1817:G:H2'	36:1:1818:U:O4'	2.14	0.48
36:1:3138:U:C2'	36:1:3139:A:H5''	2.35	0.48
36:5:123:A:C6	36:5:150:A:C5	3.02	0.48
25:D3:13:ARG:O	25:D3:17:VAL:HB	2.14	0.48
1:2:332:U:OP2	10:S8:56:ARG:NH2	2.38	0.48
36:5:3141:A:N6	36:5:3144:G:C2	2.82	0.48
36:5:2827:U:H1'	36:5:2828:G:N7	2.28	0.48
59:N3:125:LEU:HA	59:N3:125:LEU:HD12	1.58	0.48
37:3:68:C:OP1	42:L5:14:SER:OG	2.17	0.48
1:2:804:A:C2	1:2:805:U:C2	3.02	0.48
40:L3:28:ARG:HH21	40:L3:30:LYS:CE	2.27	0.48
36:1:1891:A:H2'	36:1:1891:A:N3	2.29	0.48
38:4:122:U:C2	38:4:123:G:C8	3.02	0.48
38:4:139:U:H2'	38:4:140:G:C8	2.48	0.48
61:N5:117:ASN:O	75:O9:18:LYS:HE2	2.14	0.48
54:M8:21:SER:OG	36:5:673:U:P	150.13	0.48
1:2:1767:G:OP2	1:2:1770:U:O2'	2.27	0.48
1:2:851:U:H2'	1:2:852:C:C6	2.49	0.48
23:D1:56:SER:OG	23:D1:57:GLY:N	3.98	0.48
74:O8:58:ASP:HB3	74:O8:61:LYS:HD3	5.27	0.48
65:N9:28:LYS:C	65:N9:29:TYR:HD1	3.09	0.48
1:2:43:A:C8	1:2:378:A:C2	3.01	0.48
78:Q2:65:THR:O	78:Q2:66:LYS:HG3	2.71	0.48
54:M8:156:GLY:HA2	64:N8:47:LYS:HB2	1.96	0.48
36:5:3392:U:H2'	36:5:3392:U:O2	2.13	0.48
2:S0:168:HIS:HB3	2:S0:203:PHE:CZ	2.76	0.48
36:1:2541:U:H1'	36:1:2542:U:OP2	2.14	0.48
3:S1:120:LEU:HD23	3:S1:121:ILE:N	2.48	0.48
74:O8:32:ASN:N	74:O8:36:LYS:O	2.43	0.48
59:N3:30:GLY:O	59:N3:66:LYS:HG3	3.25	0.48
59:N3:4:ASN:HB3	59:N3:105:PRO:O	2.14	0.48
36:5:1241:U:C6	36:5:1243:G:OP2	2.67	0.48
36:5:665:A:N6	36:5:666:A:N6	2.62	0.48
36:1:304:G:C2	64:N8:62:HIS:CD2	3.02	0.48
56:N0:131:LYS:O	56:N0:134:ASP:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:5:4006:OHX:N6	87:5:4195:OHX:N5	2.62	0.48
36:1:1567:U:H5	36:1:1568:U:C2	2.32	0.48
36:1:130:A:C5	36:1:131:C:C4	3.01	0.48
1:6:480:G:C4	1:6:509:G:C2	3.01	0.48
1:2:241:U:H2'	1:2:242:U:C6	2.49	0.48
24:D2:108:ALA:HB3	24:D2:111:MET:HE1	2.92	0.48
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.39	0.48
40:L3:204:ALA:O	40:L3:207:SER:OG	2.99	0.48
36:1:1619:A:H2'	36:1:1619:A:N3	2.27	0.48
66:O0:83:LYS:N	66:O0:83:LYS:HD2	2.26	0.48
36:5:1679:A:C2	36:5:1680:G:C8	3.02	0.48
25:D3:51:GLY:CA	25:D3:77:ILE:HD12	4.95	0.48
32:E0:15:LYS:C	32:E0:17:GLN:H	2.16	0.48
40:L3:53:MET:HE3	36:5:3048:A:H5'	233.67	0.48
20:C8:107:SER:O	20:C8:110:ARG:N	2.98	0.48
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	4.24	0.48
36:1:1466:G:C6	36:1:1511:U:C5	3.01	0.48
28:D6:9:GLY:HA2	1:6:1795:U:O4	328.11	0.48
28:D6:10:ARG:CB	28:D6:34:LYS:HA	2.44	0.48
11:S9:107:ARG:O	11:S9:147:MET:HA	2.13	0.48
11:S9:139:GLN:OE1	11:S9:140:ILE:N	4.58	0.48
47:M0:89:VAL:HG13	47:M0:136:PHE:CE1	2.65	0.48
36:1:1195:A:O2'	36:1:1196:C:H5	1.96	0.48
6:S4:45:ILE:HB	6:S4:80:THR:HG22	1.94	0.48
41:L4:119:ARG:O	41:L4:122:THR:N	2.76	0.48
52:M6:128:ARG:HD2	52:M6:128:ARG:HA	3.25	0.48
1:6:1532:U:H2'	1:6:1533:C:H6	1.78	0.48
20:C8:12:GLN:NE2	20:C8:14:ILE:O	4.40	0.48
67:O1:55:LEU:O	67:O1:58:ALA:N	2.43	0.48
38:4:56:G:H2'	38:4:57:C:C6	2.49	0.48
5:S3:179:GLN:O	1:6:1438:G:H5''	400.20	0.48
77:Q1:11:ARG:O	77:Q1:15:ARG:HG3	5.19	0.48
1:6:899:G:N2	1:6:910:C:O2	2.32	0.48
1:6:918:U:H2'	1:6:919:A:C8	2.49	0.48
48:M1:12:LEU:C	48:M1:12:LEU:HD13	3.24	0.48
4:S2:153:SER:OG	4:S2:172:ALA:N	2.58	0.48
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.47	0.48
36:5:1875:G:H2'	36:5:1876:U:H6	1.78	0.48
62:N6:22:ALA:O	62:N6:27:ARG:NE	2.87	0.48
1:2:1456:C:H5''	1:2:1457:C:H5''	1.96	0.48
35:SM:68:ARG:C	35:SM:70:ASN:N	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:26:ARG:HD3	57:N1:150:THR:CG2	3.80	0.48
36:5:1256:G:C2	36:5:1257:C:C2	3.02	0.48
42:L5:269:SER:OG	42:L5:270:LYS:N	4.57	0.48
34:SR:13:LEU:HD12	34:SR:310:ILE:HG21	1.96	0.48
72:O6:76:ARG:HE	72:O6:76:ARG:HA	1.78	0.48
16:C4:136:ARG:HH11	16:C4:136:ARG:HG3	1.78	0.48
3:S1:175:GLU:HG2	3:S1:193:ILE:HG23	3.28	0.48
3:S1:83:LYS:HZ2	3:S1:106:THR:HA	5.60	0.48
41:L4:161:LYS:HG2	36:5:210:U:OP2	78.62	0.48
52:M6:111:PRO:HG2	52:M6:112:TYR:CD2	3.13	0.48
36:5:938:C:OP1	36:5:962:A:O2'	2.32	0.48
1:2:1682:U:H1'	1:2:1683:C:H5'	1.95	0.48
36:5:281:G:C6	36:5:282:G:C6	3.02	0.48
49:M3:73:ARG:HB3	49:M3:98:ASP:OD2	2.96	0.48
26:D4:60:PHE:CD1	26:D4:71:GLY:HA3	2.79	0.48
36:1:1751:G:H5'	74:O8:26:LYS:NZ	2.29	0.48
48:M1:101:ASN:HB2	48:M1:129:VAL:O	2.13	0.48
35:SM:25:ILE:HG22	48:M1:46:VAL:HA	1.95	0.48
1:2:741:C:O2	9:S7:107:ARG:NH1	2.47	0.48
36:1:2923:U:C4	36:1:2924:U:O4	2.67	0.48
6:S4:140:VAL:HG11	1:6:295:A:O2'	342.43	0.48
36:1:2232:A:OP2	87:1:4043:OHX:N5	2.46	0.48
2:S0:112:THR:HG23	2:S0:115:PHE:HB2	1.95	0.48
36:5:1611:G:H2'	36:5:1612:A:C8	2.48	0.48
62:N6:90:VAL:O	62:N6:92:GLY:N	2.38	0.48
36:1:419:G:N2	38:4:5:U:C2	2.82	0.48
42:L5:187:THR:O	42:L5:188:GLU:HB2	4.28	0.48
40:L3:187:SER:O	40:L3:190:GLU:N	2.75	0.48
1:2:850:A:C6	1:2:851:U:C4	3.02	0.48
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	1.96	0.48
6:S4:172:PHE:C	6:S4:173:ILE:HD12	4.05	0.48
34:SR:117:LYS:NZ	34:SR:167:VAL:HG22	2.28	0.48
36:1:840:C:H2'	36:1:841:A:C8	2.49	0.48
65:N9:28:LYS:N	36:5:1065:A:N1	211.98	0.48
22:D0:61:LYS:N	22:D0:86:ILE:O	2.85	0.48
1:2:752:A:N6	1:2:753:A:N1	2.61	0.48
36:1:1579:C:H2'	36:1:1580:A:C8	2.48	0.48
10:S8:2:GLY:N	1:6:1729:C:O2'	288.72	0.48
1:2:71:A:H2'	1:2:72:A:O4'	2.14	0.48
36:1:2280:A:H5''	36:1:2281:A:P	2.54	0.48
12:C0:29:GLN:HB3	12:C0:39:ASN:CB	3.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:590:G:C2	36:5:610:G:H2'	2.48	0.48
10:S8:170:SER:OG	10:S8:181:GLY:HA2	2.49	0.48
13:C1:3:THR:HA	13:C1:81:HIS:NE2	2.29	0.48
1:6:1105:C:H2'	1:6:1106:U:H6	1.79	0.48
36:5:26:A:C4	36:5:330:G:C8	3.02	0.48
36:1:692:A:C4	36:1:693:A:C8	3.01	0.48
36:5:1287:A:C2	36:5:1288:U:C6	3.02	0.48
36:1:2838:A:N6	36:1:2839:G:N3	2.61	0.48
53:M7:89:LYS:HD3	53:M7:89:LYS:HA	4.48	0.48
36:1:2561:A:H2'	36:1:2561:A:OP1	2.14	0.48
38:8:32:C:O2'	38:8:33:A:H5'	2.14	0.48
33:E1:83:LYS:NZ	1:6:1210:C:H5''	366.51	0.48
25:D3:52:ILE:HG13	25:D3:77:ILE:HD11	4.16	0.48
36:5:2656:A:C8	36:5:2658:G:C8	3.02	0.48
1:6:89:G:C2	1:6:90:C:C2	3.01	0.48
6:S4:12:LEU:HD13	6:S4:12:LEU:HA	1.79	0.48
11:S9:146:PHE:CZ	1:6:765:G:N1	430.07	0.48
11:S9:126:ARG:O	11:S9:130:THR:HG23	3.29	0.48
36:1:2526:C:O2'	45:L8:241:LYS:NZ	2.40	0.48
6:S4:49:ARG:CB	6:S4:55:ALA:HB3	2.87	0.48
10:S8:101:ILE:HA	10:S8:101:ILE:HD13	2.41	0.48
43:L6:79:VAL:HG22	43:L6:80:ASN:H	2.02	0.48
19:C7:14:LYS:HG3	19:C7:69:ILE:CG2	2.85	0.48
21:C9:109:GLU:HG3	21:C9:114:VAL:O	2.13	0.48
48:M1:162:TRP:CZ2	48:M1:166:LYS:HE3	4.11	0.48
48:M1:80:LEU:O	48:M1:80:LEU:HD22	2.14	0.48
5:S3:45:LYS:HD2	5:S3:85:VAL:HG21	3.19	0.48
8:S6:7:TYR:CE2	8:S6:9:VAL:HB	2.72	0.48
16:C4:24:ASN:ND2	1:6:903:U:OP2	291.32	0.48
28:D6:43:ASN:HB3	28:D6:45:VAL:HG22	4.27	0.48
23:D1:72:LEU:HD23	23:D1:72:LEU:HA	2.03	0.48
2:S0:52:LYS:HD2	23:D1:82:VAL:CA	2.44	0.48
4:S2:54:GLU:HA	4:S2:57:PHE:CD2	2.49	0.48
4:S2:142:GLY:CA	4:S2:151:PRO:HB3	2.35	0.48
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	2.12	0.48
38:4:87:G:OP2	71:O5:5:LYS:HE2	2.13	0.48
1:6:1227:A:H4'	1:6:1228:G:H5'	1.95	0.48
20:C8:145:ARG:HB2	35:SM:68:ARG:HH21	1.77	0.48
9:S7:55:LYS:HE3	9:S7:87:ASP:OD1	3.98	0.48
42:L5:270:LYS:HE2	42:L5:273:ARG:HH22	1.78	0.48
34:SR:89:LEU:CG	34:SR:110:VAL:HG11	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:238:ASP:HB3	34:SR:257:ALA:HB3	2.54	0.48
36:5:2969:A:OP2	87:5:3907:OHX:N6	2.46	0.48
52:M6:121:PRO:O	52:M6:123:ALA:N	3.39	0.48
72:O6:73:ALA:O	72:O6:76:ARG:HB3	2.78	0.48
40:L3:167:ARG:HD3	40:L3:167:ARG:H	1.78	0.48
1:6:632:U:H2'	1:6:633:U:O4'	2.14	0.48
36:5:388:G:H2'	36:5:389:A:O4'	2.14	0.48
38:8:138:A:H2'	38:8:139:U:H6	1.79	0.48
71:O5:59:ASN:O	71:O5:63:ARG:HG2	4.25	0.48
46:L9:128:VAL:HG22	46:L9:134:ILE:CD1	2.43	0.48
1:2:1084:A:H2'	1:2:1085:G:O4'	2.14	0.48
39:L2:226:SER:HA	36:5:2202:C:H5''	208.46	0.48
39:L2:189:TYR:HA	39:L2:192:LYS:HG3	1.96	0.48
36:5:147:U:H4'	36:5:148:G:OP2	2.14	0.48
44:L7:30:ARG:HA	44:L7:33:ARG:HH21	1.78	0.48
48:M1:135:GLY:O	48:M1:138:VAL:HG23	2.93	0.48
47:M0:4:ARG:HA	47:M0:5:PRO:HD3	2.26	0.48
41:L4:299:ILE:HG23	54:M8:39:ARG:HB3	2.59	0.48
37:3:47:C:H4'	42:L5:204:VAL:HG22	1.95	0.48
5:S3:5:ILE:HG22	5:S3:6:SER:O	2.14	0.48
25:D3:95:PHE:CD1	25:D3:135:LEU:HD13	2.49	0.48
16:C4:88:GLY:N	16:C4:120:PRO:HG2	2.28	0.48
19:C7:115:LEU:CD1	19:C7:116:LYS:H	2.23	0.48
36:1:1888:U:H2'	36:1:1889:G:O4'	2.13	0.48
36:1:3238:G:O6	87:1:3969:OHX:N4	2.47	0.48
36:5:400:G:H4'	36:5:401:U:H5''	1.95	0.48
36:5:2620:G:C6	36:5:2621:G:C5	3.02	0.48
36:1:1217:A:H61	36:1:1288:U:H3	1.61	0.48
36:5:2376:G:O2'	36:5:2377:G:H5'	2.14	0.48
36:5:3187:A:C2	36:5:3188:G:H1'	2.49	0.48
36:1:167:U:N3	36:1:168:U:C4	2.82	0.48
36:5:946:U:H2'	36:5:947:G:H8	1.79	0.48
58:N2:98:THR:HG21	58:N2:104:ARG:HE	4.09	0.48
36:1:537:A:C2	36:1:557:A:C8	3.02	0.48
74:O8:5:ILE:HG13	74:O8:6:THR:H	4.55	0.48
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.94	0.48
36:1:1941:C:H1'	36:1:3362:A:H8	1.79	0.48
59:N3:53:SER:OG	59:N3:56:ASP:OD2	2.97	0.48
1:6:1018:U:H2'	1:6:1019:A:H8	1.77	0.48
36:1:2574:G:OP1	87:1:4210:OHX:N5	2.47	0.48
36:5:2137:U:C6	36:5:2141:U:C4	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:358:U:H5''	1:2:359:A:OP1	2.13	0.48
36:1:873:C:H5''	36:1:874:U:C4'	2.44	0.48
5:S3:19:ALA:O	5:S3:22:ASN:HB3	2.14	0.48
36:1:535:G:HO2'	36:1:554:A:N6	2.12	0.48
60:N4:63:ILE:C	60:N4:65:GLU:H	2.96	0.48
48:M1:117:ASP:OD2	48:M1:119:SER:HB3	4.35	0.48
36:1:1148:G:C6	36:1:1149:G:C5	3.02	0.48
9:S7:39:ARG:NH1	55:M9:188:ASP:O	2.47	0.48
1:6:1753:A:O5'	1:6:1753:A:H8	1.97	0.48
1:2:1527:C:H5'	7:S5:106:LYS:HE2	1.96	0.48
66:O0:82:GLY:C	66:O0:83:LYS:HD2	2.34	0.48
36:1:1021:G:H1	36:1:1031:C:H42	1.61	0.48
36:5:618:C:H2'	36:5:619:A:N7	2.29	0.48
1:6:10:G:C5	1:6:1633:A:C2	3.01	0.48
36:5:2762:A:H1'	36:5:2800:G:C6	2.49	0.48
42:L5:9:SER:OG	42:L5:10:SER:N	2.41	0.48
1:2:347:G:C6	1:2:348:U:C5	3.02	0.48
36:1:63:A:H2'	36:1:64:G:O4'	2.14	0.48
1:2:920:U:H5''	1:2:921:U:OP2	2.14	0.48
36:1:1110:U:H2'	36:1:1111:U:C6	2.49	0.48
1:2:434:G:N7	87:2:2048:OHX:N4	2.61	0.47
32:E0:13:LYS:HD3	32:E0:17:GLN:CD	4.12	0.47
36:5:3048:A:C6	36:5:3090:U:C5	3.01	0.47
1:2:876:G:H2'	1:2:936:G:N2	2.29	0.47
11:S9:39:LYS:HB2	1:6:593:U:OP2	409.02	0.47
47:M0:140:THR:HG21	47:M0:148:VAL:CG2	3.32	0.47
51:M5:22:LEU:O	51:M5:24:ARG:N	3.58	0.47
1:2:119:A:H1'	1:2:397:A:C4	2.49	0.47
13:C1:55:ASP:HB2	13:C1:82:ARG:HH12	2.66	0.47
10:S8:102:VAL:HG22	10:S8:167:ALA:O	2.14	0.47
10:S8:193:LEU:O	10:S8:194:ARG:C	2.69	0.47
36:1:1381:A:C2	36:1:1426:C:C2	3.02	0.47
41:L4:174:ALA:HB1	41:L4:178:LEU:HD11	1.95	0.47
41:L4:9:HIS:O	41:L4:153:SER:N	2.82	0.47
19:C7:51:ALA:O	19:C7:54:THR:N	2.47	0.47
36:1:562:C:O2'	36:1:563:U:H5'	2.14	0.47
18:C6:28:LEU:HB3	18:C6:64:ASP:OD2	4.32	0.47
20:C8:23:ASP:HB3	20:C8:26:ILE:HD13	2.74	0.47
27:D5:80:LEU:HD22	27:D5:101:TYR:CD2	3.28	0.47
30:D8:42:ARG:HH11	30:D8:56:LEU:HD22	1.79	0.47
7:S5:164:PRO:HG2	7:S5:165:LEU:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:61:TYR:HE2	7:S5:164:PRO:HG2	2.71	0.47
7:S5:25:LEU:O	7:S5:26:ALA:C	3.51	0.47
38:4:46:G:C2	38:4:58:G:C6	3.01	0.47
75:O9:9:ILE:O	75:O9:10:LYS:C	2.52	0.47
36:1:2663:G:C5'	42:L5:152:ARG:HD3	2.44	0.47
42:L5:64:ILE:CD1	42:L5:109:THR:HG21	4.52	0.47
1:6:1427:A:HO2'	1:6:1428:G:P	2.36	0.47
1:2:626:U:H2'	1:2:627:C:C6	2.43	0.47
3:S1:65:VAL:HB	3:S1:87:ARG:HA	3.56	0.47
2:S0:60:ALA:O	2:S0:64:ILE:N	2.33	0.47
36:1:1733:G:H2'	36:1:1734:G:C8	2.48	0.47
40:L3:62:ARG:O	40:L3:63:PRO:C	2.72	0.47
50:M4:13:ARG:HD3	50:M4:66:THR:O	2.82	0.47
56:N0:138:GLN:C	56:N0:140:VAL:N	2.67	0.47
9:S7:133:THR:HG22	9:S7:159:VAL:HA	2.55	0.47
9:S7:58:LEU:N	9:S7:89:HIS:O	2.45	0.47
34:SR:112:SER:HB2	34:SR:153:GLN:HA	1.95	0.47
34:SR:211:ILE:HD12	34:SR:225:LEU:HB2	1.95	0.47
40:L3:117:ARG:C	40:L3:119:TYR:H	2.18	0.47
72:O6:91:ASN:HA	72:O6:94:ILE:HB	3.10	0.47
36:5:835:G:HO2'	36:5:857:G:N2	2.10	0.47
52:M6:182:ASN:CG	52:M6:183:ALA:N	5.05	0.47
49:M3:42:ARG:NH2	49:M3:51:LEU:HD23	5.06	0.47
49:M3:119:TYR:CE1	71:O5:118:ILE:HD11	5.01	0.47
36:5:1097:G:N3	36:5:1097:G:C2'	2.74	0.47
36:5:916:G:C5	36:5:924:G:C5	3.02	0.47
39:L2:6:ARG:HH12	39:L2:199:THR:N	2.08	0.47
24:D2:23:ARG:C	24:D2:65:LEU:HB2	5.80	0.47
1:2:1091:A:OP1	87:2:2175:OHX:N3	2.47	0.47
27:D5:85:LYS:HG3	27:D5:86:GLU:H	1.99	0.47
53:M7:33:ALA:C	53:M7:35:ALA:N	3.37	0.47
42:L5:56:THR:O	42:L5:59:ASP:N	4.67	0.47
64:N8:133:LEU:HD12	36:5:715:A:OP1	147.58	0.47
15:C3:140:LYS:HE2	36:5:847:A:OP1	284.33	0.47
40:L3:332:ARG:HH11	40:L3:333:LYS:CD	2.89	0.47
36:5:583:G:N7	87:5:4016:OHX:N5	2.63	0.47
74:O8:50:SER:HA	36:5:1613:A:OP1	133.49	0.47
36:1:2169:G:O6	87:1:3913:OHX:N4	2.47	0.47
36:1:1889:G:OP1	40:L3:246:LEU:N	2.47	0.47
1:2:1138:A:H2'	1:2:1139:A:H8	1.79	0.47
36:1:1299:U:H2'	36:1:1300:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3206:C:H2'	50:M4:99:TRP:CZ2	2.48	0.47
36:1:3094:A:H2'	36:1:3095:U:C6	2.49	0.47
2:S0:135:GLU:HA	2:S0:138:TYR:HD2	2.60	0.47
41:L4:320:ASN:OD1	41:L4:323:VAL:HG12	2.14	0.47
41:L4:321:LYS:C	41:L4:323:VAL:H	2.17	0.47
42:L5:286:VAL:O	42:L5:290:ILE:HG12	2.14	0.47
36:1:384:A:N6	36:1:385:A:C6	2.82	0.47
64:N8:47:LYS:HE2	64:N8:48:TYR:OH	3.50	0.47
1:2:1346:A:O2'	1:2:1371:A:N6	2.47	0.47
1:6:1722:A:OP2	87:6:2096:OHX:N1	2.47	0.47
8:S6:111:LEU:HD12	8:S6:111:LEU:H	3.93	0.47
44:L7:174:GLY:C	44:L7:176:TYR:N	2.66	0.47
44:L7:174:GLY:HA2	44:L7:177:GLY:O	2.14	0.47
36:5:2561:A:O2'	36:5:2562:A:H8	1.96	0.47
36:5:504:A:H1'	36:5:611:A:OP1	2.14	0.47
47:M0:98:ARG:HD2	47:M0:120:GLY:O	2.13	0.47
1:2:498:G:C5	1:2:499:U:O4	2.66	0.47
36:5:723:U:C2'	36:5:724:U:H5'	2.43	0.47
6:S4:198:LYS:HA	6:S4:207:LEU:O	2.53	0.47
6:S4:37:LYS:HB2	6:S4:40:GLU:CG	2.44	0.47
49:M3:28:GLN:OE1	51:M5:201:ARG:NH1	2.93	0.47
1:2:361:C:H2'	1:2:362:G:H8	1.78	0.47
68:O2:3:SER:OG	68:O2:69:SER:O	2.23	0.47
37:7:72:A:O2'	37:7:74:C:OP1	2.23	0.47
46:L9:1:MET:O	46:L9:2:LYS:C	2.76	0.47
1:6:1745:G:O6	87:6:2082:OHX:N4	2.48	0.47
15:C3:36:GLN:HA	15:C3:36:GLN:HE21	2.44	0.47
40:L3:206:ASP:N	40:L3:206:ASP:OD1	2.46	0.47
36:5:875:G:C2'	36:5:876:A:H5'	2.44	0.47
25:D3:68:ILE:HB	25:D3:70:LYS:HZ1	2.72	0.47
36:1:3199:G:N3	36:1:3200:G:C8	2.82	0.47
50:M4:6:ILE:HA	50:M4:6:ILE:HD13	2.67	0.47
36:1:3199:G:H5''	50:M4:6:ILE:HG21	1.96	0.47
51:M5:72:LYS:O	51:M5:73:ARG:C	2.53	0.47
87:6:2125:OHX:N6	87:6:2177:OHX:N3	2.63	0.47
28:D6:3:LYS:NZ	28:D6:8:ASN:OD1	4.10	0.47
1:6:542:A:O2'	1:6:543:C:H3'	2.15	0.47
1:6:592:A:H2'	1:6:593:U:O4'	2.15	0.47
36:1:1039:U:H2'	36:1:1040:A:C8	2.49	0.47
47:M0:155:ALA:C	47:M0:157:TYR:H	2.37	0.47
13:C1:33:ARG:NH1	13:C1:53:TYR:O	2.25	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:69:SER:O	10:S8:71:GLY:N	4.76	0.47
36:1:1386:A:C5	41:L4:183:LYS:HG3	2.48	0.47
64:N8:3:SER:HB3	36:5:1428:A:C8	136.04	0.47
73:O7:17:THR:C	73:O7:25:ARG:HA	2.34	0.47
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.29	0.47
17:C5:22:LEU:HD23	17:C5:23:GLU:N	4.78	0.47
48:M1:83:GLY:HA2	48:M1:86:VAL:CG2	2.43	0.47
67:O1:23:VAL:O	67:O1:28:ARG:HD2	3.49	0.47
36:1:1047:A:H2'	36:1:1048:A:C8	2.49	0.47
47:M0:23:ASN:ND2	47:M0:96:VAL:HG21	2.59	0.47
1:6:894:U:H2'	1:6:895:G:C8	2.48	0.47
16:C4:35:GLY:O	16:C4:37:GLU:N	2.48	0.47
16:C4:99:GLN:CD	28:D6:46:GLU:HB3	5.31	0.47
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.79	0.47
4:S2:57:PHE:CE1	4:S2:138:PRO:HD3	2.62	0.47
6:S4:206:ASP:O	6:S4:221:ARG:HA	2.14	0.47
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.95	0.47
38:4:72:A:OP2	62:N6:52:ARG:HB2	2.15	0.47
36:1:3038:U:O3'	40:L3:65:SER:HB2	2.14	0.47
11:S9:171:ARG:NE	11:S9:171:ARG:HA	2.59	0.47
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.66	0.47
75:O9:21:ARG:HD2	38:8:52:A:O5'	82.88	0.47
72:O6:68:ARG:O	72:O6:72:VAL:HG23	4.32	0.47
39:L2:118:GLU:HG3	39:L2:126:LEU:HD21	2.44	0.47
72:O6:90:MET:C	72:O6:92:ASN:N	3.08	0.47
36:1:1687:U:H1'	58:N2:75:TYR:CZ	2.48	0.47
36:5:282:G:H5''	36:5:283:G:OP1	2.14	0.47
51:M5:57:GLN:HB3	51:M5:139:HIS:HE1	2.09	0.47
39:L2:3:ARG:CG	39:L2:4:VAL:H	2.26	0.47
45:L8:134:TYR:CD2	45:L8:134:TYR:N	2.82	0.47
36:5:3103:A:OP2	87:5:4154:OHX:N4	2.48	0.47
42:L5:153:THR:HG23	42:L5:179:ARG:HD2	3.77	0.47
40:L3:39:LYS:CB	40:L3:40:PRO:HD2	2.96	0.47
36:1:1803:C:H4'	70:O4:62:TYR:O	2.13	0.47
36:5:130:A:H2'	36:5:131:C:H6	1.76	0.47
37:7:57:G:H3'	37:7:58:C:C6	2.49	0.47
36:5:735:A:C4	36:5:736:A:C8	3.02	0.47
34:SR:109:ASP:OD2	34:SR:127:ARG:NH1	3.21	0.47
36:1:1645:U:H2'	36:1:1646:G:H5'	1.96	0.47
74:O8:45:VAL:O	74:O8:51:LEU:HD12	2.14	0.47
10:S8:138:ASN:HA	10:S8:141:ARG:HB2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:62:ARG:HG2	53:M7:63:PHE:N	2.50	0.47
49:M3:178:LYS:HD3	49:M3:179:PHE:CE2	2.48	0.47
34:SR:135:THR:HG22	34:SR:141:LEU:HD21	1.95	0.47
1:2:445:A:H1'	1:2:525:A:OP1	2.14	0.47
1:6:701:U:H2'	1:6:702:G:H8	1.80	0.47
58:N2:17:VAL:O	58:N2:63:VAL:HG22	5.35	0.47
40:L3:345:ASN:CG	40:L3:347:SER:HB2	2.35	0.47
55:M9:109:TYR:O	55:M9:115:ILE:N	2.46	0.47
1:6:1408:G:H2'	1:6:1409:G:O4'	2.13	0.47
1:2:929:A:C6	1:2:930:A:C5	3.02	0.47
36:1:1197:A:C2'	36:1:1197:A:N3	2.77	0.47
36:1:1190:A:H2'	36:1:1190:A:N3	2.29	0.47
36:5:611:A:C2	36:5:612:U:C2	3.03	0.47
1:2:1353:U:C4	1:2:1354:G:N7	2.82	0.47
87:5:4061:OHX:N3	87:5:4138:OHX:N4	2.62	0.47
36:1:1364:C:O2	54:M8:10:HIS:NE2	2.30	0.47
36:1:2270:A:N6	36:1:2271:A:N6	2.61	0.47
15:C3:54:LEU:HD23	15:C3:54:LEU:HA	1.85	0.47
32:E0:56:MET:HE3	32:E0:56:MET:HB2	2.24	0.47
75:O9:22:PRO:HD3	75:O9:41:ARG:NH2	2.94	0.47
1:2:1651:A:C2	1:2:1750:A:C2	3.02	0.47
44:L7:208:SER:OG	44:L7:209:ASN:N	2.47	0.47
36:5:3301:U:H2'	36:5:3302:U:C6	2.50	0.47
36:5:1703:U:N3	36:5:1740:U:O2	2.47	0.47
52:M6:163:SER:O	52:M6:166:GLU:HB2	2.14	0.47
36:5:1729:A:O5'	36:5:1729:A:H8	1.96	0.47
74:O8:69:LEU:HA	74:O8:69:LEU:HD13	1.46	0.47
25:D3:63:GLN:HG2	25:D3:64:PRO:HA	1.96	0.47
46:L9:189:GLU:C	46:L9:191:LEU:N	2.66	0.47
1:2:461:G:OP1	11:S9:2:PRO:HD2	2.14	0.47
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	1.95	0.47
28:D6:5:ARG:NH2	1:6:1793:G:O2'	334.72	0.47
47:M0:153:ARG:HG2	47:M0:156:ARG:HD2	5.67	0.47
47:M0:191:LYS:HB3	47:M0:213:PHE:CE2	2.49	0.47
47:M0:86:HIS:CD2	47:M0:87:LEU:N	2.81	0.47
13:C1:54:ILE:HG23	13:C1:55:ASP:N	2.29	0.47
10:S8:100:ALA:O	10:S8:101:ILE:HB	4.65	0.47
10:S8:54:LYS:HD3	10:S8:175:GLN:HB3	3.17	0.47
36:1:1420:C:OP1	38:4:20:U:H5''	2.13	0.47
43:L6:56:LYS:NZ	43:L6:99:GLU:HA	2.29	0.47
5:S3:162:GLN:OE1	5:S3:165:ASN:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1350:U:O3'	18:C6:66:ARG:NH2	2.47	0.47
20:C8:54:LEU:C	20:C8:56:LYS:H	2.77	0.47
30:D8:14:LYS:O	30:D8:28:VAL:HG22	2.14	0.47
7:S5:117:THR:O	7:S5:121:ILE:HG12	3.56	0.47
7:S5:52:GLU:N	7:S5:131:GLN:OE1	2.51	0.47
55:M9:25:ASP:O	55:M9:27:ASN:N	2.46	0.47
67:O1:46:THR:OG1	67:O1:90:PHE:O	4.43	0.47
12:C0:15:LEU:HD22	12:C0:68:LEU:HD13	5.01	0.47
12:C0:68:LEU:HD23	12:C0:73:VAL:HG13	5.42	0.47
17:C5:68:PRO:O	87:C5:201:OHX:N1	7.85	0.47
47:M0:17:TYR:HD1	47:M0:96:VAL:HB	1.79	0.47
28:D6:51:ARG:CG	28:D6:51:ARG:HH21	2.87	0.47
3:S1:38:PHE:CD1	3:S1:73:LEU:HG	6.19	0.47
36:1:406:G:N3	38:4:16:G:C2	2.83	0.47
2:S0:165:ARG:HA	2:S0:165:ARG:NH1	2.29	0.47
66:O0:44:ILE:HG23	66:O0:89:VAL:HG23	5.14	0.47
36:1:181:U:H2'	36:1:182:U:O4'	2.14	0.47
62:N6:118:LEU:HA	62:N6:121:ARG:NH1	2.29	0.47
1:2:1206:U:C4	1:2:1207:C:N3	2.83	0.47
35:SM:65:THR:HA	35:SM:70:ASN:ND2	2.92	0.47
47:M0:10:ARG:O	47:M0:59:GLN:HG3	4.33	0.47
56:N0:12:ARG:NH1	57:N1:141:VAL:HB	2.30	0.47
44:L7:75:TYR:HB2	57:N1:141:VAL:HG23	4.41	0.47
60:N4:9:SER:O	60:N4:53:VAL:HG23	2.57	0.47
34:SR:103:PHE:CD2	34:SR:103:PHE:N	2.90	0.47
36:5:2278:C:C2'	36:5:2279:A:H5''	2.40	0.47
72:O6:81:THR:HA	72:O6:84:LYS:HG3	4.36	0.47
26:D4:122:GLY:O	26:D4:125:LEU:N	2.47	0.47
41:L4:162:THR:O	41:L4:163:LYS:C	2.53	0.47
36:5:3163:A:N1	36:5:3288:G:C6	2.82	0.47
59:N3:44:SER:OG	36:5:2916:U:H1'	263.75	0.47
40:L3:139:GLN:C	40:L3:141:GLY:N	2.67	0.47
36:5:835:G:C2	36:5:857:G:C4	3.03	0.47
49:M3:46:ILE:O	49:M3:49:ARG:HB2	2.14	0.47
26:D4:8:ARG:HH12	26:D4:68:LYS:CE	2.23	0.47
74:O8:40:GLN:HE21	74:O8:55:VAL:CG1	3.00	0.47
36:1:837:A:OP1	79:Q3:5:THR:OG1	2.32	0.47
38:4:100:U:H5''	38:4:101:U:OP2	2.13	0.47
73:O7:64:MET:HB3	73:O7:68:LYS:HG3	1.96	0.47
46:L9:129:ARG:NH2	46:L9:160:ASP:OD2	2.47	0.47
37:3:39:C:O2'	48:M1:43:GLN:HB3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:44:HIS:CE1	24:D2:101:TYR:CZ	3.10	0.47
36:5:3141:A:C6	36:5:3144:G:C4	3.02	0.47
4:S2:39:THR:O	4:S2:43:ARG:HD2	4.37	0.47
41:L4:300:ARG:NH2	54:M8:38:ARG:O	3.04	0.47
1:6:846:G:C2	1:6:847:A:C4	3.03	0.47
36:1:523:A:N6	36:1:570:A:C2	2.83	0.47
36:1:2592:G:O2'	36:1:2593:A:H8	1.96	0.47
24:D2:105:THR:HG23	24:D2:110:ILE:HG13	1.96	0.47
46:L9:41:ILE:O	46:L9:43:VAL:HG12	3.69	0.47
63:N7:52:LYS:O	63:N7:65:ARG:HD2	2.14	0.47
2:S0:109:ASN:HD21	2:S0:111:ILE:HG22	1.79	0.47
1:6:194:U:H2'	1:6:194:U:O2	2.13	0.47
36:5:2185:G:C5	36:5:2186:U:C5	3.02	0.47
36:1:2833:A:C2	36:1:2834:G:C8	3.03	0.47
36:5:2510:U:O2'	36:5:2511:A:H5''	2.14	0.47
36:5:2943:G:H2'	36:5:2944:U:O4'	2.13	0.47
45:L8:129:PRO:HD2	36:5:120:G:C8	98.31	0.47
13:C1:83:THR:HA	13:C1:111:VAL:HG12	3.24	0.47
41:L4:48:GLN:OE1	36:5:691:A:N6	93.47	0.47
47:M0:51:HIS:N	47:M0:166:ILE:O	3.40	0.47
41:L4:214:GLY:O	41:L4:216:VAL:N	2.47	0.47
34:SR:195:HIS:CE1	34:SR:213:SER:HG	2.96	0.47
18:C6:69:VAL:HG11	18:C6:77:GLN:HB3	1.95	0.47
36:1:1517:G:H2'	36:1:1518:U:C6	2.49	0.47
45:L8:116:VAL:HG12	45:L8:117:ALA:N	2.29	0.47
36:1:1121:U:H2'	36:1:1122:U:O4'	2.13	0.47
17:C5:76:VAL:O	17:C5:95:GLY:N	2.54	0.47
39:L2:27:ALA:HB3	39:L2:128:ARG:HH21	1.78	0.47
36:5:767:U:H1'	36:5:768:C:C6	2.49	0.47
36:1:2117:A:H2'	36:1:2118:C:O4'	2.13	0.47
1:6:800:U:H2'	1:6:801:G:C8	2.49	0.47
36:5:421:G:N7	36:5:2365:C:C6	2.82	0.47
1:2:317:C:O2	1:2:347:G:N2	2.41	0.47
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.79	0.47
46:L9:112:ILE:N	46:L9:126:VAL:O	2.72	0.47
40:L3:55:THR:HG23	36:5:3049:A:N3	245.91	0.47
36:5:866:A:H5''	36:5:867:G:OP2	2.14	0.47
36:5:3352:U:O3'	87:5:4224:OHX:N1	2.47	0.47
25:D3:74:VAL:O	25:D3:83:VAL:N	2.33	0.47
36:5:2659:G:C2	36:5:2712:U:O2	2.67	0.47
20:C8:127:HIS:O	20:C8:130:GLY:N	3.01	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:639:G:O2'	36:1:640:U:H5'	2.15	0.47
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.69	0.47
87:1:3959:OHX:N3	44:L7:217:PRO:HA	2.30	0.47
45:L8:238:LEU:HA	45:L8:238:LEU:HD12	1.63	0.47
1:2:333:A:OP2	10:S8:54:LYS:NZ	2.37	0.47
26:D4:18:LEU:HD13	26:D4:20:ARG:NH1	2.29	0.47
6:S4:45:ILE:HD11	6:S4:49:ARG:HH21	1.79	0.47
41:L4:36:HIS:CE1	36:5:1426:C:OP1	136.51	0.47
64:N8:3:SER:OG	64:N8:4:ARG:N	2.47	0.47
19:C7:35:CYS:CA	19:C7:38:ILE:HG22	2.40	0.47
42:L5:22:ARG:NH1	42:L5:28:THR:HG1	5.54	0.47
18:C6:21:HIS:HB2	18:C6:23:LYS:HZ3	9.22	0.47
30:D8:33:LEU:O	30:D8:35:ASP:N	2.47	0.47
7:S5:43:PHE:N	7:S5:46:TRP:O	3.02	0.47
44:L7:25:GLN:HA	44:L7:29:GLU:H	1.80	0.47
44:L7:25:GLN:CG	44:L7:29:GLU:HB2	2.32	0.47
1:2:1204:A:C8	1:2:1555:A:N1	2.82	0.47
31:D9:14:TYR:HE2	1:6:1204:A:C6	402.37	0.47
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.96	0.47
42:L5:41:LYS:HD3	42:L5:41:LYS:HA	3.32	0.47
47:M0:95:HIS:C	47:M0:95:HIS:CD2	2.87	0.47
1:6:889:U:H1'	1:6:988:A:O2'	2.14	0.47
16:C4:29:HIS:CD2	16:C4:29:HIS:C	3.83	0.47
3:S1:41:ARG:NH2	3:S1:97:LEU:HD21	2.29	0.47
4:S2:65:GLU:HB2	4:S2:68:ILE:CG1	3.06	0.47
4:S2:35:TRP:CZ2	4:S2:67:GLN:HB2	2.49	0.47
40:L3:13:HIS:CE1	36:5:3011:A:C8	249.34	0.47
1:6:1699:G:H1	1:6:1701:A:H3'	1.79	0.47
48:M1:10:ARG:HH11	48:M1:133:ARG:HH21	2.67	0.47
4:S2:152:HIS:ND1	4:S2:195:ASP:OD2	2.41	0.47
63:N7:13:VAL:HB	63:N7:18:TYR:O	2.31	0.47
63:N7:72:ILE:H	63:N7:72:ILE:HD13	4.27	0.47
70:O4:88:ARG:O	70:O4:88:ARG:HG3	2.15	0.47
55:M9:18:GLY:O	55:M9:20:ARG:N	2.74	0.47
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.14	0.47
73:O7:75:LYS:HD3	73:O7:76:ASN:OD1	2.15	0.47
36:5:532:A:H2	36:5:560:G:H22	1.61	0.47
69:O3:59:VAL:C	69:O3:61:GLY:H	2.36	0.47
1:6:149:C:N4	1:6:165:G:H1	2.07	0.47
34:SR:228:LYS:O	34:SR:229:LYS:HG3	2.14	0.47
40:L3:81:THR:HB	40:L3:321:PHE:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:49:TYR:C	40:L3:79:VAL:HG23	2.47	0.47
1:2:1005:A:H2'	1:2:1006:C:O4'	2.15	0.47
39:L2:89:TYR:HB2	39:L2:100:ASN:ND2	3.78	0.47
39:L2:44:ILE:HD12	39:L2:46:LYS:HE2	5.13	0.47
70:O4:106:LYS:O	70:O4:110:GLU:N	2.38	0.47
79:Q3:87:ARG:O	79:Q3:91:GLU:HG2	2.26	0.47
1:6:151:G:H2'	1:6:152:U:C6	2.50	0.47
52:M6:25:LYS:HA	52:M6:28:LEU:CD1	2.44	0.47
36:5:3286:G:H2'	36:5:3287:U:H6	1.79	0.47
8:S6:58:LYS:HG2	8:S6:105:ASP:O	2.15	0.47
36:5:1062:A:C2	36:5:1098:A:C5	3.03	0.47
36:1:990:U:H4'	57:N1:100:LYS:CB	2.45	0.47
36:1:3005:A:H5''	52:M6:149:TYR:OH	2.14	0.47
26:D4:24:VAL:HG13	26:D4:71:GLY:O	3.11	0.47
11:S9:102:GLU:O	11:S9:106:GLU:HB2	2.93	0.47
76:Q0:77:ILE:O	76:Q0:78:ILE:HB	2.15	0.47
45:L8:161:GLU:O	45:L8:164:VAL:HG22	2.44	0.47
40:L3:183:LEU:HB3	40:L3:191:LYS:HD3	1.96	0.47
36:1:2680:A:C2	48:M1:24:GLY:HA3	2.50	0.47
44:L7:24:GLU:C	44:L7:26:VAL:H	2.12	0.47
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.14	0.47
36:1:2932:U:O2	36:1:2934:A:C8	2.66	0.47
6:S4:146:THR:HG21	1:6:123:G:N3	341.43	0.47
36:1:2234:G:H8	36:1:2234:G:O5'	1.97	0.47
63:N7:54:THR:OG1	63:N7:56:LYS:NZ	2.48	0.47
63:N7:51:LEU:HB3	63:N7:65:ARG:HH11	1.80	0.47
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.47	0.47
36:1:1588:A:C6	75:O9:4:GLN:HG3	2.50	0.47
1:2:195:G:C2'	1:2:196:G:H5'	2.45	0.47
78:Q2:71:ARG:CZ	78:Q2:80:ARG:HD3	4.34	0.47
25:D3:22:ASN:O	1:6:609:U:C5	337.25	0.47
40:L3:339:ARG:NH1	40:L3:342:LEU:HD11	2.68	0.47
69:O3:76:GLY:HA2	36:5:1327:C:O2'	258.56	0.47
63:N7:115:LYS:O	63:N7:119:GLU:HG3	2.14	0.47
78:Q2:58:PHE:CD1	78:Q2:59:HIS:N	2.75	0.47
36:5:2768:U:H2'	36:5:2769:A:C8	2.44	0.47
62:N6:98:ASN:N	62:N6:98:ASN:OD1	3.60	0.47
1:6:922:G:C2'	1:6:923:A:H5'	2.44	0.47
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.94	0.47
55:M9:142:ILE:O	55:M9:145:ALA:HB3	3.04	0.47
74:O8:11:PHE:CZ	74:O8:43:PHE:HB3	2.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:8:LYS:O	5:S3:10:LYS:N	2.79	0.47
36:5:3167:A:C2	36:5:3284:G:N3	2.82	0.47
3:S1:110:LEU:O	3:S1:114:VAL:HG23	2.15	0.47
49:M3:16:LYS:O	36:5:48:A:OP2	135.24	0.47
1:6:773:C:H4'	1:6:774:A:OP1	2.13	0.47
36:5:3294:A:H2'	36:5:3295:A:O4'	2.15	0.47
3:S1:122:GLU:HG2	3:S1:140:ILE:HD13	3.74	0.47
36:1:328:U:O4	87:4:228:OHX:N2	2.47	0.47
36:1:1411:C:C2'	36:1:1412:G:H5'	2.44	0.47
1:2:482:U:H2'	1:2:483:A:C8	2.48	0.47
36:5:504:A:C4	36:5:588:G:N2	2.82	0.47
1:6:578:U:H4'	1:6:579:A:H5'	1.95	0.47
36:5:2319:U:O2'	36:5:2320:A:H8	1.95	0.47
36:1:2209:U:HO2'	36:1:2210:G:P	2.38	0.47
33:E1:118:ARG:HD2	33:E1:118:ARG:N	2.64	0.47
1:2:1353:U:H2'	1:2:1354:G:H8	1.80	0.47
16:C4:106:ALA:HA	16:C4:112:ILE:HD11	3.28	0.47
36:1:2678:A:N6	36:1:2679:A:C6	2.83	0.47
41:L4:312:VAL:HG21	36:5:610:G:C8	223.32	0.47
36:5:1940:G:N2	36:5:3362:A:H8	2.12	0.47
87:5:4050:OHX:N5	87:5:4194:OHX:N2	2.62	0.47
44:L7:192:GLY:O	44:L7:194:HIS:N	3.10	0.47
7:S5:147:THR:O	7:S5:157:ARG:HA	3.65	0.47
12:C0:25:LYS:HD2	12:C0:27:PHE:HZ	1.79	0.47
36:1:381:U:H2'	36:1:382:U:C6	2.48	0.47
1:6:1054:U:H2'	1:6:1055:U:H6	1.78	0.47
16:C4:93:THR:HA	16:C4:94:PRO:HD2	1.45	0.47
1:2:341:A:C5	1:2:342:C:C4	3.03	0.47
49:M3:110:ASP:OD1	49:M3:110:ASP:N	2.40	0.47
59:N3:67:PRO:C	59:N3:69:LEU:H	2.17	0.47
1:2:1754:A:H1'	32:E0:2:ALA:HB2	1.95	0.47
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.15	0.47
1:6:595:G:C6	1:6:596:C:C4	3.01	0.47
47:M0:61:SER:HA	47:M0:126:ALA:HA	2.70	0.47
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	2.49	0.47
1:6:1579:U:OP2	87:6:2189:OHX:N6	2.48	0.47
45:L8:62:LYS:NZ	51:M5:29:GLU:OE2	4.25	0.47
13:C1:20:PHE:CE1	13:C1:22:ASN:HB2	2.50	0.47
6:S4:7:LYS:HD2	6:S4:7:LYS:HA	1.69	0.47
36:1:739:G:N3	36:1:740:G:C8	2.83	0.47
19:C7:43:SER:HB3	19:C7:46:LEU:HB2	2.64	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:852:C:H2'	1:6:853:G:C8	2.49	0.47
7:S5:177:ILE:O	7:S5:181:GLU:HB2	2.84	0.47
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.43	0.47
36:1:3088:G:H2'	36:1:3089:C:H6	1.77	0.47
67:O1:79:ARG:H	67:O1:79:ARG:NE	2.11	0.47
61:N5:86:VAL:HG21	61:N5:122:ALA:HB2	2.91	0.47
1:2:1726:G:N7	87:2:2099:OHX:N4	2.62	0.47
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.24	0.47
17:C5:13:LYS:HB3	17:C5:22:LEU:HD11	11.87	0.47
21:C9:105:LEU:O	21:C9:107:ALA:N	2.48	0.47
1:2:1018:U:O4	1:2:1019:A:N6	2.48	0.47
1:2:624:G:C5	1:2:976:G:N2	2.82	0.47
36:5:1810:A:H2'	36:5:1811:G:O4'	2.14	0.47
1:2:899:G:N2	1:2:910:C:N3	2.53	0.47
68:O2:37:GLY:O	68:O2:40:SER:HB2	4.21	0.47
23:D1:77:GLY:O	23:D1:78:LEU:HD13	5.06	0.47
2:S0:45:VAL:HG12	2:S0:46:HIS:H	1.80	0.47
4:S2:184:VAL:HG22	4:S2:211:LEU:CD2	2.45	0.47
36:5:679:U:H1'	36:5:788:C:H1'	1.94	0.47
63:N7:125:GLY:O	63:N7:128:GLN:HB2	2.14	0.47
14:C2:56:GLU:HB3	14:C2:124:LYS:HG2	1.97	0.47
36:5:559:A:H3'	36:5:559:A:H8	1.79	0.47
40:L3:296:THR:HG22	40:L3:299:ASP:N	2.98	0.47
59:N3:37:ILE:HG13	59:N3:59:MET:O	3.39	0.47
69:O3:45:LEU:HD23	69:O3:71:VAL:CG1	2.45	0.47
69:O3:49:ILE:HG12	69:O3:100:ILE:HG13	2.62	0.47
18:C6:113:ASP:CA	18:C6:116:LEU:HD12	6.67	0.47
79:Q3:76:ALA:O	79:Q3:80:ARG:HB2	3.30	0.47
3:S1:210:ILE:C	3:S1:211:HIS:CD2	3.75	0.47
1:6:36:C:H2'	1:6:37:U:H6	1.79	0.47
72:O6:94:ILE:O	72:O6:98:ARG:HD2	3.34	0.47
36:1:499:G:H2'	36:1:500:C:H6	1.78	0.47
36:1:979:U:C2	36:1:980:A:C4	3.02	0.47
71:O5:94:LYS:N	36:5:135:C:O2	56.32	0.47
51:M5:140:LYS:HA	51:M5:143:ARG:HB2	1.97	0.47
1:2:1102:G:OP2	25:D3:7:ARG:NH1	2.47	0.47
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.14	0.47
36:5:2129:U:H5''	87:5:4182:OHX:N1	2.30	0.47
39:L2:181:LYS:HB2	36:5:860:G:O6	212.30	0.47
36:1:2180:G:C6	36:1:2181:C:N4	2.82	0.47
40:L3:196:ARG:O	40:L3:198:HIS:N	2.74	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:14:LYS:O	25:D3:18:HIS:HB2	2.15	0.47
36:5:244:G:H2'	36:5:245:U:C6	2.50	0.47
36:1:2847:A:C2	36:1:2898:G:H2'	2.49	0.47
1:2:828:U:C2	1:2:829:A:N7	2.83	0.47
36:1:856:G:C6	36:1:857:G:C2	3.02	0.47
78:Q2:13:LYS:HE2	36:5:2717:U:H4'	199.53	0.47
67:O1:102:LYS:O	67:O1:104:LEU:HG	3.77	0.47
36:5:3337:G:H2'	36:5:3338:C:O4'	2.15	0.47
1:2:1236:A:C8	33:E1:138:ARG:NH2	2.77	0.47
36:1:2533:G:H2'	36:1:2534:G:O4'	2.13	0.47
36:1:2535:A:H2'	36:1:2536:A:O4'	2.14	0.47
36:5:22:G:C5	36:5:23:A:C8	3.02	0.47
16:C4:88:GLY:O	16:C4:92:LYS:NZ	5.21	0.47
45:L8:78:PHE:C	45:L8:80:TYR:N	2.65	0.47
36:1:1853:U:P	87:1:4033:OHX:N3	2.87	0.47
35:SM:118:SER:O	35:SM:122:GLU:HG3	2.14	0.47
10:S8:113:PHE:CD1	10:S8:121:LEU:HD21	3.45	0.47
36:5:2149:A:H62	36:5:2187:G:N2	2.13	0.47
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.63	0.47
54:M8:65:SER:HB2	54:M8:93:ILE:HG13	5.04	0.47
36:5:1302:A:OP1	87:5:4086:OHX:N3	2.48	0.47
1:2:528:U:H2'	1:2:529:A:O4'	2.15	0.47
38:4:79:A:C3'	38:4:80:A:H4'	2.44	0.47
9:S7:99:LEU:N	9:S7:116:ARG:O	2.47	0.47
1:6:1344:A:H2'	1:6:1345:A:C8	2.50	0.47
24:D2:26:LEU:HD12	29:D7:7:LEU:HD22	1.96	0.47
1:6:228:G:H1	1:6:236:A:H61	1.61	0.47
36:1:3220:G:N7	36:1:3266:G:N2	2.62	0.47
36:1:1625:A:H5'	36:1:1643:A:N6	2.29	0.47
36:5:2772:C:H4'	36:5:2773:C:O5'	2.14	0.47
1:6:706:A:H2'	1:6:707:A:O4'	2.14	0.47
5:S3:140:GLY:HA3	5:S3:182:LEU:HB3	1.97	0.47
1:2:1394:G:C2	1:2:1405:G:C2	3.02	0.47
7:S5:136:ALA:HB1	7:S5:175:LEU:HD21	3.18	0.47
49:M3:57:VAL:HB	49:M3:112:ASN:HD21	1.80	0.47
60:N4:63:ILE:HD12	60:N4:64:THR:H	5.29	0.47
36:5:1259:A:H5''	36:5:1260:A:OP2	2.15	0.47
1:2:495:C:H3'	1:2:496:G:O4'	2.15	0.47
16:C4:63:ALA:C	16:C4:65:GLN:H	2.17	0.47
36:1:1373:A:OP2	64:N8:7:LYS:NZ	2.47	0.47
36:1:794:U:OP1	64:N8:7:LYS:HB2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1414:U:H3'	1:2:1415:U:H5''	1.97	0.47
56:N0:4:PHE:O	56:N0:100:VAL:HG11	3.02	0.47
8:S6:194:LYS:HD2	1:6:178:U:O4	326.43	0.47
36:1:2890:A:N1	36:1:2913:C:N3	2.62	0.47
47:M0:65:LEU:HA	47:M0:65:LEU:HD23	1.47	0.47
44:L7:236:ILE:HA	44:L7:236:ILE:HD12	1.67	0.47
1:6:9:U:O4	87:6:2151:OHX:N3	2.47	0.47
1:2:432:G:N3	1:2:432:G:H2'	2.30	0.47
1:2:1641:C:C5	88:2:2181:GET:H931	2.49	0.47
20:C8:5:VAL:HA	20:C8:6:GLN:OE1	6.23	0.47
46:L9:12:VAL:HG22	46:L9:79:ILE:HD11	2.98	0.47
1:6:542:A:OP1	1:6:544:A:C4	2.67	0.47
47:M0:88:ARG:HD2	47:M0:173:PHE:CE2	2.49	0.47
47:M0:42:THR:OG1	47:M0:43:VAL:N	2.84	0.47
44:L7:83:LEU:HD21	44:L7:116:PHE:HD1	1.98	0.47
10:S8:58:LEU:O	10:S8:59:ARG:HB2	2.13	0.47
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.44	0.47
19:C7:45:ARG:NH2	1:6:1331:A:OP1	412.34	0.47
19:C7:35:CYS:HB2	19:C7:47:ARG:HD3	1.95	0.47
5:S3:96:LEU:O	5:S3:188:ILE:HD13	4.13	0.47
36:1:812:G:C2	36:1:929:A:C2	3.03	0.47
18:C6:21:HIS:HD2	18:C6:66:ARG:HG2	5.16	0.47
18:C6:38:LEU:O	18:C6:40:GLU:N	2.48	0.47
76:Q0:122:ARG:NH1	76:Q0:122:ARG:HG3	2.10	0.47
5:S3:45:LYS:HG2	5:S3:82:GLY:O	2.13	0.47
64:N8:66:ALA:HA	64:N8:69:TRP:N	3.74	0.47
1:6:894:U:C2	1:6:919:A:C2	3.03	0.47
16:C4:23:PHE:CE2	16:C4:95:GLY:HA2	4.06	0.47
23:D1:53:TYR:CD1	23:D1:53:TYR:N	3.34	0.47
4:S2:162:CYS:O	4:S2:164:SER:N	2.47	0.47
14:C2:90:LYS:HB3	14:C2:91:VAL:H	1.62	0.47
1:2:1458:G:N3	1:2:1458:G:H2'	2.28	0.47
36:1:2631:U:OP1	36:1:2757:U:O2'	2.25	0.47
44:L7:224:ILE:HG23	56:N0:36:ILE:HG13	3.88	0.47
72:O6:79:SER:OG	72:O6:81:THR:HG23	6.30	0.47
39:L2:152:SER:OG	39:L2:154:ALA:N	2.44	0.47
36:1:770:G:OP1	49:M3:171:ARG:NH2	2.47	0.47
35:SM:115:LYS:O	35:SM:117:LEU:N	2.48	0.47
8:S6:70:PRO:C	8:S6:98:ARG:HH11	2.16	0.47
64:N8:27:LYS:O	64:N8:28:HIS:HB2	4.56	0.47
36:5:928:C:H2'	36:5:929:A:H8	1.75	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:835:G:HO2'	36:5:836:A:P	2.38	0.47
36:1:1098:A:O5'	57:N1:129:LYS:HB3	2.13	0.47
49:M3:58:VAL:O	49:M3:69:VAL:HG22	2.43	0.47
51:M5:170:LYS:C	51:M5:172:ARG:N	2.68	0.47
13:C1:97:TYR:O	13:C1:99:ARG:HG2	2.13	0.47
1:6:1081:A:N1	1:6:1091:A:C2	2.82	0.47
36:5:2131:A:N6	36:5:2132:C:O2	2.46	0.47
38:8:41:A:C8	38:8:42:G:C8	3.03	0.47
13:C1:101:GLU:OE1	25:D3:13:ARG:NH2	3.69	0.47
46:L9:172:ILE:HG13	76:Q0:90:ASN:HB3	2.98	0.47
48:M1:23:VAL:HG12	48:M1:24:GLY:N	4.50	0.47
36:5:438:A:C8	36:5:439:C:C5	3.02	0.47
4:S2:40:LYS:HA	4:S2:43:ARG:HD3	4.66	0.47
1:6:1381:U:C2'	1:6:1382:A:H5'	2.45	0.47
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.96	0.47
1:2:450:U:H2'	1:2:451:A:C8	2.50	0.47
1:2:200:A:H2'	1:2:201:G:H8	1.79	0.47
25:D3:19:ARG:O	25:D3:23:ARG:N	2.48	0.47
36:1:1288:U:H2'	36:1:1289:G:H8	1.79	0.47
36:5:2149:A:H62	36:5:2187:G:H21	1.62	0.47
42:L5:68:THR:CG2	42:L5:70:THR:H	2.25	0.47
36:1:517:G:O5'	44:L7:60:ARG:NH2	2.44	0.47
11:S9:7:THR:OG1	11:S9:8:TYR:N	2.46	0.47
64:N8:49:HIS:O	64:N8:50:PRO:C	2.50	0.47
15:C3:33:VAL:HG11	15:C3:66:ILE:HD11	4.44	0.47
38:4:152:G:C6	38:4:153:U:C2	3.02	0.47
1:2:1065:A:H2'	1:2:1066:C:O4'	2.14	0.47
23:D1:65:SER:O	23:D1:68:SER:HB2	2.14	0.47
36:1:841:A:H1'	55:M9:129:GLY:HA3	1.96	0.47
36:1:2376:G:N1	36:1:2377:G:C6	2.82	0.47
7:S5:216:GLU:O	7:S5:220:VAL:HG23	2.13	0.47
36:1:1665:C:H2'	36:1:1666:G:H8	1.80	0.47
8:S6:215:ARG:HD3	8:S6:215:ARG:HA	1.75	0.47
5:S3:13:ALA:HA	5:S3:16:VAL:HB	1.97	0.47
36:1:3220:G:C2'	36:1:3221:C:H5'	2.45	0.47
36:1:2108:C:H1'	36:1:3344:A:H8	1.79	0.47
36:1:3343:G:H2'	36:1:3361:G:N2	2.30	0.47
10:S8:92:ARG:O	10:S8:92:ARG:HG3	3.18	0.47
36:1:3102:G:H21	36:1:3103:A:H1'	1.80	0.47
36:1:2370:G:C6	36:1:2371:G:C6	3.02	0.47
36:5:1643:A:H4'	36:5:1822:C:H5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1089:G:C4	36:5:1090:G:C8	3.03	0.47
1:2:1561:U:C2'	1:2:1562:G:H5'	2.44	0.47
36:5:999:G:O2'	36:5:1000:C:H5'	2.13	0.47
36:5:2199:G:H1	36:5:2245:C:H42	1.62	0.47
1:2:130:C:HO2'	1:2:131:C:P	2.38	0.47
54:M8:60:PRO:HA	54:M8:61:PRO:HD2	2.01	0.47
36:1:1843:C:O2'	36:1:1844:C:H5'	2.14	0.47
46:L9:58:HIS:HB2	36:5:3186:A:N6	322.20	0.47
69:O3:47:LYS:NZ	69:O3:104:PRO:O	4.44	0.47
36:5:26:A:C2	36:5:330:G:C5	3.02	0.47
53:M7:26:PHE:C	53:M7:26:PHE:HD2	2.18	0.47
20:C8:11:PHE:CD2	20:C8:11:PHE:C	3.54	0.47
34:SR:88:THR:HG22	34:SR:104:VAL:HG13	5.34	0.47
1:2:750:U:H2'	1:2:751:G:O4'	2.15	0.47
36:5:41:G:N2	36:5:2803:A:N7	2.62	0.47
6:S4:62:LYS:HG3	6:S4:66:MET:HE3	3.79	0.47
36:5:3372:A:C6	36:5:3373:U:C4	3.02	0.47
4:S2:234:PRO:O	4:S2:235:LEU:HB3	2.15	0.47
25:D3:78:LYS:HG2	25:D3:79:ASN:N	3.93	0.47
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.15	0.47
36:1:2988:C:H2'	36:1:2989:U:C6	2.50	0.47
46:L9:89:LYS:HG2	46:L9:145:VAL:HG22	2.46	0.47
36:5:3197:G:C2	36:5:3199:G:C5	3.03	0.47
36:1:1846:C:N3	53:M7:136:ILE:HD11	2.30	0.47
1:2:473:A:N6	1:2:474:A:C2	2.83	0.47
1:2:540:G:C2	1:2:542:A:H2	2.32	0.47
47:M0:208:ASN:HB2	47:M0:211:ARG:HD2	2.76	0.47
47:M0:38:LYS:HD3	47:M0:83:ASP:OD1	4.99	0.47
47:M0:86:HIS:CD2	47:M0:87:LEU:H	2.33	0.47
36:1:1114:U:C2'	36:1:1115:G:H5'	2.45	0.47
44:L7:218:ARG:NH1	37:7:86:U:O2'	258.28	0.47
44:L7:155:LYS:HB2	44:L7:203:TRP:CZ3	2.49	0.47
44:L7:51:TYR:HB3	44:L7:55:TYR:CE2	3.07	0.47
45:L8:63:LYS:O	45:L8:67:ILE:N	3.30	0.47
10:S8:174:GLY:HA3	1:6:331:A:OP2	277.07	0.47
10:S8:40:ALA:O	10:S8:59:ARG:HB3	2.58	0.47
41:L4:174:ALA:O	41:L4:175:HIS:C	2.68	0.47
54:M8:26:LEU:C	54:M8:28:LEU:N	3.10	0.47
41:L4:26:PHE:HZ	41:L4:250:TRP:CZ2	2.31	0.47
43:L6:80:ASN:OD1	43:L6:81:ALA:HB3	4.00	0.47
1:2:1566:U:OP1	20:C8:42:TYR:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:203:LYS:O	7:S5:205:SER:N	3.80	0.47
7:S5:44:ASN:N	7:S5:44:ASN:HD22	2.13	0.47
1:2:1477:G:H1	1:2:1530:C:H42	1.61	0.47
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.80	0.47
20:C8:26:ILE:HG12	20:C8:31:ALA:HB2	1.96	0.47
27:D5:90:LYS:O	27:D5:101:TYR:HA	2.14	0.47
46:L9:90:MET:O	46:L9:144:ILE:N	2.40	0.47
67:O1:89:LEU:HA	67:O1:89:LEU:HD12	1.59	0.47
35:SM:34:LYS:HA	35:SM:34:LYS:HD3	4.22	0.47
12:C0:56:LYS:N	12:C0:67:THR:O	2.96	0.47
17:C5:10:ARG:O	17:C5:12:PHE:HD2	6.00	0.47
48:M1:110:ILE:C	48:M1:112:LEU:H	2.47	0.47
1:2:1500:C:H2'	1:2:1501:C:H6	1.79	0.47
1:2:1553:G:N2	1:2:1556:A:OP2	2.46	0.47
21:C9:108:LEU:HB3	21:C9:114:VAL:CG2	5.31	0.47
21:C9:57:ARG:O	21:C9:61:VAL:HG23	2.40	0.47
5:S3:77:PHE:HB2	5:S3:79:TYR:HD2	3.00	0.47
77:Q1:13:LEU:HD22	77:Q1:17:ARG:NH1	4.39	0.47
42:L5:41:LYS:HG2	57:N1:93:VAL:HG11	1.96	0.47
16:C4:28:VAL:HG11	16:C4:64:ALA:HA	3.19	0.47
3:S1:133:TYR:CD1	3:S1:221:PRO:HD2	2.50	0.47
23:D1:74:GLN:C	23:D1:77:GLY:H	2.87	0.47
2:S0:52:LYS:O	2:S0:53:THR:C	2.96	0.47
23:D1:1:MET:HG3	23:D1:9:VAL:O	2.15	0.47
2:S0:60:ALA:CB	2:S0:160:ILE:HD11	3.95	0.47
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.97	0.47
4:S2:68:ILE:O	4:S2:72:LEU:HD22	2.15	0.47
48:M1:159:THR:O	48:M1:163:PHE:N	2.46	0.47
63:N7:75:VAL:HG11	63:N7:80:LEU:HD11	2.91	0.47
63:N7:87:LEU:HD12	63:N7:88:ASP:N	2.29	0.47
43:L6:4:GLN:HG3	68:O2:74:PHE:HE2	1.79	0.47
55:M9:101:VAL:HA	55:M9:104:ARG:HH12	2.17	0.47
63:N7:27:LYS:HG2	63:N7:42:LEU:HD22	2.01	0.47
66:O0:41:LEU:O	66:O0:92:ILE:HB	2.13	0.47
55:M9:17:VAL:HG12	55:M9:18:GLY:H	1.78	0.47
55:M9:4:LEU:HG	36:5:1471:U:O2'	112.21	0.47
73:O7:74:PHE:O	73:O7:77:GLY:N	2.47	0.47
1:2:1483:A:C5	1:2:1484:G:N7	2.82	0.47
14:C2:127:GLY:H	35:SM:168:GLU:CB	5.31	0.47
1:2:1454:G:N2	1:2:1455:G:H1'	2.29	0.47
1:2:1171:A:O2'	1:2:1570:A:H2'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:142:HIS:CD2	6:S4:143:ASP:N	3.71	0.47
6:S4:157:ASN:ND2	6:S4:222:LEU:HD11	5.28	0.47
56:N0:133:ALA:HB2	56:N0:141:LYS:HZ1	3.95	0.47
57:N1:78:LYS:HG3	57:N1:79:MET:N	2.87	0.47
60:N4:2:LYS:HG2	60:N4:3:VAL:O	2.52	0.47
59:N3:84:SER:HA	59:N3:93:LEU:O	2.15	0.47
36:5:3225:C:H2'	36:5:3226:A:H8	1.78	0.47
69:O3:69:GLY:HA3	69:O3:85:PHE:HA	2.27	0.47
9:S7:131:PHE:HB3	9:S7:132:PRO:CD	2.45	0.47
9:S7:91:ILE:HD11	9:S7:129:LEU:O	2.14	0.47
42:L5:256:THR:HG21	37:7:120:C:P	300.79	0.47
18:C6:47:LYS:CE	18:C6:114:ARG:HH22	2.26	0.47
29:D7:62:ILE:HG12	29:D7:74:SER:OG	2.15	0.47
62:N6:38:GLU:HG2	62:N6:39:LEU:HD23	1.96	0.47
36:1:2818:U:H5''	65:N9:2:ALA:HB2	1.97	0.47
40:L3:205:VAL:O	40:L3:208:VAL:HG23	3.90	0.47
41:L4:55:LYS:HB3	41:L4:59:GLN:HE21	7.30	0.47
36:1:2818:U:C6	36:1:2818:U:C5'	2.93	0.47
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	4.30	0.47
3:S1:82:ARG:NH1	3:S1:191:GLU:HG3	5.28	0.47
40:L3:167:ARG:HH11	40:L3:167:ARG:HG3	1.79	0.47
4:S2:87:GLN:CG	4:S2:96:THR:HB	3.76	0.47
40:L3:177:HIS:CG	40:L3:335:ILE:HD13	2.50	0.47
36:1:1856:C:C4	36:1:1857:C:C5	3.02	0.47
8:S6:68:LEU:HA	8:S6:68:LEU:HD13	1.90	0.47
72:O6:62:ARG:HH22	72:O6:98:ARG:HH12	1.63	0.47
57:N1:101:CYS:SG	57:N1:102:ARG:N	2.88	0.47
49:M3:80:VAL:HA	49:M3:116:LEU:HD12	3.79	0.47
1:6:631:G:C2	1:6:632:U:C2	3.02	0.47
36:1:3141:A:C6	36:1:3144:G:C4	3.03	0.47
36:5:3033:A:OP2	87:5:3981:OHX:N5	2.47	0.47
53:M7:101:ASN:ND2	36:5:389:A:H4'	119.67	0.47
79:Q3:11:THR:HG23	79:Q3:14:TYR:CD2	2.50	0.47
71:O5:74:LYS:HB3	71:O5:75:TYR:CD2	2.49	0.47
1:2:586:G:C6	1:2:587:C:C4	3.03	0.47
1:2:634:G:C2	1:2:966:A:C6	3.03	0.47
1:2:729:G:N3	1:2:729:G:H2'	2.29	0.47
35:SM:51:ARG:NH1	35:SM:52:PRO:HD2	7.66	0.47
36:1:2770:G:H2'	36:1:2771:U:H5'	1.97	0.47
36:5:438:A:C8	36:5:439:C:H5	2.33	0.47
60:N4:34:SER:O	60:N4:37:ALA:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1580:A:HO2'	36:5:1581:C:P	2.35	0.47
67:O1:102:LYS:HA	67:O1:102:LYS:NZ	3.41	0.47
52:M6:47:PHE:HE2	52:M6:141:LEU:HA	3.03	0.47
4:S2:173:PRO:HG2	4:S2:176:SER:OG	3.99	0.47
36:5:1403:C:C2	36:5:1409:G:N2	2.82	0.47
37:3:35:C:N4	37:3:45:A:C2	2.82	0.47
1:6:1370:U:O3'	1:6:1371:A:H4'	2.14	0.47
22:D0:24:ILE:HG23	22:D0:116:VAL:HG13	2.68	0.47
22:D0:32:LYS:HB3	22:D0:33:GLN:OE1	2.14	0.47
1:2:804:A:N3	24:D2:105:THR:HG22	2.30	0.47
34:SR:127:ARG:C	34:SR:129:LYS:H	2.18	0.47
36:5:1193:A:H2'	36:5:1194:G:O4'	2.14	0.47
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.68	0.47
1:2:91:G:C4	1:2:92:A:C8	3.03	0.47
36:1:1488:G:H2'	36:1:1489:A:H8	1.80	0.47
1:2:200:A:H2'	1:2:201:G:C8	2.48	0.47
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.26	0.47
36:1:19:U:H3	38:4:140:G:H1	1.62	0.47
3:S1:115:ARG:NH1	3:S1:115:ARG:HG3	4.75	0.47
55:M9:62:ARG:NH2	36:5:3068:U:OP2	171.96	0.47
36:5:3203:U:H2'	36:5:3204:C:C6	2.50	0.47
1:6:811:A:HO2'	1:6:858:G:H8	1.62	0.47
36:1:953:G:C8	36:1:1117:G:C8	3.02	0.47
56:N0:41:TYR:O	56:N0:45:LEU:HB2	2.18	0.47
52:M6:95:GLY:O	52:M6:98:ALA:HB3	2.87	0.47
36:5:1659:U:O4	87:5:4192:OHX:N4	2.47	0.47
54:M8:178:ARG:HA	54:M8:178:ARG:HD3	1.65	0.47
36:1:505:G:OP1	41:L4:320:ASN:ND2	2.37	0.47
1:6:701:U:H2'	1:6:702:G:C8	2.50	0.47
24:D2:12:ASN:O	24:D2:16:ASN:N	2.78	0.47
36:5:195:U:H2'	36:5:196:G:H8	1.80	0.47
1:2:112:A:H61	1:2:301:A:N6	2.13	0.47
36:1:731:U:H2'	36:1:732:C:H6	1.80	0.47
13:C1:110:HIS:HB2	13:C1:135:VAL:HG11	1.97	0.47
13:C1:57:LYS:HE2	13:C1:131:ILE:HD12	1.96	0.47
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.96	0.47
58:N2:28:PHE:CZ	58:N2:33:TYR:HB2	3.34	0.47
36:5:2661:G:N2	36:5:2709:C:O2	2.47	0.47
42:L5:289:LYS:O	42:L5:292:ALA:HB3	3.50	0.47
36:1:398:A:C5	53:M7:3:ARG:NH2	2.82	0.47
9:S7:182:VAL:HG12	9:S7:183:PHE:H	1.92	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:145:A:O2'	1:2:146:U:O5'	2.29	0.47
36:1:880:G:OP2	53:M7:131:ARG:HD2	2.14	0.47
6:S4:132:GLY:N	6:S4:136:VAL:O	2.41	0.47
1:6:1692:G:H2'	1:6:1693:A:C8	2.50	0.47
52:M6:46:GLU:HB3	52:M6:134:LYS:HE3	1.97	0.47
36:1:650:C:O2'	36:1:651:G:H5'	2.15	0.47
36:1:1273:A:H2'	36:1:1274:A:C8	2.50	0.47
1:6:218:A:H2'	1:6:219:A:H5''	1.97	0.47
40:L3:3:HIS:C	40:L3:3:HIS:ND1	3.15	0.47
41:L4:305:ALA:HA	36:5:1347:U:O4'	196.61	0.47
36:5:592:A:C5	36:5:593:C:C4	3.02	0.47
36:1:1270:A:C2	36:1:1271:A:H1'	2.49	0.47
36:1:718:G:C8	36:1:718:G:OP2	2.67	0.47
17:C5:56:PHE:CD1	17:C5:57:MET:HG2	2.49	0.47
17:C5:83:MET:HB3	17:C5:116:LEU:CD1	3.31	0.47
1:6:1685:G:C2	1:6:1717:G:C4	3.03	0.47
1:2:874:C:H2'	1:2:875:G:C8	2.50	0.47
36:1:603:A:H2'	36:1:604:G:O4'	2.15	0.47
19:C7:71:PHE:HE1	19:C7:73:LEU:HD22	1.76	0.47
36:1:3101:G:H2'	36:1:3102:G:H8	1.79	0.47
36:1:1412:G:C4	36:1:1413:G:C8	3.03	0.47
36:5:1032:C:H5'	36:5:1033:U:OP2	2.15	0.47
59:N3:30:GLY:HA3	59:N3:66:LYS:CD	3.60	0.47
36:1:1621:A:H2'	36:1:1622:U:C6	2.50	0.47
45:L8:106:LYS:HE2	45:L8:106:LYS:C	2.34	0.47
1:6:1041:G:N2	1:6:1042:G:C2	2.83	0.47
36:5:2218:G:H2'	36:5:2219:A:C8	2.49	0.47
6:S4:95:THR:HB	26:D4:16:PRO:HG2	3.80	0.47
1:2:1061:A:H3'	1:2:1062:A:C2	2.49	0.47
41:L4:342:LYS:HE2	44:L7:56:GLU:OE2	2.90	0.47
36:1:795:G:C2'	36:1:796:U:H5'	2.44	0.47
1:6:1111:G:C2	1:6:1135:U:C2	3.03	0.47
36:1:826:G:C4	36:1:827:A:C8	3.02	0.47
36:5:2885:C:H2'	36:5:2886:U:H5'	1.96	0.47
62:N6:76:LEU:HB2	38:8:74:U:OP2	56.96	0.47
74:O8:25:VAL:HB	74:O8:77:ARG:HA	1.96	0.47
36:1:2117:A:H1'	36:1:3077:A:H2	1.80	0.47
1:2:268:C:H42	1:2:287:G:H1	1.62	0.47
36:1:802:C:C2'	36:1:803:C:H5'	2.44	0.47
87:8:220:OHX:N5	87:8:229:OHX:N3	2.62	0.47
36:1:1056:U:C4	36:1:1057:A:N7	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1110:U:O4	87:1:3979:OHX:N5	2.48	0.47
44:L7:208:SER:OG	36:5:1166:G:N2	244.01	0.47
36:5:867:G:C6	36:5:868:C:C4	3.02	0.47
36:1:850:U:H2'	36:1:851:C:H6	1.80	0.47
1:2:1214:U:C4	1:2:1215:C:C4	3.03	0.47
49:M3:60:ALA:H	36:5:75:G:H5'	92.02	0.47
1:2:416:A:H4'	1:2:417:A:OP2	2.13	0.47
1:2:170:U:OP1	1:2:267:U:O2'	2.24	0.47
42:L5:131:LEU:HA	42:L5:131:LEU:HD13	3.87	0.47
36:5:1142:G:O5'	36:5:1142:G:H8	1.98	0.47
67:O1:97:LEU:HD23	67:O1:97:LEU:HA	2.28	0.47
36:5:1776:G:N2	36:5:1777:U:C2	2.83	0.47
36:1:1003:A:C6	36:1:1004:U:C4	3.03	0.47
15:C3:40:TYR:CZ	15:C3:53:LEU:HD21	2.49	0.47
1:6:431:C:H6	1:6:431:C:O5'	1.98	0.47
36:1:819:U:H2'	36:1:820:A:C8	2.50	0.47
36:5:2220:A:H2'	36:5:2221:G:O4'	2.13	0.47
46:L9:12:VAL:O	46:L9:51:GLN:HA	2.14	0.47
64:N8:54:GLY:N	36:5:94:G:OP2	170.16	0.47
53:M7:127:ARG:HB2	53:M7:127:ARG:HH11	1.80	0.47
53:M7:36:ILE:O	53:M7:39:TRP:N	2.40	0.47
53:M7:85:ALA:C	53:M7:87:SER:N	3.09	0.47
1:6:55:A:H1'	1:6:426:G:N2	2.29	0.47
44:L7:160:ARG:HB2	44:L7:203:TRP:CD2	2.49	0.47
36:1:695:C:OP1	41:L4:271:LYS:NZ	2.34	0.47
41:L4:50:TYR:CE2	41:L4:109:TRP:HH2	2.84	0.47
54:M8:24:VAL:HG23	54:M8:25:TYR:HD2	7.71	0.47
1:2:1533:C:H5''	1:2:1534:G:OP2	2.15	0.47
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.97	0.47
27:D5:40:VAL:O	27:D5:75:LEU:HD11	2.93	0.47
30:D8:25:VAL:HG11	30:D8:66:LEU:HD12	1.96	0.47
7:S5:190:ILE:HG12	7:S5:191:ALA:H	3.89	0.47
7:S5:195:ALA:O	7:S5:197:GLU:N	2.48	0.47
67:O1:56:ASN:O	67:O1:59:ILE:N	3.64	0.47
61:N5:95:ILE:O	61:N5:99:VAL:HG23	2.96	0.47
1:2:1672:G:H8	1:2:1672:G:O5'	1.97	0.47
36:1:1024:G:N2	36:1:1026:A:C8	2.82	0.47
1:2:1281:G:OP1	22:D0:78:THR:OG1	2.30	0.47
12:C0:70:GLU:H	12:C0:70:GLU:HG2	1.39	0.47
31:D9:14:TYR:CE1	1:6:1553:G:H4'	406.52	0.47
36:1:313:A:C6	36:1:314:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.15	0.47
28:D6:44:ILE:CB	28:D6:65:PRO:HG2	5.72	0.47
3:S1:29:TRP:CZ2	3:S1:47:LEU:HD23	6.08	0.47
3:S1:38:PHE:HA	3:S1:74:GLN:HE22	4.16	0.47
2:S0:4:PRO:HD3	2:S0:62:ARG:HH22	1.80	0.47
2:S0:86:VAL:HG12	2:S0:174:TRP:CZ2	2.49	0.47
1:2:1300:A:C5'	4:S2:86:VAL:HG11	2.44	0.47
36:5:678:G:C4	36:5:679:U:C5	3.03	0.47
54:M8:67:ILE:O	54:M8:68:ALA:C	3.02	0.47
1:6:794:U:H2'	1:6:794:U:OP2	2.14	0.47
4:S2:143:TYR:CE1	4:S2:151:PRO:HG3	2.52	0.47
63:N7:136:PHE:HB2	70:O4:88:ARG:HG3	4.00	0.47
55:M9:46:LYS:NZ	36:5:1766:G:OP2	98.48	0.47
1:6:1595:U:N3	1:6:1600:A:C2	2.73	0.47
36:5:559:A:C3'	36:5:559:A:C8	2.98	0.47
8:S6:163:THR:OG1	8:S6:164:LYS:N	2.46	0.47
8:S6:167:LYS:HG3	8:S6:168:THR:N	4.16	0.47
56:N0:11:GLY:HA2	56:N0:59:VAL:HG23	1.97	0.47
26:D4:123:LYS:HA	26:D4:126:ALA:HB3	1.97	0.47
36:5:1236:G:H3'	36:5:1237:G:C5'	2.45	0.47
1:2:1170:G:H1'	1:2:1574:G:H1'	1.96	0.47
36:5:3158:G:H2'	36:5:3159:C:H5'	1.96	0.47
87:1:3976:OHX:N5	87:1:4154:OHX:N2	2.63	0.47
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.74	0.47
40:L3:106:TRP:CH2	40:L3:161:LEU:HD22	5.69	0.47
36:1:2243:A:N7	39:L2:245:LEU:HD22	2.30	0.47
39:L2:4:VAL:HG13	39:L2:8:GLN:NE2	3.00	0.47
36:1:3005:A:H5'	40:L3:98:GLY:HA3	1.97	0.47
39:L2:187:HIS:ND1	39:L2:190:ARG:NH2	2.63	0.47
36:5:2697:A:C2	36:5:2698:G:C5	3.02	0.47
25:D3:24:TRP:CZ3	25:D3:30:LYS:HG3	2.77	0.47
1:2:386:G:C6	1:2:387:A:N6	2.83	0.47
1:6:389:G:O6	1:6:408:C:N4	2.43	0.47
10:S8:5:ARG:HG3	10:S8:28:GLU:O	2.37	0.47
36:5:3082:C:O2'	36:5:3083:G:H5'	2.15	0.47
36:5:782:U:O4	36:5:783:A:C6	2.67	0.47
64:N8:123:VAL:H	64:N8:143:GLY:HA2	2.84	0.47
36:5:206:G:C4	36:5:207:U:C5	3.03	0.47
36:5:3121:U:C1'	36:5:3122:A:H5''	2.42	0.47
46:L9:7:GLU:HA	46:L9:55:VAL:O	2.14	0.47
79:Q3:55:TRP:O	79:Q3:64:VAL:N	2.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3135:U:H2'	36:1:3136:G:O4'	2.15	0.47
36:5:181:U:C4	36:5:182:U:C5	3.02	0.47
33:E1:91:ILE:HD12	1:6:1445:G:N7	389.18	0.47
56:N0:82:ASP:HB3	56:N0:87:THR:CB	2.45	0.47
36:1:15:C:N4	36:1:16:A:H62	2.12	0.47
42:L5:181:PRO:HD2	42:L5:195:LEU:HD13	3.72	0.47
36:1:3390:G:C2	36:1:3391:A:C8	3.03	0.47
36:1:383:G:N7	87:1:4091:OHX:N6	2.63	0.47
36:1:3281:U:H2'	36:1:3282:U:H6	1.78	0.47
9:S7:154:LEU:HD21	9:S7:183:PHE:CD1	2.42	0.47
36:5:128:G:H2'	36:5:129:U:C6	2.50	0.47
36:1:2563:G:H5'	45:L8:28:HIS:O	2.14	0.47
1:2:599:A:C6	1:2:600:U:N3	2.83	0.47
57:N1:17:ARG:HB2	57:N1:22:HIS:CE1	3.33	0.47
36:1:1166:G:O5'	36:1:1166:G:H8	1.98	0.47
42:L5:276:LYS:HE3	42:L5:276:LYS:HB2	3.77	0.47
36:1:725:G:OP2	87:1:3975:OHX:N6	2.48	0.47
36:1:260:C:H6	36:1:260:C:O5'	1.97	0.47
73:O7:11:ARG:HE	73:O7:11:ARG:HB3	1.16	0.47
36:1:3101:G:H2'	36:1:3102:G:C8	2.49	0.47
12:C0:31:LYS:O	12:C0:39:ASN:HB2	5.55	0.47
36:5:1345:G:C2	36:5:1360:C:C2	3.03	0.47
36:5:2580:A:O2'	87:5:4125:OHX:N1	2.48	0.47
36:5:1881:A:C2	36:5:1882:G:C8	3.03	0.47
1:6:1134:C:H2'	1:6:1135:U:C6	2.49	0.47
36:1:1715:A:C8	36:1:1717:U:O4'	2.68	0.47
38:8:74:U:O2'	38:8:76:C:OP2	2.24	0.47
40:L3:6:TYR:HB2	59:N3:46:LEU:HD22	1.97	0.47
36:1:819:U:H2'	36:1:820:A:H8	1.79	0.47
3:S1:20:VAL:O	3:S1:21:VAL:HG13	2.39	0.47
36:5:614:C:H2'	36:5:615:U:H6	1.80	0.47
36:5:3112:G:O6	36:5:3120:C:H5''	2.14	0.47
63:N7:114:VAL:O	63:N7:117:ALA:HB3	2.15	0.47
64:N8:70:LYS:N	64:N8:71:PRO:HD3	2.45	0.47
36:5:2694:A:H5''	36:5:2695:A:OP2	2.14	0.47
36:1:688:G:O5'	36:1:688:G:H8	1.97	0.47
19:C7:119:LEU:H	19:C7:119:LEU:HD12	1.79	0.47
36:5:104:G:O2'	36:5:698:U:O2	2.26	0.47
69:O3:56:SER:O	69:O3:63:LYS:HD3	4.31	0.47
25:D3:93:LEU:O	25:D3:96:VAL:HG23	2.15	0.47
1:2:1757:G:OP2	88:2:2181:GET:H222	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1444:G:H1	36:1:2359:C:N4	2.12	0.47
36:1:2357:A:C6	36:1:2983:C:H5	2.33	0.47
1:2:54:C:O2'	1:2:459:G:N7	2.44	0.47
1:2:1795:U:O2'	1:2:1797:A:N7	2.43	0.47
1:2:542:A:H5''	1:2:544:A:N7	2.30	0.47
11:S9:135:ALA:O	11:S9:156:ILE:HA	2.33	0.47
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.15	0.47
47:M0:149:VAL:HG12	47:M0:150:GLU:N	2.29	0.47
44:L7:55:TYR:CE2	44:L7:141:TYR:CE2	3.03	0.47
44:L7:189:ILE:HG23	44:L7:190:THR:HG23	2.64	0.47
1:6:328:A:N1	1:6:341:A:C6	2.83	0.47
13:C1:16:GLN:OE1	13:C1:34:TRP:N	3.14	0.47
36:1:934:G:C4	36:1:935:U:C5	3.02	0.47
5:S3:209:ILE:HG22	19:C7:38:ILE:O	2.15	0.47
17:C5:108:ARG:O	17:C5:111:MET:HG3	2.32	0.47
1:6:962:C:N4	1:6:963:A:N1	2.63	0.47
3:S1:176:VAL:C	3:S1:178:GLY:H	2.17	0.47
3:S1:35:PRO:HD2	3:S1:38:PHE:HE2	1.80	0.47
2:S0:184:LEU:HD13	23:D1:43:GLY:O	3.81	0.47
2:S0:179:ARG:O	2:S0:182:LEU:HB2	2.27	0.47
54:M8:66:ARG:HB2	54:M8:66:ARG:HH11	1.79	0.47
4:S2:152:HIS:HD2	4:S2:152:HIS:H	1.62	0.47
4:S2:152:HIS:HE1	4:S2:174:ARG:HG2	4.51	0.47
68:O2:101:SER:OG	68:O2:102:ALA:N	2.46	0.47
42:L5:268:GLU:HG3	42:L5:269:SER:N	3.68	0.47
8:S6:138:ALA:HB1	8:S6:153:VAL:HG11	6.07	0.47
34:SR:59:ARG:HG3	34:SR:59:ARG:HH11	3.30	0.47
36:5:2968:G:C2	36:5:2969:A:C8	3.03	0.47
87:5:3973:OHX:N2	87:5:4193:OHX:N1	2.62	0.47
62:N6:61:GLY:C	62:N6:63:LYS:H	2.97	0.47
39:L2:131:GLY:H	39:L2:169:ILE:HG22	1.80	0.47
49:M3:164:GLU:O	49:M3:166:ALA:N	2.48	0.47
64:N8:129:PHE:CE1	72:O6:9:ILE:HB	5.10	0.47
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.50	0.47
1:2:1102:G:OP1	24:D2:76:SER:OG	2.25	0.47
39:L2:207:VAL:HG21	36:5:916:G:C2	183.09	0.47
39:L2:8:GLN:OE1	39:L2:232:GLY:HA3	3.14	0.47
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	2.91	0.47
51:M5:156:HIS:HA	51:M5:162:ARG:HH22	2.66	0.47
71:O5:46:THR:O	71:O5:49:LYS:HB2	5.45	0.47
41:L4:145:ILE:HD13	41:L4:247:PHE:CE1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:79:GLU:O	4:S2:102:VAL:HG22	2.15	0.47
36:1:2847:A:OP1	76:Q0:97:ARG:NH2	2.47	0.47
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	2.54	0.47
37:7:26:C:C4	37:7:27:A:C5	3.02	0.47
36:1:2274:U:O2'	36:1:2275:A:H5'	2.15	0.47
36:1:2961:G:C5	36:1:2962:U:C5	3.03	0.47
60:N4:8:PHE:CD2	60:N4:40:PHE:HB2	2.50	0.47
45:L8:37:GLY:HA3	36:5:2550:U:C5	210.76	0.47
42:L5:46:THR:HA	42:L5:47:PRO:HD3	2.49	0.47
36:5:2689:A:N3	36:5:2689:A:H2'	2.30	0.47
5:S3:9:ARG:HH12	1:6:1490:C:C5'	436.88	0.47
36:5:1693:C:HO2'	36:5:1772:U:HO2'	1.63	0.47
46:L9:70:THR:HG21	36:5:3122:A:N1	324.93	0.47
36:5:1615:C:H2'	36:5:1616:U:C6	2.38	0.47
36:1:1287:A:C5	36:1:1288:U:C5	3.03	0.47
38:4:97:A:C2	38:4:98:U:C2	3.03	0.47
1:2:621:A:N3	1:2:1107:G:H1'	2.29	0.47
36:1:1340:G:H4'	68:O2:55:ILE:CD1	2.45	0.47
40:L3:250:ALA:HB3	36:5:2880:U:H1'	224.56	0.47
36:5:2857:C:H2'	36:5:2857:C:O2	2.13	0.47
8:S6:78:THR:HG22	8:S6:79:LYS:N	2.29	0.47
40:L3:92:TYR:HA	40:L3:100:ARG:O	2.55	0.47
36:1:1780:G:H2'	36:1:1781:C:C6	2.49	0.47
1:6:835:U:OP1	87:6:2209:OHX:N1	2.48	0.47
36:5:1346:G:C6	36:5:1347:U:C4	3.02	0.47
66:O0:75:ASN:HD21	79:Q3:43:GLY:HA3	1.80	0.47
48:M1:125:MET:SD	48:M1:127:PHE:CE1	3.60	0.47
43:L6:69:PHE:CE1	36:5:3268:A:C4	259.28	0.47
43:L6:47:PHE:CD1	43:L6:74:VAL:HG22	3.71	0.47
3:S1:119:THR:HG21	3:S1:156:ALA:HB3	1.96	0.47
51:M5:68:ARG:HA	51:M5:98:LEU:HD21	4.25	0.47
1:6:1357:A:H2'	1:6:1358:G:C8	2.50	0.47
2:S0:21:ASN:O	2:S0:24:LEU:N	3.15	0.47
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	2.76	0.47
57:N1:114:ALA:O	57:N1:115:LYS:C	2.81	0.47
36:1:511:G:C5	36:1:512:U:C5	3.03	0.47
40:L3:260:VAL:O	52:M6:64:PHE:HB2	2.14	0.47
36:5:2955:U:H2'	36:5:2956:A:O4'	2.15	0.47
87:1:4194:OHX:N4	43:L6:129:GLU:HA	2.30	0.47
36:1:692:A:H2'	36:1:693:A:H8	1.80	0.47
36:1:945:C:C2	36:1:946:U:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:151:ASN:O	87:C3:201:OHX:N6	2.80	0.47
36:5:177:U:O4	36:5:239:G:N2	2.48	0.47
36:1:1414:G:C5	36:1:1415:U:C5	3.03	0.47
55:M9:111:ASP:C	55:M9:113:GLY:H	3.49	0.47
43:L6:175:LYS:NZ	50:M4:111:ALA:HA	4.51	0.47
65:N9:42:ASN:O	65:N9:42:ASN:ND2	2.48	0.47
10:S8:64:ASN:HB3	10:S8:180:ASP:OD1	2.19	0.47
1:2:374:U:H2'	1:2:375:U:O4'	2.15	0.47
8:S6:204:ALA:C	8:S6:206:ALA:H	2.18	0.47
36:5:2658:G:OP2	87:5:3903:OHX:N1	2.47	0.47
1:2:1757:G:N2	36:1:2255:A:N3	2.63	0.47
27:D5:41:ILE:HG23	27:D5:42:LEU:N	2.23	0.47
36:5:3200:G:O6	87:5:4139:OHX:N5	2.47	0.47
46:L9:89:LYS:HZ2	46:L9:191:LEU:HG	15.55	0.47
36:1:1470:U:O2'	36:1:1512:U:H4'	2.15	0.47
1:2:540:G:C2	1:2:542:A:C2	3.03	0.47
1:6:31:C:O2'	1:6:547:U:H5''	2.15	0.47
44:L7:127:LEU:O	44:L7:130:ILE:HG22	6.46	0.47
45:L8:69:LEU:HD11	51:M5:24:ARG:NH2	3.72	0.47
51:M5:16:SER:HB2	72:O6:48:ALA:HB1	1.96	0.47
1:2:93:A:O2'	6:S4:4:GLY:HA3	2.15	0.47
36:5:1393:A:O2'	36:5:1419:A:C2	2.68	0.47
1:6:1405:G:C6	1:6:1406:A:C5	3.03	0.47
19:C7:60:ARG:O	19:C7:63:LYS:HB3	4.52	0.47
27:D5:39:ALA:HB1	27:D5:72:GLY:N	2.30	0.47
27:D5:95:HIS:ND1	27:D5:96:SER:N	3.13	0.47
30:D8:42:ARG:NH2	30:D8:58:GLU:O	6.12	0.47
1:2:1611:A:O2'	7:S5:95:ASN:O	2.25	0.47
67:O1:19:ARG:HD3	67:O1:35:GLU:HG3	1.97	0.47
1:6:1640:C:H1'	1:6:1763:A:C6	2.49	0.47
16:C4:35:GLY:C	16:C4:36:LYS:O	4.18	0.47
28:D6:53:LEU:O	28:D6:55:GLU:N	2.48	0.47
16:C4:117:ASP:HB2	28:D6:67:THR:HG21	1.97	0.47
19:C7:84:TYR:CG	19:C7:85:VAL:N	2.83	0.47
23:D1:46:ILE:H	23:D1:46:ILE:HD12	5.00	0.47
4:S2:184:VAL:O	4:S2:188:LEU:HB2	2.15	0.47
20:C8:18:LEU:C	20:C8:20:THR:H	2.54	0.47
66:O0:29:SER:OG	66:O0:30:THR:N	3.28	0.47
70:O4:78:GLY:O	70:O4:80:ARG:N	4.99	0.47
36:5:1477:A:O2'	36:5:1478:C:H5'	2.14	0.47
14:C2:52:LEU:HD11	14:C2:60:VAL:HG21	3.06	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1174:G:H21	52:M6:87:MET:CE	2.28	0.47
6:S4:65:LEU:O	6:S4:68:ARG:N	2.48	0.47
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.84	0.47
5:S3:222:VAL:CG1	34:SR:229:LYS:HA	2.43	0.47
34:SR:67:ILE:HB	34:SR:85:TRP:CG	2.50	0.47
62:N6:37:LYS:N	62:N6:37:LYS:HD3	2.37	0.47
72:O6:67:LYS:HG3	72:O6:68:ARG:N	4.60	0.47
66:O0:9:SER:HB3	66:O0:12:GLN:HB3	1.97	0.47
36:1:2607:G:C4	36:1:2608:G:C8	3.02	0.47
1:2:159:U:C6	26:D4:117:LYS:HD3	2.49	0.47
64:N8:32:ARG:HD2	36:5:38:U:H4'	158.05	0.47
36:1:3043:C:O2'	36:1:3044:G:H5'	2.15	0.47
40:L3:130:PHE:CE1	36:5:3149:G:H4'	222.45	0.47
40:L3:135:ALA:C	40:L3:138:ALA:H	4.12	0.47
58:N2:51:GLY:O	58:N2:53:ALA:N	2.95	0.47
36:1:1687:U:H1'	58:N2:75:TYR:CE2	2.50	0.47
25:D3:7:ARG:HG3	1:6:1103:U:OP2	346.04	0.47
36:5:754:G:C6	36:5:779:G:C6	3.02	0.47
36:5:3032:A:N6	36:5:3033:A:C6	2.83	0.47
71:O5:78:LYS:NZ	38:8:38:U:OP2	81.82	0.47
38:8:43:A:H2'	38:8:44:A:O4'	2.14	0.47
36:1:87:U:OP1	54:M8:167:SER:HB2	2.15	0.47
36:1:645:A:C5	36:1:2372:A:C2	3.03	0.47
60:N4:31:PHE:CZ	60:N4:40:PHE:HD1	2.33	0.47
4:S2:238:SER:HA	4:S2:239:PRO:HD2	2.48	0.47
36:1:1404:G:N2	36:1:1408:G:C4	2.83	0.47
32:E0:50:VAL:HG12	32:E0:53:LYS:O	2.15	0.47
25:D3:95:PHE:CD1	25:D3:135:LEU:HB3	2.49	0.47
36:1:2533:G:H3'	36:1:2534:G:H8	1.79	0.47
62:N6:60:ARG:HB2	62:N6:103:LYS:HB3	1.97	0.47
46:L9:41:ILE:HG21	46:L9:71:VAL:HG21	1.97	0.47
36:5:2884:C:O2	36:5:2939:G:C2	2.68	0.47
36:1:1614:C:H2'	36:1:1615:C:C6	2.50	0.47
36:1:767:U:H4'	49:M3:186:ARG:NH1	2.30	0.47
68:O2:6:HIS:HB2	68:O2:7:PRO:HD2	2.26	0.47
36:1:994:G:H22	36:1:1053:A:H2'	1.79	0.47
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.14	0.47
36:1:956:U:H6	36:1:956:U:O5'	1.98	0.47
44:L7:182:ASP:O	44:L7:185:ILE:HG22	2.15	0.47
36:1:3166:C:H2'	36:1:3167:A:O4'	2.15	0.47
36:1:1245:A:H62	36:1:1272:C:H4'	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:754:A:N1	1:2:793:A:H2'	2.29	0.47
24:D2:5:SER:O	24:D2:6:VAL:HG12	5.26	0.47
41:L4:3:ARG:HA	41:L4:4:PRO:HD2	1.37	0.47
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.15	0.47
2:S0:23:HIS:NE2	2:S0:24:LEU:HD13	3.69	0.47
42:L5:134:ALA:HB2	42:L5:141:PRO:CD	3.36	0.47
36:1:2764:C:O5'	36:1:2764:C:H6	1.97	0.47
1:2:1125:A:C5	1:2:1126:G:H1'	2.50	0.47
65:N9:23:LYS:HA	65:N9:23:LYS:HD3	3.76	0.47
38:8:4:C:N4	38:8:5:U:O4	2.48	0.47
87:1:3972:OHX:N5	87:1:4155:OHX:N1	2.63	0.47
36:1:3372:A:C5	36:1:3373:U:C5	3.03	0.47
10:S8:87:ASN:O	10:S8:90:LEU:HG	2.15	0.47
22:D0:62:VAL:HG22	22:D0:85:ARG:HG3	1.97	0.47
1:6:56:U:O4	1:6:92:A:H4'	2.15	0.47
1:2:1154:G:N2	1:2:1625:C:C2	2.83	0.47
36:1:3293:U:OP2	36:1:3293:U:H6	1.98	0.47
41:L4:325:LEU:HD23	41:L4:325:LEU:HA	2.11	0.47
37:3:101:G:H8	37:3:101:G:O5'	1.98	0.47
1:2:236:A:OP2	1:2:236:A:H8	1.98	0.47
4:S2:66:PHE:CD2	4:S2:66:PHE:C	3.34	0.47
36:5:881:C:O2	36:5:881:C:H2'	2.15	0.47
40:L3:94:GLU:OE1	52:M6:155:LYS:NZ	3.95	0.47
36:1:2122:G:C6	36:1:2332:A:C2	3.03	0.47
1:2:1471:A:C8	1:2:1540:G:H1'	2.49	0.47
36:1:2955:U:C2	36:1:2956:A:C8	3.03	0.47
1:2:635:A:C4	1:2:636:A:C8	3.03	0.47
40:L3:153:LYS:HD3	40:L3:154:TYR:CZ	2.50	0.47
36:1:1203:A:N3	36:1:2855:U:O2'	2.38	0.47
1:2:654:C:H2'	1:2:655:G:H5''	1.97	0.47
36:1:2261:G:O6	87:1:3934:OHX:N4	2.48	0.46
36:1:2895:G:C2	36:1:2907:G:C4	3.03	0.46
36:5:1496:C:P	36:5:1514:G:H5''	2.55	0.46
87:6:2125:OHX:N2	87:6:2177:OHX:N1	2.63	0.46
11:S9:134:ILE:HD12	11:S9:134:ILE:N	4.79	0.46
47:M0:197:VAL:HG22	47:M0:198:LYS:N	3.26	0.46
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	3.73	0.46
44:L7:170:GLU:C	44:L7:172:ASN:H	2.19	0.46
13:C1:55:ASP:OD2	13:C1:58:CYS:HB2	2.14	0.46
19:C7:26:LEU:HD13	19:C7:59:LYS:CG	2.60	0.46
19:C7:34:LEU:O	19:C7:34:LEU:HD22	4.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:17:GLY:HA3	36:5:1313:G:O3'	267.46	0.46
73:O7:17:THR:HG22	73:O7:18:LEU:HD12	1.96	0.46
1:2:1609:U:C2'	1:2:1610:G:H5'	2.45	0.46
1:6:1542:G:H22	1:6:1568:C:H1'	1.79	0.46
7:S5:121:ILE:HA	7:S5:199:ILE:HD11	1.96	0.46
46:L9:91:ARG:HG2	46:L9:143:GLU:HA	1.95	0.46
36:1:3378:C:O2'	40:L3:312:VAL:HA	2.15	0.46
67:O1:56:ASN:O	67:O1:58:ALA:N	3.12	0.46
61:N5:92:LYS:HG2	61:N5:110:VAL:HG12	3.77	0.46
61:N5:113:LEU:CD2	61:N5:123:TYR:HE2	3.25	0.46
36:1:1108:U:C2	36:1:1109:U:C6	3.03	0.46
1:6:1203:A:C4	1:6:1556:A:C2	3.02	0.46
12:C0:54:TYR:HA	12:C0:72:GLY:N	2.30	0.46
15:C3:55:ARG:HG2	29:D7:32:PHE:HZ	3.93	0.46
1:2:312:A:C4	1:2:314:C:C5	3.03	0.46
1:6:16:G:H2'	1:6:17:C:C6	2.49	0.46
2:S0:7:PHE:HE1	23:D1:43:GLY:HA2	1.80	0.46
2:S0:60:ALA:HB1	2:S0:144:ILE:HD12	1.96	0.46
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.19	0.46
36:1:1874:A:O5'	55:M9:20:ARG:HD3	2.15	0.46
38:4:85:G:O6	62:N6:112:ASP:HB3	2.15	0.46
62:N6:109:LEU:HB2	62:N6:111:LEU:HD11	1.97	0.46
14:C2:62:LEU:HA	14:C2:119:SER:O	2.14	0.46
14:C2:62:LEU:HD11	14:C2:90:LYS:HE3	4.67	0.46
1:2:1178:G:C2	1:2:1462:G:C5	3.03	0.46
1:2:1180:C:HO2'	17:C5:128:HIS:CE1	2.33	0.46
1:6:1459:C:H4'	1:6:1460:A:OP1	2.14	0.46
11:S9:167:ALA:O	11:S9:168:ARG:HB2	2.15	0.46
56:N0:133:ALA:HA	56:N0:135:VAL:H	3.75	0.46
44:L7:74:SER:HB3	57:N1:141:VAL:O	2.41	0.46
36:5:3242:G:H21	36:5:3245:A:H5''	1.80	0.46
40:L3:296:THR:HG22	40:L3:299:ASP:H	2.36	0.46
40:L3:296:THR:N	40:L3:299:ASP:HB3	2.25	0.46
59:N3:96:GLU:HB2	60:N4:21:PHE:CE1	4.19	0.46
42:L5:259:LYS:HB3	42:L5:259:LYS:HE3	1.67	0.46
1:2:86:A:H5''	26:D4:119:PHE:CE2	2.49	0.46
34:SR:218:GLY:O	34:SR:236:ALA:N	2.85	0.46
34:SR:290:VAL:HG22	34:SR:304:GLY:O	3.76	0.46
34:SR:45:TRP:HA	34:SR:57:PRO:HA	1.97	0.46
36:5:2310:U:H6	36:5:2310:U:O5'	1.98	0.46
72:O6:70:ARG:HD3	72:O6:84:LYS:CG	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3209:A:OP2	56:N0:161:LYS:HD2	2.16	0.46
78:Q2:43:TYR:O	78:Q2:44:ASP:C	2.53	0.46
1:2:1170:G:H2'	1:2:1170:G:N3	2.31	0.46
8:S6:57:ASP:OD2	8:S6:61:PHE:N	3.45	0.46
72:O6:90:MET:O	72:O6:94:ILE:HG13	2.15	0.46
49:M3:74:GLY:CA	49:M3:98:ASP:HB2	3.49	0.46
51:M5:184:LYS:O	51:M5:184:LYS:HG2	2.15	0.46
1:6:629:U:H1'	1:6:971:A:N1	2.30	0.46
39:L2:6:ARG:NH2	39:L2:199:THR:O	2.41	0.46
52:M6:156:LEU:HD23	52:M6:156:LEU:N	2.29	0.46
26:D4:37:LYS:HA	26:D4:40:LEU:HB2	3.57	0.46
39:L2:73:GLU:HG2	39:L2:74:GLU:N	3.04	0.46
36:1:28:C:H42	36:1:56:G:H1	1.62	0.46
51:M5:113:LEU:HD11	38:8:142:C:H5'	104.22	0.46
27:D5:86:GLU:O	27:D5:88:ILE:N	3.98	0.46
36:5:2255:A:HO2'	36:5:2256:A:P	2.37	0.46
36:5:2203:U:O2	36:5:2240:G:C2	2.68	0.46
36:5:89:A:C6	36:5:98:G:N2	2.83	0.46
36:1:2275:A:C2	36:1:2312:A:C4	3.03	0.46
67:O1:105:GLN:OE1	36:5:3384:U:H1'	174.51	0.46
41:L4:299:ILE:HG22	41:L4:300:ARG:N	2.35	0.46
54:M8:38:ARG:NH1	54:M8:38:ARG:HB2	2.29	0.46
6:S4:187:ARG:HH11	6:S4:245:LYS:NZ	2.12	0.46
1:6:1477:G:C5	1:6:1478:G:C5	3.03	0.46
1:6:1303:U:C5	1:6:1304:G:C5	3.03	0.46
36:1:2948:C:H1'	40:L3:242:THR:HG22	1.97	0.46
87:1:4003:OHX:N6	87:1:4171:OHX:N5	2.63	0.46
36:5:979:U:H1'	36:5:980:A:N9	2.31	0.46
36:5:1027:A:N7	36:5:1029:G:C2	2.83	0.46
1:2:197:A:H61	10:S8:138:ASN:ND2	2.12	0.46
1:2:409:C:H2'	1:2:410:A:H5'	1.97	0.46
1:6:402:C:O2	1:6:405:C:N4	2.47	0.46
36:1:8:C:H6	36:1:8:C:O5'	1.98	0.46
52:M6:99:LEU:O	52:M6:101:ARG:N	3.28	0.46
15:C3:29:SER:O	15:C3:33:VAL:HG23	4.64	0.46
42:L5:289:LYS:HB3	47:M0:206:LEU:HD21	1.97	0.46
45:L8:151:VAL:O	45:L8:178:ALA:N	2.64	0.46
1:6:224:C:H2'	1:6:225:A:C8	2.50	0.46
18:C6:19:VAL:O	18:C6:67:VAL:HA	2.14	0.46
36:5:1542:G:N2	36:5:1543:G:C4	2.83	0.46
1:6:985:G:C6	1:6:986:G:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1252:A:N6	36:5:1264:G:OP1	2.45	0.46
12:C0:33:GLU:H	12:C0:33:GLU:CD	2.19	0.46
38:4:31:G:C5	38:4:32:C:C5	3.03	0.46
40:L3:255:TRP:O	40:L3:255:TRP:HD1	1.98	0.46
17:C5:95:GLY:O	17:C5:102:PHE:HD1	1.98	0.46
36:1:559:A:C2'	36:1:560:G:O5'	2.63	0.46
36:5:2259:A:C8	36:5:2260:U:C5	3.03	0.46
55:M9:80:LYS:HE3	36:5:1940:G:OP1	205.50	0.46
36:1:175:C:N4	36:1:243:G:H1	2.13	0.46
36:5:2291:A:H2'	36:5:2292:U:H6	1.79	0.46
36:1:379:C:H2'	36:1:380:U:C6	2.49	0.46
4:S2:103:VAL:HA	4:S2:112:GLY:O	2.60	0.46
1:2:1662:G:C2	1:2:1740:A:C2	3.03	0.46
74:O8:23:ALA:HB2	74:O8:73:LEU:HD21	1.97	0.46
43:L6:136:GLU:OE2	43:L6:139:LYS:HE3	2.14	0.46
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.15	0.46
1:2:209:U:H2'	1:2:210:A:C8	2.50	0.46
36:1:2097:U:O2'	36:1:2098:C:H5'	2.16	0.46
6:S4:183:VAL:HG11	6:S4:188:ASN:HB2	3.83	0.46
11:S9:138:LYS:HD2	11:S9:160:PRO:HG2	4.59	0.46
1:2:1175:U:H5''	1:2:1176:G:OP2	2.15	0.46
39:L2:37:ARG:O	39:L2:92:LYS:HD2	4.94	0.46
43:L6:20:LYS:NZ	43:L6:20:LYS:HA	3.36	0.46
36:5:1770:G:C2	36:5:1771:C:C5	3.03	0.46
35:SM:139:GLU:HG2	35:SM:140:ASP:N	2.29	0.46
59:N3:27:ASP:OD2	59:N3:29:SER:OG	2.33	0.46
25:D3:54:LEU:HB2	25:D3:73:ARG:HB3	3.29	0.46
78:Q2:77:CYS:SG	78:Q2:77:CYS:O	2.73	0.46
36:1:2988:C:H1'	40:L3:266:ARG:HH12	1.80	0.46
53:M7:23:ARG:NH2	53:M7:125:GLN:HB3	2.30	0.46
26:D4:113:ASN:HD22	1:6:54:C:H5''	348.31	0.46
1:2:381:C:P	11:S9:2:PRO:HB3	2.55	0.46
1:6:542:A:OP1	1:6:542:A:H3'	2.15	0.46
41:L4:330:TYR:HE2	44:L7:52:GLN:HG2	1.80	0.46
45:L8:142:LEU:O	45:L8:145:ASN:N	2.49	0.46
26:D4:20:ARG:CB	26:D4:76:TYR:HA	2.45	0.46
10:S8:107:THR:OG1	10:S8:108:PRO:HD3	2.15	0.46
41:L4:93:MET:HE2	41:L4:93:MET:H	4.01	0.46
55:M9:176:ARG:HD3	55:M9:176:ARG:HA	1.55	0.46
1:2:1369:U:O4	87:2:2095:OHX:N6	2.48	0.46
18:C6:66:ARG:NH1	18:C6:68:ARG:HG2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:62:THR:N	20:C8:65:GLU:OE1	2.84	0.46
7:S5:64:VAL:O	7:S5:65:ARG:HB2	2.14	0.46
61:N5:63:ILE:HD11	61:N5:84:PHE:CG	4.14	0.46
17:C5:37:ALA:HB1	17:C5:38:PRO:HD2	1.96	0.46
5:S3:106:LYS:C	5:S3:108:LYS:H	3.12	0.46
5:S3:101:GLN:HB3	5:S3:122:VAL:HG11	2.49	0.46
5:S3:98:ALA:HB3	5:S3:171:ALA:H	3.18	0.46
1:2:915:A:OP2	1:2:916:U:H5	1.97	0.46
16:C4:18:ARG:HA	16:C4:82:LYS:H	1.81	0.46
16:C4:99:GLN:HB3	28:D6:46:GLU:OE1	2.16	0.46
2:S0:60:ALA:HB3	2:S0:160:ILE:HD11	3.26	0.46
4:S2:115:ILE:HD13	4:S2:208:GLU:OE1	3.55	0.46
36:5:3045:G:H2'	36:5:3046:A:O4'	2.15	0.46
54:M8:67:ILE:HG23	54:M8:81:VAL:HG21	4.51	0.46
14:C2:54:ARG:HG2	14:C2:56:GLU:CD	2.35	0.46
17:C5:123:TYR:CD1	17:C5:123:TYR:N	2.82	0.46
36:1:1213:G:H8	36:1:1213:G:H5''	1.81	0.46
36:5:3181:C:C2'	36:5:3182:G:H5'	2.46	0.46
50:M4:117:ARG:O	50:M4:120:VAL:HB	2.25	0.46
42:L5:271:LYS:HA	42:L5:271:LYS:HD3	4.30	0.46
1:2:66:U:H5'	8:S6:173:PRO:HA	1.96	0.46
18:C6:54:LEU:HD21	18:C6:112:TYR:CE1	4.89	0.46
1:2:926:A:H2	16:C4:125:SER:HG	1.61	0.46
79:Q3:73:THR:HB	79:Q3:76:ALA:H	4.82	0.46
58:N2:15:PHE:HB2	58:N2:65:VAL:HG23	4.06	0.46
36:5:3163:A:O5'	36:5:3163:A:H8	1.98	0.46
64:N8:28:HIS:ND1	64:N8:32:ARG:HG3	3.90	0.46
24:D2:86:ILE:O	24:D2:89:TRP:N	3.15	0.46
1:6:654:C:O2'	1:6:655:G:O4'	2.26	0.46
51:M5:38:ARG:HD3	51:M5:62:TYR:CE2	4.51	0.46
51:M5:93:LYS:HD3	51:M5:93:LYS:HA	1.74	0.46
1:6:633:U:H3	1:6:966:A:H61	1.62	0.46
1:6:634:G:C4	1:6:966:A:C2	3.04	0.46
36:5:754:G:N1	36:5:779:G:C4	2.83	0.46
39:L2:245:LEU:O	39:L2:247:ARG:N	2.47	0.46
1:6:651:G:H4'	1:6:652:G:OP1	2.15	0.46
38:4:50:C:OP1	71:O5:35:LYS:NZ	2.42	0.46
73:O7:63:ARG:HB3	73:O7:65:ARG:HG2	1.97	0.46
1:6:1441:C:H2'	1:6:1442:U:H6	1.80	0.46
10:S8:25:ARG:NH2	1:6:386:G:OP2	316.03	0.46
36:5:2961:G:N2	36:5:2972:G:C4	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1653:G:H4'	70:O4:43:LYS:O	2.15	0.46
36:5:1656:A:O2'	87:5:4172:OHX:N2	2.48	0.46
70:O4:41:ARG:HA	70:O4:56:THR:CG2	2.44	0.46
70:O4:42:PRO:C	70:O4:43:LYS:HG2	2.62	0.46
36:1:705:A:N1	36:1:714:G:H2'	2.30	0.46
64:N8:133:LEU:HD11	64:N8:137:LYS:HE2	3.87	0.46
36:5:2616:C:H2'	36:5:2617:U:H5'	1.96	0.46
41:L4:296:GLN:HA	41:L4:299:ILE:CG1	2.43	0.46
1:2:356:G:OP2	87:2:2036:OHX:N6	2.48	0.46
23:D1:2:GLU:HB3	23:D1:3:ASN:H	1.44	0.46
37:7:47:C:H2'	37:7:48:U:C6	2.50	0.46
36:5:2815:G:O5'	36:5:2815:G:H8	1.97	0.46
63:N7:54:THR:O	63:N7:57:HIS:N	2.34	0.46
2:S0:104:PRO:HB2	1:6:1322:A:O2'	404.87	0.46
36:1:1493:G:O2'	36:1:1494:U:H5	1.97	0.46
36:1:1223:A:C6	36:1:1224:C:H5	2.33	0.46
48:M1:31:THR:O	48:M1:34:SER:HB3	2.16	0.46
11:S9:7:THR:HG21	1:6:758:U:OP1	383.15	0.46
64:N8:45:MET:HE2	64:N8:45:MET:HB3	1.81	0.46
13:C1:128:CYS:O	13:C1:129:ARG:HB3	4.50	0.46
42:L5:294:ALA:CB	47:M0:217:PHE:HB3	2.45	0.46
44:L7:96:PRO:HA	44:L7:97:PRO:HD2	1.91	0.46
1:2:1319:A:C2	1:2:1320:U:H1'	2.50	0.46
4:S2:157:LYS:HD2	4:S2:168:ARG:CZ	2.46	0.46
4:S2:169:LEU:HA	4:S2:169:LEU:HD23	1.74	0.46
47:M0:129:VAL:HG13	47:M0:133:GLN:HG3	2.55	0.46
52:M6:67:THR:O	52:M6:71:PHE:CZ	2.68	0.46
36:1:1580:A:C1'	36:1:1581:C:H5	2.27	0.46
36:5:2412:G:C2'	36:5:2413:A:O5'	2.63	0.46
1:6:1724:U:O4	87:6:2096:OHX:N5	2.48	0.46
36:1:761:A:N1	36:1:771:A:H1'	2.29	0.46
36:1:601:U:H2'	36:1:602:A:O4'	2.15	0.46
41:L4:259:ASP:O	41:L4:267:VAL:HG11	4.83	0.46
1:2:1360:A:H4'	21:C9:2:PRO:N	2.30	0.46
36:5:241:G:H2'	36:5:242:C:H6	1.80	0.46
36:1:1409:G:O6	87:1:4065:OHX:N3	2.48	0.46
36:5:2259:A:C5	36:5:2260:U:C5	3.02	0.46
36:1:3046:A:C4	36:1:3047:U:C6	3.03	0.46
8:S6:180:THR:O	8:S6:184:LEU:HD12	4.66	0.46
51:M5:203:ARG:HH11	51:M5:203:ARG:HG3	2.69	0.46
36:5:1010:G:N2	36:5:1041:U:O2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:91:THR:O	16:C4:93:THR:N	2.90	0.46
1:6:258:C:O2'	1:6:259:U:H5'	2.15	0.46
1:2:245:U:O2'	1:2:247:A:N6	2.48	0.46
62:N6:11:ASP:OD2	62:N6:13:ARG:N	2.78	0.46
8:S6:35:GLU:HA	8:S6:51:LYS:HA	2.50	0.46
36:1:2876:C:H1'	36:1:2952:G:N2	2.29	0.46
36:1:1018:G:H8	36:1:1018:G:OP2	1.97	0.46
1:2:1655:A:N3	36:1:2302:G:H1'	2.30	0.46
51:M5:73:ARG:HB3	51:M5:89:VAL:HG22	3.80	0.46
36:1:1841:A:C6	36:1:1848:G:C6	3.04	0.46
36:1:1449:A:C2	36:1:2356:A:C5	3.04	0.46
53:M7:32:THR:CG2	53:M7:87:SER:HB3	2.38	0.46
1:6:462:G:C6	1:6:463:U:C5	3.04	0.46
28:D6:5:ARG:NH1	1:6:1795:U:H3'	337.27	0.46
11:S9:150:LEU:O	11:S9:153:GLU:HB2	2.43	0.46
11:S9:66:ASP:O	11:S9:69:ARG:N	2.51	0.46
87:1:4032:OHX:N4	87:1:4044:OHX:N1	2.63	0.46
44:L7:132:PRO:HA	44:L7:229:PHE:CD1	2.50	0.46
45:L8:140:VAL:HG21	51:M5:3:ALA:HB2	1.97	0.46
1:6:212:U:H2'	1:6:213:A:H8	1.80	0.46
1:6:333:A:C2	1:6:334:G:C2	3.04	0.46
36:1:1421:G:C2	36:1:1422:G:C5	3.03	0.46
41:L4:169:LEU:O	41:L4:172:VAL:HG12	2.16	0.46
41:L4:237:GLN:C	41:L4:239:ALA:H	2.18	0.46
36:1:3268:A:O2'	43:L6:130:ILE:HD11	2.16	0.46
43:L6:65:ILE:HG12	43:L6:79:VAL:HG12	4.94	0.46
43:L6:40:LEU:HB3	43:L6:84:VAL:CG2	2.45	0.46
43:L6:96:VAL:O	43:L6:98:VAL:HB	2.15	0.46
52:M6:18:ARG:CZ	52:M6:128:ARG:HH12	3.71	0.46
36:5:357:A:H2'	36:5:358:G:O4'	2.15	0.46
36:5:815:G:O3'	36:5:920:A:N6	2.49	0.46
1:2:1357:A:N7	1:2:1367:G:N1	2.64	0.46
1:6:1613:U:C4	1:6:1614:A:C2	3.03	0.46
7:S5:41:LYS:HE3	7:S5:41:LYS:HB3	1.78	0.46
36:1:3087:A:P	87:1:4180:OHX:N5	2.88	0.46
61:N5:91:ASN:N	61:N5:91:ASN:OD1	2.48	0.46
5:S3:65:ARG:HH12	12:C0:56:LYS:HZ1	1.64	0.46
17:C5:17:TYR:H	17:C5:25:LEU:HD11	2.57	0.46
17:C5:119:PHE:HE1	20:C8:119:ILE:CG2	2.29	0.46
1:2:955:A:H5''	15:C3:10:GLY:HA3	1.97	0.46
1:6:951:A:C2	1:6:952:A:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:67:A:P	87:1:3911:OHX:N6	2.88	0.46
77:Q1:8:LYS:HE3	1:6:1777:G:O6	290.58	0.46
3:S1:85:LYS:HB2	3:S1:101:HIS:O	3.02	0.46
3:S1:35:PRO:HG3	3:S1:99:ASN:HA	2.71	0.46
36:1:658:G:H3'	36:1:659:G:H8	1.80	0.46
23:D1:32:VAL:HG12	23:D1:55:LEU:HB2	3.07	0.46
23:D1:8:LEU:HD22	23:D1:9:VAL:N	2.30	0.46
4:S2:35:TRP:HB3	4:S2:46:LYS:HE3	1.97	0.46
1:2:179:A:N6	1:2:180:A:C6	2.84	0.46
55:M9:21:LYS:HE3	36:5:1874:A:OP2	141.65	0.46
55:M9:43:LYS:HA	55:M9:46:LYS:HG2	1.97	0.46
38:4:65:A:C4	38:4:66:A:C8	3.04	0.46
1:2:1228:G:H3'	1:2:1229:G:H8	1.76	0.46
1:6:1132:A:H2	1:6:1651:A:O2'	1.98	0.46
36:5:1319:G:C6	36:5:1320:C:N4	2.84	0.46
46:L9:4:ILE:N	56:N0:142:GLN:OE1	2.95	0.46
56:N0:27:MET:HE1	57:N1:153:PRO:HD3	1.97	0.46
43:L6:163:PHE:CD1	43:L6:163:PHE:C	2.89	0.46
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	1.97	0.46
9:S7:48:GLU:OE1	9:S7:56:LYS:NZ	3.12	0.46
42:L5:256:THR:HB	42:L5:257:GLU:H	3.10	0.46
1:6:70:C:O2	1:6:81:G:N2	2.26	0.46
36:5:2274:U:O2'	36:5:2275:A:H5'	2.15	0.46
36:5:2309:A:H4'	87:5:4193:OHX:N4	2.31	0.46
52:M6:124:LEU:HB2	52:M6:127:LEU:HD12	4.01	0.46
29:D7:35:VAL:HG21	29:D7:63:LEU:HD21	1.98	0.46
41:L4:15:ALA:O	41:L4:16:THR:HB	4.30	0.46
1:2:1325:A:C2	1:2:1326:A:C5	3.03	0.46
52:M6:25:LYS:HA	52:M6:28:LEU:HD12	1.97	0.46
51:M5:174:ILE:H	51:M5:174:ILE:HG12	1.45	0.46
24:D2:76:SER:OG	1:6:1102:G:OP1	351.86	0.46
36:1:3029:A:C5	36:1:3030:G:H1'	2.50	0.46
36:5:390:G:C6	36:5:391:A:C4	3.04	0.46
38:4:38:U:N3	71:O5:89:ARG:HD2	2.31	0.46
11:S9:65:LYS:NZ	1:6:650:U:H5'	421.31	0.46
42:L5:179:ARG:HA	42:L5:179:ARG:HD3	1.74	0.46
46:L9:173:ARG:C	76:Q0:127:LEU:HD12	2.35	0.46
36:1:431:U:H5''	69:O3:65:ARG:NH1	2.29	0.46
1:2:1497:U:C4	1:2:1511:U:O2	2.69	0.46
34:SR:148:ASN:O	34:SR:149:ASP:HB2	3.99	0.46
1:2:1344:A:N1	1:2:1345:A:C6	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2767:U:O4	87:1:4037:OHX:N6	2.47	0.46
36:1:2767:U:O3'	78:Q2:31:GLY:HA3	2.16	0.46
36:1:10:C:H1'	45:L8:55:TYR:CD1	2.50	0.46
36:1:1488:G:N1	36:1:1855:U:C4	2.83	0.46
38:4:124:G:H1	38:4:129:C:H42	1.62	0.46
36:5:1610:G:H2'	36:5:1611:G:C8	2.50	0.46
78:Q2:72:LEU:N	78:Q2:72:LEU:HD23	2.84	0.46
33:E1:92:LYS:H	33:E1:92:LYS:HG2	4.52	0.46
50:M4:102:LYS:HE3	50:M4:102:LYS:HB2	1.80	0.46
36:5:2776:C:O2	36:5:2776:C:H2'	2.16	0.46
1:2:520:A:H2	1:2:532:U:H3	1.62	0.46
36:1:1277:C:O2'	36:1:1278:A:H8	1.98	0.46
58:N2:19:VAL:O	58:N2:22:PRO:HD2	2.57	0.46
36:5:2663:G:H2'	36:5:2664:C:O4'	2.15	0.46
36:1:3284:G:C6	36:1:3285:C:N4	2.82	0.46
29:D7:7:LEU:O	29:D7:10:PRO:HD3	2.16	0.46
39:L2:14:SER:O	39:L2:17:THR:HG23	2.16	0.46
45:L8:150:LEU:HD22	45:L8:151:VAL:N	2.30	0.46
73:O7:26:SER:O	73:O7:34:CYS:HA	2.15	0.46
1:2:395:U:H2'	1:2:396:G:O4'	2.15	0.46
36:5:442:G:C2	36:5:443:G:H1'	2.50	0.46
36:1:1499:C:H2'	36:1:1500:G:H8	1.80	0.46
54:M8:69:ARG:HA	54:M8:72:LYS:HG3	1.97	0.46
36:5:1087:G:O6	87:5:4106:OHX:N6	2.48	0.46
42:L5:119:TYR:OH	42:L5:141:PRO:HD3	2.87	0.46
36:5:816:A:H61	36:5:910:G:H21	1.63	0.46
14:C2:103:LEU:HG	14:C2:116:VAL:CG2	2.46	0.46
6:S4:199:GLU:OE2	6:S4:209:HIS:CE1	2.68	0.46
1:6:1484:G:C2	1:6:1485:C:C4	3.02	0.46
20:C8:44:ASN:HD21	20:C8:48:LYS:HE3	3.88	0.46
36:5:1481:A:H2'	36:5:1858:A:N3	2.31	0.46
36:1:309:U:H3	36:1:2780:A:H61	1.64	0.46
1:6:1058:U:H4'	1:6:1059:U:OP1	2.16	0.46
57:N1:126:VAL:HG23	57:N1:127:GLN:H	1.80	0.46
87:5:3996:OHX:N4	87:5:4187:OHX:N3	2.63	0.46
36:1:2765:C:O3'	78:Q2:39:GLY:HA3	2.15	0.46
40:L3:218:ILE:HG12	40:L3:276:THR:HG23	1.97	0.46
36:5:2184:U:H5''	36:5:2184:U:H6	1.80	0.46
29:D7:29:ARG:HH11	29:D7:29:ARG:HG3	2.08	0.46
36:5:3148:U:O2	36:5:3148:U:H2'	2.15	0.46
36:1:748:U:O2'	36:1:749:C:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3106:A:H2'	36:5:3107:U:O4'	2.15	0.46
25:D3:75:GLN:HG3	25:D3:82:LYS:HD3	1.97	0.46
36:1:2655:U:OP2	78:Q2:2:VAL:HA	2.16	0.46
46:L9:26:LYS:HB2	46:L9:35:THR:HG22	1.97	0.46
67:O1:9:THR:HG21	67:O1:74:ARG:HD3	1.97	0.46
53:M7:127:ARG:HD2	36:5:1505:C:OP1	128.91	0.46
1:6:40:A:C2	1:6:469:C:C6	3.03	0.46
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.97	0.46
47:M0:77:THR:O	47:M0:78:THR:C	3.01	0.46
1:6:1579:U:P	87:6:2189:OHX:N3	2.88	0.46
44:L7:108:LEU:HD21	44:L7:115:THR:HG23	2.12	0.46
36:1:2526:C:OP1	39:L2:38:HIS:HE1	1.98	0.46
13:C1:58:CYS:HB3	13:C1:61:THR:OG1	2.96	0.46
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.16	0.46
41:L4:39:PHE:HE2	41:L4:43:ASN:HD22	2.83	0.46
64:N8:3:SER:O	64:N8:5:PHE:N	2.49	0.46
18:C6:135:ARG:O	18:C6:137:ARG:NE	2.46	0.46
21:C9:38:LYS:HD3	21:C9:43:ASN:O	2.16	0.46
7:S5:205:SER:C	7:S5:207:THR:N	2.86	0.46
46:L9:92:TYR:CE1	46:L9:101:VAL:HG21	2.50	0.46
42:L5:159:VAL:HG13	42:L5:160:PHE:N	2.66	0.46
42:L5:227:LEU:HD12	42:L5:227:LEU:HA	2.39	0.46
1:6:1552:U:H2'	1:6:1553:G:C8	2.50	0.46
12:C0:54:TYR:N	12:C0:71:GLU:OE1	4.04	0.46
33:E1:123:ASN:O	33:E1:126:CYS:HB2	3.01	0.46
35:SM:134:ASP:O	35:SM:134:ASP:OD1	2.33	0.46
51:M5:49:ARG:NH2	36:5:115:A:OP1	100.96	0.46
1:2:897:C:O2'	1:2:914:G:N2	2.48	0.46
16:C4:114:ARG:HA	28:D6:62:TYR:OH	2.15	0.46
28:D6:62:TYR:CG	28:D6:63:ALA:N	3.01	0.46
3:S1:84:ILE:HD13	3:S1:84:ILE:HA	4.31	0.46
5:S3:47:GLU:HG2	5:S3:87:TYR:HE2	4.26	0.46
29:D7:67:THR:OG1	29:D7:69:GLY:O	2.34	0.46
38:4:72:A:H4'	62:N6:75:ARG:NH1	2.30	0.46
1:6:1226:A:HO2'	1:6:1256:A:H61	1.63	0.46
14:C2:43:ARG:O	14:C2:47:GLU:HB2	2.15	0.46
14:C2:50:LYS:O	14:C2:54:ARG:HB3	2.15	0.46
14:C2:69:ALA:C	14:C2:71:ILE:H	2.16	0.46
1:2:1229:G:OP1	33:E1:101:ALA:HA	2.16	0.46
50:M4:20:VAL:HG22	50:M4:68:LEU:O	3.34	0.46
36:5:1232:C:N4	36:5:1262:G:OP2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:53:PRO:HB3	57:N1:91:LEU:HD22	3.10	0.46
1:2:1155:G:N2	1:2:1624:C:C2	2.84	0.46
9:S7:165:LYS:HB3	9:S7:169:PHE:CZ	2.50	0.46
9:S7:46:ILE:HA	9:S7:59:ALA:O	2.81	0.46
18:C6:106:LYS:C	18:C6:108:ALA:H	2.43	0.46
34:SR:236:ALA:HB2	34:SR:263:PHE:HZ	1.79	0.46
36:1:347:G:N2	36:1:353:G:C4	2.84	0.46
39:L2:107:VAL:HG11	39:L2:111:THR:HG21	2.89	0.46
4:S2:121:VAL:HG11	35:SM:117:LEU:HA	1.96	0.46
36:5:3285:C:H3'	36:5:3286:G:C5'	2.45	0.46
1:6:1764:C:C5	1:6:1767:G:C4	3.03	0.46
49:M3:104:ARG:C	72:O6:20:MET:HB2	2.36	0.46
51:M5:171:SER:O	36:5:288:C:H4'	123.49	0.46
13:C1:99:ARG:HB3	25:D3:9:LEU:HD13	1.98	0.46
36:1:3141:A:C4	36:1:3144:G:C8	3.03	0.46
53:M7:17:ALA:HB3	53:M7:148:LEU:HG	1.97	0.46
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.16	0.46
39:L2:186:PHE:HB2	39:L2:196:TRP:CZ3	3.19	0.46
38:8:106:C:H4'	38:8:107:G:O5'	2.16	0.46
61:N5:44:PRO:O	61:N5:45:LYS:HB2	4.33	0.46
1:2:634:G:N2	1:2:966:A:C5	2.83	0.46
36:5:173:G:C2	36:5:174:C:C2	3.03	0.46
1:2:704:C:H4'	1:2:705:U:OP1	2.16	0.46
20:C8:47:CYS:C	20:C8:49:LYS:H	2.52	0.46
36:1:1049:C:C2	36:1:1050:U:C5	3.03	0.46
36:1:2288:G:C4	36:1:2289:U:C5	3.03	0.46
1:6:355:G:P	87:6:2071:OHX:N5	2.89	0.46
36:5:847:A:H2'	36:5:848:A:H8	1.76	0.46
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.53	0.46
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.97	0.46
1:6:1489:U:C2'	1:6:1490:C:OP1	2.63	0.46
1:6:1489:U:H2'	1:6:1490:C:OP1	2.16	0.46
36:1:3112:G:O6	36:1:3120:C:H5''	2.15	0.46
68:O2:103:LYS:HD3	36:5:1391:C:C2	126.97	0.46
36:1:2398:A:H2'	36:1:2399:A:H8	1.80	0.46
36:1:1629:U:H6	63:N7:112:LYS:HG2	1.79	0.46
36:1:517:G:H8	36:1:517:G:H5''	1.80	0.46
42:L5:183:TRP:HD1	42:L5:190:ILE:HB	6.75	0.46
36:1:985:U:O3'	44:L7:98:LYS:HD2	2.15	0.46
13:C1:111:VAL:HG23	13:C1:139:VAL:HB	1.97	0.46
1:6:270:C:C4	1:6:271:A:N7	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:200:ASP:OD1	19:C7:88:VAL:HG13	5.33	0.46
54:M8:179:ARG:O	54:M8:180:ARG:C	2.74	0.46
15:C3:131:THR:HG22	15:C3:132:VAL:HG13	2.82	0.46
36:1:1307:G:OP1	52:M6:60:LYS:NZ	2.48	0.46
12:C0:32:HIS:HB2	12:C0:33:GLU:OE1	2.16	0.46
20:C8:72:ILE:HG12	20:C8:79:TYR:CG	3.54	0.46
36:5:419:G:O3'	36:5:420:G:O5'	2.29	0.46
1:2:880:C:O2	1:2:948:G:N1	2.46	0.46
1:2:1177:C:C4'	1:2:1189:A:H61	2.28	0.46
36:1:430:U:C4	36:1:630:A:C2	3.04	0.46
54:M8:16:ARG:NH2	54:M8:20:LYS:HB2	2.86	0.46
37:3:59:U:OP2	87:3:219:OHX:N3	2.49	0.46
22:D0:85:ARG:HD2	31:D9:55:PHE:CE2	2.50	0.46
62:N6:95:VAL:HG22	62:N6:96:PRO:HD2	5.37	0.46
1:2:694:U:O2	1:2:694:U:H2'	2.15	0.46
1:2:1680:G:O6	87:2:2110:OHX:N5	2.49	0.46
70:O4:9:ARG:HD2	36:5:1527:C:H4'	138.19	0.46
1:2:245:U:HO2'	1:2:247:A:N6	2.13	0.46
6:S4:241:GLY:C	6:S4:242:LYS:HD2	2.35	0.46
64:N8:37:GLY:HA2	64:N8:41:HIS:HB2	2.92	0.46
64:N8:101:VAL:C	64:N8:102:ILE:HG12	3.40	0.46
1:2:1505:A:C5	1:2:1506:G:H1'	2.49	0.46
1:2:1505:A:N7	1:2:1506:G:H1'	2.30	0.46
1:6:1189:A:C2	1:6:1194:A:N3	2.84	0.46
39:L2:150:LEU:HD23	39:L2:150:LEU:HA	2.02	0.46
36:1:4:U:H6	36:1:4:U:O5'	1.99	0.46
39:L2:109:GLU:H	39:L2:109:GLU:HG2	1.50	0.46
5:S3:74:GLN:HE22	5:S3:81:PRO:HG3	1.80	0.46
36:1:1101:G:C2'	36:1:1102:A:H5'	2.46	0.46
28:D6:22:ARG:HA	28:D6:28:LYS:O	2.16	0.46
28:D6:8:ASN:HB3	28:D6:9:GLY:H	1.59	0.46
11:S9:121:SER:C	11:S9:123:HIS:H	2.18	0.46
47:M0:178:ARG:N	47:M0:179:PRO:HD2	2.41	0.46
44:L7:218:ARG:HH12	36:5:1171:G:P	254.63	0.46
45:L8:66:SER:OG	51:M5:21:PHE:HZ	1.98	0.46
36:1:730:C:N3	36:1:739:G:N2	2.46	0.46
41:L4:11:LEU:HD21	41:L4:153:SER:HB3	1.98	0.46
41:L4:150:LEU:HD12	41:L4:249:ILE:HG12	1.98	0.46
41:L4:23:PRO:HD3	41:L4:255:PHE:HE1	1.78	0.46
41:L4:50:TYR:CE2	41:L4:109:TRP:CH2	3.34	0.46
49:M3:29:ALA:C	49:M3:31:LYS:H	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:566:G:H2'	36:1:567:G:C8	2.50	0.46
20:C8:99:HIS:NE2	20:C8:101:LEU:HD21	2.30	0.46
21:C9:37:VAL:O	21:C9:46:PRO:HB3	2.27	0.46
27:D5:95:HIS:CG	27:D5:96:SER:N	2.78	0.46
7:S5:179:ALA:HB2	7:S5:194:LEU:HD23	4.55	0.46
7:S5:26:ALA:O	7:S5:27:THR:C	2.53	0.46
7:S5:36:ALA:O	7:S5:37:GLN:HG3	5.13	0.46
36:1:2705:A:H3'	36:1:2706:G:N7	2.29	0.46
36:1:1027:A:N6	36:1:1029:G:N3	2.64	0.46
20:C8:121:ALA:O	20:C8:125:ILE:HG13	2.16	0.46
21:C9:130:ARG:HG2	21:C9:131:ASP:N	3.97	0.46
48:M1:85:LYS:HA	48:M1:89:TYR:HE2	2.50	0.46
1:2:1072:C:H3'	1:2:1073:G:H8	1.80	0.46
15:C3:12:SER:O	1:6:958:U:C5	335.28	0.46
24:D2:55:ASP:OD2	24:D2:59:GLY:HA2	2.75	0.46
36:5:699:A:H2'	36:5:700:C:C6	2.51	0.46
47:M0:16:PRO:HD3	47:M0:128:ARG:CZ	2.46	0.46
16:C4:19:ILE:O	16:C4:84:ARG:N	2.49	0.46
28:D6:42:ARG:O	28:D6:67:THR:N	3.35	0.46
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.16	0.46
4:S2:179:VAL:O	4:S2:179:VAL:HG12	2.15	0.46
38:4:82:U:O2	38:4:83:C:C5	2.68	0.46
6:S4:222:LEU:HA	6:S4:225:VAL:HG23	1.97	0.46
50:M4:35:ILE:HG22	50:M4:44:VAL:HB	3.52	0.46
60:N4:52:THR:OG1	60:N4:55:PHE:HB3	3.40	0.46
57:N1:74:VAL:O	57:N1:89:LEU:HB2	2.14	0.46
57:N1:89:LEU:HD23	57:N1:91:LEU:HD11	2.68	0.46
40:L3:57:VAL:HG21	60:N4:15:PRO:HG2	2.05	0.46
60:N4:3:VAL:HG11	60:N4:12:LYS:HB3	1.97	0.46
9:S7:133:THR:CG2	9:S7:159:VAL:HA	3.02	0.46
38:8:52:A:C2	38:8:53:A:C1'	2.98	0.46
42:L5:270:LYS:C	42:L5:272:TYR:N	3.24	0.46
37:7:82:G:C6	37:7:99:G:C6	3.04	0.46
39:L2:116:VAL:HG22	39:L2:126:LEU:HB2	1.98	0.46
70:O4:105:VAL:O	70:O4:108:GLN:HB2	2.15	0.46
79:Q3:79:VAL:O	79:Q3:82:THR:N	3.43	0.46
58:N2:14:THR:HA	58:N2:65:VAL:O	2.16	0.46
50:M4:106:ARG:HD3	36:5:3209:A:C5	294.38	0.46
1:6:153:G:H2'	1:6:154:G:C8	2.50	0.46
36:5:963:G:N2	36:5:964:G:H1'	2.31	0.46
59:N3:48:ARG:HH22	36:5:3043:C:P	251.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:979:U:O2'	36:1:980:A:OP2	2.31	0.46
24:D2:104:LEU:HD22	24:D2:125:ILE:HA	5.26	0.46
36:1:1685:C:H2'	36:1:1686:U:H6	1.77	0.46
36:5:8:C:O2	38:8:152:G:C2	2.69	0.46
36:1:2400:G:OP1	87:1:4086:OHX:N2	2.48	0.46
1:2:558:U:HO2'	1:2:559:C:P	2.37	0.46
48:M1:15:GLU:HG2	48:M1:16:LYS:HG2	1.96	0.46
4:S2:104:VAL:HG22	4:S2:132:ALA:HB1	2.07	0.46
36:5:2960:C:OP1	87:5:3967:OHX:N5	2.48	0.46
36:5:1563:C:O2	36:5:1577:G:N2	2.48	0.46
52:M6:142:SER:O	52:M6:143:THR:C	2.66	0.46
52:M6:47:PHE:CE2	52:M6:141:LEU:HA	3.51	0.46
36:5:1105:A:H2'	36:5:1106:G:O4'	2.16	0.46
10:S8:116:HIS:HB3	10:S8:117:TYR:CD2	3.90	0.46
1:2:1488:G:N2	1:2:1495:C:O2	2.33	0.46
36:5:2821:C:N4	36:5:2869:U:H3	2.12	0.46
2:S0:102:PHE:HZ	2:S0:107:PHE:CZ	3.98	0.46
78:Q2:28:TYR:CD1	78:Q2:29:LYS:N	3.02	0.46
36:1:2767:U:OP1	78:Q2:33:ALA:O	2.34	0.46
36:1:1556:C:O2	36:1:1556:C:O4'	2.33	0.46
36:5:1029:G:H2'	36:5:1030:A:H8	1.81	0.46
79:Q3:51:ALA:HB3	79:Q3:54:ILE:HD11	4.53	0.46
87:1:4183:OHX:N2	53:M7:65:SER:HB3	2.30	0.46
63:N7:109:GLU:HA	63:N7:112:LYS:HD2	2.93	0.46
36:5:2437:G:C6	36:5:2511:A:C6	3.03	0.46
1:6:402:C:O2'	1:6:403:G:H5'	2.16	0.46
1:2:485:A:H2'	1:2:486:G:O4'	2.15	0.46
6:S4:246:LEU:HD13	6:S4:251:GLU:CG	2.44	0.46
36:5:1817:G:HO2'	36:5:1818:U:H6	1.62	0.46
15:C3:66:ILE:HG23	15:C3:67:THR:H	1.81	0.46
36:1:3162:C:O2	36:1:3289:G:N2	2.49	0.46
9:S7:114:ARG:HB2	9:S7:114:ARG:HH11	1.80	0.46
53:M7:10:ASN:OD1	53:M7:13:LYS:HB2	3.11	0.46
6:S4:126:VAL:HG13	6:S4:158:ASP:O	3.66	0.46
24:D2:119:LYS:HG2	1:6:687:G:H5''	392.98	0.46
55:M9:150:GLN:HA	55:M9:153:LYS:CB	3.86	0.46
24:D2:60:LYS:HE3	29:D7:24:LEU:O	2.43	0.46
36:5:802:C:C2	36:5:803:C:C5	3.04	0.46
45:L8:87:ALA:O	45:L8:90:THR:N	2.47	0.46
41:L4:4:PRO:O	41:L4:5:GLN:HB2	2.29	0.46
42:L5:282:ARG:HA	42:L5:285:ARG:HB2	3.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:84:ARG:O	79:Q3:88:GLU:HG3	2.16	0.46
3:S1:159:SER:O	3:S1:161:ILE:N	3.97	0.46
12:C0:33:GLU:OE1	12:C0:33:GLU:N	2.48	0.46
36:1:2823:G:O6	87:1:3905:OHX:N4	2.48	0.46
36:5:1240:A:H2	36:5:1248:C:H41	1.63	0.46
1:6:526:A:H2'	1:6:527:A:O5'	2.15	0.46
1:6:130:C:O2'	1:6:137:U:N3	2.49	0.46
1:6:1176:G:C6	1:6:1463:C:N4	2.81	0.46
36:1:1112:A:H2'	36:1:1113:G:O4'	2.15	0.46
36:5:1509:A:N6	36:5:1510:G:N1	2.64	0.46
34:SR:12:THR:HB	34:SR:309:VAL:HG11	3.28	0.46
6:S4:247:SER:OG	6:S4:250:GLU:HG3	2.16	0.46
1:6:713:A:C2	1:6:714:G:H1'	2.51	0.46
36:1:2828:G:H2'	36:1:2829:U:O5'	2.16	0.46
1:6:182:A:H2'	1:6:183:U:C6	2.50	0.46
36:1:1713:G:O6	66:O0:28:LYS:HD2	2.16	0.46
35:SM:116:GLU:OE1	35:SM:120:GLU:HG3	2.15	0.46
64:N8:135:GLU:O	64:N8:138:ILE:HB	2.58	0.46
53:M7:95:LEU:HD23	53:M7:95:LEU:HA	1.58	0.46
37:3:97:A:H8	37:3:97:A:O5'	1.99	0.46
36:5:774:G:C2'	36:5:775:A:H5'	2.45	0.46
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	3.14	0.46
40:L3:11:HIS:ND1	40:L3:234:GLY:O	2.42	0.46
36:5:2166:A:H2'	36:5:2167:A:C8	2.50	0.46
47:M0:56:GLU:HG3	47:M0:161:GLY:HA3	3.05	0.46
36:1:112:U:C2	36:1:320:G:C2	3.03	0.46
1:6:298:C:C4	1:6:299:A:C8	3.04	0.46
1:6:339:C:O2'	1:6:340:U:H5'	2.16	0.46
1:6:326:G:N2	1:6:342:C:O2	2.48	0.46
10:S8:85:PRO:HB3	13:C1:11:ARG:C	2.36	0.46
10:S8:49:ARG:HH22	1:6:399:A:P	315.61	0.46
52:M6:133:ARG:NE	36:5:1316:C:OP2	295.24	0.46
1:6:852:C:H2'	1:6:853:G:H8	1.81	0.46
1:2:1587:A:OP1	18:C6:136:SER:HB2	2.16	0.46
1:6:1474:G:N2	1:6:1475:A:C2	2.84	0.46
20:C8:67:GLU:O	20:C8:70:VAL:HB	2.69	0.46
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	4.35	0.46
7:S5:120:ILE:HD13	7:S5:192:GLU:HA	3.19	0.46
67:O1:62:ARG:O	67:O1:63:GLY:O	3.06	0.46
42:L5:106:ALA:O	42:L5:110:LEU:HB2	2.21	0.46
42:L5:159:VAL:HG13	42:L5:160:PHE:CD1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:53:VAL:HG11	42:L5:159:VAL:HG23	2.86	0.46
17:C5:67:ALA:C	17:C5:69:GLU:N	2.69	0.46
21:C9:31:PRO:HD2	21:C9:54:PHE:CZ	3.95	0.46
1:2:1017:U:H2'	1:2:1018:U:C6	2.51	0.46
15:C3:56:ASP:OD1	29:D7:52:THR:OG1	2.33	0.46
36:1:268:A:H3'	36:1:268:A:OP1	2.16	0.46
36:1:314:U:C2	36:1:315:C:C6	3.04	0.46
1:6:918:U:H2'	1:6:919:A:H8	1.80	0.46
2:S0:67:ILE:HG13	2:S0:120:LEU:HD22	1.98	0.46
54:M8:87:VAL:O	54:M8:107:THR:HG23	3.23	0.46
4:S2:143:TYR:OH	4:S2:150:GLN:HA	2.16	0.46
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.98	0.46
63:N7:75:VAL:CG1	63:N7:80:LEU:HD11	3.34	0.46
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.33	0.46
68:O2:118:LYS:HG2	68:O2:119:VAL:H	1.81	0.46
35:SM:68:ARG:HD3	1:6:1460:A:OP2	335.92	0.46
17:C5:123:TYR:H	17:C5:123:TYR:HD1	1.64	0.46
6:S4:121:TYR:HA	6:S4:164:LEU:HD23	1.97	0.46
36:5:559:A:H4'	36:5:559:A:OP1	2.14	0.46
40:L3:294:GLY:N	40:L3:303:LYS:O	2.48	0.46
43:L6:166:LYS:HZ2	36:5:3214:U:H6	273.68	0.46
8:S6:176:GLN:HG3	8:S6:177:ARG:N	2.53	0.46
1:6:1585:U:H2'	1:6:1586:A:H8	1.80	0.46
18:C6:50:GLU:O	18:C6:54:LEU:HB2	3.33	0.46
7:S5:73:THR:O	7:S5:75:GLY:N	2.63	0.46
34:SR:82:SER:O	34:SR:89:LEU:HD23	2.16	0.46
36:5:3211:C:H2'	36:5:3212:C:O4'	2.15	0.46
52:M6:188:SER:O	52:M6:189:ASP:C	2.89	0.46
40:L3:84:VAL:CG2	40:L3:162:VAL:HB	3.11	0.46
40:L3:133:TYR:O	40:L3:136:LYS:HG3	2.46	0.46
24:D2:125:ILE:HG12	24:D2:126:LEU:H	1.79	0.46
49:M3:122:LYS:HE2	71:O5:120:ALA:HA	5.87	0.46
49:M3:89:TYR:O	49:M3:92:THR:OG1	2.25	0.46
51:M5:150:TRP:O	51:M5:153:ASP:HB2	2.84	0.46
39:L2:41:ILE:HG22	39:L2:90:ALA:O	3.06	0.46
53:M7:17:ALA:CB	53:M7:98:ALA:HB2	2.43	0.46
36:5:1752:A:OP2	87:5:4074:OHX:N6	2.49	0.46
36:1:2402:A:OP1	41:L4:70:ALA:HA	2.15	0.46
46:L9:104:VAL:HG23	46:L9:111:PHE:CB	2.45	0.46
46:L9:157:ASN:O	46:L9:160:ASP:HB2	2.16	0.46
46:L9:98:PRO:HD2	46:L9:116:ASN:ND2	4.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2154:U:H5''	39:L2:242:ARG:O	2.15	0.46
45:L8:152:LEU:O	45:L8:197:VAL:HA	2.48	0.46
36:5:3057:U:H5'	36:5:3086:A:H61	1.81	0.46
36:1:1403:C:N4	36:1:1408:G:H1	2.13	0.46
21:C9:75:LYS:HG3	21:C9:75:LYS:HZ3	1.44	0.46
36:5:189:G:C2	36:5:191:U:C4	3.04	0.46
36:5:221:A:C6	36:5:224:C:C2	3.04	0.46
46:L9:64:HIS:O	46:L9:67:ALA:HB3	2.15	0.46
73:O7:21:ARG:NE	73:O7:39:TYR:HB2	3.07	0.46
1:2:1099:U:OP1	24:D2:71:LYS:NZ	2.47	0.46
1:2:450:U:H2'	1:2:451:A:H8	1.80	0.46
10:S8:137:LYS:O	10:S8:140:GLU:N	2.95	0.46
51:M5:9:GLU:HG3	51:M5:9:GLU:O	2.21	0.46
38:4:60:U:C4	38:4:98:U:H4'	2.50	0.46
1:2:1634:C:H3'	1:2:1635:A:H5'	1.97	0.46
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.48	0.46
36:5:259:C:OP2	36:5:259:C:C6	2.69	0.46
1:6:1622:G:C5	1:6:1623:C:C5	3.03	0.46
9:S7:122:HIS:O	9:S7:125:ILE:HB	2.52	0.46
6:S4:126:VAL:HG13	6:S4:126:VAL:O	2.15	0.46
4:S2:158:THR:O	4:S2:168:ARG:HA	2.15	0.46
4:S2:167:VAL:HG21	4:S2:214:ALA:HA	3.47	0.46
74:O8:41:THR:OG1	74:O8:43:PHE:CE2	2.68	0.46
74:O8:59:ALA:HA	74:O8:62:ALA:HB3	1.98	0.46
45:L8:221:ASN:HA	45:L8:225:LYS:CE	4.28	0.46
62:N6:113:LYS:CB	38:8:84:C:H1'	21.44	0.46
36:1:1066:G:C6	36:1:1067:U:N3	2.83	0.46
36:1:2794:G:H1'	36:1:2795:U:C6	2.51	0.46
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.15	0.46
43:L6:22:ARG:HD3	36:5:608:A:N6	243.55	0.46
35:SM:88:ARG:HG2	35:SM:91:THR:HB	1.97	0.46
51:M5:83:LYS:H	51:M5:83:LYS:HD3	4.15	0.46
36:5:306:A:N6	36:5:2784:G:C2	2.84	0.46
1:6:689:G:C4	1:6:690:G:C8	3.03	0.46
35:SM:43:ASP:H	36:5:2678:A:H2	310.11	0.46
36:5:664:U:H2'	36:5:665:A:C8	2.50	0.46
36:5:1534:A:H62	36:5:1586:G:H2'	1.80	0.46
36:1:1839:A:C6	36:1:1843:C:C6	3.03	0.46
17:C5:74:ALA:HA	17:C5:75:PRO:HD2	2.81	0.46
36:1:2995:A:C2'	36:1:2996:U:H5''	2.46	0.46
36:1:1655:G:P	70:O4:40:THR:OG1	2.73	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2975:U:OP1	87:1:4110:OHX:N6	2.49	0.46
7:S5:223:SER:C	7:S5:225:ARG:H	3.62	0.46
51:M5:116:LEU:HD23	51:M5:133:ILE:HD11	1.97	0.46
36:5:2921:U:H2'	36:5:2923:U:OP2	2.15	0.46
36:1:161:G:N7	87:1:4195:OHX:N6	2.63	0.46
39:L2:24:GLN:H	39:L2:24:GLN:HG2	2.11	0.46
57:N1:151:LEU:HD23	57:N1:151:LEU:HA	2.04	0.46
13:C1:30:ARG:H	13:C1:30:ARG:HG2	3.37	0.46
1:2:1642:G:N7	88:2:2181:GET:O43	2.46	0.46
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.15	0.46
36:1:1841:A:N6	36:1:1848:G:N1	2.64	0.46
47:M0:139:ARG:HD2	47:M0:173:PHE:CZ	3.10	0.46
36:5:1196:C:N3	87:5:4087:OHX:N2	2.63	0.46
44:L7:153:PHE:CE2	44:L7:160:ARG:NH2	3.89	0.46
36:1:368:G:O6	36:1:369:A:N6	2.43	0.46
36:1:729:C:H2'	36:1:730:C:H6	1.79	0.46
43:L6:65:ILE:O	43:L6:76:LEU:HA	2.36	0.46
1:6:1308:G:C6	1:6:1309:C:C4	3.04	0.46
5:S3:162:GLN:O	5:S3:164:VAL:N	2.51	0.46
55:M9:154:ALA:O	55:M9:156:ASN:N	3.96	0.46
55:M9:168:ALA:HB1	55:M9:172:ARG:CZ	2.46	0.46
7:S5:190:ILE:O	7:S5:194:LEU:HB2	2.24	0.46
7:S5:40:ILE:HD11	7:S5:47:SER:CB	2.46	0.46
42:L5:206:GLN:HG2	42:L5:210:GLU:OE2	4.21	0.46
1:6:1504:G:H5''	1:6:1505:A:OP2	2.15	0.46
15:C3:47:PRO:CG	15:C3:72:MET:HG3	6.06	0.46
3:S1:131:ASP:CG	3:S1:180:THR:HB	4.94	0.46
36:1:659:G:H2'	36:1:1432:C:H42	1.80	0.46
38:4:15:G:O6	38:4:16:G:N1	2.48	0.46
38:4:16:G:H8	38:4:16:G:OP2	1.99	0.46
68:O2:25:TYR:HB3	68:O2:27:ARG:HE	4.72	0.46
1:6:1140:G:C2	1:6:1141:G:C8	3.04	0.46
1:6:1142:A:C6	1:6:1143:A:C2	3.03	0.46
4:S2:207:LEU:HB3	4:S2:208:GLU:H	1.34	0.46
4:S2:56:ILE:CG2	4:S2:61:LEU:HB2	3.50	0.46
4:S2:99:LYS:HB2	4:S2:117:THR:HB	2.09	0.46
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	5.68	0.46
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.55	0.46
38:4:70:G:O6	87:O7:103:OHX:N4	2.48	0.46
14:C2:66:VAL:HG23	14:C2:72:ILE:HD11	1.97	0.46
67:O1:82:GLU:O	67:O1:83:GLU:C	2.95	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:71:A:H2'	1:6:72:A:C4'	2.45	0.46
56:N0:24:LEU:CD1	57:N1:148:PRO:HG3	2.45	0.46
60:N4:49:ILE:HA	60:N4:49:ILE:HD13	2.05	0.46
1:2:1623:C:H2'	1:2:1624:C:C6	2.51	0.46
9:S7:169:PHE:O	9:S7:171:ALA:N	3.68	0.46
9:S7:89:HIS:HE2	9:S7:164:TYR:HD1	1.64	0.46
34:SR:43:ILE:HD13	34:SR:60:SER:HA	1.97	0.46
1:2:986:G:N2	1:2:1015:U:H5	2.13	0.46
39:L2:84:THR:HG23	79:Q3:63:THR:H	1.80	0.46
36:5:3176:G:H1	36:5:3212:C:H42	1.62	0.46
8:S6:71:THR:HB	8:S6:72:ARG:H	1.53	0.46
36:5:2234:G:H2'	36:5:2235:C:O4'	2.16	0.46
53:M7:170:SER:HA	53:M7:173:ARG:NH2	2.31	0.46
36:5:1804:A:H2'	36:5:1805:C:H6	1.81	0.46
49:M3:46:ILE:HD12	49:M3:46:ILE:HA	1.81	0.46
49:M3:58:VAL:HG13	49:M3:59:ARG:O	2.16	0.46
36:5:1573:G:H1	36:5:1574:C:HO2'	1.56	0.46
1:2:780:A:C8	26:D4:10:ARG:HG2	2.50	0.46
26:D4:36:SER:HA	1:6:521:A:O3'	424.53	0.46
26:D4:36:SER:OG	26:D4:37:LYS:N	3.67	0.46
79:Q3:17:ARG:HD2	79:Q3:18:TYR:CZ	2.50	0.46
38:4:103:G:C6	38:4:105:A:C6	3.03	0.46
76:Q0:80:PRO:HB2	76:Q0:81:SER:H	3.38	0.46
36:1:2095:G:C2	36:1:2096:A:C4	3.04	0.46
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.15	0.46
8:S6:143:LYS:HA	8:S6:143:LYS:HD2	2.08	0.46
13:C1:8:GLN:HE22	13:C1:14:GLN:CB	4.21	0.46
36:5:1078:U:O2	36:5:1082:U:C2	2.69	0.46
37:3:35:C:C5	37:3:36:C:C5	3.04	0.46
9:S7:104:ARG:NH1	1:6:745:U:O4	352.23	0.46
36:5:2814:G:O2'	36:5:2815:G:H5'	2.16	0.46
36:1:216:G:H4'	62:N6:19:TYR:CZ	2.50	0.46
36:1:1556:C:OP1	36:1:1556:C:H4'	2.16	0.46
36:1:2344:U:H2'	36:1:2345:A:H8	1.80	0.46
1:6:187:G:C6	1:6:197:A:N6	2.84	0.46
40:L3:342:LEU:HD23	40:L3:342:LEU:HA	2.93	0.46
36:1:1225:A:H1'	36:1:3116:G:N2	2.31	0.46
36:5:335:G:C2	36:5:336:A:C1'	2.98	0.46
36:1:1870:C:H4'	36:1:3076:C:O2	2.15	0.46
1:2:1105:C:H2'	1:2:1106:U:C6	2.51	0.46
1:2:515:A:OP2	87:2:2070:OHX:N3	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:70:ARG:NH1	39:L2:72:ARG:HH21	7.97	0.46
1:2:526:A:N6	1:2:527:A:C6	2.84	0.46
24:D2:12:ASN:O	24:D2:16:ASN:HB2	2.76	0.46
15:C3:66:ILE:HG12	15:C3:67:THR:HG23	1.97	0.46
36:5:1443:G:C6	36:5:1444:G:C6	3.04	0.46
34:SR:182:ASN:OD1	34:SR:185:GLN:N	2.38	0.46
1:2:109:G:C6	1:2:110:U:C4	3.04	0.46
22:D0:52:LYS:HD2	1:6:1345:A:OP1	469.80	0.46
1:2:452:A:H3'	1:2:453:U:C5	2.51	0.46
36:5:2513:U:H1'	36:5:2514:U:C6	2.51	0.46
5:S3:150:MET:HB3	5:S3:152:PHE:CE2	2.51	0.46
9:S7:35:LYS:C	9:S7:37:GLU:H	2.18	0.46
36:5:168:U:H2'	36:5:169:U:C6	2.50	0.46
65:N9:11:ASN:O	65:N9:11:ASN:CG	2.60	0.46
35:SM:89:ARG:N	35:SM:91:THR:OG1	2.48	0.46
29:D7:34:ASP:O	29:D7:79:PHE:HA	2.37	0.46
51:M5:66:VAL:HG21	51:M5:98:LEU:HB3	2.26	0.46
1:2:1333:C:H2'	1:2:1334:U:C6	2.51	0.46
1:6:1122:G:N2	1:6:1125:A:OP2	2.48	0.46
36:5:1880:U:H2'	36:5:1881:A:H8	1.81	0.46
36:1:1839:A:C5	36:1:1843:C:C4	3.04	0.46
1:2:1114:G:O2'	1:2:1115:U:OP2	2.34	0.46
1:2:1222:C:H2'	1:2:1223:A:C8	2.49	0.46
38:4:146:U:O5'	38:4:146:U:H6	1.99	0.46
35:SM:133:GLU:HG2	35:SM:133:GLU:O	2.15	0.46
40:L3:4:ARG:HD3	40:L3:7:GLU:HA	1.98	0.46
36:1:1056:U:C5	36:1:1057:A:N7	2.83	0.46
36:5:1530:U:HO2'	38:8:114:G:HO2'	1.45	0.46
36:1:1250:G:H2'	36:1:1251:A:H8	1.80	0.46
36:1:2889:C:C4	36:1:2936:A:C8	3.03	0.46
59:N3:34:LEU:HA	59:N3:34:LEU:HD23	2.04	0.46
1:6:563:U:C4	1:6:564:G:C6	3.03	0.46
47:M0:168:SER:HA	47:M0:169:LYS:HE3	5.87	0.46
1:6:553:G:C5	1:6:554:C:C4	3.04	0.46
36:1:2741:C:HO2'	78:Q2:20:HIS:CE1	2.31	0.46
78:Q2:77:CYS:O	78:Q2:79:THR:HG23	2.84	0.46
46:L9:49:ASN:ND2	46:L9:51:GLN:OE1	2.56	0.46
36:5:2165:G:N2	36:5:2170:U:C4	2.83	0.46
78:Q2:48:SER:OG	78:Q2:49:GLY:N	3.41	0.46
53:M7:51:VAL:HG12	53:M7:52:LEU:N	3.10	0.46
1:2:55:A:OP2	26:D4:113:ASN:ND2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:144:ASN:O	47:M0:147:VAL:N	3.46	0.46
47:M0:170:LYS:HE3	47:M0:176:LEU:H	7.09	0.46
36:1:598:A:H1'	41:L4:322:GLN:HE22	1.81	0.46
41:L4:337:GLU:O	41:L4:339:LEU:HD23	2.16	0.46
44:L7:148:VAL:O	44:L7:152:GLY:N	2.49	0.46
45:L8:165:PHE:HZ	51:M5:3:ALA:CB	2.28	0.46
10:S8:172:ARG:HG2	1:6:330:G:P	278.14	0.46
10:S8:27:PHE:HB3	10:S8:49:ARG:NH2	3.72	0.46
36:5:340:C:O2'	36:5:341:G:H5'	2.15	0.46
43:L6:80:ASN:HB2	36:5:3272:C:O2	249.47	0.46
43:L6:97:ASN:O	43:L6:98:VAL:HG12	3.63	0.46
41:L4:74:ILE:HD11	41:L4:93:MET:HE3	5.10	0.46
73:O7:16:HIS:HB2	73:O7:25:ARG:O	3.22	0.46
55:M9:154:ALA:O	55:M9:157:GLU:N	4.06	0.46
1:2:1164:G:H2'	1:2:1165:G:H8	1.80	0.46
7:S5:94:THR:HG22	7:S5:114:ILE:CD1	2.46	0.46
7:S5:190:ILE:C	7:S5:192:GLU:H	2.18	0.46
7:S5:195:ALA:O	7:S5:199:ILE:HG13	2.65	0.46
61:N5:79:GLY:HA3	61:N5:81:ILE:HD12	1.98	0.46
61:N5:67:ILE:HB	61:N5:83:VAL:HG12	2.09	0.46
36:1:1029:G:C6	36:1:1030:A:N6	2.84	0.46
1:2:1277:G:H4'	5:S3:183:GLY:N	2.31	0.46
1:2:1556:A:C5	1:2:1560:U:C2	3.04	0.46
1:6:1200:G:H4'	1:6:1201:G:H5''	1.96	0.46
5:S3:109:LEU:O	5:S3:177:MET:HE1	3.24	0.46
5:S3:55:THR:HA	5:S3:58:VAL:HG23	1.98	0.46
15:C3:89:TYR:CE2	15:C3:150:VAL:HG22	2.51	0.46
36:1:266:A:N6	72:O6:30:LYS:HA	2.31	0.46
49:M3:99:HIS:ND1	36:5:156:G:C8	80.58	0.46
28:D6:44:ILE:CG2	28:D6:65:PRO:HG2	6.13	0.46
48:M1:9:MET:HB3	48:M1:10:ARG:H	4.53	0.46
48:M1:160:VAL:CG1	48:M1:164:LYS:HD2	2.45	0.46
55:M9:125:LYS:NZ	36:5:1720:U:O4	240.94	0.46
55:M9:5:ARG:O	55:M9:8:LYS:HB3	2.16	0.46
62:N6:112:ASP:HB3	62:N6:114:ASP:H	1.81	0.46
1:2:264:G:O6	87:2:2034:OHX:N4	2.49	0.46
6:S4:234:PRO:HG2	6:S4:238:LEU:HG	1.97	0.46
36:5:1317:A:OP1	87:5:4092:OHX:N1	2.49	0.46
40:L3:91:GLY:O	40:L3:102:LEU:N	2.88	0.46
57:N1:9:SER:O	57:N1:11:THR:HG23	2.80	0.46
36:5:3091:A:C5	36:5:3094:A:C8	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:24:ASN:O	59:N3:100:GLY:N	2.37	0.46
69:O3:15:SER:HB3	69:O3:29:LEU:CD1	2.46	0.46
1:6:148:A:C8	1:6:149:C:C6	3.03	0.46
34:SR:234:LEU:HD21	34:SR:268:GLN:HE21	1.81	0.46
52:M6:125:ARG:C	52:M6:127:LEU:N	2.69	0.46
73:O7:52:LYS:HG2	73:O7:56:ARG:NH2	2.99	0.46
39:L2:42:ARG:HD2	39:L2:87:PHE:CE2	5.04	0.46
79:Q3:36:ARG:HA	79:Q3:48:LYS:HG3	1.97	0.46
36:1:3180:A:C5	52:M6:114:LYS:HB3	2.50	0.46
36:5:3286:G:H2'	36:5:3287:U:O4'	2.15	0.46
8:S6:64:LYS:HB3	8:S6:67:VAL:HG22	3.17	0.46
52:M6:179:ALA:C	52:M6:182:ASN:HD22	6.54	0.46
71:O5:93:THR:HB	36:5:135:C:H1'	58.68	0.46
51:M5:180:PHE:O	51:M5:184:LYS:HB3	3.04	0.46
37:3:9:C:OP1	57:N1:26:HIS:HB2	2.16	0.46
1:2:783:G:C2	1:2:784:C:C2	3.04	0.46
1:2:562:G:N2	1:2:584:C:C6	2.84	0.46
39:L2:186:PHE:HD2	39:L2:187:HIS:N	2.14	0.46
1:2:1081:A:OP2	1:2:1081:A:H2'	2.15	0.46
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	2.86	0.46
8:S6:147:LEU:O	8:S6:148:SER:OG	2.26	0.46
53:M7:33:ALA:C	53:M7:35:ALA:H	3.00	0.46
44:L7:30:ARG:HE	44:L7:34:LYS:CE	4.66	0.46
52:M6:141:LEU:O	52:M6:141:LEU:HD12	2.16	0.46
52:M6:141:LEU:O	52:M6:144:SER:HB3	2.16	0.46
4:S2:43:ARG:C	4:S2:45:VAL:H	2.18	0.46
36:1:1934:G:N7	87:1:3885:OHX:N2	2.64	0.46
36:1:2931:C:H2'	36:1:2932:U:O4'	2.15	0.46
2:S0:28:ASN:OD1	2:S0:28:ASN:N	4.50	0.46
1:6:1370:U:H4'	1:6:1371:A:H4'	1.97	0.46
1:6:1382:A:O2'	1:6:1383:G:H5''	2.16	0.46
1:2:1489:U:O5'	5:S3:9:ARG:NH1	2.49	0.46
36:5:207:U:H2'	36:5:208:C:C6	2.51	0.46
74:O8:46:ARG:HH21	74:O8:50:SER:C	2.19	0.46
36:1:1556:C:O2	36:1:1556:C:H5''	2.15	0.46
36:5:1609:C:N4	36:5:1610:G:O6	2.49	0.46
36:5:2270:A:N1	36:5:2271:A:C2	2.84	0.46
1:2:1146:G:C2	1:2:1633:A:C5	3.03	0.46
1:2:1144:U:O2'	1:2:1301:U:H4'	2.15	0.46
65:N9:46:ALA:C	65:N9:47:LEU:HD23	2.36	0.46
49:M3:9:ILE:CD1	64:N8:45:MET:HE1	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:94:LYS:HA	36:5:1139:G:O3'	232.40	0.46
1:6:1098:U:H6	1:6:1098:U:H5''	1.80	0.46
45:L8:180:VAL:HG22	45:L8:181:LYS:N	2.30	0.46
36:1:3316:A:N1	36:1:3389:U:C2	2.83	0.46
36:1:123:A:H3'	36:1:124:U:H5'	1.97	0.46
48:M1:47:GLN:HG2	48:M1:67:VAL:HG12	1.97	0.46
1:6:18:C:C4'	1:6:1137:A:N6	2.78	0.46
17:C5:56:PHE:CE1	17:C5:83:MET:SD	3.54	0.46
1:2:887:A:O2'	16:C4:122:PRO:HG3	2.16	0.46
36:1:3176:G:H1'	69:O3:3:GLU:CD	2.36	0.46
37:3:26:C:H2'	37:3:27:A:O4'	2.16	0.46
47:M0:98:ARG:HG3	47:M0:98:ARG:NH1	2.31	0.46
7:S5:133:VAL:O	7:S5:137:ILE:HG12	2.16	0.46
1:6:891:A:H2'	1:6:892:A:C8	2.51	0.46
1:2:121:U:H2'	1:2:122:U:O4'	2.16	0.46
70:O4:13:TYR:CD2	36:5:1589:A:C4	152.53	0.46
35:SM:97:THR:O	35:SM:99:LYS:HG2	2.16	0.46
44:L7:118:LYS:HB2	44:L7:195:PHE:CE1	2.97	0.46
36:5:1490:A:H3'	36:5:1491:A:H8	1.81	0.46
36:1:2130:G:C6	36:1:2323:G:C6	3.04	0.46
59:N3:45:ARG:HG3	59:N3:46:LEU:N	3.08	0.46
16:C4:15:GLY:C	16:C4:79:VAL:HG23	2.36	0.46
36:1:2363:A:C6	36:1:2364:G:C6	3.04	0.46
54:M8:165:ILE:HD12	54:M8:166:LEU:H	4.85	0.46
36:5:317:A:H2'	36:5:318:A:C8	2.50	0.46
36:5:59:G:H2'	38:8:33:A:O2'	2.15	0.46
36:5:1166:G:N7	87:5:3895:OHX:N5	2.64	0.46
36:5:74:G:C6	36:5:75:G:N7	2.84	0.46
57:N1:126:VAL:O	57:N1:127:GLN:HB2	3.17	0.46
33:E1:88:PRO:HA	33:E1:89:LYS:HA	4.76	0.46
67:O1:40:ALA:O	67:O1:42:LEU:N	3.00	0.46
68:O2:34:LYS:HD2	68:O2:52:GLN:NE2	2.31	0.46
1:6:1326:A:O5'	1:6:1326:A:H8	1.98	0.46
1:6:1663:G:C5	1:6:1664:C:C5	3.03	0.46
5:S3:212:LYS:HB2	5:S3:212:LYS:NZ	4.17	0.46
36:1:2595:A:H5''	36:1:2595:A:N3	2.30	0.46
42:L5:150:LEU:HD23	42:L5:150:LEU:HA	1.78	0.46
36:1:2553:U:O2	36:1:2553:U:H2'	2.15	0.46
6:S4:39:ARG:HH11	6:S4:39:ARG:HG2	3.85	0.46
1:2:1632:C:O2'	1:2:1638:G:O2'	2.32	0.46
36:1:2404:A:N3	36:1:2405:C:H5'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:390:G:H8	36:1:390:G:H5''	1.81	0.46
1:2:45:U:H3'	1:2:46:A:H5''	1.97	0.46
51:M5:73:ARG:HG2	51:M5:75:VAL:HG13	1.97	0.46
36:1:1467:A:C6	36:1:1511:U:C2	3.04	0.46
36:1:1847:A:O2'	36:1:1848:G:H5''	2.15	0.46
53:M7:48:LEU:HD22	53:M7:48:LEU:HA	2.49	0.46
11:S9:38:ASN:ND2	1:6:594:A:OP2	409.23	0.46
11:S9:114:TYR:O	11:S9:116:LEU:N	3.40	0.46
36:1:2851:A:H2'	36:1:2852:C:H6	1.81	0.46
36:5:2523:A:C2	36:5:2587:U:C4	3.03	0.46
36:1:740:G:N3	36:1:740:G:H2'	2.31	0.46
43:L6:58:LEU:C	43:L6:60:ASP:H	2.19	0.46
43:L6:86:ALA:H	69:O3:107:ILE:C	2.18	0.46
1:2:1475:A:H2'	1:2:1476:C:O4'	2.15	0.46
20:C8:26:ILE:HG13	20:C8:27:LYS:N	2.31	0.46
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.18	0.46
7:S5:41:LYS:HE3	7:S5:67:PRO:HG2	1.98	0.46
1:6:1203:A:H2'	1:6:1204:A:H5'	1.98	0.46
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.16	0.46
36:5:112:U:HO2'	36:5:113:C:P	2.39	0.46
36:1:2651:G:H4'	36:1:2652:U:OP2	2.16	0.46
36:1:2652:U:C4	36:1:2759:U:O2	2.69	0.46
63:N7:29:HIS:HB2	63:N7:40:HIS:NE2	2.31	0.46
1:6:871:G:C2	1:6:872:G:C2	3.04	0.46
1:6:871:G:N2	1:6:957:G:H1'	2.31	0.46
62:N6:24:SER:O	62:N6:25:SER:C	2.74	0.46
1:2:1206:U:C5	1:2:1207:C:C2	3.04	0.46
35:SM:72:ARG:HA	35:SM:72:ARG:HD3	2.96	0.46
35:SM:73:SER:OG	35:SM:74:LYS:N	2.49	0.46
6:S4:109:PHE:HD1	6:S4:109:PHE:HA	1.58	0.46
60:N4:53:VAL:HB	60:N4:54:LEU:HD12	1.97	0.46
36:1:2723:U:H2'	36:1:2724:U:C6	2.51	0.46
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	2.51	0.46
9:S7:49:ILE:HG21	9:S7:175:LYS:HG3	4.84	0.46
8:S6:140:ASN:ND2	1:6:168:A:OP1	316.91	0.46
1:6:66:U:H1'	1:6:67:A:OP1	2.15	0.46
34:SR:155:ARG:O	34:SR:170:ILE:HG12	2.16	0.46
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.43	0.46
36:5:2314:U:OP2	36:5:2314:U:H4'	2.16	0.46
62:N6:56:VAL:O	62:N6:67:GLU:HB3	3.01	0.46
36:1:209:A:C4	41:L4:162:THR:HG21	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3151:U:H4'	36:1:3294:A:C1'	2.46	0.46
46:L9:129:ARG:NH2	46:L9:156:GLN:HG2	3.04	0.46
36:1:1944:U:H2'	36:1:1945:A:O4'	2.16	0.46
45:L8:153:ILE:HD11	45:L8:166:LEU:HB2	1.97	0.46
11:S9:28:LEU:O	11:S9:28:LEU:HD22	2.80	0.46
48:M1:101:ASN:HB2	48:M1:128:TYR:HE1	4.66	0.46
48:M1:60:ARG:O	48:M1:61:ARG:C	2.94	0.46
36:5:2972:G:C2	36:5:2973:G:C8	3.04	0.46
36:1:2273:G:H22	36:1:2311:G:H2'	1.81	0.46
36:5:3059:G:C6	36:5:3060:C:N4	2.84	0.46
64:N8:74:ASN:HD22	64:N8:115:LYS:N	2.14	0.46
47:M0:100:ASN:O	47:M0:101:LYS:HB3	4.84	0.46
54:M8:148:GLU:OE1	54:M8:152:HIS:NE2	2.49	0.46
36:5:405:U:H2'	36:5:406:G:H5'	1.98	0.46
6:S4:128:LYS:HD3	6:S4:130:GLN:OE1	2.86	0.46
1:2:1234:A:O2'	33:E1:146:SER:HA	2.16	0.46
1:2:197:A:O3'	1:2:198:A:H8	1.99	0.46
36:5:183:G:H1	36:5:233:C:H42	1.64	0.46
3:S1:115:ARG:HH11	3:S1:115:ARG:CG	3.99	0.46
36:1:1495:U:H5	36:1:1835:A:N1	2.13	0.46
50:M4:32:LEU:HD21	50:M4:94:TRP:CD2	2.50	0.46
54:M8:93:ILE:HG23	36:5:784:A:C6	151.79	0.46
36:1:544:C:O2'	36:1:548:G:N2	2.48	0.46
36:5:1818:U:O2'	36:5:1819:U:H5'	2.16	0.46
1:2:523:G:H21	1:2:529:A:H8	1.57	0.46
1:2:300:A:C2	1:2:301:A:C4	3.04	0.46
36:5:2663:G:N2	36:5:2708:C:C2	2.84	0.46
1:2:685:A:H2'	1:2:686:C:C6	2.50	0.46
36:1:3284:G:OP1	87:1:4148:OHX:N6	2.49	0.46
55:M9:109:TYR:N	55:M9:109:TYR:CD1	2.84	0.46
36:1:425:G:O2'	36:1:426:G:H5'	2.15	0.46
1:6:234:G:H2'	1:6:235:G:O4'	2.15	0.46
54:M8:157:PRO:O	54:M8:158:HIS:HB2	2.16	0.46
18:C6:77:GLN:O	18:C6:81:ILE:HG12	3.26	0.46
36:5:1182:A:C4	36:5:1183:C:C5	3.03	0.46
5:S3:124:ARG:NH2	35:SM:124:GLN:HB2	2.31	0.46
38:8:85:G:H3'	38:8:85:G:H8	1.81	0.46
36:5:2772:C:H6	36:5:2772:C:OP2	1.99	0.46
1:2:1776:A:C2	1:2:1786:G:C6	3.03	0.46
15:C3:134:VAL:O	15:C3:135:LEU:HD23	2.15	0.46
37:3:16:U:C2'	37:3:17:A:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3133:C:H2'	36:5:3134:A:O4'	2.15	0.46
1:2:1111:G:H1	1:2:1134:C:N4	2.14	0.46
1:2:1111:G:C6	1:2:1112:G:C4	3.03	0.46
36:5:2259:A:H2'	36:5:2260:U:C6	2.49	0.46
36:1:3241:G:H5''	36:1:3242:G:OP2	2.16	0.46
36:1:898:U:C5	36:1:899:U:C5	3.04	0.46
44:L7:118:LYS:HG3	44:L7:191:VAL:HG11	1.97	0.46
1:2:552:G:C6	1:2:553:G:C6	3.04	0.46
36:5:2606:G:N7	87:5:4168:OHX:N3	2.64	0.46
36:5:767:U:H4'	36:5:768:C:OP1	2.15	0.46
1:6:1235:C:OP2	1:6:1245:G:H8	1.98	0.46
36:1:2838:A:C6	36:1:2839:G:H1'	2.50	0.46
36:1:945:C:H2'	36:1:946:U:C6	2.51	0.46
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.51	0.46
36:1:1141:C:H2'	36:1:1142:G:O4'	2.15	0.46
36:5:2574:G:H2'	36:5:2575:G:H8	1.80	0.46
1:2:351:C:H3'	1:2:352:A:H5'	1.97	0.46
49:M3:107:GLU:OE1	72:O6:17:VAL:HG13	4.89	0.46
1:2:1486:G:H8	1:2:1486:G:H2'	1.58	0.46
36:1:2282:U:H6	36:1:2282:U:OP2	1.98	0.46
36:1:1530:U:H6	36:1:1530:U:O5'	1.99	0.46
1:2:434:G:N2	1:2:436:A:H3'	2.30	0.46
1:2:1757:G:C2	1:2:1758:U:C6	3.04	0.46
40:L3:53:MET:SD	36:5:3048:A:H5'	234.75	0.46
20:C8:6:GLN:HE21	27:D5:44:GLN:N	8.88	0.46
40:L3:234:GLY:O	40:L3:235:THR:O	3.76	0.46
46:L9:19:SER:C	46:L9:20:ILE:HG12	2.36	0.46
36:1:1444:G:C6	36:1:1445:U:C2	3.04	0.46
36:5:2357:A:H2'	36:5:2358:A:C8	2.50	0.46
6:S4:11:ARG:H	6:S4:27:TYR:HA	1.81	0.46
28:D6:82:ARG:O	28:D6:84:VAL:HG12	2.15	0.46
1:6:477:A:C5	1:6:538:A:C6	3.03	0.46
11:S9:27:GLU:O	11:S9:31:ALA:N	2.42	0.46
11:S9:86:LEU:HD12	11:S9:95:TYR:HB3	1.97	0.46
47:M0:63:GLU:H	47:M0:63:GLU:CD	2.40	0.46
44:L7:210:PRO:HD3	44:L7:243:MET:CE	2.46	0.46
1:6:210:A:H2'	1:6:211:U:H6	1.79	0.46
1:6:299:A:H4'	1:6:299:A:OP1	2.15	0.46
36:1:1422:G:C5	36:1:1423:C:C5	3.04	0.46
36:5:1382:G:C2	36:5:1425:U:O2	2.69	0.46
41:L4:141:ARG:HB2	41:L4:177:ASP:CA	3.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:274:TYR:CG	41:L4:275:THR:N	3.02	0.46
64:N8:8:THR:HG21	36:5:662:U:OP1	150.31	0.46
43:L6:141:VAL:O	43:L6:143:LYS:N	3.04	0.46
43:L6:60:ASP:O	43:L6:61:ASN:HB2	2.16	0.46
1:6:1402:G:C6	1:6:1403:C:C4	3.04	0.46
5:S3:190:ARG:NH2	5:S3:195:SER:OG	2.48	0.46
18:C6:28:LEU:HD22	18:C6:30:LYS:HD2	1.97	0.46
30:D8:11:LYS:HG3	30:D8:12:VAL:O	3.36	0.46
7:S5:186:ASN:ND2	7:S5:187:ILE:H	5.16	0.46
36:1:1460:A:C6	36:1:1473:G:C6	3.04	0.46
61:N5:108:LEU:HD12	61:N5:125:ARG:HD3	1.98	0.46
1:2:1553:G:N2	1:2:1555:A:H3'	2.31	0.46
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.46	0.46
33:E1:141:CYS:SG	33:E1:143:LYS:HB3	3.34	0.46
5:S3:84:ILE:HG12	5:S3:85:VAL:N	2.88	0.46
1:2:951:A:C2	1:2:952:A:C8	3.04	0.46
15:C3:61:THR:HB	1:6:959:U:O2	349.21	0.46
1:6:975:C:H2'	1:6:976:G:O4'	2.16	0.46
36:5:1631:C:C2	36:5:1645:U:C5	3.03	0.46
47:M0:24:ARG:HH11	47:M0:24:ARG:HG3	1.81	0.46
1:6:915:A:C5	1:6:916:U:C4	3.04	0.46
2:S0:142:PRO:HB3	23:D1:34:ILE:HD11	1.98	0.46
2:S0:145:ALA:O	2:S0:160:ILE:N	2.42	0.46
2:S0:146:LEU:HB3	2:S0:162:CYS:SG	6.09	0.46
2:S0:175:TYR:O	2:S0:179:ARG:N	2.47	0.46
4:S2:211:LEU:O	4:S2:213:ALA:N	2.49	0.46
4:S2:65:GLU:O	4:S2:68:ILE:N	2.48	0.46
1:6:1697:G:OP1	1:6:1705:C:N4	2.43	0.46
48:M1:152:HIS:O	48:M1:153:LYS:HG2	4.81	0.46
63:N7:29:HIS:CD2	63:N7:42:LEU:HD13	3.96	0.46
68:O2:122:PRO:HD2	68:O2:123:LYS:H	1.81	0.46
1:6:1185:U:C6	1:6:1458:G:C8	3.04	0.46
20:C8:139:LYS:HB2	1:6:1458:G:OP2	353.73	0.46
69:O3:44:TYR:HD1	69:O3:100:ILE:HG21	2.77	0.46
69:O3:39:GLN:O	69:O3:41:ALA:N	3.18	0.46
9:S7:164:TYR:C	9:S7:166:LEU:N	3.08	0.46
39:L2:103:PRO:C	39:L2:105:GLY:N	2.69	0.46
36:5:579:G:C2	36:5:580:C:C2	3.04	0.46
36:1:2124:G:N2	36:1:2125:A:C4	2.84	0.46
36:5:2211:U:H5	36:5:2234:G:C6	2.34	0.46
40:L3:137:TYR:O	40:L3:141:GLY:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3276:G:OP2	36:5:3276:G:H2'	2.15	0.46
51:M5:172:ARG:HD2	36:5:30:G:O5'	111.16	0.46
51:M5:93:LYS:HG3	36:5:289:A:C2	145.39	0.46
38:8:106:C:C5	38:8:138:A:C5	3.04	0.46
71:O5:45:LYS:O	71:O5:49:LYS:HG2	4.70	0.46
76:Q0:84:ALA:HA	76:Q0:87:SER:CB	2.39	0.46
36:5:88:A:H2'	36:5:89:A:O4'	2.15	0.46
36:5:150:A:C6	36:5:151:A:C5	3.04	0.46
36:5:3103:A:N1	36:5:3104:U:C2	2.84	0.46
10:S8:56:ARG:NH2	1:6:332:U:P	286.03	0.46
48:M1:57:PHE:HB3	36:5:2680:A:C2	309.24	0.46
48:M1:52:TYR:N	48:M1:52:TYR:CD1	2.84	0.46
36:5:2143:A:O2'	36:5:2144:A:H5'	2.16	0.46
36:5:3383:G:O2'	36:5:3384:U:H5'	2.16	0.46
36:1:2618:G:O5'	65:N9:3:LYS:NZ	2.49	0.46
68:O2:33:ARG:NH2	36:5:1408:G:OP1	159.98	0.46
33:E1:148:TYR:C	33:E1:149:LYS:HG3	3.25	0.46
36:5:221:A:C5	36:5:224:C:N3	2.83	0.46
36:1:1888:U:C4	36:1:1889:G:C8	3.03	0.46
36:5:1595:U:H1'	36:5:1596:C:C6	2.51	0.46
36:5:2719:U:HO2'	36:5:2720:G:C4'	2.28	0.46
36:5:2619:G:H2'	36:5:2620:G:O4'	2.16	0.46
53:M7:27:LYS:HB3	53:M7:63:PHE:CB	2.46	0.46
36:5:3205:G:H2'	36:5:3206:C:C4	2.51	0.46
36:1:170:G:C2	36:1:171:G:C4	3.04	0.46
36:1:1928:G:N2	36:1:2320:A:O2'	2.44	0.46
1:6:1623:C:H2'	1:6:1624:C:C6	2.51	0.46
36:1:543:C:C4	36:1:544:C:C2	3.03	0.46
1:2:322:G:O4'	1:2:323:A:C8	2.68	0.46
36:5:667:C:O2	36:5:667:C:C2'	2.63	0.46
36:5:2660:G:O3'	36:5:2749:G:N2	2.48	0.46
10:S8:20:GLN:NE2	10:S8:22:ARG:O	2.49	0.46
36:1:384:A:N6	36:1:385:A:N1	2.64	0.46
47:M0:167:LEU:H	47:M0:167:LEU:CD2	4.10	0.46
36:1:1741:A:C6	36:1:1742:U:C2	3.04	0.46
36:5:2428:U:O2	36:5:2602:G:C2	2.69	0.46
45:L8:82:LEU:HD23	45:L8:87:ALA:HB2	1.98	0.46
36:1:2793:G:O6	87:1:3935:OHX:N5	2.48	0.46
1:2:1286:U:H2'	1:2:1287:A:C8	2.51	0.46
49:M3:40:ALA:O	49:M3:43:ALA:HB3	2.74	0.46
36:1:717:C:C5	36:1:718:G:C6	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:1:MET:HE3	56:N0:32:SER:HB3	1.97	0.46
33:E1:131:PHE:N	33:E1:131:PHE:CD1	3.62	0.46
36:1:109:A:N3	36:1:110:G:H1'	2.31	0.46
70:O4:67:LYS:HB2	36:5:1821:U:C2	165.81	0.46
36:1:2824:G:O6	87:1:3905:OHX:N4	2.49	0.46
36:5:416:A:N6	36:5:417:A:C6	2.84	0.46
36:1:899:U:O2'	36:1:900:G:H5'	2.16	0.46
36:1:3186:A:N1	46:L9:58:HIS:HB2	2.31	0.46
59:N3:74:MET:SD	59:N3:102:ILE:HD13	4.57	0.46
36:1:891:G:C6	36:1:892:U:C4	3.03	0.46
38:8:68:G:C6	38:8:69:U:N3	2.84	0.46
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.45	0.46
1:2:82:U:H2'	1:2:83:G:O4'	2.16	0.46
1:6:181:A:H2'	1:6:182:A:O4'	2.16	0.46
53:M7:75:GLU:HG2	53:M7:76:PHE:CD1	2.51	0.46
45:L8:228:GLU:OE2	45:L8:231:LYS:HD2	2.16	0.46
36:5:3161:C:H2'	36:5:3162:C:C6	2.50	0.46
57:N1:147:VAL:HG12	57:N1:147:VAL:O	3.63	0.46
1:6:1327:C:H6	1:6:1327:C:O5'	1.99	0.46
10:S8:88:ASN:H	10:S8:88:ASN:ND2	2.14	0.46
36:1:1199:C:H4'	36:1:1200:A:O5'	2.15	0.46
25:D3:75:GLN:HG3	25:D3:82:LYS:CD	2.47	0.45
78:Q2:98:LYS:HG3	36:5:2656:A:OP1	250.11	0.45
40:L3:56:ILE:HD11	40:L3:359:ILE:CD1	2.45	0.45
36:5:3191:G:C6	36:5:3192:U:N3	2.84	0.45
46:L9:31:ARG:HD2	46:L9:149:ASN:OD1	2.16	0.45
1:6:1796:C:H4'	1:6:1797:A:OP2	2.15	0.45
28:D6:5:ARG:NH2	1:6:1795:U:OP2	337.17	0.45
11:S9:146:PHE:CE1	11:S9:148:VAL:HA	2.51	0.45
11:S9:37:LYS:HG3	11:S9:38:ASN:H	1.80	0.45
11:S9:84:GLY:O	11:S9:107:ARG:HD3	2.15	0.45
47:M0:58:GLU:OE1	47:M0:161:GLY:HA3	2.16	0.45
41:L4:327:LEU:O	41:L4:328:ASN:HB3	2.64	0.45
44:L7:141:TYR:O	44:L7:143:THR:N	2.79	0.45
1:6:328:A:C2	1:6:341:A:C2	3.04	0.45
26:D4:76:TYR:CG	26:D4:82:ALA:HA	2.87	0.45
10:S8:167:ALA:HB2	10:S8:183:ILE:HD12	5.98	0.45
36:1:1386:A:N6	41:L4:179:LEU:HD13	2.32	0.45
36:1:938:C:O2'	36:1:2814:G:O2'	2.32	0.45
73:O7:18:LEU:HA	73:O7:25:ARG:HA	1.98	0.45
55:M9:160:GLU:HA	55:M9:163:ARG:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:37:GLY:O	1:6:1566:U:H4'	353.42	0.45
1:6:1573:A:H4'	1:6:1574:G:H5'	1.98	0.45
7:S5:184:PHE:CZ	7:S5:185:ARG:HG3	2.51	0.45
7:S5:37:GLN:HB3	18:C6:53:LEU:HD22	1.97	0.45
75:O9:6:SER:O	75:O9:9:ILE:HG12	2.91	0.45
36:1:1108:U:C2	36:1:1109:U:C5	3.04	0.45
42:L5:107:ARG:HH21	42:L5:110:LEU:HD23	1.81	0.45
1:6:1202:A:N3	1:6:1202:A:H3'	2.31	0.45
21:C9:15:ILE:HG21	21:C9:60:SER:HB2	1.98	0.45
22:D0:67:THR:HG21	31:D9:40:ARG:HB2	1.97	0.45
48:M1:89:TYR:O	48:M1:169:ALA:HB1	2.21	0.45
5:S3:98:ALA:C	5:S3:100:ALA:N	2.69	0.45
35:SM:57:ASN:O	35:SM:60:ALA:N	3.85	0.45
1:2:960:U:H2'	1:2:961:U:C6	2.51	0.45
15:C3:46:THR:O	15:C3:49:GLN:N	2.48	0.45
71:O5:101:THR:O	71:O5:105:ARG:HB2	2.91	0.45
36:5:1631:C:N3	36:5:1811:G:N2	2.60	0.45
16:C4:48:VAL:HG22	16:C4:49:LYS:H	2.42	0.45
16:C4:19:ILE:O	16:C4:83:ILE:HD12	2.16	0.45
28:D6:51:ARG:O	28:D6:53:LEU:N	2.50	0.45
1:2:1141:G:N2	1:2:1142:A:C2	2.84	0.45
23:D1:53:TYR:HD1	23:D1:53:TYR:N	3.11	0.45
36:1:1633:C:H41	63:N7:17:ARG:NH1	2.13	0.45
36:1:2826:U:C2'	36:1:2827:U:H5'	2.46	0.45
71:O5:4:VAL:HG13	71:O5:50:SER:HB3	2.76	0.45
79:Q3:30:GLU:HA	79:Q3:33:GLN:HG2	1.99	0.45
14:C2:45:LEU:HB2	1:6:1228:G:OP1	463.83	0.45
40:L3:63:PRO:HA	40:L3:68:HIS:CG	2.52	0.45
17:C5:130:ARG:HD2	17:C5:130:ARG:HA	1.74	0.45
56:N0:133:ALA:HA	56:N0:135:VAL:N	4.05	0.45
56:N0:14:LEU:HD23	56:N0:14:LEU:HA	1.97	0.45
36:1:2757:U:H4'	57:N1:7:TYR:HB3	1.98	0.45
40:L3:298:PHE:O	40:L3:300:ARG:HG2	4.30	0.45
36:1:3259:U:H4'	36:1:3260:G:H5''	1.97	0.45
36:5:3224:G:H2'	36:5:3225:C:H6	1.80	0.45
50:M4:121:MET:O	50:M4:125:LYS:HG2	3.15	0.45
69:O3:49:ILE:N	69:O3:69:GLY:O	2.47	0.45
1:6:1588:G:H1	1:6:1608:U:H3	1.65	0.45
18:C6:47:LYS:O	18:C6:82:ARG:HD2	3.66	0.45
34:SR:224:ASN:HD21	34:SR:226:ALA:HB3	3.68	0.45
52:M6:42:ASN:HD22	52:M6:42:ASN:HA	1.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:129:LYS:HB2	16:C4:129:LYS:HE3	1.61	0.45
52:M6:195:ALA:C	52:M6:197:LEU:N	3.11	0.45
36:5:835:G:H22	36:5:857:G:C1'	2.29	0.45
36:5:1685:C:H2'	36:5:1686:U:C6	2.51	0.45
36:5:1339:C:H2'	36:5:1340:G:O4'	2.15	0.45
36:1:2319:U:O4	87:1:4039:OHX:N2	2.49	0.45
46:L9:129:ARG:HH22	46:L9:156:GLN:HG2	2.82	0.45
1:2:1092:A:C4	1:2:1094:G:C8	3.04	0.45
36:1:1946:A:H2'	36:1:1947:G:H8	1.79	0.45
39:L2:193:ARG:HH21	36:5:2181:C:H5''	195.13	0.45
40:L3:35:ASP:OD1	40:L3:36:ASP:N	3.05	0.45
36:5:542:G:C6	36:5:543:C:C4	3.04	0.45
70:O4:56:THR:C	70:O4:57:LEU:HD23	2.54	0.45
42:L5:58:LYS:HD3	42:L5:58:LYS:N	2.31	0.45
64:N8:100:PRO:HG2	64:N8:123:VAL:CG1	4.34	0.45
36:1:3385:U:C2	36:1:3386:G:C8	3.04	0.45
36:1:1919:G:C2'	36:1:1933:A:H61	2.30	0.45
22:D0:25:THR:HG23	22:D0:90:TYR:HB3	3.76	0.45
46:L9:7:GLU:HA	46:L9:56:ALA:HA	2.62	0.45
79:Q3:55:TRP:CD1	79:Q3:55:TRP:N	2.84	0.45
36:5:2372:A:H5''	36:5:2373:A:H5''	1.97	0.45
36:5:3204:C:H2'	36:5:3205:G:C8	2.50	0.45
36:1:198:A:H1'	36:1:218:G:N3	2.31	0.45
8:S6:20:ASP:O	8:S6:23:ARG:HB2	2.71	0.45
69:O3:13:HIS:HA	69:O3:30:ILE:CD1	3.38	0.45
65:N9:50:THR:CG2	36:5:1072:G:H21	206.52	0.45
61:N5:115:ARG:HA	61:N5:116:PRO:HD2	1.75	0.45
58:N2:76:LEU:HG	58:N2:95:PHE:HE1	1.81	0.45
42:L5:286:VAL:HG22	47:M0:206:LEU:HD22	1.97	0.45
47:M0:207:GLU:O	47:M0:210:ILE:HB	3.38	0.45
6:S4:126:VAL:HG21	6:S4:155:LYS:O	3.38	0.45
6:S4:155:LYS:NZ	1:6:243:G:O3'	342.48	0.45
1:2:1319:A:C6	1:2:1320:U:C2	3.04	0.45
44:L7:92:ILE:HD11	54:M8:4:ASP:N	2.31	0.45
36:5:1350:A:C6	36:5:1351:U:C2	3.04	0.45
35:SM:88:ARG:HH12	35:SM:89:ARG:HH11	1.62	0.45
1:6:1314:U:HO2'	1:6:1315:U:P	2.37	0.45
36:5:1558:A:O2'	36:5:1559:A:H5'	2.16	0.45
36:5:1088:U:C5	36:5:1089:G:N7	2.84	0.45
45:L8:105:LYS:HE3	45:L8:108:ARG:HH12	1.82	0.45
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1336:U:O2'	36:5:1337:A:H5'	2.17	0.45
40:L3:51:ALA:CB	40:L3:317:ILE:HD11	2.46	0.45
35:SM:43:ASP:O	36:1:2678:A:H1'	2.16	0.45
68:O2:62:LYS:HZ1	36:5:590:G:H5''	205.86	0.45
36:1:1370:G:O5'	64:N8:18:GLY:HA2	2.16	0.45
65:N9:23:LYS:CG	65:N9:24:PRO:HD3	4.73	0.45
87:5:4050:OHX:N3	87:5:4194:OHX:N6	2.65	0.45
36:1:1161:G:C2	36:1:1162:U:C5	3.04	0.45
36:1:2885:C:O2'	36:1:2886:U:H5'	2.16	0.45
87:5:4006:OHX:N3	87:5:4195:OHX:N5	2.64	0.45
62:N6:73:VAL:HG22	62:N6:80:VAL:CG2	2.46	0.45
1:2:1520:U:OP1	1:2:1520:U:H6	1.99	0.45
53:M7:120:ASN:HB2	53:M7:121:GLN:H	1.80	0.45
1:6:1464:G:C6	1:6:1465:C:C5	3.04	0.45
36:1:2855:U:OP2	47:M0:6:ALA:HB3	2.17	0.45
1:6:1417:A:OP1	87:6:2091:OHX:N4	2.48	0.45
1:6:256:A:H2'	1:6:257:A:O4'	2.17	0.45
51:M5:71:ARG:NH2	36:5:332:U:O3'	139.39	0.45
36:5:3364:C:H2'	36:5:3365:U:O4'	2.16	0.45
40:L3:384:LYS:O	87:L3:405:OHX:N3	2.49	0.45
1:2:628:G:O5'	1:2:628:G:H8	1.99	0.45
64:N8:88:ASP:OD1	64:N8:88:ASP:N	2.49	0.45
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.41	0.45
36:1:1182:A:H2'	36:1:1183:C:C6	2.51	0.45
45:L8:101:THR:OG1	45:L8:104:GLU:HG3	5.28	0.45
40:L3:264:VAL:CG2	40:L3:265:ALA:N	2.97	0.45
87:6:2125:OHX:N2	87:6:2177:OHX:N5	2.65	0.45
28:D6:28:LYS:HG3	28:D6:29:SER:N	2.30	0.45
28:D6:87:ARG:HD2	1:6:1797:A:C6	343.25	0.45
11:S9:146:PHE:HZ	1:6:765:G:N1	430.15	0.45
11:S9:77:ILE:HD11	11:S9:93:LEU:HB3	1.98	0.45
47:M0:76:MET:HE3	47:M0:148:VAL:O	4.61	0.45
47:M0:85:PHE:CA	47:M0:140:THR:HG22	2.57	0.45
44:L7:153:PHE:O	44:L7:202:LEU:HA	2.15	0.45
44:L7:158:LYS:HB3	44:L7:158:LYS:NZ	3.87	0.45
44:L7:51:TYR:CE1	44:L7:186:HIS:CE1	3.04	0.45
10:S8:59:ARG:NH2	1:6:1678:A:OP1	252.60	0.45
26:D4:12:VAL:HG12	1:6:783:G:C8	422.44	0.45
10:S8:191:PHE:CD1	13:C1:13:PHE:HB2	2.52	0.45
10:S8:46:VAL:HG13	10:S8:54:LYS:HB2	4.00	0.45
36:1:1386:A:N3	41:L4:180:LYS:HA	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:131:LYS:O	43:L6:135:VAL:HG23	2.16	0.45
1:2:1542:G:N2	1:2:1569:A:OP2	2.49	0.45
1:2:1583:A:C8	1:2:1585:U:C2	3.03	0.45
20:C8:22:VAL:HG13	20:C8:31:ALA:HB1	1.98	0.45
7:S5:63:GLN:HG3	7:S5:86:GLN:O	2.78	0.45
36:5:2746:A:H2'	36:5:2747:A:O4'	2.15	0.45
17:C5:33:PHE:CE1	17:C5:36:LEU:HD21	4.62	0.45
20:C8:90:ASN:HA	20:C8:95:GLY:O	2.43	0.45
21:C9:117:SER:HB2	21:C9:123:ARG:HB2	1.98	0.45
21:C9:28:LEU:HB3	21:C9:29:GLU:H	4.07	0.45
5:S3:109:LEU:HD23	5:S3:109:LEU:HA	1.61	0.45
1:2:956:C:H2'	1:2:957:G:C8	2.52	0.45
15:C3:46:THR:HB	15:C3:47:PRO:HD2	2.83	0.45
15:C3:4:MET:HG3	15:C3:5:HIS:H	1.81	0.45
36:1:268:A:N1	36:1:295:A:H5'	2.30	0.45
1:6:1639:C:H2'	1:6:1640:C:O4'	2.16	0.45
77:Q1:22:ALA:C	77:Q1:24:SER:H	2.19	0.45
3:S1:66:VAL:HG22	16:C4:34:SER:CA	2.46	0.45
28:D6:44:ILE:H	28:D6:44:ILE:HG13	1.48	0.45
3:S1:128:LYS:NZ	3:S1:132:ASP:HB3	2.31	0.45
3:S1:137:ILE:HG21	3:S1:176:VAL:HG21	3.22	0.45
23:D1:51:VAL:CG2	23:D1:78:LEU:HD11	2.44	0.45
2:S0:60:ALA:HB1	2:S0:144:ILE:HG21	2.50	0.45
2:S0:59:LEU:HA	2:S0:59:LEU:HD23	4.25	0.45
36:1:1720:U:O4	55:M9:125:LYS:HD2	2.16	0.45
63:N7:81:LEU:HD22	63:N7:81:LEU:HA	1.71	0.45
14:C2:40:GLY:O	14:C2:124:LYS:N	3.62	0.45
14:C2:52:LEU:HD21	14:C2:60:VAL:HG22	2.82	0.45
1:2:1212:G:C2	1:2:1213:G:C8	3.05	0.45
6:S4:229:GLY:HA2	6:S4:235:TYR:CD2	2.81	0.45
56:N0:117:ARG:HG2	56:N0:117:ARG:H	1.60	0.45
56:N0:14:LEU:HD12	56:N0:55:SER:C	2.37	0.45
36:5:2726:C:N3	36:5:2728:G:C2	2.84	0.45
57:N1:72:VAL:HG21	57:N1:74:VAL:HG23	1.99	0.45
40:L3:294:GLY:O	40:L3:303:LYS:HE2	2.16	0.45
43:L6:176:PHE:C	50:M4:114:ASP:H	3.29	0.45
34:SR:256:THR:HG21	34:SR:261:LYS:HD2	1.98	0.45
34:SR:22:SER:HB2	34:SR:69:GLN:O	2.16	0.45
39:L2:80:GLU:N	39:L2:170:ALA:HB2	3.34	0.45
79:Q3:72:SER:OG	79:Q3:80:ARG:NH2	2.86	0.45
79:Q3:90:VAL:HG22	79:Q3:90:VAL:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:83:LYS:HZ3	3:S1:106:THR:H	6.53	0.45
52:M6:110:PRO:CD	52:M6:111:PRO:HD2	4.97	0.45
36:5:3288:G:O2'	36:5:3289:G:O5'	2.33	0.45
8:S6:57:ASP:CB	8:S6:106:LEU:HD23	2.46	0.45
1:2:153:G:O2'	8:S6:108:VAL:HG21	2.15	0.45
57:N1:101:CYS:HB3	36:5:990:U:H1'	252.49	0.45
36:5:62:A:H2'	36:5:63:A:H8	1.80	0.45
38:8:106:C:O2'	87:8:234:OHX:N5	2.49	0.45
27:D5:79:ALA:C	27:D5:83:LEU:HD12	4.60	0.45
36:1:213:A:H2'	36:1:214:G:O4'	2.16	0.45
45:L8:163:VAL:HG23	45:L8:166:LEU:HD12	1.98	0.45
45:L8:196:ALA:HB3	36:5:147:U:OP2	119.64	0.45
24:D2:44:HIS:NE2	24:D2:101:TYR:CZ	2.84	0.45
36:1:2898:G:O6	76:Q0:125:LYS:NZ	2.40	0.45
36:1:1802:C:H1'	70:O4:59:PRO:O	2.15	0.45
70:O4:20:ILE:HA	70:O4:20:ILE:HD12	1.72	0.45
70:O4:8:ARG:HH21	70:O4:31:ARG:HH11	3.23	0.45
52:M6:58:LEU:HA	52:M6:72:HIS:CD2	2.53	0.45
1:2:539:G:OP2	1:2:539:G:H8	2.00	0.45
1:2:354:C:C5'	10:S8:16:ALA:HB2	2.41	0.45
22:D0:44:ASN:HD21	22:D0:103:ILE:CD1	4.95	0.45
36:1:224:C:H2'	36:1:225:C:H6	1.80	0.45
2:S0:102:PHE:CE1	2:S0:106:SER:HB2	2.81	0.45
1:6:1418:G:C8	1:6:1418:G:H5"	2.50	0.45
40:L3:248:LYS:HE2	36:5:2393:G:OP2	205.76	0.45
10:S8:138:ASN:O	10:S8:142:LYS:HG2	2.15	0.45
57:N1:68:THR:HG22	57:N1:71:SER:HB2	1.98	0.45
55:M9:64:ARG:O	55:M9:66:HIS:N	3.98	0.45
36:1:169:U:O2'	36:1:170:G:H8	1.96	0.45
2:S0:108:THR:CG2	2:S0:135:GLU:HG2	4.83	0.45
36:1:1536:G:C5	36:1:1537:A:N7	2.84	0.45
1:2:276:C:N4	1:2:281:G:N1	2.63	0.45
36:1:541:U:H2'	36:1:542:G:H8	1.81	0.45
36:1:1230:G:C6	36:1:1231:A:C6	3.04	0.45
36:5:2236:G:C5	36:5:2237:C:C5	3.04	0.45
74:O8:43:PHE:CZ	74:O8:65:LEU:HB3	2.91	0.45
36:5:1488:G:C2	36:5:1489:A:N7	2.84	0.45
36:5:709:A:H2'	36:5:710:A:O4'	2.16	0.45
57:N1:17:ARG:HH11	57:N1:17:ARG:CB	3.57	0.45
36:1:3062:G:H2'	36:1:3063:C:H6	1.81	0.45
36:1:1577:G:H2'	36:1:1578:C:C1'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:10:LYS:HB3	59:N3:10:LYS:HE2	3.29	0.45
1:2:980:G:N1	1:2:981:U:C4	2.84	0.45
36:1:1079:A:N6	36:1:1080:A:C6	2.84	0.45
36:1:1207:G:H4'	76:Q0:117:HIS:O	2.16	0.45
17:C5:77:ARG:HH22	1:6:1241:G:P	383.09	0.45
36:5:2345:A:O5'	36:5:2345:A:H8	1.99	0.45
36:5:3360:C:O2'	36:5:3361:G:H5'	2.16	0.45
48:M1:115:LYS:HB3	48:M1:116:TYR:H	1.58	0.45
36:5:1533:U:C2'	36:5:1534:A:H5'	2.46	0.45
36:5:3228:C:O2'	36:5:3229:G:OP2	2.34	0.45
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CE1	2.90	0.45
87:8:220:OHX:N6	87:8:229:OHX:N3	2.63	0.45
36:5:886:C:C2'	36:5:887:G:H5'	2.45	0.45
1:2:1673:G:C5	1:2:1674:C:C5	3.04	0.45
36:1:957:C:N3	36:1:958:C:C5	2.84	0.45
36:1:1509:A:O2'	36:1:1510:G:H5'	2.16	0.45
36:5:1549:U:H2'	36:5:1550:C:H6	1.80	0.45
1:6:1713:G:H8	1:6:1713:G:O5'	2.00	0.45
52:M6:43:ILE:HG22	52:M6:44:SER:O	2.15	0.45
34:SR:283:LYS:HG3	34:SR:284:ALA:N	4.87	0.45
36:1:1016:C:H1'	36:1:1028:U:C2	2.51	0.45
40:L3:283:TYR:HB3	40:L3:356:LEU:HD21	1.98	0.45
46:L9:77:ASN:HA	46:L9:80:THR:OG1	2.15	0.45
36:5:2358:A:O5'	36:5:2358:A:C8	2.69	0.45
1:2:40:A:H62	1:2:467:G:N2	2.15	0.45
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.97	0.45
32:E0:30:PRO:HB2	32:E0:34:ALA:CB	2.72	0.45
1:6:1579:U:P	87:6:2189:OHX:N6	2.90	0.45
45:L8:75:ILE:C	45:L8:77:GLN:H	2.18	0.45
1:6:303:U:O2'	1:6:304:U:O5'	2.21	0.45
1:6:343:C:H2'	1:6:344:A:C8	2.52	0.45
10:S8:48:THR:OG1	10:S8:49:ARG:N	2.47	0.45
36:1:1419:A:C2'	36:1:1420:C:H5'	2.46	0.45
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	1.98	0.45
5:S3:161:GLY:C	5:S3:163:PRO:HD2	2.37	0.45
1:6:1470:C:C4'	1:6:1540:G:H21	2.30	0.45
7:S5:118:LEU:HA	7:S5:118:LEU:HD23	1.91	0.45
46:L9:90:MET:O	46:L9:144:ILE:HG22	2.16	0.45
61:N5:108:LEU:H	61:N5:126:LEU:HA	2.85	0.45
61:N5:81:ILE:HA	61:N5:124:VAL:O	2.16	0.45
61:N5:127:THR:C	61:N5:129:ASP:N	2.76	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:84:PRO:C	42:L5:86:TYR:N	2.66	0.45
1:2:1282:U:O2'	1:2:1283:U:H5'	2.16	0.45
1:6:1506:G:C2'	1:6:1507:G:H5'	2.45	0.45
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	3.82	0.45
17:C5:15:HIS:O	17:C5:22:LEU:N	2.59	0.45
22:D0:68:ARG:HA	22:D0:78:THR:O	3.20	0.45
51:M5:46:ASP:O	51:M5:49:ARG:N	2.49	0.45
36:5:1784:G:C6	36:5:1785:U:N3	2.85	0.45
1:2:901:G:H22	16:C4:54:GLU:CD	2.20	0.45
1:6:886:U:O2'	1:6:887:A:H5'	2.17	0.45
2:S0:198:MET:HG3	19:C7:85:VAL:HG11	1.98	0.45
23:D1:37:ALA:HA	23:D1:50:TYR:HA	1.99	0.45
2:S0:52:LYS:HE2	23:D1:81:ASN:O	7.24	0.45
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	3.55	0.45
4:S2:211:LEU:HD23	4:S2:211:LEU:HA	1.52	0.45
63:N7:41:ALA:C	63:N7:42:LEU:HD12	2.37	0.45
66:O0:34:LEU:HD12	66:O0:34:LEU:HA	1.87	0.45
55:M9:18:GLY:HA3	36:5:1874:A:H5''	135.34	0.45
39:L2:130:SER:HB3	39:L2:174:ARG:NH2	2.19	0.45
79:Q3:33:GLN:HG3	79:Q3:34:HIS:ND1	3.98	0.45
36:5:1185:C:H2'	36:5:1186:G:O4'	2.15	0.45
36:5:1320:C:H2'	36:5:1321:G:H8	1.81	0.45
56:N0:11:GLY:O	56:N0:12:ARG:HB3	3.19	0.45
40:L3:292:ALA:HA	40:L3:303:LYS:O	2.17	0.45
43:L6:170:LYS:O	43:L6:171:PRO:C	2.75	0.45
9:S7:168:SER:O	9:S7:171:ALA:N	2.48	0.45
38:4:52:A:H61	75:O9:35:ILE:HD13	1.81	0.45
36:5:2249:G:HO2'	36:5:2250:G:P	2.40	0.45
40:L3:166:ILE:HG13	40:L3:171:LEU:HD12	4.49	0.45
1:6:417:A:O2'	1:6:418:G:OP2	2.24	0.45
34:SR:299:GLN:O	34:SR:315:VAL:N	2.43	0.45
22:D0:58:LEU:HD23	22:D0:58:LEU:HA	1.55	0.45
36:1:3294:A:H2'	36:1:3295:A:O4'	2.16	0.45
1:2:1683:C:O2	1:2:1719:A:C2	2.70	0.45
36:1:3175:U:OP1	69:O3:10:LYS:HE2	2.15	0.45
24:D2:80:ASN:ND2	1:6:747:C:H4'	354.19	0.45
49:M3:92:THR:HB	71:O5:114:ARG:HG2	1.97	0.45
36:1:76:G:HO2'	49:M3:100:ARG:HH11	1.60	0.45
13:C1:91:LEU:HD23	13:C1:91:LEU:HA	3.53	0.45
13:C1:93:TYR:OH	13:C1:98:ASN:HA	2.16	0.45
10:S8:37:LYS:NZ	10:S8:95:THR:HG1	2.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:306:U:H2'	1:6:307:G:C8	2.51	0.45
4:S2:122:ALA:C	4:S2:125:ILE:HG13	2.37	0.45
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.25	0.45
4:S2:79:GLU:HG2	4:S2:186:LYS:HD2	1.99	0.45
36:1:2902:A:OP1	46:L9:170:LYS:NZ	2.45	0.45
70:O4:41:ARG:HA	70:O4:42:PRO:HD3	2.62	0.45
36:1:2194:G:H1'	36:1:2274:U:O2	2.16	0.45
36:5:3085:G:N3	36:5:3085:G:H2'	2.32	0.45
36:5:1578:C:H2'	36:5:1579:C:O4'	2.17	0.45
36:1:2623:G:C4	36:1:2624:G:C8	3.04	0.45
1:2:1433:G:N2	1:2:1434:U:C2	2.85	0.45
59:N3:6:ALA:HB2	59:N3:126:TRP:CZ2	3.01	0.45
36:5:1406:A:H2'	36:5:1407:A:C8	2.52	0.45
37:3:30:G:O2'	37:3:31:U:H5'	2.16	0.45
54:M8:115:VAL:C	54:M8:117:ALA:N	2.70	0.45
36:1:2233:A:H2'	36:1:2234:G:O4'	2.16	0.45
36:1:1700:G:H1	36:1:1745:C:H42	1.64	0.45
87:5:3968:OHX:N3	87:5:4237:OHX:N2	2.63	0.45
42:L5:184:ASP:HB3	42:L5:187:THR:OG1	4.63	0.45
42:L5:190:ILE:O	42:L5:192:PRO:HD3	2.16	0.45
36:1:3309:G:H5'	53:M7:70:THR:HA	1.98	0.45
58:N2:23:THR:OG1	58:N2:30:PRO:HG3	2.77	0.45
62:N6:98:ASN:O	62:N6:99:LEU:HD23	2.16	0.45
55:M9:182:ASP:HB3	55:M9:183:ALA:H	3.72	0.45
74:O8:12:LEU:HA	74:O8:15:THR:HG23	1.98	0.45
5:S3:127:MET:SD	5:S3:131:ALA:HB3	2.56	0.45
36:1:1670:C:H1'	36:1:1780:G:N2	2.32	0.45
61:N5:49:LYS:HZ3	61:N5:53:HIS:HB2	3.95	0.45
49:M3:129:ASN:HB3	49:M3:131:LYS:CE	2.46	0.45
36:1:164:A:C2	36:1:165:A:C5	3.04	0.45
36:1:679:U:O5'	36:1:679:U:H6	2.00	0.45
35:SM:87:THR:O	35:SM:88:ARG:HB3	2.17	0.45
36:5:1582:C:C3'	36:5:1582:C:C6	2.99	0.45
13:C1:26:LYS:HA	13:C1:26:LYS:HD2	3.06	0.45
36:5:3393:U:H2'	36:5:3394:U:C6	2.49	0.45
1:2:1288:G:N7	1:2:1314:U:H2'	2.31	0.45
34:SR:10:ARG:HB3	34:SR:11:GLY:H	1.53	0.45
45:L8:173:MET:C	45:L8:175:VAL:H	2.20	0.45
6:S4:95:THR:CG2	26:D4:16:PRO:HG2	2.46	0.45
1:6:891:A:H2'	1:6:892:A:H8	1.81	0.45
36:1:1070:U:C4	36:1:1071:U:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1591:G:C6	36:1:1592:G:C6	3.04	0.45
87:1:3972:OHX:N3	87:1:4155:OHX:N4	2.64	0.45
11:S9:175:ARG:O	11:S9:179:ARG:HG3	2.16	0.45
8:S6:31:ARG:HA	8:S6:100:ALA:O	2.75	0.45
36:1:802:C:O2'	36:1:803:C:H5'	2.16	0.45
36:1:309:U:H3	36:1:2780:A:N6	2.14	0.45
6:S4:39:ARG:HG2	6:S4:39:ARG:NH1	4.07	0.45
46:L9:105:GLU:OE2	46:L9:108:GLY:HA2	2.16	0.45
26:D4:43:LYS:HG3	26:D4:46:GLU:OE2	6.28	0.45
36:5:2861:U:C2	36:5:2862:U:C6	3.04	0.45
36:5:1005:G:C6	36:5:1006:A:N7	2.84	0.45
48:M1:77:GLU:HG2	48:M1:77:GLU:H	1.46	0.45
1:6:499:U:H6	1:6:499:U:H3'	1.81	0.45
50:M4:127:LYS:O	50:M4:127:LYS:HG2	3.32	0.45
13:C1:94:ILE:HD12	13:C1:94:ILE:H	1.81	0.45
36:5:3330:A:H8	36:5:3330:A:H5''	1.82	0.45
6:S4:6:LYS:HB2	6:S4:6:LYS:HE2	3.34	0.45
64:N8:13:GLY:N	36:5:943:U:OP2	164.66	0.45
1:6:561:G:C2'	1:6:562:G:H5'	2.45	0.45
25:D3:98:GLU:C	25:D3:100:ASP:H	2.20	0.45
25:D3:91:GLY:O	25:D3:93:LEU:N	2.48	0.45
36:1:1895:A:O2'	36:1:3053:G:H4'	2.17	0.45
20:C8:124:GLY:HA2	20:C8:127:HIS:HB2	1.99	0.45
36:1:1502:C:OP2	87:1:3879:OHX:N6	2.49	0.45
11:S9:158:PHE:CZ	11:S9:164:PHE:HD1	2.35	0.45
41:L4:330:TYR:CE2	44:L7:52:GLN:HG2	2.51	0.45
36:1:115:A:N6	36:1:154:U:N3	2.64	0.45
36:5:2586:G:H4'	36:5:2587:U:OP2	2.16	0.45
1:6:211:U:H2'	1:6:212:U:C6	2.50	0.45
6:S4:52:LEU:HD13	6:S4:54:TYR:CD2	2.52	0.45
41:L4:229:ASN:HD21	41:L4:231:ALA:HB3	2.49	0.45
41:L4:29:PRO:HD3	41:L4:279:HIS:NE2	2.30	0.45
43:L6:42:LEU:HD23	43:L6:42:LEU:HA	1.73	0.45
1:6:1330:G:H2'	1:6:1331:A:O4'	2.16	0.45
36:5:358:G:N1	36:5:361:A:OP2	2.46	0.45
1:2:1580:C:H4'	18:C6:137:ARG:CB	2.46	0.45
1:6:1566:U:O2'	1:6:1567:U:H5'	2.15	0.45
20:C8:62:THR:OG1	20:C8:65:GLU:HG3	3.70	0.45
20:C8:70:VAL:O	20:C8:73:MET:HB2	2.16	0.45
67:O1:29:ALA:HB2	67:O1:64:VAL:HA	1.99	0.45
1:6:1552:U:O2	1:6:1597:A:H2	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.25	0.45
15:C3:102:LEU:HD11	15:C3:112:LYS:HA	1.99	0.45
77:Q1:1:MET:HB2	77:Q1:1:MET:HE2	1.89	0.45
70:O4:19:LYS:HB2	70:O4:35:VAL:O	2.15	0.45
1:2:901:G:C6	1:2:902:G:C6	3.05	0.45
1:2:918:U:C2	1:2:919:A:C8	3.04	0.45
3:S1:69:CYS:SG	16:C4:114:ARG:NH1	4.55	0.45
3:S1:35:PRO:HA	3:S1:41:ARG:HH21	1.82	0.45
1:2:1142:A:OP1	28:D6:2:PRO:HB3	2.17	0.45
4:S2:101:VAL:HG22	4:S2:115:ILE:HG23	2.16	0.45
55:M9:101:VAL:HG22	55:M9:104:ARG:HH12	1.81	0.45
63:N7:26:VAL:HG22	63:N7:42:LEU:O	2.16	0.45
63:N7:97:SER:O	63:N7:100:THR:N	2.46	0.45
1:6:955:A:H4'	1:6:1073:G:O2'	2.16	0.45
36:5:230:U:H2'	36:5:231:G:O4'	2.16	0.45
62:N6:27:ARG:NE	62:N6:78:PHE:CE2	2.85	0.45
71:O5:6:ALA:HB1	71:O5:10:ARG:NH2	2.32	0.45
59:N3:11:PHE:CE1	59:N3:88:ARG:HD2	2.52	0.45
31:D9:5:ASN:ND2	31:D9:7:TRP:NE1	2.64	0.45
36:1:2444:C:N4	36:1:2503:G:H21	2.04	0.45
6:S4:208:VAL:O	6:S4:210:ILE:HG13	2.16	0.45
6:S4:72:VAL:HG22	6:S4:90:ILE:HA	3.69	0.45
8:S6:164:LYS:HD2	8:S6:167:LYS:HB2	1.98	0.45
36:1:2374:C:C5	36:1:2941:A:C2	3.01	0.45
1:6:146:U:O2'	1:6:147:A:H5'	2.17	0.45
34:SR:224:ASN:N	34:SR:231:MET:HG3	2.38	0.45
36:1:53:G:N3	36:1:54:C:C6	2.85	0.45
62:N6:37:LYS:HD3	62:N6:37:LYS:H	1.81	0.45
62:N6:37:LYS:HG2	62:N6:38:GLU:H	1.81	0.45
9:S7:144:VAL:HG22	24:D2:49:GLU:HB2	1.97	0.45
1:2:1323:C:H2'	1:2:1324:G:O4'	2.17	0.45
1:6:1301:U:C4	1:6:1302:U:C5	3.05	0.45
36:1:632:G:OP1	52:M6:94:ARG:N	2.43	0.45
36:5:908:G:OP1	87:5:4039:OHX:N3	2.50	0.45
72:O6:54:GLU:OE2	72:O6:86:LYS:NZ	2.48	0.45
36:5:989:A:C5	36:5:990:U:C5	3.05	0.45
51:M5:142:ILE:O	51:M5:144:ARG:O	2.34	0.45
36:1:96:G:OP1	64:N8:34:MET:N	2.45	0.45
46:L9:96:HIS:O	46:L9:96:HIS:ND1	3.30	0.45
26:D4:35:VAL:HG22	26:D4:36:SER:N	2.32	0.45
39:L2:117:GLU:HB3	39:L2:119:LYS:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:56:ARG:O	61:N5:57:LEU:HB2	4.25	0.45
71:O5:23:ASP:O	71:O5:27:GLU:HB2	2.62	0.45
36:5:2240:G:N1	36:5:2241:U:C2	2.85	0.45
36:5:2281:A:C6	36:5:2959:C:H1'	2.52	0.45
56:N0:99:ARG:O	56:N0:103:VAL:HG23	2.32	0.45
64:N8:81:LEU:HD12	64:N8:104:THR:HG22	2.83	0.45
52:M6:54:TYR:O	52:M6:57:PHE:HB3	2.16	0.45
65:N9:3:LYS:HB3	36:5:2617:U:OP1	219.71	0.45
1:2:355:G:P	87:2:2036:OHX:N4	2.89	0.45
45:L8:36:ILE:H	45:L8:36:ILE:HG13	2.99	0.45
58:N2:81:LYS:HG2	58:N2:90:ARG:HH12	1.82	0.45
10:S8:151:LYS:HA	10:S8:151:LYS:HD2	4.10	0.45
6:S4:103:TYR:CE2	6:S4:189:LEU:HD11	3.39	0.45
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.97	0.45
22:D0:25:THR:HA	22:D0:90:TYR:HA	2.57	0.45
36:5:2786:G:N2	36:5:2787:G:H1'	2.30	0.45
36:5:1718:G:H2'	36:5:1719:G:C8	2.51	0.45
59:N3:35:TYR:O	59:N3:35:TYR:CG	2.69	0.45
40:L3:339:ARG:HG2	40:L3:340:LYS:N	2.31	0.45
36:5:2197:C:C5	36:5:2242:A:C6	3.04	0.45
36:1:1286:A:N3	36:1:1287:A:H1'	2.31	0.45
1:2:1224:A:O2'	1:2:1225:U:H5'	2.16	0.45
53:M7:69:ARG:CZ	36:5:2389:C:H1'	189.87	0.45
36:5:1523:U:P	36:5:1607:U:H3	2.40	0.45
1:2:319:U:H1'	1:2:323:A:C4	2.51	0.45
69:O3:88:ASN:HB2	36:5:429:U:C5'	214.44	0.45
14:C2:131:ASP:HB2	14:C2:132:GLU:OE2	2.16	0.45
1:6:139:C:N3	1:6:266:A:C2	2.84	0.45
1:6:176:C:OP1	87:6:2100:OHX:N6	2.50	0.45
36:5:659:G:C6	36:5:1432:C:C2	3.05	0.45
1:6:1283:U:N3	1:6:1425:A:C2	2.84	0.45
36:1:1497:C:H2'	36:1:1498:A:H8	1.79	0.45
37:7:70:U:N3	37:7:71:G:N7	2.64	0.45
1:2:759:U:OP2	1:2:759:U:H6	1.99	0.45
1:2:121:U:O2	6:S4:34:GLY:HA2	2.15	0.45
70:O4:24:LYS:HA	70:O4:30:LEU:HD23	2.80	0.45
36:5:2609:A:N3	36:5:2610:G:C8	2.84	0.45
36:1:913:A:H2	36:1:2134:G:N3	2.13	0.45
1:2:288:A:C2	1:2:289:U:C2	3.05	0.45
36:5:2592:G:H4'	36:5:2594:C:C2	2.52	0.45
45:L8:84:ARG:HB3	45:L8:84:ARG:HH11	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:4:LEU:HD13	68:O2:90:LYS:HB2	3.79	0.45
1:2:81:G:N1	1:2:82:U:C2	2.85	0.45
47:M0:91:VAL:HG12	47:M0:91:VAL:O	2.35	0.45
14:C2:128:ALA:O	14:C2:133:LEU:HD22	2.73	0.45
11:S9:72:GLU:OE2	1:6:761:G:O2'	397.00	0.45
36:1:1524:A:C6	36:1:1527:C:C2	3.04	0.45
36:1:1355:A:C5'	36:1:1356:U:H5	2.29	0.45
69:O3:7:LEU:HA	69:O3:7:LEU:HD23	1.49	0.45
2:S0:43:ASP:N	2:S0:43:ASP:OD1	2.48	0.45
65:N9:22:LYS:HB3	65:N9:22:LYS:HE3	1.53	0.45
42:L5:67:SER:HA	42:L5:72:ASP:HA	2.36	0.45
36:5:2993:G:C6	36:5:3142:A:C4	3.04	0.45
1:2:748:U:O2'	1:2:749:U:H5'	2.17	0.45
1:6:552:G:C6	1:6:553:G:C5	3.05	0.45
1:6:565:C:H5''	1:6:566:C:C6	2.52	0.45
40:L3:212:ASN:ND2	40:L3:353:GLU:HB3	3.77	0.45
28:D6:5:ARG:HG2	1:6:1796:C:C6	341.21	0.45
1:2:544:A:H5''	1:2:545:A:P	2.57	0.45
1:6:477:A:H2'	1:6:478:A:H8	1.81	0.45
36:1:1206:G:OP1	47:M0:157:TYR:OH	2.31	0.45
47:M0:205:SER:OG	47:M0:208:ASN:OD1	3.12	0.45
44:L7:39:GLU:C	44:L7:41:ARG:H	2.64	0.45
45:L8:172:LYS:HG2	72:O6:43:LEU:HD21	1.98	0.45
51:M5:5:LYS:HG2	72:O6:36:ARG:HD3	1.97	0.45
1:6:212:U:OP2	87:6:2130:OHX:N1	2.50	0.45
41:L4:150:LEU:HD11	41:L4:172:VAL:HG13	1.98	0.45
41:L4:177:ASP:O	41:L4:179:LEU:N	2.49	0.45
41:L4:25:VAL:HG21	41:L4:262:TRP:HB2	3.22	0.45
41:L4:39:PHE:CD2	41:L4:39:PHE:C	2.89	0.45
64:N8:3:SER:O	64:N8:4:ARG:C	2.55	0.45
1:2:1533:C:H5''	27:D5:74:SER:OG	2.17	0.45
1:2:1613:U:C4	1:2:1614:A:H2	2.34	0.45
1:2:1479:A:O2'	21:C9:12:GLN:OE1	2.22	0.45
7:S5:145:ASP:HA	7:S5:221:ALA:HB2	1.99	0.45
42:L5:148:ILE:CD1	42:L5:159:VAL:HG21	3.28	0.45
12:C0:59:PHE:CE2	12:C0:62:GLN:HA	3.39	0.45
17:C5:18:ARG:NH2	17:C5:38:PRO:HD3	2.31	0.45
17:C5:70:ASN:O	17:C5:71:GLU:HG2	4.25	0.45
48:M1:114:ILE:O	48:M1:114:ILE:HG22	2.74	0.45
5:S3:45:LYS:HB2	5:S3:45:LYS:HE2	1.85	0.45
36:5:699:A:C8	36:5:700:C:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1025:A:O2'	1:2:1773:C:O2'	2.32	0.45
15:C3:115:LEU:HA	15:C3:115:LEU:HD23	1.75	0.45
3:S1:48:VAL:HG21	3:S1:61:LEU:CD2	4.24	0.45
2:S0:172:LEU:CD2	2:S0:176:LEU:HD21	2.46	0.45
2:S0:177:LEU:O	2:S0:178:ALA:C	2.88	0.45
66:O0:42:ILE:HG13	66:O0:67:VAL:HG22	2.57	0.45
68:O2:79:VAL:CG1	68:O2:111:ARG:HG2	3.14	0.45
71:O5:4:VAL:HG21	71:O5:9:LEU:HD11	1.98	0.45
38:4:34:U:C5	73:O7:74:PHE:CE2	3.05	0.45
1:2:1228:G:OP2	14:C2:119:SER:OG	2.35	0.45
1:6:1185:U:H1'	1:6:1456:C:C5'	2.46	0.45
18:C6:143:ARG:CZ	35:SM:84:LYS:HE2	2.46	0.45
36:5:3242:G:O4'	36:5:3245:A:C8	2.70	0.45
43:L6:166:LYS:NZ	36:5:3214:U:C6	274.86	0.45
34:SR:89:LEU:O	34:SR:103:PHE:HD2	2.01	0.45
41:L4:53:SER:O	41:L4:55:LYS:N	2.69	0.45
66:O0:99:ASP:O	66:O0:103:THR:N	3.84	0.45
36:5:1235:U:C4'	36:5:1236:G:H5'	2.46	0.45
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	2.53	0.45
52:M6:24:ALA:HB1	52:M6:88:VAL:HG23	2.65	0.45
78:Q2:32:LYS:O	78:Q2:32:LYS:HG2	2.16	0.45
36:1:1428:A:O2'	36:1:1429:G:H5''	2.17	0.45
36:1:345:G:OP1	36:1:1429:G:N1	2.49	0.45
1:2:747:C:H4'	24:D2:80:ASN:ND2	2.22	0.45
1:2:778:G:C6	1:2:783:G:C6	3.04	0.45
61:N5:60:TYR:CE2	71:O5:26:LYS:HG3	3.29	0.45
71:O5:63:ARG:NH2	71:O5:80:LEU:HD23	2.31	0.45
71:O5:77:PRO:HD2	71:O5:80:LEU:HB2	4.09	0.45
46:L9:106:LYS:HD2	46:L9:106:LYS:HA	3.77	0.45
36:5:89:A:C6	36:5:98:G:C2	3.04	0.45
1:2:591:A:C2	1:2:592:A:C5	3.05	0.45
35:SM:39:PRO:HD2	48:M1:52:TYR:CZ	2.52	0.45
48:M1:61:ARG:O	78:Q2:103:ALA:HB2	3.27	0.45
36:5:1733:G:H8	36:5:1733:G:O5'	2.00	0.45
60:N4:31:PHE:HB3	60:N4:36:SER:OG	2.41	0.45
36:1:3084:C:H5'	60:N4:38:SER:OG	2.16	0.45
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.98	0.45
36:1:944:C:OP1	36:1:944:C:H4'	2.17	0.45
37:3:47:C:H2'	37:3:48:U:C6	2.51	0.45
56:N0:71:LYS:HD2	36:5:562:C:H5''	341.38	0.45
56:N0:71:LYS:NZ	36:5:562:C:O3'	344.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:38:LEU:HA	24:D2:38:LEU:HD23	2.47	0.45
32:E0:53:LYS:O	32:E0:54:ARG:HB3	2.56	0.45
36:1:3107:U:O2'	36:1:3108:G:H5'	2.16	0.45
46:L9:63:LYS:HD3	46:L9:63:LYS:HA	1.47	0.45
1:6:1418:G:H8	1:6:1418:G:H5''	1.81	0.45
36:5:1824:U:C4	36:5:1825:G:N7	2.85	0.45
1:2:189:C:H2'	1:2:190:C:H5'	1.98	0.45
79:Q3:52:ALA:O	79:Q3:54:ILE:N	2.50	0.45
15:C3:23:PRO:C	15:C3:25:TRP:N	2.70	0.45
36:1:1278:A:HO2'	36:1:1279:C:P	2.38	0.45
36:1:385:A:H2'	36:1:386:A:H8	1.79	0.45
36:5:2359:C:H6	36:5:2359:C:O5'	2.00	0.45
36:1:1741:A:C2	36:1:1742:U:C4	3.04	0.45
1:2:946:U:H5''	3:S1:165:ARG:CZ	2.47	0.45
1:6:1645:G:N2	1:6:1758:U:C5	2.85	0.45
1:6:1240:U:O2'	1:6:1242:A:N7	2.41	0.45
1:6:1237:G:P	87:6:2101:OHX:N4	2.90	0.45
36:5:2304:C:C5	36:5:2305:G:C6	3.05	0.45
1:2:1287:A:H61	1:2:1329:A:H5'	1.81	0.45
1:2:162:A:H3'	1:2:163:G:N2	2.29	0.45
36:1:2700:G:H5''	57:N1:17:ARG:HD3	1.99	0.45
57:N1:17:ARG:NH1	57:N1:45:ASN:HD21	2.14	0.45
40:L3:107:ALA:HB2	40:L3:199:PHE:HB3	2.34	0.45
36:1:2573:G:O6	87:1:3997:OHX:N3	2.50	0.45
8:S6:109:LEU:HD22	8:S6:111:LEU:HG	1.98	0.45
36:5:1276:U:H2'	36:5:1277:C:H6	1.82	0.45
13:C1:29:LYS:HE2	13:C1:31:THR:O	5.48	0.45
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.81	0.45
36:5:1002:A:N6	36:5:1051:U:C4	2.84	0.45
36:5:2435:G:C2	36:5:2436:U:C2	3.04	0.45
2:S0:24:LEU:HA	2:S0:24:LEU:HD12	2.92	0.45
36:5:412:G:C5	36:5:413:U:C5	3.04	0.45
44:L7:233:GLU:HB2	44:L7:234:GLU:H	1.91	0.45
36:1:535:G:C2	36:1:555:U:O2	2.69	0.45
78:Q2:53:GLN:HE21	78:Q2:55:LYS:H	2.86	0.45
87:5:4061:OHX:N3	87:5:4138:OHX:N6	2.65	0.45
3:S1:136:ARG:HB2	3:S1:218:LEU:HD11	2.83	0.45
39:L2:219:ILE:HG22	39:L2:219:ILE:O	2.15	0.45
36:5:553:U:H2'	36:5:554:A:O4'	2.16	0.45
1:2:492:A:H5''	1:2:493:U:OP1	2.16	0.45
44:L7:191:VAL:HG13	44:L7:195:PHE:CG	2.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.80	0.45
36:5:851:C:H5''	36:5:851:C:H6	1.82	0.45
40:L3:383:LEU:N	40:L3:386:ASP:OD2	2.42	0.45
36:5:1223:A:C5	36:5:1224:C:C5	3.04	0.45
55:M9:174:ALA:O	55:M9:178:ALA:N	4.21	0.45
39:L2:11:GLY:O	36:5:2172:A:H1'	174.12	0.45
36:1:1187:C:H2'	36:1:1188:U:H6	1.81	0.45
46:L9:112:ILE:HB	46:L9:126:VAL:HB	2.66	0.45
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	3.75	0.45
49:M3:187:ALA:O	49:M3:190:LYS:HB3	2.19	0.45
36:1:628:A:H2'	36:1:629:U:O4'	2.16	0.45
43:L6:102:ASN:N	43:L6:102:ASN:OD1	2.49	0.45
44:L7:163:LEU:N	44:L7:163:LEU:HD23	2.32	0.45
1:6:585:A:H2'	1:6:586:G:H8	1.82	0.45
52:M6:68:ARG:NH1	36:5:2988:C:OP1	218.46	0.45
40:L3:10:ARG:NH1	40:L3:11:HIS:O	3.92	0.45
40:L3:14:LEU:HD23	40:L3:14:LEU:HA	2.30	0.45
36:5:2165:G:H5''	36:5:2166:A:OP2	2.17	0.45
53:M7:85:ALA:O	53:M7:87:SER:N	3.27	0.45
1:2:381:C:H1'	1:2:756:A:C2	2.52	0.45
1:6:57:G:O6	87:6:2094:OHX:N6	2.50	0.45
1:6:463:U:H3'	1:6:464:A:H8	1.82	0.45
1:6:455:C:H6	1:6:455:C:H2'	1.63	0.45
47:M0:37:GLY:HA3	47:M0:85:PHE:O	2.17	0.45
87:1:3993:OHX:N2	87:3:222:OHX:N1	2.64	0.45
41:L4:339:LEU:O	41:L4:339:LEU:HD12	4.74	0.45
44:L7:153:PHE:HE1	44:L7:162:PRO:HG3	3.16	0.45
36:5:2434:U:H6	87:5:4119:OHX:N4	2.14	0.45
41:L4:31:ARG:NH1	41:L4:120:TYR:OH	2.50	0.45
41:L4:183:LYS:HD3	41:L4:183:LYS:HA	1.82	0.45
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	2.21	0.45
52:M6:130:LYS:HG3	52:M6:131:PRO:CD	3.50	0.45
36:1:813:G:H2'	36:1:813:G:N3	2.31	0.45
1:2:1542:G:H5''	21:C9:88:VAL:N	2.31	0.45
30:D8:14:LYS:HE3	30:D8:50:GLU:OE2	2.17	0.45
30:D8:12:VAL:HG23	30:D8:52:ASP:O	2.15	0.45
1:2:405:C:N4	1:2:406:U:O4	2.50	0.45
36:1:2706:G:C2	36:1:2707:C:C5	3.03	0.45
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.39	0.45
42:L5:236:LEU:O	42:L5:239:ILE:N	2.76	0.45
42:L5:52:VAL:HA	42:L5:147:ASP:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1271:G:C6	1:6:1272:U:C4	3.05	0.45
12:C0:75:TYR:O	12:C0:78:GLU:N	2.50	0.45
17:C5:12:PHE:O	17:C5:13:LYS:HD2	2.17	0.45
21:C9:34:VAL:HG23	21:C9:53:TRP:NE1	2.32	0.45
21:C9:97:SER:O	21:C9:101:ASN:ND2	2.32	0.45
1:2:957:G:O2'	29:D7:49:HIS:ND1	2.48	0.45
15:C3:148:ALA:C	15:C3:150:VAL:H	3.22	0.45
49:M3:64:LYS:HG3	64:N8:69:TRP:CD2	2.79	0.45
1:6:1641:C:H1'	1:6:1762:A:C2	2.51	0.45
1:6:900:A:C2'	1:6:901:G:H5'	2.46	0.45
3:S1:135:LEU:HD22	3:S1:215:VAL:CG2	4.07	0.45
36:5:655:C:O2'	36:5:656:A:H5'	2.17	0.45
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	3.13	0.45
2:S0:65:ALA:HB2	2:S0:181:VAL:HG12	1.98	0.45
68:O2:100:ILE:HG22	68:O2:105:ARG:HG3	1.99	0.45
1:2:1172:G:H2'	1:2:1173:C:O4'	2.15	0.45
50:M4:44:VAL:HG22	50:M4:60:LEU:HG	3.73	0.45
1:6:74:U:H5''	1:6:75:U:OP2	2.17	0.45
36:1:1130:A:C8	36:1:1132:C:C6	3.04	0.45
57:N1:139:ARG:HG3	57:N1:139:ARG:H	3.65	0.45
57:N1:63:VAL:H	57:N1:75:ILE:CD1	2.27	0.45
9:S7:129:LEU:HD23	9:S7:129:LEU:HA	1.88	0.45
36:5:3280:U:O2'	36:5:3281:U:P	2.75	0.45
38:8:54:A:H5''	38:8:55:U:OP2	2.17	0.45
37:7:1:G:H8	37:7:1:G:H5''	1.81	0.45
42:L5:270:LYS:HE2	42:L5:273:ARG:NH2	2.31	0.45
36:5:343:U:H4'	36:5:344:A:OP2	2.15	0.45
39:L2:112:ILE:HG23	39:L2:133:TYR:CD1	2.52	0.45
39:L2:116:VAL:HG11	39:L2:134:VAL:HG11	3.81	0.45
79:Q3:73:THR:HG22	79:Q3:74:ALA:N	4.21	0.45
40:L3:166:ILE:HG23	40:L3:167:ARG:N	2.32	0.45
8:S6:2:LYS:O	8:S6:108:VAL:HA	2.41	0.45
40:L3:134:SER:O	40:L3:137:TYR:N	3.39	0.45
51:M5:170:LYS:NZ	36:5:288:C:OP1	121.98	0.45
36:5:99:A:H1'	36:5:281:G:C8	2.52	0.45
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	2.29	0.45
72:O6:15:LYS:HB3	36:5:73:C:C6	98.88	0.45
36:5:380:U:H6	36:5:380:U:O5'	1.98	0.45
36:5:1750:A:C4	36:5:1752:A:C8	3.04	0.45
38:8:119:C:C2	38:8:135:G:C2	3.04	0.45
79:Q3:22:LEU:HD23	79:Q3:22:LEU:HA	1.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:8:VAL:O	79:Q3:9:GLY:C	2.55	0.45
73:O7:65:ARG:HG2	73:O7:65:ARG:H	1.96	0.45
46:L9:104:VAL:HG23	46:L9:111:PHE:HB2	1.99	0.45
36:5:2697:A:N1	36:5:2698:G:C6	2.85	0.45
39:L2:188:LYS:O	39:L2:192:LYS:HG3	2.17	0.45
45:L8:154:ALA:CB	45:L8:183:LYS:HB3	2.47	0.45
1:2:79:C:P	8:S6:159:ARG:HH12	2.40	0.45
1:2:550:A:C2	1:2:589:C:O2	2.70	0.45
1:2:590:C:H2'	1:2:591:A:H8	1.82	0.45
48:M1:54:VAL:HB	48:M1:59:ILE:HD11	1.99	0.45
36:1:2925:C:O2'	36:1:2926:A:H5'	2.17	0.45
60:N4:44:LYS:HE3	36:5:2111:G:N3	226.73	0.45
36:5:783:A:OP2	87:5:4188:OHX:N6	2.50	0.45
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.77	0.45
36:5:1104:G:P	36:5:1104:G:H8	2.40	0.45
56:N0:66:GLU:HG3	56:N0:67:ALA:N	2.31	0.45
36:5:2904:U:H2'	36:5:2905:U:C6	2.52	0.45
36:5:3264:G:N2	36:5:3265:C:O2	2.49	0.45
63:N7:53:VAL:HG23	63:N7:57:HIS:CD2	2.52	0.45
36:1:2768:U:H2'	36:1:2769:A:H8	1.80	0.45
87:1:4003:OHX:N5	87:1:4171:OHX:N5	2.65	0.45
36:5:1597:C:C2	36:5:1598:G:C8	3.05	0.45
25:D3:26:GLU:HG3	1:6:609:U:H3	341.96	0.45
51:M5:50:ARG:HD3	36:5:267:G:O4'	107.97	0.45
53:M7:62:ARG:HG2	53:M7:63:PHE:CE1	2.51	0.45
68:O2:6:HIS:C	68:O2:6:HIS:ND1	2.69	0.45
36:5:2882:U:H2'	36:5:2883:U:O4'	2.16	0.45
36:5:2941:A:C5'	36:5:2943:G:H4'	2.45	0.45
1:6:452:A:H3'	1:6:453:U:C5	2.52	0.45
36:1:541:U:H2'	36:1:542:G:C8	2.52	0.45
54:M8:173:GLU:OE2	64:N8:49:HIS:HD2	5.85	0.45
36:1:732:C:N4	36:1:733:G:O6	2.50	0.45
15:C3:33:VAL:HG21	15:C3:66:ILE:HD12	4.61	0.45
36:5:2661:G:H2'	36:5:2662:G:C8	2.49	0.45
62:N6:98:ASN:C	62:N6:99:LEU:HD23	2.37	0.45
10:S8:43:ILE:HG22	1:6:260:U:C5	277.63	0.45
19:C7:67:ARG:NH2	1:6:1398:U:O2'	405.50	0.45
20:C8:136:GLN:H	20:C8:136:GLN:HG2	2.03	0.45
9:S7:112:ARG:O	9:S7:112:ARG:HG2	2.95	0.45
9:S7:114:ARG:O	9:S7:117:THR:HG22	2.35	0.45
47:M0:166:ILE:HG22	47:M0:167:LEU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:63:LYS:HE2	74:O8:64:LYS:NZ	2.31	0.45
36:1:1664:G:H2'	36:1:1665:C:C6	2.52	0.45
36:1:2649:A:C2	36:1:2650:U:C5	3.05	0.45
65:N9:28:LYS:O	65:N9:29:TYR:HB2	2.24	0.45
73:O7:19:CYS:SG	73:O7:22:CYS:SG	3.15	0.45
39:L2:229:ALA:HB3	39:L2:234:LYS:CG	2.46	0.45
1:6:983:A:H2'	1:6:984:G:C8	2.50	0.45
1:6:1715:G:C6	1:6:1716:C:C4	3.04	0.45
10:S8:147:ALA:C	10:S8:149:SER:N	2.70	0.45
1:2:71:A:C6	1:2:72:A:C6	3.05	0.45
36:1:510:G:C4	36:1:511:G:C8	3.05	0.45
36:5:816:A:H1'	36:5:819:U:O4	2.16	0.45
40:L3:17:LEU:HA	40:L3:18:PRO:HA	1.61	0.45
1:2:1061:A:C6	1:2:1062:A:C5	3.04	0.45
36:5:537:A:C6	36:5:538:G:C4	3.04	0.45
36:5:575:G:C2	36:5:576:C:C4	3.05	0.45
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	2.12	0.45
6:S4:209:HIS:N	6:S4:209:HIS:ND1	3.69	0.45
6:S4:200:ARG:HB3	6:S4:201:HIS:H	1.60	0.45
1:2:681:U:O4	1:2:682:C:N4	2.50	0.45
59:N3:109:MET:SD	59:N3:129:VAL:HA	3.51	0.45
57:N1:76:ILE:HG23	57:N1:76:ILE:HD12	1.77	0.45
67:O1:43:HIS:H	67:O1:43:HIS:CD2	3.94	0.45
26:D4:45:ALA:HB2	26:D4:55:VAL:HG11	4.46	0.45
4:S2:181:SER:O	4:S2:183:ALA:N	2.49	0.45
36:1:2891:U:O2'	36:1:3014:U:H5''	2.17	0.45
36:5:3322:A:H2'	36:5:3323:A:C8	2.52	0.45
36:1:2256:A:N3	36:1:2256:A:H5''	2.31	0.45
1:2:240:U:OP1	1:2:240:U:H4'	2.17	0.45
36:5:314:U:H2'	36:5:315:C:C6	2.52	0.45
36:5:219:A:O2'	36:5:220:G:H5'	2.17	0.45
49:M3:88:ALA:HA	49:M3:91:ARG:HG3	1.98	0.45
15:C3:57:ALA:HB2	29:D7:54:VAL:HG13	1.98	0.45
69:O3:14:LEU:HD11	69:O3:31:LYS:HB3	1.98	0.45
27:D5:44:GLN:O	27:D5:47:TYR:HB3	2.93	0.45
36:1:2988:C:H2'	36:1:2989:U:H6	1.81	0.45
6:S4:60:GLU:CD	26:D4:20:ARG:HH12	2.18	0.45
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.39	0.45
10:S8:83:TYR:HB3	10:S8:101:ILE:HG21	3.54	0.45
36:1:404:G:N2	38:4:19:C:N3	2.58	0.45
41:L4:132:ALA:O	41:L4:134:LEU:N	3.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:181:VAL:HG11	41:L4:224:GLY:CA	2.84	0.45
36:1:806:A:C8	36:1:936:A:N6	2.85	0.45
1:2:1409:G:N2	1:2:1411:A:H3'	2.32	0.45
1:6:1170:G:C2	1:6:1171:A:C8	3.05	0.45
7:S5:36:ALA:HB3	7:S5:45:LYS:NZ	2.31	0.45
36:1:3375:A:N3	36:1:3378:C:H5''	2.32	0.45
21:C9:49:ASP:O	21:C9:51:GLU:N	2.48	0.45
21:C9:57:ARG:CB	21:C9:57:ARG:HH11	2.58	0.45
48:M1:109:HIS:NE2	48:M1:121:GLY:O	2.25	0.45
5:S3:76:ARG:HD2	5:S3:77:PHE:CZ	4.34	0.45
64:N8:64:GLN:HE22	36:5:70:A:H5'	115.18	0.45
1:6:1774:G:C6	1:6:1775:U:N3	2.84	0.45
77:Q1:5:TRP:O	77:Q1:9:ARG:N	2.45	0.45
77:Q1:9:ARG:HA	77:Q1:12:ARG:HG3	4.05	0.45
67:O1:23:VAL:H	67:O1:28:ARG:NH1	3.28	0.45
16:C4:48:VAL:HG22	16:C4:49:LYS:N	2.60	0.45
28:D6:53:LEU:HA	28:D6:53:LEU:HD13	2.67	0.45
2:S0:173:ILE:HA	2:S0:176:LEU:HD12	2.48	0.45
2:S0:64:ILE:HD11	2:S0:177:LEU:HD11	1.98	0.45
54:M8:142:GLY:O	36:5:744:A:H4'	168.73	0.45
36:5:1413:G:H2'	36:5:1414:G:H8	1.82	0.45
55:M9:6:THR:O	55:M9:10:LEU:HB2	2.17	0.45
62:N6:50:ILE:HD13	62:N6:51:ARG:N	2.34	0.45
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	3.03	0.45
71:O5:9:LEU:HD23	71:O5:9:LEU:HA	1.74	0.45
1:6:1211:A:H61	1:6:1452:U:H3	1.63	0.45
36:5:534:U:C3'	36:5:535:G:H5''	2.46	0.45
50:M4:91:CYS:O	50:M4:95:ALA:N	3.21	0.45
40:L3:303:LYS:HE3	40:L3:361:THR:OG1	2.17	0.45
60:N4:24:GLY:C	60:N4:26:SER:N	2.70	0.45
9:S7:49:ILE:HD12	9:S7:172:VAL:HG22	3.46	0.45
1:2:147:A:C6	1:2:168:A:C6	3.04	0.45
18:C6:94:GLN:CA	18:C6:102:LYS:HD2	2.45	0.45
35:SM:32:SER:OG	36:1:2666:C:O2'	2.24	0.45
35:SM:29:ASN:C	35:SM:31:SER:H	2.44	0.45
52:M6:41:LEU:HB2	52:M6:138:LEU:HD23	1.99	0.45
29:D7:58:SER:HB2	29:D7:59:CYS:H	1.96	0.45
36:5:347:G:H5''	36:5:348:A:OP2	2.17	0.45
41:L4:62:ALA:HB3	41:L4:90:PHE:CE2	2.52	0.45
36:5:295:A:H2'	36:5:296:A:O4'	2.17	0.45
1:2:1785:U:OP1	16:C4:136:ARG:NH2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:42:ARG:HG3	39:L2:89:TYR:CZ	3.22	0.45
3:S1:209:ASN:HD22	3:S1:209:ASN:HA	4.32	0.45
36:1:2424:A:C4	36:1:2607:G:N2	2.85	0.45
22:D0:105:GLN:O	22:D0:108:ILE:HG23	2.17	0.45
72:O6:51:SER:O	72:O6:52:PRO:C	2.55	0.45
51:M5:15:GLN:HG3	72:O6:52:PRO:HD2	1.99	0.45
72:O6:55:ARG:O	72:O6:58:ILE:HG12	3.62	0.45
1:6:1102:G:H2'	1:6:1103:U:O4'	2.16	0.45
13:C1:99:ARG:HG2	25:D3:9:LEU:HA	4.28	0.45
36:5:1566:A:H2'	36:5:1567:U:H5'	1.99	0.45
71:O5:23:ASP:O	71:O5:26:LYS:N	3.20	0.45
51:M5:114:ARG:NH1	51:M5:156:HIS:O	3.33	0.45
71:O5:85:THR:HG22	71:O5:87:ALA:HB3	3.81	0.45
46:L9:103:ILE:HA	46:L9:111:PHE:O	2.17	0.45
36:1:2244:A:O4'	39:L2:243:THR:HG21	2.16	0.45
39:L2:185:ALA:O	39:L2:188:LYS:HB3	2.28	0.45
10:S8:44:HIS:O	10:S8:56:ARG:N	2.92	0.45
48:M1:53:THR:OG1	48:M1:60:ARG:HA	2.16	0.45
36:5:548:G:H2'	36:5:549:U:C6	2.52	0.45
36:1:2924:U:C5	36:1:2925:C:C2	3.04	0.45
64:N8:73:LEU:HD21	64:N8:78:LEU:HA	1.97	0.45
52:M6:142:SER:HB3	52:M6:147:TRP:CB	2.46	0.45
1:6:844:A:C2	1:6:845:G:C5	3.04	0.45
36:1:1404:G:C5'	68:O2:64:LYS:HE3	2.44	0.45
36:1:1549:U:O4	87:1:4056:OHX:N1	2.50	0.45
1:6:1334:U:H2'	1:6:1335:U:O4'	2.17	0.45
45:L8:52:TRP:HB3	45:L8:56:VAL:HG11	1.98	0.45
36:1:1615:C:OP1	87:1:4178:OHX:N3	2.50	0.45
36:1:1699:A:H2'	36:1:1700:G:C8	2.52	0.45
65:N9:36:ASP:OD1	36:5:2738:A:H5'	215.28	0.45
1:2:199:G:HO2'	1:2:200:A:P	2.40	0.45
36:5:401:U:H4'	36:5:403:C:C2	2.52	0.45
45:L8:248:LYS:HD2	45:L8:251:LYS:HD3	1.99	0.45
63:N7:102:GLU:CD	63:N7:103:GLN:H	2.19	0.45
55:M9:66:HIS:HA	55:M9:69:SER:OG	2.17	0.45
36:5:3189:G:C4	36:5:3190:C:C6	3.05	0.45
36:5:1136:A:H5'	36:5:2641:U:O2	2.17	0.45
3:S1:58:SER:H	3:S1:58:SER:HG	3.76	0.45
15:C3:24:ALA:O	15:C3:27:LYS:NZ	8.20	0.45
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.51	0.45
14:C2:30:VAL:HB	14:C2:132:GLU:CG	3.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:48:ILE:O	57:N1:48:ILE:HG22	2.16	0.45
1:6:1344:A:H4'	1:6:1345:A:OP1	2.17	0.45
1:6:142:G:N7	1:6:173:A:H2	2.15	0.45
39:L2:14:SER:O	39:L2:16:PHE:N	2.75	0.45
36:1:650:C:O5'	36:1:650:C:H6	2.00	0.45
36:5:802:C:O2'	36:5:803:C:H5'	2.17	0.45
5:S3:119:ALA:HB3	5:S3:152:PHE:CE1	4.28	0.45
2:S0:32:HIS:CE1	23:D1:87:ARG:HH22	2.34	0.45
5:S3:11:LEU:O	5:S3:14:ASP:HB2	2.17	0.45
36:1:607:A:H4'	36:1:608:A:OP2	2.17	0.45
36:5:383:G:C6	36:5:387:A:N6	2.85	0.45
36:1:741:U:H2'	36:1:742:G:O4'	2.17	0.45
62:N6:69:LYS:O	62:N6:83:ASP:N	3.02	0.45
1:6:1714:A:C5	1:6:1715:G:C8	3.05	0.45
36:1:391:A:H2'	36:1:392:G:O4'	2.16	0.45
36:1:1079:A:N6	36:1:1080:A:N1	2.65	0.45
35:SM:43:ASP:HA	35:SM:44:PRO:HD3	2.22	0.45
1:2:76:A:H2'	1:2:80:A:N6	2.32	0.45
36:5:417:A:H2'	36:5:418:A:C8	2.52	0.45
68:O2:57:TYR:CE1	36:5:1162:U:H4'	199.29	0.45
36:1:243:G:H2'	36:1:244:G:O4'	2.16	0.45
13:C1:35:TYR:CG	13:C1:49:ILE:HG12	2.52	0.45
36:1:3372:A:C5	36:1:3373:U:C4	3.05	0.45
36:1:261:U:H2'	36:1:262:U:C6	2.52	0.45
36:5:1481:A:O4'	36:5:1481:A:OP1	2.34	0.45
36:5:74:G:C2	36:5:75:G:C8	3.04	0.45
51:M5:116:LEU:HB3	51:M5:133:ILE:HG13	1.98	0.45
1:2:293:U:N3	1:2:294:C:C4	2.85	0.45
1:6:1152:A:C2	1:6:1627:U:C2	3.04	0.45
36:5:544:C:O2'	36:5:547:G:O6	2.25	0.45
1:2:402:C:O2'	1:2:403:G:H5"	2.17	0.45
36:5:2942:C:N3	87:5:4104:OHX:N2	2.64	0.45
35:SM:49:LYS:NZ	35:SM:53:ARG:HH12	12.49	0.45
13:C1:67:ARG:HD3	13:C1:67:ARG:N	2.65	0.45
11:S9:10:LYS:HE2	11:S9:10:LYS:HB3	1.77	0.45
38:8:35:C:H2'	38:8:35:C:O2	2.17	0.45
36:5:2535:A:H8	36:5:2535:A:OP2	1.99	0.45
8:S6:189:HIS:HA	8:S6:192:ALA:HB3	1.97	0.45
3:S1:163:ALA:O	3:S1:166:LYS:HB3	2.38	0.45
1:6:561:G:C2	1:6:585:A:N3	2.85	0.45
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:74:ARG:HG2	67:O1:94:GLU:HG3	1.98	0.45
36:5:1506:A:H1'	36:5:1848:G:O6	2.17	0.45
6:S4:26:CYS:HB3	11:S9:2:PRO:O	4.49	0.45
1:2:479:C:OP1	11:S9:121:SER:OG	2.27	0.45
11:S9:77:ILE:HD11	11:S9:93:LEU:CD1	4.69	0.45
47:M0:155:ALA:O	47:M0:157:TYR:N	2.50	0.45
47:M0:47:PRO:HB3	47:M0:171:TRP:CD2	3.60	0.45
47:M0:66:GLU:O	47:M0:66:GLU:HG3	2.76	0.45
47:M0:75:TYR:CZ	47:M0:150:GLU:HG2	3.02	0.45
57:N1:134:GLN:HA	57:N1:135:PRO:HD2	1.57	0.45
45:L8:74:THR:HG22	45:L8:230:LYS:NZ	2.78	0.45
51:M5:27:VAL:HG23	51:M5:129:TYR:CZ	3.13	0.45
1:6:1317:C:O2	1:6:1400:A:H2	1.99	0.45
1:6:1405:G:C4	1:6:1406:A:C8	3.05	0.45
20:C8:64:GLU:O	20:C8:67:GLU:HB2	2.68	0.45
30:D8:49:ARG:HG2	30:D8:50:GLU:O	2.15	0.45
42:L5:85:ARG:NH2	42:L5:252:ALA:HB3	2.32	0.45
12:C0:46:LEU:HD23	12:C0:49:LEU:HB2	5.56	0.45
12:C0:61:TRP:CD1	12:C0:61:TRP:N	2.84	0.45
1:2:1072:C:H5'	1:2:1073:G:OP2	2.17	0.45
1:2:868:G:N2	1:2:961:U:C2	2.84	0.45
70:O4:21:LYS:HB2	70:O4:35:VAL:CG2	2.47	0.45
3:S1:91:VAL:HG22	3:S1:96:LEU:HB2	4.89	0.45
4:S2:178:ILE:HD13	4:S2:188:LEU:HB3	1.98	0.45
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.17	0.45
4:S2:73:LEU:C	4:S2:73:LEU:HD12	3.01	0.45
36:5:2652:U:C4	36:5:2759:U:O2	2.70	0.45
48:M1:160:VAL:HG12	48:M1:164:LYS:HD2	1.98	0.45
63:N7:4:PHE:HE1	63:N7:82:PRO:HG3	1.82	0.45
36:1:3020:U:C4	36:1:3021:A:C6	3.04	0.45
31:D9:5:ASN:OD1	31:D9:7:TRP:CZ2	2.70	0.45
36:5:534:U:H4'	36:5:535:G:OP2	2.16	0.45
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.99	0.45
57:N1:42:ILE:HG22	57:N1:43:LYS:N	2.70	0.45
59:N3:83:LYS:HG3	59:N3:84:SER:N	3.17	0.45
69:O3:45:LEU:HD22	69:O3:73:ARG:HA	2.55	0.45
52:M6:14:HIS:O	52:M6:41:LEU:HD12	2.17	0.45
36:1:362:U:O2'	36:1:363:G:H5'	2.17	0.45
79:Q3:37:TYR:N	79:Q3:47:VAL:O	2.49	0.45
3:S1:105:PHE:O	3:S1:106:THR:OG1	4.45	0.45
40:L3:114:VAL:HG22	40:L3:163:HIS:NE2	2.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1764:C:C5	1:6:1767:G:N9	2.84	0.45
72:O6:62:ARG:HH22	72:O6:98:ARG:NH1	2.15	0.45
1:2:1516:A:H5''	22:D0:58:LEU:HD13	1.98	0.45
52:M6:81:TYR:CE2	52:M6:85:ARG:HG3	2.52	0.45
49:M3:54:LEU:HD22	49:M3:54:LEU:HA	2.01	0.45
36:1:3028:G:C2	36:1:3029:A:N3	2.85	0.45
33:E1:99:LYS:HA	33:E1:99:LYS:HE2	4.77	0.45
39:L2:186:PHE:HB2	39:L2:196:TRP:CH2	3.13	0.45
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.32	0.45
36:1:2101:C:HO2'	36:1:2102:U:C5'	2.29	0.45
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD22	1.99	0.45
40:L3:41:VAL:N	40:L3:185:GLY:HA3	2.31	0.45
13:C1:101:GLU:HB2	25:D3:13:ARG:HB2	1.98	0.45
46:L9:173:ARG:HB3	76:Q0:127:LEU:HG	4.42	0.45
1:2:332:U:P	10:S8:56:ARG:HH22	2.39	0.45
64:N8:73:LEU:HG	64:N8:74:ASN:O	2.16	0.45
36:1:1128:U:P	47:M0:4:ARG:HH22	2.40	0.45
36:1:1932:A:H5'	36:1:1933:A:OP2	2.17	0.45
54:M8:122:ILE:HG22	54:M8:123:THR:O	2.21	0.45
36:5:1108:U:N3	36:5:1109:U:C4	2.85	0.45
22:D0:24:ILE:HG22	22:D0:26:LEU:HD21	4.17	0.45
1:6:804:A:H2'	1:6:805:U:C6	2.52	0.45
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.85	0.45
1:2:1235:C:O2'	33:E1:149:LYS:HD2	2.17	0.45
76:Q0:102:ARG:O	76:Q0:103:LEU:HD23	2.17	0.45
1:6:1294:G:C6	1:6:1295:G:N7	2.84	0.45
37:3:10:C:C4	42:L5:20:PHE:CG	3.05	0.45
36:5:2572:C:HO2'	36:5:2573:G:P	2.38	0.45
36:1:3095:U:C2	36:1:3096:C:C5	3.04	0.45
54:M8:90:ASP:C	54:M8:92:ARG:N	2.65	0.45
36:1:764:U:H5''	36:1:764:U:H6	1.82	0.45
36:5:259:C:H6	36:5:259:C:OP2	2.00	0.45
36:5:2546:C:H2'	36:5:2547:A:H8	1.82	0.45
44:L7:145:ARG:HA	44:L7:185:ILE:CD1	2.47	0.45
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	2.85	0.45
1:2:838:G:H2'	1:2:839:U:O4'	2.17	0.45
36:1:941:G:O4'	36:1:1435:A:H1'	2.17	0.45
5:S3:156:PHE:C	5:S3:157:LEU:HD12	2.37	0.45
36:5:2677:G:OP2	87:5:4152:OHX:N5	2.50	0.45
1:6:720:G:N7	1:6:722:G:C6	2.85	0.45
36:1:2552:C:H2'	66:O0:50:VAL:HG11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:822:G:C6	36:5:904:A:C6	3.05	0.45
36:5:902:G:C5	36:5:903:U:C5	3.05	0.45
13:C1:109:VAL:HG23	13:C1:137:PHE:O	2.24	0.45
36:1:682:U:H5	41:L4:112:LYS:HE3	1.81	0.45
1:2:1776:A:N6	1:2:1777:G:O6	2.50	0.45
1:6:1314:U:O2'	1:6:1315:U:P	2.75	0.45
50:M4:49:PRO:C	50:M4:52:GLY:H	2.20	0.45
1:6:1041:G:N1	1:6:1042:G:C6	2.85	0.45
36:5:2796:G:H4'	36:5:2798:C:C6	2.52	0.45
59:N3:104:ASN:HD21	59:N3:108:GLU:HG3	2.28	0.45
36:1:2609:A:N3	36:1:2610:G:C8	2.85	0.45
34:SR:147:HIS:CE1	34:SR:179:LYS:HD2	2.52	0.45
1:6:47:A:C2	1:6:100:A:N3	2.85	0.45
1:6:1483:A:C6	1:6:1484:G:C6	3.05	0.45
36:1:2519:A:C6	36:1:2589:G:C6	3.05	0.45
75:O9:41:ARG:HG2	75:O9:42:ARG:H	3.44	0.45
1:6:1349:G:O2'	1:6:1379:C:N3	2.40	0.45
36:5:2694:A:C6	36:5:2695:A:C6	3.05	0.45
36:5:2638:C:H2'	36:5:2639:G:H5'	1.99	0.45
16:C4:57:PRO:HB3	16:C4:100:ALA:HB3	4.17	0.45
73:O7:45:ARG:NH1	36:5:814:U:H5'	127.78	0.45
36:5:1299:U:C2'	36:5:1300:G:H5'	2.47	0.45
49:M3:77:LEU:N	49:M3:77:LEU:HD23	2.31	0.45
1:2:1123:C:H6	1:2:1123:C:OP1	2.00	0.45
1:6:1000:C:O4'	1:6:1000:C:O2	2.34	0.45
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	3.36	0.45
41:L4:7:THR:OG1	41:L4:147:GLU:OE2	3.35	0.45
40:L3:56:ILE:HD11	40:L3:359:ILE:HG23	2.99	0.45
36:1:951:A:C4	36:1:1369:A:C2	3.05	0.45
1:2:1797:A:N6	28:D6:84:VAL:HA	2.32	0.45
47:M0:138:VAL:HG11	47:M0:148:VAL:CG1	3.96	0.45
47:M0:198:LYS:NZ	36:5:1040:A:O2'	333.32	0.45
47:M0:29:SER:OG	47:M0:30:LYS:N	2.50	0.45
47:M0:41:ALA:CB	47:M0:46:PHE:HE2	2.29	0.45
41:L4:333:VAL:HG22	41:L4:334:PHE:N	3.81	0.45
6:S4:3:ARG:NH1	1:6:93:A:O4'	325.77	0.45
10:S8:160:PHE:CZ	10:S8:165:LEU:HD11	2.52	0.45
41:L4:269:SER:O	41:L4:269:SER:OG	2.94	0.45
54:M8:33:TYR:O	54:M8:34:THR:C	2.55	0.45
20:C8:28:ILE:HG13	20:C8:61:LEU:HG	1.99	0.45
20:C8:62:THR:O	20:C8:65:GLU:HG3	5.09	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:145:ASP:CG	7:S5:146:THR:N	2.70	0.45
7:S5:163:SER:HB2	30:D8:48:VAL:HG23	2.79	0.45
7:S5:186:ASN:ND2	7:S5:187:ILE:N	4.90	0.45
7:S5:40:ILE:HD11	7:S5:47:SER:OG	2.17	0.45
67:O1:64:VAL:HG22	36:5:1456:A:C6	165.86	0.45
67:O1:37:LYS:HG2	67:O1:49:VAL:HB	3.05	0.45
67:O1:59:ILE:C	67:O1:61:LYS:H	4.53	0.45
67:O1:17:HIS:CD2	67:O1:69:TYR:CD1	3.14	0.45
42:L5:89:THR:HB	42:L5:90:HIS:CD2	4.85	0.45
1:6:1504:G:H22	1:6:1549:C:H1'	1.81	0.45
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.17	0.45
72:O6:29:LYS:HE2	72:O6:29:LYS:HB3	1.67	0.45
1:2:1025:A:HO2'	1:2:1773:C:HO2'	1.64	0.45
36:5:657:A:N6	36:5:658:G:C6	2.84	0.45
24:D2:45:GLY:O	24:D2:68:ARG:HD2	3.01	0.45
4:S2:65:GLU:HB2	4:S2:68:ILE:CD1	3.19	0.45
36:1:1721:U:H5	55:M9:103:ARG:HH12	1.63	0.45
63:N7:80:LEU:O	66:O0:59:TYR:OH	2.35	0.45
62:N6:27:ARG:HG2	62:N6:78:PHE:CZ	2.52	0.45
36:1:2179:C:C2	39:L2:130:SER:O	2.69	0.45
14:C2:40:GLY:CA	14:C2:124:LYS:HB2	4.28	0.45
1:6:1211:A:C5	1:6:1212:G:C8	3.04	0.45
69:O3:100:ILE:N	69:O3:100:ILE:HD12	2.54	0.45
18:C6:47:LYS:HA	18:C6:50:GLU:OE2	4.08	0.45
34:SR:23:LEU:HB2	34:SR:293:ALA:HB2	1.98	0.45
62:N6:58:VAL:HA	62:N6:104:LEU:CD2	2.73	0.45
50:M4:106:ARG:HA	50:M4:109:ARG:HB2	1.99	0.45
52:M6:188:SER:O	52:M6:190:VAL:N	3.68	0.45
36:1:2607:G:C5	36:1:2608:G:N7	2.85	0.45
36:1:1690:C:C2	36:1:1691:U:C5	3.05	0.45
49:M3:149:GLN:NE2	49:M3:149:GLN:HA	2.31	0.45
39:L2:201:GLY:O	39:L2:204:MET:HB2	3.32	0.45
61:N5:57:LEU:HD23	61:N5:57:LEU:HA	4.42	0.45
71:O5:28:LEU:O	71:O5:32:LYS:HG3	2.46	0.45
46:L9:97:PHE:HA	46:L9:98:PRO:HD3	1.69	0.45
1:6:1267:G:H2'	1:6:1268:G:C8	2.51	0.45
36:5:3139:A:O2'	36:5:3140:G:H5'	2.17	0.45
36:5:2950:G:C4	36:5:2979:U:C5	3.05	0.45
36:5:2202:C:H2'	36:5:2203:U:O4'	2.17	0.45
1:6:913:G:N7	36:5:2205:U:C2	2.84	0.45
45:L8:159:PRO:O	45:L8:160:ILE:C	2.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:41:VAL:HG11	40:L3:194:TRP:CB	3.01	0.45
1:2:125:U:H5''	6:S4:148:ARG:CZ	2.47	0.45
8:S6:139:ASN:O	8:S6:143:LYS:HB2	2.71	0.45
1:2:335:U:C4	1:2:336:G:C5	3.05	0.45
48:M1:53:THR:HA	48:M1:59:ILE:O	2.65	0.45
36:5:1711:C:H2'	36:5:1712:G:O4'	2.17	0.45
36:5:1738:C:O2'	36:5:1739:U:H5'	2.17	0.45
36:1:2287:C:H4'	36:1:2288:G:OP2	2.17	0.45
58:N2:81:LYS:O	58:N2:85:LYS:N	2.48	0.45
25:D3:135:LEU:C	25:D3:137:LYS:H	3.47	0.45
25:D3:95:PHE:HB3	25:D3:135:LEU:HD13	1.99	0.45
36:5:738:A:H2'	36:5:739:G:C8	2.51	0.45
46:L9:67:ALA:CA	46:L9:70:THR:HG23	2.47	0.45
1:2:1344:A:H2'	1:2:1345:A:C8	2.51	0.45
36:1:1631:C:C2	36:1:1645:U:C4	3.05	0.45
36:5:2785:A:H2'	36:5:2786:G:O4'	2.17	0.45
78:Q2:28:TYR:C	78:Q2:28:TYR:CD1	3.05	0.45
14:C2:73:LYS:HD2	33:E1:108:VAL:O	2.16	0.45
87:1:4003:OHX:N3	87:1:4171:OHX:N3	2.64	0.45
1:2:90:C:C2	1:2:91:G:C8	3.05	0.45
36:1:2947:G:H4'	36:1:2947:G:OP2	2.16	0.45
25:D3:107:PHE:HE1	25:D3:123:LYS:HB3	1.80	0.45
1:2:10:G:H2'	1:2:11:A:H8	1.78	0.45
36:1:1758:G:H5''	58:N2:104:ARG:HH22	1.82	0.45
1:2:685:A:H2'	1:2:686:C:H6	1.81	0.45
36:1:3289:G:H2'	36:1:3290:G:O4'	2.17	0.45
36:1:3282:U:H6	36:1:3282:U:O5'	2.00	0.45
71:O5:13:SER:O	71:O5:14:LYS:C	3.01	0.45
34:SR:159:ASN:ND2	34:SR:166:SER:O	2.48	0.45
1:6:142:G:O6	1:6:173:A:N1	2.50	0.45
1:6:1692:G:H2'	1:6:1693:A:H8	1.82	0.45
39:L2:10:LYS:HA	39:L2:16:PHE:CE2	2.99	0.45
36:1:1211:U:H2'	36:1:1212:A:H8	1.79	0.45
65:N9:28:LYS:HA	65:N9:28:LYS:HD3	1.35	0.45
36:1:3316:A:OP2	40:L3:123:TYR:HB2	2.16	0.45
9:S7:150:GLN:HB3	9:S7:181:ILE:CD1	2.45	0.45
9:S7:67:LEU:HA	9:S7:70:PHE:HB2	1.99	0.45
49:M3:129:ASN:N	49:M3:129:ASN:OD1	3.75	0.45
36:5:1853:U:H5''	36:5:1854:C:OP1	2.17	0.45
1:6:1246:C:H5''	1:6:1247:U:OP2	2.16	0.45
73:O7:3:LYS:HB3	36:5:2138:A:N7	169.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:60:LEU:O	17:C5:63:ALA:HB3	3.18	0.45
38:4:114:G:C6	38:4:115:C:C4	3.05	0.45
1:6:1466:G:O2'	1:6:1602:C:OP1	2.35	0.45
36:5:3145:C:H2'	36:5:3146:G:H8	1.82	0.45
8:S6:200:ALA:HA	8:S6:203:GLU:HB2	2.37	0.45
39:L2:28:LYS:HB3	39:L2:123:ARG:HB3	3.63	0.45
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.49	0.45
32:E0:7:SER:C	32:E0:9:ALA:N	3.89	0.45
36:5:1681:U:H2'	36:5:1682:U:O4'	2.16	0.45
1:2:1766:A:H5''	87:2:2092:OHX:N6	2.32	0.45
36:1:901:G:C6	36:1:902:G:C5	3.05	0.45
1:6:263:C:H4'	1:6:292:U:H5'	1.99	0.45
69:O3:25:PRO:O	69:O3:27:VAL:N	3.25	0.45
24:D2:97:ARG:HB3	24:D2:97:ARG:HE	1.33	0.45
36:1:3010:U:H6	36:1:3010:U:H3'	1.82	0.45
1:6:91:G:H2'	1:6:92:A:H8	1.81	0.45
37:3:90:U:C4	37:3:91:G:C5	3.04	0.45
36:1:1186:G:C6	36:1:1187:C:C4	3.05	0.45
1:2:417:A:H4'	1:2:418:G:O5'	2.16	0.45
1:2:246:G:H21	13:C1:39:GLY:HA3	1.81	0.45
68:O2:17:PHE:HD1	68:O2:53:PRO:HD3	3.21	0.45
1:2:1026:A:H4'	1:2:1028:C:C5	2.52	0.45
1:6:1708:U:H2'	1:6:1709:C:C6	2.52	0.45
1:2:1440:C:O5'	1:2:1440:C:H6	2.00	0.45
1:6:555:A:H2'	1:6:556:A:C8	2.52	0.45
40:L3:306:THR:HA	40:L3:307:PRO:HD3	1.85	0.45
55:M9:146:LYS:HG2	55:M9:146:LYS:H	4.51	0.45
36:1:1168:U:H5''	36:1:1168:U:H6	1.82	0.45
52:M6:177:LYS:HB3	52:M6:177:LYS:HE2	4.05	0.45
1:2:567:A:H5'	32:E0:10:ARG:HB2	1.98	0.45
36:1:2254:U:H2'	36:1:2261:G:H22	1.81	0.45
36:1:3200:G:H2'	36:1:3201:C:O4'	2.17	0.45
36:5:3193:C:C2	36:5:3200:G:C2	3.05	0.45
46:L9:21:LYS:O	46:L9:22:SER:HB3	2.57	0.45
36:1:2359:C:H2'	36:1:2360:C:H6	1.82	0.45
47:M0:30:LYS:H	47:M0:62:SER:HG	1.58	0.45
47:M0:30:LYS:N	47:M0:62:SER:OG	2.34	0.45
41:L4:328:ASN:ND2	41:L4:328:ASN:C	4.29	0.45
44:L7:131:GLU:O	44:L7:229:PHE:HB2	2.17	0.45
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	2.68	0.45
36:1:368:G:C2	36:1:369:A:N7	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:206:LEU:HD13	41:L4:248:VAL:HG22	3.79	0.45
43:L6:40:LEU:N	43:L6:52:VAL:O	2.64	0.45
36:1:929:A:C2	36:1:930:U:C2	3.05	0.45
20:C8:64:GLU:HB3	20:C8:68:ARG:NH1	5.29	0.45
7:S5:116:HIS:CD2	27:D5:98:GLN:HB3	3.20	0.45
42:L5:121:GLY:HA3	42:L5:168:ASP:O	2.17	0.45
42:L5:90:HIS:NE2	42:L5:229:ASP:OD2	3.08	0.45
42:L5:85:ARG:HG2	42:L5:86:TYR:CE2	4.12	0.45
1:6:1549:C:H6	1:6:1549:C:O5'	2.00	0.45
21:C9:126:GLU:H	21:C9:126:GLU:HG2	2.21	0.45
21:C9:6:VAL:HG13	21:C9:66:TYR:HE1	1.82	0.45
48:M1:166:LYS:HD2	48:M1:167:TYR:CD1	4.73	0.45
5:S3:175:VAL:O	5:S3:177:MET:N	4.05	0.45
15:C3:117:LEU:O	15:C3:118:ILE:C	2.55	0.45
15:C3:16:ILE:HG22	24:D2:57:ARG:NH2	2.32	0.45
51:M5:45:PRO:O	51:M5:49:ARG:HG3	4.66	0.45
1:2:357:G:OP2	87:2:2060:OHX:N6	2.50	0.45
36:5:1631:C:N4	36:5:1811:G:H1	2.15	0.45
28:D6:44:ILE:HG22	28:D6:45:VAL:HG13	6.19	0.45
3:S1:36:SER:HB3	3:S1:231:LEU:CB	2.47	0.45
36:1:657:A:H2'	36:1:658:G:O4'	2.16	0.45
2:S0:185:ARG:H	23:D1:45:ALA:H	2.39	0.45
2:S0:4:PRO:HD3	2:S0:62:ARG:NH2	2.32	0.45
1:6:1699:G:H22	1:6:1701:A:C3'	2.25	0.45
63:N7:36:HIS:N	63:N7:37:PRO:HD3	3.39	0.45
1:6:874:C:H2'	1:6:875:G:C8	2.51	0.45
36:1:534:U:O4	56:N0:144:LEU:HD23	2.17	0.45
50:M4:89:ALA:O	50:M4:90:VAL:C	3.06	0.45
56:N0:13:ARG:HG2	56:N0:55:SER:O	4.78	0.45
60:N4:14:TYR:HB3	60:N4:15:PRO:HD2	2.24	0.45
42:L5:269:SER:HB2	37:7:1:G:H21	318.63	0.45
34:SR:211:ILE:CD1	34:SR:225:LEU:HB2	2.47	0.45
52:M6:7:VAL:HG11	56:N0:163:PHE:CE2	2.52	0.45
56:N0:163:PHE:CD1	56:N0:163:PHE:N	2.83	0.45
1:2:1000:C:H5''	1:2:1001:A:OP2	2.16	0.45
39:L2:84:THR:CG2	79:Q3:63:THR:HB	2.47	0.45
1:6:162:A:H2'	1:6:163:G:C8	2.51	0.45
8:S6:72:ARG:HG2	8:S6:98:ARG:HA	2.00	0.45
36:5:806:A:C4	36:5:936:A:C2	3.05	0.45
36:5:3069:G:C6	36:5:3070:A:C5	3.05	0.45
49:M3:116:LEU:HA	49:M3:116:LEU:HD23	2.23	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:580:A:C6	1:2:583:C:C2	3.05	0.45
38:8:41:A:N7	38:8:42:G:C8	2.85	0.45
45:L8:161:GLU:C	45:L8:163:VAL:H	2.75	0.45
48:M1:102:PHE:CZ	48:M1:129:VAL:HG11	2.68	0.45
36:5:1802:C:O2	36:5:1802:C:H2'	2.17	0.45
41:L4:300:ARG:HG3	41:L4:300:ARG:HH11	3.59	0.45
36:5:582:G:N7	87:5:4211:OHX:N2	2.65	0.45
69:O3:70:LYS:HE2	36:5:585:A:OP1	240.35	0.45
36:5:1609:C:H2'	36:5:1610:G:C8	2.52	0.45
1:6:640:U:C4	1:6:641:G:N7	2.85	0.45
1:6:190:C:C4	1:6:196:G:C6	3.05	0.45
36:1:2735:U:H2'	36:1:2736:A:C8	2.48	0.45
62:N6:89:LYS:HG2	62:N6:90:VAL:HG22	1.99	0.45
36:5:1556:C:H3'	36:5:1557:A:C5'	2.47	0.45
36:1:1815:U:O2'	36:1:1816:A:P	2.74	0.45
1:6:1342:C:O2'	1:6:1343:U:H5'	2.17	0.45
58:N2:18:ASP:O	58:N2:105:LEU:HB2	3.55	0.45
36:1:3163:A:N6	36:1:3164:C:N4	2.65	0.45
10:S8:43:ILE:HG22	1:6:260:U:H5	278.18	0.45
1:6:1398:U:H4'	1:6:1399:C:OP2	2.15	0.45
1:2:809:A:O2'	1:2:810:G:H5'	2.17	0.45
74:O8:12:LEU:O	74:O8:15:THR:N	2.50	0.45
36:1:1598:G:H2'	36:1:1599:G:H8	1.82	0.45
18:C6:81:ILE:O	18:C6:85:ILE:HG13	2.17	0.45
1:2:929:A:N6	1:2:930:A:C6	2.85	0.45
48:M1:107:ASP:HA	48:M1:124:GLY:HA2	1.99	0.45
40:L3:199:PHE:C	40:L3:201:LYS:N	2.95	0.45
49:M3:21:ARG:O	51:M5:196:THR:HG23	2.45	0.45
1:2:1786:G:C5	1:2:1787:C:C5	3.05	0.45
1:2:1787:C:H2'	1:2:1788:G:H8	1.82	0.45
15:C3:135:LEU:HD13	15:C3:139:TRP:CG	2.52	0.45
37:3:60:G:N1	37:3:61:G:C5	2.85	0.45
36:5:3009:G:N7	87:5:3921:OHX:N4	2.65	0.45
36:1:600:G:C2	36:1:604:G:C6	3.05	0.45
12:C0:32:HIS:ND1	12:C0:39:ASN:OD1	4.47	0.45
45:L8:106:LYS:HA	45:L8:109:LEU:HD12	1.98	0.45
46:L9:150:SER:CB	46:L9:153:ASP:HB2	3.51	0.45
1:2:760:A:OP2	87:2:2061:OHX:N4	2.49	0.45
36:1:716:A:N6	64:N8:117:ARG:HG3	2.32	0.45
36:1:2411:U:N3	36:1:2811:A:C2	2.82	0.45
36:1:795:G:O2'	36:1:796:U:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:996:A:C2	36:5:1054:A:C4	3.05	0.45
1:2:1246:C:C4	1:2:1247:U:N3	2.85	0.45
36:1:2322:C:H2'	36:1:2323:G:H5'	1.97	0.45
34:SR:147:HIS:NE2	34:SR:179:LYS:HB2	2.62	0.45
39:L2:13:GLY:HA2	36:5:2172:A:O2'	174.16	0.45
36:5:3352:U:O2'	87:5:4224:OHX:N5	2.50	0.45
1:6:411:C:H2'	1:6:412:A:O4'	2.17	0.45
36:1:627:U:O4	87:1:3998:OHX:N5	2.51	0.45
1:6:581:U:H6	1:6:581:U:H3'	1.81	0.45
78:Q2:93:LEU:HD13	78:Q2:93:LEU:O	5.09	0.45
18:C6:123:ARG:HA	18:C6:123:ARG:HD3	4.11	0.45
36:1:2259:A:OP2	87:1:3934:OHX:N2	2.50	0.44
36:1:1295:G:O2'	56:N0:115:ARG:HD3	2.17	0.44
36:5:3192:U:H2'	36:5:3193:C:H6	1.81	0.44
46:L9:20:ILE:HG23	46:L9:25:VAL:HG22	3.39	0.44
51:M5:81:TYR:CD1	51:M5:81:TYR:N	3.26	0.44
26:D4:109:LYS:O	26:D4:112:LYS:HB3	2.92	0.44
1:2:1795:U:H3'	28:D6:5:ARG:NH1	2.27	0.44
1:6:478:A:C2	1:6:511:A:N1	2.85	0.44
1:6:766:U:H3'	1:6:768:C:OP2	2.17	0.44
11:S9:110:GLN:HE22	11:S9:126:ARG:HA	4.87	0.44
44:L7:173:LEU:HD12	44:L7:173:LEU:HA	2.22	0.44
45:L8:74:THR:HG22	45:L8:230:LYS:HE3	1.99	0.44
36:1:1389:G:C6	36:1:1419:A:N6	2.85	0.44
41:L4:153:SER:OG	41:L4:155:ASP:N	2.24	0.44
41:L4:274:TYR:CD1	41:L4:275:THR:N	3.17	0.44
54:M8:23:ASN:O	54:M8:25:TYR:N	2.59	0.44
1:2:1402:G:H4'	19:C7:4:VAL:HG22	1.99	0.44
1:2:1368:G:C5	1:2:1369:U:C5	3.05	0.44
7:S5:116:HIS:HD2	27:D5:98:GLN:HB2	1.82	0.44
7:S5:145:ASP:OD1	30:D8:45:LYS:NZ	2.38	0.44
7:S5:177:ILE:HG12	7:S5:180:ARG:HH12	1.82	0.44
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.17	0.44
67:O1:30:PRO:O	67:O1:31:ARG:C	2.54	0.44
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.17	0.44
61:N5:63:ILE:HG13	61:N5:84:PHE:CD2	2.52	0.44
42:L5:51:LEU:HD23	42:L5:51:LEU:HA	4.48	0.44
1:2:1428:G:H8	1:2:1428:G:H5'	1.82	0.44
12:C0:16:PHE:HE1	12:C0:73:VAL:HG12	6.71	0.44
17:C5:16:SER:HB3	17:C5:21:ASP:HA	2.49	0.44
15:C3:90:TYR:HA	15:C3:93:LYS:HB2	3.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:68:C:C5	36:1:315:C:H4'	2.52	0.44
19:C7:102:VAL:C	19:C7:104:ASN:H	4.73	0.44
23:D1:10:GLU:OE2	23:D1:10:GLU:HA	2.17	0.44
40:L3:271:GLY:O	40:L3:272:TYR:C	2.93	0.44
1:6:1699:G:N1	1:6:1702:A:H5''	2.32	0.44
48:M1:10:ARG:CZ	48:M1:10:ARG:HB2	2.47	0.44
36:1:1722:U:H2'	36:1:1723:A:O4'	2.17	0.44
63:N7:96:VAL:HA	63:N7:100:THR:OG1	4.49	0.44
1:6:872:G:H2'	1:6:873:U:O4'	2.17	0.44
73:O7:69:HIS:O	73:O7:72:ARG:HB3	2.17	0.44
6:S4:44:LEU:HD12	6:S4:65:LEU:HD21	3.31	0.44
36:5:1231:A:H2	36:5:1278:A:N7	2.15	0.44
18:C6:120:ASP:OD1	18:C6:122:ARG:N	2.27	0.44
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.23	0.44
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	2.29	0.44
34:SR:293:ALA:O	34:SR:301:LEU:HD12	2.16	0.44
36:5:2666:C:OP2	36:5:2687:G:N1	2.42	0.44
36:5:1055:A:N7	36:5:1056:U:C5	2.85	0.44
29:D7:57:GLU:HG3	29:D7:58:SER:N	2.32	0.44
36:1:2554:A:C8	36:1:2554:A:H5'	2.51	0.44
1:2:989:U:H3	1:2:1015:U:H3	1.65	0.44
1:2:989:U:C4	1:2:990:C:N4	2.85	0.44
39:L2:112:ILE:HD11	79:Q3:79:VAL:HG13	4.52	0.44
1:2:151:G:N3	8:S6:13:GLN:NE2	2.47	0.44
52:M6:195:ALA:C	52:M6:197:LEU:H	2.93	0.44
36:1:188:U:H1'	36:1:208:C:O4'	2.16	0.44
36:1:210:U:C2	36:1:230:U:H4'	2.51	0.44
1:2:1537:C:C4	1:2:1572:G:O6	2.70	0.44
40:L3:43:LEU:HD12	40:L3:43:LEU:H	1.82	0.44
36:1:3181:C:C2	52:M6:168:TYR:CD2	3.04	0.44
1:6:1147:A:H2'	1:6:1148:C:H6	1.81	0.44
34:SR:297:ASP:C	34:SR:299:GLN:H	2.73	0.44
36:1:2226:U:C4	36:1:2227:C:N4	2.85	0.44
71:O5:118:ILE:HG22	71:O5:119:LYS:H	1.83	0.44
49:M3:73:ARG:HD3	49:M3:73:ARG:C	2.37	0.44
36:5:3033:A:H2'	36:5:3034:C:C6	2.53	0.44
26:D4:9:THR:HG22	26:D4:25:VAL:HG22	1.99	0.44
79:Q3:13:LYS:HG3	79:Q3:14:TYR:N	2.32	0.44
71:O5:35:LYS:HA	71:O5:41:LEU:HD23	1.99	0.44
40:L3:41:VAL:O	40:L3:41:VAL:HG12	3.05	0.44
37:3:113:C:N4	37:3:114:U:C4	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:48:ARG:NH1	35:SM:51:ARG:HB2	2.31	0.44
17:C5:122:THR:HG21	1:6:1455:G:OP1	369.05	0.44
36:1:2194:G:H2'	36:1:2195:C:C6	2.52	0.44
60:N4:39:LEU:HD13	60:N4:39:LEU:HA	1.96	0.44
60:N4:38:SER:O	60:N4:42:GLN:HG3	3.87	0.44
4:S2:44:LEU:HD21	4:S2:246:GLU:C	2.38	0.44
4:S2:50:ILE:HD11	4:S2:239:PRO:CB	2.47	0.44
4:S2:147:ASN:O	4:S2:149:GLY:N	4.30	0.44
36:1:1919:G:C6	36:1:1920:U:C4	3.05	0.44
15:C3:20:ARG:NH1	24:D2:56:HIS:CE1	4.96	0.44
36:5:207:U:H2'	36:5:208:C:H6	1.82	0.44
34:SR:129:LYS:HD3	34:SR:148:ASN:O	2.16	0.44
36:1:1525:G:H2'	36:1:1594:A:C2	2.52	0.44
42:L5:21:ARG:C	42:L5:23:ARG:H	2.59	0.44
53:M7:82:ARG:HB3	53:M7:83:TRP:H	2.20	0.44
63:N7:107:ARG:O	63:N7:111:LYS:HG3	2.17	0.44
15:C3:83:GLU:H	15:C3:83:GLU:HG2	1.58	0.44
36:1:993:G:OP1	87:1:3890:OHX:N1	2.50	0.44
69:O3:20:LYS:HG2	69:O3:21:ARG:HG3	3.98	0.44
36:1:1117:G:C6	36:1:1118:C:C4	3.05	0.44
51:M5:185:ALA:HB3	51:M5:190:THR:HG22	3.06	0.44
45:L8:128:LYS:HE3	45:L8:130:TYR:CZ	5.08	0.44
1:6:407:A:O2'	1:6:1671:A:N3	2.42	0.44
36:5:1444:G:H1	36:5:2359:C:H42	1.65	0.44
36:5:1461:A:H2'	36:5:1462:A:O4'	2.17	0.44
1:6:365:G:C2	1:6:366:A:C8	3.05	0.44
1:2:1066:C:OP1	3:S1:151:LYS:NZ	2.36	0.44
24:D2:118:ARG:HD3	1:6:686:C:H4'	403.31	0.44
36:1:1781:C:H2'	36:1:1782:U:H6	1.82	0.44
5:S3:16:VAL:HG22	31:D9:50:ILE:HD13	3.83	0.44
1:6:717:C:H6	1:6:717:C:H2'	1.47	0.44
26:D4:64:PHE:CE1	1:6:767:U:C4	422.84	0.44
36:5:609:G:OP1	36:5:609:G:H4'	2.17	0.44
36:5:2994:A:O2'	38:8:1:A:N1	2.42	0.44
36:5:371:G:H1'	36:5:375:A:H61	1.83	0.44
1:6:1311:U:C2	1:6:1315:U:N3	2.85	0.44
26:D4:58:PHE:CE1	26:D4:90:ARG:CZ	3.37	0.44
58:N2:101:ASN:HA	58:N2:103:TYR:CZ	3.26	0.44
1:2:773:C:H6	1:2:773:C:O5'	2.00	0.44
6:S4:97:GLU:HB3	6:S4:99:PHE:CE2	2.52	0.44
1:6:1680:G:OP2	1:6:1680:G:C8	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1162:U:H4'	68:O2:57:TYR:CE1	2.53	0.44
13:C1:3:THR:HG22	13:C1:4:GLU:H	2.35	0.44
36:5:2623:G:H2'	36:5:2624:G:O4'	2.17	0.44
55:M9:175:GLN:HB3	55:M9:179:GLU:OE2	2.17	0.44
14:C2:37:VAL:HG12	14:C2:38:HIS:ND1	2.32	0.44
1:2:244:A:H2'	1:2:245:U:H6	1.83	0.44
33:E1:87:THR:HA	33:E1:88:PRO:HD2	1.78	0.44
26:D4:43:LYS:O	26:D4:47:VAL:HG23	2.17	0.44
73:O7:43:LYS:NZ	36:5:55:G:OP1	114.38	0.44
1:2:251:A:H2'	1:2:252:U:O4'	2.16	0.44
38:8:19:C:H2'	38:8:20:U:O4'	2.17	0.44
20:C8:86:LEU:N	20:C8:86:LEU:CD1	3.64	0.44
36:5:957:C:O2'	36:5:958:C:H5'	2.17	0.44
36:5:960:U:O2'	36:5:961:C:H5'	2.17	0.44
36:1:1191:U:OP2	52:M6:49:ARG:NH1	2.50	0.44
36:1:2865:U:C5	36:1:2866:U:C4	3.05	0.44
1:2:566:C:H2'	1:2:567:A:C8	2.52	0.44
36:1:1899:G:N1	36:1:2335:G:OP2	2.43	0.44
40:L3:356:LEU:HD23	40:L3:356:LEU:HA	2.62	0.44
76:Q0:121:LEU:HA	76:Q0:121:LEU:HD23	1.81	0.44
46:L9:34:LEU:HD23	46:L9:34:LEU:HA	1.86	0.44
36:1:1443:G:H2'	36:1:1444:G:C8	2.53	0.44
36:1:2356:A:C2	36:1:2357:A:N9	2.85	0.44
53:M7:36:ILE:O	53:M7:37:ASN:C	2.56	0.44
28:D6:38:ARG:HD3	28:D6:38:ARG:HA	4.05	0.44
1:6:477:A:N7	1:6:538:A:N6	2.66	0.44
11:S9:123:HIS:HE1	32:E0:37:ARG:HG3	2.60	0.44
44:L7:240:VAL:O	44:L7:244:ASN:N	2.76	0.44
61:N5:31:THR:HG23	36:5:2523:A:OP1	159.83	0.44
51:M5:19:LEU:HD12	51:M5:22:LEU:HD23	1.99	0.44
1:6:210:A:C6	1:6:211:U:C4	3.05	0.44
1:6:94:U:H2'	1:6:95:G:O4'	2.17	0.44
10:S8:184:LEU:HD12	10:S8:184:LEU:HA	1.80	0.44
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.47	0.44
41:L4:198:ARG:CZ	41:L4:198:ARG:HB3	4.25	0.44
41:L4:33:ASP:OD1	41:L4:33:ASP:N	3.51	0.44
54:M8:19:PRO:HD3	54:M8:30:VAL:HG21	2.46	0.44
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.71	0.44
54:M8:45:ASN:N	54:M8:45:ASN:HD22	2.13	0.44
30:D8:42:ARG:HH21	30:D8:56:LEU:HD13	7.25	0.44
67:O1:33:VAL:O	67:O1:36:ILE:N	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:44:MET:HB3	67:O1:77:ARG:HD3	1.99	0.44
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	3.91	0.44
42:L5:62:CYS:O	42:L5:105:ILE:HG13	2.17	0.44
42:L5:87:GLY:C	42:L5:88:ILE:HD12	2.37	0.44
1:6:1274:C:H4'	1:6:1275:A:O5'	2.17	0.44
17:C5:47:ARG:HH21	1:6:1555:A:P	402.06	0.44
1:6:878:G:H2'	1:6:879:G:H8	1.82	0.44
1:6:1784:C:H2'	1:6:1785:U:H6	1.81	0.44
15:C3:99:ARG:O	15:C3:102:LEU:N	2.72	0.44
1:6:987:G:H5''	1:6:988:A:OP1	2.17	0.44
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.30	0.44
16:C4:20:TYR:HD1	16:C4:21:ALA:N	3.20	0.44
3:S1:65:VAL:HG23	3:S1:86:LEU:C	5.81	0.44
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ3	2.52	0.44
63:N7:24:VAL:HG23	63:N7:26:VAL:HG13	1.98	0.44
36:5:1411:C:O2'	36:5:1412:G:H5'	2.17	0.44
14:C2:126:TRP:HD1	14:C2:127:GLY:N	3.13	0.44
50:M4:14:LEU:HA	50:M4:14:LEU:HD23	2.37	0.44
1:6:74:U:C5	1:6:76:A:OP2	2.70	0.44
56:N0:42:TRP:HH2	56:N0:56:GLY:HA3	1.82	0.44
69:O3:52:VAL:HG23	69:O3:52:VAL:H	1.82	0.44
34:SR:84:SER:H	34:SR:110:VAL:HB	1.81	0.44
40:L3:320:ASP:N	40:L3:320:ASP:OD2	2.49	0.44
39:L2:138:GLY:O	39:L2:147:ARG:HG3	6.26	0.44
56:N0:161:LYS:HD2	36:5:3209:A:P	281.46	0.44
36:1:1872:C:C5	36:1:1873:U:C5	3.06	0.44
72:O6:45:ARG:HH21	72:O6:50:LEU:HA	1.81	0.44
72:O6:99:ARG:HH11	72:O6:99:ARG:HG3	1.82	0.44
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.47	0.44
57:N1:105:PHE:O	57:N1:108:ARG:HB3	2.71	0.44
1:6:653:C:H5'	1:6:654:C:OP2	2.18	0.44
36:1:1677:G:N7	58:N2:74:LYS:NZ	2.45	0.44
36:5:3069:G:N1	36:5:3070:A:C5	2.85	0.44
49:M3:75:PHE:N	49:M3:97:VAL:HA	2.78	0.44
51:M5:38:ARG:HD3	51:M5:38:ARG:C	2.37	0.44
25:D3:7:ARG:N	1:6:1103:U:OP2	342.22	0.44
39:L2:209:HIS:HD2	39:L2:211:HIS:CB	2.26	0.44
33:E1:98:VAL:HG13	33:E1:99:LYS:H	1.80	0.44
26:D4:7:ILE:HD11	26:D4:40:LEU:HD22	1.99	0.44
36:5:1694:U:H3	36:5:1752:A:H61	1.63	0.44
74:O8:30:LYS:HD2	74:O8:40:GLN:CD	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1927:G:OP2	79:Q3:5:THR:HG22	2.18	0.44
4:S2:78:ASP:HB3	4:S2:129:ILE:HD13	1.99	0.44
37:3:113:C:C4	37:3:114:U:C4	3.05	0.44
36:5:3383:G:C6	36:5:3384:U:C4	3.06	0.44
47:M0:116:ARG:C	47:M0:118:ALA:H	4.26	0.44
36:1:2511:A:H2'	36:1:2512:C:O4'	2.17	0.44
36:5:3356:G:C2	36:5:3357:U:C2	3.06	0.44
36:1:2533:G:C4	36:1:2534:G:C8	3.05	0.44
57:N1:28:SER:O	57:N1:31:LEU:N	4.55	0.44
63:N7:55:LYS:C	63:N7:57:HIS:H	2.68	0.44
36:1:1889:G:H2'	36:1:1890:U:H6	1.82	0.44
38:4:123:G:C5	38:4:131:A:N1	2.85	0.44
36:1:3116:G:C3'	36:1:3117:C:H5'	2.47	0.44
36:5:1946:A:C6	36:5:1947:G:C6	3.05	0.44
36:1:994:G:OP1	57:N1:14:MET:HB2	2.17	0.44
36:5:3395:G:OP1	36:5:3395:G:H3'	2.16	0.44
54:M8:65:SER:HB3	54:M8:90:ASP:CB	3.51	0.44
56:N0:45:LEU:HD11	56:N0:49:HIS:CD2	3.03	0.44
28:D6:57:SER:OG	28:D6:58:VAL:N	3.44	0.44
36:5:2409:G:C2	36:5:2411:U:C6	3.04	0.44
24:D2:20:THR:HB	24:D2:22:LYS:HD3	1.99	0.44
42:L5:44:TYR:CE2	36:5:1084:A:H4'	229.67	0.44
25:D3:37:ALA:HB3	25:D3:38:PHE:HD2	4.11	0.44
36:1:1145:G:O2'	68:O2:45:ARG:O	2.25	0.44
22:D0:110:PRO:O	22:D0:112:VAL:HG23	2.40	0.44
53:M7:102:ALA:O	53:M7:107:LEU:HB2	2.18	0.44
36:5:1462:A:H2'	36:5:1462:A:N3	2.32	0.44
39:L2:16:PHE:O	39:L2:17:THR:O	2.34	0.44
1:2:1162:C:H1'	1:2:1616:G:N2	2.33	0.44
36:5:3239:G:N2	36:5:3240:C:C2	2.85	0.44
1:6:1324:G:O5'	1:6:1324:G:H8	2.00	0.44
8:S6:52:ILE:CG2	8:S6:109:LEU:HD21	3.56	0.44
33:E1:119:ARG:O	33:E1:131:PHE:HA	2.65	0.44
36:1:510:G:C6	36:1:511:G:N7	2.86	0.44
1:6:491:C:N4	1:6:496:G:O6	2.50	0.44
1:2:131:C:O2'	1:2:132:U:OP1	2.30	0.44
36:5:575:G:C6	36:5:576:C:N4	2.86	0.44
1:6:999:U:H3	1:6:1003:A:HO2'	1.59	0.44
36:1:3242:G:N2	36:1:3245:A:OP2	2.47	0.44
36:1:304:G:OP2	36:1:304:G:H3'	2.17	0.44
36:1:925:A:H61	39:L2:2:GLY:N	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2730:G:C4	36:5:2799:A:N1	2.85	0.44
1:6:1167:G:H2'	1:6:1168:U:H6	1.82	0.44
1:6:525:A:H2'	1:6:526:A:C8	2.52	0.44
24:D2:24:GLN:NE2	29:D7:5:GLN:HG2	2.32	0.44
36:1:2517:U:H2'	36:1:2518:C:C6	2.53	0.44
1:6:800:U:H2'	1:6:801:G:H8	1.82	0.44
41:L4:130:ALA:HA	41:L4:148:ILE:HG23	1.97	0.44
87:8:220:OHX:N2	87:8:229:OHX:N4	2.64	0.44
36:1:2598:G:C6	36:1:2599:U:C4	3.05	0.44
1:2:348:U:H2'	1:2:349:U:H6	1.82	0.44
34:SR:88:THR:HG22	34:SR:104:VAL:CG1	6.08	0.44
48:M1:74:PRO:O	48:M1:77:GLU:HG3	2.17	0.44
36:5:956:U:H6	36:5:956:U:O5'	2.01	0.44
67:O1:52:ALA:HB2	67:O1:92:TYR:CE2	2.52	0.44
40:L3:209:PHE:HB3	40:L3:282:ILE:HD13	2.00	0.44
36:1:235:A:C2	36:1:236:G:C4	3.05	0.44
66:O0:45:ALA:HB3	66:O0:48:THR:HG22	1.98	0.44
36:1:615:U:O2'	36:1:616:G:H5'	2.17	0.44
1:2:1342:C:H2'	1:2:1343:U:C6	2.52	0.44
25:D3:104:LEU:HD23	25:D3:104:LEU:HA	1.65	0.44
46:L9:22:SER:OG	46:L9:39:LYS:NZ	3.97	0.44
36:1:1511:U:H5''	36:1:1512:U:H5	1.82	0.44
36:1:2353:G:C2'	36:1:2354:C:H5'	2.47	0.44
53:M7:50:GLN:O	53:M7:53:ASP:N	2.43	0.44
1:6:992:A:C4	1:6:1013:A:C2	3.04	0.44
47:M0:39:LYS:HG2	47:M0:40:LYS:N	3.65	0.44
10:S8:106:ALA:O	10:S8:109:PHE:N	2.50	0.44
38:4:19:C:C5	38:4:20:U:C5	3.05	0.44
41:L4:206:LEU:HD22	41:L4:208:VAL:HG23	5.00	0.44
41:L4:261:VAL:HG12	41:L4:262:TRP:NE1	2.75	0.44
49:M3:35:ARG:HG2	49:M3:35:ARG:HH11	1.82	0.44
54:M8:29:LEU:HA	54:M8:29:LEU:HD23	1.89	0.44
1:6:1474:G:N2	1:6:1475:A:C4	2.86	0.44
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.32	0.44
27:D5:74:SER:HA	27:D5:77:ARG:HH21	1.81	0.44
42:L5:122:VAL:O	42:L5:122:VAL:HG13	2.17	0.44
42:L5:236:LEU:HA	42:L5:239:ILE:HG13	2.43	0.44
42:L5:244:HIS:O	42:L5:247:ILE:HB	2.45	0.44
42:L5:61:ILE:HG23	42:L5:79:TYR:CD1	2.53	0.44
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.98	0.44
21:C9:105:LEU:O	21:C9:108:LEU:N	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:977:A:N6	1:6:978:A:C2	2.85	0.44
36:5:1631:C:H5''	36:5:1632:A:H5''	1.99	0.44
3:S1:133:TYR:CD2	3:S1:181:LEU:HD11	2.52	0.44
3:S1:70:LEU:CD1	3:S1:79:HIS:HB3	2.47	0.44
23:D1:52:THR:C	23:D1:53:TYR:HD1	2.94	0.44
4:S2:196:VAL:HG22	4:S2:197:TYR:N	2.31	0.44
36:1:3304:U:O3'	40:L3:334:ARG:NH2	2.48	0.44
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.70	0.44
48:M1:92:ARG:HH22	48:M1:94:ARG:NH1	2.15	0.44
38:4:65:A:C6	38:4:66:A:C5	3.06	0.44
1:2:1256:A:H4'	1:2:1257:U:O5'	2.18	0.44
36:1:3019:U:C4	36:1:3020:U:C4	3.05	0.44
17:C5:130:ARG:NH1	35:SM:74:LYS:HD3	2.32	0.44
11:S9:168:ARG:HD3	11:S9:174:ARG:CD	6.71	0.44
36:1:1129:A:C6	36:1:1130:A:C6	3.06	0.44
57:N1:54:HIS:O	57:N1:55:LYS:C	2.69	0.44
9:S7:130:VAL:O	9:S7:132:PRO:HD2	5.56	0.44
9:S7:46:ILE:HG12	9:S7:60:ILE:HG23	2.59	0.44
9:S7:58:LEU:HB2	9:S7:90:VAL:HG23	2.88	0.44
42:L5:268:GLU:HG2	37:7:121:U:C6	325.43	0.44
34:SR:205:SER:HB3	34:SR:210:LEU:H	3.93	0.44
34:SR:37:SER:HG	34:SR:38:ARG:H	1.65	0.44
34:SR:22:SER:CB	34:SR:70:ASP:HA	2.52	0.44
87:5:3973:OHX:N6	87:5:4193:OHX:N5	2.65	0.44
40:L3:286:GLY:HA3	40:L3:321:PHE:CD2	2.52	0.44
40:L3:286:GLY:HA3	40:L3:321:PHE:CE1	3.64	0.44
39:L2:140:ASN:OD1	39:L2:142:ASP:O	2.35	0.44
1:2:1574:G:C4	1:2:1574:G:OP2	2.70	0.44
36:5:3163:A:H2'	36:5:3164:C:C6	2.52	0.44
36:1:1481:A:C5	36:1:1859:A:C8	3.05	0.44
24:D2:126:LEU:HD23	24:D2:126:LEU:HA	1.92	0.44
49:M3:124:ILE:HD11	49:M3:126:PHE:CE1	2.51	0.44
36:1:1686:U:O2'	36:1:1688:U:H4'	2.17	0.44
36:1:2316:G:O2'	36:1:2317:A:H5'	2.18	0.44
39:L2:186:PHE:CD2	39:L2:187:HIS:N	2.85	0.44
61:N5:43:ALA:O	61:N5:44:PRO:O	3.02	0.44
40:L3:183:LEU:HD12	40:L3:183:LEU:HA	1.90	0.44
13:C1:101:GLU:CD	25:D3:16:ARG:HH21	2.20	0.44
10:S8:26:LYS:O	10:S8:29:LEU:HD22	2.18	0.44
36:1:2841:G:C5	36:1:2844:C:C4	3.05	0.44
36:1:2845:A:C2	36:1:2846:U:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2144:A:C4	36:5:2281:A:C6	3.06	0.44
36:5:1698:C:N4	36:5:1747:G:H1	2.16	0.44
36:5:1709:C:H2'	36:5:1710:C:H6	1.80	0.44
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.17	0.44
42:L5:55:PHE:CE1	42:L5:158:ARG:HB3	5.71	0.44
1:2:1489:U:H2'	1:2:1490:C:OP1	2.17	0.44
22:D0:49:ASN:O	22:D0:50:LEU:HD23	3.29	0.44
22:D0:57:ARG:HG3	22:D0:89:ARG:NE	2.32	0.44
56:N0:98:SER:O	56:N0:101:ALA:HB3	3.07	0.44
36:1:3110:C:O2	36:1:3110:C:H2'	2.17	0.44
36:1:1888:U:OP1	40:L3:228:GLY:HA3	2.16	0.44
36:1:1224:C:C2	36:1:1225:A:C8	3.05	0.44
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.87	0.44
53:M7:69:ARG:HH21	36:5:2992:U:H1'	191.68	0.44
36:1:830:A:H5'	36:1:830:A:H8	1.83	0.44
63:N7:103:GLN:O	63:N7:107:ARG:HG3	3.53	0.44
36:1:993:G:C4	36:1:2637:A:C2	3.05	0.44
36:1:2385:G:C4	36:1:3143:C:C5	3.05	0.44
49:M3:9:ILE:HG13	64:N8:49:HIS:CD2	3.72	0.44
58:N2:33:TYR:HE2	58:N2:63:VAL:HG21	3.07	0.44
1:6:271:A:H2'	1:6:271:A:N3	2.33	0.44
1:2:144:U:C2	1:2:145:A:C8	3.05	0.44
54:M8:182:LYS:HZ2	54:M8:182:LYS:HG2	1.55	0.44
40:L3:347:SER:HB3	40:L3:350:ALA:CB	3.13	0.44
53:M7:10:ASN:C	53:M7:12:ALA:H	2.20	0.44
44:L7:92:ILE:HG23	44:L7:92:ILE:HD12	1.64	0.44
55:M9:115:ILE:HD12	55:M9:120:TYR:HA	5.02	0.44
1:6:1097:U:H4'	1:6:1098:U:H5'	2.00	0.44
68:O2:15:LYS:HE3	68:O2:15:LYS:HB3	4.55	0.44
36:1:2376:G:C6	36:1:2377:G:C6	3.05	0.44
36:5:941:G:H8	36:5:941:G:O5'	2.00	0.44
45:L8:180:VAL:HG22	45:L8:181:LYS:H	1.83	0.44
1:6:225:A:C2'	1:6:226:A:H5'	2.48	0.44
18:C6:31:VAL:N	18:C6:34:SER:O	2.38	0.44
66:O0:69:TYR:N	66:O0:69:TYR:CD1	2.99	0.44
38:8:80:A:H8	38:8:80:A:OP2	2.00	0.44
36:1:776:U:O2	36:1:2720:G:C2	2.70	0.44
36:5:1559:A:C6	36:5:1582:C:N4	2.85	0.44
36:1:759:U:C2	36:1:773:G:N1	2.86	0.44
1:2:1658:G:C2	1:2:1659:A:C8	3.06	0.44
5:S3:182:LEU:HD12	5:S3:182:LEU:H	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1621:A:N6	36:1:1823:A:H61	2.15	0.44
40:L3:115:LYS:O	40:L3:118:PHE:N	2.48	0.44
36:5:1336:U:H2'	36:5:1337:A:C8	2.48	0.44
1:6:892:A:C5	1:6:893:U:C5	3.06	0.44
36:5:2578:U:H2'	36:5:2578:U:O2	2.18	0.44
39:L2:219:ILE:O	39:L2:221:LYS:N	2.60	0.44
1:6:1192:C:H3'	1:6:1193:A:H2'	1.98	0.44
15:C3:54:LEU:HD13	15:C3:60:VAL:HG21	1.98	0.44
36:1:829:U:H3	36:1:895:A:N6	2.15	0.44
1:2:348:U:O2'	1:2:349:U:H5'	2.17	0.44
1:2:265:A:C2	1:2:267:U:C4	3.05	0.44
64:N8:120:ASN:O	64:N8:141:ALA:HB1	2.17	0.44
16:C4:57:PRO:HB3	16:C4:100:ALA:CB	4.00	0.44
36:5:3312:U:OP1	87:5:4015:OHX:N1	2.50	0.44
40:L3:222:LYS:HB3	40:L3:222:LYS:HE2	4.12	0.44
22:D0:64:LYS:HE3	22:D0:64:LYS:HB2	1.69	0.44
1:6:141:U:H6	1:6:141:U:H2'	1.66	0.44
36:1:212:G:O2'	41:L4:223:PRO:HD3	2.17	0.44
36:1:296:A:C5	36:1:297:G:C6	3.04	0.44
36:1:30:G:H2'	36:1:30:G:N3	2.30	0.44
55:M9:24:LEU:HD13	55:M9:32:ILE:HG21	5.62	0.44
1:2:431:C:O5'	1:2:431:C:H6	1.99	0.44
76:Q0:96:CYS:CB	76:Q0:99:CYS:SG	3.06	0.44
36:5:2170:U:C2	36:5:2171:G:C8	3.04	0.44
36:5:1449:A:C2	36:5:2356:A:C4	3.05	0.44
1:6:477:A:N6	1:6:538:A:C2	2.85	0.44
11:S9:158:PHE:CD2	11:S9:164:PHE:HB3	2.52	0.44
11:S9:93:LEU:HA	11:S9:93:LEU:HD12	3.92	0.44
11:S9:95:TYR:O	11:S9:98:ALA:N	2.51	0.44
87:1:4032:OHX:N2	87:1:4044:OHX:N1	2.66	0.44
44:L7:229:PHE:CD1	44:L7:229:PHE:C	2.92	0.44
1:6:329:G:H2'	1:6:330:G:C8	2.51	0.44
26:D4:76:TYR:HE2	26:D4:85:PHE:HB2	1.82	0.44
55:M9:176:ARG:HD2	1:6:853:G:OP1	336.35	0.44
36:1:526:C:H42	36:1:566:G:H1	1.66	0.44
18:C6:49:TYR:O	18:C6:53:LEU:HG	2.17	0.44
27:D5:90:LYS:H	27:D5:101:TYR:HB3	1.81	0.44
46:L9:101:VAL:HG12	46:L9:136:PHE:CZ	2.74	0.44
4:S2:203:LYS:C	4:S2:205:ARG:H	2.62	0.44
67:O1:88:PRO:HG2	67:O1:89:LEU:CD1	3.84	0.44
42:L5:197:SER:O	42:L5:201:GLY:N	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:85:ARG:HD3	42:L5:86:TYR:CE2	2.53	0.44
1:2:1253:U:H5'	33:E1:130:VAL:HB	1.99	0.44
17:C5:15:HIS:ND1	17:C5:110:GLU:OE2	2.49	0.44
20:C8:91:ASP:HB3	20:C8:95:GLY:N	2.26	0.44
21:C9:53:TRP:CG	21:C9:54:PHE:N	3.33	0.44
48:M1:109:HIS:HD2	48:M1:123:PHE:N	2.10	0.44
5:S3:55:THR:HA	5:S3:58:VAL:CG2	2.48	0.44
15:C3:127:ARG:HE	15:C3:127:ARG:HB2	2.30	0.44
3:S1:84:ILE:HD12	3:S1:84:ILE:HG23	3.78	0.44
4:S2:63:VAL:O	4:S2:134:LEU:HD22	5.52	0.44
4:S2:35:TRP:CE2	4:S2:37:PRO:HB3	2.53	0.44
36:1:1720:U:C4	55:M9:124:TYR:CE2	3.06	0.44
63:N7:27:LYS:HD3	63:N7:96:VAL:O	4.61	0.44
55:M9:38:ARG:O	55:M9:42:ARG:HB2	2.16	0.44
73:O7:74:PHE:C	73:O7:76:ASN:H	2.86	0.44
1:6:1179:G:C5	1:6:1180:C:C4	3.05	0.44
31:D9:9:SER:HA	1:6:1451:C:H5'	409.81	0.44
6:S4:102:VAL:HG21	6:S4:182:TYR:CE1	2.52	0.44
36:5:559:A:C2'	36:5:560:G:O5'	2.66	0.44
50:M4:86:ALA:O	50:M4:89:ALA:N	2.50	0.44
56:N0:14:LEU:HA	56:N0:15:PRO:HD3	1.88	0.44
1:2:1155:G:C6	1:2:1156:C:C4	3.05	0.44
1:6:65:A:H2	1:6:67:A:N7	2.14	0.44
34:SR:33:LEU:O	34:SR:45:TRP:HD1	2.11	0.44
62:N6:58:VAL:HA	62:N6:104:LEU:HD22	2.66	0.44
40:L3:305:ILE:HD11	40:L3:321:PHE:CE2	2.52	0.44
36:1:2157:G:O6	39:L2:152:SER:N	2.48	0.44
39:L2:118:GLU:HG2	39:L2:156:LYS:HZ3	1.82	0.44
41:L4:221:ASN:HB2	36:5:211:A:OP1	80.47	0.44
70:O4:4:ARG:HD2	36:5:1485:G:N2	151.05	0.44
36:5:2211:U:H5	36:5:2234:G:H1	1.64	0.44
40:L3:132:LYS:O	40:L3:135:ALA:HB3	2.17	0.44
40:L3:137:TYR:CZ	40:L3:144:ILE:HD12	2.52	0.44
49:M3:76:THR:HG22	49:M3:101:ARG:HG2	2.30	0.44
51:M5:143:ARG:HB3	71:O5:96:GLU:OE2	3.94	0.44
13:C1:100:TYR:HB2	25:D3:10:ASN:OD1	2.22	0.44
37:7:10:C:H1'	37:7:13:A:N1	2.33	0.44
1:2:1084:A:O2'	1:2:1085:G:H5'	2.16	0.44
36:1:3139:A:C5'	36:1:3139:A:C8	2.99	0.44
1:2:966:A:H2'	1:2:967:A:H8	1.82	0.44
42:L5:155:THR:N	42:L5:179:ARG:HH11	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1699:A:C6	36:5:1747:G:C6	3.05	0.44
36:5:549:U:H2'	36:5:550:A:H8	1.82	0.44
52:M6:77:SER:OG	52:M6:78:ARG:N	2.50	0.44
41:L4:295:ILE:HG23	41:L4:299:ILE:HD11	2.01	0.44
59:N3:40:LYS:HB2	59:N3:57:MET:O	2.17	0.44
58:N2:90:ARG:C	58:N2:92:TRP:N	2.83	0.44
37:7:30:G:C6	37:7:31:U:C5	3.05	0.44
36:1:2591:A:C2'	36:1:2592:G:H5'	2.48	0.44
36:5:216:G:H2'	36:5:217:U:C6	2.52	0.44
38:4:122:U:H2'	38:4:123:G:C8	2.52	0.44
38:4:123:G:C2	38:4:124:G:C4	3.05	0.44
1:6:641:G:H2'	1:6:642:G:O4'	2.18	0.44
37:3:3:U:C2	37:3:4:U:C5	3.06	0.44
10:S8:140:GLU:HG2	10:S8:143:TRP:CE3	6.39	0.44
10:S8:73:SER:O	10:S8:74:LYS:HD2	2.17	0.44
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.17	0.44
36:1:1223:A:N6	36:1:1286:A:C5	2.86	0.44
36:5:1878:G:OP1	87:5:3952:OHX:N5	2.51	0.44
1:2:276:C:N4	1:2:281:G:H1	2.15	0.44
36:5:162:G:C2	36:5:260:C:O2	2.70	0.44
69:O3:92:LYS:O	36:5:3173:G:N1	227.03	0.44
36:1:1086:C:H1'	65:N9:47:LEU:HD21	1.98	0.44
69:O3:88:ASN:HB2	36:5:429:U:H4'	215.75	0.44
1:2:1308:G:N2	1:2:1318:G:H1'	2.31	0.44
36:1:660:A:H5''	41:L4:100:PHE:CD1	2.52	0.44
1:6:1433:G:H2'	1:6:1434:U:H6	1.79	0.44
62:N6:77:LYS:HD3	75:O9:31:THR:CG2	2.47	0.44
10:S8:89:GLU:OE1	10:S8:92:ARG:NH2	2.50	0.44
1:2:939:A:C6	1:2:940:A:C6	3.06	0.44
36:1:1237:G:H2'	36:1:1237:G:N3	2.32	0.44
36:5:2807:U:H2'	36:5:2810:C:C5	2.52	0.44
36:1:1520:G:C2	36:1:1521:G:C4	3.06	0.44
74:O8:31:LEU:HD12	74:O8:35:GLY:HA2	3.47	0.44
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.61	0.44
6:S4:23:LEU:CD1	11:S9:4:ALA:HB3	2.48	0.44
36:1:1131:G:C2	36:1:2373:A:C5	3.04	0.44
1:2:47:A:C2	1:2:100:A:N3	2.85	0.44
36:1:1529:A:OP2	36:1:1592:G:N2	2.45	0.44
36:1:1591:G:O6	36:1:1592:G:C6	2.71	0.44
1:6:849:C:H2'	1:6:850:A:H8	1.81	0.44
37:3:100:C:P	56:N0:52:LYS:NZ	2.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1363:U:H3'	1:6:1364:G:H8	1.82	0.44
36:5:1293:U:C2'	36:5:1294:A:H5'	2.48	0.44
6:S4:252:ARG:NH1	11:S9:71:PHE:HD2	2.15	0.44
1:2:881:A:H2'	1:2:882:U:O4'	2.18	0.44
36:5:67:A:OP2	87:5:3950:OHX:N6	2.50	0.44
6:S4:183:VAL:CG2	6:S4:191:ARG:HB2	4.17	0.44
1:2:1632:C:O5'	1:2:1632:C:H6	2.01	0.44
36:5:1605:A:N1	36:5:1608:C:H1'	2.32	0.44
1:2:106:U:H2'	1:2:107:C:O4'	2.18	0.44
38:8:77:A:H2'	38:8:78:G:O4'	2.17	0.44
53:M7:134:GLY:H	36:5:883:A:P	158.88	0.44
78:Q2:99:GLN:O	78:Q2:99:GLN:HG2	3.11	0.44
36:1:3129:A:H2'	36:1:3130:A:H5''	1.98	0.44
36:5:1202:A:N6	36:5:1301:A:C4	2.85	0.44
24:D2:3:ARG:HG2	24:D2:3:ARG:HH11	4.00	0.44
36:5:3137:C:H6	36:5:3137:C:O5'	2.00	0.44
28:D6:41:ILE:H	28:D6:41:ILE:HG12	1.49	0.44
39:L2:75:ILE:HD13	39:L2:75:ILE:HG21	1.71	0.44
52:M6:48:PHE:CZ	36:5:1191:U:C2	287.31	0.44
36:5:3311:C:OP1	87:5:4225:OHX:N1	2.51	0.44
25:D3:76:LEU:HD23	25:D3:76:LEU:N	2.33	0.44
36:5:2656:A:C2	36:5:2658:G:C6	3.06	0.44
1:2:1641:C:C6	88:2:2181:GET:H931	2.53	0.44
40:L3:212:ASN:C	40:L3:281:LYS:HZ2	2.20	0.44
52:M6:68:ARG:HG2	52:M6:68:ARG:H	1.56	0.44
36:1:3191:G:H2'	36:1:3192:U:H6	1.83	0.44
46:L9:29:GLY:C	46:L9:31:ARG:H	3.11	0.44
51:M5:85:THR:HG23	87:Q2:502:OHX:N2	2.32	0.44
36:1:2983:C:O2	36:1:2983:C:O4'	2.32	0.44
26:D4:113:ASN:HA	26:D4:116:LYS:HB2	1.99	0.44
28:D6:24:VAL:HG11	28:D6:71:LEU:HD12	2.00	0.44
11:S9:134:ILE:HD13	11:S9:141:VAL:N	4.96	0.44
47:M0:199:PHE:N	47:M0:199:PHE:CD2	2.94	0.44
47:M0:46:PHE:CD2	47:M0:139:ARG:HG3	3.21	0.44
44:L7:127:LEU:HA	44:L7:127:LEU:HD23	3.71	0.44
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	1.99	0.44
1:2:398:G:OP1	10:S8:50:GLY:N	2.43	0.44
1:6:448:C:H2'	1:6:449:C:H6	1.82	0.44
10:S8:31:ARG:NH2	10:S8:48:THR:HA	2.33	0.44
41:L4:230:VAL:CG1	41:L4:250:TRP:HZ3	3.59	0.44
43:L6:134:ARG:HA	43:L6:134:ARG:HD2	3.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:98:VAL:O	43:L6:98:VAL:HG13	2.18	0.44
1:2:1388:A:HO2'	1:2:1411:A:H2	1.64	0.44
1:6:1403:C:O2'	1:6:1404:C:H5'	2.18	0.44
7:S5:109:LYS:NZ	1:6:1474:G:OP1	364.52	0.44
1:6:1546:G:H2'	1:6:1547:A:O4'	2.17	0.44
30:D8:44:VAL:HG11	30:D8:48:VAL:HG21	2.74	0.44
87:1:4180:OHX:N4	40:L3:364:LYS:HB3	2.32	0.44
36:5:3380:U:C4	36:5:3381:U:O4	2.70	0.44
67:O1:33:VAL:O	67:O1:34:LYS:C	2.78	0.44
42:L5:122:VAL:HG23	42:L5:123:GLU:H	3.38	0.44
1:2:1481:C:O2'	1:2:1482:C:P	2.74	0.44
12:C0:3:MET:HB2	12:C0:4:PRO:HD2	1.99	0.44
21:C9:73:VAL:HG23	21:C9:105:LEU:HD12	2.00	0.44
1:2:1428:G:N2	22:D0:74:GLU:OE1	2.51	0.44
5:S3:76:ARG:HD3	5:S3:76:ARG:O	3.78	0.44
36:1:268:A:OP1	51:M5:47:LYS:HD2	2.18	0.44
1:2:977:A:H2'	1:2:978:A:O4'	2.17	0.44
63:N7:47:GLU:HB3	63:N7:69:LYS:HG2	2.87	0.44
3:S1:87:ARG:HB2	3:S1:101:HIS:CB	3.64	0.44
36:1:1710:C:C2	36:1:1735:G:N2	2.85	0.44
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.63	0.44
55:M9:125:LYS:HB3	55:M9:125:LYS:NZ	2.32	0.44
63:N7:3:LYS:HE2	63:N7:30:ASP:OD1	2.17	0.44
68:O2:85:LEU:N	68:O2:85:LEU:HD23	2.32	0.44
1:6:955:A:C6	1:6:956:C:N3	2.85	0.44
29:D7:67:THR:OG1	29:D7:68:GLY:N	3.13	0.44
14:C2:54:ARG:HG2	14:C2:56:GLU:OE1	2.18	0.44
36:1:3188:G:C2	36:1:3189:G:C5	3.06	0.44
36:1:3225:C:H42	36:1:3260:G:H1	1.64	0.44
1:2:78:A:H1'	8:S6:175:ILE:HD11	1.99	0.44
34:SR:103:PHE:HE1	34:SR:122:ILE:HD12	1.82	0.44
34:SR:211:ILE:HG22	34:SR:223:TRP:CD1	2.51	0.44
36:5:342:A:C5	36:5:349:A:N7	2.85	0.44
72:O6:83:ALA:O	72:O6:87:VAL:HG23	3.82	0.44
40:L3:305:ILE:HG13	40:L3:305:ILE:H	1.24	0.44
40:L3:81:THR:HG21	40:L3:322:ILE:HG12	2.57	0.44
36:1:2176:U:H2'	36:1:2177:G:H5'	2.00	0.44
49:M3:172:LEU:HA	49:M3:172:LEU:HD23	1.72	0.44
36:5:511:G:N2	36:5:512:U:O2	2.51	0.44
40:L3:122:TRP:CE2	40:L3:127:LYS:HE2	4.24	0.44
52:M6:8:VAL:HG21	52:M6:116:LYS:O	2.67	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1340:G:C5	36:5:1341:U:C5	3.06	0.44
38:8:144:G:O2'	38:8:145:U:H5'	2.17	0.44
51:M5:173:GLY:O	51:M5:183:THR:O	2.36	0.44
51:M5:42:PRO:HD3	51:M5:61:ILE:HG13	1.99	0.44
33:E1:103:LEU:HD23	33:E1:105:TYR:CD2	3.59	0.44
36:1:2317:A:C6	36:1:2318:U:C4	3.06	0.44
79:Q3:14:TYR:HB3	79:Q3:18:TYR:CE1	2.53	0.44
79:Q3:14:TYR:HB3	79:Q3:18:TYR:HE1	1.93	0.44
36:5:247:C:H3'	36:5:248:U:C6	2.51	0.44
1:2:736:C:C4	1:2:737:A:N7	2.86	0.44
36:5:2960:C:H2'	36:5:2961:G:C8	2.52	0.44
44:L7:24:GLU:O	44:L7:26:VAL:HG22	2.18	0.44
52:M6:77:SER:HB3	52:M6:106:GLU:OE1	2.57	0.44
4:S2:242:ILE:C	4:S2:244:SER:H	2.74	0.44
36:1:1919:G:C5	36:1:1920:U:C5	3.06	0.44
13:C1:10:GLU:HB3	13:C1:12:ALA:O	2.17	0.44
42:L5:11:ALA:O	42:L5:14:SER:N	2.71	0.44
22:D0:57:ARG:HG3	22:D0:89:ARG:NH2	2.92	0.44
1:6:742:U:H3'	1:6:744:U:OP2	2.16	0.44
19:C7:33:ARG:NH2	34:SR:109:ASP:OD2	3.27	0.44
46:L9:6:THR:HB	46:L9:68:LEU:HD12	1.99	0.44
63:N7:53:VAL:HG23	63:N7:57:HIS:HD2	1.82	0.44
8:S6:22:HIS:HA	8:S6:25:ARG:NH2	5.33	0.44
40:L3:238:LEU:HB3	40:L3:239:PRO:CD	2.48	0.44
36:1:1565:G:N2	36:1:1574:C:C2	2.86	0.44
10:S8:12:SER:HA	10:S8:18:ARG:HH22	1.82	0.44
36:5:1036:A:C6	36:5:1037:C:N3	2.86	0.44
36:1:1447:G:OP1	53:M7:65:SER:N	2.49	0.44
59:N3:81:GLN:O	59:N3:82:ALA:HB2	2.16	0.44
55:M9:59:SER:C	55:M9:61:SER:H	2.41	0.44
36:5:2363:A:C2	36:5:2376:G:C6	3.06	0.44
36:5:2997:G:N2	36:5:3395:G:O4'	2.42	0.44
41:L4:317:PRO:O	41:L4:318:LEU:C	2.52	0.44
36:1:733:G:O6	87:1:4064:OHX:N2	2.51	0.44
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.99	0.44
1:2:126:A:C6	1:2:292:U:C2	3.05	0.44
1:6:244:A:N1	1:6:250:C:C2	2.86	0.44
36:5:1467:A:C4	36:5:1511:U:C4	3.05	0.44
1:6:139:C:C4	1:6:176:C:C6	3.06	0.44
4:S2:159:THR:HA	4:S2:167:VAL:O	2.18	0.44
4:S2:180:ALA:HB2	4:S2:198:THR:HG21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1664:G:H2'	36:1:1665:C:H6	1.82	0.44
1:2:1192:C:O2'	18:C6:140:LYS:NZ	2.42	0.44
36:5:3237:U:H2'	36:5:3238:G:O4'	2.18	0.44
1:6:1645:G:H2'	1:6:1646:C:H6	1.81	0.44
18:C6:32:ASN:OD1	18:C6:69:VAL:HG23	2.60	0.44
48:M1:37:LEU:HD23	48:M1:37:LEU:HA	1.74	0.44
1:6:763:G:C5	1:6:764:U:C5	3.06	0.44
65:N9:12:GLN:CD	36:5:954:U:H1'	213.10	0.44
33:E1:117:LEU:HD23	33:E1:117:LEU:HA	2.00	0.44
67:O1:98:VAL:HG22	67:O1:99:ALA:N	2.75	0.44
36:1:2411:U:O2	36:1:2811:A:H2	2.00	0.44
36:5:2607:G:N2	36:5:2608:G:H1'	2.32	0.44
1:2:577:G:C3'	1:2:577:G:C8	3.00	0.44
17:C5:124:THR:OG1	17:C5:124:THR:O	2.36	0.44
36:5:278:U:H2'	36:5:279:U:C6	2.52	0.44
35:SM:37:VAL:HA	35:SM:38:PRO:HD2	1.94	0.44
36:1:351:A:H61	75:O9:39:ALA:H	1.64	0.44
36:5:1915:A:H2'	36:5:1916:U:C6	2.52	0.44
1:6:548:G:C2	1:6:549:G:C4	3.05	0.44
36:5:1560:G:HO2'	36:5:1561:G:P	2.40	0.44
36:5:2977:G:H5''	36:5:2977:G:H8	1.83	0.44
1:2:925:G:H8	1:2:925:G:O5'	2.00	0.44
68:O2:110:ALA:O	68:O2:113:LYS:HB3	2.79	0.44
1:6:597:G:H2'	1:6:598:U:O4'	2.17	0.44
36:1:189:G:C6	36:1:206:G:C5	3.06	0.44
25:D3:59:ILE:HG13	25:D3:71:CYS:SG	2.58	0.44
46:L9:16:VAL:HB	46:L9:28:VAL:O	3.15	0.44
36:1:39:A:O2'	36:1:94:G:N2	2.49	0.44
53:M7:36:ILE:O	53:M7:39:TRP:HD1	2.30	0.44
53:M7:87:SER:O	53:M7:88:VAL:C	2.59	0.44
47:M0:179:PRO:HG2	47:M0:180:GLU:H	2.50	0.44
47:M0:205:SER:HG	47:M0:208:ASN:N	2.15	0.44
36:1:1103:A:H1'	36:1:1104:G:OP1	2.17	0.44
41:L4:332:LYS:HE3	36:5:599:C:OP1	273.47	0.44
44:L7:184:LEU:C	44:L7:186:HIS:N	2.71	0.44
44:L7:243:MET:HE2	44:L7:243:MET:HB3	2.28	0.44
45:L8:230:LYS:HZ1	72:O6:47:ILE:HG23	1.82	0.44
45:L8:61:GLN:HB2	51:M5:28:TRP:CH2	3.19	0.44
41:L4:274:TYR:HE1	41:L4:276:LEU:HD23	1.83	0.44
1:6:1570:A:H2'	1:6:1571:C:O4'	2.17	0.44
1:6:1572:G:H5''	1:6:1574:G:N2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:52:LEU:HA	18:C6:55:VAL:HG12	1.99	0.44
21:C9:70:GLN:CD	21:C9:119:LYS:HD2	2.37	0.44
21:C9:88:VAL:HG23	1:6:1542:G:H4'	355.39	0.44
7:S5:33:VAL:HG12	7:S5:34:GLN:N	2.52	0.44
7:S5:59:VAL:C	7:S5:61:TYR:N	2.88	0.44
61:N5:75:LYS:HB3	61:N5:81:ILE:HB	2.41	0.44
61:N5:92:LYS:HA	61:N5:95:ILE:HD12	2.69	0.44
17:C5:15:HIS:N	17:C5:22:LEU:HD13	6.98	0.44
20:C8:115:ARG:O	20:C8:118:LYS:N	2.50	0.44
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.77	0.44
33:E1:123:ASN:HD22	33:E1:125:THR:HG23	1.82	0.44
5:S3:72:LEU:HG	12:C0:20:VAL:HG21	3.09	0.44
15:C3:72:MET:HB3	15:C3:72:MET:HE3	4.95	0.44
36:5:2128:C:OP1	87:5:4085:OHX:N3	2.51	0.44
1:6:1638:G:C6	1:6:1639:C:C2	3.05	0.44
1:6:887:A:H2'	1:6:888:U:C6	2.52	0.44
16:C4:117:ASP:HB2	28:D6:67:THR:CG2	2.47	0.44
68:O2:50:ILE:H	68:O2:50:ILE:HG23	1.43	0.44
2:S0:67:ILE:HA	2:S0:68:PRO:HD3	1.69	0.44
54:M8:64:VAL:O	54:M8:67:ILE:HG22	2.17	0.44
78:Q2:89:LYS:HG3	36:5:2652:U:O3'	235.04	0.44
63:N7:95:VAL:HG13	63:N7:110:ALA:HB1	2.00	0.44
70:O4:90:ILE:O	70:O4:94:LEU:HB2	2.52	0.44
1:2:1070:C:H4'	29:D7:17:ARG:HB2	2.00	0.44
36:1:1874:A:N7	55:M9:20:ARG:CZ	2.81	0.44
36:5:186:U:H5''	36:5:187:A:OP2	2.17	0.44
62:N6:29:VAL:O	62:N6:32:SER:HB3	4.08	0.44
39:L2:177:LYS:HA	39:L2:178:PRO:HD3	1.81	0.44
14:C2:58:LEU:HG	14:C2:124:LYS:HA	1.99	0.44
1:2:1455:G:C2	1:2:1456:C:C5	3.06	0.44
6:S4:117:GLU:O	6:S4:118:GLU:HB3	4.51	0.44
52:M6:108:ILE:HA	52:M6:109:PRO:HD3	2.28	0.44
52:M6:108:ILE:HG21	52:M6:160:ARG:NH1	4.44	0.44
47:M0:11:TYR:CD1	47:M0:11:TYR:N	3.03	0.44
57:N1:42:ILE:H	57:N1:42:ILE:HD12	4.48	0.44
69:O3:71:VAL:O	69:O3:71:VAL:HG12	2.17	0.44
9:S7:49:ILE:HD11	9:S7:172:VAL:HG22	1.99	0.44
1:6:168:A:H2'	1:6:169:A:C8	2.53	0.44
34:SR:19:TRP:CD1	34:SR:306:THR:O	2.70	0.44
40:L3:285:VAL:HG22	40:L3:322:ILE:HD13	1.99	0.44
3:S1:194:ASN:ND2	3:S1:211:HIS:HA	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1765:A:H5'	1:6:1767:G:N7	2.31	0.44
8:S6:67:VAL:HB	8:S6:68:LEU:O	2.54	0.44
49:M3:79:GLU:HA	49:M3:113:VAL:HG23	1.99	0.44
36:5:706:A:C5	36:5:707:U:C5	3.06	0.44
71:O5:67:ARG:NH1	71:O5:80:LEU:HB3	2.32	0.44
71:O5:42:PRO:O	71:O5:44:ILE:N	2.50	0.44
36:5:3139:A:C2'	36:5:3140:G:H5'	2.47	0.44
36:5:2240:G:C6	36:5:2241:U:N3	2.85	0.44
36:1:87:U:O4	36:1:98:G:H2'	2.18	0.44
42:L5:177:GLU:C	42:L5:179:ARG:H	2.21	0.44
13:C1:92:HIS:HB2	13:C1:103:ARG:HG3	1.99	0.44
24:D2:72:CYS:O	24:D2:72:CYS:SG	3.65	0.44
43:L6:35:VAL:HA	43:L6:36:PRO:HD2	1.84	0.44
44:L7:30:ARG:HE	44:L7:34:LYS:HE3	4.70	0.44
1:6:861:U:H5'	1:6:862:A:OP2	2.18	0.44
1:6:973:A:H5'	36:5:848:A:C2	2.53	0.44
36:5:2777:G:H4'	36:5:2778:G:H5''	1.99	0.44
1:6:1346:A:H4'	1:6:1347:U:OP1	2.17	0.44
21:C9:74:GLY:HA3	1:6:1498:G:OP2	415.61	0.44
21:C9:75:LYS:HE3	1:6:1520:U:OP2	420.01	0.44
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.18	0.44
25:D3:95:PHE:CE1	25:D3:135:LEU:HB3	2.53	0.44
36:1:2535:A:H3'	36:1:2536:A:C8	2.53	0.44
76:Q0:94:SER:OG	76:Q0:105:PRO:HA	2.18	0.44
87:1:4000:OHX:N4	38:4:139:U:O4	2.50	0.44
15:C3:84:ILE:H	15:C3:84:ILE:HD13	4.23	0.44
36:5:2881:C:C2	36:5:2882:U:C5	3.05	0.44
11:S9:7:THR:O	11:S9:8:TYR:HB3	2.63	0.44
38:4:12:A:OP1	53:M7:3:ARG:NH2	2.50	0.44
71:O5:15:GLU:HA	71:O5:18:ALA:CB	4.46	0.44
9:S7:182:VAL:HG12	9:S7:183:PHE:N	2.31	0.44
41:L4:216:VAL:HG23	41:L4:217:LYS:HG3	1.99	0.44
36:5:941:G:H1'	36:5:1435:A:H1'	1.99	0.44
36:5:941:G:C6	36:5:942:U:N3	2.85	0.44
1:2:377:G:H4'	1:2:379:U:O4	2.18	0.44
36:5:2793:G:N7	87:5:3985:OHX:N1	2.66	0.44
8:S6:84:TYR:CZ	8:S6:86:PRO:HA	2.53	0.44
18:C6:73:GLY:H	18:C6:76:SER:HB2	1.83	0.44
4:S2:139:ILE:CD1	4:S2:218:ILE:HB	2.64	0.44
1:6:1313:A:O2'	1:6:1315:U:OP1	2.29	0.44
61:N5:137:ASN:N	61:N5:137:ASN:OD1	3.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2633:U:H2'	36:5:2634:U:O4'	2.18	0.44
78:Q2:8:ARG:NH1	78:Q2:8:ARG:HG2	2.29	0.44
36:1:1025:A:C8	36:1:1025:A:OP1	2.71	0.44
36:5:795:G:C6	36:5:796:U:C5	3.05	0.44
36:5:2947:G:H21	36:5:2948:C:H1'	1.82	0.44
45:L8:207:ASP:O	45:L8:211:LEU:N	3.27	0.44
12:C0:27:PHE:HB3	1:6:1217:A:C2	424.90	0.44
50:M4:53:VAL:HG23	50:M4:54:PRO:O	2.18	0.44
36:1:1867:A:H2'	36:1:1868:G:O4'	2.18	0.44
36:5:1176:C:H42	36:5:1310:G:H1	1.65	0.44
1:2:246:G:O6	13:C1:67:ARG:HB2	2.18	0.44
55:M9:45:VAL:HG22	55:M9:50:ILE:HB	1.99	0.44
53:M7:96:GLN:O	53:M7:99:ALA:HB3	2.17	0.44
1:2:1240:U:H2'	1:2:1242:A:OP2	2.18	0.44
36:1:1087:G:C2'	36:1:1088:U:H5'	2.48	0.44
17:C5:50:THR:O	17:C5:50:THR:OG1	2.31	0.44
46:L9:122:LYS:NZ	46:L9:122:LYS:HB2	2.33	0.44
11:S9:24:LEU:HD23	11:S9:24:LEU:HA	2.03	0.44
1:6:121:U:H2'	1:6:122:U:O4'	2.17	0.44
56:N0:114:HIS:O	56:N0:115:ARG:C	2.55	0.44
51:M5:80:THR:O	51:M5:81:TYR:O	2.38	0.44
51:M5:89:VAL:C	51:M5:92:LEU:HD13	2.38	0.44
36:5:1495:U:H4'	36:5:1514:G:H4'	2.00	0.44
44:L7:43:ILE:HG22	44:L7:44:ILE:N	2.32	0.44
10:S8:106:ALA:HB1	10:S8:160:PHE:CD1	2.53	0.44
41:L4:187:LEU:HD23	41:L4:198:ARG:O	2.17	0.44
41:L4:198:ARG:HB2	41:L4:199:TRP:CD1	4.21	0.44
64:N8:4:ARG:NH1	64:N8:5:PHE:HZ	2.15	0.44
1:6:1392:U:H2'	1:6:1393:C:C6	2.52	0.44
52:M6:18:ARG:NH1	36:5:1315:U:OP1	278.90	0.44
27:D5:70:LYS:HB3	27:D5:71:ILE:HD12	1.99	0.44
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	3.58	0.44
36:1:1456:A:H5'	67:O1:26:LYS:HG2	1.98	0.44
67:O1:33:VAL:O	67:O1:36:ILE:HB	2.18	0.44
67:O1:37:LYS:HA	67:O1:49:VAL:HG11	1.98	0.44
12:C0:14:TYR:CZ	12:C0:18:GLU:HG3	2.53	0.44
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.49	0.44
12:C0:61:TRP:H	12:C0:61:TRP:HD1	1.64	0.44
21:C9:102:ARG:O	21:C9:105:LEU:N	2.51	0.44
48:M1:110:ILE:C	48:M1:112:LEU:N	2.99	0.44
5:S3:65:ARG:O	5:S3:69:LEU:HG	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:55:ARG:HD2	15:C3:56:ASP:OD2	2.17	0.44
77:Q1:13:LEU:O	77:Q1:15:ARG:N	3.14	0.44
36:5:1640:G:C2'	36:5:1641:U:H5'	2.48	0.44
70:O4:74:ARG:O	70:O4:75:ALA:C	2.66	0.44
1:2:906:A:C2	1:2:907:A:C4	3.06	0.44
16:C4:80:HIS:ND1	16:C4:114:ARG:HB3	4.10	0.44
16:C4:85:ALA:H	16:C4:119:THR:HB	1.82	0.44
23:D1:34:ILE:HD13	23:D1:34:ILE:HA	1.71	0.44
2:S0:185:ARG:NH1	23:D1:47:PRO:HG3	2.32	0.44
23:D1:80:LYS:O	23:D1:81:ASN:HB2	2.17	0.44
2:S0:141:ILE:HA	2:S0:142:PRO:HD2	2.34	0.44
63:N7:5:LEU:HD22	63:N7:25:ILE:HD11	2.00	0.44
63:N7:81:LEU:HD13	63:N7:82:PRO:HD2	4.49	0.44
70:O4:79:SER:CB	70:O4:80:ARG:HE	3.26	0.44
1:6:1207:C:N4	1:6:1456:C:C5	2.77	0.44
52:M6:108:ILE:HG21	52:M6:108:ILE:HD13	1.87	0.44
36:1:1083:G:H2'	36:1:1084:A:C8	2.53	0.44
36:1:2658:G:H5''	36:1:2754:G:H1'	1.99	0.44
69:O3:39:GLN:C	69:O3:41:ALA:H	2.53	0.44
1:2:77:U:H4'	1:2:78:A:O5'	2.16	0.44
34:SR:59:ARG:HG3	34:SR:59:ARG:NH1	3.87	0.44
36:5:2189:U:O2	36:5:2189:U:H2'	2.17	0.44
52:M6:10:ASP:OD1	52:M6:12:LYS:HB2	3.30	0.44
52:M6:10:ASP:OD1	52:M6:12:LYS:HB3	2.18	0.44
56:N0:164:SER:OG	56:N0:165:TYR:N	2.51	0.44
39:L2:138:GLY:O	39:L2:146:THR:HG23	2.21	0.44
52:M6:190:VAL:O	52:M6:193:GLN:HB2	2.35	0.44
3:S1:188:LEU:O	3:S1:191:GLU:N	2.65	0.44
3:S1:144:ARG:CB	3:S1:208:GLN:HB3	2.46	0.44
1:2:1168:U:H6	1:2:1168:U:O5'	2.00	0.44
40:L3:166:ILE:HA	40:L3:169:THR:HG22	4.48	0.44
40:L3:173:GLN:O	40:L3:174:LYS:HB2	2.17	0.44
8:S6:87:ARG:NH2	1:6:161:U:OP2	315.06	0.44
36:5:2211:U:C5	36:5:2234:G:O6	2.71	0.44
64:N8:19:LYS:CG	64:N8:25:HIS:HB2	3.55	0.44
40:L3:133:TYR:CD1	40:L3:136:LYS:HE3	2.52	0.44
36:1:3174:A:H2'	36:1:3175:U:C5'	2.47	0.44
36:1:75:G:H3'	36:1:76:G:C8	2.53	0.44
1:2:777:C:N4	26:D4:10:ARG:HH12	2.16	0.44
1:6:1039:A:O2'	1:6:1040:G:P	2.76	0.44
46:L9:128:VAL:HG12	46:L9:129:ARG:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:192:LYS:HZ3	39:L2:193:ARG:HH22	1.66	0.44
36:5:214:G:N3	36:5:214:G:H2'	2.33	0.44
36:5:2133:U:H2'	36:5:2134:G:C5'	2.48	0.44
36:1:1804:A:H4'	70:O4:70:LYS:O	2.17	0.44
52:M6:52:LEU:O	52:M6:53:LYS:C	2.55	0.44
1:6:103:A:C5	1:6:309:C:N4	2.86	0.44
36:1:2159:U:H3'	36:1:2160:G:H5'	2.00	0.44
36:5:1107:C:O2	36:5:1108:U:C6	2.71	0.44
36:1:431:U:H5''	69:O3:65:ARG:HH12	1.83	0.44
1:6:1381:U:H1'	1:6:1516:A:N6	2.32	0.44
57:N1:27:LEU:O	57:N1:29:THR:N	2.51	0.44
36:5:216:G:H2'	36:5:217:U:H6	1.83	0.44
36:1:3105:U:H2'	36:1:3106:A:O4'	2.18	0.44
36:1:3122:A:H1'	46:L9:63:LYS:CE	2.47	0.44
1:6:1414:U:C6	87:6:2051:OHX:N5	2.86	0.44
36:5:1526:U:H5'	36:5:1594:A:C6	2.53	0.44
36:1:1700:G:H1	36:1:1745:C:N4	2.16	0.44
70:O4:36:LYS:NZ	36:5:1595:U:OP2	145.08	0.44
65:N9:36:ASP:HA	65:N9:37:PRO:HD2	2.02	0.44
51:M5:8:GLU:O	51:M5:12:ARG:HG3	2.18	0.44
36:5:2101:C:HO2'	36:5:2102:U:P	2.40	0.44
1:2:1146:G:C2	1:2:1633:A:C6	3.05	0.44
56:N0:152:LEU:HD23	56:N0:152:LEU:HA	1.73	0.44
36:1:551:A:C4	36:1:552:G:C8	3.06	0.44
1:6:1410:A:N6	1:6:1411:A:N1	2.66	0.44
13:C1:64:VAL:HG12	13:C1:129:ARG:CZ	3.46	0.44
58:N2:19:VAL:C	58:N2:22:PRO:HD2	2.38	0.44
36:1:3164:C:H42	36:1:3287:U:H3	1.66	0.44
71:O5:15:GLU:CD	71:O5:15:GLU:H	4.97	0.44
1:2:810:G:O2'	9:S7:111:LYS:HD3	2.17	0.44
1:6:1153:G:N2	1:6:1626:U:C2	2.86	0.44
46:L9:62:ARG:NH1	36:5:1210:U:OP1	321.53	0.44
23:D1:56:SER:O	23:D1:57:GLY:C	2.55	0.44
36:1:853:G:N2	55:M9:129:GLY:HA2	2.33	0.44
74:O8:14:LEU:HA	74:O8:14:LEU:HD23	1.80	0.44
36:1:1668:G:C6	36:1:1669:C:C4	3.06	0.44
65:N9:29:TYR:N	65:N9:29:TYR:CD1	2.86	0.44
61:N5:51:VAL:HG12	61:N5:51:VAL:O	2.72	0.44
8:S6:208:TYR:O	8:S6:211:LEU:N	2.53	0.44
25:D3:108:GLY:HA2	1:6:600:U:P	356.89	0.44
36:1:2789:U:OP1	54:M8:179:ARG:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1534:A:OP1	87:1:3876:OHX:N2	2.51	0.44
1:6:19:A:C2	1:6:20:G:C4	3.05	0.44
15:C3:129:TYR:CD1	15:C3:134:VAL:HG11	2.57	0.44
36:1:2626:A:H5'	36:1:2627:C:C5'	2.46	0.44
42:L5:279:LYS:HZ2	42:L5:282:ARG:HH12	3.69	0.44
1:6:877:G:OP2	1:6:936:G:N2	2.45	0.44
36:5:627:U:H2'	36:5:628:A:C8	2.53	0.44
36:1:2111:G:C8	36:1:2111:G:H5'	2.47	0.44
14:C2:70:ASN:O	14:C2:74:LEU:HB2	3.26	0.44
78:Q2:22:GLN:HB3	78:Q2:75:VAL:HG21	2.00	0.44
78:Q2:8:ARG:O	78:Q2:22:GLN:HA	2.17	0.44
47:M0:112:GLN:O	47:M0:114:GLY:N	4.53	0.44
36:5:3146:G:H2'	36:5:3147:G:O5'	2.17	0.44
6:S4:23:LEU:O	6:S4:24:SER:HB3	2.82	0.44
1:6:11:A:O2'	1:6:12:U:H5'	2.18	0.44
1:6:1230:A:H62	1:6:1257:U:H3	1.64	0.44
78:Q2:53:GLN:HG3	36:5:2802:A:N1	180.47	0.44
87:1:4139:OHX:N1	87:1:4184:OHX:N5	2.66	0.44
14:C2:113:ARG:CB	14:C2:115:VAL:H	2.31	0.44
36:5:1240:A:C2'	36:5:1241:U:H5'	2.47	0.44
51:M5:105:ARG:HG2	51:M5:108:ARG:NH2	2.32	0.44
7:S5:147:THR:OG1	7:S5:148:ARG:N	2.51	0.44
45:L8:184:ALA:O	45:L8:187:GLY:N	2.48	0.44
66:O0:60:ALA:O	66:O0:64:LYS:N	2.50	0.44
36:5:625:G:H2'	36:5:626:U:O4'	2.18	0.44
24:D2:97:ARG:H	24:D2:97:ARG:HG2	1.45	0.44
32:E0:47:VAL:HG13	32:E0:48:THR:N	2.33	0.44
1:2:846:G:O4'	1:2:846:G:N3	2.51	0.44
1:2:1520:U:O4	1:2:1522:U:C4	2.71	0.44
36:5:1481:A:O2'	36:5:1858:A:C2	2.67	0.44
36:5:201:A:O5'	36:5:201:A:H8	2.01	0.44
36:5:2921:U:O5'	36:5:2921:U:H6	2.01	0.44
36:1:957:C:C2	36:1:958:C:C6	3.06	0.44
49:M3:185:LYS:C	49:M3:187:ALA:H	2.49	0.44
40:L3:267:ALA:O	36:5:2989:U:O2'	212.56	0.44
1:6:601:A:C2	1:6:602:U:C2	3.06	0.44
38:8:126:A:H4'	38:8:127:U:OP2	2.17	0.44
36:1:142:C:H5'	36:1:143:G:OP2	2.18	0.44
36:1:884:A:OP2	73:O7:4:GLY:HA3	2.18	0.44
69:O3:78:SER:OG	36:5:1180:A:OP1	264.06	0.44
36:5:1727:G:N3	36:5:1731:A:H1'	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:581:U:OP1	35:SM:104:LYS:HE2	2.18	0.44
1:2:582:U:C5	35:SM:104:LYS:HE3	2.52	0.44
1:2:582:U:H5	35:SM:104:LYS:HE3	1.83	0.44
36:1:2963:C:H2'	36:1:2964:G:O4'	2.18	0.44
78:Q2:19:LYS:O	78:Q2:21:THR:HG23	2.18	0.44
1:2:1761:U:O5'	1:2:1761:U:O2	2.36	0.44
76:Q0:96:CYS:SG	76:Q0:98:LYS:HB2	2.57	0.44
27:D5:43:ASP:O	27:D5:44:GLN:HB3	3.99	0.44
1:2:441:A:N6	1:2:464:A:N1	2.65	0.44
1:6:1014:G:H2'	1:6:1015:U:O4'	2.18	0.44
28:D6:73:TYR:HE2	28:D6:82:ARG:HG2	1.82	0.44
11:S9:109:LEU:O	11:S9:109:LEU:HD22	2.18	0.44
36:1:2854:U:OP1	47:M0:61:SER:OG	2.30	0.44
47:M0:52:LEU:HB3	47:M0:136:PHE:H	2.31	0.44
26:D4:20:ARG:HH11	26:D4:22:GLN:HE21	5.19	0.44
36:1:806:A:C8	36:1:936:A:C6	3.06	0.44
36:5:1313:G:O6	87:5:4158:OHX:N5	2.50	0.44
36:1:812:G:C5	36:1:813:G:C8	3.06	0.44
7:S5:177:ILE:HG12	7:S5:180:ARG:NH1	2.33	0.44
7:S5:43:PHE:N	7:S5:46:TRP:H	2.54	0.44
67:O1:17:HIS:C	67:O1:19:ARG:H	2.74	0.44
38:4:46:G:N2	38:4:57:C:O2	2.48	0.44
61:N5:102:LEU:HA	61:N5:102:LEU:HD22	2.83	0.44
61:N5:63:ILE:HD11	61:N5:84:PHE:CD1	4.28	0.44
42:L5:50:ARG:NE	42:L5:147:ASP:OD2	2.92	0.44
42:L5:86:TYR:HE1	42:L5:250:ASP:O	2.01	0.44
1:2:1273:G:H4'	1:2:1274:C:H3'	2.00	0.44
17:C5:26:LEU:HD23	17:C5:26:LEU:HA	4.41	0.44
5:S3:98:ALA:C	5:S3:100:ALA:H	2.20	0.44
1:2:1025:A:H2'	1:2:1027:A:O5'	2.17	0.44
8:S6:48:TYR:O	8:S6:49:VAL:HG23	2.59	0.44
16:C4:21:ALA:HB1	16:C4:95:GLY:O	2.18	0.44
16:C4:17:ALA:HB2	16:C4:30:VAL:HG22	6.12	0.44
16:C4:84:ARG:HG3	16:C4:119:THR:HA	1.99	0.44
28:D6:55:GLU:OE2	28:D6:55:GLU:HA	4.86	0.44
40:L3:25:ILE:HD12	40:L3:272:TYR:CE2	6.07	0.44
54:M8:66:ARG:HB2	54:M8:66:ARG:NH1	2.32	0.44
36:1:1949:G:H2'	36:1:1950:U:C6	2.53	0.44
63:N7:35:SER:OG	63:N7:36:HIS:N	2.51	0.44
70:O4:44:CYS:CB	70:O4:81:CYS:HB3	3.06	0.44
36:1:1603:A:OP2	55:M9:38:ARG:NH1	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:174:ARG:HH22	36:5:2180:G:P	210.92	0.44
1:6:1227:A:O2'	1:6:1228:G:OP2	2.30	0.44
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	2.05	0.44
40:L3:63:PRO:HA	40:L3:68:HIS:ND1	2.32	0.44
20:C8:145:ARG:HG3	35:SM:68:ARG:CZ	4.06	0.44
1:6:71:A:C4	1:6:72:A:H1'	2.52	0.44
36:1:3183:A:H2	36:1:3188:G:H4'	1.82	0.44
9:S7:131:PHE:CD2	9:S7:132:PRO:HD3	4.71	0.44
38:4:53:A:C2	75:O9:35:ILE:HD11	2.53	0.44
34:SR:291:SER:O	34:SR:304:GLY:N	2.46	0.44
34:SR:295:SER:HB2	34:SR:302:PHE:CE2	2.52	0.44
34:SR:38:ARG:NE	34:SR:67:ILE:HD13	3.08	0.44
36:5:342:A:O2'	87:5:3920:OHX:N6	2.51	0.44
73:O7:55:ARG:HD3	36:5:353:G:N7	108.96	0.44
1:2:1010:C:OP2	87:2:2131:OHX:N5	2.50	0.44
87:2:2090:OHX:N5	87:2:2131:OHX:N2	2.66	0.44
39:L2:114:SER:HB3	39:L2:165:VAL:HG22	4.89	0.44
36:1:3320:A:H4'	40:L3:174:LYS:NZ	2.33	0.44
36:1:1480:G:O2'	36:1:1871:U:O4	2.25	0.44
51:M5:15:GLN:O	72:O6:52:PRO:HD3	3.29	0.44
72:O6:52:PRO:HA	72:O6:55:ARG:HH12	2.13	0.44
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	2.18	0.44
51:M5:143:ARG:CZ	71:O5:92:LEU:HD23	2.97	0.44
1:6:532:U:H2'	1:6:533:U:O4'	2.17	0.44
38:4:107:G:N2	38:4:116:G:C8	2.86	0.44
38:4:35:C:C4	38:4:36:G:N7	2.85	0.44
1:6:788:A:H8	1:6:788:A:O5'	2.01	0.44
38:4:42:G:C4	38:4:43:A:C8	3.06	0.44
46:L9:173:ARG:O	76:Q0:127:LEU:HD12	2.18	0.44
48:M1:59:ILE:HA	48:M1:63:GLU:OE1	2.18	0.44
1:2:830:U:H2'	1:2:830:U:O2	2.18	0.44
1:6:1186:U:C5	1:6:1208:A:N6	2.86	0.44
18:C6:14:LYS:HB3	18:C6:15:SER:H	1.43	0.44
67:O1:13:THR:HG23	67:O1:72:ARG:HD2	4.53	0.44
1:2:1433:G:C2	1:2:1434:U:N3	2.86	0.44
54:M8:153:PHE:CE1	36:5:1109:U:H4'	171.69	0.44
22:D0:35:GLU:OE1	22:D0:35:GLU:HA	2.17	0.44
32:E0:53:LYS:HD3	32:E0:55:ARG:CD	7.93	0.44
36:5:584:G:H2'	36:5:585:A:O4'	2.17	0.44
63:N7:53:VAL:HG13	63:N7:57:HIS:HD2	4.99	0.44
2:S0:110:TYR:CD2	4:S2:64:LYS:HB3	3.72	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:275:C:H5'	1:6:276:C:OP2	2.16	0.44
36:1:2736:A:H4'	57:N1:71:SER:OG	2.18	0.44
36:5:1878:G:H2'	36:5:1879:A:O4'	2.17	0.44
1:6:514:G:N3	1:6:515:A:C8	2.86	0.44
68:O2:66:LEU:HA	68:O2:66:LEU:HD23	1.55	0.44
36:5:2944:U:H5''	36:5:2945:G:OP2	2.18	0.44
1:2:50:C:O2	1:2:50:C:H2'	2.18	0.44
40:L3:188:ILE:HG13	40:L3:188:ILE:H	1.52	0.44
58:N2:33:TYR:HB2	58:N2:83:TYR:CE2	2.53	0.44
1:2:1311:U:H2'	1:2:1313:A:OP2	2.18	0.44
1:6:138:A:N6	1:6:266:A:N6	2.63	0.44
24:D2:118:ARG:CD	1:6:686:C:H4'	402.47	0.44
36:5:2439:A:C8	36:5:2440:G:C8	3.06	0.44
75:O9:24:PRO:O	75:O9:27:ILE:HG13	3.59	0.44
1:6:1759:C:H4'	36:5:2263:C:O2'	2.18	0.44
1:2:600:U:C5	1:2:601:A:N7	2.86	0.44
36:5:48:A:H8	36:5:48:A:OP1	2.01	0.44
35:SM:88:ARG:HG2	35:SM:91:THR:CB	2.47	0.44
36:1:717:C:N4	36:1:718:G:N1	2.66	0.44
8:S6:109:LEU:HD23	8:S6:110:ALA:N	2.33	0.44
36:1:665:A:N1	36:1:798:G:C6	2.86	0.44
43:L6:68:PRO:HB3	43:L6:142:ASP:CG	2.44	0.44
2:S0:21:ASN:C	2:S0:23:HIS:N	3.15	0.44
1:2:1394:G:N2	1:2:1405:G:C4	2.85	0.44
36:5:3389:U:O4	87:5:4245:OHX:N3	2.51	0.44
20:C8:71:GLN:OE1	20:C8:79:TYR:OH	2.18	0.44
87:5:4061:OHX:N1	87:5:4138:OHX:N2	2.66	0.44
45:L8:93:LEU:O	45:L8:96:LYS:HD2	3.27	0.44
36:1:2269:U:O2	36:1:2271:A:C8	2.71	0.44
36:5:849:C:H2'	36:5:850:U:H6	1.83	0.44
1:2:1654:G:C6	1:2:1745:G:C6	3.06	0.44
1:6:435:C:H2'	1:6:436:A:C8	2.53	0.44
5:S3:216:PRO:O	5:S3:218:LEU:HD12	2.17	0.44
1:2:629:U:O2	1:2:971:A:C2	2.70	0.44
36:1:1800:A:H2'	36:1:1801:U:O4'	2.17	0.44
36:5:887:G:C2	36:5:888:A:C4	3.06	0.44
1:2:1414:U:C5	87:2:2025:OHX:N2	2.86	0.44
59:N3:129:VAL:O	59:N3:130:ALA:C	2.94	0.44
56:N0:3:HIS:ND1	56:N0:4:PHE:N	2.66	0.44
2:S0:35:PRO:O	2:S0:37:VAL:N	2.51	0.44
41:L4:13:GLY:O	41:L4:14:GLU:HG2	3.93	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:79:ILE:O	52:M6:82:LYS:HB3	2.18	0.44
1:2:1116:A:H2'	1:2:1117:U:O4'	2.18	0.44
36:5:2926:A:C6	36:5:2927:C:C4	3.05	0.44
1:2:517:U:H2'	1:2:518:A:O4'	2.17	0.44
36:1:2565:U:H2'	36:1:2566:C:C6	2.53	0.44
50:M4:17:VAL:H	50:M4:17:VAL:HG23	2.50	0.44
43:L6:106:PHE:O	43:L6:108:LYS:N	2.51	0.44
1:2:565:C:H4'	1:2:566:C:H5''	2.00	0.44
25:D3:93:LEU:O	25:D3:93:LEU:HG	2.17	0.44
78:Q2:10:THR:HG23	78:Q2:23:HIS:CE1	2.53	0.44
46:L9:85:GLY:O	46:L9:186:PHE:HB3	2.18	0.44
36:1:44:U:OP1	51:M5:84:PRO:HG2	2.18	0.44
36:5:1514:G:O6	36:5:1841:A:H2'	2.17	0.44
53:M7:22:LEU:HB3	53:M7:90:PHE:HE2	1.83	0.44
53:M7:50:GLN:OE1	53:M7:56:ARG:HD3	2.30	0.44
28:D6:17:HIS:CG	28:D6:18:VAL:N	3.27	0.44
3:S1:111:ARG:HG3	28:D6:68:TYR:HB2	1.99	0.44
32:E0:30:PRO:HB2	32:E0:34:ALA:HB3	1.99	0.44
47:M0:138:VAL:HG22	47:M0:152:LEU:HD11	1.99	0.44
47:M0:56:GLU:HB3	47:M0:58:GLU:CG	3.32	0.44
47:M0:80:SER:OG	47:M0:84:ALA:HB3	4.41	0.44
87:1:4032:OHX:N2	87:1:4044:OHX:N5	2.66	0.44
44:L7:158:LYS:HE2	36:5:1363:A:O4'	217.37	0.44
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.33	0.44
36:1:116:A:H5''	36:1:265:A:C2	2.53	0.44
45:L8:73:PRO:C	45:L8:75:ILE:H	3.19	0.44
51:M5:120:TRP:CZ2	51:M5:123:GLN:HG2	3.26	0.44
51:M5:5:LYS:O	72:O6:40:VAL:HG11	3.15	0.44
1:6:330:G:N2	1:6:331:A:H1'	2.33	0.44
6:S4:52:LEU:HA	6:S4:52:LEU:HD23	1.74	0.44
10:S8:169:ILE:HD13	10:S8:169:ILE:HA	1.82	0.44
41:L4:178:LEU:O	41:L4:182:LEU:HD23	3.54	0.44
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.37	0.44
43:L6:28:GLN:HE21	43:L6:57:HIS:CE1	2.36	0.44
43:L6:56:LYS:HE3	43:L6:98:VAL:HG13	3.78	0.44
1:2:1340:U:H4'	1:2:1341:A:C5'	2.47	0.44
5:S3:190:ARG:O	5:S3:190:ARG:HD3	2.18	0.44
42:L5:22:ARG:HB3	42:L5:28:THR:HB	1.98	0.44
75:O9:50:ASN:C	75:O9:51:ILE:HG13	2.38	0.44
18:C6:52:LEU:O	18:C6:53:LEU:HD23	2.18	0.44
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:118:LEU:HD22	7:S5:129:PRO:HB2	2.35	0.44
7:S5:26:ALA:O	7:S5:28:PRO:HD2	4.30	0.44
46:L9:161:LEU:HD13	46:L9:179:ILE:HG21	2.00	0.44
67:O1:69:TYR:OH	87:5:4114:OHX:N6	186.55	0.44
36:1:975:C:C2	36:1:976:U:C5	3.06	0.44
42:L5:242:SER:O	42:L5:245:GLU:N	2.50	0.44
1:2:1277:G:C2	1:2:1278:G:H1'	2.52	0.44
1:2:579:A:H3'	5:S3:143:ARG:NH1	2.33	0.44
21:C9:51:GLU:HA	21:C9:51:GLU:OE2	4.21	0.44
5:S3:48:VAL:HB	5:S3:86:LEU:HD12	2.00	0.44
1:2:957:G:H2'	1:2:958:U:O4'	2.18	0.44
15:C3:93:LYS:HZ2	15:C3:150:VAL:HG13	5.50	0.44
36:1:67:A:N1	36:1:300:G:O2'	2.48	0.44
64:N8:67:HIS:H	64:N8:67:HIS:HD2	1.66	0.44
15:C3:109:LYS:HD3	1:6:975:C:H5''	281.50	0.44
77:Q1:11:ARG:NH2	1:6:1126:G:O3'	291.25	0.44
77:Q1:19:LYS:O	77:Q1:22:ALA:HB3	2.67	0.44
77:Q1:7:LYS:O	77:Q1:8:LYS:C	3.06	0.44
2:S0:120:LEU:HD11	2:S0:144:ILE:HG13	3.75	0.44
2:S0:136:ALA:O	2:S0:141:ILE:HG13	3.57	0.44
4:S2:36:VAL:HA	4:S2:37:PRO:HD2	2.37	0.44
36:5:3095:U:C2	36:5:3096:C:C5	3.06	0.44
40:L3:16:PHE:HD2	40:L3:275:ARG:CZ	2.31	0.44
40:L3:25:ILE:HD11	40:L3:334:ARG:NE	7.86	0.44
63:N7:22:LYS:CE	63:N7:134:LEU:HB2	2.45	0.44
63:N7:4:PHE:O	63:N7:5:LEU:HB2	4.63	0.44
63:N7:24:VAL:CG2	63:N7:87:LEU:HD23	4.26	0.44
68:O2:118:LYS:HG2	68:O2:119:VAL:N	2.33	0.44
36:1:182:U:OP1	73:O7:75:LYS:NZ	2.45	0.44
1:6:1185:U:H1'	1:6:1456:C:H5''	1.99	0.44
36:5:535:G:N2	36:5:555:U:O2	2.50	0.44
50:M4:20:VAL:HG11	50:M4:90:VAL:HG13	5.43	0.44
44:L7:75:TYR:CD1	56:N0:60:SER:HB2	3.53	0.44
56:N0:26:ARG:HB3	57:N1:150:THR:HG22	4.37	0.44
57:N1:87:LYS:HB3	36:5:2723:U:OP1	217.87	0.44
57:N1:87:LYS:HE3	57:N1:87:LYS:HB3	3.36	0.44
59:N3:120:LYS:HB2	59:N3:137:VAL:CG2	5.19	0.44
59:N3:120:LYS:O	59:N3:124:ASP:HB2	2.83	0.44
36:1:2374:C:C5	36:1:2941:A:C5	3.05	0.44
36:1:2374:C:H5	36:1:2941:A:N1	2.16	0.44
42:L5:259:LYS:O	42:L5:260:PHE:HB2	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:175:ILE:HG13	8:S6:178:LEU:HD22	3.01	0.44
18:C6:112:TYR:O	18:C6:113:ASP:C	3.05	0.44
34:SR:207:ASP:OD1	34:SR:209:THR:OG1	2.20	0.44
34:SR:90:ARG:HA	34:SR:101:GLN:O	3.11	0.44
36:5:2307:G:H4'	36:5:2308:C:OP2	2.16	0.44
52:M6:135:TYR:C	52:M6:135:TYR:CD1	3.44	0.44
72:O6:74:LYS:HA	72:O6:83:ALA:HB2	1.99	0.44
39:L2:113:VAL:HG12	39:L2:166:ILE:HD13	2.46	0.44
39:L2:100:ASN:O	39:L2:166:ILE:HG12	2.37	0.44
49:M3:165:SER:OG	49:M3:165:SER:O	2.30	0.44
3:S1:209:ASN:HB3	3:S1:211:HIS:CD2	2.53	0.44
36:1:188:U:H1'	36:1:208:C:C1'	2.48	0.44
1:6:1146:G:OP1	1:6:1146:G:H4'	2.17	0.44
36:5:38:U:H6	36:5:38:U:O5'	2.01	0.44
64:N8:30:GLY:HA2	36:5:40:A:C5	178.51	0.44
49:M3:42:ARG:O	49:M3:46:ILE:N	2.46	0.44
36:5:64:G:O2'	36:5:77:A:H1'	2.18	0.44
33:E1:103:LEU:CD2	33:E1:105:TYR:HB2	2.48	0.44
33:E1:98:VAL:C	33:E1:99:LYS:HG2	4.18	0.44
26:D4:60:PHE:CD2	26:D4:71:GLY:HA3	2.52	0.44
36:5:1750:A:N3	36:5:1752:A:C8	2.86	0.44
79:Q3:13:LYS:HG3	79:Q3:14:TYR:CD1	3.07	0.44
36:1:128:G:C6	36:1:129:U:C4	3.06	0.44
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.24	0.44
8:S6:201:GLN:NE2	1:6:126:A:OP1	336.41	0.44
1:6:384:G:O6	1:6:385:A:N6	2.51	0.44
36:1:836:A:N3	36:1:858:A:H1'	2.33	0.44
52:M6:54:TYR:HE2	52:M6:58:LEU:CD2	2.67	0.44
59:N3:123:ALA:C	59:N3:125:LEU:H	2.38	0.44
36:5:1404:G:N2	36:5:1407:A:OP2	2.46	0.44
2:S0:125:ASP:HB3	2:S0:128:SER:HB2	3.20	0.44
36:1:1404:G:N1	36:1:1408:G:C6	2.86	0.44
9:S7:9:LEU:HD12	9:S7:9:LEU:HA	4.66	0.44
9:S7:9:LEU:HD22	9:S7:18:LEU:HD23	4.86	0.44
22:D0:24:ILE:HA	22:D0:116:VAL:HG13	1.99	0.44
1:6:1333:C:H42	1:6:1418:G:H1	1.66	0.44
1:2:89:G:C5	1:2:90:C:C5	3.06	0.44
36:1:3239:G:N2	36:1:3249:C:C2	2.86	0.44
38:4:124:G:N2	38:4:130:C:C4	2.86	0.44
42:L5:113:LEU:HB3	42:L5:115:LEU:HD22	1.99	0.44
36:5:1037:C:O5'	36:5:1037:C:H6	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:164:LYS:HG2	42:L5:180:PHE:CE2	2.52	0.44
36:1:1861:G:H1'	36:1:3066:U:H5''	2.00	0.44
21:C9:18:TYR:HB3	21:C9:59:ALA:HB1	2.00	0.44
36:5:2997:G:H5'	36:5:2998:U:OP2	2.18	0.44
45:L8:200:LEU:HA	45:L8:200:LEU:HD23	1.76	0.44
39:L2:68:LYS:HD3	39:L2:70:ARG:NH2	6.71	0.44
65:N9:47:LEU:HD23	65:N9:47:LEU:HA	2.23	0.44
1:6:1342:C:H2'	1:6:1343:U:H6	1.81	0.44
58:N2:33:TYR:O	58:N2:37:LEU:HD12	2.18	0.44
42:L5:289:LYS:HD3	47:M0:206:LEU:HD23	1.99	0.44
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	2.18	0.44
1:2:945:U:O2'	1:2:946:U:H5'	2.17	0.44
36:1:723:U:O2	65:N9:29:TYR:HE2	2.01	0.44
54:M8:159:LYS:HB3	54:M8:159:LYS:HE2	1.66	0.44
1:2:16:G:C2	1:2:17:C:N3	2.86	0.44
40:L3:109:HIS:HD1	40:L3:200:GLU:CD	2.41	0.44
41:L4:304:GLN:C	41:L4:306:THR:H	2.21	0.44
18:C6:11:GLY:N	18:C6:18:ALA:O	2.43	0.44
1:2:929:A:N6	1:2:930:A:C5	2.85	0.44
54:M8:179:ARG:NH2	36:5:709:A:OP1	167.41	0.44
15:C3:129:TYR:HB3	15:C3:135:LEU:HG	2.00	0.44
2:S0:206:ASP:N	2:S0:207:PRO:O	4.37	0.44
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	2.57	0.44
42:L5:222:LEU:HA	42:L5:222:LEU:HD23	3.78	0.44
40:L3:309:GLY:O	40:L3:310:GLY:O	2.36	0.44
36:5:1533:U:O2'	36:5:1534:A:H5'	2.17	0.44
36:1:2415:C:OP1	39:L2:2:GLY:N	2.50	0.44
36:1:1148:G:O6	36:1:1149:G:C6	2.70	0.44
39:L2:54:ARG:NH1	36:5:2177:G:OP1	199.48	0.44
36:1:1397:C:H2'	36:1:1398:U:H5'	1.99	0.44
1:6:1083:G:H2'	1:6:1084:A:H5'	2.00	0.44
69:O3:16:TYR:CE2	69:O3:25:PRO:HB3	2.53	0.44
37:7:11:A:O2'	37:7:12:U:H3'	2.18	0.44
1:2:846:G:H8	13:C1:46:LYS:HZ1	1.64	0.44
36:1:661:G:C5	36:1:802:C:C6	3.06	0.44
36:1:422:A:H1'	36:1:2364:G:OP1	2.18	0.44
36:5:105:C:O2'	36:5:684:G:H4'	2.17	0.44
72:O6:11:LEU:HA	72:O6:11:LEU:HD12	2.84	0.44
36:1:3153:U:H3	36:1:3293:U:H3	1.65	0.44
64:N8:138:ILE:O	64:N8:141:ALA:N	2.62	0.44
36:5:1560:G:O2'	36:5:1561:G:P	2.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:182:ALA:O	3:S1:186:SER:N	2.95	0.44
49:M3:24:VAL:HB	49:M3:26:PHE:CE2	3.89	0.44
40:L3:289:ASP:OD1	40:L3:289:ASP:N	2.49	0.44
1:6:739:G:C4	1:6:740:A:C8	3.06	0.44
36:1:47:C:H6	36:1:47:C:O5'	2.00	0.44
64:N8:15:VAL:H	64:N8:15:VAL:HG23	2.94	0.44
74:O8:21:LYS:HD3	74:O8:21:LYS:HA	3.44	0.44
36:1:1061:A:H8	36:1:1061:A:O5'	2.01	0.44
39:L2:159:SER:C	39:L2:161:ASP:H	2.65	0.44
36:5:1130:A:N7	36:5:1132:C:C2	2.86	0.44
1:6:1096:C:N3	87:6:2150:OHX:N4	2.66	0.44
70:O4:49:SER:OG	70:O4:50:ALA:N	3.92	0.44
53:M7:40:GLU:HB2	53:M7:43:LYS:HG3	4.64	0.44
46:L9:48:VAL:O	46:L9:49:ASN:HB3	2.18	0.43
46:L9:84:LYS:HD3	46:L9:186:PHE:HE1	3.86	0.43
53:M7:36:ILE:HA	53:M7:39:TRP:CD1	2.57	0.43
1:2:461:G:N7	87:2:2143:OHX:N1	2.66	0.43
47:M0:193:ASP:HB2	47:M0:198:LYS:HG3	1.99	0.43
47:M0:81:GLY:O	47:M0:83:ASP:N	2.68	0.43
44:L7:217:PRO:HD2	44:L7:218:ARG:H	1.82	0.43
45:L8:145:ASN:O	45:L8:147:LYS:N	2.51	0.43
87:6:2130:OHX:N2	87:6:2155:OHX:N4	2.66	0.43
13:C1:54:ILE:HG23	13:C1:55:ASP:H	1.82	0.43
10:S8:172:ARG:HB3	10:S8:175:GLN:HG3	2.00	0.43
41:L4:180:LYS:HA	36:5:1386:A:C2	119.69	0.43
54:M8:25:TYR:O	54:M8:28:LEU:N	2.51	0.43
73:O7:18:LEU:HA	73:O7:25:ARG:CA	2.47	0.43
1:6:851:U:H2'	1:6:852:C:C6	2.53	0.43
1:2:1543:A:C4	1:2:1569:A:C8	3.05	0.43
18:C6:35:PRO:HD2	18:C6:38:LEU:HD12	2.00	0.43
18:C6:48:VAL:O	18:C6:51:PRO:HD2	2.18	0.43
7:S5:111:VAL:HG12	18:C6:43:ILE:HG21	4.46	0.43
7:S5:173:ALA:O	7:S5:177:ILE:HG13	2.18	0.43
42:L5:207:TYR:O	42:L5:211:LEU:HB2	3.87	0.43
12:C0:47:GLN:HA	12:C0:50:THR:OG1	2.17	0.43
12:C0:49:LEU:HB3	12:C0:55:VAL:CG1	2.80	0.43
20:C8:120:ARG:CD	35:SM:61:ILE:HG21	4.69	0.43
31:D9:30:LEU:HD23	31:D9:30:LEU:HA	2.25	0.43
48:M1:111:ASP:N	48:M1:112:LEU:HD23	2.33	0.43
36:1:315:C:H2'	36:1:315:C:O2	2.18	0.43
51:M5:46:ASP:O	51:M5:49:ARG:HG2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:103:A:C4	1:2:309:C:N4	2.86	0.43
67:O1:20:LEU:HD23	67:O1:23:VAL:HG21	2.00	0.43
2:S0:188:LEU:HA	2:S0:188:LEU:HD22	1.65	0.43
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.01	0.43
4:S2:116:LYS:HD2	4:S2:117:THR:N	2.33	0.43
54:M8:62:VAL:HG21	54:M8:83:VAL:HG13	3.74	0.43
36:1:1732:U:H2'	36:1:1733:G:H5'	1.99	0.43
70:O4:82:ALA:O	70:O4:84:CYS:N	2.75	0.43
71:O5:7:TYR:HA	71:O5:10:ARG:NE	2.41	0.43
33:E1:97:LYS:HD3	1:6:1232:U:H5	436.10	0.43
1:2:1186:U:H2'	1:2:1187:U:O4'	2.17	0.43
6:S4:179:LYS:HA	6:S4:179:LYS:HD3	4.45	0.43
6:S4:85:GLY:O	6:S4:88:ASP:HB2	3.74	0.43
50:M4:80:THR:O	50:M4:83:LYS:N	2.51	0.43
57:N1:154:VAL:HA	57:N1:155:PRO:HD3	2.05	0.43
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.94	0.43
69:O3:6:ARG:HE	69:O3:6:ARG:HB3	2.89	0.43
8:S6:155:ASP:N	8:S6:155:ASP:OD2	2.56	0.43
5:S3:223:LYS:O	34:SR:190:ALA:HA	3.07	0.43
34:SR:254:ALA:O	34:SR:261:LYS:N	3.58	0.43
34:SR:73:LEU:HD23	34:SR:73:LEU:HA	1.70	0.43
52:M6:42:ASN:HA	52:M6:136:THR:O	2.75	0.43
36:5:348:A:N3	36:5:352:A:O2'	2.51	0.43
9:S7:149:ILE:O	9:S7:149:ILE:HG22	2.77	0.43
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.00	0.43
36:1:95:A:H5''	64:N8:34:MET:CB	2.48	0.43
1:6:1091:A:H4'	1:6:1092:A:O5'	2.17	0.43
38:8:107:G:H1'	38:8:116:G:N2	2.33	0.43
71:O5:76:GLN:O	71:O5:81:ARG:HD3	2.18	0.43
1:6:652:G:C2	1:6:682:C:O2	2.69	0.43
1:2:774:A:C6	1:2:775:G:H1'	2.53	0.43
1:2:561:G:C6	1:2:585:A:C2	3.07	0.43
36:1:2154:U:H2'	36:1:2155:G:H8	1.83	0.43
39:L2:193:ARG:NH2	36:5:2181:C:H5''	195.11	0.43
4:S2:122:ALA:HA	4:S2:125:ILE:HB	4.14	0.43
4:S2:80:VAL:HA	4:S2:102:VAL:HA	3.17	0.43
36:5:171:G:N2	36:5:172:G:H1'	2.33	0.43
36:5:248:U:H6	36:5:248:U:OP2	2.01	0.43
36:5:170:G:C2	36:5:249:U:O2	2.71	0.43
13:C1:40:LEU:HA	13:C1:40:LEU:HD12	2.53	0.43
1:2:355:G:OP1	10:S8:16:ALA:HB1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:133:ILE:CD1	2:S0:133:ILE:H	2.20	0.43
2:S0:29:VAL:HA	2:S0:149:LEU:O	5.94	0.43
64:N8:60:TYR:CD2	64:N8:63:LYS:HG3	4.10	0.43
5:S3:9:ARG:NH1	1:6:1490:C:O5'	434.94	0.43
1:2:1248:C:H2'	1:2:1249:U:C6	2.53	0.43
1:2:1376:C:O2'	1:2:1377:U:H5'	2.18	0.43
2:S0:112:THR:OG1	2:S0:113:ARG:N	2.50	0.43
1:2:456:A:H2'	1:2:457:G:C8	2.53	0.43
5:S3:114:ALA:HB3	5:S3:117:ARG:HB3	2.98	0.43
37:3:3:U:H2'	37:3:4:U:C6	2.53	0.43
42:L5:20:PHE:CD2	42:L5:20:PHE:N	2.98	0.43
10:S8:67:TRP:CD1	10:S8:70:GLU:HB2	2.53	0.43
36:1:24:G:C2	36:1:25:U:H1'	2.52	0.43
78:Q2:59:HIS:HA	78:Q2:61:LYS:NZ	4.47	0.43
36:5:3188:G:C2	36:5:3205:G:N1	2.86	0.43
36:1:1116:G:C4	36:1:2817:A:C2	3.06	0.43
1:2:520:A:H2'	1:2:521:A:C8	2.52	0.43
42:L5:187:THR:CG2	42:L5:189:GLU:HB2	2.47	0.43
52:M6:93:ALA:O	52:M6:96:LYS:N	3.65	0.43
65:N9:43:HIS:NE2	65:N9:47:LEU:HD11	3.38	0.43
36:5:1817:G:O2'	36:5:1818:U:P	2.76	0.43
13:C1:132:SER:OG	13:C1:133:LYS:N	3.03	0.43
47:M0:207:GLU:O	47:M0:210:ILE:N	2.40	0.43
9:S7:111:LYS:HG3	9:S7:112:ARG:H	1.83	0.43
47:M0:51:HIS:O	47:M0:165:ILE:HA	2.17	0.43
54:M8:182:LYS:O	54:M8:184:PHE:N	2.51	0.43
1:6:1666:U:C4	1:6:1736:G:C2	3.06	0.43
55:M9:117:LYS:HD2	55:M9:118:HIS:CE1	6.02	0.43
36:1:653:A:C2	36:1:654:C:C2	3.06	0.43
36:1:425:G:C6	36:1:635:G:C6	3.06	0.43
36:1:2792:A:O2'	36:1:2793:G:H5'	2.17	0.43
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.46	0.43
1:2:17:C:C4	1:2:18:C:N4	2.86	0.43
8:S6:43:ASP:O	8:S6:45:PHE:N	2.51	0.43
49:M3:36:ARG:HG3	49:M3:39:ARG:NH2	3.40	0.43
36:1:1296:C:N4	36:1:1297:C:N3	2.66	0.43
36:5:2584:G:C3'	36:5:2585:G:H4'	2.45	0.43
14:C2:49:THR:HB	33:E1:106:TYR:CE1	3.77	0.43
43:L6:68:PRO:HD2	43:L6:71:VAL:HG21	2.14	0.43
19:C7:65:PRO:HA	19:C7:74:GLN:OE1	6.16	0.43
49:M3:61:PRO:O	49:M3:62:THR:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1333:C:H2'	1:2:1334:U:H6	1.83	0.43
54:M8:73:GLN:HB2	54:M8:76:ALA:HB2	2.29	0.43
1:2:1562:G:OP1	21:C9:89:ARG:NH1	2.45	0.43
36:1:13:A:H5''	36:1:13:A:H8	1.83	0.43
1:2:759:U:H2'	1:2:760:A:C8	2.52	0.43
1:2:1122:G:O6	87:2:2171:OHX:N3	2.51	0.43
87:5:4061:OHX:N5	87:5:4138:OHX:N6	2.66	0.43
36:1:667:C:O2	36:1:667:C:H2'	2.17	0.43
36:1:1075:A:C5	65:N9:45:HIS:CD2	3.06	0.43
36:1:241:G:C2	36:1:242:C:C2	3.05	0.43
1:6:577:G:C3'	1:6:577:G:C8	3.01	0.43
87:1:3877:OHX:N5	51:M5:91:GLU:OE2	2.51	0.43
1:6:802:G:C6	1:6:803:A:N6	2.86	0.43
36:1:2366:C:H5'	40:L3:259:HIS:HE1	1.82	0.43
1:2:268:C:N4	1:2:287:G:H1	2.16	0.43
5:S3:216:PRO:HB2	5:S3:217:ILE:H	1.50	0.43
1:6:1032:G:C5	1:6:1033:C:C5	3.06	0.43
36:5:881:C:H1'	36:5:1850:A:C8	2.53	0.43
67:O1:42:LEU:HD23	67:O1:43:HIS:CE1	3.12	0.43
1:6:1288:G:C2	1:6:1289:U:C6	3.06	0.43
69:O3:14:LEU:HD21	69:O3:31:LYS:HB3	2.00	0.43
36:5:2099:A:H2'	36:5:2100:A:N3	2.33	0.43
36:5:2516:U:H2'	36:5:2517:U:C6	2.53	0.43
53:M7:157:VAL:HG12	53:M7:158:ALA:N	2.32	0.43
7:S5:32:GLU:H	7:S5:32:GLU:HG3	3.89	0.43
1:6:775:G:H2'	1:6:776:G:H5'	2.00	0.43
1:2:995:A:H2'	1:2:996:U:O4'	2.18	0.43
78:Q2:11:TYR:HB2	78:Q2:20:HIS:CE1	2.53	0.43
36:5:3089:C:C4	36:5:3090:U:C2	3.06	0.43
36:1:1505:C:N4	36:1:1506:A:H62	2.16	0.43
75:O9:43:ASN:HB3	75:O9:46:ARG:HB2	2.00	0.43
1:2:942:G:C2'	1:2:943:C:H5'	2.48	0.43
28:D6:10:ARG:NH2	28:D6:36:ILE:HG13	3.43	0.43
28:D6:40:ALA:O	28:D6:68:TYR:HA	2.17	0.43
11:S9:129:ILE:O	11:S9:142:ASN:HA	2.52	0.43
11:S9:152:SER:C	11:S9:154:LYS:N	2.68	0.43
36:5:2838:A:C2	36:5:2851:A:C4	3.06	0.43
47:M0:77:THR:OG1	47:M0:78:THR:N	2.91	0.43
44:L7:160:ARG:NH1	36:5:1363:A:OP1	226.83	0.43
45:L8:141:ALA:HB1	36:5:117:U:C6	103.24	0.43
41:L4:203:ARG:NH1	41:L4:226:GLU:OE1	3.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:288:ARG:O	41:L4:291:ASN:N	2.89	0.43
41:L4:50:TYR:CD2	41:L4:109:TRP:CH2	3.12	0.43
54:M8:31:LYS:HE3	54:M8:31:LYS:HB3	4.51	0.43
54:M8:29:LEU:O	54:M8:32:LEU:HB3	2.83	0.43
43:L6:43:LEU:HA	43:L6:43:LEU:HD23	1.61	0.43
36:1:359:U:C4	36:1:360:G:C5	3.06	0.43
73:O7:18:LEU:HD11	75:O9:51:ILE:CG2	3.05	0.43
1:6:819:G:C2	1:6:853:G:N3	2.87	0.43
1:2:1532:U:C4	1:2:1533:C:C4	3.06	0.43
20:C8:24:GLY:HA2	20:C8:58:ALA:HB3	2.33	0.43
20:C8:66:LEU:O	20:C8:70:VAL:HG23	2.18	0.43
7:S5:144:GLU:HB3	7:S5:161:ASP:OD1	2.18	0.43
67:O1:48:ASP:HB3	67:O1:90:PHE:CB	2.47	0.43
1:2:1429:G:C6	1:2:1430:U:C4	3.05	0.43
33:E1:126:CYS:CB	33:E1:130:VAL:HG21	4.02	0.43
15:C3:5:HIS:CG	15:C3:117:LEU:HD22	4.09	0.43
36:1:299:G:H2'	36:1:300:G:O4'	2.19	0.43
47:M0:95:HIS:ND1	47:M0:128:ARG:NE	2.66	0.43
1:2:902:G:H2'	1:2:903:U:H6	1.78	0.43
16:C4:52:ARG:HD3	16:C4:53:ASP:OD1	5.13	0.43
3:S1:27:LYS:HA	3:S1:48:VAL:O	4.57	0.43
3:S1:61:LEU:HB2	3:S1:64:ARG:HE	1.83	0.43
3:S1:87:ARG:NH2	3:S1:220:GLN:OE1	5.48	0.43
2:S0:41:ARG:HG2	19:C7:105:GLN:HE21	1.83	0.43
2:S0:177:LEU:HA	2:S0:177:LEU:HD23	2.10	0.43
2:S0:179:ARG:HG2	2:S0:183:ARG:CD	3.25	0.43
40:L3:19:ARG:HG3	40:L3:273:HIS:CE1	2.53	0.43
63:N7:6:LYS:HB3	63:N7:6:LYS:HE2	1.52	0.43
68:O2:75:LEU:HD23	68:O2:95:GLU:HB3	3.47	0.43
68:O2:96:ILE:H	68:O2:121:ASN:ND2	2.15	0.43
38:4:34:U:O2	73:O7:70:VAL:HG12	2.18	0.43
62:N6:122:LYS:HE3	36:5:186:U:OP1	51.69	0.43
79:Q3:33:GLN:HB3	79:Q3:69:TYR:HB3	2.01	0.43
67:O1:83:GLU:O	67:O1:85:ALA:N	3.29	0.43
6:S4:163:ASP:CG	6:S4:164:LEU:H	4.57	0.43
57:N1:139:ARG:HG2	57:N1:139:ARG:NH2	4.81	0.43
59:N3:37:ILE:HG12	59:N3:59:MET:O	2.18	0.43
43:L6:158:TYR:HA	50:M4:118:PHE:CE1	2.68	0.43
1:6:146:U:C4	1:6:167:U:C4	3.05	0.43
8:S6:175:ILE:HG12	1:6:78:A:N3	338.75	0.43
7:S5:76:ARG:HD3	18:C6:122:ARG:CZ	3.12	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:170:ILE:HG13	34:SR:202:LEU:HD11	2.49	0.43
34:SR:227:ALA:CB	34:SR:229:LYS:HD2	3.31	0.43
34:SR:292:LEU:HA	34:SR:303:ALA:HA	2.00	0.43
34:SR:78:ALA:O	34:SR:94:VAL:HG23	3.21	0.43
52:M6:38:ALA:HA	52:M6:41:LEU:CD2	2.49	0.43
62:N6:42:GLN:HB3	62:N6:43:TYR:CD2	2.53	0.43
36:1:2178:A:H5''	39:L2:129:ALA:HB3	2.00	0.43
79:Q3:44:LYS:HE3	79:Q3:59:CYS:SG	4.59	0.43
49:M3:167:PHE:CE2	64:N8:132:LYS:HB2	2.53	0.43
50:M4:106:ARG:HD3	36:5:3209:A:C8	293.34	0.43
40:L3:43:LEU:HB3	40:L3:181:ILE:HG21	1.99	0.43
1:2:1291:G:C8	1:2:1291:G:O5'	2.63	0.43
1:2:1324:G:C2	1:2:1325:A:C8	3.06	0.43
4:S2:94:GLN:HG2	4:S2:95:ARG:H	4.17	0.43
36:5:934:G:C6	36:5:935:U:O4	2.71	0.43
36:1:2217:U:H2'	36:1:2218:G:H8	1.83	0.43
36:5:281:G:C6	36:5:282:G:C5	3.06	0.43
1:2:632:U:P	13:C1:102:LYS:NZ	2.91	0.43
13:C1:96:LYS:HD3	13:C1:97:TYR:CE2	4.26	0.43
36:5:712:G:N2	36:5:754:G:O3'	2.51	0.43
38:8:139:U:H2'	38:8:140:G:C8	2.53	0.43
1:2:1091:A:H4'	1:2:1092:A:O4'	2.18	0.43
1:2:561:G:C5	1:2:585:A:C2	3.06	0.43
48:M1:44:THR:HA	48:M1:45:PRO:HD3	2.39	0.43
1:2:704:C:N4	1:2:734:A:H2'	2.33	0.43
36:5:1698:C:H42	36:5:1747:G:H1	1.66	0.43
36:5:1711:C:H42	36:5:1733:G:H1	1.65	0.43
36:5:3055:U:C2	36:5:3085:G:N1	2.86	0.43
52:M6:77:SER:HB2	52:M6:104:VAL:HG12	2.00	0.43
36:5:2689:A:C8	36:5:2702:A:C6	3.07	0.43
37:3:46:A:C6	37:3:47:C:N4	2.86	0.43
10:S8:116:HIS:HB3	10:S8:117:TYR:HD2	3.43	0.43
22:D0:24:ILE:O	22:D0:90:TYR:HA	2.18	0.43
56:N0:71:LYS:NZ	36:5:563:U:OP1	342.44	0.43
36:1:2896:A:H5''	76:Q0:95:VAL:HG21	2.00	0.43
66:O0:51:LEU:CD2	70:O4:91:ARG:HB2	2.48	0.43
87:5:4029:OHX:N1	87:5:4113:OHX:N3	2.66	0.43
59:N3:35:TYR:H	59:N3:60:ALA:HB1	1.83	0.43
36:1:1565:G:H1'	36:1:1575:A:H2	1.83	0.43
25:D3:19:ARG:HG3	25:D3:19:ARG:O	2.79	0.43
36:1:411:U:O2'	36:1:412:G:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:10:G:C5	1:2:1633:A:C2	3.06	0.43
55:M9:70:LYS:NZ	36:5:1862:U:OP1	197.30	0.43
36:5:2375:G:O2'	36:5:2377:G:OP2	2.32	0.43
50:M4:22:LEU:HD22	50:M4:94:TRP:CH2	2.67	0.43
56:N0:171:PHE:C	56:N0:171:PHE:CD1	3.48	0.43
36:1:1339:C:H2'	36:1:1340:G:O4'	2.18	0.43
36:1:1340:G:H4'	68:O2:55:ILE:HD11	2.00	0.43
36:1:956:U:OP1	87:1:4123:OHX:N1	2.51	0.43
1:2:275:C:H5''	1:2:276:C:OP2	2.18	0.43
36:1:1628:C:C5	36:1:1814:A:C6	3.05	0.43
36:5:1818:U:H2'	36:5:1819:U:C6	2.44	0.43
41:L4:317:PRO:HA	41:L4:323:VAL:HG22	2.80	0.43
42:L5:284:ALA:HA	42:L5:287:ALA:HB3	1.99	0.43
1:2:1308:G:H2'	1:2:1309:C:O4'	2.18	0.43
1:6:142:G:N7	1:6:173:A:C2	2.86	0.43
36:1:3317:U:H1'	87:1:4023:OHX:N6	2.33	0.43
2:S0:202:TYR:O	2:S0:203:PHE:CD2	2.71	0.43
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.53	0.43
36:1:1296:C:N4	36:1:1297:C:C4	2.87	0.43
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.83	0.43
19:C7:76:GLU:HA	19:C7:79:GLU:HB2	1.99	0.43
65:N9:10:HIS:O	65:N9:12:GLN:N	2.51	0.43
42:L5:57:ASN:OD1	42:L5:57:ASN:N	3.93	0.43
36:5:825:U:O4	87:5:3958:OHX:N6	2.50	0.43
36:5:2223:A:C6	36:5:2224:A:C6	3.07	0.43
7:S5:213:LYS:HA	7:S5:213:LYS:HD2	2.76	0.43
48:M1:117:ASP:HB3	48:M1:120:ILE:HB	1.99	0.43
36:5:515:C:H2'	36:5:515:C:O2	2.18	0.43
12:C0:27:PHE:HD1	12:C0:43:ILE:HD12	4.27	0.43
32:E0:29:LYS:NZ	32:E0:35:TYR:HE2	6.23	0.43
40:L3:373:PRO:O	40:L3:376:LYS:N	3.09	0.43
50:M4:131:VAL:C	50:M4:133:LYS:N	2.71	0.43
36:1:1875:G:C6	36:1:1876:U:C4	3.06	0.43
87:8:220:OHX:N6	87:8:229:OHX:N4	2.67	0.43
1:2:1414:U:C6	87:2:2025:OHX:N4	2.86	0.43
73:O7:36:SER:O	73:O7:45:ARG:HB3	2.22	0.43
67:O1:52:ALA:HB2	67:O1:92:TYR:CZ	2.54	0.43
9:S7:79:ARG:HH12	9:S7:161:GLN:NE2	4.49	0.43
3:S1:31:ASP:OD2	3:S1:45:LYS:HE2	6.24	0.43
36:1:689:U:H4'	36:1:690:A:OP2	2.18	0.43
1:2:1764:C:OP1	1:2:1771:U:H4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1908:A:H2'	36:1:1909:A:O4'	2.18	0.43
36:1:38:U:H6	36:1:38:U:O5'	2.02	0.43
40:L3:90:VAL:O	40:L3:90:VAL:HG12	2.17	0.43
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	2.13	0.43
36:1:354:U:H2'	36:1:354:U:O2	2.16	0.43
21:C9:136:ALA:O	21:C9:139:THR:HB	3.45	0.43
1:6:296:U:H2'	1:6:297:U:O4'	2.18	0.43
1:6:552:G:O6	1:6:553:G:C6	2.71	0.43
25:D3:63:GLN:CA	25:D3:65:ASN:H	2.30	0.43
76:Q0:108:THR:O	76:Q0:121:LEU:HD12	2.17	0.43
36:1:2988:C:O2'	40:L3:266:ARG:NH1	2.47	0.43
53:M7:84:PRO:O	53:M7:88:VAL:HG23	2.18	0.43
11:S9:87:SER:HB3	11:S9:90:LYS:HD3	7.70	0.43
47:M0:32:ARG:HA	47:M0:32:ARG:HD2	1.83	0.43
41:L4:327:LEU:HA	44:L7:166:ASN:ND2	2.28	0.43
45:L8:74:THR:O	45:L8:77:GLN:HG2	2.18	0.43
10:S8:78:ILE:O	10:S8:80:GLY:N	2.51	0.43
43:L6:43:LEU:HD11	43:L6:85:ILE:CG1	2.69	0.43
52:M6:128:ARG:HD3	52:M6:128:ARG:HA	1.84	0.43
36:1:1438:U:H5''	41:L4:74:ILE:HD11	2.00	0.43
73:O7:14:LYS:HA	36:5:817:A:C6	134.69	0.43
18:C6:86:ALA:HB1	18:C6:109:PHE:CE2	3.03	0.43
18:C6:131:GLY:HA3	18:C6:137:ARG:NH2	3.10	0.43
7:S5:39:GLU:HB3	7:S5:40:ILE:H	1.57	0.43
42:L5:253:PHE:HE1	42:L5:255:PRO:HB3	2.75	0.43
36:1:1027:A:C6	36:1:1029:G:H1'	2.53	0.43
12:C0:57:THR:HG22	12:C0:58:GLN:O	2.19	0.43
21:C9:54:PHE:HZ	21:C9:103:LYS:O	2.01	0.43
22:D0:72:ASN:OD1	22:D0:72:ASN:N	2.42	0.43
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	2.49	0.43
8:S6:116:LYS:HD2	8:S6:125:THR:CG2	2.48	0.43
3:S1:101:HIS:O	3:S1:101:HIS:CG	3.32	0.43
3:S1:131:ASP:OD2	3:S1:180:THR:HG21	2.18	0.43
3:S1:67:GLU:HA	3:S1:84:ILE:O	2.67	0.43
3:S1:84:ILE:HG12	3:S1:103:MET:HB2	2.00	0.43
2:S0:12:GLU:HG2	2:S0:12:GLU:H	2.59	0.43
36:5:744:A:H2'	36:5:745:C:O4'	2.18	0.43
48:M1:151:SER:O	48:M1:152:HIS:CB	3.10	0.43
55:M9:104:ARG:NH2	55:M9:105:LEU:HB2	2.33	0.43
55:M9:124:TYR:HB3	55:M9:125:LYS:HG2	2.00	0.43
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:94:C:O2'	38:4:95:G:H5''	2.18	0.43
36:1:1174:G:N2	52:M6:87:MET:HG2	2.32	0.43
36:5:536:U:H1'	36:5:559:A:C5	2.54	0.43
36:5:2727:A:H4'	36:5:2728:G:OP2	2.18	0.43
57:N1:37:GLY:O	57:N1:38:ASP:O	3.45	0.43
57:N1:38:ASP:OD2	57:N1:98:HIS:HD2	2.01	0.43
40:L3:284:ARG:NH2	40:L3:293:ASN:O	2.61	0.43
43:L6:157:GLN:O	43:L6:158:TYR:C	2.56	0.43
9:S7:133:THR:OG1	9:S7:162:ILE:HD11	3.28	0.43
9:S7:162:ILE:O	9:S7:166:LEU:HD22	4.24	0.43
9:S7:50:ASP:OD1	9:S7:56:LYS:NZ	4.32	0.43
42:L5:265:TYR:HE1	37:7:120:C:H2'	315.08	0.43
7:S5:73:THR:CG2	18:C6:114:ARG:HB3	5.46	0.43
34:SR:234:LEU:HD22	34:SR:263:PHE:HD1	1.83	0.43
62:N6:34:PRO:HD2	62:N6:104:LEU:O	2.18	0.43
79:Q3:79:VAL:HG12	79:Q3:80:ARG:N	3.52	0.43
66:O0:10:ILE:HG23	66:O0:11:ASN:OD1	2.44	0.43
50:M4:123:LEU:HA	50:M4:123:LEU:HD23	1.75	0.43
50:M4:109:ARG:CZ	52:M6:199:TYR:CE1	3.33	0.43
3:S1:175:GLU:HG2	3:S1:193:ILE:CG2	3.98	0.43
3:S1:188:LEU:CD2	3:S1:193:ILE:HD11	3.22	0.43
3:S1:194:ASN:O	3:S1:197:ILE:HB	2.84	0.43
52:M6:171:LYS:HG2	52:M6:171:LYS:O	2.60	0.43
36:5:3166:C:H2'	36:5:3166:C:O2	2.17	0.43
8:S6:98:ARG:HD3	8:S6:99:GLY:H	2.20	0.43
64:N8:26:ARG:HH12	36:5:938:C:H5''	181.53	0.43
36:1:2917:G:H4'	59:N3:48:ARG:O	2.18	0.43
36:5:2414:G:C5	36:5:2415:C:C5	3.06	0.43
39:L2:204:MET:CG	36:5:914:A:C2	194.56	0.43
39:L2:208:ASP:O	39:L2:209:HIS:HB2	2.86	0.43
1:6:777:C:N3	1:6:778:G:N7	2.66	0.43
79:Q3:20:SER:HB2	79:Q3:21:SER:H	2.36	0.43
1:2:788:A:H2'	6:S4:19:LEU:HD13	2.00	0.43
46:L9:173:ARG:NH1	36:5:2899:C:N3	327.08	0.43
36:5:2143:A:N7	36:5:2145:A:C5	2.86	0.43
44:L7:33:ARG:HA	44:L7:36:ALA:HB3	2.10	0.43
60:N4:38:SER:O	60:N4:42:GLN:NE2	2.50	0.43
52:M6:53:LYS:O	52:M6:56:ASP:HB3	2.18	0.43
1:6:825:U:O2'	1:6:826:U:OP2	2.28	0.43
64:N8:60:TYR:CE1	36:5:2777:G:C4	137.39	0.43
22:D0:26:LEU:N	22:D0:89:ARG:O	3.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:71:VAL:O	46:L9:74:LEU:N	2.51	0.43
36:1:1809:A:OP1	63:N7:65:ARG:NH2	2.45	0.43
2:S0:104:PRO:HB3	1:6:1321:A:C4	402.25	0.43
1:6:1419:G:H2'	1:6:1420:C:O4'	2.18	0.43
36:1:2768:U:H2'	36:1:2769:A:C8	2.53	0.43
36:1:1854:C:OP2	87:1:4033:OHX:N5	2.52	0.43
25:D3:23:ARG:O	25:D3:29:TYR:CD1	2.71	0.43
49:M3:175:SER:O	49:M3:176:GLU:C	2.56	0.43
48:M1:28:ASP:O	48:M1:32:ARG:N	2.96	0.43
54:M8:8:LYS:HE2	36:5:950:G:OP1	201.80	0.43
1:2:138:A:C5	1:2:142:G:H1'	2.53	0.43
54:M8:93:ILE:HD12	54:M8:93:ILE:H	4.36	0.43
55:M9:97:ARG:O	55:M9:98:ARG:C	2.83	0.43
45:L8:126:SER:OG	36:5:121:A:N6	92.43	0.43
62:N6:120:GLN:HE22	62:N6:126:LEU:HA	9.46	0.43
58:N2:26:GLY:O	58:N2:28:PHE:N	2.52	0.43
44:L7:182:ASP:HA	44:L7:185:ILE:HB	2.00	0.43
34:SR:182:ASN:HD21	34:SR:184:ASN:HB2	1.84	0.43
47:M0:165:ILE:O	47:M0:165:ILE:HG22	4.98	0.43
36:1:1209:G:H3'	36:1:1210:U:C6	2.54	0.43
23:D1:56:SER:O	23:D1:60:ARG:HG3	2.87	0.43
29:D7:7:LEU:HA	29:D7:7:LEU:HD23	2.42	0.43
36:1:425:G:C5	36:1:635:G:C2	3.06	0.43
39:L2:200:ARG:O	39:L2:203:ALA:N	2.87	0.43
36:5:2161:G:C5	36:5:2162:U:C5	3.06	0.43
36:1:48:A:H5''	49:M3:16:LYS:HD3	2.00	0.43
36:1:1642:A:O2'	36:1:1643:A:C8	2.71	0.43
36:1:789:A:H2'	36:1:790:U:C6	2.53	0.43
36:1:881:C:C2'	36:1:882:A:H5'	2.49	0.43
36:5:2412:G:C2	36:5:2413:A:C4	3.06	0.43
1:2:1787:C:H2'	1:2:1788:G:C8	2.53	0.43
29:D7:34:ASP:HB3	29:D7:43:ILE:HD12	2.00	0.43
37:7:61:G:C6	37:7:62:U:C4	3.06	0.43
44:L7:121:LYS:O	44:L7:123:THR:N	2.52	0.43
36:5:1253:U:O2	36:5:1263:A:H5'	2.18	0.43
47:M0:112:GLN:C	47:M0:114:GLY:N	4.56	0.43
1:6:1525:A:C6	1:6:1526:A:C6	3.06	0.43
36:5:3343:G:N2	36:5:3361:G:H2'	2.33	0.43
36:1:1674:G:H2'	36:1:1675:G:O4'	2.18	0.43
36:5:797:U:O2'	36:5:798:G:H5'	2.18	0.43
37:7:14:U:C4	37:7:67:G:N2	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:69:SER:OG	68:O2:71:HIS:HB2	2.18	0.43
16:C4:93:THR:HG22	16:C4:94:PRO:HD2	2.96	0.43
36:1:2122:G:O6	36:1:2331:C:N3	2.51	0.43
34:SR:14:GLU:HB3	34:SR:309:VAL:HG22	3.57	0.43
36:5:956:U:H2'	36:5:957:C:C6	2.53	0.43
36:1:1760:A:C6	36:1:1761:C:N4	2.87	0.43
36:1:2197:C:C2	36:1:2241:U:C4	3.06	0.43
1:6:231:U:H2'	1:6:232:U:H5''	1.99	0.43
53:M7:73:GLY:O	53:M7:78:VAL:N	2.50	0.43
36:1:414:U:C2'	36:1:415:G:H5'	2.48	0.43
47:M0:121:LYS:HA	47:M0:122:PRO:HD2	1.68	0.43
52:M6:80:PHE:O	52:M6:80:PHE:CD1	2.71	0.43
36:5:3255:U:H2'	36:5:3255:U:O2	2.16	0.43
36:5:1867:A:H2'	36:5:1868:G:C8	2.53	0.43
36:1:3237:U:H3	36:1:3250:U:H3	1.65	0.43
21:C9:83:ALA:HB1	21:C9:91:TYR:HD2	1.82	0.43
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	2.42	0.43
51:M5:84:PRO:HA	51:M5:87:GLN:HB2	3.29	0.43
53:M7:53:ASP:O	53:M7:55:GLN:HB2	2.17	0.43
75:O9:44:TRP:CG	75:O9:45:ARG:N	2.91	0.43
47:M0:55:ASN:O	47:M0:131:ILE:HG23	3.67	0.43
26:D4:49:LYS:NZ	1:6:782:U:O4	433.06	0.43
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.19	0.43
10:S8:103:GLN:HA	10:S8:165:LEU:O	2.21	0.43
10:S8:40:ALA:N	10:S8:61:GLU:HB3	2.30	0.43
49:M3:35:ARG:HD2	36:5:685:G:OP1	81.02	0.43
41:L4:188:ARG:HB2	41:L4:188:ARG:HE	1.49	0.43
43:L6:98:VAL:HA	43:L6:101:PHE:CE2	2.53	0.43
1:2:1397:U:C5	1:2:1399:C:C2	3.06	0.43
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.35	0.43
30:D8:10:ALA:HB1	30:D8:30:VAL:CB	2.43	0.43
7:S5:116:HIS:CD2	27:D5:98:GLN:HB2	2.54	0.43
7:S5:211:ILE:HA	7:S5:211:ILE:HD13	1.92	0.43
36:1:1456:A:C6	67:O1:64:VAL:HG11	2.53	0.43
36:1:3327:G:C2	36:1:3380:U:O2	2.71	0.43
36:5:3324:C:N4	36:5:3325:G:C6	2.87	0.43
55:M9:25:ASP:OD1	55:M9:26:PRO:HD2	4.87	0.43
42:L5:123:GLU:HG2	42:L5:248:ARG:CZ	2.48	0.43
1:2:1274:C:H5	35:SM:96:ARG:H	1.67	0.43
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.71	0.43
17:C5:34:VAL:O	17:C5:37:ALA:HB3	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:21:CYS:H	31:D9:25:SER:HA	1.82	0.43
31:D9:23:VAL:O	31:D9:25:SER:N	4.63	0.43
5:S3:106:LYS:O	5:S3:108:LYS:N	3.47	0.43
36:1:103:G:O4'	49:M3:65:TYR:CE1	2.71	0.43
16:C4:52:ARG:HE	16:C4:52:ARG:HB3	1.63	0.43
2:S0:4:PRO:HG2	2:S0:7:PHE:HB2	2.01	0.43
4:S2:162:CYS:H	4:S2:213:ALA:HB2	1.94	0.43
4:S2:113:LEU:HB2	4:S2:215:PHE:CD1	2.54	0.43
1:2:180:A:O5'	1:2:180:A:H8	2.00	0.43
36:1:2653:C:OP1	78:Q2:89:LYS:HB2	2.18	0.43
48:M1:160:VAL:O	48:M1:163:PHE:N	2.51	0.43
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	3.55	0.43
73:O7:76:ASN:O	73:O7:78:PHE:N	2.51	0.43
38:4:96:A:OP1	73:O7:80:THR:HG22	2.18	0.43
21:C9:94:ILE:HA	21:C9:94:ILE:HD13	3.90	0.43
14:C2:86:VAL:N	14:C2:87:PRO:HD3	2.59	0.43
1:2:1184:A:C2	1:2:1454:G:N3	2.87	0.43
6:S4:89:VAL:O	6:S4:90:ILE:HB	4.65	0.43
36:1:3146:G:O2'	36:1:3147:G:H5'	2.19	0.43
41:L4:358:THR:O	41:L4:359:LEU:C	2.68	0.43
43:L6:146:ILE:HA	43:L6:146:ILE:HD13	1.69	0.43
42:L5:260:PHE:HB3	42:L5:264:GLN:OE1	3.69	0.43
34:SR:292:LEU:HB2	34:SR:302:PHE:O	2.18	0.43
34:SR:293:ALA:O	34:SR:302:PHE:N	2.41	0.43
34:SR:296:ALA:O	34:SR:298:GLY:N	3.22	0.43
34:SR:61:PHE:HB3	34:SR:92:TRP:CZ3	2.54	0.43
52:M6:125:ARG:HD3	52:M6:125:ARG:HH11	1.63	0.43
1:2:1784:C:N3	1:2:1785:U:C4	2.86	0.43
49:M3:63:VAL:HG12	64:N8:128:ARG:HH12	1.83	0.43
1:6:1146:G:N3	1:6:1635:A:H2	2.15	0.43
36:1:613:G:C6	36:1:614:C:C4	3.07	0.43
36:5:1686:U:O2	36:5:1688:U:H1'	2.19	0.43
49:M3:149:GLN:HA	49:M3:150:PRO:HD2	2.86	0.43
39:L2:204:MET:HB3	39:L2:208:ASP:CB	2.49	0.43
6:S4:19:LEU:HA	6:S4:19:LEU:HD23	1.75	0.43
38:8:57:C:H2'	38:8:58:G:C8	2.53	0.43
46:L9:110:LYS:HB3	46:L9:128:VAL:HB	2.00	0.43
1:2:557:G:H3'	1:2:558:U:H5''	1.99	0.43
45:L8:156:ASP:HB2	45:L8:157:VAL:H	1.41	0.43
6:S4:148:ARG:HD2	1:6:124:A:O2'	339.76	0.43
70:O4:58:ARG:N	70:O4:61:GLN:HG3	4.24	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:327:U:HO2'	13:C1:10:GLU:HG2	1.80	0.43
36:5:847:A:C2	36:5:848:A:C4	3.07	0.43
36:5:408:A:OP1	87:5:4097:OHX:N6	2.52	0.43
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.17	0.43
46:L9:45:PHE:HA	46:L9:54:LYS:O	2.18	0.43
45:L8:55:TYR:CD2	45:L8:56:VAL:N	2.87	0.43
36:5:1023:C:N3	36:5:1029:G:N2	2.48	0.43
36:1:2946:A:C2	36:1:2982:A:C4	3.07	0.43
62:N6:91:ASN:C	62:N6:93:ALA:H	2.20	0.43
56:N0:155:ARG:HG2	56:N0:172:TYR:CG	2.53	0.43
8:S6:18:ILE:HD12	8:S6:23:ARG:HD2	6.62	0.43
58:N2:18:ASP:HB3	58:N2:104:ARG:HB3	2.01	0.43
1:6:1671:A:N6	1:6:1672:G:C2	2.86	0.43
9:S7:111:LYS:HB3	9:S7:112:ARG:H	1.84	0.43
1:2:1052:U:OP1	1:2:1053:G:H5''	2.18	0.43
34:SR:117:LYS:HD2	34:SR:117:LYS:N	2.33	0.43
74:O8:65:LEU:HA	74:O8:68:SER:HB2	2.49	0.43
45:L8:150:LEU:HA	45:L8:150:LEU:HD23	1.87	0.43
36:1:823:C:H5''	39:L2:19:HIS:CD2	2.54	0.43
36:1:1668:G:H2'	36:1:1669:C:H6	1.82	0.43
18:C6:20:ALA:HB2	18:C6:84:ALA:HB1	2.00	0.43
36:5:3041:U:H2'	36:5:3042:U:H6	1.83	0.43
36:5:2636:A:H5''	36:5:2637:A:H5'	2.00	0.43
36:1:2674:A:C8	48:M1:125:MET:O	2.72	0.43
36:1:1240:A:H61	36:1:1244:A:H5'	1.81	0.43
36:1:507:U:O2'	36:1:1166:G:H4'	2.19	0.43
42:L5:233:ALA:C	42:L5:235:SER:H	2.22	0.43
36:1:35:A:C2'	36:1:36:C:H5'	2.48	0.43
74:O8:32:ASN:HD21	74:O8:36:LYS:HB2	1.83	0.43
37:7:70:U:H2'	37:7:71:G:C8	2.52	0.43
1:6:1575:G:N2	1:6:1576:A:N3	2.67	0.43
36:5:2930:A:O2'	36:5:2931:C:H5'	2.18	0.43
11:S9:34:PHE:N	11:S9:34:PHE:CD2	2.86	0.43
36:1:1630:U:OP1	63:N7:67:LYS:NZ	2.49	0.43
36:1:1025:A:H3'	36:1:1025:A:OP1	2.18	0.43
36:1:334:A:C2	36:1:335:G:C4	3.06	0.43
21:C9:64:HIS:CE1	21:C9:68:ARG:NE	4.24	0.43
36:1:1547:G:OP1	51:M5:105:ARG:HD3	2.18	0.43
12:C0:40:LEU:HG	1:6:1217:A:C2	426.68	0.43
69:O3:47:LYS:HA	69:O3:104:PRO:CD	2.48	0.43
36:1:1583:A:H3'	36:1:1584:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:109:G:C8	1:6:109:G:H3'	2.54	0.43
1:6:110:U:C4	1:6:111:U:C5	3.07	0.43
50:M4:54:PRO:O	50:M4:56:GLN:HG2	2.70	0.43
26:D4:132:ARG:O	26:D4:132:ARG:HG2	2.18	0.43
36:1:2302:G:C6	36:1:2303:A:C5	3.06	0.43
36:5:264:G:O5'	36:5:264:G:H8	2.00	0.43
1:2:3:U:O2	4:S2:182:PRO:HD3	2.17	0.43
65:N9:32:LEU:HD12	65:N9:40:ARG:HD2	2.01	0.43
36:1:2904:U:H2'	36:1:2905:U:H6	1.83	0.43
54:M8:103:ALA:O	54:M8:124:LEU:HD23	2.17	0.43
36:5:68:C:C2'	36:5:69:C:H5'	2.48	0.43
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.51	0.43
10:S8:35:ASN:H	10:S8:35:ASN:ND2	4.18	0.43
38:8:66:A:O5'	38:8:66:A:H8	2.01	0.43
40:L3:280:HIS:CD2	40:L3:280:HIS:N	3.54	0.43
55:M9:78:TYR:HA	55:M9:78:TYR:HD1	4.54	0.43
36:5:1921:A:N3	36:5:1921:A:H2'	2.32	0.43
36:1:2136:C:C6	36:1:2142:A:C6	3.06	0.43
32:E0:14:VAL:O	32:E0:16:SER:N	3.53	0.43
40:L3:266:ARG:NH1	36:5:2988:C:O2	211.48	0.43
36:5:1505:C:O2'	36:5:1506:A:H5'	2.18	0.43
1:2:464:A:O2'	1:2:465:G:H5'	2.18	0.43
28:D6:82:ARG:HB2	28:D6:85:ARG:HH21	8.62	0.43
1:2:545:A:OP1	32:E0:31:LYS:HG3	2.19	0.43
11:S9:135:ALA:CB	11:S9:140:ILE:HA	2.49	0.43
11:S9:20:GLU:HG3	11:S9:23:ARG:HE	4.73	0.43
44:L7:88:ARG:HB2	44:L7:108:LEU:HB3	2.00	0.43
36:1:1171:G:OP2	44:L7:218:ARG:HD2	2.18	0.43
45:L8:73:PRO:C	45:L8:75:ILE:N	3.30	0.43
13:C1:55:ASP:HA	13:C1:82:ARG:HH12	1.82	0.43
41:L4:179:LEU:CD2	41:L4:183:LYS:HG2	2.45	0.43
41:L4:42:VAL:O	41:L4:44:LYS:N	3.39	0.43
1:6:1394:G:C2	1:6:1405:G:C4	3.05	0.43
19:C7:17:ILE:HD13	19:C7:61:ILE:HD11	1.99	0.43
55:M9:163:ARG:O	55:M9:166:ASN:N	3.41	0.43
20:C8:65:GLU:O	20:C8:68:ARG:HB2	2.18	0.43
30:D8:29:ARG:HG3	30:D8:41:VAL:HG22	2.01	0.43
38:4:45:C:OP1	75:O9:12:LYS:HE3	2.19	0.43
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	2.01	0.43
75:O9:9:ILE:C	75:O9:11:GLN:N	2.70	0.43
87:2:2044:OHX:N4	87:2:2099:OHX:N6	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:227:LEU:C	42:L5:229:ASP:H	2.81	0.43
1:2:1553:G:N7	17:C5:43:ARG:NH1	2.67	0.43
1:2:1560:U:O4'	1:2:1560:U:O2	2.34	0.43
1:2:1466:G:O2'	1:2:1602:C:OP1	2.35	0.43
18:C6:129:PHE:CZ	22:D0:78:THR:HG22	2.53	0.43
20:C8:114:GLU:HG2	20:C8:117:LYS:HD3	2.00	0.43
5:S3:44:THR:HB	5:S3:45:LYS:HZ2	1.83	0.43
15:C3:121:ARG:O	15:C3:125:LEU:HB2	2.17	0.43
15:C3:46:THR:N	15:C3:49:GLN:HB2	2.31	0.43
36:1:848:A:H5''	36:1:849:C:OP2	2.18	0.43
1:2:103:A:HO2'	1:2:104:A:P	2.40	0.43
1:6:1761:U:H1'	1:6:1762:A:N7	2.34	0.43
8:S6:116:LYS:HD2	8:S6:125:THR:HG23	2.29	0.43
41:L4:89:ALA:C	41:L4:91:GLY:H	2.21	0.43
1:6:1140:G:N2	1:6:1141:G:C4	2.86	0.43
48:M1:170:ASP:HB3	48:M1:172:LEU:HG	2.01	0.43
68:O2:96:ILE:HD13	68:O2:105:ARG:HG2	3.13	0.43
55:M9:40:ALA:O	55:M9:44:LEU:HD22	2.19	0.43
71:O5:68:GLN:C	71:O5:70:TYR:H	2.91	0.43
21:C9:93:HIS:CG	21:C9:94:ILE:N	2.86	0.43
1:6:1226:A:HO2'	1:6:1256:A:N6	2.17	0.43
14:C2:94:ALA:HB1	14:C2:118:ALA:O	5.34	0.43
1:2:1198:G:C2	1:2:1200:G:C6	3.06	0.43
1:6:1649:G:C2	1:6:1650:U:C2	3.07	0.43
57:N1:84:TYR:HE1	65:N9:21:ILE:HG23	1.83	0.43
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	1.99	0.43
43:L6:172:HIS:CD2	69:O3:40:ASP:OD1	3.63	0.43
36:1:2374:C:C5	36:1:2941:A:N1	2.87	0.43
36:1:2941:A:O5'	36:1:2943:G:H4'	2.19	0.43
37:3:119:U:O2'	37:3:120:C:H5'	2.19	0.43
1:6:147:A:C6	1:6:168:A:C6	3.07	0.43
8:S6:141:ILE:HD12	8:S6:175:ILE:HG23	2.67	0.43
34:SR:247:PRO:HG3	34:SR:296:ALA:O	2.18	0.43
29:D7:55:THR:HA	29:D7:61:THR:O	2.18	0.43
36:1:2554:A:H5''	39:L2:87:PHE:CZ	2.53	0.43
39:L2:137:ILE:HG23	39:L2:147:ARG:O	5.51	0.43
39:L2:83:HIS:CE1	39:L2:86:GLN:HG3	2.53	0.43
52:M6:194:LEU:O	52:M6:195:ALA:C	2.67	0.43
36:1:2125:A:C5	36:1:2126:A:C8	3.07	0.43
36:5:209:A:O2'	36:5:211:A:OP2	2.17	0.43
49:M3:170:LEU:HD11	64:N8:129:PHE:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:929:A:H2'	36:5:930:U:H6	1.83	0.43
36:1:498:A:H5''	36:1:498:A:H8	1.84	0.43
64:N8:19:LYS:HE3	36:5:661:G:N7	161.91	0.43
69:O3:66:VAL:HG21	36:5:3275:U:OP2	227.54	0.43
36:1:3276:G:O2'	53:M7:175:ARG:HD3	2.18	0.43
24:D2:81:VAL:HG13	24:D2:89:TRP:CD1	2.54	0.43
36:1:282:G:H2'	36:1:286:U:H5'	2.00	0.43
40:L3:97:ARG:NH1	36:5:3244:A:N1	247.12	0.43
61:N5:46:TYR:HE1	71:O5:78:LYS:HG3	2.29	0.43
46:L9:104:VAL:HG21	46:L9:113:GLU:HB2	2.00	0.43
1:2:30:G:H1'	1:2:597:G:N2	2.34	0.43
25:D3:14:LYS:HD2	25:D3:14:LYS:O	2.17	0.43
1:2:125:U:H5''	6:S4:148:ARG:NH1	2.33	0.43
36:5:244:G:H2'	36:5:245:U:H6	1.82	0.43
10:S8:29:LEU:HD23	10:S8:29:LEU:C	2.64	0.43
20:C8:45:LEU:HD12	20:C8:45:LEU:HA	1.63	0.43
36:1:2278:C:C2'	36:1:2279:A:H5''	2.48	0.43
36:5:3057:U:H5'	36:5:3086:A:N6	2.32	0.43
36:5:3384:U:C4	36:5:3385:U:C4	3.06	0.43
2:S0:117:GLU:OE1	4:S2:40:LYS:HG3	2.19	0.43
36:1:2623:G:H2'	36:1:2624:G:C8	2.54	0.43
4:S2:176:SER:HA	11:S9:53:ARG:NH1	3.16	0.43
11:S9:49:LEU:CD1	11:S9:53:ARG:HD3	2.48	0.43
36:5:975:C:C2	36:5:976:U:C5	3.07	0.43
2:S0:150:ASP:N	2:S0:150:ASP:OD2	2.40	0.43
36:5:407:A:O2'	36:5:408:A:H5'	2.18	0.43
69:O3:53:TYR:N	69:O3:53:TYR:CD1	3.13	0.43
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.42	0.43
36:5:190:U:C4	36:5:224:C:H1'	2.54	0.43
19:C7:33:ARG:HG3	34:SR:127:ARG:HH11	1.84	0.43
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	2.53	0.43
75:O9:2:ALA:HB1	75:O9:3:ALA:H	1.48	0.43
42:L5:40:HIS:NE2	42:L5:42:ALA:HB3	2.34	0.43
70:O4:26:PRO:HG3	36:5:1695:U:H1'	140.28	0.43
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.53	0.43
1:2:501:U:C2	1:2:502:U:C5	3.06	0.43
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.71	0.43
36:5:1658:G:C4	36:5:1796:G:C6	3.06	0.43
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.48	0.43
15:C3:65:VAL:C	15:C3:67:THR:H	3.85	0.43
1:2:385:A:H5''	10:S8:22:ARG:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:823:G:O6	1:2:849:C:N3	2.52	0.43
34:SR:161:LYS:O	34:SR:163:ASP:N	4.52	0.43
14:C2:30:VAL:O	14:C2:34:THR:HG23	2.18	0.43
4:S2:159:THR:OG1	4:S2:168:ARG:HB2	2.19	0.43
1:6:220:A:N6	1:6:832:U:O4	2.52	0.43
54:M8:157:PRO:C	54:M8:159:LYS:N	3.28	0.43
36:1:3263:G:C2	36:1:3264:G:C8	3.07	0.43
2:S0:167:LYS:HE3	2:S0:168:HIS:CE1	3.34	0.43
36:1:3342:A:H2'	36:1:3343:G:H5'	1.99	0.43
54:M8:71:LEU:CD2	54:M8:99:THR:HG21	2.47	0.43
41:L4:22:LEU:HA	41:L4:22:LEU:HD23	2.04	0.43
66:O0:69:TYR:N	66:O0:69:TYR:HD1	2.34	0.43
49:M3:21:ARG:HB2	49:M3:21:ARG:HE	1.78	0.43
15:C3:129:TYR:O	15:C3:134:VAL:HG13	2.19	0.43
1:6:1725:U:H2'	1:6:1726:G:O4'	2.18	0.43
45:L8:41:GLN:HE21	45:L8:44:ARG:HH12	1.66	0.43
61:N5:34:LEU:HD22	61:N5:35:PRO:HD2	1.99	0.43
1:6:996:U:H5''	1:6:996:U:C6	2.53	0.43
1:6:708:C:H2'	1:6:709:C:C1'	2.48	0.43
33:E1:131:PHE:HB2	1:6:1253:U:OP1	456.10	0.43
1:2:1266:U:H6	1:2:1266:U:O5'	2.02	0.43
36:5:2404:A:H2'	36:5:2404:A:N3	2.33	0.43
54:M8:57:ILE:HD13	54:M8:147:ARG:CZ	2.48	0.43
36:5:384:A:C6	36:5:385:A:C5	3.06	0.43
1:6:953:G:H2'	1:6:954:G:C8	2.53	0.43
55:M9:178:ALA:O	55:M9:181:ARG:HB3	2.17	0.43
36:1:2517:U:H2'	36:1:2518:C:H6	1.82	0.43
36:1:1478:C:H2'	36:1:1479:U:C6	2.54	0.43
1:6:137:U:H5''	1:6:137:U:C6	2.53	0.43
1:6:1032:G:H2'	1:6:1033:C:H6	1.84	0.43
36:1:2597:U:H2'	36:1:2598:G:O4'	2.19	0.43
36:1:1021:G:H1	36:1:1031:C:N4	2.16	0.43
36:5:1703:U:C4	36:5:1740:U:C2	3.06	0.43
36:1:3270:U:H5''	36:1:3271:G:C8	2.54	0.43
30:D8:32:PHE:HZ	30:D8:59:SER:HB3	7.69	0.43
57:N1:66:ASN:OD1	57:N1:67:VAL:N	2.96	0.43
76:Q0:89:TYR:HD2	76:Q0:89:TYR:N	2.23	0.43
11:S9:17:ARG:HA	11:S9:18:PRO:HD2	1.83	0.43
36:1:1293:U:C2'	36:1:1294:A:H5'	2.49	0.43
1:6:1013:A:C8	1:6:1014:G:C8	3.07	0.43
28:D6:86:VAL:HB	1:6:1795:U:OP1	341.93	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:538:A:N9	1:6:543:C:H5	2.15	0.43
36:1:2852:C:H42	47:M0:158:LYS:HZ1	1.66	0.43
41:L4:328:ASN:HA	41:L4:329:PRO:HD2	1.97	0.43
44:L7:130:ILE:O	44:L7:134:VAL:HG13	2.33	0.43
44:L7:240:VAL:C	44:L7:242:SER:H	2.22	0.43
51:M5:16:SER:OG	51:M5:18:VAL:HG13	2.77	0.43
10:S8:69:SER:HB2	13:C1:22:ASN:OD1	2.18	0.43
10:S8:27:PHE:HB3	10:S8:49:ARG:CZ	3.82	0.43
36:5:1426:C:C2	36:5:1427:U:C6	3.07	0.43
1:2:1400:A:N1	1:2:1401:A:C2	2.86	0.43
73:O7:25:ARG:HD3	75:O9:51:ILE:HD12	4.07	0.43
21:C9:10:ALA:O	21:C9:11:ALA:C	3.00	0.43
21:C9:118:PRO:O	21:C9:119:LYS:HB2	2.28	0.43
21:C9:118:PRO:C	21:C9:120:GLY:N	2.71	0.43
7:S5:105:GLY:O	7:S5:107:LYS:N	3.26	0.43
7:S5:208:SER:OG	7:S5:211:ILE:HB	2.18	0.43
7:S5:43:PHE:HE2	7:S5:118:LEU:HD13	3.16	0.43
7:S5:94:THR:HG22	7:S5:114:ILE:CG1	2.45	0.43
40:L3:312:VAL:HA	36:5:3378:C:O2'	213.55	0.43
40:L3:308:MET:HE3	40:L3:370:PHE:HB2	4.46	0.43
67:O1:87:ASN:HA	67:O1:88:PRO:HD3	2.32	0.43
61:N5:111:ASN:O	61:N5:122:ALA:HA	2.92	0.43
61:N5:126:LEU:H	61:N5:126:LEU:HG	2.42	0.43
61:N5:79:GLY:O	61:N5:81:ILE:HD12	2.89	0.43
42:L5:194:LEU:HD22	42:L5:198:TYR:HD2	2.89	0.43
42:L5:236:LEU:O	42:L5:237:GLU:C	2.88	0.43
42:L5:51:LEU:HA	42:L5:64:ILE:HD12	2.01	0.43
12:C0:55:VAL:HB	12:C0:68:LEU:HA	1.99	0.43
12:C0:54:TYR:HA	12:C0:71:GLU:HG2	2.00	0.43
21:C9:76:LEU:HD23	21:C9:76:LEU:HA	1.41	0.43
1:2:1019:A:OP2	15:C3:107:LYS:HE3	2.18	0.43
29:D7:47:PHE:HE1	29:D7:49:HIS:HB2	1.83	0.43
36:5:83:U:H4'	36:5:700:C:O2'	2.19	0.43
36:1:1635:G:N2	36:1:1638:A:OP2	2.51	0.43
1:6:898:A:N1	1:6:911:U:O2'	2.36	0.43
1:6:894:U:C2	1:6:919:A:N1	2.87	0.43
23:D1:38:LYS:NZ	23:D1:50:TYR:O	2.42	0.43
2:S0:160:ILE:HA	2:S0:161:PRO:HD2	1.77	0.43
2:S0:185:ARG:H	23:D1:44:ARG:CA	2.26	0.43
2:S0:50:VAL:HA	2:S0:53:THR:HB	1.99	0.43
2:S0:56:LYS:HD3	2:S0:56:LYS:HA	1.93	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	3.18	0.43
40:L3:25:ILE:CG2	40:L3:272:TYR:OH	2.67	0.43
36:5:678:G:H2'	36:5:679:U:C6	2.53	0.43
48:M1:90:GLN:HA	48:M1:170:ASP:HB2	2.01	0.43
66:O0:24:THR:HG22	66:O0:91:SER:HB3	2.00	0.43
68:O2:126:LEU:HD13	68:O2:127:ALA:O	7.57	0.43
38:4:81:U:O2	38:4:82:U:H3'	2.19	0.43
1:6:1648:A:H2'	1:6:1649:G:C8	2.53	0.43
1:6:71:A:H2'	1:6:72:A:H4'	2.00	0.43
36:1:3182:G:H8	36:1:3182:G:O5'	2.01	0.43
52:M6:36:VAL:HB	52:M6:108:ILE:HG12	2.00	0.43
60:N4:21:PHE:C	60:N4:21:PHE:CD1	2.91	0.43
69:O3:8:TYR:HB2	69:O3:100:ILE:O	2.19	0.43
69:O3:85:PHE:CD2	69:O3:89:LEU:HG	3.09	0.43
1:2:1156:C:O2'	1:2:1157:A:H5'	2.18	0.43
36:1:2941:A:H8	36:1:2941:A:OP2	2.00	0.43
18:C6:117:LEU:HA	18:C6:117:LEU:HD13	1.61	0.43
34:SR:112:SER:O	34:SR:124:SER:HA	2.94	0.43
34:SR:232:TYR:CE1	34:SR:234:LEU:HD11	2.54	0.43
34:SR:29:GLN:HG3	34:SR:32:LEU:HB2	3.97	0.43
72:O6:79:SER:HB3	72:O6:82:ARG:CB	6.13	0.43
39:L2:149:ARG:HH22	39:L2:253:GLN:HA	1.83	0.43
78:Q2:43:TYR:CE1	78:Q2:47:GLN:NE2	3.75	0.43
1:2:1170:G:N7	1:2:1574:G:C8	2.87	0.43
1:2:1573:A:O4'	1:2:1574:G:C2	2.71	0.43
1:2:1292:G:H2'	1:2:1293:U:C6	2.54	0.43
52:M6:34:VAL:HG21	52:M6:112:TYR:CE1	2.54	0.43
8:S6:64:LYS:NZ	8:S6:81:VAL:HG22	2.33	0.43
36:5:1807:G:C5	36:5:1808:G:C6	3.07	0.43
36:1:1099:A:C5	36:1:1100:U:C5	3.07	0.43
58:N2:53:ALA:HB1	58:N2:68:THR:HG22	2.00	0.43
45:L8:193:LYS:NZ	36:5:144:A:OP1	112.96	0.43
49:M3:78:ALA:HB1	49:M3:109:PHE:HE2	1.82	0.43
1:2:783:G:HO2'	1:2:784:C:H6	1.58	0.43
71:O5:51:ILE:O	71:O5:55:LEU:HB2	2.19	0.43
45:L8:134:TYR:CE1	36:5:146:U:C2	106.87	0.43
45:L8:160:ILE:HD13	45:L8:164:VAL:HG12	5.63	0.43
1:2:592:A:O2'	1:2:596:C:OP1	2.37	0.43
40:L3:196:ARG:C	40:L3:198:HIS:N	2.83	0.43
25:D3:27:ASN:OD1	25:D3:27:ASN:C	3.05	0.43
76:Q0:128:LYS:H	76:Q0:128:LYS:HG3	4.20	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2847:A:P	76:Q0:97:ARG:HH21	2.42	0.43
43:L6:35:VAL:O	43:L6:36:PRO:C	2.57	0.43
36:5:2133:U:H2'	36:5:2134:G:H5'	2.00	0.43
64:N8:100:PRO:HG2	64:N8:123:VAL:HG13	3.37	0.43
67:O1:72:ARG:NH1	67:O1:105:GLN:O	2.91	0.43
1:6:103:A:H2'	1:6:103:A:H8	1.73	0.43
11:S9:49:LEU:HD22	11:S9:49:LEU:O	2.19	0.43
1:6:636:A:H2	1:6:861:U:C2	2.36	0.43
36:1:2549:G:C8	45:L8:33:ASN:ND2	2.86	0.43
9:S7:15:GLU:O	9:S7:18:LEU:HB2	2.19	0.43
24:D2:38:LEU:HB3	24:D2:50:PHE:CE1	2.54	0.43
25:D3:135:LEU:CD2	25:D3:142:LYS:HB2	2.48	0.43
36:1:3111:U:C2	36:1:3112:G:C8	3.07	0.43
46:L9:37:ASN:C	46:L9:37:ASN:OD1	2.57	0.43
36:5:2787:G:OP2	87:5:4029:OHX:N6	2.52	0.43
74:O8:19:ASP:OD1	74:O8:48:SER:N	4.21	0.43
40:L3:238:LEU:HB2	40:L3:246:LEU:HB2	2.99	0.43
36:1:1753:G:N2	36:1:1754:G:H1'	2.34	0.43
36:5:2719:U:H2'	36:5:2720:G:H8	1.83	0.43
65:N9:35:VAL:O	65:N9:37:PRO:HD3	2.19	0.43
41:L4:51:ALA:HB3	38:8:27:U:H4'	109.98	0.43
36:1:766:U:C2	36:1:767:U:C4	3.05	0.43
36:1:1807:G:C5	36:1:1808:G:C6	3.07	0.43
59:N3:54:LEU:HD23	59:N3:54:LEU:O	2.18	0.43
56:N0:155:ARG:HG2	56:N0:172:TYR:CD1	2.53	0.43
44:L7:110:ARG:CZ	54:M8:3:ILE:HD12	3.31	0.43
10:S8:9:HIS:C	10:S8:9:HIS:ND1	2.93	0.43
1:6:1398:U:C3'	1:6:1399:C:H4'	2.45	0.43
1:6:1218:G:O2'	1:6:1219:A:OP2	2.32	0.43
71:O5:16:GLN:O	71:O5:19:SER:N	2.50	0.43
11:S9:30:LEU:HD23	11:S9:30:LEU:HA	1.85	0.43
22:D0:16:GLN:HB3	22:D0:17:GLN:H	1.46	0.43
36:1:1158:A:O5'	36:1:1158:A:C8	2.66	0.43
1:6:4:C:H2'	1:6:5:U:H6	1.83	0.43
36:1:1094:U:H4'	36:1:1096:U:OP1	2.18	0.43
36:5:2441:A:H61	36:5:2507:C:N4	2.15	0.43
73:O7:19:CYS:HB3	73:O7:22:CYS:H	1.83	0.43
36:1:2107:A:C6	36:1:2108:C:C4	3.07	0.43
36:5:1944:U:O2	36:5:1945:A:C8	2.72	0.43
1:2:344:A:C4	1:2:345:U:C5	3.07	0.43
26:D4:58:PHE:HD1	26:D4:90:ARG:HD3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1246:G:C8	36:5:1264:G:C6	3.06	0.43
19:C7:74:GLN:HA	19:C7:77:GLU:OE1	6.41	0.43
36:5:2673:A:N6	36:5:2681:U:H3	2.16	0.43
36:1:1263:A:H2'	36:1:1263:A:N3	2.34	0.43
36:1:3015:G:C5	36:1:3040:A:C2	3.07	0.43
68:O2:47:ARG:NH1	36:5:634:C:O3'	218.64	0.43
36:1:1131:G:O2'	36:1:2373:A:N1	2.46	0.43
36:1:2373:A:N3	36:1:2824:G:O2'	2.40	0.43
48:M1:116:TYR:CE1	48:M1:118:PRO:HA	2.54	0.43
51:M5:108:ARG:HG3	51:M5:108:ARG:NH1	2.33	0.43
11:S9:40:LYS:O	11:S9:43:TYR:HB2	2.18	0.43
1:2:1540:G:C6	1:2:1541:G:C4	3.06	0.43
36:1:2952:G:C6	36:1:2953:U:C2	3.06	0.43
36:5:1550:C:H2'	36:5:1551:C:O4'	2.18	0.43
36:1:884:A:OP2	36:1:2139:A:N6	2.52	0.43
1:6:775:G:C2	1:6:786:C:N4	2.86	0.43
36:5:1157:G:N2	36:5:1158:A:H1'	2.34	0.43
36:1:2670:G:H2'	36:1:2671:A:O4'	2.17	0.43
36:5:2951:G:O2'	36:5:2952:G:H5'	2.19	0.43
1:6:1195:C:O5'	1:6:1195:C:H6	2.01	0.43
36:1:2842:U:O2'	36:1:2843:U:OP1	2.33	0.43
5:S3:115:ILE:HG13	5:S3:115:ILE:H	4.06	0.43
58:N2:84:LEU:HA	58:N2:84:LEU:HD23	1.89	0.43
36:5:1728:G:N3	36:5:1728:G:H5'	2.33	0.43
40:L3:5:LYS:O	40:L3:5:LYS:HG2	2.18	0.43
71:O5:17:LEU:HA	71:O5:20:GLN:HB2	3.36	0.43
14:C2:108:ARG:O	14:C2:110:ALA:N	2.80	0.43
36:1:2137:U:C6	36:1:2141:U:O4	2.71	0.43
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.16	0.43
1:2:1645:G:C2	1:2:1757:G:C5	3.06	0.43
36:1:1306:G:C6	52:M6:62:THR:HA	2.53	0.43
1:6:1793:G:H1'	1:6:1794:A:H2'	1.99	0.43
1:6:992:A:OP2	1:6:1011:G:N1	2.42	0.43
11:S9:142:ASN:C	11:S9:143:ILE:HG13	2.39	0.43
36:5:2835:U:C2'	36:5:2836:C:H5'	2.48	0.43
47:M0:74:LYS:HB2	47:M0:74:LYS:HE3	1.98	0.43
47:M0:87:LEU:HD23	47:M0:138:VAL:CG2	4.68	0.43
65:N9:18:ARG:HD2	65:N9:18:ARG:HA	1.72	0.43
36:1:1170:A:H2'	36:1:1171:G:O4'	2.18	0.43
37:3:86:U:H3'	44:L7:218:ARG:NH2	2.34	0.43
36:1:115:A:C4	36:1:265:A:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:188:ARG:NE	41:L4:197:ARG:O	2.67	0.43
43:L6:56:LYS:NZ	43:L6:98:VAL:O	3.35	0.43
19:C7:25:THR:C	19:C7:27:ASP:H	2.22	0.43
52:M6:130:LYS:HB2	36:5:1316:C:C6	296.45	0.43
36:1:929:A:H2'	36:1:930:U:O4'	2.17	0.43
7:S5:123:VAL:CG1	27:D5:59:TYR:HB2	5.11	0.43
27:D5:61:SER:OG	27:D5:63:SER:OG	3.33	0.43
7:S5:51:VAL:HG13	7:S5:131:GLN:HA	2.81	0.43
7:S5:26:ALA:HB2	18:C6:26:LYS:O	4.54	0.43
67:O1:46:THR:HG21	67:O1:49:VAL:HG22	2.90	0.43
38:4:46:G:C6	38:4:47:C:N4	2.86	0.43
36:1:2702:A:H4'	36:1:2704:A:O4'	2.18	0.43
42:L5:148:ILE:CG1	42:L5:159:VAL:HG21	2.49	0.43
1:6:1504:G:N1	1:6:1505:A:C2	2.86	0.43
17:C5:108:ARG:N	17:C5:111:MET:HG3	2.28	0.43
17:C5:68:PRO:HG2	17:C5:71:GLU:OE2	2.49	0.43
31:D9:19:ARG:HD3	31:D9:32:ARG:HD2	2.80	0.43
31:D9:22:ARG:HG3	31:D9:37:ASN:O	2.18	0.43
24:D2:57:ARG:N	24:D2:57:ARG:HD2	2.33	0.43
1:6:1654:G:O2'	1:6:1746:A:N6	2.52	0.43
1:6:1784:C:H2'	1:6:1785:U:C6	2.52	0.43
15:C3:115:LEU:CD2	15:C3:119:GLU:HG3	2.43	0.43
3:S1:33:LYS:HE2	3:S1:33:LYS:HB3	4.48	0.43
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	4.77	0.43
1:6:14:C:O2	1:6:1141:G:C2	2.72	0.43
4:S2:141:ARG:NH2	23:D1:10:GLU:OE2	2.52	0.43
4:S2:61:LEU:HG	4:S2:61:LEU:H	3.30	0.43
1:6:1698:G:N2	1:6:1703:C:N4	2.66	0.43
4:S2:152:HIS:HD1	4:S2:174:ARG:HB3	4.25	0.43
63:N7:129:TRP:O	63:N7:131:PHE:N	2.87	0.43
43:L6:7:PRO:HD2	43:L6:10:TYR:OH	3.27	0.43
29:D7:69:GLY:HA2	1:6:957:G:O2'	337.07	0.43
55:M9:38:ARG:HB2	36:5:1602:A:OP2	101.06	0.43
38:4:84:C:H4'	38:4:85:G:C5	2.54	0.43
62:N6:30:LEU:C	62:N6:32:SER:H	2.32	0.43
14:C2:35:ALA:HB1	14:C2:40:GLY:O	2.82	0.43
35:SM:80:ALA:HB1	1:6:1178:G:H21	334.62	0.43
1:6:1183:A:C6	1:6:1184:A:N1	2.87	0.43
6:S4:129:VAL:CG1	6:S4:156:VAL:HG22	3.04	0.43
57:N1:9:SER:O	57:N1:10:ARG:HB2	2.19	0.43
40:L3:57:VAL:HG22	40:L3:73:VAL:HB	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3215:A:H62	50:M4:122:VAL:HG13	1.84	0.43
9:S7:89:HIS:CE1	9:S7:168:SER:HG	3.55	0.43
9:S7:166:LEU:C	9:S7:168:SER:H	2.22	0.43
36:1:31:C:H2'	36:1:32:U:O4'	2.18	0.43
41:L4:60:THR:HG23	36:5:364:G:OP1	128.61	0.43
72:O6:70:ARG:O	72:O6:73:ALA:N	2.48	0.43
66:O0:100:ILE:HD12	66:O0:101:LEU:N	2.34	0.43
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.29	0.43
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	2.01	0.43
36:5:938:C:OP1	36:5:963:G:H5'	2.18	0.43
36:5:812:G:H1	36:5:928:C:N4	2.16	0.43
49:M3:50:PRO:CG	71:O5:118:ILE:HD11	2.43	0.43
36:5:61:A:N6	36:5:62:A:N1	2.67	0.43
26:D4:26:ASP:OD1	26:D4:68:LYS:HE3	2.19	0.43
26:D4:94:TYR:HB2	26:D4:96:LEU:HG	2.43	0.43
1:6:500:C:O2'	1:6:501:U:O5'	2.37	0.43
36:5:1754:G:H5''	36:5:1755:C:OP2	2.19	0.43
74:O8:24:THR:HG23	74:O8:44:LYS:CB	3.82	0.43
61:N5:58:ASP:OD2	61:N5:61:LYS:N	2.83	0.43
79:Q3:14:TYR:O	79:Q3:17:ARG:HB2	2.18	0.43
79:Q3:21:SER:O	79:Q3:24:ARG:HB3	3.00	0.43
36:5:18:G:C2	38:8:142:C:N3	2.87	0.43
38:4:36:G:N7	71:O5:86:ARG:HG3	2.34	0.43
36:5:2254:U:H2'	36:5:2261:G:N2	2.33	0.43
1:6:913:G:H8	36:5:2205:U:C4	2.36	0.43
45:L8:164:VAL:HG22	45:L8:164:VAL:H	1.52	0.43
40:L3:194:TRP:NE1	40:L3:198:HIS:CE1	3.10	0.43
4:S2:122:ALA:HA	4:S2:125:ILE:HD11	2.00	0.43
1:2:812:A:C4	1:2:859:A:C2	3.06	0.43
36:5:913:A:H2	36:5:2134:G:N3	2.16	0.43
36:5:2959:C:H2'	36:5:2960:C:H5'	2.01	0.43
48:M1:135:GLY:HA2	37:7:28:C:O3'	315.86	0.43
52:M6:74:ARG:O	52:M6:142:SER:OG	2.30	0.43
47:M0:4:ARG:CZ	47:M0:99:ILE:HG22	6.51	0.43
21:C9:74:GLY:O	21:C9:75:LYS:C	2.88	0.43
1:6:1530:C:H2'	1:6:1531:G:O5'	2.19	0.43
25:D3:110:LYS:O	25:D3:110:LYS:HG2	4.62	0.43
1:6:370:A:H5''	1:6:371:G:OP2	2.18	0.43
66:O0:51:LEU:HD11	70:O4:91:ARG:HA	2.50	0.43
87:1:3952:OHX:N4	87:1:4037:OHX:N3	2.67	0.43
36:5:1614:C:H6	36:5:1614:C:O5'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:91:G:C5	1:2:92:A:N7	2.86	0.43
1:2:57:G:C4	1:2:91:G:N2	2.86	0.43
1:2:189:C:C2'	1:2:190:C:H5'	2.48	0.43
1:2:186:C:H42	1:2:199:G:H1	1.66	0.43
10:S8:138:ASN:OD1	10:S8:139:ALA:N	4.86	0.43
42:L5:113:LEU:HB3	42:L5:115:LEU:CD2	2.49	0.43
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.86	0.43
8:S6:1:MET:H1	8:S6:1:MET:HE3	5.81	0.43
36:5:854:G:H2'	36:5:854:G:N3	2.34	0.43
69:O3:13:HIS:O	69:O3:95:GLY:N	2.52	0.43
36:1:732:C:C4	36:1:733:G:C6	3.07	0.43
42:L5:287:ALA:HA	42:L5:290:ILE:CD1	2.48	0.43
14:C2:30:VAL:HB	14:C2:132:GLU:OE1	2.19	0.43
47:M0:167:LEU:H	47:M0:167:LEU:HD23	3.85	0.43
22:D0:52:LYS:HD2	1:6:1345:A:OP2	470.59	0.43
18:C6:73:GLY:O	18:C6:77:GLN:HG3	2.19	0.43
66:O0:53:LYS:O	66:O0:57:GLU:N	2.49	0.43
36:5:1897:G:H2'	36:5:1898:G:O4'	2.18	0.43
36:1:1411:C:P	68:O2:98:HIS:HB3	2.58	0.43
36:5:3146:G:C2'	36:5:3147:G:O5'	2.66	0.43
36:1:1346:G:C2	36:1:1359:C:O2	2.72	0.43
36:1:2268:U:O5'	36:1:2268:U:H6	2.02	0.43
36:5:2678:A:N7	36:5:2679:A:N7	2.66	0.43
36:5:891:G:C5	36:5:892:U:C4	3.07	0.43
36:1:1454:A:C6	36:1:1879:A:C4	3.07	0.43
36:1:923:C:H2'	36:1:923:C:O5'	2.19	0.43
36:5:327:A:H2'	36:5:328:U:C6	2.53	0.43
3:S1:146:GLN:NE2	1:6:1065:A:N3	341.68	0.43
21:C9:52:GLY:HA2	21:C9:55:TYR:CD2	2.54	0.43
36:5:1259:A:N7	36:5:1260:A:C6	2.87	0.43
36:5:384:A:H2'	36:5:385:A:O4'	2.19	0.43
3:S1:22:ASP:HA	3:S1:23:PRO:HD3	2.00	0.43
17:C5:73:PRO:HG2	17:C5:93:VAL:HG22	4.10	0.43
87:1:3972:OHX:N6	87:1:4155:OHX:N2	2.66	0.43
1:2:296:U:O2'	1:2:297:U:H5'	2.18	0.43
36:5:1756:C:H42	36:5:1769:G:H1	1.66	0.43
4:S2:146:THR:C	4:S2:148:LEU:H	2.82	0.43
36:5:1310:G:N2	36:5:1311:G:C4	2.87	0.43
36:1:2136:C:H2'	36:1:2142:A:H62	1.84	0.43
36:1:3270:U:H3'	36:1:3271:G:C5'	2.49	0.43
36:1:2972:G:N2	36:1:2973:G:C4	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:647:G:N2	1:2:688:G:C4	2.86	0.43
52:M6:148:LYS:O	52:M6:150:GLU:N	2.40	0.43
59:N3:16:GLY:O	59:N3:18:PRO:HD3	2.27	0.43
1:6:694:U:H3'	1:6:695:U:O2	2.18	0.43
1:6:101:U:H5''	1:6:102:U:OP2	2.18	0.43
36:5:2277:C:H6	36:5:2277:C:O5'	2.01	0.43
49:M3:53:LEU:HD23	49:M3:53:LEU:N	2.34	0.43
1:6:63:G:C6	1:6:64:U:C5	3.07	0.43
1:2:743:U:OP1	9:S7:108:GLN:N	2.37	0.43
25:D3:126:LYS:HB2	25:D3:126:LYS:HE3	3.17	0.43
36:1:2353:G:O2'	36:1:2354:C:H5'	2.18	0.43
53:M7:119:VAL:HG23	53:M7:146:ILE:HG12	2.00	0.43
28:D6:22:ARG:HE	28:D6:22:ARG:HB3	2.77	0.43
36:1:2836:C:C5	36:1:2852:C:N4	2.83	0.43
47:M0:33:ILE:HD11	47:M0:36:LEU:HD21	1.99	0.43
45:L8:242:ALA:O	45:L8:245:LYS:HB3	2.19	0.43
10:S8:83:TYR:HE2	13:C1:11:ARG:NH2	4.16	0.43
13:C1:45:PRO:HD2	13:C1:60:PHE:CE1	4.18	0.43
10:S8:101:ILE:HD12	10:S8:101:ILE:HG23	2.04	0.43
36:1:1393:A:N3	36:1:1419:A:O2'	2.47	0.43
41:L4:193:LYS:HA	41:L4:198:ARG:HA	2.24	0.43
19:C7:50:ILE:O	19:C7:51:ALA:C	2.86	0.43
36:5:817:A:H3'	36:5:818:C:H6	1.84	0.43
1:2:1358:G:H2'	1:2:1359:C:H6	1.80	0.43
7:S5:113:ILE:HG12	27:D5:97:LYS:NZ	2.33	0.43
30:D8:25:VAL:HG12	30:D8:43:ASN:HB3	2.01	0.43
30:D8:64:ARG:O	30:D8:66:LEU:HD12	5.75	0.43
1:2:1281:G:H2'	1:2:1282:U:H6	1.84	0.43
1:6:1279:C:H42	1:6:1280:C:N4	2.16	0.43
31:D9:38:ILE:CG2	31:D9:42:CYS:HB3	3.20	0.43
48:M1:109:HIS:CD2	48:M1:123:PHE:H	2.26	0.43
5:S3:90:ARG:HB3	5:S3:91:VAL:H	2.29	0.43
1:6:865:A:H2'	1:6:866:G:H8	1.83	0.43
15:C3:92:ILE:HD12	15:C3:92:ILE:H	4.00	0.43
64:N8:64:GLN:HB3	64:N8:67:HIS:CE1	4.04	0.43
1:6:926:A:H1'	1:6:988:A:C2	2.54	0.43
16:C4:117:ASP:OD2	16:C4:119:THR:HG22	4.01	0.43
16:C4:25:ASP:OD1	16:C4:54:GLU:HG2	2.19	0.43
3:S1:131:ASP:HB3	3:S1:180:THR:CG2	2.49	0.43
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.22	0.43
38:4:85:G:O2'	38:4:86:U:O5'	2.20	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1321:G:O2'	56:N0:111:ALA:HB1	2.19	0.43
56:N0:77:VAL:O	56:N0:91:TYR:HA	2.19	0.43
1:6:72:A:C3'	1:6:73:U:O4'	2.67	0.43
56:N0:53:LYS:C	56:N0:55:SER:N	3.03	0.43
57:N1:34:TYR:CD2	57:N1:34:TYR:N	2.86	0.43
69:O3:42:GLN:O	69:O3:45:LEU:HB2	2.18	0.43
18:C6:104:GLU:O	18:C6:108:ALA:HB2	4.67	0.43
52:M6:28:LEU:HB3	52:M6:94:ARG:HH21	1.84	0.43
40:L3:106:TRP:CD1	40:L3:106:TRP:N	2.86	0.43
24:D2:123:GLY:HA2	1:6:748:U:H4'	365.72	0.43
36:1:1686:U:H5''	58:N2:42:LYS:NZ	2.33	0.43
26:D4:9:THR:HA	26:D4:24:VAL:O	2.58	0.43
36:5:2735:U:H2'	36:5:2736:A:O4'	2.19	0.43
38:4:117:C:H2'	38:4:118:C:H6	1.83	0.43
61:N5:45:LYS:HB3	36:5:17:G:OP1	84.59	0.43
46:L9:103:ILE:HD11	46:L9:134:ILE:HB	2.01	0.43
46:L9:113:GLU:OE2	46:L9:115:ARG:NH2	2.77	0.43
36:5:2649:A:H2'	36:5:2650:U:H5'	2.00	0.43
1:2:634:G:N3	1:2:966:A:C2	2.86	0.43
42:L5:153:THR:HG22	42:L5:179:ARG:NH1	4.27	0.43
25:D3:24:TRP:HE3	25:D3:30:LYS:CD	2.26	0.43
36:5:2971:A:C2'	36:5:2971:A:N3	2.82	0.43
36:5:1700:G:H2'	36:5:1701:C:C6	2.54	0.43
44:L7:26:VAL:HG23	44:L7:27:ALA:H	1.84	0.43
70:O4:20:ILE:HD11	70:O4:34:HIS:CE1	2.54	0.43
64:N8:121:VAL:HA	64:N8:122:PRO:HD3	2.16	0.43
64:N8:95:SER:O	64:N8:99:ALA:HB2	3.58	0.43
31:D9:26:SER:C	31:D9:28:THR:N	2.66	0.43
36:1:2159:U:H6	36:1:2159:U:O2'	1.99	0.43
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	2.00	0.43
33:E1:135:HIS:HB3	1:6:1250:U:H2'	432.58	0.43
36:5:732:C:C2	36:5:733:G:C8	3.07	0.43
34:SR:127:ARG:O	34:SR:129:LYS:N	2.49	0.43
46:L9:38:LEU:C	46:L9:40:HIS:H	2.22	0.43
46:L9:68:LEU:HD23	46:L9:68:LEU:HA	1.74	0.43
57:N1:122:GLN:HB3	57:N1:123:GLY:H	1.61	0.43
36:5:982:C:C2	36:5:1102:A:C2	3.07	0.43
36:5:981:U:H2'	36:5:982:C:C6	2.54	0.43
36:1:2294:U:O3'	59:N3:63:LYS:NZ	2.48	0.43
40:L3:33:PRO:HG2	40:L3:340:LYS:HB2	2.00	0.43
38:4:10:A:C5	38:4:11:C:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:155:ARG:HD3	56:N0:172:TYR:CD1	4.25	0.43
68:O2:55:ILE:HB	36:5:947:G:H5'	187.68	0.43
8:S6:26:VAL:HG22	8:S6:40:ALA:HB1	2.63	0.43
36:5:2881:C:H42	36:5:2943:G:H1	1.66	0.43
27:D5:49:ARG:HD2	27:D5:53:GLU:OE1	3.76	0.43
41:L4:316:ASN:HA	41:L4:317:PRO:HD2	2.87	0.43
42:L5:290:ILE:HG12	47:M0:206:LEU:HD11	5.73	0.43
1:2:852:C:H2'	1:2:853:G:O4'	2.18	0.43
36:5:1722:U:C5	36:5:1723:A:N7	2.87	0.43
36:5:1465:A:N6	36:5:1466:G:C2	2.87	0.43
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.19	0.43
45:L8:90:THR:HG22	45:L8:214:LEU:HD21	4.15	0.43
36:1:2649:A:C2'	36:1:2650:U:H5'	2.48	0.43
72:O6:33:ALA:O	72:O6:34:SER:OG	2.32	0.43
9:S7:173:TYR:CZ	9:S7:181:ILE:HD11	4.18	0.43
8:S6:212:LEU:O	8:S6:215:ARG:HB2	3.60	0.43
36:5:167:U:H2'	36:5:168:U:H6	1.83	0.43
41:L4:307:GLN:OE1	36:5:1346:G:H1'	203.35	0.43
1:6:1758:U:H2'	1:6:1759:C:C6	2.53	0.43
1:6:767:U:O2	1:6:767:U:O4'	2.36	0.43
36:1:592:A:H5"	43:L6:19:LYS:HG3	2.00	0.43
70:O4:66:SER:O	70:O4:69:HIS:N	2.84	0.43
13:C1:27:THR:HG21	13:C1:29:LYS:NZ	2.33	0.43
36:1:3133:C:H2'	36:1:3134:A:O4'	2.19	0.43
1:2:1036:A:H1'	24:D2:9:ASP:OD1	2.19	0.43
36:5:2634:U:C2	36:5:2645:G:C6	3.06	0.43
36:5:3145:C:O2'	36:5:3146:G:H5'	2.18	0.43
36:5:1087:G:C2'	36:5:1088:U:H5'	2.49	0.43
11:S9:4:ALA:HA	11:S9:5:PRO:HD3	1.86	0.43
36:1:510:G:C5	36:1:511:G:N7	2.86	0.43
36:1:1070:U:O2	36:1:1070:U:H2'	2.18	0.43
1:6:23:G:N2	1:6:367:A:O2'	2.50	0.43
36:5:2886:U:C6	36:5:2911:A:N7	2.87	0.43
36:1:1074:U:O2'	36:1:1075:A:H2'	2.19	0.43
1:6:128:U:H5"	1:6:129:U:C5	2.54	0.43
36:5:1230:G:H1	36:5:1279:C:N4	2.17	0.43
11:S9:175:ARG:HD3	11:S9:179:ARG:NH2	2.34	0.43
34:SR:126:SER:OG	34:SR:128:ASP:OD1	2.88	0.43
1:2:1663:G:C2	1:2:1739:C:C2	3.07	0.43
1:2:629:U:H1'	1:2:971:A:C2	2.54	0.43
50:M4:48:GLY:N	50:M4:53:VAL:HG22	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3247:G:C2	36:1:3248:C:C2	3.07	0.43
36:5:3372:A:C5	36:5:3373:U:C5	3.06	0.43
4:S2:181:SER:OG	4:S2:183:ALA:HB3	3.87	0.43
9:S7:95:GLU:OE1	9:S7:97:ARG:NH1	10.94	0.43
36:5:1148:G:C2	36:5:1156:C:N3	2.86	0.43
78:Q2:4:VAL:HA	78:Q2:5:PRO:HD2	2.23	0.43
36:5:2287:C:C2	36:5:2298:U:O4'	2.72	0.43
1:6:205:U:O4	87:6:2134:OHX:N6	2.52	0.43
46:L9:139:ASN:CG	46:L9:140:VAL:N	2.72	0.43
40:L3:103:THR:HG22	40:L3:104:THR:N	2.34	0.43
36:1:1257:C:N3	36:1:1258:U:C2	2.86	0.43
1:2:970:A:H5''	1:2:970:A:H8	1.83	0.43
1:2:239:C:H6	1:2:239:C:H2'	1.56	0.43
1:2:1087:A:C6	1:2:1088:A:C6	3.06	0.43
43:L6:103:VAL:O	43:L6:105:TYR:N	2.52	0.43
25:D3:73:ARG:HG2	25:D3:84:THR:HB	2.53	0.43
1:2:443:C:OP2	26:D4:105:ARG:HB2	2.19	0.43
36:1:1009:A:H2'	36:1:1010:G:C1'	2.49	0.43
47:M0:84:ALA:O	47:M0:140:THR:HB	3.19	0.43
44:L7:160:ARG:HD2	44:L7:203:TRP:CD2	2.59	0.43
51:M5:6:TYR:CD2	72:O6:40:VAL:HG13	2.54	0.43
10:S8:48:THR:HG22	1:6:333:A:OP1	297.82	0.43
36:1:1388:U:O4	41:L4:186:LYS:HD3	2.18	0.43
41:L4:190:GLY:C	41:L4:192:GLY:N	2.72	0.43
41:L4:258:LEU:C	41:L4:260:GLN:H	2.91	0.43
43:L6:54:TYR:O	43:L6:55:LEU:HD23	2.20	0.43
1:6:1317:C:O2	1:6:1400:A:C2	2.72	0.43
52:M6:128:ARG:CG	52:M6:128:ARG:HH11	3.88	0.43
1:2:1165:G:N2	1:2:1581:C:O2	2.51	0.43
1:6:1547:A:N6	1:6:1564:U:H3	2.17	0.43
18:C6:36:ILE:C	18:C6:38:LEU:N	2.74	0.43
18:C6:59:LYS:HE2	18:C6:59:LYS:HB2	1.89	0.43
18:C6:60:PHE:CZ	18:C6:89:LEU:HD22	2.53	0.43
21:C9:37:VAL:HG12	21:C9:38:LYS:N	3.60	0.43
27:D5:66:VAL:HA	27:D5:70:LYS:O	2.18	0.43
30:D8:10:ALA:HB2	30:D8:56:LEU:HD11	2.01	0.43
7:S5:93:LEU:HD13	7:S5:114:ILE:HD11	4.14	0.43
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.18	0.43
7:S5:197:GLU:HA	7:S5:200:ASN:HB2	3.12	0.43
4:S2:203:LYS:C	4:S2:205:ARG:N	2.98	0.43
40:L3:308:MET:O	40:L3:363:SER:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:17:HIS:C	67:O1:19:ARG:N	3.08	0.43
61:N5:62:VAL:O	61:N5:86:VAL:HG12	5.54	0.43
61:N5:91:ASN:O	61:N5:94:GLN:N	2.51	0.43
42:L5:53:VAL:CG1	42:L5:159:VAL:HG23	3.12	0.43
42:L5:99:TYR:CE2	42:L5:165:GLY:HA2	2.62	0.43
1:6:1203:A:OP2	87:6:2135:OHX:N4	2.52	0.43
12:C0:64:TYR:N	12:C0:64:TYR:CD2	3.28	0.43
12:C0:64:TYR:HB3	12:C0:66:TYR:CE2	2.53	0.43
17:C5:111:MET:HE2	20:C8:119:ILE:HG22	2.00	0.43
17:C5:42:ARG:H	17:C5:42:ARG:HG3	1.58	0.43
20:C8:114:GLU:O	20:C8:115:ARG:C	3.18	0.43
31:D9:25:SER:O	31:D9:27:HIS:N	2.52	0.43
5:S3:61:GLU:CB	5:S3:64:ARG:HE	4.15	0.43
87:2:2032:OHX:N3	15:C3:12:SER:O	2.51	0.43
15:C3:98:VAL:HG21	15:C3:118:ILE:HD13	1.99	0.43
29:D7:47:PHE:HD1	29:D7:49:HIS:O	2.01	0.43
1:2:310:C:C5	1:2:311:U:C5	3.06	0.43
4:S2:226:THR:HG22	24:D2:99:PHE:CZ	2.66	0.43
4:S2:140:ARG:HH22	4:S2:228:ASN:CB	4.48	0.43
36:1:1722:U:C2'	36:1:1723:A:H5'	2.49	0.43
36:1:1735:G:O6	87:1:3916:OHX:N1	2.52	0.43
63:N7:73:LYS:NZ	36:5:1637:A:P	210.01	0.43
66:O0:36:GLN:HB2	66:O0:38:LYS:HG3	2.00	0.43
55:M9:14:VAL:HB	55:M9:15:VAL:H	1.65	0.43
1:6:1179:G:C6	1:6:1180:C:C4	3.07	0.43
6:S4:142:HIS:CG	6:S4:143:ASP:H	3.67	0.43
36:5:533:A:H4'	36:5:534:U:OP1	2.19	0.43
56:N0:81:TYR:HA	56:N0:120:SER:O	2.19	0.43
57:N1:15:PHE:CD1	57:N1:52:MET:HE1	2.54	0.43
38:4:54:A:C6	38:4:55:U:N3	2.87	0.43
34:SR:103:PHE:HB3	34:SR:134:TRP:CE3	2.55	0.43
34:SR:44:SER:HG	34:SR:59:ARG:N	3.04	0.43
1:2:1006:C:O3'	16:C4:136:ARG:NH1	2.52	0.43
1:6:151:G:N2	1:6:163:G:H22	2.15	0.43
26:D4:124:ARG:O	26:D4:126:ALA:N	3.33	0.43
4:S2:96:THR:O	4:S2:97:ARG:HB3	4.50	0.43
36:1:1858:A:HO2'	36:1:1859:A:P	2.41	0.43
1:6:1765:A:H5'	1:6:1767:G:C8	2.53	0.43
52:M6:185:ALA:O	52:M6:187:GLU:N	3.93	0.43
79:Q3:18:TYR:H	36:5:2131:A:H61	226.00	0.43
61:N5:46:TYR:HD1	71:O5:77:PRO:HA	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:35:ASP:HA	40:L3:184:ASN:OD1	2.23	0.43
8:S6:195:VAL:O	8:S6:196:ARG:C	2.57	0.43
70:O4:52:GLN:HE21	36:5:1738:C:H1'	194.78	0.43
42:L5:56:THR:C	42:L5:58:LYS:H	2.19	0.43
48:M1:137:ARG:C	48:M1:139:THR:N	3.41	0.43
36:5:1554:U:C4	36:5:1555:U:C5	3.07	0.43
4:S2:44:LEU:HD21	4:S2:246:GLU:HB2	2.01	0.43
36:1:911:C:O2'	36:1:912:G:H5'	2.19	0.43
36:5:1081:U:H4'	36:5:1082:U:O5'	2.19	0.43
36:5:974:G:N2	36:5:1108:U:C6	2.87	0.43
38:8:13:A:C6	38:8:14:C:C4	3.07	0.43
22:D0:57:ARG:HD3	22:D0:57:ARG:N	2.34	0.43
36:1:3121:U:C2	36:1:3122:A:C8	3.07	0.43
36:5:3264:G:C2	36:5:3265:C:C2	3.07	0.43
1:6:614:C:C2	1:6:615:A:C8	3.06	0.43
2:S0:110:TYR:CD2	2:S0:110:TYR:N	2.97	0.43
36:5:1617:G:H1	36:5:1827:C:N4	2.16	0.43
36:1:1564:U:H2'	36:1:1565:G:O4'	2.19	0.43
36:1:1613:A:OP1	74:O8:2:ALA:HB3	2.19	0.43
38:4:120:C:H2'	38:4:121:U:H6	1.84	0.43
11:S9:54:ARG:NH2	11:S9:58:ASP:HB2	2.34	0.43
1:2:187:G:H5'	1:2:188:A:OP1	2.19	0.43
38:4:147:U:C4'	61:N5:38:LEU:HD12	2.48	0.43
67:O1:7:VAL:HG22	67:O1:78:LYS:HA	2.00	0.43
36:5:2376:G:N1	36:5:2377:G:C6	2.87	0.43
36:1:119:U:O3'	45:L8:133:LYS:NZ	2.52	0.43
36:5:1658:G:C6	36:5:1659:U:C4	3.06	0.43
13:C1:57:LYS:O	13:C1:138:ASN:ND2	2.72	0.43
53:M7:70:THR:OG1	53:M7:72:GLN:N	4.08	0.43
55:M9:177:VAL:HA	55:M9:180:LYS:HB3	2.79	0.43
36:1:5:G:C2	38:4:155:A:C2	3.07	0.43
36:5:3153:U:C6	36:5:3154:C:N4	2.87	0.43
1:2:1040:G:N2	1:2:1078:C:N3	2.63	0.43
1:6:1345:A:N6	1:6:1377:U:C2	2.87	0.43
6:S4:155:LYS:HB2	6:S4:174:LYS:NZ	2.34	0.43
6:S4:126:VAL:HG11	6:S4:155:LYS:O	2.19	0.43
29:D7:14:SER:O	29:D7:18:LYS:HD2	3.39	0.43
1:2:1160:A:OP2	18:C6:142:TYR:OH	2.36	0.43
36:1:1611:G:H2'	36:1:1612:A:C8	2.54	0.43
36:1:1037:C:H2'	36:1:1037:C:O2	2.18	0.43
36:1:3267:A:N6	43:L6:70:LYS:O	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2573:G:H2'	36:1:2574:G:O4'	2.19	0.43
1:6:1685:G:H2'	1:6:1686:C:O4'	2.19	0.43
36:1:1499:C:H2'	36:1:1500:G:C8	2.54	0.43
43:L6:93:VAL:HG23	43:L6:145:LEU:HD21	2.22	0.43
6:S4:77:ARG:HD2	6:S4:82:TYR:HD1	5.61	0.43
36:1:2144:A:C5	36:1:2281:A:C6	3.06	0.43
39:L2:31:THR:OG1	39:L2:123:ARG:NH1	3.82	0.43
36:5:624:G:OP2	87:5:4103:OHX:N6	2.52	0.43
36:1:2620:G:C4	36:1:2621:G:C8	3.07	0.43
36:1:2620:G:C5	36:1:2621:G:N7	2.87	0.43
33:E1:95:HIS:CG	33:E1:96:LYS:N	2.86	0.43
36:1:3246:G:O6	87:1:4105:OHX:N4	2.52	0.43
53:M7:21:TYR:HD2	53:M7:21:TYR:N	2.17	0.43
36:5:3362:A:N3	36:5:3363:U:C6	2.87	0.43
6:S4:14:ALA:HB1	6:S4:18:TRP:CE3	3.57	0.43
1:6:263:C:O2'	1:6:264:G:H5'	2.19	0.43
36:1:2118:C:N4	36:1:2119:A:C2	2.87	0.43
36:5:572:A:N7	36:5:573:C:C5	2.86	0.43
40:L3:4:ARG:HG2	40:L3:4:ARG:H	4.30	0.43
11:S9:75:ALA:O	11:S9:79:ARG:HG3	5.24	0.43
62:N6:13:ARG:NH1	38:8:24:G:OP2	88.19	0.43
11:S9:21:SER:O	11:S9:24:LEU:HB2	2.18	0.43
36:5:1894:U:H2'	36:5:1895:A:O4'	2.19	0.43
19:C7:42:GLN:H	19:C7:42:GLN:HG2	1.53	0.43
1:6:215:A:OP1	87:6:2127:OHX:N1	2.52	0.43
58:N2:11:ILE:HD12	58:N2:11:ILE:O	2.59	0.43
36:5:81:C:H2'	36:5:82:C:H6	1.82	0.43
1:2:1270:G:C2	1:2:1271:G:C5	3.07	0.43
58:N2:107:PHE:HB3	58:N2:108:TYR:H	1.65	0.43
1:2:45:U:H2'	1:2:46:A:H2'	1.99	0.43
1:6:568:G:C2'	1:6:569:C:H5'	2.49	0.43
25:D3:70:LYS:HZ2	25:D3:70:LYS:HG2	1.65	0.43
78:Q2:2:VAL:O	78:Q2:92:GLU:HG2	2.19	0.43
1:6:592:A:C6	1:6:593:U:C4	3.07	0.43
47:M0:75:TYR:CE1	47:M0:150:GLU:HB3	3.26	0.43
36:5:1170:A:N7	36:5:1171:G:N7	2.67	0.43
36:1:115:A:H2'	36:1:265:A:N3	2.34	0.43
45:L8:240:ASN:O	45:L8:241:LYS:C	3.11	0.43
41:L4:269:SER:C	41:L4:271:LYS:H	2.22	0.43
43:L6:83:TYR:O	43:L6:84:VAL:HG23	3.36	0.43
19:C7:50:ILE:C	19:C7:52:GLY:N	3.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:53:TYR:O	19:C7:54:THR:C	2.82	0.43
5:S3:191:ASP:HA	5:S3:192:PRO:HD2	1.81	0.43
1:2:1478:G:N2	1:2:1530:C:C2	2.87	0.43
1:2:1613:U:C5	1:2:1614:A:H2	2.37	0.43
18:C6:4:VAL:CG1	18:C6:23:LYS:HB2	5.71	0.43
27:D5:77:ARG:O	27:D5:80:LEU:HB2	3.35	0.43
67:O1:49:VAL:HG12	67:O1:50:ARG:N	2.66	0.43
61:N5:107:VAL:HG11	61:N5:110:VAL:HG23	3.49	0.43
12:C0:49:LEU:HB3	12:C0:55:VAL:HG11	2.60	0.43
17:C5:41:VAL:O	17:C5:45:PHE:N	3.45	0.43
31:D9:21:CYS:HA	31:D9:37:ASN:O	2.95	0.43
5:S3:56:GLN:O	5:S3:59:LEU:HB3	2.19	0.43
5:S3:76:ARG:NH1	12:C0:63:TYR:CZ	4.68	0.43
1:6:963:A:O2'	1:6:964:U:OP2	2.25	0.43
15:C3:121:ARG:O	15:C3:122:ILE:C	2.94	0.43
36:5:155:G:H5'	36:5:156:G:C8	2.54	0.43
1:6:1773:C:H2'	1:6:1774:G:O4'	2.18	0.43
47:M0:16:PRO:HD3	47:M0:128:ARG:NH1	2.34	0.43
1:2:898:A:H4'	16:C4:46:MET:HE3	2.00	0.43
1:6:899:G:H2'	1:6:900:A:C8	2.53	0.43
3:S1:66:VAL:HG22	16:C4:34:SER:HA	2.01	0.43
28:D6:53:LEU:HA	28:D6:53:LEU:HD22	1.72	0.43
1:6:15:U:H5'	1:6:619:A:N6	2.33	0.43
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	2.00	0.43
54:M8:62:VAL:HG13	54:M8:66:ARG:HD3	2.01	0.43
48:M1:6:GLN:HA	48:M1:6:GLN:NE2	2.32	0.43
68:O2:109:LEU:HD23	68:O2:109:LEU:HA	2.05	0.43
55:M9:10:LEU:HD12	55:M9:10:LEU:HA	1.68	0.43
62:N6:32:SER:HB2	62:N6:49:PRO:HA	4.23	0.43
33:E1:97:LYS:HD3	1:6:1232:U:C5	436.67	0.43
17:C5:121:ILE:HG12	17:C5:123:TYR:CE1	2.54	0.43
36:5:1317:A:C4	36:5:1319:G:C8	3.07	0.43
56:N0:135:VAL:HG23	56:N0:135:VAL:H	2.13	0.43
36:1:3188:G:H2'	36:1:3189:G:C8	2.54	0.43
56:N0:12:ARG:HD2	56:N0:22:PRO:HD2	2.01	0.43
57:N1:37:GLY:O	57:N1:63:VAL:HG13	2.68	0.43
36:1:2723:U:OP1	57:N1:87:LYS:HE2	2.19	0.43
36:1:3215:A:H5'	50:M4:121:MET:HE1	2.01	0.43
36:1:3260:G:OP2	50:M4:125:LYS:HD2	2.19	0.43
50:M4:112:LEU:HA	50:M4:116:GLU:OE1	2.18	0.43
8:S6:176:GLN:HG3	8:S6:177:ARG:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	2.10	0.43
49:M3:167:PHE:CE1	64:N8:132:LYS:HE2	7.24	0.43
3:S1:144:ARG:HG2	3:S1:207:LEU:N	2.33	0.43
64:N8:128:ARG:HB3	64:N8:129:PHE:CD2	2.53	0.43
36:5:3159:C:H2'	36:5:3160:U:C6	2.52	0.43
70:O4:5:VAL:CG2	70:O4:6:THR:H	2.18	0.43
36:1:2383:C:OP2	52:M6:85:ARG:NH2	2.47	0.43
51:M5:59:PHE:HZ	51:M5:148:TYR:CE1	2.61	0.43
13:C1:93:TYR:O	13:C1:95:PRO:HD3	2.95	0.43
36:5:3017:A:C4	36:5:3018:C:C5	3.06	0.43
26:D4:91:LEU:HA	26:D4:91:LEU:HD22	2.95	0.43
36:1:2189:U:C5	36:1:2190:U:C4	3.07	0.43
39:L2:187:HIS:CD2	36:5:1794:G:C6	198.71	0.43
38:4:3:A:C5	38:4:4:C:C5	3.07	0.43
76:Q0:82:LEU:HD23	76:Q0:82:LEU:HA	1.81	0.43
36:1:1789:G:C6	36:1:1790:G:N7	2.87	0.43
1:2:386:G:H2'	1:2:387:A:C8	2.53	0.43
36:5:137:G:C6	36:5:138:U:C5	3.06	0.43
37:3:28:C:N4	37:3:29:C:C2	2.87	0.43
37:7:57:G:H5''	37:7:58:C:OP2	2.19	0.43
36:1:2249:G:OP1	36:1:2273:G:H8	2.01	0.43
36:1:2286:U:C4	36:1:2288:G:H1'	2.53	0.43
36:5:692:A:H2'	36:5:693:A:O4'	2.18	0.43
41:L4:234:ASN:ND2	41:L4:236:LEU:HD12	2.22	0.43
36:1:1403:C:N3	36:1:1408:G:N2	2.48	0.43
1:6:1347:U:O4'	1:6:1517:U:C2	2.72	0.43
36:1:2509:U:O2'	36:1:2510:U:H5'	2.19	0.43
62:N6:60:ARG:HD3	62:N6:60:ARG:HA	1.57	0.43
1:6:1295:G:C2	1:6:1303:U:O2	2.71	0.43
57:N1:121:ALA:O	57:N1:122:GLN:HG3	6.09	0.43
36:5:982:C:N3	36:5:1102:A:C2	2.87	0.43
36:1:1752:A:C5	36:1:1753:G:N7	2.87	0.43
39:L2:48:ILE:HD12	79:Q3:65:ALA:HB2	4.01	0.43
79:Q3:54:ILE:HD13	79:Q3:54:ILE:HG21	2.00	0.43
36:1:1225:A:H2'	36:1:1226:G:C8	2.53	0.43
36:5:3307:A:C5	36:5:3308:C:C5	3.07	0.43
36:5:2509:U:H3'	36:5:2510:U:H5''	2.01	0.43
36:1:1278:A:O2'	36:1:1279:C:P	2.77	0.43
54:M8:178:ARG:HA	54:M8:178:ARG:HD2	2.46	0.43
58:N2:33:TYR:O	58:N2:36:TYR:N	2.76	0.43
58:N2:95:PHE:CD2	58:N2:95:PHE:C	2.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	2.01	0.43
41:L4:352:ALA:H	44:L7:71:ALA:HA	2.34	0.43
41:L4:214:GLY:O	41:L4:217:LYS:N	2.52	0.43
1:6:138:A:N3	1:6:138:A:H5''	2.34	0.43
12:C0:87:VAL:O	12:C0:89:ALA:N	5.30	0.43
36:1:425:G:O6	87:1:3875:OHX:N6	2.52	0.43
36:5:651:G:H2'	36:5:652:G:O4'	2.19	0.43
36:1:1272:C:H5'	36:1:1273:A:OP2	2.19	0.43
5:S3:133:GLY:HA3	5:S3:156:PHE:N	2.34	0.43
18:C6:140:LYS:HD3	18:C6:142:TYR:CE1	3.36	0.43
19:C7:88:VAL:HG13	19:C7:89:SER:O	4.88	0.43
47:M0:127:ALA:O	47:M0:129:VAL:HG23	2.99	0.43
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	2.16	0.43
36:5:822:G:H2'	36:5:823:C:H6	1.80	0.43
36:1:2567:C:O2	36:1:2575:G:N2	2.51	0.43
1:6:1714:A:H2'	1:6:1715:G:C4'	2.49	0.43
1:2:887:A:H1'	16:C4:122:PRO:CB	2.48	0.43
44:L7:126:LEU:HD23	44:L7:126:LEU:HA	1.42	0.43
36:1:1936:A:H2'	36:1:1937:U:O4'	2.19	0.43
19:C7:71:PHE:CE1	19:C7:73:LEU:HB3	2.54	0.43
36:5:3145:C:H2'	36:5:3146:G:C8	2.54	0.43
40:L3:26:ARG:NH2	36:5:3003:G:OP2	229.67	0.43
6:S4:23:LEU:O	6:S4:24:SER:OG	2.30	0.43
36:1:3015:G:C4	36:1:3040:A:C2	3.07	0.43
36:5:2105:G:O2'	36:5:2106:A:H5'	2.19	0.43
20:C8:50:ALA:C	20:C8:52:VAL:N	3.51	0.43
36:5:2217:U:O2'	36:5:2218:G:H5'	2.18	0.43
1:2:1121:C:C5	87:2:2171:OHX:N1	2.87	0.43
1:2:131:C:O2'	1:2:133:U:H5''	2.19	0.43
36:5:1536:G:C5	36:5:1586:G:N2	2.87	0.43
78:Q2:83:LEU:HD11	36:5:2716:U:H5'	215.64	0.43
36:5:1933:A:OP2	87:5:3911:OHX:N6	2.52	0.43
40:L3:376:LYS:HG2	40:L3:380:MET:HG3	2.38	0.43
36:5:279:U:O2'	36:5:280:U:H5'	2.19	0.43
36:1:1185:C:H2'	36:1:1186:G:O4'	2.19	0.43
36:5:876:A:C2'	36:5:877:C:O5'	2.67	0.43
59:N3:27:ASP:HA	59:N3:113:ALA:O	2.37	0.43
53:M7:96:GLN:HG3	53:M7:97:ASN:N	2.34	0.43
41:L4:10:SER:OG	41:L4:14:GLU:HB2	2.18	0.43
1:6:222:A:C6	1:6:223:U:C4	3.07	0.43
36:5:986:U:C2	36:5:987:U:C6	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1033:U:H2'	36:1:1034:U:C6	2.53	0.43
34:SR:28:GLY:N	34:SR:75:ALA:O	2.46	0.43
54:M8:127:LEU:HD13	54:M8:127:LEU:C	2.80	0.43
36:5:2316:G:C6	36:5:2317:A:C5	3.07	0.43
1:2:155:U:O2'	1:2:157:A:N7	2.44	0.43
41:L4:125:ALA:O	41:L4:128:ALA:HB3	2.19	0.43
36:5:1397:C:C2'	36:5:1398:U:H5'	2.49	0.43
38:4:90:U:H5'	38:4:90:U:H6	1.83	0.43
45:L8:169:LEU:HA	45:L8:169:LEU:HD23	2.28	0.43
36:1:3132:C:H6	36:1:3132:C:O5'	2.02	0.43
1:2:566:C:H2'	1:2:567:A:H8	1.84	0.42
25:D3:74:VAL:N	25:D3:83:VAL:O	2.30	0.42
36:1:2656:A:H4'	78:Q2:98:LYS:CD	2.48	0.42
1:2:1760:G:C2'	1:2:1761:U:H5'	2.49	0.42
40:L3:211:GLN:O	40:L3:212:ASN:ND2	2.52	0.42
40:L3:11:HIS:CE1	40:L3:235:THR:HA	2.54	0.42
46:L9:25:VAL:O	46:L9:35:THR:HA	2.19	0.42
36:1:2358:A:H2'	36:1:2359:C:O4'	2.18	0.42
53:M7:130:TYR:CD2	53:M7:136:ILE:HD11	6.12	0.42
53:M7:39:TRP:CZ3	53:M7:47:TYR:HB2	2.54	0.42
53:M7:24:VAL:HG12	53:M7:86:LYS:NZ	5.47	0.42
1:6:1796:C:H5'	1:6:1797:A:C8	2.54	0.42
28:D6:36:ILE:C	28:D6:37:LYS:HG3	2.40	0.42
1:6:333:A:H2'	1:6:334:G:C8	2.54	0.42
13:C1:15:LYS:N	13:C1:54:ILE:HD12	4.40	0.42
26:D4:21:LYS:N	26:D4:75:VAL:O	2.70	0.42
6:S4:29:PRO:HD3	1:6:448:C:OP1	372.66	0.42
54:M8:33:TYR:HA	54:M8:36:LEU:HB2	2.47	0.42
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.52	0.42
19:C7:6:THR:HG23	19:C7:9:VAL:HG21	2.00	0.42
5:S3:190:ARG:HH12	5:S3:195:SER:HA	1.84	0.42
36:1:359:U:HO2'	73:O7:16:HIS:CE1	2.35	0.42
73:O7:25:ARG:HE	75:O9:51:ILE:CD1	2.32	0.42
7:S5:211:ILE:O	7:S5:215:ASP:HB2	2.33	0.42
7:S5:33:VAL:C	7:S5:37:GLN:OE1	3.06	0.42
46:L9:143:GLU:O	46:L9:143:GLU:HG3	3.84	0.42
36:5:3325:G:H2'	36:5:3326:G:H8	1.84	0.42
67:O1:56:ASN:O	67:O1:57:GLN:C	2.60	0.42
12:C0:46:LEU:HA	12:C0:46:LEU:HD23	3.88	0.42
21:C9:73:VAL:HA	21:C9:76:LEU:HB2	2.01	0.42
48:M1:165:GLN:CG	48:M1:166:LYS:N	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:313:A:C5	36:1:314:U:C5	3.07	0.42
36:5:115:A:N6	36:5:154:U:C2	2.87	0.42
36:5:1640:G:C6	36:5:1641:U:C4	3.07	0.42
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	2.01	0.42
16:C4:114:ARG:HA	28:D6:62:TYR:CZ	2.53	0.42
3:S1:70:LEU:HD21	3:S1:79:HIS:CG	2.53	0.42
38:4:16:G:C8	38:4:16:G:OP2	2.72	0.42
19:C7:100:LEU:H	19:C7:118:PRO:HB2	1.84	0.42
19:C7:103:ASP:O	19:C7:104:ASN:ND2	6.09	0.42
2:S0:4:PRO:HB2	2:S0:5:ALA:H	1.63	0.42
2:S0:4:PRO:CB	2:S0:6:THR:HG23	7.95	0.42
4:S2:53:ILE:CG2	4:S2:56:ILE:HD12	2.48	0.42
40:L3:221:THR:N	40:L3:273:HIS:O	2.73	0.42
59:N3:86:ARG:HB2	59:N3:92:PHE:CE2	2.53	0.42
36:5:677:A:H4'	36:5:678:G:O5'	2.19	0.42
66:O0:44:ILE:HG23	66:O0:89:VAL:CG2	5.49	0.42
36:5:1412:G:C5	36:5:1413:G:N7	2.87	0.42
1:6:874:C:H5'	1:6:1047:G:OP1	2.19	0.42
1:2:1524:A:H2	1:2:1590:G:N3	2.17	0.42
1:2:1227:A:OP2	1:2:1228:G:H2'	2.19	0.42
40:L3:63:PRO:HA	40:L3:68:HIS:CE1	2.54	0.42
56:N0:93:GLU:HG3	56:N0:137:ARG:HB2	2.01	0.42
36:1:3145:C:H2'	36:1:3146:G:C8	2.52	0.42
5:S3:137:VAL:HG22	5:S3:151:LYS:HA	2.00	0.42
57:N1:40:VAL:HG21	57:N1:96:ILE:HD12	2.01	0.42
40:L3:296:THR:CG2	40:L3:297:SER:N	2.82	0.42
43:L6:146:ILE:HA	43:L6:149:ILE:HD12	2.00	0.42
1:6:81:G:C6	1:6:82:U:N3	2.87	0.42
34:SR:172:ALA:HB2	34:SR:202:LEU:HD22	2.01	0.42
34:SR:214:ALA:HB2	34:SR:220:ILE:HG23	2.01	0.42
34:SR:61:PHE:HZ	34:SR:94:VAL:O	2.01	0.42
56:N0:29:ILE:HD13	56:N0:29:ILE:HA	4.13	0.42
62:N6:124:GLY:O	62:N6:125:LYS:C	3.08	0.42
36:1:346:C:N3	36:1:348:A:N7	2.67	0.42
41:L4:60:THR:HG22	41:L4:62:ALA:H	2.51	0.42
39:L2:151:PRO:O	39:L2:153:GLY:N	3.38	0.42
66:O0:100:ILE:HG13	66:O0:101:LEU:CD1	6.75	0.42
36:1:3209:A:H2'	36:1:3209:A:H8	1.65	0.42
50:M4:106:ARG:O	50:M4:106:ARG:HG2	2.19	0.42
1:2:1572:G:H5''	1:2:1574:G:H22	1.84	0.42
40:L3:112:ASP:O	40:L3:113:GLU:C	2.56	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:87:ALA:O	49:M3:89:TYR:N	2.51	0.42
51:M5:139:HIS:O	51:M5:142:ILE:N	2.46	0.42
9:S7:30:SER:HB3	9:S7:34:LEU:CD1	2.46	0.42
1:2:530:C:O2	26:D4:61:ARG:NH2	2.51	0.42
6:S4:106:LYS:HB2	6:S4:108:ARG:HD3	2.01	0.42
71:O5:51:ILE:O	71:O5:55:LEU:HD12	3.56	0.42
39:L2:192:LYS:NZ	39:L2:193:ARG:HH12	2.17	0.42
24:D2:11:LEU:HD22	24:D2:72:CYS:HB2	2.00	0.42
64:N8:78:LEU:C	64:N8:80:THR:N	2.81	0.42
4:S2:41:LEU:HD23	4:S2:240:LEU:HD11	2.00	0.42
41:L4:294:GLU:O	41:L4:295:ILE:C	2.57	0.42
1:6:826:U:H2'	1:6:827:C:C6	2.55	0.42
6:S4:185:GLY:H	6:S4:189:LEU:HB2	1.84	0.42
22:D0:55:PRO:HA	22:D0:91:ILE:HG12	2.25	0.42
1:2:1383:G:H1'	22:D0:57:ARG:NH2	2.32	0.42
36:1:3109:G:N2	36:1:3126:C:C6	2.87	0.42
36:1:2896:A:P	76:Q0:102:ARG:HE	2.42	0.42
69:O3:72:THR:CG2	69:O3:83:ALA:HA	2.77	0.42
1:2:1345:A:N6	1:2:1377:U:C2	2.87	0.42
1:6:1734:U:C2	1:6:1735:U:C5	3.07	0.42
1:6:881:A:H2'	1:6:882:U:O4'	2.19	0.42
1:2:184:C:H42	1:2:201:G:H1	1.66	0.42
25:D3:19:ARG:NE	1:6:609:U:H1'	342.21	0.42
1:6:105:A:H2'	1:6:106:U:O4'	2.19	0.42
51:M5:12:ARG:O	51:M5:13:LYS:HG2	4.17	0.42
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	2.00	0.42
56:N0:86:GLY:O	56:N0:88:HIS:NE2	2.98	0.42
55:M9:77:GLY:O	55:M9:81:ARG:HG3	4.64	0.42
36:5:3188:G:C2	36:5:3189:G:C5	3.07	0.42
1:2:281:G:C6	1:2:282:C:C4	3.07	0.42
36:1:547:G:H4'	36:1:548:G:OP2	2.17	0.42
1:6:702:G:O2'	1:6:703:G:H5'	2.19	0.42
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.18	0.42
36:1:1350:A:H2'	36:1:1351:U:C6	2.53	0.42
1:2:145:A:C6	1:2:171:A:N1	2.87	0.42
53:M7:107:LEU:HA	53:M7:107:LEU:HD12	1.82	0.42
36:1:1209:G:H3'	36:1:1210:U:H6	1.84	0.42
1:6:605:A:H3'	1:6:606:A:H5'	2.00	0.42
62:N6:88:GLU:HG3	62:N6:94:SER:CB	3.92	0.42
45:L8:91:PHE:CE2	45:L8:185:ARG:HB3	4.35	0.42
36:5:3237:U:H2'	36:5:3238:G:H5''	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1560:G:C6	36:1:1561:G:N7	2.87	0.42
38:8:80:A:N3	38:8:82:U:C5	2.86	0.42
36:1:3303:G:C2	36:1:3305:A:C4	3.07	0.42
36:1:3267:A:H2'	43:L6:69:PHE:CE1	2.54	0.42
61:N5:34:LEU:HD22	61:N5:35:PRO:O	3.31	0.42
51:M5:68:ARG:HG3	36:5:291:C:OP1	144.63	0.42
1:2:1360:A:H2'	1:2:1361:U:O4'	2.18	0.42
36:1:3335:A:H2'	36:1:3336:A:C8	2.54	0.42
45:L8:109:LEU:HA	45:L8:109:LEU:HD22	3.56	0.42
72:O6:2:THR:N	72:O6:4:LYS:HD3	6.65	0.42
36:1:278:U:C4	36:1:279:U:C4	3.07	0.42
21:C9:78:LYS:NZ	1:6:1523:G:OP1	409.93	0.42
36:5:831:G:H8	36:5:831:G:O5'	2.02	0.42
36:1:1501:U:C6	36:1:1501:U:O5'	2.69	0.42
24:D2:97:ARG:NH1	24:D2:97:ARG:HG2	4.71	0.42
1:2:1778:G:N2	1:2:1779:U:N3	2.67	0.42
56:N0:48:LEU:HD23	56:N0:48:LEU:HA	2.06	0.42
1:2:679:U:H2'	1:2:680:U:C6	2.53	0.42
36:1:2955:U:H2'	36:1:2956:A:H8	1.84	0.42
6:S4:188:ASN:HB3	6:S4:191:ARG:HG3	2.99	0.42
36:1:2876:C:H2'	36:1:2877:G:O4'	2.19	0.42
29:D7:29:ARG:HA	29:D7:29:ARG:HD3	1.79	0.42
51:M5:116:LEU:HA	51:M5:116:LEU:HD12	1.72	0.42
3:S1:186:SER:O	3:S1:190:PRO:HD2	3.47	0.42
1:6:775:G:C2	1:6:786:C:C4	3.07	0.42
43:L6:103:VAL:C	43:L6:105:TYR:H	2.22	0.42
1:6:98:U:H2'	1:6:99:C:C6	2.54	0.42
36:1:2524:A:C4	45:L8:46:LEU:HD21	2.53	0.42
1:6:1061:A:H2'	1:6:1062:A:O4'	2.19	0.42
36:1:2874:G:C6	36:1:2945:G:C8	3.07	0.42
29:D7:75:GLU:HG2	29:D7:76:GLY:H	2.74	0.42
64:N8:125:VAL:O	64:N8:146:GLU:N	2.90	0.42
36:1:3034:C:H42	46:L9:121:LYS:HB2	1.83	0.42
20:C8:104:ASN:O	20:C8:108:LYS:N	3.34	0.42
36:1:816:A:H4'	36:1:817:A:H5'	2.01	0.42
46:L9:24:ILE:HG22	46:L9:24:ILE:O	2.19	0.42
33:E1:116:LYS:HB2	33:E1:116:LYS:HE3	2.64	0.42
9:S7:167:GLU:H	9:S7:167:GLU:HG2	4.42	0.42
1:6:473:A:N6	1:6:474:A:C2	2.86	0.42
36:1:1679:A:OP1	58:N2:94:ARG:NH1	2.52	0.42
46:L9:28:VAL:HG22	46:L9:33:THR:CG2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1520:G:H2'	36:5:1521:G:C5'	2.49	0.42
1:2:1795:U:H4'	28:D6:84:VAL:HG23	2.00	0.42
1:2:477:A:N3	1:2:478:A:C8	2.87	0.42
11:S9:100:LYS:O	11:S9:103:ASP:HB2	2.20	0.42
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	1.58	0.42
47:M0:159:PHE:HA	47:M0:160:PRO:HD2	2.33	0.42
41:L4:329:PRO:HB3	44:L7:41:ARG:NH2	2.35	0.42
51:M5:18:VAL:O	51:M5:22:LEU:HD22	2.18	0.42
45:L8:62:LYS:HB2	51:M5:28:TRP:HZ3	1.85	0.42
41:L4:134:LEU:O	41:L4:138:ARG:HB2	2.19	0.42
19:C7:27:ASP:H	19:C7:31:ASN:HD21	2.52	0.42
5:S3:210:GLU:HA	5:S3:211:PRO:HD3	1.86	0.42
1:2:1613:U:C4	1:2:1614:A:C2	3.07	0.42
1:2:1610:G:H5''	7:S5:107:LYS:HB2	2.00	0.42
7:S5:184:PHE:CE1	7:S5:185:ARG:HG3	2.54	0.42
7:S5:49:GLU:HA	7:S5:65:ARG:NH1	4.80	0.42
7:S5:93:LEU:HD23	7:S5:93:LEU:HA	2.83	0.42
46:L9:161:LEU:CD2	46:L9:179:ILE:HD12	2.49	0.42
36:5:3074:G:H5''	36:5:3074:G:H8	1.84	0.42
67:O1:14:ILE:HD12	67:O1:39:PHE:HB2	2.00	0.42
61:N5:99:VAL:HG11	61:N5:124:VAL:HG11	2.02	0.42
42:L5:210:GLU:O	42:L5:211:LEU:HD23	2.18	0.42
17:C5:43:ARG:HG2	17:C5:43:ARG:HH11	3.26	0.42
22:D0:82:TYR:HE1	31:D9:54:LYS:CD	2.31	0.42
31:D9:34:TYR:N	31:D9:34:TYR:CD1	2.84	0.42
48:M1:109:HIS:CD2	48:M1:114:ILE:HD13	7.36	0.42
15:C3:108:ASP:HB2	1:6:879:G:O4'	280.53	0.42
15:C3:55:ARG:HA	15:C3:59:GLY:O	5.68	0.42
47:M0:24:ARG:HG3	47:M0:24:ARG:H	3.42	0.42
36:1:1432:C:O2'	36:1:1433:A:H3'	2.19	0.42
19:C7:106:THR:O	19:C7:110:VAL:HG13	6.28	0.42
23:D1:81:ASN:N	23:D1:81:ASN:OD1	3.15	0.42
23:D1:83:TRP:CG	23:D1:84:SER:N	2.86	0.42
2:S0:62:ARG:HH21	23:D1:39:VAL:HG13	4.06	0.42
1:2:127:G:N2	1:2:179:A:H5'	2.34	0.42
36:1:437:G:C2'	36:1:438:A:H5'	2.49	0.42
62:N6:32:SER:CB	62:N6:49:PRO:HA	3.31	0.42
71:O5:6:ALA:HB1	71:O5:10:ARG:HH21	1.84	0.42
79:Q3:33:GLN:HG3	79:Q3:34:HIS:CE1	3.89	0.42
14:C2:60:VAL:O	14:C2:89:ILE:HG22	2.19	0.42
1:2:1453:G:H2'	1:2:1454:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:141:THR:C	6:S4:143:ASP:N	2.72	0.42
6:S4:162:ILE:HD12	6:S4:162:ILE:H	4.92	0.42
50:M4:82:SER:O	50:M4:83:LYS:C	2.57	0.42
1:6:74:U:C2	1:6:76:A:H5''	2.53	0.42
8:S6:162:VAL:O	8:S6:168:THR:HG22	3.48	0.42
56:N0:42:TRP:CH2	56:N0:56:GLY:HA3	2.54	0.42
57:N1:75:ILE:O	57:N1:75:ILE:HD13	2.18	0.42
57:N1:80:VAL:HG22	57:N1:85:LEU:HG	4.02	0.42
40:L3:293:ASN:HB2	40:L3:304:THR:HA	2.00	0.42
18:C6:115:THR:HG22	18:C6:116:LEU:HA	6.60	0.42
18:C6:99:GLU:HG3	18:C6:103:ASN:OD1	2.18	0.42
34:SR:84:SER:N	34:SR:110:VAL:HB	2.35	0.42
87:1:3878:OHX:N6	39:L2:215:ASN:OD1	2.52	0.42
41:L4:56:ALA:HA	36:5:347:G:OP1	118.62	0.42
41:L4:60:THR:HG22	41:L4:62:ALA:N	3.13	0.42
72:O6:69:ALA:HA	72:O6:72:VAL:HG23	5.20	0.42
72:O6:79:SER:O	72:O6:82:ARG:N	2.52	0.42
39:L2:248:GLY:O	39:L2:249:SER:HB2	4.34	0.42
39:L2:81:GLY:O	39:L2:83:HIS:HD2	2.95	0.42
79:Q3:86:LEU:O	79:Q3:90:VAL:HG12	2.19	0.42
36:1:770:G:P	49:M3:171:ARG:NH2	2.92	0.42
36:5:511:G:N2	36:5:512:U:C2	2.87	0.42
9:S7:148:LYS:O	9:S7:149:ILE:HG13	4.24	0.42
40:L3:85:VAL:O	40:L3:162:VAL:HA	2.38	0.42
8:S6:59:GLN:OE1	1:6:418:G:O2'	294.40	0.42
36:1:498:A:H2'	36:1:499:G:H8	1.84	0.42
36:1:3295:A:H61	36:1:3393:U:H3	1.67	0.42
36:1:3276:G:H1'	36:1:3277:U:H3	1.84	0.42
49:M3:115:ARG:NH1	49:M3:145:PHE:O	2.52	0.42
36:1:1686:U:H5''	58:N2:42:LYS:HZ1	1.84	0.42
36:1:73:C:OP1	72:O6:15:LYS:N	2.41	0.42
49:M3:73:ARG:HD2	36:5:76:G:C3'	81.54	0.42
51:M5:150:TRP:O	51:M5:153:ASP:N	2.84	0.42
71:O5:93:THR:HG23	71:O5:96:GLU:OE2	2.20	0.42
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	4.80	0.42
26:D4:8:ARG:NH1	26:D4:68:LYS:HE3	2.29	0.42
39:L2:90:ALA:HA	39:L2:101:VAL:HG13	2.01	0.42
8:S6:202:ARG:HA	8:S6:205:ALA:HB3	2.01	0.42
8:S6:148:SER:C	8:S6:150:GLU:N	2.84	0.42
36:5:170:G:H5'	36:5:171:G:P	2.59	0.42
36:1:2287:C:C2	36:1:2298:U:O4'	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3059:G:C6	36:5:3060:C:C4	3.07	0.42
64:N8:74:ASN:CG	64:N8:115:LYS:HB3	3.67	0.42
2:S0:130:ALA:O	2:S0:131:GLN:C	2.91	0.42
36:5:410:U:O4	87:5:4097:OHX:N3	2.52	0.42
1:6:1380:U:H2'	1:6:1381:U:C6	2.55	0.42
36:5:732:C:N4	36:5:738:A:H61	2.17	0.42
36:1:2948:C:C1'	40:L3:242:THR:HG22	2.48	0.42
36:1:1299:U:H2'	36:1:1300:G:H8	1.84	0.42
38:8:26:U:C4	38:8:27:U:O4	2.71	0.42
38:4:62:C:H4'	38:4:63:G:O5'	2.18	0.42
36:5:1328:C:C4	36:5:1329:U:O4	2.71	0.42
55:M9:81:ARG:NH2	36:5:2104:A:OP2	222.72	0.42
42:L5:68:THR:O	42:L5:71:GLY:N	2.36	0.42
50:M4:65:LEU:HG	56:N0:172:TYR:CZ	3.44	0.42
56:N0:152:LEU:N	56:N0:153:PRO:HD3	2.57	0.42
1:6:403:G:N3	1:6:403:G:H2'	2.34	0.42
36:1:1159:A:H5'	54:M8:2:GLY:HA3	2.01	0.42
54:M8:2:GLY:C	54:M8:3:ILE:HD13	2.73	0.42
1:2:487:G:C6	1:2:488:G:C8	3.08	0.42
36:1:1341:U:H2'	36:1:1342:C:C6	2.54	0.42
6:S4:246:LEU:HD21	6:S4:254:ARG:NH2	5.59	0.42
1:2:1219:A:N7	1:2:1220:C:C2	2.87	0.42
36:1:763:G:N1	36:1:764:U:C2	2.88	0.42
36:1:120:G:N2	45:L8:126:SER:HB2	2.34	0.42
36:1:1231:A:H2	36:1:1278:A:N7	2.17	0.42
1:6:1340:U:H4'	1:6:1341:A:C5'	2.48	0.42
13:C1:83:THR:HB	13:C1:110:HIS:HA	2.01	0.42
8:S6:76:LEU:HD12	1:6:1673:G:H5'	288.10	0.42
36:1:537:A:O2'	36:1:558:U:C2	2.68	0.42
40:L3:348:ARG:H	40:L3:351:LEU:HG	5.19	0.42
53:M7:14:SER:O	53:M7:105:LYS:HD2	3.08	0.42
1:6:139:C:C4	1:6:266:A:C2	3.07	0.42
44:L7:93:ASN:C	44:L7:94:LYS:HG2	4.52	0.42
36:1:653:A:C2	36:1:654:C:C6	3.07	0.42
36:5:951:A:P	36:5:1367:G:H22	2.41	0.42
36:1:1611:G:C6	36:1:1612:A:C6	3.07	0.42
1:6:1645:G:N2	1:6:1758:U:H5	2.16	0.42
36:5:2442:G:N2	36:5:2443:A:C5	2.88	0.42
36:5:822:G:N2	36:5:903:U:O2	2.37	0.42
37:3:17:A:C2	37:3:62:U:N3	2.87	0.42
37:3:61:G:H4'	42:L5:274:GLN:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:158:G:H2'	36:1:159:A:H8	1.83	0.42
14:C2:74:LEU:HD21	33:E1:106:TYR:CB	4.24	0.42
36:1:3101:G:C6	36:1:3134:A:C6	3.07	0.42
36:5:997:A:H4'	37:7:80:G:H5'	2.00	0.42
11:S9:105:LEU:HA	11:S9:105:LEU:HD12	2.50	0.42
36:5:1268:G:N1	36:5:1269:U:C4	2.86	0.42
52:M6:61:ALA:O	52:M6:63:ALA:N	3.05	0.42
36:5:1882:G:C4	36:5:1883:A:N7	2.87	0.42
36:5:2223:A:N6	36:5:2224:A:N6	2.67	0.42
41:L4:341:SER:HA	36:5:515:C:H1'	296.26	0.42
51:M5:33:LYS:HD2	51:M5:33:LYS:H	3.85	0.42
25:D3:144:ARG:O	25:D3:145:SER:OG	2.32	0.42
35:SM:97:THR:HG22	35:SM:99:LYS:HG3	2.00	0.42
26:D4:92:VAL:O	26:D4:93:ARG:C	2.71	0.42
36:5:2291:A:H2'	36:5:2292:U:C6	2.54	0.42
1:6:756:A:N6	1:6:757:A:C2	2.87	0.42
36:1:380:U:C4	36:1:381:U:C4	3.07	0.42
1:6:1695:G:N2	1:6:1706:C:H41	2.17	0.42
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	2.01	0.42
1:6:1176:G:H1	1:6:1463:C:N4	2.18	0.42
1:6:1176:G:N1	1:6:1463:C:N4	2.67	0.42
8:S6:206:ALA:O	8:S6:209:ALA:N	2.52	0.42
36:1:1140:G:H2'	36:1:1141:C:C6	2.55	0.42
1:2:1440:C:H2'	1:2:1441:C:O4'	2.19	0.42
36:5:423:A:C6	36:5:424:G:C6	3.07	0.42
58:N2:24:GLU:HG3	58:N2:25:ASN:N	3.95	0.42
36:1:1545:A:OP2	51:M5:67:ARG:HG3	2.18	0.42
36:5:109:A:H8	36:5:109:A:O5'	2.01	0.42
36:1:1283:C:H2'	36:1:1284:C:H6	1.84	0.42
76:Q0:99:CYS:O	76:Q0:100:TYR:HB2	2.21	0.42
36:1:1550:C:H1'	36:1:2166:A:H61	1.85	0.42
1:6:443:C:C2	1:6:462:G:N2	2.87	0.42
1:6:87:C:C4	1:6:88:U:C5	3.07	0.42
1:2:474:A:N1	1:2:594:A:H5'	2.34	0.42
47:M0:175:ASN:O	47:M0:176:LEU:HG	4.16	0.42
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.33	0.42
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.20	0.42
51:M5:2:GLY:N	36:5:117:U:OP1	106.29	0.42
26:D4:20:ARG:HA	26:D4:75:VAL:O	3.01	0.42
36:5:333:G:N2	38:8:30:C:N3	2.62	0.42
41:L4:138:ARG:HE	41:L4:240:PRO:HD2	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1195:A:H2	36:5:1313:G:H22	1.68	0.42
1:2:1358:G:C2	1:2:1359:C:C2	3.08	0.42
1:6:1565:C:H2'	1:6:1566:U:C6	2.54	0.42
30:D8:25:VAL:CG1	30:D8:43:ASN:HB3	2.49	0.42
7:S5:149:VAL:HG23	30:D8:67:ARG:C	2.40	0.42
7:S5:25:LEU:HB2	7:S5:26:ALA:H	1.63	0.42
40:L3:312:VAL:HG23	40:L3:312:VAL:H	2.57	0.42
55:M9:23:TRP:HB3	55:M9:51:VAL:CG2	2.46	0.42
61:N5:98:ALA:O	61:N5:99:VAL:C	2.57	0.42
42:L5:211:LEU:C	42:L5:213:ASP:H	2.63	0.42
42:L5:253:PHE:CE1	42:L5:255:PRO:HA	4.07	0.42
17:C5:18:ARG:O	20:C8:95:GLY:HA3	2.18	0.42
1:2:1278:G:H4'	5:S3:174:HIS:HE1	1.83	0.42
1:2:959:U:H5"	15:C3:14:SER:OG	2.18	0.42
15:C3:15:ALA:HB2	29:D7:21:LEU:HD23	2.59	0.42
36:5:112:U:O2'	36:5:113:C:P	2.77	0.42
36:1:1639:C:O2'	36:1:1737:U:O3'	2.36	0.42
47:M0:22:TYR:CD1	36:5:1048:A:C5	267.92	0.42
16:C4:44:GLY:CA	16:C4:59:ALA:HB1	3.57	0.42
16:C4:43:THR:OG1	16:C4:44:GLY:N	2.52	0.42
23:D1:8:LEU:HD22	23:D1:9:VAL:O	2.61	0.42
2:S0:139:VAL:O	2:S0:141:ILE:HG12	3.64	0.42
2:S0:57:LEU:HD23	2:S0:57:LEU:HA	1.83	0.42
63:N7:26:VAL:HG12	63:N7:89:VAL:HG23	2.02	0.42
70:O4:96:GLU:HA	70:O4:99:LYS:HB2	3.38	0.42
1:6:1068:C:C4	1:6:1069:A:N7	2.87	0.42
38:8:92:A:C6	38:8:93:U:C4	3.07	0.42
62:N6:116:LYS:O	62:N6:119:ILE:N	3.26	0.42
62:N6:122:LYS:HE2	62:N6:122:LYS:HB3	1.92	0.42
1:2:1256:A:H4'	1:2:1257:U:C5'	2.49	0.42
14:C2:64:SER:O	14:C2:66:VAL:HG23	2.19	0.42
20:C8:145:ARG:HD3	35:SM:68:ARG:NH2	3.29	0.42
50:M4:16:GLU:HB3	56:N0:149:LYS:HD2	2.93	0.42
50:M4:83:LYS:O	50:M4:86:ALA:HB3	2.56	0.42
41:L4:359:LEU:O	56:N0:26:ARG:NH2	2.50	0.42
57:N1:83:ARG:HH11	57:N1:83:ARG:HD2	1.90	0.42
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	2.29	0.42
69:O3:45:LEU:HA	69:O3:45:LEU:HD23	1.48	0.42
75:O9:21:ARG:HD2	38:8:52:A:O4'	84.41	0.42
36:1:2665:U:H4'	36:1:2666:C:OP1	2.20	0.42
36:1:363:G:C2	36:1:364:G:H1'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1003:A:N3	1:2:1005:A:C6	2.87	0.42
66:O0:9:SER:OG	66:O0:12:GLN:HB3	3.34	0.42
1:2:1168:U:H2'	1:2:1169:G:H5'	2.01	0.42
1:2:1469:A:C2	1:2:1470:C:C2	3.07	0.42
36:1:3178:A:N3	52:M6:115:LYS:HG2	2.35	0.42
52:M6:186:ALA:O	52:M6:187:GLU:HB3	2.19	0.42
13:C1:97:TYR:CD1	25:D3:15:LEU:HB3	2.58	0.42
36:5:706:A:C6	36:5:707:U:C4	3.07	0.42
36:5:3024:A:C2	36:5:3032:A:C4	3.07	0.42
36:5:3032:A:C6	36:5:3033:A:C5	3.08	0.42
36:5:1752:A:H5''	36:5:1753:G:OP2	2.20	0.42
61:N5:60:TYR:OH	71:O5:26:LYS:HG3	2.20	0.42
55:M9:84:THR:O	55:M9:88:ARG:HG3	2.19	0.42
38:4:42:G:OP2	73:O7:64:MET:N	2.51	0.42
73:O7:63:ARG:NH1	38:8:57:C:C5	72.67	0.42
45:L8:134:TYR:CE2	45:L8:190:VAL:HG11	4.89	0.42
1:2:30:G:H2'	1:2:31:C:C6	2.55	0.42
1:2:591:A:C6	1:2:592:A:N6	2.87	0.42
24:D2:103:ILE:H	24:D2:103:ILE:HD13	4.20	0.42
46:L9:171:ASP:OD1	46:L9:172:ILE:N	2.52	0.42
42:L5:132:THR:HG21	42:L5:170:GLY:C	2.40	0.42
48:M1:53:THR:HG23	48:M1:59:ILE:O	2.20	0.42
60:N4:35:LYS:O	60:N4:38:SER:N	2.50	0.42
36:5:782:U:C4	36:5:783:A:C5	3.07	0.42
64:N8:78:LEU:O	64:N8:81:LEU:N	2.33	0.42
1:2:355:G:P	10:S8:16:ALA:HB1	2.60	0.42
33:E1:144:CYS:SG	33:E1:147:VAL:O	3.17	0.42
57:N1:27:LEU:C	57:N1:29:THR:N	2.72	0.42
36:1:250:U:C5'	36:1:251:G:H5''	2.44	0.42
36:1:1889:G:C4	36:1:1890:U:C5	3.07	0.42
59:N3:22:ILE:HD13	59:N3:35:TYR:HB2	3.64	0.42
38:4:126:A:OP2	87:4:234:OHX:N6	2.53	0.42
5:S3:117:ARG:HD3	35:SM:122:GLU:O	2.18	0.42
1:6:187:G:H8	1:6:187:G:O5'	2.02	0.42
10:S8:113:PHE:C	10:S8:115:ALA:H	2.22	0.42
53:M7:67:ILE:HG23	53:M7:68:GLY:N	2.33	0.42
36:5:2569:A:H4'	36:5:2570:U:H5'	2.00	0.42
2:S0:90:ALA:HB1	2:S0:95:ALA:O	2.32	0.42
36:1:2398:A:OP1	36:1:2873:U:H4'	2.18	0.42
36:1:2981:U:O2'	36:1:2982:A:H5'	2.18	0.42
36:5:2101:C:O2'	36:5:2102:U:P	2.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:198:A:C6	36:1:219:A:C6	3.07	0.42
36:1:3091:A:C4	36:1:3094:A:C8	3.07	0.42
40:L3:187:SER:CB	40:L3:190:GLU:HG3	2.49	0.42
49:M3:3:ILE:HG21	64:N8:45:MET:HE3	4.62	0.42
1:6:698:U:C4	1:6:699:U:C5	3.07	0.42
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.30	0.42
24:D2:113:HIS:NE2	24:D2:114:GLU:HG3	2.34	0.42
24:D2:115:GLU:HA	24:D2:118:ARG:NH1	3.26	0.42
74:O8:14:LEU:HD11	74:O8:52:TYR:CG	2.54	0.42
1:6:1408:G:H2'	1:6:1409:G:C8	2.54	0.42
5:S3:134:CYS:N	5:S3:157:LEU:HD11	2.34	0.42
36:1:1065:A:C2	65:N9:28:LYS:N	2.87	0.42
36:5:2440:G:C2	36:5:2441:A:C5	3.06	0.42
36:5:2906:C:C2	36:5:2907:G:C8	3.07	0.42
2:S0:168:HIS:HB3	2:S0:203:PHE:CE2	2.67	0.42
49:M3:157:ARG:NH1	64:N8:124:ILE:HD12	4.55	0.42
36:1:1166:G:O6	87:1:3866:OHX:N4	2.51	0.42
16:C4:122:PRO:C	16:C4:124:ASP:H	3.15	0.42
13:C1:26:LYS:O	1:6:838:G:O2'	281.02	0.42
45:L8:89:GLU:HA	45:L8:92:LYS:HB2	2.02	0.42
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.00	0.42
39:L2:21:ARG:NH1	36:5:825:U:P	170.76	0.42
1:6:1680:G:HO2'	1:6:1681:A:P	2.42	0.42
1:2:1054:U:H2'	1:2:1055:U:C6	2.51	0.42
36:1:3159:C:H2'	36:1:3160:U:C6	2.54	0.42
36:1:2609:A:H2'	36:1:2610:G:H8	1.85	0.42
1:2:493:U:H2'	1:2:494:U:C5	2.54	0.42
36:5:2291:A:C5	36:5:2292:U:C4	3.06	0.42
36:5:277:G:C5	36:5:278:U:C5	3.07	0.42
59:N3:45:ARG:O	59:N3:46:LEU:C	2.75	0.42
38:8:121:U:O2'	38:8:122:U:H5'	2.20	0.42
36:5:1481:A:C2'	36:5:1858:A:N3	2.82	0.42
50:M4:48:GLY:O	50:M4:53:VAL:HG13	2.19	0.42
37:3:20:A:H2'	37:3:21:G:C8	2.54	0.42
36:1:829:U:N3	36:1:895:A:N6	2.67	0.42
52:M6:82:LYS:O	52:M6:82:LYS:HG3	4.58	0.42
26:D4:11:LYS:NZ	1:6:776:G:N7	419.32	0.42
36:5:2951:G:O3'	87:5:4083:OHX:N2	2.52	0.42
36:1:758:C:C2	36:1:774:G:C2	3.07	0.42
36:1:2525:G:C6	39:L2:34:TYR:CD2	3.08	0.42
1:2:84:A:H2'	1:2:85:A:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:124:VAL:HB	57:N1:125:ALA:H	1.56	0.42
36:5:396:A:N6	36:5:399:A:C6	2.87	0.42
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.22	0.42
55:M9:186:LYS:O	55:M9:186:LYS:HG2	3.26	0.42
50:M4:59:ASN:C	50:M4:61:GLY:H	2.22	0.42
1:6:942:G:H2'	1:6:943:C:H6	1.83	0.42
36:1:2778:G:H2'	36:1:2779:A:H5'	2.01	0.42
66:O0:77:LEU:HD23	66:O0:87:VAL:O	2.61	0.42
20:C8:113:LEU:HA	20:C8:116:LEU:CD2	3.99	0.42
36:5:1889:G:C6	36:5:1890:U:C4	3.08	0.42
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.53	0.42
51:M5:84:PRO:O	78:Q2:51:GLY:HA2	2.90	0.42
11:S9:37:LYS:HA	32:E0:33:ARG:HA	2.02	0.42
32:E0:36:LYS:NZ	1:6:593:U:H5	412.34	0.42
47:M0:158:LYS:NZ	36:5:2836:C:H6	308.55	0.42
47:M0:154:ARG:O	47:M0:155:ALA:C	2.57	0.42
47:M0:155:ALA:C	47:M0:157:TYR:N	2.78	0.42
47:M0:71:CYS:O	47:M0:74:LYS:N	3.09	0.42
41:L4:334:PHE:CD2	36:5:578:A:H2'	278.86	0.42
44:L7:111:ILE:HD13	44:L7:111:ILE:HG21	1.66	0.42
44:L7:51:TYR:C	44:L7:53:LYS:H	2.66	0.42
45:L8:230:LYS:HG3	45:L8:230:LYS:O	2.89	0.42
1:6:119:A:H1'	1:6:397:A:C4	2.55	0.42
1:6:116:U:H1'	1:6:334:G:N3	2.33	0.42
1:6:326:G:N2	1:6:343:C:C2	2.87	0.42
10:S8:83:TYR:HE2	13:C1:11:ARG:HH21	3.58	0.42
41:L4:285:ASP:OD2	41:L4:288:ARG:HB2	2.19	0.42
54:M8:32:LEU:HD13	54:M8:36:LEU:HD12	3.90	0.42
1:2:1357:A:C2	1:2:1358:G:C5	3.08	0.42
1:6:1571:C:H5''	1:6:1572:G:OP2	2.18	0.42
20:C8:40:ARG:NH2	21:C9:44:GLU:OE2	2.52	0.42
27:D5:75:LEU:H	27:D5:75:LEU:HG	1.46	0.42
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	8.11	0.42
67:O1:46:THR:HG22	67:O1:46:THR:H	1.49	0.42
42:L5:51:LEU:HB3	42:L5:146:LEU:HD23	2.44	0.42
17:C5:52:LYS:HD3	1:6:1243:G:H21	409.46	0.42
17:C5:52:LYS:HA	17:C5:52:LYS:HD2	4.82	0.42
22:D0:67:THR:CG2	31:D9:40:ARG:HB2	2.49	0.42
5:S3:69:LEU:O	5:S3:72:LEU:HB2	2.20	0.42
1:2:624:G:N2	1:2:625:C:C2	2.87	0.42
1:6:1777:G:H8	1:6:1777:G:O5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:Q1:17:ARG:HD3	1:6:1749:A:O2'	291.31	0.42
3:S1:128:LYS:HG2	3:S1:129:THR:H	1.84	0.42
3:S1:48:VAL:HG11	3:S1:57:ALA:HB1	2.10	0.42
3:S1:61:LEU:HD13	3:S1:61:LEU:HA	3.65	0.42
23:D1:55:LEU:HD11	23:D1:69:LEU:HG	2.96	0.42
29:D7:6:ASP:OD1	29:D7:9:HIS:ND1	3.63	0.42
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	2.40	0.42
2:S0:64:ILE:HG12	2:S0:122:ILE:HD11	2.89	0.42
4:S2:53:ILE:HA	4:S2:56:ILE:HD11	2.56	0.42
66:O0:43:ILE:N	66:O0:90:VAL:O	2.78	0.42
70:O4:100:ILE:HG22	70:O4:101:VAL:N	2.98	0.42
70:O4:46:ASP:OD2	70:O4:84:CYS:HB3	2.18	0.42
68:O2:75:LEU:HD23	68:O2:76:VAL:H	1.84	0.42
1:2:1050:G:N2	1:2:1068:C:O2	2.45	0.42
36:1:1602:A:C5	36:1:1603:A:C6	3.07	0.42
36:5:1471:U:O5'	36:5:1471:U:H6	2.02	0.42
38:8:93:U:H2'	38:8:94:C:C6	2.55	0.42
62:N6:40:ARG:HE	62:N6:40:ARG:HB2	1.90	0.42
71:O5:57:VAL:O	71:O5:60:GLU:HB2	3.10	0.42
1:6:1651:A:O5'	1:6:1651:A:H8	2.02	0.42
41:L4:359:LEU:CD2	41:L4:360:LYS:HG2	2.48	0.42
4:S2:90:THR:C	4:S2:92:ALA:N	2.71	0.42
36:1:2631:U:N3	36:1:2648:G:C2	2.88	0.42
36:1:3213:A:C6	36:1:3214:U:C4	3.08	0.42
8:S6:178:LEU:HD12	8:S6:179:VAL:N	2.35	0.42
34:SR:44:SER:OG	34:SR:59:ARG:HB2	2.20	0.42
36:5:342:A:C4	36:5:368:G:C8	3.07	0.42
36:1:343:U:H1'	41:L4:95:ARG:HD2	2.01	0.42
40:L3:79:VAL:HG12	40:L3:322:ILE:O	2.18	0.42
1:2:1010:C:H2'	1:2:1011:G:O4'	2.19	0.42
87:2:2090:OHX:N3	87:2:2131:OHX:N6	2.67	0.42
70:O4:105:VAL:HG12	70:O4:106:LYS:HG2	2.02	0.42
66:O0:101:LEU:CD2	66:O0:101:LEU:H	4.61	0.42
4:S2:87:GLN:HA	4:S2:96:THR:HA	2.03	0.42
78:Q2:35:LEU:O	78:Q2:36:PHE:CB	2.68	0.42
64:N8:19:LYS:HG2	64:N8:25:HIS:HB2	4.44	0.42
36:1:1063:G:N1	57:N1:109:VAL:HG13	2.34	0.42
58:N2:75:TYR:O	58:N2:78:TYR:HB3	2.20	0.42
36:5:1340:G:C2	36:5:1365:G:C6	3.08	0.42
51:M5:187:ARG:NH2	36:5:49:A:H2'	127.47	0.42
72:O6:21:THR:N	72:O6:22:PRO:HD3	3.75	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:95:THR:HG21	36:5:3244:A:OP1	251.86	0.42
33:E1:102:VAL:HG12	33:E1:103:LEU:N	2.34	0.42
36:1:1813:A:P	36:1:1817:G:HO2'	2.41	0.42
71:O5:24:LEU:HA	71:O5:24:LEU:HD23	1.68	0.42
36:1:139:G:H2'	36:1:140:C:O4'	2.20	0.42
11:S9:22:SER:O	11:S9:25:ASP:HB2	2.20	0.42
25:D3:17:VAL:O	25:D3:20:ARG:N	3.36	0.42
25:D3:27:ASN:OD1	25:D3:31:LYS:HG2	3.07	0.42
36:1:1803:C:O3'	70:O4:70:LYS:HD2	2.20	0.42
40:L3:192:VAL:HA	40:L3:195:ALA:HB3	2.01	0.42
36:5:1577:G:H2'	36:5:1578:C:C6	2.53	0.42
36:1:3386:G:C2	36:1:3387:U:C4	3.07	0.42
36:5:3384:U:C4	36:5:3385:U:C5	3.08	0.42
67:O1:13:THR:N	67:O1:72:ARG:HH11	2.18	0.42
47:M0:101:LYS:HG2	47:M0:102:MET:H	1.84	0.42
13:C1:5:LEU:HB3	13:C1:6:THR:H	1.50	0.42
36:5:944:C:H42	36:5:1375:G:H1	1.68	0.42
36:5:1103:A:H3'	36:5:1104:G:C5'	2.49	0.42
9:S7:103:SER:HB3	9:S7:106:SER:HB2	2.27	0.42
1:2:1345:A:C2	1:2:1348:A:C5	3.08	0.42
1:6:1320:U:O2'	1:6:1322:A:O5'	2.30	0.42
8:S6:28:PHE:CE2	8:S6:104:PRO:HG3	4.77	0.42
36:5:2786:G:O6	87:5:4144:OHX:N4	2.53	0.42
45:L8:78:PHE:CD1	45:L8:78:PHE:N	3.04	0.42
36:1:1525:G:N3	36:1:1594:A:H2	2.17	0.42
36:1:1754:G:C6	36:1:1755:C:C4	3.07	0.42
1:2:196:G:HO2'	1:2:197:A:H8	1.62	0.42
36:1:1217:A:N1	36:1:1289:G:C5	2.87	0.42
36:5:1952:G:H1	36:5:2094:C:N4	2.09	0.42
22:D0:51:VAL:C	22:D0:93:LEU:HD23	2.40	0.42
36:1:336:A:H5''	36:1:336:A:C8	2.51	0.42
50:M4:100:ALA:O	50:M4:103:ILE:HB	2.19	0.42
56:N0:155:ARG:NE	56:N0:172:TYR:CD1	2.87	0.42
47:M0:19:LYS:HE3	47:M0:26:VAL:HG22	3.28	0.42
36:5:2374:C:C4	36:5:2941:A:C4	3.08	0.42
36:5:2943:G:N7	36:5:2944:U:C4	2.88	0.42
52:M6:92:THR:O	52:M6:96:LYS:HG3	2.24	0.42
44:L7:98:LYS:HG2	44:L7:129:LEU:CD2	2.47	0.42
53:M7:70:THR:OG1	53:M7:71:ALA:N	2.98	0.42
36:1:387:A:C4	36:1:388:G:C8	3.08	0.42
11:S9:26:ALA:HA	11:S9:29:LYS:HD2	5.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:32:GLY:HA3	32:E0:40:TYR:CD2	3.06	0.42
74:O8:11:PHE:O	74:O8:14:LEU:HB2	2.20	0.42
36:1:1274:A:N6	36:1:1275:C:N4	2.67	0.42
2:S0:32:HIS:CD2	23:D1:63:GLY:HA3	11.62	0.42
36:5:1667:A:H8	36:5:1667:A:O5'	2.01	0.42
36:5:3238:G:C2	36:5:3239:G:C8	3.07	0.42
36:1:3340:G:N2	36:1:3342:A:C8	2.87	0.42
36:5:592:A:H2'	36:5:592:A:N3	2.34	0.42
36:1:90:C:O2'	36:1:91:G:H5'	2.20	0.42
3:S1:119:THR:OG1	3:S1:155:TYR:HA	2.93	0.42
6:S4:75:LYS:HD3	6:S4:77:ARG:HH22	3.69	0.42
36:5:1002:A:O2'	36:5:1003:A:H5'	2.19	0.42
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.19	0.42
45:L8:118:GLU:OE2	45:L8:118:GLU:N	2.53	0.42
36:5:413:U:H2'	36:5:414:U:C6	2.54	0.42
17:C5:77:ARG:NH1	1:6:1241:G:OP2	382.83	0.42
1:6:1521:G:O6	1:6:1523:G:C5	2.72	0.42
9:S7:78:THR:O	9:S7:82:GLU:HB2	3.77	0.42
1:2:641:G:H2'	1:2:642:G:C8	2.52	0.42
36:1:3159:C:HO2'	36:1:3395:G:N2	2.17	0.42
51:M5:199:LEU:HD22	51:M5:203:ARG:NE	3.63	0.42
36:1:434:U:C4	36:1:435:C:N4	2.87	0.42
70:O4:11:ASN:HA	70:O4:12:PRO:HD3	2.30	0.42
37:7:72:A:H8	37:7:72:A:O5'	2.03	0.42
46:L9:126:VAL:HA	46:L9:127:PRO:HD2	1.63	0.42
64:N8:70:LYS:H	64:N8:71:PRO:HD3	2.67	0.42
36:5:2560:C:N4	36:5:2575:G:OP2	2.52	0.42
1:6:419:G:C6	1:6:420:A:C5	3.07	0.42
36:1:1862:U:OP2	87:1:4160:OHX:N1	2.53	0.42
36:1:1452:A:O3'	87:1:4207:OHX:N6	2.52	0.42
8:S6:88:ARG:HG2	8:S6:89:ASP:N	2.33	0.42
9:S7:119:THR:O	9:S7:123:ASP:HB2	2.26	0.42
1:2:716:C:N4	1:2:722:G:C6	2.88	0.42
36:5:1941:C:N3	36:5:1942:U:C4	2.87	0.42
36:5:1272:C:H2'	36:5:1273:A:H5'	2.00	0.42
36:5:2335:G:H2'	36:5:2335:G:H8	1.72	0.42
8:S6:113:ILE:HG13	8:S6:113:ILE:H	1.63	0.42
72:O6:75:LYS:O	72:O6:75:LYS:HG3	2.20	0.42
36:5:1683:A:C5	36:5:1684:U:C5	3.06	0.42
32:E0:13:LYS:O	32:E0:17:GLN:HG2	2.19	0.42
47:M0:34:TYR:CD1	47:M0:34:TYR:N	3.05	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:89:ILE:HD11	44:L7:135:ALA:N	2.34	0.42
36:5:2433:U:C4	36:5:2434:U:C4	3.08	0.42
51:M5:124:ASP:O	51:M5:125:SER:C	3.35	0.42
6:S4:49:ARG:NH2	6:S4:50:ASN:OD1	3.26	0.42
36:1:1419:A:H2'	36:1:1420:C:H5'	2.00	0.42
36:5:1393:A:O2'	36:5:1419:A:H2	2.02	0.42
41:L4:119:ARG:O	41:L4:123:ALA:N	2.31	0.42
43:L6:40:LEU:HD12	43:L6:65:ILE:HD11	5.91	0.42
43:L6:42:LEU:HD22	43:L6:79:VAL:HG21	2.01	0.42
43:L6:65:ILE:HA	43:L6:65:ILE:HD13	3.79	0.42
19:C7:13:SER:OG	19:C7:54:THR:HG22	2.20	0.42
5:S3:168:ILE:HA	5:S3:188:ILE:O	2.17	0.42
1:2:1615:C:H6	1:2:1615:C:O5'	2.02	0.42
36:5:3327:G:N2	36:5:3328:G:H1'	2.34	0.42
61:N5:114:VAL:HG21	36:5:1833:G:P	101.58	0.42
36:1:1109:U:O2	36:1:1109:U:H2'	2.19	0.42
42:L5:152:ARG:HG3	37:7:44:C:H4'	282.39	0.42
42:L5:253:PHE:C	42:L5:253:PHE:CD1	3.04	0.42
42:L5:85:ARG:NH1	42:L5:253:PHE:H	2.15	0.42
1:2:1550:A:OP2	17:C5:42:ARG:NH2	2.52	0.42
17:C5:14:THR:CB	17:C5:21:ASP:HB3	2.50	0.42
21:C9:57:ARG:NH2	21:C9:80:TYR:HB3	2.45	0.42
31:D9:44:ARG:HA	31:D9:47:ALA:CB	2.50	0.42
5:S3:66:ILE:O	5:S3:70:THR:HG23	2.20	0.42
1:6:865:A:H2'	1:6:866:G:C8	2.55	0.42
72:O6:27:SER:C	72:O6:29:LYS:N	3.95	0.42
77:Q1:16:LYS:O	77:Q1:19:LYS:HB3	2.19	0.42
36:1:1639:C:O2'	36:1:1640:G:H5'	2.20	0.42
70:O4:74:ARG:HB3	70:O4:74:ARG:NH1	3.19	0.42
47:M0:23:ASN:HB3	47:M0:24:ARG:H	1.65	0.42
36:1:409:A:H5"	68:O2:26:HIS:NE2	2.34	0.42
23:D1:27:ASP:O	23:D1:29:HIS:N	2.53	0.42
2:S0:146:LEU:HD13	2:S0:162:CYS:SG	5.28	0.42
2:S0:50:VAL:HA	2:S0:53:THR:CB	2.49	0.42
1:6:1696:G:H1'	1:6:1697:G:OP1	2.19	0.42
71:O5:60:GLU:HG2	71:O5:64:GLU:OE2	2.19	0.42
71:O5:60:GLU:O	71:O5:64:GLU:N	2.43	0.42
1:2:1483:A:C2	1:2:1524:A:C6	3.08	0.42
14:C2:78:LEU:HD23	14:C2:78:LEU:HA	1.85	0.42
36:1:3018:C:H2'	36:1:3019:U:C6	2.55	0.42
20:C8:145:ARG:HH21	35:SM:68:ARG:HD3	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:117:ARG:HH21	36:5:1322:U:P	282.75	0.42
1:6:72:A:C6	1:6:73:U:N3	2.87	0.42
44:L7:80:GLN:HG3	57:N1:136:ARG:N	2.32	0.42
60:N4:3:VAL:HG23	60:N4:14:TYR:HA	4.76	0.42
43:L6:165:LEU:HA	43:L6:165:LEU:HD23	1.77	0.42
5:S3:225:TYR:HD2	34:SR:189:GLU:HA	3.05	0.42
34:SR:295:SER:OG	34:SR:296:ALA:N	2.53	0.42
56:N0:40:ARG:O	56:N0:43:TYR:N	2.81	0.42
62:N6:39:LEU:HA	62:N6:42:GLN:HB2	2.01	0.42
62:N6:66:GLN:O	62:N6:67:GLU:HG3	2.38	0.42
1:2:986:G:H22	1:2:1015:U:H5	1.65	0.42
3:S1:144:ARG:HB3	3:S1:208:GLN:CG	3.57	0.42
36:1:210:U:OP2	41:L4:161:LYS:HG3	2.18	0.42
8:S6:75:LEU:O	8:S6:94:ARG:HA	2.35	0.42
72:O6:99:ARG:NH1	72:O6:99:ARG:HG3	2.35	0.42
53:M7:110:THR:C	53:M7:112:LEU:H	2.84	0.42
36:1:1428:A:OP2	64:N8:2:PRO:HA	2.20	0.42
69:O3:97:SER:HB2	36:5:3174:A:OP1	241.57	0.42
70:O4:76:TYR:CE1	36:5:1806:A:H5'	192.90	0.42
24:D2:81:VAL:N	24:D2:123:GLY:O	3.25	0.42
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.48	0.42
49:M3:48:PRO:O	49:M3:137:GLN:HG3	4.87	0.42
57:N1:105:PHE:CE2	36:5:1062:A:H4'	244.83	0.42
57:N1:39:ILE:O	57:N1:39:ILE:HG22	2.19	0.42
58:N2:75:TYR:CZ	36:5:1687:U:O4'	167.41	0.42
51:M5:170:LYS:NZ	36:5:288:C:P	123.22	0.42
49:M3:74:GLY:HA2	49:M3:96:ALA:HB1	2.02	0.42
36:1:3027:A:C2	36:1:3028:G:H1'	2.55	0.42
36:1:3030:G:O6	36:1:3031:G:C2	2.72	0.42
1:2:778:G:C8	1:2:779:U:H2'	2.54	0.42
36:5:1753:G:N2	36:5:1754:G:H1'	2.35	0.42
55:M9:88:ARG:CG	55:M9:88:ARG:HH11	2.59	0.42
38:4:43:A:H5''	38:4:44:A:OP2	2.19	0.42
11:S9:25:ASP:O	11:S9:28:LEU:N	3.46	0.42
36:1:1942:U:O2'	36:1:3345:G:O2'	2.06	0.42
44:L7:33:ARG:O	44:L7:37:ASN:N	2.57	0.42
36:5:137:G:C5	36:5:138:U:C5	3.07	0.42
60:N4:31:PHE:CD1	60:N4:37:ALA:HA	2.87	0.42
56:N0:6:GLU:OE2	56:N0:30:PHE:CE1	2.73	0.42
67:O1:72:ARG:O	67:O1:96:VAL:HG13	3.22	0.42
36:5:71:A:N1	36:5:2778:G:H1'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1347:U:N3	1:6:1516:A:OP1	2.44	0.42
56:N0:68:HIS:HA	56:N0:69:PRO:HD3	1.62	0.42
1:2:1446:A:C8	1:2:1448:G:N7	2.88	0.42
36:5:733:G:N2	36:5:735:A:H5''	2.34	0.42
16:C4:132:ARG:CZ	1:6:1788:G:C8	297.24	0.42
36:1:3119:U:H4'	76:Q0:104:PRO:HB3	2.01	0.42
76:Q0:103:LEU:CD2	76:Q0:104:PRO:HD2	2.46	0.42
1:6:1334:U:C2	1:6:1418:G:N2	2.88	0.42
78:Q2:28:TYR:HD1	78:Q2:29:LYS:N	2.43	0.42
73:O7:21:ARG:NH1	73:O7:44:THR:HG23	2.34	0.42
36:5:1618:G:C2	36:5:1827:C:N3	2.87	0.42
36:5:1529:A:O4'	36:5:1588:A:C2	2.72	0.42
1:2:766:U:H5	1:2:769:A:OP2	2.02	0.42
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.21	0.42
38:4:10:A:H8	38:4:10:A:O5'	2.02	0.42
50:M4:64:VAL:HG22	50:M4:65:LEU:O	2.20	0.42
50:M4:99:TRP:O	50:M4:102:LYS:N	2.46	0.42
69:O3:19:SER:O	69:O3:20:LYS:C	2.57	0.42
56:N0:45:LEU:HA	56:N0:45:LEU:HD22	1.49	0.42
52:M6:96:LYS:O	52:M6:97:ALA:C	2.82	0.42
64:N8:45:MET:HE3	64:N8:49:HIS:CD2	2.55	0.42
10:S8:6:ASP:OD1	10:S8:9:HIS:N	2.68	0.42
58:N2:22:PRO:HB3	58:N2:93:ILE:CG2	2.45	0.42
36:5:2660:G:H5''	36:5:2750:U:O2'	2.20	0.42
36:1:2168:A:C6	36:1:2170:U:H1'	2.53	0.42
9:S7:96:ARG:NH2	9:S7:128:ASP:OD2	3.17	0.42
36:5:3153:U:H1'	36:5:3154:C:C5	2.55	0.42
1:6:604:A:H2'	1:6:605:A:O4'	2.18	0.42
1:2:726:C:H2'	1:2:727:U:C5	2.54	0.42
36:5:2794:G:N7	87:5:3985:OHX:N1	2.67	0.42
18:C6:73:GLY:H	18:C6:76:SER:CB	2.32	0.42
1:6:1283:U:C2	1:6:1284:C:C5	3.07	0.42
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	3.43	0.42
15:C3:129:TYR:HD1	15:C3:134:VAL:HG11	1.89	0.42
19:C7:78:ARG:HH11	19:C7:81:LYS:NZ	2.18	0.42
1:6:1575:G:C2	1:6:1576:A:C4	3.07	0.42
36:5:1070:U:H2'	36:5:1071:U:H5'	2.01	0.42
36:1:1346:G:N2	36:1:1359:C:C2	2.88	0.42
36:1:1072:G:N2	36:1:1073:U:C2	2.87	0.42
36:5:1187:C:O2	36:5:1187:C:C2'	2.66	0.42
36:5:1490:A:H3'	36:5:1491:A:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:760:G:H1'	36:5:770:G:N2	2.35	0.42
36:1:1727:G:N2	36:1:1731:A:N3	2.62	0.42
36:1:172:G:C6	36:1:173:G:C5	3.07	0.42
36:1:971:G:C2'	36:1:1371:G:HO2'	2.32	0.42
1:2:316:A:C5	1:2:317:C:C5	3.07	0.42
13:C1:79:LYS:CB	1:6:346:G:H5'	282.13	0.42
1:2:1271:G:C2	1:2:1272:U:C2	3.08	0.42
1:6:319:U:H1'	1:6:323:A:C4	2.55	0.42
36:5:2933:A:C5	36:5:3014:U:O2'	2.72	0.42
51:M5:103:GLU:OE1	51:M5:165:THR:HG21	4.53	0.42
13:C1:107:VAL:O	13:C1:107:VAL:HG12	2.66	0.42
40:L3:146:ARG:NE	40:L3:146:ARG:HA	2.87	0.42
68:O2:80:LYS:HA	68:O2:80:LYS:HD3	1.81	0.42
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.51	0.42
36:1:2390:A:H2'	36:1:2391:G:O4'	2.20	0.42
36:1:1317:A:C4	36:1:1319:G:N7	2.87	0.42
36:1:2341:A:O2'	36:1:2342:U:H5'	2.19	0.42
36:5:1507:G:H4'	36:5:1508:C:OP2	2.18	0.42
1:2:460:A:H5'	1:2:461:G:OP2	2.20	0.42
1:2:755:A:C6	1:2:756:A:C6	3.07	0.42
1:2:512:A:H2'	1:2:513:U:O4'	2.19	0.42
1:2:765:G:O6	11:S9:82:ARG:HD3	2.19	0.42
36:5:2837:A:O2'	36:5:2838:A:OP2	2.37	0.42
47:M0:29:SER:O	47:M0:32:ARG:HD3	2.37	0.42
47:M0:44:ASP:HA	47:M0:171:TRP:HZ2	1.85	0.42
1:6:327:U:O2'	1:6:328:A:H5'	2.19	0.42
41:L4:260:GLN:O	41:L4:270:SER:HB3	4.16	0.42
41:L4:276:LEU:HA	41:L4:276:LEU:HD23	1.93	0.42
19:C7:19:ARG:HG3	19:C7:20:TYR:HE1	1.83	0.42
20:C8:13:HIS:CD2	20:C8:13:HIS:H	2.89	0.42
36:1:975:C:H2'	36:1:976:U:C6	2.54	0.42
42:L5:61:ILE:HG12	42:L5:79:TYR:HD1	1.85	0.42
1:2:1280:C:H4'	22:D0:70:THR:HA	2.02	0.42
12:C0:21:VAL:HG11	12:C0:46:LEU:CD1	6.54	0.42
12:C0:35:ILE:H	12:C0:35:ILE:HG13	1.67	0.42
12:C0:72:GLY:C	12:C0:74:GLU:H	3.09	0.42
21:C9:109:GLU:HA	21:C9:114:VAL:O	2.19	0.42
21:C9:117:SER:HB2	21:C9:123:ARG:N	2.34	0.42
48:M1:166:LYS:O	48:M1:167:TYR:HB2	2.32	0.42
5:S3:102:ALA:C	5:S3:104:SER:N	2.73	0.42
5:S3:105:MET:SD	5:S3:118:ALA:HB1	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:178:ARG:HB2	5:S3:179:GLN:H	3.44	0.42
15:C3:105:ASN:C	15:C3:107:LYS:H	2.34	0.42
1:6:1783:C:H2'	1:6:1784:C:H6	1.84	0.42
47:M0:20:SER:OG	47:M0:21:ARG:N	2.51	0.42
1:2:903:U:H1'	1:2:906:A:N7	2.34	0.42
16:C4:20:TYR:HA	16:C4:84:ARG:O	2.56	0.42
3:S1:73:LEU:HA	3:S1:73:LEU:HD13	4.55	0.42
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	5.92	0.42
36:5:1439:U:H2'	36:5:1440:G:O4'	2.19	0.42
1:6:1141:G:C2	1:6:1142:A:C4	3.07	0.42
29:D7:6:ASP:OD1	29:D7:9:HIS:HB2	2.48	0.42
2:S0:195:TRP:HD1	2:S0:196:SER:HG	1.67	0.42
20:C8:18:LEU:HA	20:C8:18:LEU:HD13	1.77	0.42
48:M1:10:ARG:HD3	48:M1:133:ARG:HE	3.91	0.42
4:S2:143:TYR:CZ	4:S2:151:PRO:HG3	2.89	0.42
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.19	0.42
63:N7:4:PHE:HB2	63:N7:9:LYS:CE	3.95	0.42
55:M9:34:GLN:O	55:M9:35:ALA:C	2.58	0.42
14:C2:62:LEU:O	14:C2:91:VAL:HG12	4.48	0.42
31:D9:6:VAL:HB	31:D9:7:TRP:H	4.36	0.42
20:C8:145:ARG:CD	35:SM:68:ARG:HH22	4.28	0.42
50:M4:13:ARG:HE	50:M4:67:PRO:HB3	2.34	0.42
56:N0:142:GLN:HB3	56:N0:142:GLN:HE21	1.64	0.42
56:N0:78:TRP:HB3	56:N0:124:LEU:HB2	2.48	0.42
59:N3:87:ARG:HG3	59:N3:91:VAL:CG2	2.50	0.42
37:7:1:G:C8	37:7:1:G:H5''	2.54	0.42
34:SR:241:PHE:CE2	34:SR:288:HIS:CE1	5.02	0.42
36:5:1056:U:H2'	36:5:1057:A:O4'	2.19	0.42
36:1:53:G:P	73:O7:48:ASN:HB2	2.59	0.42
29:D7:63:LEU:O	29:D7:74:SER:N	2.91	0.42
1:2:889:U:H4'	1:2:989:U:OP1	2.19	0.42
16:C4:134:GLY:O	16:C4:136:ARG:HG2	2.19	0.42
39:L2:45:VAL:HG13	39:L2:83:HIS:O	2.20	0.42
66:O0:11:ASN:O	66:O0:13:LYS:N	3.99	0.42
52:M6:199:TYR:N	52:M6:199:TYR:CD2	2.87	0.42
36:1:3180:A:H2'	52:M6:167:TYR:CE1	2.54	0.42
49:M3:92:THR:HB	71:O5:114:ARG:CG	2.49	0.42
36:5:287:G:H2'	36:5:288:C:H6	1.83	0.42
51:M5:58:GLY:O	51:M5:60:VAL:HG23	2.19	0.42
36:1:1927:G:OP1	79:Q3:8:VAL:HG22	2.20	0.42
45:L8:195:SER:O	45:L8:196:ALA:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:80:VAL:HG11	4:S2:125:ILE:HD12	6.24	0.42
24:D2:74:VAL:O	24:D2:75:ILE:HD13	4.41	0.42
10:S8:29:LEU:HD12	1:6:400:A:C6	296.44	0.42
48:M1:48:SER:HB2	48:M1:66:ALA:O	2.58	0.42
34:SR:157:VAL:HG23	34:SR:169:ILE:HA	2.53	0.42
44:L7:27:ALA:CA	44:L7:30:ARG:HB3	2.44	0.42
37:7:26:C:N4	37:7:27:A:C6	2.88	0.42
56:N0:103:VAL:HG13	56:N0:123:ILE:HD12	2.01	0.42
64:N8:95:SER:OG	64:N8:97:GLU:HG2	6.89	0.42
52:M6:54:TYR:CD2	52:M6:145:VAL:HG11	2.55	0.42
36:5:2826:U:C2'	36:5:2827:U:H5'	2.50	0.42
1:6:824:G:C6	1:6:825:U:C4	3.08	0.42
4:S2:144:TRP:CG	4:S2:173:PRO:HA	2.54	0.42
1:2:327:U:H1'	13:C1:10:GLU:CD	2.40	0.42
41:L4:234:ASN:HB2	36:5:693:A:O2'	101.63	0.42
36:5:1107:C:H2'	36:5:1108:U:H6	1.85	0.42
22:D0:40:ASN:O	22:D0:44:ASN:HB3	2.19	0.42
36:5:2403:G:H2'	36:5:2870:C:O2'	2.19	0.42
36:5:1609:C:H2'	36:5:1610:G:H8	1.84	0.42
1:2:256:A:O2'	10:S8:72:ILE:HA	2.19	0.42
42:L5:40:HIS:CE1	57:N1:69:LYS:CA	3.08	0.42
36:1:2737:C:H4'	57:N1:68:THR:OG1	2.19	0.42
53:M7:27:LYS:HD3	53:M7:63:PHE:CG	2.54	0.42
36:1:765:C:H4'	36:1:766:U:OP1	2.19	0.42
62:N6:5:SER:HG	62:N6:7:ASP:H	1.63	0.42
36:5:2103:U:H2'	36:5:2104:A:C8	2.54	0.42
36:1:3205:G:OP2	36:1:3206:C:N4	2.53	0.42
36:5:259:C:H2'	36:5:260:C:H6	1.84	0.42
1:2:525:A:N6	1:2:526:A:C6	2.88	0.42
36:5:2531:C:HO2'	36:5:2532:U:P	2.43	0.42
1:6:1341:A:H2'	1:6:1341:A:N3	2.35	0.42
1:6:1338:C:H1'	1:6:1410:A:C4	2.54	0.42
36:1:1462:A:H2'	36:1:1463:U:O4'	2.20	0.42
18:C6:83:GLN:NE2	18:C6:119:ALA:HA	2.39	0.42
8:S6:76:LEU:C	8:S6:77:LEU:HG	2.40	0.42
87:6:2064:OHX:N2	87:6:2152:OHX:N4	2.67	0.42
1:2:685:A:HO2'	1:2:686:C:P	2.42	0.42
36:1:2170:U:C2	36:1:2171:G:C8	3.08	0.42
68:O2:46:PHE:O	68:O2:49:ASN:HB2	2.33	0.42
36:1:398:A:C4	53:M7:3:ARG:NH2	2.87	0.42
36:5:1209:G:C6	36:5:1210:U:N3	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:118:ARG:C	24:D2:120:HIS:H	2.22	0.42
24:D2:83:ILE:HG13	24:D2:117:ARG:NH1	2.34	0.42
74:O8:9:LYS:O	74:O8:13:GLU:HG3	5.66	0.42
1:2:709:C:C4	1:2:710:U:H1'	2.55	0.42
36:5:1541:G:H2'	36:5:1542:G:O4'	2.19	0.42
36:1:671:U:H2'	36:1:672:A:H8	1.82	0.42
49:M3:157:ARG:HB3	49:M3:157:ARG:HE	1.47	0.42
38:8:70:G:C2	38:8:87:G:N3	2.87	0.42
36:1:718:G:H3'	36:1:719:U:C5'	2.49	0.42
37:3:63:A:C2	37:3:65:G:C5	3.07	0.42
79:Q3:85:ARG:O	79:Q3:88:GLU:HB2	2.22	0.42
3:S1:119:THR:HG22	3:S1:120:LEU:H	1.84	0.42
19:C7:73:LEU:O	19:C7:76:GLU:N	4.01	0.42
59:N3:26:ALA:O	59:N3:114:ILE:HA	2.19	0.42
46:L9:86:TYR:CE2	46:L9:151:VAL:HG13	3.21	0.42
40:L3:311:PHE:HE2	40:L3:317:ILE:HG13	1.85	0.42
36:5:2678:A:C8	36:5:2679:A:N7	2.88	0.42
36:1:2620:G:N3	36:1:2620:G:H2'	2.34	0.42
36:5:1258:U:O2	36:5:1260:A:H8	2.02	0.42
1:6:321:C:H6	1:6:321:C:OP1	2.02	0.42
1:2:577:G:C2	35:SM:99:LYS:HD2	2.55	0.42
8:S6:182:GLN:CA	8:S6:182:GLN:HE21	4.42	0.42
29:D7:31:TYR:CE1	29:D7:81:ARG:CZ	3.03	0.42
1:2:454:U:C5	6:S4:66:MET:HB3	2.54	0.42
36:1:2097:U:H6	36:1:2097:U:O5'	2.03	0.42
13:C1:39:GLY:C	13:C1:41:GLY:N	2.72	0.42
40:L3:282:ILE:HD13	40:L3:282:ILE:HG21	2.47	0.42
1:6:1195:C:H5''	1:6:1197:C:C6	2.54	0.42
36:5:985:U:H2'	36:5:986:U:H6	1.84	0.42
1:6:789:A:C2	1:6:790:U:H1'	2.54	0.42
36:1:2433:U:C4	36:1:2434:U:C4	3.08	0.42
36:1:222:A:C5	36:1:223:U:C5	3.07	0.42
36:5:2849:C:H2'	36:5:2850:G:H5'	2.00	0.42
36:5:2582:C:O2'	36:5:2583:C:H5'	2.20	0.42
3:S1:202:LYS:HG3	3:S1:203:ASP:OD1	2.20	0.42
42:L5:191:ASP:OD2	42:L5:193:GLU:HB2	2.18	0.42
1:6:734:A:H2'	1:6:735:C:O4'	2.20	0.42
1:6:1738:U:H2'	1:6:1739:C:C6	2.54	0.42
36:1:867:G:H8	36:1:867:G:O5'	2.01	0.42
36:5:2839:G:N3	36:5:2839:G:H2'	2.35	0.42
74:O8:72:THR:O	74:O8:72:THR:OG1	2.69	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2252:A:C2	36:5:2265:C:O2	2.72	0.42
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.70	0.42
1:2:1546:G:P	20:C8:127:HIS:HE2	2.38	0.42
46:L9:21:LYS:HB3	36:5:3198:U:H1'	325.06	0.42
36:1:1504:A:C5	36:1:1505:C:C5	3.08	0.42
53:M7:22:LEU:O	53:M7:143:PRO:HB2	2.19	0.42
1:6:86:A:C2	1:6:87:C:C5	3.08	0.42
28:D6:34:LYS:O	28:D6:35:ALA:CB	4.23	0.42
28:D6:38:ARG:HE	28:D6:83:ILE:HB	1.85	0.42
36:1:1038:C:C2	36:1:1039:U:C5	3.08	0.42
41:L4:333:VAL:O	41:L4:334:PHE:C	2.57	0.42
51:M5:22:LEU:C	51:M5:24:ARG:N	3.56	0.42
13:C1:20:PHE:CD1	1:6:211:U:H5''	281.71	0.42
1:6:341:A:H2'	1:6:342:C:H6	1.85	0.42
41:L4:203:ARG:HH11	41:L4:226:GLU:CD	3.10	0.42
54:M8:48:VAL:O	54:M8:51:ALA:HB3	2.20	0.42
41:L4:74:ILE:HA	41:L4:74:ILE:HD12	3.70	0.42
18:C6:57:LEU:H	18:C6:57:LEU:HD12	3.29	0.42
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.26	0.42
7:S5:90:ILE:HG23	7:S5:90:ILE:HD12	2.15	0.42
7:S5:91:GLU:HA	7:S5:94:THR:HG23	2.01	0.42
17:C5:52:LYS:C	17:C5:54:ALA:H	3.16	0.42
29:D7:19:HIS:CG	29:D7:20:LYS:N	2.88	0.42
77:Q1:10:THR:OG1	77:Q1:11:ARG:N	3.54	0.42
77:Q1:15:ARG:HD3	1:6:1126:G:OP1	280.63	0.42
16:C4:21:ALA:CA	16:C4:26:THR:HG22	2.50	0.42
3:S1:38:PHE:HB3	3:S1:73:LEU:HD12	2.68	0.42
3:S1:97:LEU:HD22	3:S1:232:HIS:ND1	5.76	0.42
2:S0:185:ARG:HB2	23:D1:45:ALA:CB	2.49	0.42
2:S0:57:LEU:HA	2:S0:160:ILE:CD1	2.99	0.42
1:6:1699:G:O2'	1:6:1700:C:H5'	2.19	0.42
68:O2:105:ARG:CD	68:O2:124:GLY:HA3	2.75	0.42
62:N6:52:ARG:HA	62:N6:70:ILE:CG2	3.45	0.42
1:2:1485:C:H5''	87:2:2100:OHX:N6	2.35	0.42
1:2:1227:A:N6	1:2:1256:A:C4	2.88	0.42
1:2:1454:G:C4	1:2:1455:G:C8	3.07	0.42
6:S4:124:GLY:HA3	6:S4:162:ILE:HD11	2.83	0.42
60:N4:47:ARG:O	60:N4:55:PHE:HD2	2.60	0.42
36:1:2661:G:N2	36:1:2709:C:N3	2.56	0.42
1:6:1587:A:O2'	1:6:1588:G:H5'	2.20	0.42
18:C6:115:THR:HG1	18:C6:116:LEU:H	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:56:CYS:SG	29:D7:57:GLU:N	3.24	0.42
62:N6:58:VAL:HG12	62:N6:64:LYS:HA	2.00	0.42
51:M5:44:ARG:HB2	51:M5:119:TYR:CE2	3.21	0.42
4:S2:94:GLN:O	4:S2:95:ARG:HB2	4.56	0.42
49:M3:161:ASP:OD2	64:N8:139:ARG:NH1	4.42	0.42
64:N8:129:PHE:HZ	72:O6:9:ILE:HB	5.08	0.42
36:5:37:U:H5''	36:5:935:U:H1'	2.01	0.42
36:5:812:G:H1	36:5:928:C:H42	1.68	0.42
36:1:3393:U:C2	36:1:3394:U:C5	3.08	0.42
36:1:287:G:H5'	51:M5:179:LYS:O	2.20	0.42
51:M5:180:PHE:CD2	51:M5:180:PHE:N	3.20	0.42
36:1:3243:A:C4	52:M6:156:LEU:HD12	2.55	0.42
36:1:3027:A:H2'	36:1:3028:G:H8	1.84	0.42
36:1:2189:U:C5	36:1:2190:U:C5	3.07	0.42
71:O5:38:ARG:HA	71:O5:39:PRO:HD2	1.55	0.42
62:N6:2:ALA:N	36:5:213:A:H5''	81.10	0.42
1:2:79:C:H4'	8:S6:174:LYS:HB2	2.02	0.42
25:D3:17:VAL:HG12	25:D3:18:HIS:N	2.34	0.42
36:5:3316:A:H5''	36:5:3318:G:N2	2.34	0.42
36:1:1404:G:C6	36:1:1408:G:C6	3.08	0.42
36:1:3121:U:H4'	36:1:3122:A:OP1	2.19	0.42
1:6:1294:G:N2	1:6:1322:A:C8	2.87	0.42
14:C2:73:LYS:HE3	14:C2:73:LYS:HB3	1.74	0.42
1:6:276:C:O2'	1:6:277:U:OP2	2.30	0.42
36:1:1574:C:N4	36:1:1575:A:N7	2.68	0.42
38:4:140:G:H2'	38:4:141:C:O4'	2.20	0.42
38:4:141:C:H2'	38:4:142:C:C6	2.54	0.42
53:M7:69:ARG:NH2	36:5:2992:U:H1'	191.85	0.42
78:Q2:61:LYS:NZ	78:Q2:61:LYS:HB3	2.34	0.42
50:M4:103:ILE:HA	50:M4:103:ILE:HD13	1.81	0.42
36:5:1556:C:H5''	36:5:2169:G:N1	2.34	0.42
69:O3:93:THR:O	69:O3:96:ALA:N	2.52	0.42
15:C3:62:GLN:O	15:C3:66:ILE:HG22	2.20	0.42
37:3:81:U:O2'	37:3:82:G:H5'	2.19	0.42
14:C2:132:GLU:O	14:C2:136:ILE:HG12	2.20	0.42
54:M8:182:LYS:O	54:M8:183:GLY:C	2.55	0.42
36:1:1740:U:H4'	36:1:1741:A:H5'	2.01	0.42
6:S4:154:ILE:HG12	6:S4:172:PHE:CG	2.55	0.42
1:6:142:G:C2	1:6:266:A:C5	3.08	0.42
4:S2:157:LYS:NZ	24:D2:91:ALA:O	4.26	0.42
36:5:660:A:H2	36:5:941:G:N3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1391:A:C8	1:6:1412:G:C6	3.08	0.42
1:6:831:U:OP2	1:6:831:U:H6	2.03	0.42
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	2.01	0.42
36:1:3220:G:C8	36:1:3266:G:N2	2.87	0.42
13:C1:121:ASP:OD1	13:C1:146:ALA:HA	2.19	0.42
41:L4:111:VAL:O	51:M5:202:TYR:HE2	2.65	0.42
47:M0:201:SER:HG	47:M0:203:LYS:H	1.85	0.42
36:1:686:G:P	49:M3:39:ARG:HH21	2.43	0.42
36:1:1533:U:H2'	36:1:1534:A:H5'	2.01	0.42
1:6:1284:C:O2	1:6:1286:U:C2	2.73	0.42
36:1:726:G:H3'	36:1:742:G:N2	2.34	0.42
1:6:906:A:C2	1:6:907:A:C4	3.07	0.42
6:S4:82:TYR:HE2	6:S4:84:ALA:HA	3.27	0.42
1:2:1267:G:C2	1:2:1268:G:C4	3.07	0.42
1:6:1048:G:H1	1:6:1070:C:H42	1.66	0.42
54:M8:76:ALA:O	54:M8:79:LYS:N	2.52	0.42
36:1:870:G:N2	36:1:871:U:O4	2.45	0.42
36:5:2981:U:H2'	36:5:2982:A:H5'	2.00	0.42
3:S1:134:VAL:HG12	3:S1:218:LEU:HD12	5.85	0.42
36:1:1454:A:C2	36:1:1840:U:O2	2.72	0.42
1:6:1085:G:N2	1:6:1088:A:OP2	2.49	0.42
48:M1:120:ILE:HD13	48:M1:120:ILE:HA	4.26	0.42
36:5:1054:A:N3	36:5:1054:A:H2'	2.34	0.42
62:N6:76:LEU:HD22	62:N6:76:LEU:O	3.18	0.42
1:6:729:G:O2'	1:6:730:G:H8	2.03	0.42
36:1:2589:G:C4	36:1:2590:A:C8	3.08	0.42
36:1:246:U:O2'	36:1:247:C:H5'	2.19	0.42
15:C3:50:ILE:O	15:C3:53:LEU:N	2.52	0.42
36:5:774:G:O2'	36:5:775:A:H5'	2.20	0.42
33:E1:86:THR:HG23	33:E1:87:THR:H	4.36	0.42
1:2:107:C:O5'	1:2:107:C:H6	2.02	0.42
36:1:189:G:C6	36:1:206:G:C6	3.07	0.42
36:1:689:U:O4	41:L4:228:ALA:HA	2.20	0.42
2:S0:42:PRO:C	2:S0:44:GLY:H	3.16	0.42
36:1:2815:G:H5''	36:1:2816:G:OP2	2.20	0.42
36:5:3331:U:C4	36:5:3332:U:C4	3.08	0.42
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	3.97	0.42
3:S1:116:LYS:HE3	3:S1:117:TRP:CZ2	7.75	0.42
60:N4:45:ASN:O	60:N4:48:ARG:HG3	2.19	0.42
11:S9:120:LYS:O	11:S9:120:LYS:HD3	4.00	0.42
36:5:1201:C:N3	87:5:4027:OHX:N5	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:555:A:C6	11:S9:19:TYR:CZ	3.07	0.42
1:2:432:G:C6	1:2:433:C:C4	3.08	0.42
1:6:553:G:C6	1:6:554:C:C4	3.08	0.42
52:M6:59:ARG:HH12	36:5:1307:G:P	253.23	0.42
46:L9:48:VAL:HB	46:L9:49:ASN:H	4.26	0.42
46:L9:47:LYS:NZ	50:M4:4:ASP:HB3	3.36	0.42
51:M5:73:ARG:O	51:M5:75:VAL:HG22	2.20	0.42
36:1:2356:A:H4'	53:M7:138:LYS:HG3	2.02	0.42
53:M7:29:THR:HG22	53:M7:87:SER:CB	2.50	0.42
53:M7:48:LEU:HA	53:M7:48:LEU:HD23	1.77	0.42
1:2:765:G:C8	1:2:765:G:O5'	2.73	0.42
47:M0:211:ARG:O	47:M0:214:PRO:HD3	2.78	0.42
44:L7:189:ILE:CG2	44:L7:190:THR:HG23	2.93	0.42
45:L8:68:ARG:HH21	45:L8:237:ILE:HG22	5.06	0.42
1:2:119:A:H1'	1:2:397:A:C5	2.55	0.42
87:6:2130:OHX:N5	87:6:2155:OHX:N3	2.67	0.42
6:S4:57:ASN:HB2	6:S4:60:GLU:H	1.85	0.42
41:L4:157:GLU:HG2	41:L4:211:GLU:O	2.19	0.42
41:L4:229:ASN:ND2	41:L4:231:ALA:HB3	2.79	0.42
41:L4:6:VAL:O	41:L4:20:LEU:HB2	3.47	0.42
19:C7:20:TYR:CE2	19:C7:38:ILE:HG13	2.55	0.42
19:C7:17:ILE:HG21	19:C7:61:ILE:CD1	2.50	0.42
1:2:1369:U:O4	87:2:2095:OHX:N2	2.52	0.42
7:S5:190:ILE:HD12	1:6:1473:U:O2	352.35	0.42
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	2.95	0.42
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	2.02	0.42
20:C8:99:HIS:CD2	20:C8:101:LEU:HD21	2.55	0.42
7:S5:211:ILE:HD12	7:S5:211:ILE:HG23	2.40	0.42
75:O9:13:MET:SD	36:5:1493:G:C4	112.25	0.42
61:N5:113:LEU:HD12	61:N5:114:VAL:N	2.34	0.42
42:L5:85:ARG:HG2	42:L5:86:TYR:CZ	4.32	0.42
1:6:1274:C:N3	1:6:1427:A:N7	2.68	0.42
21:C9:100:ILE:HD13	21:C9:100:ILE:HA	1.67	0.42
21:C9:57:ARG:NH2	21:C9:80:TYR:CD1	3.15	0.42
5:S3:55:THR:OG1	5:S3:56:GLN:N	3.28	0.42
71:O5:98:SER:O	71:O5:100:VAL:N	3.29	0.42
1:2:898:A:C2	1:2:915:A:C5	3.08	0.42
3:S1:181:LEU:HD23	3:S1:181:LEU:HA	4.40	0.42
40:L3:232:ARG:HD2	40:L3:232:ARG:HH11	1.59	0.42
54:M8:83:VAL:O	54:M8:85:GLY:N	3.32	0.42
36:5:1948:G:C2	36:5:1949:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:128:GLN:O	63:N7:131:PHE:N	3.75	0.42
66:O0:33:SER:CB	66:O0:39:SER:HB2	2.50	0.42
68:O2:109:LEU:HD21	68:O2:122:PRO:HB3	2.87	0.42
73:O7:74:PHE:C	73:O7:76:ASN:N	2.96	0.42
1:2:1483:A:C2'	1:2:1484:G:H8	2.18	0.42
1:2:1184:A:H2	1:2:1454:G:N3	2.17	0.42
1:6:1174:C:C4	1:6:1175:U:C4	3.07	0.42
11:S9:169:PRO:HD2	11:S9:174:ARG:HE	4.22	0.42
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.19	0.42
36:1:2757:U:OP2	87:1:4006:OHX:N4	2.53	0.42
36:1:3215:A:C5'	50:M4:121:MET:HE1	2.50	0.42
9:S7:49:ILE:HG13	9:S7:57:ALA:O	4.79	0.42
38:8:53:A:H3'	38:8:54:A:H8	1.85	0.42
37:3:121:U:OP2	42:L5:265:TYR:OH	2.23	0.42
34:SR:177:MET:HG2	34:SR:193:ILE:HG12	2.01	0.42
34:SR:192:PHE:O	34:SR:223:TRP:CH2	2.73	0.42
34:SR:274:LEU:HD22	34:SR:313:TRP:CD1	2.55	0.42
34:SR:66:HIS:CG	34:SR:85:TRP:HB2	2.55	0.42
36:5:2275:A:H61	36:5:2311:G:H1'	1.84	0.42
72:O6:57:LEU:HD11	72:O6:73:ALA:HB2	2.02	0.42
72:O6:82:ARG:HD2	36:5:295:A:H1'	136.24	0.42
87:2:2090:OHX:N1	87:2:2131:OHX:N4	2.67	0.42
70:O4:109:THR:O	70:O4:113:LYS:HG3	2.19	0.42
36:5:3177:G:H1	36:5:3211:C:H42	1.68	0.42
52:M6:190:VAL:HA	52:M6:193:GLN:HG3	2.02	0.42
41:L4:156:LEU:C	41:L4:158:SER:H	2.22	0.42
36:5:934:G:C6	36:5:935:U:C4	3.08	0.42
72:O6:50:LEU:H	72:O6:50:LEU:HG	1.42	0.42
40:L3:105:VAL:HA	40:L3:133:TYR:OH	2.20	0.42
58:N2:43:VAL:N	58:N2:46:ALA:O	2.39	0.42
49:M3:103:ASN:ND2	49:M3:109:PHE:HB2	2.84	0.42
39:L2:204:MET:HB3	39:L2:208:ASP:HB2	2.07	0.42
1:2:780:A:C8	26:D4:8:ARG:HB3	2.55	0.42
1:2:583:C:C6	1:2:584:C:H5	2.38	0.42
74:O8:26:LYS:HE2	36:5:1751:G:H5'	126.83	0.42
1:6:1080:U:O2'	1:6:1081:A:H5'	2.19	0.42
1:6:1081:A:N3	1:6:1082:C:C5	2.84	0.42
38:8:139:U:H2'	38:8:140:G:H8	1.85	0.42
51:M5:156:HIS:N	51:M5:156:HIS:ND1	3.79	0.42
71:O5:86:ARG:NH1	71:O5:90:ARG:HH12	2.18	0.42
1:2:1083:G:C2'	1:2:1084:A:H5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:134:TYR:HD2	45:L8:134:TYR:N	2.18	0.42
1:2:592:A:H2'	1:2:593:U:O4'	2.20	0.42
1:2:386:G:P	10:S8:25:ARG:NH2	2.93	0.42
35:SM:39:PRO:HD2	48:M1:52:TYR:CE2	2.55	0.42
36:5:1737:U:H2'	36:5:1738:C:H6	1.84	0.42
70:O4:37:LYS:HB3	70:O4:37:LYS:HE3	3.10	0.42
37:7:26:C:N4	37:7:27:A:C5	2.88	0.42
36:1:2307:G:C6	36:1:2310:U:C4	3.08	0.42
64:N8:82:ILE:HA	64:N8:83:PRO:HD2	1.86	0.42
36:5:3385:U:H2'	36:5:3386:G:H8	1.85	0.42
15:C3:138:ASN:N	15:C3:138:ASN:OD1	3.16	0.42
36:5:1407:A:H5''	36:5:1408:G:OP2	2.20	0.42
1:6:32:U:H2'	1:6:33:U:O4'	2.20	0.42
46:L9:38:LEU:HA	46:L9:38:LEU:HD23	1.46	0.42
69:O3:70:LYS:O	69:O3:72:THR:HG22	2.76	0.42
45:L8:26:LEU:HD23	63:N7:123:GLN:HA	2.01	0.42
1:2:800:U:O4	87:2:2054:OHX:N5	2.53	0.42
1:2:456:A:H2'	1:2:457:G:H8	1.84	0.42
36:1:1618:G:N2	36:1:1827:C:C2	2.88	0.42
36:1:1753:G:C2	36:1:1754:G:N9	2.87	0.42
10:S8:67:TRP:O	10:S8:67:TRP:CD1	2.73	0.42
42:L5:113:LEU:HD12	42:L5:113:LEU:HA	1.73	0.42
1:2:610:G:H21	25:D3:19:ARG:NH1	2.17	0.42
36:5:2536:A:H2'	36:5:2537:U:O4'	2.20	0.42
36:1:2944:U:H2'	36:1:2947:G:O6	2.20	0.42
1:2:139:C:N3	1:2:266:A:C2	2.88	0.42
1:6:1157:A:C2	1:6:1622:G:C2	3.07	0.42
36:5:1814:A:C2	36:5:1816:A:C5	3.07	0.42
44:L7:181:ILE:HG22	44:L7:182:ASP:OD1	2.18	0.42
9:S7:111:LYS:CG	9:S7:112:ARG:H	2.32	0.42
1:2:1318:G:O2'	1:2:1319:A:H5'	2.20	0.42
1:6:139:C:N3	1:6:176:C:C5	2.87	0.42
66:O0:18:ILE:HG13	66:O0:23:TYR:CZ	3.16	0.42
34:SR:183:LEU:HD23	34:SR:183:LEU:HA	1.84	0.42
1:6:5:U:C2	1:6:6:G:C8	3.08	0.42
74:O8:27:ILE:CD1	74:O8:41:THR:HG22	3.17	0.42
36:1:1266:G:N2	36:1:1275:C:O2	2.53	0.42
45:L8:218:ILE:HG23	45:L8:222:PHE:HD2	2.58	0.42
39:L2:20:THR:HB	36:5:2175:U:C5	178.00	0.42
36:1:1784:G:H2'	36:1:1785:U:O4'	2.20	0.42
1:6:834:G:HO2'	1:6:835:U:P	2.41	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3316:A:C6	36:1:3389:U:C2	3.07	0.42
36:1:123:A:H5'	36:1:124:U:OP2	2.19	0.42
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.46	0.42
2:S0:170:ILE:H	2:S0:170:ILE:HG13	1.66	0.42
36:5:1851:G:H5''	36:5:1852:G:OP2	2.19	0.42
36:1:1236:G:N2	36:1:1244:A:H4'	2.35	0.42
13:C1:71:LEU:O	13:C1:125:VAL:N	2.40	0.42
1:6:1283:U:C6	1:6:1284:C:C5	3.07	0.42
36:1:2567:C:H2'	36:1:2568:C:H5'	2.01	0.42
58:N2:101:ASN:HA	58:N2:103:TYR:CE2	4.06	0.42
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.04	0.42
36:1:3102:G:N2	36:1:3103:A:H1'	2.34	0.42
1:2:1276:U:O4	1:2:1431:C:C2	2.73	0.42
1:2:237:C:C5'	1:2:238:U:H5'	2.46	0.42
36:5:966:U:C4	36:5:967:A:N7	2.88	0.42
78:Q2:68:VAL:HB	78:Q2:85:LEU:HD23	2.00	0.42
36:5:1536:G:O6	87:5:3918:OHX:N2	2.53	0.42
36:1:2942:C:C6	36:1:2942:C:C3'	3.03	0.42
36:5:2115:G:N3	36:5:2119:A:C2	2.88	0.42
1:6:755:A:HO2'	1:6:756:A:H8	1.66	0.42
1:6:47:A:C2	1:6:425:A:N1	2.88	0.42
1:6:47:A:H2'	1:6:100:A:O4'	2.20	0.42
36:5:2347:U:C5	36:5:2348:A:C5	3.08	0.42
44:L7:147:LEU:HA	44:L7:147:LEU:HD23	1.64	0.42
1:2:226:A:C6	1:2:227:U:N3	2.88	0.42
36:1:829:U:C4	36:1:895:A:N6	2.87	0.42
36:5:876:A:H2'	36:5:877:C:O5'	2.20	0.42
36:5:74:G:C4	36:5:75:G:C8	3.08	0.42
1:6:430:G:C6	1:6:431:C:C4	3.07	0.42
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	2.47	0.42
1:6:1750:A:C6	1:6:1751:C:C4	3.08	0.42
51:M5:51:LEU:H	51:M5:51:LEU:HG	1.75	0.42
9:S7:76:LYS:HB3	9:S7:76:LYS:HE2	1.96	0.42
36:1:2655:U:C2	36:1:2656:A:N1	2.88	0.42
1:2:1642:G:O2'	1:2:1781:A:O2'	2.36	0.42
36:1:1895:A:C2	36:1:2335:G:C6	3.07	0.42
27:D5:44:GLN:C	27:D5:46:LYS:H	2.24	0.42
20:C8:116:LEU:HD23	20:C8:123:ARG:HB3	2.00	0.42
46:L9:79:ILE:O	46:L9:83:THR:HG23	2.21	0.42
26:D4:112:LYS:HB3	26:D4:112:LYS:HE2	1.32	0.42
1:2:938:G:C6	1:2:942:G:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:96:ALA:HA	28:D6:97:PRO:HD3	1.70	0.42
1:2:768:C:N1	11:S9:143:ILE:HD13	2.34	0.42
1:6:512:A:H2'	1:6:513:U:H6	1.83	0.42
32:E0:30:PRO:HB2	32:E0:34:ALA:HB1	2.65	0.42
36:5:2835:U:H2'	36:5:2836:C:H5'	2.02	0.42
36:1:598:A:C2	36:1:599:C:C2	3.08	0.42
45:L8:165:PHE:H	45:L8:165:PHE:HD1	1.89	0.42
45:L8:68:ARG:NH2	45:L8:239:GLY:HA3	3.33	0.42
1:6:299:A:C2	1:6:300:A:N9	2.88	0.42
1:6:300:A:H2'	1:6:301:A:O4'	2.20	0.42
41:L4:279:HIS:HB3	41:L4:281:ILE:O	2.19	0.42
49:M3:29:ALA:C	49:M3:31:LYS:N	2.73	0.42
54:M8:34:THR:HA	54:M8:49:LEU:CD1	2.50	0.42
41:L4:76:ARG:HA	41:L4:87:GLN:O	2.62	0.42
18:C6:131:GLY:HA2	18:C6:138:PHE:HD1	1.85	0.42
18:C6:40:GLU:C	18:C6:42:GLU:N	3.63	0.42
67:O1:48:ASP:HB3	67:O1:90:PHE:HB3	2.02	0.42
75:O9:9:ILE:O	75:O9:13:MET:N	2.64	0.42
36:1:1106:G:C6	36:1:1107:C:C4	3.07	0.42
42:L5:211:LEU:C	42:L5:213:ASP:N	2.90	0.42
42:L5:244:HIS:O	42:L5:245:GLU:C	2.79	0.42
1:2:1429:G:C6	1:2:1430:U:N3	2.88	0.42
12:C0:19:GLY:O	12:C0:68:LEU:HB3	2.20	0.42
12:C0:2:LEU:HD13	12:C0:3:MET:N	5.34	0.42
5:S3:20:GLU:HB2	12:C0:61:TRP:CZ3	3.53	0.42
12:C0:76:LEU:HD22	12:C0:76:LEU:O	5.03	0.42
21:C9:113:ILE:O	21:C9:125:SER:HB3	3.41	0.42
1:2:954:G:N1	1:2:955:A:C4	2.88	0.42
15:C3:45:LEU:HD13	15:C3:49:GLN:OE1	2.19	0.42
8:S6:44:GLU:HB2	8:S6:121:LEU:HD11	5.63	0.42
67:O1:20:LEU:HD11	67:O1:67:VAL:HG11	3.96	0.42
16:C4:29:HIS:O	16:C4:29:HIS:ND1	2.52	0.42
16:C4:103:ARG:HH12	28:D6:48:ALA:CB	4.59	0.42
2:S0:22:THR:HG21	2:S0:173:ILE:HD11	2.02	0.42
68:O2:105:ARG:NH1	68:O2:105:ARG:HG3	2.35	0.42
1:6:956:C:H1'	1:6:1047:G:O2'	2.20	0.42
55:M9:6:THR:C	55:M9:8:LYS:N	3.49	0.42
36:1:3039:C:OP1	40:L3:62:ARG:NH1	2.45	0.42
1:2:1179:G:H2'	1:2:1180:C:O4'	2.19	0.42
1:2:1452:U:N3	1:2:1453:G:N7	2.68	0.42
6:S4:180:LEU:HA	6:S4:180:LEU:HD23	2.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:182:TYR:N	6:S4:226:PHE:O	2.43	0.42
50:M4:80:THR:O	50:M4:83:LYS:HB3	2.88	0.42
43:L6:174:LEU:HD22	50:M4:117:ARG:NH2	2.34	0.42
69:O3:15:SER:O	69:O3:29:LEU:HD12	2.20	0.42
1:2:67:A:C2	1:2:69:G:H1'	2.55	0.42
52:M6:14:HIS:CD2	52:M6:124:LEU:HD13	2.55	0.42
1:2:926:A:H2'	1:2:927:C:O4'	2.20	0.42
49:M3:167:PHE:O	49:M3:171:ARG:N	2.51	0.42
41:L4:335:ALA:HB1	36:5:579:G:OP2	280.27	0.42
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	3.47	0.42
36:1:864:G:OP2	87:1:3883:OHX:N1	2.52	0.42
36:5:3179:U:H3	36:5:3210:A:H61	1.68	0.42
51:M5:179:LYS:HD3	36:5:287:G:OP1	125.36	0.42
25:D3:9:LEU:O	25:D3:9:LEU:HD22	4.18	0.42
52:M6:149:TYR:N	52:M6:149:TYR:CD2	2.97	0.42
36:1:1927:G:OP1	79:Q3:7:LYS:HG3	2.20	0.42
36:1:56:G:H1'	51:M5:162:ARG:CG	2.50	0.42
71:O5:86:ARG:NH1	38:8:36:G:C6	86.77	0.42
1:2:587:C:H6	1:2:587:C:O5'	2.02	0.42
36:5:172:G:H2'	36:5:173:G:H5''	2.01	0.42
46:L9:172:ILE:H	46:L9:172:ILE:HD13	1.84	0.42
37:7:27:A:C2	37:7:28:C:C2	3.08	0.42
36:5:781:G:C2	36:5:782:U:C6	3.08	0.42
64:N8:80:THR:C	64:N8:82:ILE:N	2.73	0.42
36:5:1539:A:H2'	36:5:1540:U:O4'	2.20	0.42
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.34	0.42
1:2:327:U:O2'	13:C1:14:GLN:NE2	2.49	0.42
41:L4:234:ASN:HD21	41:L4:236:LEU:CD1	2.43	0.42
40:L3:329:PRO:HA	36:5:3047:U:H5'	234.23	0.42
2:S0:126:PRO:HG2	2:S0:151:SER:HB3	2.51	0.42
22:D0:99:ILE:H	22:D0:99:ILE:HD13	5.03	0.42
25:D3:135:LEU:HD21	25:D3:142:LYS:HB2	2.02	0.42
36:5:1614:C:O2'	36:5:1615:C:H5'	2.19	0.42
36:1:2949:U:C2'	36:1:2950:G:H5'	2.50	0.42
36:1:2738:A:H5'	65:N9:36:ASP:OD1	2.20	0.42
10:S8:113:PHE:C	10:S8:115:ALA:N	2.73	0.42
10:S8:72:ILE:HG21	10:S8:112:TRP:CZ2	2.54	0.42
87:5:3968:OHX:N1	87:5:4237:OHX:N2	2.67	0.42
1:2:1146:G:N2	1:2:1633:A:C5	2.88	0.42
36:5:422:A:N3	36:5:2363:A:H4'	2.34	0.42
36:1:1342:C:C2	36:1:1343:A:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:89:LEU:HA	55:M9:89:LEU:HD12	2.97	0.42
45:L8:97:TYR:HH	45:L8:204:ARG:H	1.58	0.42
36:1:1463:U:OP2	87:1:4198:OHX:N5	2.53	0.42
58:N2:105:LEU:HD12	58:N2:105:LEU:HA	2.72	0.42
58:N2:22:PRO:HB3	58:N2:93:ILE:HG12	4.06	0.42
1:6:1026:A:C2	1:6:1792:G:C5	3.08	0.42
22:D0:37:VAL:O	22:D0:41:ILE:N	2.52	0.42
38:4:153:U:O2'	38:4:154:C:H5'	2.20	0.42
14:C2:31:VAL:O	14:C2:34:THR:OG1	2.31	0.42
41:L4:216:VAL:C	41:L4:218:ALA:H	2.23	0.42
4:S2:167:VAL:HG21	4:S2:214:ALA:CA	3.91	0.42
5:S3:127:MET:CE	5:S3:133:GLY:HA2	2.50	0.42
8:S6:207:GLU:O	8:S6:208:TYR:C	3.24	0.42
1:2:399:A:C4	1:2:401:A:C8	3.08	0.42
36:5:594:U:H4'	36:5:594:U:OP1	2.19	0.42
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	2.77	0.42
1:6:772:G:C4	1:6:773:C:C5	3.08	0.42
38:8:79:A:H3'	38:8:80:A:C8	2.54	0.42
36:1:3059:G:H2'	36:1:3060:C:C6	2.55	0.42
36:5:3294:A:H8	36:5:3294:A:H5''	1.84	0.42
61:N5:137:ASN:HA	61:N5:141:TYR:N	2.32	0.42
45:L8:117:ALA:HB3	45:L8:118:GLU:OE2	2.20	0.42
54:M8:76:ALA:C	54:M8:78:ASN:H	2.23	0.42
36:1:92:G:O2'	78:Q2:55:LYS:HD2	2.20	0.42
36:5:1352:A:H2'	36:5:1352:A:N3	2.35	0.42
6:S4:34:GLY:HA3	6:S4:35:PRO:HD3	1.60	0.42
40:L3:17:LEU:HD12	40:L3:17:LEU:HA	2.63	0.42
3:S1:136:ARG:HB3	3:S1:216:LYS:HB2	4.44	0.42
11:S9:40:LYS:HA	11:S9:43:TYR:CG	2.55	0.42
79:Q3:53:GLY:HA2	79:Q3:67:GLY:O	2.56	0.42
36:5:1502:C:N3	36:5:1515:A:C2	2.88	0.42
1:6:1694:A:N6	1:6:1695:G:N1	2.67	0.42
55:M9:151:ARG:O	55:M9:151:ARG:HG2	2.20	0.42
36:1:777:U:O2'	36:1:778:U:H5'	2.19	0.42
1:2:1628:U:H2'	1:2:1629:G:C8	2.54	0.42
44:L7:205:PHE:CD2	44:L7:205:PHE:N	2.87	0.42
36:1:1021:G:C6	36:1:1022:U:O4	2.73	0.42
33:E1:87:THR:C	33:E1:89:LYS:H	2.23	0.42
36:1:2404:A:C2	36:1:2405:C:H5'	2.55	0.42
36:5:2942:C:O2	87:5:4049:OHX:N6	2.53	0.42
47:M0:115:MET:HB3	36:5:2865:U:OP1	238.06	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1560:G:O2'	36:5:1561:G:OP1	2.33	0.42
1:2:855:A:C2	1:2:857:U:H1'	2.55	0.42
1:6:994:G:H2'	1:6:995:A:O4'	2.20	0.42
36:5:826:G:H2'	36:5:827:A:O4'	2.20	0.42
62:N6:17:LYS:HE3	38:8:23:U:O3'	82.48	0.42
1:6:1365:C:C4	1:6:1366:U:C4	3.07	0.42
1:6:1658:G:H5'	1:6:1658:G:C8	2.53	0.42
37:7:38:U:H5''	37:7:38:U:H6	1.84	0.42
39:L2:175:VAL:H	39:L2:175:VAL:HG22	1.60	0.42
54:M8:56:LYS:HG2	54:M8:56:LYS:O	3.95	0.42
49:M3:27:ASP:N	49:M3:27:ASP:OD2	2.80	0.42
25:D3:43:PHE:C	25:D3:45:GLY:H	2.42	0.42
25:D3:48:HIS:HB3	25:D3:103:LEU:HD21	2.01	0.42
26:D4:109:LYS:HD3	1:6:54:C:O3'	353.83	0.42
28:D6:70:LYS:O	28:D6:71:LEU:HD23	4.96	0.42
11:S9:139:GLN:HG3	11:S9:140:ILE:O	2.19	0.42
47:M0:45:GLU:O	47:M0:141:LYS:HE3	2.66	0.42
44:L7:88:ARG:CZ	44:L7:103:LEU:HD13	2.50	0.42
44:L7:148:VAL:O	44:L7:149:TYR:C	2.56	0.42
44:L7:44:ILE:CG1	44:L7:180:SER:HB3	2.46	0.42
45:L8:63:LYS:O	45:L8:64:ILE:C	2.59	0.42
45:L8:73:PRO:HD2	45:L8:74:THR:HG23	2.02	0.42
13:C1:19:ILE:N	13:C1:19:ILE:HD13	2.92	0.42
41:L4:177:ASP:C	41:L4:179:LEU:N	2.73	0.42
41:L4:271:LYS:O	41:L4:274:TYR:N	2.36	0.42
43:L6:40:LEU:HB3	43:L6:84:VAL:HG21	2.01	0.42
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	2.66	0.42
5:S3:161:GLY:H	1:6:1331:A:H61	415.24	0.42
19:C7:4:VAL:HA	1:6:1402:G:OP1	404.76	0.42
19:C7:20:TYR:O	19:C7:24:LEU:HG	2.49	0.42
19:C7:51:ALA:HA	19:C7:54:THR:CG2	2.49	0.42
36:1:359:U:H2'	36:1:360:G:O4'	2.20	0.42
36:1:929:A:C6	36:1:930:U:C4	3.08	0.42
41:L4:65:TRP:CD2	41:L4:76:ARG:HD2	3.38	0.42
36:1:526:C:N4	36:1:566:G:H1	2.17	0.42
1:6:1563:C:C2	1:6:1564:U:C5	3.08	0.42
1:6:1170:G:C6	1:6:1574:G:C6	3.08	0.42
20:C8:26:ILE:HD12	20:C8:31:ALA:HA	3.62	0.42
21:C9:9:VAL:HG12	21:C9:10:ALA:N	2.83	0.42
30:D8:16:LEU:HA	30:D8:16:LEU:HD23	2.42	0.42
30:D8:28:VAL:HG22	30:D8:29:ARG:N	3.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:108:LEU:O	7:S5:109:LYS:C	2.58	0.42
7:S5:179:ALA:HB2	7:S5:194:LEU:HA	2.64	0.42
7:S5:92:ARG:NH2	7:S5:169:ASN:HA	2.35	0.42
42:L5:99:TYR:HD1	42:L5:244:HIS:HE2	3.48	0.42
42:L5:61:ILE:HG22	42:L5:63:GLN:HG3	2.01	0.42
1:2:1203:A:C2	1:2:1556:A:C4	3.08	0.42
21:C9:114:VAL:HG22	21:C9:115:GLU:N	2.35	0.42
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	2.34	0.42
21:C9:79:LEU:HD11	1:6:1481:C:N4	397.85	0.42
48:M1:109:HIS:CD2	48:M1:122:ILE:HA	2.55	0.42
48:M1:80:LEU:O	48:M1:81:GLU:C	3.06	0.42
1:6:961:U:H2'	1:6:962:C:C6	2.54	0.42
15:C3:118:ILE:O	15:C3:121:ARG:HB2	3.19	0.42
64:N8:67:HIS:CD2	64:N8:67:HIS:N	2.87	0.42
3:S1:71:ALA:HB2	3:S1:79:HIS:O	2.35	0.42
2:S0:50:VAL:HG22	19:C7:109:LEU:HD21	2.01	0.42
2:S0:184:LEU:HD22	2:S0:184:LEU:HA	1.83	0.42
48:M1:133:ARG:NH1	48:M1:153:LYS:O	2.52	0.42
48:M1:8:PRO:HB2	48:M1:9:MET:H	2.32	0.42
63:N7:97:SER:OG	63:N7:98:THR:N	4.11	0.42
68:O2:74:PHE:CD1	68:O2:85:LEU:HD21	2.55	0.42
1:2:1069:A:O5'	1:2:1069:A:H8	2.02	0.42
36:1:1763:U:H2'	36:1:1764:U:C5	2.54	0.42
38:4:34:U:H3	73:O7:71:SER:CB	2.33	0.42
40:L3:65:SER:OG	36:5:3039:C:OP1	278.98	0.42
1:2:1544:U:H4'	20:C8:132:ARG:CZ	2.50	0.42
56:N0:91:TYR:HD1	56:N0:137:ARG:NH1	2.22	0.42
56:N0:77:VAL:N	56:N0:92:LYS:O	2.36	0.42
44:L7:77:VAL:CG1	56:N0:59:VAL:HA	2.50	0.42
36:5:1256:G:O6	36:5:1261:G:N2	2.53	0.42
69:O3:49:ILE:H	69:O3:49:ILE:HD12	1.85	0.42
69:O3:73:ARG:HH22	36:5:1167:U:P	249.25	0.42
36:1:2661:G:H2'	36:1:2662:G:C8	2.50	0.42
9:S7:46:ILE:HG12	9:S7:60:ILE:HG12	2.02	0.42
9:S7:60:ILE:HD12	9:S7:91:ILE:O	4.17	0.42
18:C6:110:THR:C	18:C6:112:TYR:H	2.80	0.42
18:C6:54:LEU:HD21	18:C6:112:TYR:CD1	4.24	0.42
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.58	0.42
44:L7:222:HIS:C	44:L7:224:ILE:H	2.70	0.42
73:O7:53:ALA:HB2	73:O7:56:ARG:HH12	1.85	0.42
1:2:985:G:N2	1:2:1016:C:N3	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:927:C:H1'	16:C4:125:SER:CB	2.50	0.42
39:L2:79:ASN:H	39:L2:82:VAL:CG1	3.67	0.42
40:L3:85:VAL:HG13	40:L3:163:HIS:CE1	2.55	0.42
1:2:1325:A:C2	1:2:1326:A:C4	3.08	0.42
26:D4:110:GLN:HB3	26:D4:114:ARG:NH1	2.63	0.42
36:1:500:C:O2'	36:1:501:A:H5'	2.19	0.42
53:M7:168:LEU:H	53:M7:168:LEU:HG	1.46	0.42
39:L2:207:VAL:HG13	36:5:2415:C:H5'	187.61	0.42
36:1:96:G:P	64:N8:34:MET:HB2	2.60	0.42
1:6:1267:G:H2'	1:6:1268:G:H8	1.84	0.42
36:1:2180:G:H2'	36:1:2181:C:C6	2.54	0.42
36:5:2204:C:H4'	36:5:2205:U:OP1	2.19	0.42
13:C1:105:LYS:HD2	1:6:306:U:P	321.46	0.42
1:2:706:A:C6	1:2:734:A:N6	2.88	0.42
1:2:736:C:OP1	6:S4:197:HIS:NE2	2.52	0.42
48:M1:59:ILE:CB	48:M1:65:ILE:HD11	3.05	0.42
35:SM:40:PRO:O	35:SM:42:ALA:N	2.68	0.42
44:L7:33:ARG:HH12	44:L7:34:LYS:CE	4.49	0.42
36:1:2112:U:H3'	60:N4:44:LYS:HZ1	1.84	0.42
36:5:2718:U:N3	36:5:2739:A:C2	2.88	0.42
64:N8:84:GLU:O	64:N8:87:ARG:HB2	3.62	0.42
41:L4:299:ILE:HG23	54:M8:39:ARG:HB2	2.02	0.42
41:L4:302:ALA:CB	54:M8:39:ARG:HH12	3.09	0.42
10:S8:178:ARG:HB3	10:S8:178:ARG:HH21	1.85	0.42
54:M8:151:ARG:HH11	54:M8:151:ARG:HD2	2.22	0.42
37:7:9:C:H42	37:7:112:G:H1	1.67	0.42
36:5:206:G:C5	36:5:207:U:C5	3.08	0.42
36:1:3120:C:O2'	36:1:3121:U:H2'	2.20	0.42
76:Q0:103:LEU:HA	76:Q0:103:LEU:HD23	1.80	0.42
31:D9:56:ARG:HA	1:6:1419:G:O4'	408.82	0.42
70:O4:10:ARG:HD2	70:O4:10:ARG:HH11	1.58	0.42
36:1:1833:G:H21	75:O9:4:GLN:HE22	1.68	0.42
1:2:422:G:N7	87:2:2108:OHX:N5	2.68	0.42
42:L5:95:TRP:NE1	42:L5:181:PRO:HG2	2.35	0.42
1:2:1147:A:C5	1:2:1148:C:C5	3.07	0.42
36:1:1116:G:O3'	36:1:1117:G:H4'	2.20	0.42
47:M0:26:VAL:HG23	47:M0:125:LEU:HD21	2.02	0.42
45:L8:128:LYS:HE3	45:L8:130:TYR:CE1	4.39	0.42
36:5:2749:G:C5	36:5:2750:U:C5	3.08	0.42
8:S6:122:GLU:HB3	8:S6:123:GLY:H	3.61	0.42
36:1:396:A:H5''	36:1:397:A:OP2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1462:A:N6	36:5:1463:U:C4	2.88	0.42
36:5:3305:A:H2'	36:5:3306:U:O4'	2.20	0.42
1:6:647:G:O5'	1:6:647:G:H8	2.03	0.42
55:M9:143:ILE:C	55:M9:145:ALA:N	2.96	0.42
4:S2:180:ALA:HA	1:6:3:U:O4'	392.26	0.42
74:O8:5:ILE:HD11	74:O8:10:GLN:OE1	4.18	0.42
74:O8:56:ILE:HG21	74:O8:61:LYS:HB2	2.01	0.42
75:O9:25:GLN:O	75:O9:28:ARG:HB2	2.20	0.42
78:Q2:65:THR:O	78:Q2:87:ARG:NH1	2.53	0.42
39:L2:200:ARG:NH2	39:L2:200:ARG:HG3	4.62	0.42
41:L4:304:GLN:HG2	41:L4:306:THR:HG23	2.02	0.42
47:M0:129:VAL:HG13	47:M0:133:GLN:CG	2.70	0.42
36:1:593:C:N4	36:1:594:U:O4	2.53	0.42
36:1:3062:G:C4	36:1:3063:C:C5	3.07	0.42
48:M1:124:GLY:O	48:M1:125:MET:HG3	2.20	0.42
48:M1:21:ILE:HG21	48:M1:21:ILE:HD13	1.93	0.42
6:S4:131:LEU:HD23	6:S4:131:LEU:HA	2.84	0.42
36:5:375:A:H3'	36:5:376:G:H5''	2.01	0.42
36:5:2771:U:H2'	36:5:2772:C:C6	2.55	0.42
36:5:3220:G:C6	36:5:3221:C:C5	3.07	0.42
42:L5:279:LYS:HE3	42:L5:282:ARG:HH12	1.85	0.42
36:1:2567:C:H6	36:1:2567:C:OP2	2.03	0.42
1:6:1690:G:H1	1:6:1711:C:N4	2.14	0.42
36:1:1412:G:H2'	36:1:1413:G:C8	2.52	0.42
11:S9:111:THR:O	11:S9:115:LYS:HB2	3.35	0.42
36:5:1089:G:C6	36:5:1090:G:C5	3.08	0.42
36:5:1268:G:H8	36:5:1268:G:O5'	2.01	0.42
37:7:15:C:N3	37:7:65:G:O6	2.53	0.42
41:L4:309:ARG:CZ	41:L4:312:VAL:HG11	2.50	0.42
36:1:3245:A:H5'	36:1:3246:G:H5''	2.02	0.42
38:8:5:U:H2'	38:8:6:U:H6	1.85	0.42
36:1:948:C:H2'	36:1:949:C:C6	2.55	0.42
45:L8:96:LYS:O	45:L8:98:ARG:N	2.49	0.42
36:5:2608:G:C2	36:5:2609:A:N7	2.88	0.42
36:5:1546:A:N7	36:5:1547:G:C5	2.88	0.42
1:6:756:A:H5''	1:6:756:A:H8	1.84	0.42
1:2:616:G:N2	1:2:622:A:C8	2.88	0.42
69:O3:16:TYR:CG	69:O3:94:PHE:HZ	2.38	0.42
1:2:1250:U:HO2'	1:2:1251:U:P	2.43	0.42
51:M5:197:LEU:HD21	51:M5:199:LEU:HD11	2.02	0.42
36:5:1481:A:N7	36:5:1859:A:C5	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:182:ILE:HG22	53:M7:183:ALA:N	2.35	0.42
36:1:1845:G:C6	36:1:1849:C:C6	3.08	0.42
1:2:347:G:C2	1:2:348:U:C5	3.07	0.42
74:O8:69:LEU:HD22	74:O8:69:LEU:H	1.85	0.42
33:E1:86:THR:O	33:E1:87:THR:OG1	2.69	0.42
36:1:2964:G:N7	87:1:4063:OHX:N1	2.67	0.42
65:N9:32:LEU:N	65:N9:32:LEU:HD23	2.35	0.42
1:2:743:U:C4	1:2:744:U:C4	3.08	0.42
54:M8:127:LEU:O	54:M8:131:ALA:N	2.59	0.42
1:6:473:A:N6	1:6:474:A:N1	2.68	0.42
36:1:3235:C:C5	36:1:3236:U:C5	3.08	0.42
40:L3:193:ASP:O	40:L3:197:GLU:HG3	2.20	0.42
36:1:1515:A:C5	36:1:1516:C:C5	3.08	0.42
1:6:179:A:H2'	1:6:180:A:O4'	2.20	0.42
2:S0:83:GLN:O	2:S0:87:LEU:N	3.02	0.42
39:L2:69:TYR:HE2	36:5:1650:G:H1'	181.65	0.42
36:1:2660:G:H4'	36:1:2750:U:O2	2.19	0.42
36:1:1766:G:H2'	36:1:1766:G:N3	2.35	0.42
78:Q2:104:LEU:HD12	78:Q2:104:LEU:HA	2.19	0.42
53:M7:135:ARG:CZ	53:M7:135:ARG:HB2	2.49	0.42
1:6:1158:C:OP1	87:6:2147:OHX:N4	2.53	0.42
1:6:669:G:O2'	1:6:670:U:OP2	2.32	0.42
1:6:293:U:C4	1:6:294:C:C5	3.07	0.42
1:2:41:A:C8	1:2:438:A:N6	2.88	0.42
36:1:65:A:H4'	36:1:66:A:O5'	2.20	0.42
1:2:1642:G:HO2'	1:2:1781:A:HO2'	1.65	0.41
36:5:3089:C:N4	36:5:3090:U:N3	2.68	0.41
64:N8:21:ARG:HH11	64:N8:21:ARG:HD2	1.66	0.41
36:1:3187:A:H5'	46:L9:22:SER:HA	2.02	0.41
46:L9:23:ARG:HH21	46:L9:42:ASP:H	1.68	0.41
50:M4:4:ASP:O	50:M4:6:ILE:HG12	3.82	0.41
53:M7:24:VAL:HG11	53:M7:90:PHE:CD1	4.00	0.41
28:D6:36:ILE:HD11	28:D6:84:VAL:HG11	7.25	0.41
1:2:513:U:H1'	11:S9:131:GLN:NE2	2.34	0.41
11:S9:20:GLU:HG3	11:S9:23:ARG:HH21	5.02	0.41
36:1:1010:G:C5	36:1:1011:A:N7	2.88	0.41
36:5:1011:A:C2	36:5:1040:A:N1	2.88	0.41
47:M0:76:MET:CE	47:M0:138:VAL:HG11	2.51	0.41
47:M0:58:GLU:H	47:M0:58:GLU:HG3	2.59	0.41
87:1:3993:OHX:N6	87:3:222:OHX:N3	2.68	0.41
10:S8:167:ALA:HB2	10:S8:183:ILE:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:369:A:C2	36:1:404:G:C6	3.08	0.41
54:M8:46:LYS:O	54:M8:50:LYS:HG3	2.93	0.41
19:C7:24:LEU:HA	19:C7:31:ASN:OD1	2.19	0.41
18:C6:35:PRO:O	18:C6:38:LEU:HB2	2.20	0.41
21:C9:10:ALA:HB3	21:C9:13:ASP:OD2	2.19	0.41
7:S5:127:GLN:HB3	7:S5:128:ASN:H	3.35	0.41
7:S5:58:LEU:HD21	7:S5:167:ARG:HB2	3.49	0.41
61:N5:103:TYR:O	61:N5:104:GLU:HB2	2.20	0.41
61:N5:105:VAL:HG12	61:N5:106:ASP:N	2.35	0.41
61:N5:86:VAL:HG11	61:N5:95:ILE:HG23	2.66	0.41
1:2:1427:A:O2'	1:2:1428:G:OP1	2.28	0.41
1:6:1198:G:H2'	1:6:1200:G:N7	2.35	0.41
12:C0:15:LEU:HD12	12:C0:15:LEU:HA	1.65	0.41
21:C9:65:ILE:HG12	21:C9:71:VAL:HG22	3.19	0.41
5:S3:101:GLN:HB3	5:S3:122:VAL:CG1	2.77	0.41
15:C3:125:LEU:HA	15:C3:125:LEU:HD23	1.84	0.41
15:C3:46:THR:HG21	15:C3:90:TYR:OH	2.20	0.41
1:2:626:U:O2'	1:2:627:C:H5'	2.19	0.41
77:Q1:8:LYS:HD3	77:Q1:12:ARG:HH21	1.85	0.41
47:M0:15:LYS:HE2	47:M0:15:LYS:HB2	4.81	0.41
36:1:655:C:OP1	68:O2:27:ARG:HG2	2.20	0.41
4:S2:164:SER:OG	1:6:14:C:H5'	371.57	0.41
23:D1:19:ALA:HA	23:D1:71:ARG:HH12	1.86	0.41
2:S0:56:LYS:NZ	23:D1:70:ASN:OD1	3.87	0.41
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.55	0.41
43:L6:4:GLN:HG3	68:O2:74:PHE:CE2	2.54	0.41
36:1:1762:C:C2	36:1:1763:U:H1'	2.55	0.41
38:4:87:G:OP2	71:O5:7:TYR:OH	2.36	0.41
1:2:1207:C:H42	1:2:1456:C:H41	1.68	0.41
20:C8:131:LEU:HA	20:C8:131:LEU:HD23	1.81	0.41
35:SM:64:LYS:C	35:SM:66:ALA:N	2.89	0.41
6:S4:85:GLY:HA2	6:S4:109:PHE:CE2	2.55	0.41
56:N0:139:TYR:CD2	56:N0:140:VAL:N	3.60	0.41
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.46	0.41
60:N4:52:THR:O	60:N4:55:PHE:HB3	2.19	0.41
9:S7:157:LYS:O	9:S7:159:VAL:HG13	2.20	0.41
42:L5:258:LYS:O	42:L5:258:LYS:HG2	4.74	0.41
8:S6:153:VAL:O	8:S6:154:ARG:C	2.59	0.41
62:N6:35:LEU:HB3	62:N6:39:LEU:HB2	2.48	0.41
62:N6:56:VAL:HG23	62:N6:106:ILE:CA	2.46	0.41
36:1:346:C:C4	36:1:348:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:350:C:N3	36:1:367:A:H2'	2.35	0.41
73:O7:52:LYS:HD2	73:O7:56:ARG:NH2	2.30	0.41
1:2:1014:G:H2'	1:2:1015:U:O4'	2.20	0.41
41:L4:159:ILE:HG21	41:L4:165:ALA:HB2	2.02	0.41
40:L3:113:GLU:HB3	40:L3:166:ILE:HG22	2.02	0.41
36:5:3289:G:H4'	36:5:3290:G:OP1	2.20	0.41
36:5:3289:G:O2'	36:5:3290:G:OP1	2.22	0.41
40:L3:130:PHE:O	40:L3:133:TYR:N	3.85	0.41
49:M3:108:ILE:O	49:M3:109:PHE:C	2.58	0.41
51:M5:172:ARG:HH11	51:M5:172:ARG:HD3	1.71	0.41
51:M5:39:ALA:HB3	51:M5:61:ILE:O	2.25	0.41
71:O5:96:GLU:HG3	71:O5:96:GLU:H	1.78	0.41
39:L2:6:ARG:NH1	39:L2:199:THR:H	2.14	0.41
1:6:520:A:C2	1:6:521:A:C4	3.08	0.41
1:2:772:G:N2	1:2:774:A:H1'	2.35	0.41
38:8:97:A:C2	38:8:98:U:C2	3.08	0.41
46:L9:156:GLN:O	46:L9:156:GLN:HG3	2.69	0.41
36:5:2949:U:O2'	36:5:2950:G:H5'	2.20	0.41
1:6:913:G:H3'	1:6:914:G:C5'	2.50	0.41
36:1:214:G:N2	36:1:215:G:C4	2.88	0.41
36:1:89:A:N6	36:1:98:G:C2	2.87	0.41
45:L8:159:PRO:C	45:L8:161:GLU:N	2.72	0.41
42:L5:155:THR:HA	42:L5:179:ARG:HD3	2.26	0.41
48:M1:97:SER:O	48:M1:156:LYS:HB2	3.39	0.41
48:M1:54:VAL:HG21	48:M1:57:PHE:CD2	4.80	0.41
48:M1:48:SER:O	48:M1:65:ILE:N	2.53	0.41
36:5:2972:G:N1	36:5:2973:G:C5	2.87	0.41
20:C8:75:ASN:N	20:C8:76:PRO:HD3	2.35	0.41
1:6:1186:U:C5	1:6:1208:A:C6	3.08	0.41
1:6:1453:G:C4	1:6:1454:G:C8	3.07	0.41
36:1:2288:G:H5''	36:1:2289:U:OP2	2.20	0.41
36:1:2112:U:H3'	60:N4:44:LYS:NZ	2.35	0.41
4:S2:144:TRP:CZ2	4:S2:173:PRO:HG3	2.55	0.41
54:M8:120:GLU:CD	54:M8:122:ILE:HD11	2.39	0.41
37:3:45:A:H2'	37:3:46:A:O4'	2.19	0.41
1:2:456:A:H2'	1:2:457:G:O4'	2.20	0.41
36:1:1615:C:H2'	36:1:1616:U:H6	1.84	0.41
36:1:1617:G:O2'	36:1:1618:G:H5'	2.19	0.41
38:4:124:G:H8	38:4:124:G:O5'	2.02	0.41
42:L5:20:PHE:N	42:L5:20:PHE:HD2	2.57	0.41
25:D3:26:GLU:HG3	1:6:609:U:N3	341.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:40:LYS:HD2	34:SR:65:SER:C	4.13	0.41
36:5:1036:A:N1	36:5:1037:C:C2	2.88	0.41
53:M7:67:ILE:HD12	53:M7:82:ARG:NH2	3.79	0.41
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.55	0.41
36:5:2102:U:H2'	36:5:2103:U:C6	2.55	0.41
45:L8:95:ASN:C	45:L8:97:TYR:H	3.68	0.41
65:N9:43:HIS:O	65:N9:47:LEU:HG	2.96	0.41
36:1:543:C:H6	36:1:543:C:OP2	2.03	0.41
36:1:1814:A:C2	36:1:1816:A:C5	3.08	0.41
1:2:523:G:O6	87:2:2053:OHX:N3	2.53	0.41
58:N2:35:LYS:HG3	58:N2:36:TYR:N	2.35	0.41
36:5:2707:C:O2'	36:5:2708:C:H5'	2.20	0.41
40:L3:156:SER:C	40:L3:157:VAL:HG12	2.40	0.41
69:O3:88:ASN:HB2	36:5:429:U:C4'	214.92	0.41
6:S4:158:ASP:HB3	6:S4:173:ILE:O	2.75	0.41
36:1:2563:G:O2'	45:L8:29:SER:HB2	2.20	0.41
4:S2:157:LYS:NZ	24:D2:92:ASN:O	2.41	0.41
4:S2:168:ARG:HG3	1:6:1097:U:O2'	385.36	0.41
1:6:217:A:C8	1:6:218:A:H8	2.37	0.41
1:6:830:U:C4	1:6:831:U:C4	3.08	0.41
9:S7:174:ASN:C	9:S7:176:LEU:H	2.22	0.41
54:M8:159:LYS:HA	54:M8:159:LYS:HD3	4.55	0.41
36:5:1289:G:H2'	36:5:1290:A:C8	2.55	0.41
52:M6:65:ASN:C	52:M6:67:THR:H	2.95	0.41
36:1:1533:U:C2'	36:1:1534:A:H5'	2.50	0.41
36:1:1197:A:H5''	36:1:1198:C:OP2	2.20	0.41
42:L5:285:ARG:O	42:L5:288:ALA:HB3	2.29	0.41
61:N5:34:LEU:HB2	36:5:1558:A:H1'	140.08	0.41
36:1:1498:A:C6	36:1:1519:G:N1	2.88	0.41
6:S4:23:LEU:HD22	6:S4:23:LEU:N	2.35	0.41
45:L8:139:VAL:HG12	45:L8:143:ILE:HD12	2.02	0.41
20:C8:72:ILE:HG12	20:C8:79:TYR:CE2	4.72	0.41
36:1:908:G:C5	36:1:925:A:C4	3.07	0.41
39:L2:54:ARG:NH1	39:L2:54:ARG:HG3	2.76	0.41
1:2:1150:G:C8	1:2:1768:G:C2	3.08	0.41
46:L9:58:HIS:O	46:L9:59:ASN:C	2.57	0.41
36:5:2390:A:C5	36:5:2391:G:C8	3.08	0.41
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.77	0.41
36:1:496:C:H3'	36:1:496:C:C6	2.53	0.41
69:O3:16:TYR:N	69:O3:94:PHE:CE1	2.87	0.41
69:O3:24:ASN:OD1	69:O3:26:ASN:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:134:GLU:HA	49:M3:134:GLU:OE2	2.20	0.41
66:O0:78:GLY:O	66:O0:81:VAL:HG22	2.81	0.41
35:SM:112:ASP:O	35:SM:114:LYS:N	2.53	0.41
47:M0:65:LEU:HD11	47:M0:91:VAL:HG12	2.02	0.41
68:O2:34:LYS:NZ	68:O2:52:GLN:OE1	2.52	0.41
1:6:775:G:C2'	1:6:776:G:H5'	2.50	0.41
1:2:1769:U:OP2	87:2:2145:OHX:N4	2.53	0.41
1:6:1001:A:H2'	1:6:1002:G:O4'	2.20	0.41
36:5:1038:C:C2	36:5:1039:U:C6	3.08	0.41
25:D3:126:LYS:HB3	25:D3:131:SER:HA	2.03	0.41
41:L4:98:ARG:HG2	41:L4:99:MET:N	2.70	0.41
1:2:1546:G:H2'	1:2:1547:A:H8	1.84	0.41
36:1:1847:A:C8	53:M7:130:TYR:CE2	3.07	0.41
1:2:53:G:H2'	1:2:54:C:C6	2.56	0.41
26:D4:105:ARG:NH1	26:D4:109:LYS:HE2	2.35	0.41
1:6:768:C:N4	1:6:769:A:N1	2.68	0.41
11:S9:23:ARG:HD2	11:S9:27:GLU:OE2	3.02	0.41
44:L7:153:PHE:HB3	44:L7:161:VAL:O	2.20	0.41
44:L7:210:PRO:HG2	44:L7:214:TRP:CE2	2.54	0.41
45:L8:65:LEU:O	45:L8:69:LEU:HD22	2.19	0.41
51:M5:16:SER:OG	51:M5:16:SER:O	3.10	0.41
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	2.94	0.41
1:6:210:A:C5	1:6:211:U:C4	3.08	0.41
13:C1:113:PRO:O	13:C1:114:ALA:HB2	4.32	0.41
13:C1:17:PRO:O	13:C1:19:ILE:HG12	2.19	0.41
13:C1:44:THR:HB	13:C1:60:PHE:CD1	2.55	0.41
10:S8:83:TYR:HB3	10:S8:101:ILE:HG13	2.02	0.41
41:L4:132:ALA:O	41:L4:135:VAL:N	2.90	0.41
1:2:1402:G:H2'	1:2:1403:C:O4'	2.21	0.41
19:C7:28:PHE:CZ	19:C7:32:LYS:HD3	2.55	0.41
19:C7:57:LEU:O	19:C7:60:ARG:HG3	2.20	0.41
36:5:815:G:N2	36:5:919:U:O2'	2.53	0.41
73:O7:25:ARG:NH2	75:O9:50:ASN:OD1	5.90	0.41
20:C8:23:ASP:OD1	20:C8:24:GLY:N	2.82	0.41
36:1:3327:G:O2'	36:1:3328:G:H5'	2.20	0.41
55:M9:23:TRP:CH2	55:M9:25:ASP:HA	3.35	0.41
67:O1:56:ASN:ND2	36:5:1459:C:O4'	144.02	0.41
75:O9:11:GLN:O	75:O9:12:LYS:C	2.58	0.41
75:O9:15:LYS:O	75:O9:16:ALA:C	2.58	0.41
1:2:407:A:O2'	1:2:1671:A:N3	2.49	0.41
36:1:2747:A:C6	36:1:2748:A:N6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1203:A:C5	1:2:1555:A:C6	3.07	0.41
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.67	0.41
5:S3:98:ALA:O	5:S3:102:ALA:N	2.66	0.41
15:C3:94:LYS:O	15:C3:97:SER:N	2.62	0.41
72:O6:27:SER:HG	72:O6:27:SER:H	1.58	0.41
36:5:1640:G:C5	36:5:1641:U:C4	3.09	0.41
1:6:887:A:C2	1:6:926:A:N1	2.88	0.41
28:D6:64:LEU:HA	28:D6:65:PRO:HD3	1.76	0.41
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.54	0.41
68:O2:42:VAL:HG13	68:O2:50:ILE:HG23	4.22	0.41
1:6:1139:A:N7	1:6:1140:G:C8	2.89	0.41
24:D2:99:PHE:HB2	24:D2:100:GLY:H	1.81	0.41
2:S0:175:TYR:CZ	2:S0:195:TRP:CE3	3.08	0.41
4:S2:207:LEU:O	4:S2:208:GLU:C	2.76	0.41
40:L3:275:ARG:HH11	40:L3:275:ARG:HD2	1.63	0.41
54:M8:140:LEU:HD23	54:M8:140:LEU:HA	2.15	0.41
54:M8:62:VAL:HG13	54:M8:66:ARG:CD	2.50	0.41
48:M1:91:LEU:C	48:M1:92:ARG:HG3	2.95	0.41
55:M9:99:LEU:HD23	55:M9:99:LEU:O	3.87	0.41
70:O4:94:LEU:O	70:O4:98:GLN:HB2	2.20	0.41
1:6:1049:U:H2'	1:6:1050:G:O4'	2.20	0.41
36:1:1765:U:H3'	55:M9:46:LYS:NZ	2.35	0.41
71:O5:68:GLN:C	71:O5:70:TYR:N	3.31	0.41
6:S4:157:ASN:O	6:S4:175:PHE:HB2	2.20	0.41
6:S4:192:ILE:CD1	6:S4:238:LEU:HD22	4.20	0.41
50:M4:38:ILE:HG21	50:M4:38:ILE:HD13	1.79	0.41
56:N0:141:LYS:C	56:N0:143:PHE:N	2.85	0.41
36:5:3245:A:N1	36:5:3246:G:C2	2.88	0.41
69:O3:85:PHE:HB2	69:O3:87:ASN:O	2.20	0.41
36:1:2708:C:H2'	36:1:2709:C:O4'	2.20	0.41
42:L5:265:TYR:CD1	37:7:120:C:C2	313.08	0.41
8:S6:175:ILE:H	8:S6:175:ILE:HG12	1.53	0.41
34:SR:13:LEU:HD13	34:SR:45:TRP:CE3	2.55	0.41
36:1:2667:A:C2	36:1:2690:G:C4	3.08	0.41
62:N6:36:SER:O	62:N6:37:LYS:C	2.58	0.41
36:1:2223:A:C6	36:1:2224:A:C6	3.08	0.41
40:L3:285:VAL:HG12	40:L3:285:VAL:O	2.20	0.41
40:L3:81:THR:HG23	40:L3:205:VAL:CG2	4.37	0.41
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.73	0.41
46:L9:27:VAL:CG2	46:L9:78:MET:HE3	2.99	0.41
52:M6:33:ILE:HG22	52:M6:34:VAL:N	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1483:G:C8	36:1:1485:G:N7	2.88	0.41
26:D4:131:ARG:HH22	1:6:153:G:P	321.82	0.41
36:1:3276:G:O5'	43:L6:48:ARG:NH2	2.53	0.41
36:1:1689:U:C4	36:1:1690:C:C5	3.08	0.41
58:N2:43:VAL:HG21	58:N2:50:LEU:HA	3.25	0.41
58:N2:54:VAL:HG12	58:N2:67:SER:HA	2.02	0.41
36:5:1161:G:H5'	36:5:1365:G:HO2'	1.85	0.41
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.64	0.41
51:M5:183:THR:O	51:M5:183:THR:HG23	2.20	0.41
13:C1:102:LYS:HD3	1:6:632:U:OP1	325.18	0.41
25:D3:15:LEU:HA	25:D3:15:LEU:HD23	1.62	0.41
36:1:3337:G:H2'	36:1:3338:C:O4'	2.19	0.41
26:D4:5:VAL:HG13	26:D4:32:ARG:HH22	1.84	0.41
36:1:1927:G:N3	36:1:1927:G:H3'	2.35	0.41
38:4:41:A:C8	38:4:42:G:C8	3.08	0.41
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	4.48	0.41
1:6:383:G:C5	1:6:384:G:C8	3.09	0.41
48:M1:52:TYR:HA	48:M1:61:ARG:CB	3.37	0.41
36:1:1738:C:H1'	70:O4:52:GLN:HG3	2.03	0.41
60:N4:39:LEU:H	60:N4:39:LEU:HD22	1.84	0.41
64:N8:115:LYS:HE2	36:5:715:A:N7	149.04	0.41
64:N8:81:LEU:HD23	64:N8:81:LEU:HA	1.99	0.41
1:6:825:U:HO2'	1:6:826:U:P	2.42	0.41
49:M3:52:ASP:CG	49:M3:141:ALA:H	2.21	0.41
58:N2:77:LYS:O	58:N2:81:LYS:HG3	2.98	0.41
42:L5:11:ALA:O	42:L5:12:TYR:C	2.68	0.41
62:N6:102:SER:O	36:5:224:C:O2'	73.22	0.41
46:L9:41:ILE:HD13	46:L9:41:ILE:HA	1.47	0.41
1:6:610:G:H2'	1:6:614:C:C5	2.55	0.41
1:6:1733:C:C2	1:6:1734:U:C5	3.09	0.41
1:2:57:G:C5	1:2:58:U:C5	3.08	0.41
75:O9:2:ALA:O	75:O9:3:ALA:HB3	2.20	0.41
1:2:769:A:O2'	1:2:770:A:H5'	2.20	0.41
37:3:3:U:H2'	37:3:4:U:H6	1.85	0.41
36:5:2271:A:N7	36:5:2272:G:C6	2.88	0.41
36:1:2833:A:O3'	87:1:3912:OHX:N6	2.53	0.41
36:1:3203:U:H2'	36:1:3204:C:C6	2.55	0.41
71:O5:95:PHE:O	71:O5:97:ALA:N	2.53	0.41
69:O3:18:ARG:HA	69:O3:23:ASN:HA	2.51	0.41
39:L2:70:ARG:HE	39:L2:72:ARG:HG2	1.84	0.41
36:5:643:U:H5'	36:5:1117:G:H1'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:6:C:H2'	37:7:7:G:O4'	2.20	0.41
1:6:1114:G:O2'	1:6:1115:U:OP2	2.36	0.41
36:1:537:A:C6	36:1:557:A:C5	3.08	0.41
3:S1:169:SER:O	3:S1:173:THR:OG1	2.37	0.41
74:O8:8:ILE:HD12	74:O8:8:ILE:H	2.61	0.41
1:2:378:A:C6	1:2:379:U:C2	3.08	0.41
9:S7:62:VAL:HA	9:S7:63:PRO:HD3	2.37	0.41
1:6:1432:U:H4'	1:6:1433:G:H5''	2.02	0.41
36:1:1939:G:N1	36:1:1940:G:C4	2.89	0.41
36:5:995:U:C2	36:5:2637:A:C8	3.08	0.41
36:1:3358:U:H2'	36:1:3359:A:H1'	2.03	0.41
73:O7:11:ARG:O	73:O7:12:HIS:HB3	3.40	0.41
36:5:3294:A:C6	36:5:3295:A:C5	3.08	0.41
1:2:358:U:O4	1:2:360:A:N6	2.53	0.41
1:2:1405:G:H2'	1:2:1406:A:O4'	2.21	0.41
36:1:873:C:O5'	36:1:873:C:H6	2.03	0.41
36:1:533:A:O2'	36:1:535:G:H5'	2.20	0.41
36:5:2219:A:H61	36:5:2226:U:H3	1.69	0.41
1:6:493:U:H2'	1:6:494:U:H6	1.85	0.41
40:L3:311:PHE:O	40:L3:315:GLY:N	3.27	0.41
36:1:2678:A:N7	36:1:2679:A:C2	2.88	0.41
36:1:2621:G:H2'	36:1:2622:C:H5'	2.03	0.41
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	2.31	0.41
36:1:2366:C:OP1	40:L3:259:HIS:NE2	2.51	0.41
36:1:661:G:C4	36:1:802:C:H1'	2.56	0.41
38:8:31:G:H2'	38:8:32:C:O4'	2.20	0.41
36:5:3352:U:O2	87:5:4224:OHX:N5	2.53	0.41
36:1:957:C:O2'	36:1:958:C:H5'	2.20	0.41
34:SR:283:LYS:HE3	34:SR:283:LYS:HB2	1.68	0.41
36:1:1524:A:C5	36:1:1607:U:C6	3.08	0.41
38:8:127:U:C5	38:8:128:U:H5	2.38	0.41
36:1:2659:G:H2'	36:1:2660:G:H8	1.86	0.41
1:2:34:G:C4	1:2:475:A:C6	3.09	0.41
36:5:36:C:H4'	36:5:808:A:N1	2.35	0.41
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.46	0.41
36:5:350:C:H2'	36:5:350:C:H6	1.56	0.41
36:1:982:C:H2'	36:1:982:C:O2	2.20	0.41
36:5:771:A:O2'	36:5:772:U:H5'	2.20	0.41
36:1:2213:A:C6	36:1:2214:A:C6	3.08	0.41
1:6:565:C:N3	87:6:2164:OHX:N4	2.69	0.41
25:D3:90:ASP:OD1	32:E0:14:VAL:HG12	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:283:TYR:CD1	40:L3:354:VAL:HG21	3.19	0.41
36:5:1113:G:H1'	36:5:1369:A:H2	1.86	0.41
36:1:1444:G:N1	36:1:1445:U:O2	2.53	0.41
53:M7:42:THR:O	53:M7:45:GLN:HB2	2.20	0.41
1:6:512:A:HO2'	1:6:513:U:P	2.43	0.41
11:S9:95:TYR:O	11:S9:96:VAL:C	2.59	0.41
47:M0:48:LEU:HB2	47:M0:142:ASP:OD1	2.18	0.41
47:M0:86:HIS:CE1	47:M0:173:PHE:HE2	2.38	0.41
47:M0:88:ARG:HD2	47:M0:88:ARG:HH11	2.25	0.41
41:L4:329:PRO:HB2	41:L4:330:TYR:H	3.76	0.41
44:L7:158:LYS:HZ2	44:L7:159:GLN:N	4.03	0.41
44:L7:154:GLY:HA3	44:L7:201:PHE:CZ	2.55	0.41
44:L7:115:THR:HG22	44:L7:204:PRO:HB3	2.03	0.41
36:1:2513:U:H4'	36:1:2514:U:OP1	2.19	0.41
1:2:248:U:O3'	13:C1:34:TRP:HZ2	2.03	0.41
54:M8:26:LEU:C	54:M8:28:LEU:H	2.97	0.41
36:1:529:A:H2'	36:1:530:G:O4'	2.20	0.41
18:C6:127:LYS:HD3	1:6:1605:G:OP2	390.91	0.41
18:C6:53:LEU:H	18:C6:53:LEU:HG	2.78	0.41
18:C6:53:LEU:HD23	18:C6:53:LEU:HA	1.54	0.41
30:D8:53:ILE:HG22	30:D8:54:LEU:O	3.50	0.41
7:S5:169:ASN:O	7:S5:172:ILE:N	3.50	0.41
7:S5:187:ILE:HG13	7:S5:187:ILE:H	2.69	0.41
36:1:3380:U:O2'	36:1:3381:U:H5'	2.20	0.41
36:5:3326:G:N3	36:5:3327:G:C8	2.88	0.41
42:L5:65:ILE:HG22	42:L5:66:SER:N	2.41	0.41
1:6:1202:A:H2'	1:6:1203:A:H5''	2.03	0.41
12:C0:8:ARG:HG2	12:C0:79:TYR:OH	2.94	0.41
12:C0:3:MET:SD	12:C0:8:ARG:HD3	2.61	0.41
36:1:270:U:H2'	36:1:270:U:O2	2.19	0.41
36:5:115:A:N1	36:5:155:G:O6	2.54	0.41
36:1:1639:C:C2'	36:1:1640:G:H5'	2.50	0.41
1:6:902:G:H2'	1:6:903:U:C6	2.55	0.41
1:6:926:A:H2'	1:6:927:C:C6	2.56	0.41
3:S1:61:LEU:HB2	3:S1:62:LYS:H	1.62	0.41
3:S1:66:VAL:HG13	16:C4:33:LEU:O	2.20	0.41
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.85	0.41
2:S0:118:PRO:HG2	2:S0:141:ILE:HG21	2.02	0.41
2:S0:175:TYR:CD2	2:S0:199:PRO:HB3	3.78	0.41
9:S7:141:ARG:HD2	24:D2:51:GLU:OE1	2.21	0.41
48:M1:131:MET:O	48:M1:154:THR:HG21	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:136:PHE:HD1	63:N7:136:PHE:N	2.18	0.41
63:N7:79:HIS:CE1	36:5:1637:A:H4'	215.82	0.41
66:O0:55:GLU:HA	70:O4:94:LEU:HD11	2.46	0.41
68:O2:83:GLU:O	68:O2:86:THR:HB	3.95	0.41
55:M9:43:LYS:HZ3	36:5:1765:U:H5'	90.93	0.41
55:M9:14:VAL:HG12	87:M9:202:OHX:N4	2.35	0.41
14:C2:47:GLU:HG3	1:6:1229:G:O6	460.66	0.41
1:2:1178:G:C5	1:2:1462:G:C6	3.08	0.41
6:S4:98:ASN:ND2	6:S4:116:ASP:HA	2.35	0.41
40:L3:295:ALA:HB2	40:L3:301:THR:O	2.21	0.41
59:N3:94:TYR:CE1	60:N4:21:PHE:HB2	2.56	0.41
36:5:3225:C:C2	36:5:3226:A:C8	3.08	0.41
42:L5:262:LYS:O	42:L5:263:GLU:C	2.58	0.41
34:SR:81:LEU:HD12	34:SR:115:ILE:HB	2.01	0.41
34:SR:81:LEU:HA	34:SR:90:ARG:O	2.88	0.41
36:5:2189:U:H2'	36:5:2190:U:H5'	2.03	0.41
72:O6:79:SER:CB	72:O6:82:ARG:H	4.64	0.41
46:L9:18:VAL:HG12	46:L9:18:VAL:H	1.62	0.41
36:1:501:A:C4	36:1:502:U:C5	3.07	0.41
1:2:1683:C:C2	1:2:1684:U:C6	3.08	0.41
49:M3:90:ALA:HA	49:M3:93:ILE:CD1	4.56	0.41
49:M3:68:LYS:NZ	49:M3:149:GLN:HG2	7.12	0.41
51:M5:183:THR:HA	51:M5:187:ARG:H	3.51	0.41
71:O5:96:GLU:HA	71:O5:99:GLN:HG3	2.01	0.41
1:6:626:U:O2'	1:6:627:C:H5'	2.21	0.41
36:1:3366:G:C6	36:1:3367:C:N4	2.89	0.41
39:L2:4:VAL:HA	39:L2:8:GLN:NE2	2.98	0.41
36:1:95:A:H5''	64:N8:34:MET:HB2	2.01	0.41
39:L2:122:ASP:C	39:L2:122:ASP:OD2	2.58	0.41
24:D2:18:GLU:CD	24:D2:69:LEU:HB3	2.41	0.41
38:4:3:A:C8	38:4:4:C:C5	3.08	0.41
76:Q0:79:GLU:HG3	76:Q0:82:LEU:H	1.85	0.41
70:O4:37:LYS:HG2	70:O4:37:LYS:H	3.53	0.41
36:5:131:C:O2'	36:5:132:C:H5'	2.21	0.41
36:1:856:G:N1	36:1:857:G:N2	2.67	0.41
36:1:2311:G:H3'	36:1:2311:G:C8	2.54	0.41
64:N8:78:LEU:HB3	64:N8:79:TRP:H	1.65	0.41
52:M6:73:PHE:C	52:M6:74:ARG:HG2	3.08	0.41
41:L4:295:ILE:O	41:L4:298:ALA:N	2.62	0.41
17:C5:85:ILE:HG22	17:C5:85:ILE:O	2.59	0.41
1:6:973:A:O2'	1:6:974:A:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:126:PRO:HG2	2:S0:152:PRO:HG2	2.03	0.41
76:Q0:104:PRO:HA	76:Q0:105:PRO:HD3	1.82	0.41
78:Q2:71:ARG:HD3	78:Q2:71:ARG:C	4.91	0.41
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.55	0.41
1:2:421:A:N3	1:2:421:A:H2'	2.34	0.41
50:M4:23:ILE:HG12	50:M4:31:LYS:O	3.20	0.41
44:L7:60:ARG:O	44:L7:63:ILE:N	3.51	0.41
8:S6:1:MET:HG2	8:S6:24:ILE:HD13	2.02	0.41
13:C1:133:LYS:HG2	1:6:338:C:P	293.26	0.41
15:C3:33:VAL:O	15:C3:37:ILE:N	2.37	0.41
10:S8:22:ARG:HG3	10:S8:23:LYS:O	3.97	0.41
1:2:110:U:H2'	1:2:111:U:O5'	2.20	0.41
6:S4:151:ASP:HA	6:S4:152:PRO:HD3	2.02	0.41
32:E0:18:THR:HG21	1:6:584:C:O2'	390.15	0.41
36:1:1209:G:C5	36:1:1210:U:C5	3.08	0.41
24:D2:90:THR:HG21	24:D2:113:HIS:CD2	2.68	0.41
36:1:651:G:H2'	36:1:652:G:O4'	2.21	0.41
36:5:659:G:C5	36:5:1432:C:C4	3.09	0.41
1:6:225:A:H2'	1:6:226:A:H5'	2.02	0.41
1:6:831:U:HO2'	1:6:832:U:C5'	2.32	0.41
1:6:831:U:O2'	1:6:832:U:O5'	2.35	0.41
1:2:503:G:H2'	1:2:503:G:N3	2.36	0.41
36:1:440:A:OP2	36:1:440:A:H8	2.04	0.41
2:S0:200:ASP:OD1	19:C7:88:VAL:HG23	2.20	0.41
1:6:1324:G:H2'	1:6:1325:A:O4'	2.20	0.41
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.20	0.41
36:1:1578:C:H3'	36:1:1579:C:C6	2.56	0.41
36:1:881:C:H1'	36:1:1850:A:C8	2.55	0.41
45:L8:41:GLN:CG	45:L8:42:PRO:HD2	2.87	0.41
8:S6:52:ILE:HG12	8:S6:109:LEU:HD21	2.02	0.41
36:5:1252:A:C5	36:5:1253:U:C5	3.08	0.41
53:M7:74:LYS:HE2	36:5:3297:U:O3'	184.81	0.41
33:E1:120:GLU:HB3	33:E1:131:PHE:CD1	2.55	0.41
36:1:392:G:C2	36:1:393:U:C2	3.08	0.41
36:1:2571:U:H1'	36:1:2572:C:H5'	2.01	0.41
73:O7:28:HIS:N	73:O7:33:THR:O	2.63	0.41
1:2:1394:G:H2'	1:2:1395:G:O4'	2.20	0.41
36:1:1136:A:C6	36:1:1137:C:N4	2.89	0.41
36:5:1882:G:C5	36:5:1883:A:N7	2.88	0.41
36:5:2259:A:N7	36:5:2260:U:C5	2.88	0.41
3:S1:146:GLN:O	3:S1:149:GLN:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2322:C:H2'	36:5:2323:G:H5'	2.01	0.41
36:5:3372:A:N6	36:5:3373:U:O4	2.54	0.41
36:1:2955:U:O5'	36:1:2955:U:H6	2.03	0.41
36:1:389:A:C6	36:1:390:G:C5	3.09	0.41
45:L8:229:VAL:C	45:L8:231:LYS:H	2.23	0.41
36:1:2933:A:C2	36:1:3014:U:H4'	2.56	0.41
36:5:956:U:H2'	36:5:957:C:H6	1.85	0.41
36:5:2925:C:C5	36:5:2926:A:N7	2.88	0.41
36:1:3033:A:H2'	36:1:3034:C:H6	1.85	0.41
36:5:426:G:H2'	36:5:427:C:C6	2.55	0.41
36:1:3369:G:HO2'	36:1:3370:A:H8	1.68	0.41
44:L7:223:PHE:HE2	56:N0:35:VAL:HG21	3.20	0.41
1:6:896:U:C4	1:6:897:C:N4	2.88	0.41
36:1:338:A:C2	36:1:1380:G:N2	2.88	0.41
9:S7:160:GLN:HA	9:S7:163:ASP:OD2	2.20	0.41
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.21	0.41
1:2:1521:G:N7	1:2:1523:G:C2	2.88	0.41
36:5:637:C:H2'	36:5:637:C:H6	1.58	0.41
1:2:21:U:H2'	1:2:22:A:C8	2.55	0.41
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.68	0.41
36:5:227:G:N2	36:5:228:U:H1'	2.34	0.41
36:1:3257:C:N3	36:1:3258:U:C5	2.88	0.41
20:C8:113:LEU:HA	20:C8:116:LEU:HD22	3.20	0.41
36:1:2988:C:P	52:M6:68:ARG:NH1	2.94	0.41
36:1:3197:G:C2'	36:1:3198:U:H5''	2.51	0.41
46:L9:52:LEU:HD22	46:L9:53:ILE:O	2.95	0.41
51:M5:88:GLY:O	51:M5:89:VAL:HG23	3.71	0.41
36:1:1508:C:O2'	36:1:2353:G:H1'	2.19	0.41
53:M7:29:THR:O	53:M7:30:ARG:C	2.84	0.41
53:M7:41:LEU:H	53:M7:113:TYR:HA	1.85	0.41
26:D4:116:LYS:NZ	1:6:57:G:OP2	338.38	0.41
16:C4:133:ARG:C	28:D6:28:LYS:HG3	4.24	0.41
28:D6:3:LYS:HG2	28:D6:5:ARG:O	2.20	0.41
11:S9:36:LEU:HA	11:S9:36:LEU:HD23	3.18	0.41
44:L7:215:GLY:O	44:L7:216:VAL:HG22	2.20	0.41
45:L8:75:ILE:O	45:L8:77:GLN:N	2.50	0.41
51:M5:31:ARG:HG2	51:M5:31:ARG:O	2.20	0.41
13:C1:82:ARG:NH2	13:C1:113:PRO:HG3	2.34	0.41
41:L4:131:VAL:O	41:L4:132:ALA:C	2.59	0.41
43:L6:100:LYS:HE2	43:L6:137:ASP:OD2	2.18	0.41
50:M4:36:VAL:HG12	50:M4:75:GLY:HA2	2.12	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1566:U:O2'	20:C8:37:GLY:HA2	2.20	0.41
1:6:1570:A:C6	1:6:1571:C:C2	3.08	0.41
27:D5:64:VAL:O	27:D5:65:LEU:C	3.14	0.41
7:S5:208:SER:HB3	7:S5:211:ILE:CG1	4.44	0.41
7:S5:43:PHE:O	7:S5:69:PHE:HA	2.41	0.41
46:L9:161:LEU:HD21	46:L9:179:ILE:HD12	2.02	0.41
55:M9:28:GLU:O	55:M9:29:THR:C	3.28	0.41
38:4:46:G:N2	38:4:58:G:C5	2.88	0.41
1:2:1552:U:H3'	1:2:1553:G:H8	1.84	0.41
17:C5:37:ALA:O	17:C5:42:ARG:HD3	2.34	0.41
21:C9:77:ASN:OD1	21:C9:98:GLY:HA2	2.60	0.41
22:D0:71:PRO:O	22:D0:72:ASN:ND2	6.21	0.41
5:S3:138:VAL:HG22	5:S3:184:ILE:HD12	2.99	0.41
36:1:70:A:N6	36:1:71:A:N1	2.69	0.41
36:1:155:G:H1'	72:O6:26:ILE:CD1	2.50	0.41
16:C4:84:ARG:NE	16:C4:85:ALA:O	4.10	0.41
16:C4:103:ARG:NE	28:D6:52:ASP:HB2	5.43	0.41
23:D1:82:VAL:HG12	23:D1:83:TRP:N	2.62	0.41
2:S0:50:VAL:O	2:S0:54:TRP:N	2.49	0.41
4:S2:225:LEU:HD22	4:S2:226:THR:N	4.14	0.41
40:L3:16:PHE:CD2	40:L3:275:ARG:CZ	3.03	0.41
54:M8:81:VAL:O	54:M8:81:VAL:HG13	2.20	0.41
48:M1:92:ARG:HB2	48:M1:95:ASN:OD1	2.20	0.41
63:N7:23:VAL:HA	63:N7:45:GLY:HA3	3.31	0.41
63:N7:2:ALA:O	63:N7:4:PHE:N	2.53	0.41
70:O4:81:CYS:SG	70:O4:84:CYS:HB2	3.22	0.41
70:O4:96:GLU:OE1	36:5:2555:G:N1	212.86	0.41
70:O4:97:GLU:C	70:O4:99:LYS:N	2.74	0.41
1:6:871:G:C2	1:6:957:G:C2	3.08	0.41
73:O7:72:ARG:NH1	38:8:94:C:H2'	49.58	0.41
62:N6:118:LEU:HD12	62:N6:122:LYS:HG3	2.01	0.41
35:SM:76:VAL:HG13	1:6:1460:A:N7	327.63	0.41
31:D9:5:ASN:ND2	31:D9:7:TRP:HE1	2.19	0.41
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.72	0.41
36:5:559:A:N6	36:5:560:G:C4	2.89	0.41
60:N4:49:ILE:O	60:N4:49:ILE:HG22	2.54	0.41
36:1:3216:G:C4	36:1:3259:U:C4	3.08	0.41
43:L6:158:TYR:CG	50:M4:115:PHE:HD2	3.29	0.41
50:M4:113:THR:CB	50:M4:116:GLU:HG3	4.12	0.41
69:O3:73:ARG:HH11	69:O3:82:ARG:NH1	2.18	0.41
34:SR:21:THR:O	34:SR:291:SER:HB3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2275:A:N6	36:5:2311:G:H1'	2.35	0.41
52:M6:39:GLU:O	52:M6:139:GLY:N	2.53	0.41
40:L3:285:VAL:HG13	40:L3:322:ILE:CD1	5.13	0.41
40:L3:49:TYR:O	40:L3:79:VAL:HG23	2.28	0.41
1:2:1007:C:OP1	16:C4:136:ARG:HG3	2.21	0.41
39:L2:149:ARG:NH2	39:L2:252:THR:O	2.98	0.41
79:Q3:35:ALA:HB3	79:Q3:37:TYR:CZ	3.98	0.41
50:M4:108:ARG:NH2	52:M6:197:LEU:HA	2.70	0.41
3:S1:193:ILE:O	3:S1:194:ASN:C	2.85	0.41
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	3.17	0.41
36:5:1237:G:N2	36:5:1238:C:C2	2.88	0.41
8:S6:56:ASN:HA	8:S6:61:PHE:O	2.49	0.41
72:O6:52:PRO:HA	72:O6:55:ARG:NH1	2.49	0.41
40:L3:148:LEU:HD12	40:L3:148:LEU:HA	1.82	0.41
49:M3:127:PRO:HA	71:O5:114:ARG:HH21	3.34	0.41
33:E1:103:LEU:HA	33:E1:105:TYR:CD2	3.67	0.41
26:D4:10:ARG:HD2	26:D4:26:ASP:HB2	2.02	0.41
26:D4:5:VAL:HG22	26:D4:32:ARG:NH2	2.35	0.41
36:5:392:G:O6	87:5:4062:OHX:N3	2.54	0.41
61:N5:57:LEU:N	61:N5:61:LYS:HD2	3.96	0.41
1:2:787:G:C5	1:2:788:A:C5	3.09	0.41
36:1:1818:U:H5''	36:1:1819:U:OP2	2.20	0.41
46:L9:129:ARG:HG3	46:L9:157:ASN:HB2	2.02	0.41
48:M1:16:LYS:HG3	48:M1:130:VAL:HG13	2.93	0.41
4:S2:122:ALA:HA	4:S2:125:ILE:CD1	2.50	0.41
20:C8:81:ILE:HA	20:C8:82:PRO:HD3	1.81	0.41
36:5:437:G:O5'	36:5:437:G:C8	2.72	0.41
60:N4:35:LYS:O	60:N4:38:SER:HB3	2.19	0.41
64:N8:79:TRP:HZ2	64:N8:121:VAL:HB	1.85	0.41
64:N8:137:LYS:O	64:N8:140:ALA:HB3	3.18	0.41
52:M6:55:HIS:O	52:M6:57:PHE:N	2.53	0.41
4:S2:44:LEU:CD2	4:S2:246:GLU:HB2	2.51	0.41
36:1:2623:G:C5	36:1:2624:G:N7	2.88	0.41
36:1:1918:C:N4	36:1:1919:G:C6	2.87	0.41
36:5:1408:G:H5''	36:5:1408:G:H8	1.85	0.41
36:5:692:A:C2	36:5:693:A:H1'	2.54	0.41
44:L7:138:TYR:O	44:L7:237:ASN:ND2	2.53	0.41
36:5:407:A:N6	38:8:17:A:C8	2.89	0.41
36:5:408:A:N6	38:8:15:G:H1'	2.36	0.41
37:7:47:C:C2	37:7:48:U:C5	3.08	0.41
1:6:1508:U:H2'	1:6:1509:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1498:G:P	21:C9:74:GLY:HA3	2.60	0.41
22:D0:44:ASN:ND2	22:D0:102:ARG:HH21	7.18	0.41
22:D0:33:GLN:H	22:D0:33:GLN:CD	2.23	0.41
36:5:3357:U:O2'	36:5:3358:U:OP1	2.36	0.41
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.21	0.41
36:1:221:A:C4	36:1:224:C:N4	2.88	0.41
36:5:223:U:P	36:5:224:C:H41	2.42	0.41
46:L9:55:VAL:HG11	46:L9:71:VAL:HG11	3.09	0.41
38:8:37:A:C6	38:8:104:A:C5	3.08	0.41
2:S0:111:ILE:HA	2:S0:111:ILE:HD12	1.78	0.41
74:O8:17:ARG:NH2	36:5:1824:U:H4'	138.05	0.41
36:5:1304:A:N1	36:5:2938:G:O2'	2.45	0.41
36:1:2949:U:O2'	36:1:2950:G:H5'	2.20	0.41
42:L5:20:PHE:O	42:L5:23:ARG:HB3	3.14	0.41
1:6:196:G:C6	1:6:197:A:C2	3.09	0.41
78:Q2:26:THR:O	78:Q2:71:ARG:N	2.50	0.41
36:5:374:A:N1	36:5:400:G:N2	2.68	0.41
38:4:97:A:N1	38:4:98:U:C2	2.88	0.41
1:2:422:G:N2	1:2:423:G:C2	2.88	0.41
63:N7:108:GLU:O	63:N7:112:LYS:HG3	2.20	0.41
78:Q2:58:PHE:C	78:Q2:58:PHE:CD1	2.94	0.41
36:5:2437:G:C2	36:5:2438:A:H1'	2.55	0.41
56:N0:155:ARG:CG	56:N0:172:TYR:H	4.81	0.41
38:4:5:U:C4	38:4:6:U:C4	3.07	0.41
6:S4:246:LEU:O	6:S4:251:GLU:HG3	2.20	0.41
25:D3:97:ASP:N	25:D3:97:ASP:OD2	3.03	0.41
1:2:1790:A:H2'	1:2:1791:A:O4'	2.20	0.41
25:D3:37:ALA:HB3	25:D3:38:PHE:CD2	3.58	0.41
36:5:128:G:C6	36:5:129:U:C4	3.09	0.41
45:L8:71:VAL:HG23	45:L8:72:PRO:HD2	2.01	0.41
55:M9:122:VAL:O	55:M9:126:GLU:HB2	2.21	0.41
55:M9:126:GLU:O	55:M9:131:ALA:HB3	2.21	0.41
4:S2:180:ALA:HB2	4:S2:198:THR:OG1	2.54	0.41
36:5:941:G:C1'	36:5:1435:A:H1'	2.50	0.41
36:1:1274:A:C5	36:1:1275:C:C5	3.09	0.41
36:5:1348:U:H5''	36:5:1355:A:N6	2.35	0.41
39:L2:19:HIS:O	39:L2:20:THR:HB	2.20	0.41
36:5:2507:C:O2'	36:5:2508:U:P	2.79	0.41
62:N6:88:GLU:HA	62:N6:94:SER:OG	2.21	0.41
36:5:168:U:H2'	36:5:169:U:H6	1.84	0.41
36:1:966:U:H2'	36:1:967:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:593:C:OP1	43:L6:19:LYS:HG2	2.20	0.41
1:6:1559:A:H3'	1:6:1559:A:C8	2.55	0.41
64:N8:131:SER:O	64:N8:134:ALA:HB3	2.20	0.41
1:6:772:G:C5	1:6:773:C:C4	3.08	0.41
45:L8:53:PRO:HD3	61:N5:32:PHE:CD1	4.57	0.41
49:M3:20:GLU:O	49:M3:21:ARG:HG3	4.15	0.41
15:C3:87:ASP:OD2	1:6:867:G:N2	314.56	0.41
3:S1:153:HIS:ND1	3:S1:155:TYR:CG	2.89	0.41
19:C7:76:GLU:O	19:C7:80:ARG:HG3	2.21	0.41
36:5:1270:A:H8	36:5:1270:A:OP1	2.03	0.41
45:L8:175:VAL:HG12	45:L8:176:PRO:HD2	2.45	0.41
36:5:2105:G:H2'	36:5:2106:A:C8	2.52	0.41
6:S4:212:ASP:C	6:S4:214:LEU:H	2.49	0.41
87:5:4061:OHX:N1	87:5:4138:OHX:N4	2.68	0.41
36:1:2619:G:H2'	36:1:2620:G:O4'	2.21	0.41
3:S1:218:LEU:HG	3:S1:218:LEU:H	4.07	0.41
60:N4:63:ILE:CD1	60:N4:64:THR:H	5.72	0.41
1:6:24:U:O2'	1:6:367:A:H4'	2.19	0.41
36:1:304:G:N1	64:N8:62:HIS:NE2	2.69	0.41
65:N9:6:ASN:OD1	65:N9:6:ASN:N	4.21	0.41
36:1:900:G:O2'	36:1:1589:A:N6	2.53	0.41
24:D2:25:VAL:HG23	24:D2:63:VAL:HB	2.84	0.41
12:C0:10:LYS:HZ3	12:C0:36:ASP:HB3	2.67	0.41
36:1:968:G:C5	36:1:969:C:C4	3.09	0.41
4:S2:148:LEU:HA	23:D1:4:ASP:CG	3.27	0.41
87:8:220:OHX:N5	87:8:229:OHX:N1	2.69	0.41
54:M8:166:LEU:HA	54:M8:166:LEU:HD23	2.20	0.41
36:1:1345:G:H5''	36:1:1345:G:H8	1.86	0.41
36:5:3257:C:C4	36:5:3258:U:C5	3.09	0.41
59:N3:130:ALA:O	59:N3:131:SER:C	2.90	0.41
36:5:1149:G:N7	87:5:4205:OHX:N5	2.68	0.41
49:M3:185:LYS:NZ	49:M3:189:GLU:OE1	2.48	0.41
53:M7:93:GLY:O	53:M7:96:GLN:HG2	2.20	0.41
40:L3:287:LYS:HD2	40:L3:289:ASP:OD1	5.44	0.41
40:L3:226:PHE:CE2	40:L3:268:GLY:HA2	3.50	0.41
36:5:2841:G:H2'	36:5:2844:C:H42	1.85	0.41
46:L9:183:HIS:ND1	46:L9:183:HIS:C	2.93	0.41
49:M3:136:GLU:HG3	49:M3:136:GLU:O	2.18	0.41
3:S1:40:ASN:N	3:S1:40:ASN:OD1	3.11	0.41
15:C3:41:ALA:HA	15:C3:44:GLY:H	3.41	0.41
25:D3:49:ALA:O	25:D3:104:LEU:N	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:43:ASP:HB3	27:D5:46:LYS:H	4.06	0.41
46:L9:26:LYS:HB2	36:5:3198:U:O4	327.46	0.41
36:1:2166:A:H2'	36:1:2167:A:C8	2.55	0.41
36:1:1505:C:C4	36:1:1506:A:N7	2.89	0.41
36:1:2353:G:C5	36:1:2354:C:C5	3.09	0.41
11:S9:119:ALA:HA	11:S9:124:HIS:HD1	5.66	0.41
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	2.03	0.41
47:M0:43:VAL:HG12	47:M0:171:TRP:NE1	2.35	0.41
47:M0:76:MET:HB3	47:M0:85:PHE:CE1	3.28	0.41
1:6:1163:A:N6	1:6:1164:G:C6	2.89	0.41
64:N8:22:ILE:HG22	36:5:642:U:OP1	192.96	0.41
44:L7:184:LEU:CD2	44:L7:198:ALA:HB1	2.78	0.41
44:L7:203:TRP:HD1	44:L7:204:PRO:O	3.17	0.41
41:L4:330:TYR:CE2	44:L7:49:ALA:HA	2.89	0.41
51:M5:123:GLN:HB3	51:M5:128:LYS:HA	2.49	0.41
87:6:2130:OHX:N6	87:6:2155:OHX:N3	2.68	0.41
10:S8:172:ARG:O	10:S8:174:GLY:N	2.52	0.41
41:L4:280:ILE:HD11	54:M8:25:TYR:HB2	2.01	0.41
43:L6:131:LYS:HG2	43:L6:133:GLU:N	2.35	0.41
19:C7:7:LYS:HE2	1:6:1316:G:OP1	409.47	0.41
55:M9:172:ARG:NH1	1:6:852:C:P	321.05	0.41
1:2:1166:A:O2'	1:2:1587:A:H4'	2.20	0.41
1:6:1473:U:O2	1:6:1473:U:H2'	2.19	0.41
7:S5:108:LEU:HD22	18:C6:43:ILE:HG12	3.98	0.41
20:C8:56:LYS:HB3	20:C8:60:GLU:CD	2.40	0.41
27:D5:70:LYS:HD3	27:D5:70:LYS:HA	1.90	0.41
46:L9:91:ARG:HA	46:L9:142:ASP:O	2.21	0.41
36:1:3087:A:H2'	36:1:3088:G:C8	2.55	0.41
42:L5:85:ARG:NH2	42:L5:252:ALA:O	5.72	0.41
12:C0:21:VAL:HG12	12:C0:22:VAL:N	2.35	0.41
17:C5:108:ARG:HG2	17:C5:109:PRO:HD2	2.03	0.41
21:C9:14:PHE:HZ	21:C9:132:LEU:HD23	1.85	0.41
21:C9:30:VAL:HA	21:C9:31:PRO:HD3	1.83	0.41
5:S3:138:VAL:HA	5:S3:183:GLY:O	3.08	0.41
5:S3:20:GLU:OE2	5:S3:76:ARG:NH2	4.40	0.41
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.40	0.41
15:C3:94:LYS:NZ	1:6:952:A:OP1	298.79	0.41
36:1:155:G:O4'	36:1:157:A:H1'	2.21	0.41
1:2:1119:G:C5	1:2:1120:U:C5	3.09	0.41
1:2:1127:G:C6	1:2:1128:C:C4	3.09	0.41
15:C3:109:LYS:O	15:C3:110:ASP:C	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:27:PHE:O	16:C4:28:VAL:HG23	2.21	0.41
3:S1:57:ALA:O	3:S1:60:ALA:HB3	4.69	0.41
68:O2:21:HIS:O	68:O2:24:ARG:N	2.62	0.41
23:D1:41:GLU:O	23:D1:44:ARG:CZ	5.09	0.41
23:D1:48:GLY:HA2	23:D1:50:TYR:CZ	2.55	0.41
23:D1:70:ASN:O	23:D1:74:GLN:HB3	2.20	0.41
4:S2:162:CYS:SG	4:S2:212:LYS:HE2	2.69	0.41
36:5:3095:U:C2	36:5:3096:C:C6	3.09	0.41
54:M8:108:ALA:C	54:M8:110:ALA:N	3.36	0.41
1:6:795:U:O4	1:6:796:A:C5	2.74	0.41
66:O0:42:ILE:HA	66:O0:90:VAL:O	2.49	0.41
68:O2:126:LEU:HD23	68:O2:126:LEU:HA	1.85	0.41
55:M9:5:ARG:HH11	55:M9:5:ARG:HG3	3.44	0.41
14:C2:41:LEU:HD13	14:C2:121:VAL:HG11	2.03	0.41
14:C2:90:LYS:HE2	14:C2:90:LYS:HB3	4.78	0.41
41:L4:358:THR:HG21	57:N1:148:PRO:HD2	2.02	0.41
44:L7:77:VAL:HG22	57:N1:139:ARG:O	2.93	0.41
59:N3:83:LYS:HE2	36:5:3093:C:O4'	245.63	0.41
40:L3:58:ARG:HG3	40:L3:59:ASP:N	2.35	0.41
18:C6:114:ARG:N	18:C6:116:LEU:HD22	2.27	0.41
5:S3:222:VAL:C	5:S3:223:LYS:HD2	5.58	0.41
34:SR:101:GLN:HG2	34:SR:137:LYS:C	2.40	0.41
34:SR:209:THR:HG22	34:SR:226:ALA:HB2	2.02	0.41
41:L4:53:SER:HB3	36:5:346:C:OP1	112.95	0.41
40:L3:319:ASN:O	40:L3:320:ASP:C	3.66	0.41
1:2:992:A:C2	1:2:993:A:C8	3.08	0.41
39:L2:112:ILE:O	39:L2:167:GLY:N	2.43	0.41
79:Q3:59:CYS:O	79:Q3:60:CYS:HB3	2.19	0.41
3:S1:193:ILE:H	3:S1:193:ILE:HD13	2.62	0.41
64:N8:28:HIS:NE2	64:N8:32:ARG:CZ	3.53	0.41
36:1:2225:U:H4'	78:Q2:36:PHE:HE2	1.86	0.41
36:5:3277:U:H2'	36:5:3278:C:O4'	2.21	0.41
57:N1:102:ARG:NH2	36:5:1061:A:O3'	238.83	0.41
1:6:676:G:C4	1:6:677:G:C8	3.08	0.41
36:5:7:C:O2'	36:5:8:C:H5'	2.20	0.41
51:M5:172:ARG:O	51:M5:183:THR:OG1	2.76	0.41
26:D4:2:SER:N	26:D4:32:ARG:HG3	2.35	0.41
36:5:20:A:C2	38:8:140:G:C2	3.09	0.41
71:O5:90:ARG:HE	71:O5:90:ARG:HB3	4.54	0.41
71:O5:31:LEU:HA	71:O5:34:GLN:HB2	2.02	0.41
36:1:1952:G:N1	36:1:2095:G:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:28:A:H2'	1:2:29:U:C6	2.55	0.41
1:2:548:G:C6	1:2:549:G:C5	3.09	0.41
32:E0:39:LEU:HA	32:E0:39:LEU:HD13	1.68	0.41
48:M1:97:SER:N	48:M1:101:ASN:O	2.47	0.41
6:S4:148:ARG:HG2	6:S4:148:ARG:H	2.63	0.41
64:N8:82:ILE:HA	64:N8:82:ILE:HD12	4.41	0.41
36:5:1580:A:O2'	36:5:1581:C:P	2.78	0.41
52:M6:54:TYR:O	52:M6:55:HIS:C	2.57	0.41
4:S2:41:LEU:O	4:S2:44:LEU:N	2.52	0.41
1:6:827:C:H2'	1:6:828:U:O4'	2.21	0.41
49:M3:140:SER:O	49:M3:144:THR:OG1	2.23	0.41
41:L4:234:ASN:HD21	41:L4:236:LEU:HB2	2.74	0.41
1:2:1494:C:H2'	1:2:1495:C:C6	2.55	0.41
63:N7:54:THR:O	63:N7:55:LYS:C	2.59	0.41
56:N0:50:LYS:HZ3	37:7:76:A:HO2'	303.13	0.41
79:Q3:54:ILE:C	79:Q3:55:TRP:CD1	2.94	0.41
53:M7:57:ALA:HB2	53:M7:83:TRP:CE2	2.59	0.41
53:M7:67:ILE:HD12	53:M7:67:ILE:HG23	4.16	0.41
36:5:2186:U:H2'	36:5:2187:G:O4'	2.20	0.41
36:1:1806:A:N6	36:1:1807:G:C2	2.88	0.41
38:8:148:G:N3	38:8:149:A:C8	2.88	0.41
36:1:2206:G:H2'	36:1:2206:G:N3	2.36	0.41
69:O3:90:PRO:HD2	69:O3:93:THR:OG1	3.12	0.41
20:C8:134:ARG:O	20:C8:136:GLN:HG2	3.44	0.41
47:M0:51:HIS:ND1	47:M0:137:SER:OG	4.34	0.41
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.98	0.41
1:6:603:U:O2'	1:6:604:A:H5'	2.20	0.41
1:6:142:G:C4	1:6:266:A:N6	2.89	0.41
24:D2:28:ARG:HG3	24:D2:60:LYS:HG2	2.02	0.41
36:1:1440:G:H2'	36:1:1441:G:H8	1.85	0.41
36:5:1432:C:O2'	36:5:1433:A:H3'	2.20	0.41
31:D9:41:GLN:HG2	1:6:1433:G:N9	399.26	0.41
41:L4:304:GLN:O	41:L4:305:ALA:HB3	2.19	0.41
49:M3:36:ARG:O	49:M3:40:ALA:N	2.87	0.41
36:5:139:G:H2'	36:5:140:C:O4'	2.21	0.41
51:M5:10:LEU:HD23	51:M5:10:LEU:HA	2.52	0.41
49:M3:188:ARG:HA	49:M3:191:ALA:CB	2.51	0.41
36:5:2683:U:C4	36:5:2684:C:C5	3.09	0.41
1:2:1360:A:C2	1:2:1361:U:H1'	2.55	0.41
21:C9:89:ARG:HH11	21:C9:89:ARG:CG	3.65	0.41
36:1:510:G:O6	87:1:4007:OHX:N1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:511:G:C5	36:1:512:U:C4	3.09	0.41
36:1:532:A:N1	36:1:533:A:C6	2.89	0.41
46:L9:150:SER:OG	46:L9:153:ASP:N	2.34	0.41
42:L5:119:TYR:CE1	42:L5:141:PRO:HB3	2.55	0.41
1:2:448:C:O2'	1:2:449:C:H5'	2.21	0.41
36:5:2796:G:H5''	36:5:2798:C:O4'	2.20	0.41
1:6:310:C:H2'	1:6:311:U:C6	2.54	0.41
36:1:1075:A:C4	65:N9:45:HIS:CD2	3.08	0.41
78:Q2:83:LEU:HD23	78:Q2:84:THR:N	2.37	0.41
1:2:1177:C:H4'	1:2:1189:A:H61	1.85	0.41
1:6:45:U:C5	1:6:436:A:C6	3.09	0.41
36:1:998:A:O2'	36:1:999:G:H5'	2.20	0.41
36:1:3228:C:H4'	36:1:3229:G:O5'	2.21	0.41
21:C9:86:ARG:HG3	21:C9:90:PRO:O	2.21	0.41
36:1:1187:C:H6	36:1:1187:C:O5'	2.03	0.41
1:2:81:G:C6	1:2:82:U:C2	3.08	0.41
36:5:270:U:O2'	36:5:318:A:N3	2.33	0.41
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.91	0.41
8:S6:204:ALA:O	8:S6:206:ALA:N	2.53	0.41
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	2.39	0.41
36:1:2403:G:N3	36:1:2405:C:C5	2.89	0.41
36:1:432:G:H1	36:1:627:U:H3	1.69	0.41
38:8:124:G:C2	38:8:126:A:N7	2.89	0.41
49:M3:24:VAL:HB	49:M3:26:PHE:HE2	4.50	0.41
76:Q0:89:TYR:CD2	76:Q0:89:TYR:N	2.89	0.41
58:N2:94:ARG:O	58:N2:96:VAL:HG23	2.21	0.41
2:S0:87:LEU:HA	2:S0:87:LEU:HD13	2.52	0.41
14:C2:129:GLU:OE2	14:C2:130:THR:N	2.51	0.41
24:D2:121:VAL:HB	24:D2:122:SER:H	2.85	0.41
1:2:1135:U:C4	1:2:1136:U:C4	3.08	0.41
36:1:1332:A:C2	36:1:1333:C:C4	3.08	0.41
1:6:724:C:O5'	1:6:724:C:H6	2.03	0.41
3:S1:124:ASN:HB3	3:S1:138:PHE:CD1	2.61	0.41
1:2:607:G:N7	1:2:613:G:C8	2.89	0.41
61:N5:27:ARG:H	61:N5:27:ARG:HG2	1.70	0.41
36:1:233:C:O5'	36:1:233:C:H6	2.03	0.41
25:D3:68:ILE:HB	25:D3:70:LYS:NZ	3.32	0.41
78:Q2:17:CYS:C	78:Q2:19:LYS:H	3.20	0.41
1:2:768:C:C2	11:S9:143:ILE:HD13	2.55	0.41
11:S9:148:VAL:O	11:S9:150:LEU:N	2.49	0.41
47:M0:208:ASN:CA	47:M0:211:ARG:HG2	4.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	3.20	0.41
36:5:1114:U:C4	36:5:1115:G:N7	2.89	0.41
44:L7:158:LYS:HZ1	36:5:1362:G:H1'	215.57	0.41
6:S4:49:ARG:HB3	6:S4:55:ALA:HB3	3.03	0.41
10:S8:105:ASP:O	10:S8:106:ALA:HB3	2.20	0.41
10:S8:184:LEU:HD11	10:S8:188:GLU:HB2	2.02	0.41
36:5:685:G:N2	36:5:695:C:N3	2.64	0.41
41:L4:193:LYS:HG2	41:L4:194:TYR:N	2.41	0.41
1:6:1405:G:C5	1:6:1406:A:N7	2.88	0.41
27:D5:59:TYR:CD2	27:D5:60:VAL:N	2.88	0.41
7:S5:195:ALA:C	7:S5:197:GLU:N	2.74	0.41
87:2:2044:OHX:N2	87:2:2099:OHX:N5	2.69	0.41
42:L5:122:VAL:C	42:L5:124:GLU:H	2.90	0.41
42:L5:36:LEU:HD13	42:L5:50:ARG:HD2	5.36	0.41
31:D9:14:TYR:O	31:D9:18:SER:HB3	2.20	0.41
12:C0:61:TRP:CE2	31:D9:23:VAL:HG22	3.45	0.41
36:5:699:A:H2'	36:5:700:C:H6	1.86	0.41
51:M5:49:ARG:HH22	36:5:115:A:P	100.23	0.41
1:2:313:U:C6	1:2:1118:G:N2	2.89	0.41
1:6:1773:C:C2	1:6:1789:G:C2	3.08	0.41
77:Q1:1:MET:HE2	77:Q1:5:TRP:HB2	2.00	0.41
29:D7:8:LEU:HB3	29:D7:9:HIS:CE1	2.88	0.41
54:M8:81:VAL:HB	54:M8:138:LEU:HD12	3.61	0.41
48:M1:155:THR:O	48:M1:159:THR:HG23	5.75	0.41
48:M1:155:THR:OG1	48:M1:158:ASP:HB2	2.81	0.41
48:M1:164:LYS:O	48:M1:168:ASP:HA	2.76	0.41
55:M9:38:ARG:O	55:M9:39:ASN:C	3.00	0.41
55:M9:6:THR:HG23	55:M9:9:ARG:NH1	4.25	0.41
36:1:3020:U:C4	36:1:3021:A:C5	3.08	0.41
1:6:1185:U:H2'	1:6:1185:U:O2	2.21	0.41
1:6:1460:A:H5'	1:6:1461:C:OP2	2.20	0.41
52:M6:20:ALA:HA	52:M6:84:LEU:HD11	2.02	0.41
6:S4:47:PHE:CE2	6:S4:90:ILE:HD12	2.55	0.41
40:L3:102:LEU:HD21	40:L3:150:ARG:HG3	2.02	0.41
35:SM:83:LYS:CG	35:SM:84:LYS:H	4.07	0.41
47:M0:10:ARG:O	47:M0:59:GLN:HB2	2.20	0.41
44:L7:80:GLN:OE1	57:N1:136:ARG:HG3	3.46	0.41
57:N1:74:VAL:HG12	57:N1:75:ILE:N	3.05	0.41
36:1:3215:A:C4	36:1:3259:U:C2	3.09	0.41
43:L6:170:LYS:N	43:L6:174:LEU:HD12	2.36	0.41
43:L6:171:PRO:HG2	69:O3:9:VAL:HG21	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:88:ARG:HA	9:S7:88:ARG:HD3	1.87	0.41
36:5:3279:A:N6	36:5:3280:U:O4	2.54	0.41
37:7:22:A:H2'	37:7:23:A:O4'	2.20	0.41
7:S5:74:ALA:C	18:C6:122:ARG:HH22	2.21	0.41
34:SR:216:LYS:C	34:SR:218:GLY:N	2.73	0.41
52:M6:125:ARG:NH1	52:M6:135:TYR:CZ	3.08	0.41
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	2.88	0.41
36:1:343:U:OP1	87:1:3884:OHX:N6	2.53	0.41
36:1:2157:G:H22	36:1:2177:G:HO2'	1.65	0.41
39:L2:153:GLY:HA3	39:L2:251:LYS:HG2	7.36	0.41
39:L2:79:ASN:O	39:L2:168:VAL:O	4.47	0.41
79:Q3:77:ALA:HA	79:Q3:80:ARG:NH1	5.30	0.41
36:5:2211:U:O2	36:5:2211:U:O4'	2.39	0.41
40:L3:137:TYR:O	40:L3:138:ALA:C	2.59	0.41
49:M3:93:ILE:HG22	49:M3:93:ILE:O	2.20	0.41
36:1:3069:G:C6	36:1:3070:A:C5	3.08	0.41
58:N2:12:ALA:HB1	58:N2:67:SER:C	3.49	0.41
51:M5:139:HIS:O	51:M5:143:ARG:HG3	2.20	0.41
51:M5:38:ARG:NH2	51:M5:60:VAL:HG13	2.34	0.41
33:E1:103:LEU:HA	33:E1:103:LEU:HD23	1.86	0.41
1:2:778:G:C6	1:2:783:G:O6	2.74	0.41
1:2:782:U:H4'	1:2:783:G:OP2	2.20	0.41
1:2:783:G:O2'	1:2:784:C:P	2.78	0.41
26:D4:35:VAL:HG22	26:D4:36:SER:H	1.85	0.41
79:Q3:20:SER:O	79:Q3:21:SER:C	2.64	0.41
36:1:28:C:N4	36:1:56:G:H1	2.18	0.41
46:L9:110:LYS:HB3	46:L9:128:VAL:CB	2.50	0.41
1:6:1448:G:C5	1:6:1449:U:C5	3.09	0.41
48:M1:68:HIS:ND1	48:M1:68:HIS:N	2.80	0.41
25:D3:14:LYS:HG3	25:D3:14:LYS:O	3.27	0.41
24:D2:11:LEU:HD11	24:D2:37:PHE:CE2	3.25	0.41
37:7:90:U:O4	37:7:91:G:C6	2.74	0.41
48:M1:144:CYS:O	48:M1:146:GLY:N	3.23	0.41
36:1:2961:G:O2'	36:1:2962:U:H5'	2.20	0.41
36:5:2112:U:H4'	36:5:2113:A:H5'	2.03	0.41
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	2.09	0.41
39:L2:237:LEU:HD23	39:L2:237:LEU:HA	2.05	0.41
13:C1:6:THR:O	13:C1:7:VAL:HG12	2.20	0.41
40:L3:28:ARG:HH21	40:L3:30:LYS:HE3	2.25	0.41
36:5:222:A:N7	36:5:223:U:C5	2.89	0.41
36:1:3121:U:C2	36:1:3122:A:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:57:VAL:HG13	46:L9:64:HIS:CE1	2.56	0.41
2:S0:110:TYR:HA	2:S0:115:PHE:CD1	2.66	0.41
36:1:2948:C:O2'	40:L3:242:THR:HG22	2.21	0.41
36:5:1025:A:H2'	36:5:1025:A:N3	2.36	0.41
10:S8:136:SER:CB	10:S8:139:ALA:HB3	3.23	0.41
36:5:2150:G:H1	36:5:2186:U:H3	1.67	0.41
62:N6:5:SER:OG	62:N6:8:VAL:HG12	2.20	0.41
36:5:1049:C:H2'	36:5:1050:U:C6	2.45	0.41
36:5:2943:G:C8	36:5:2944:U:C5	3.09	0.41
36:5:1302:A:N7	36:5:2857:C:O2'	2.52	0.41
62:N6:126:LEU:C	62:N6:126:LEU:HD12	2.40	0.41
41:L4:316:ASN:C	41:L4:317:PRO:O	2.59	0.41
65:N9:15:LYS:HE3	36:5:953:G:OP1	208.86	0.41
36:5:2706:G:H2'	36:5:2707:C:C6	2.56	0.41
36:5:2708:C:H2'	36:5:2709:C:C6	2.55	0.41
42:L5:287:ALA:HA	42:L5:290:ILE:HD12	3.35	0.41
36:1:1554:U:C4	36:1:1582:C:H2'	2.55	0.41
55:M9:180:LYS:HD3	55:M9:184:LEU:HD12	2.03	0.41
1:6:1218:G:C6	1:6:1444:A:C5	3.08	0.41
9:S7:120:ALA:O	9:S7:124:LYS:HG2	2.93	0.41
34:SR:121:MET:SD	34:SR:183:LEU:HD13	2.60	0.41
4:S2:200:SER:OG	1:6:4:C:P	382.98	0.41
55:M9:115:ILE:O	55:M9:115:ILE:HG13	4.94	0.41
55:M9:131:ALA:O	55:M9:132:PHE:CD1	2.73	0.41
74:O8:43:PHE:CE1	74:O8:65:LEU:HD13	2.99	0.41
36:1:1780:G:C4	36:1:1781:C:C5	3.09	0.41
36:1:1785:U:H2'	36:1:1786:G:C8	2.56	0.41
21:C9:42:GLY:CA	21:C9:84:LYS:HB2	2.79	0.41
40:L3:123:TYR:CD1	36:5:3315:G:H2'	182.77	0.41
36:1:1260:A:H4'	36:1:1280:C:H4'	2.01	0.41
52:M6:65:ASN:OD1	52:M6:65:ASN:C	2.59	0.41
1:2:600:U:P	25:D3:108:GLY:H	2.43	0.41
66:O0:86:ARG:HE	66:O0:86:ARG:HB3	2.36	0.41
36:5:3219:G:H4'	36:5:3220:G:H5'	2.02	0.41
37:3:60:G:N3	37:3:61:G:C8	2.89	0.41
1:6:1721:A:H2'	1:6:1722:A:O4'	2.20	0.41
62:N6:82:VAL:HG12	62:N6:85:VAL:H	2.06	0.41
8:S6:53:SER:HB3	8:S6:112:VAL:HG23	2.02	0.41
87:1:4024:OHX:N4	87:1:4170:OHX:N3	2.69	0.41
36:1:1500:G:H2'	36:1:1500:G:N3	2.35	0.41
1:2:73:U:H4'	1:2:74:U:OP1	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:175:VAL:HG13	45:L8:176:PRO:HD2	2.03	0.41
1:2:1111:G:N7	87:2:2069:OHX:N6	2.68	0.41
33:E1:117:LEU:HD22	33:E1:118:ARG:NH1	5.02	0.41
6:S4:95:THR:O	6:S4:96:ASN:HB2	2.21	0.41
36:5:2244:A:C6	36:5:2245:C:C4	3.09	0.41
1:6:891:A:O2'	1:6:892:A:H5'	2.21	0.41
36:1:590:G:C2	36:1:610:G:H2'	2.54	0.41
1:6:1087:A:N6	1:6:1088:A:N6	2.69	0.41
36:5:1259:A:C6	36:5:1260:A:N1	2.89	0.41
1:2:1150:G:C8	1:2:1768:G:N2	2.88	0.41
36:1:1589:A:C4	70:O4:13:TYR:CD2	3.08	0.41
12:C0:82:LEU:HA	12:C0:83:PRO:HD2	1.92	0.41
62:N6:95:VAL:HA	62:N6:96:PRO:HD3	1.84	0.41
1:2:243:G:O5'	1:2:243:G:C8	2.73	0.41
36:5:3330:A:C8	36:5:3330:A:H5''	2.56	0.41
49:M3:190:LYS:O	49:M3:193:ALA:N	2.42	0.41
34:SR:28:GLY:O	34:SR:30:PRO:HD3	2.21	0.41
36:5:1397:C:H2'	36:5:1398:U:H5'	2.01	0.41
1:6:293:U:H2'	1:6:294:C:H6	1.85	0.41
36:1:1767:C:O2'	36:1:1768:U:H5'	2.20	0.41
44:L7:35:ALA:O	44:L7:38:LYS:HB3	2.21	0.41
28:D6:54:SER:HB3	28:D6:61:GLU:O	2.20	0.41
1:2:1063:U:H5'	1:2:1064:G:OP2	2.21	0.41
30:D8:9:LEU:HA	30:D8:9:LEU:HD23	2.25	0.41
34:SR:175:ASP:N	34:SR:175:ASP:OD1	2.54	0.41
6:S4:127:LYS:HA	6:S4:127:LYS:HE3	4.06	0.41
44:L7:106:LEU:HA	44:L7:106:LEU:HD23	1.60	0.41
4:S2:250:GLN:HG3	4:S2:250:GLN:H	3.67	0.41
30:D8:15:VAL:HG12	30:D8:15:VAL:H	1.87	0.41
1:2:934:C:C4	1:2:1077:C:H4'	2.55	0.41
4:S2:154:LEU:HD11	4:S2:193:VAL:HG11	2.03	0.41
25:D3:73:ARG:HD2	25:D3:73:ARG:HH11	2.41	0.41
25:D3:90:ASP:OD2	1:6:567:A:O2'	373.39	0.41
40:L3:76:VAL:HG11	40:L3:323:MET:CE	3.28	0.41
53:M7:119:VAL:HA	53:M7:145:HIS:O	2.31	0.41
53:M7:127:ARG:O	53:M7:139:TYR:HB3	2.83	0.41
1:2:441:A:C2	1:2:442:C:C4	3.08	0.41
11:S9:123:HIS:CE1	32:E0:37:ARG:CD	3.32	0.41
11:S9:68:LYS:O	11:S9:69:ARG:C	2.97	0.41
11:S9:86:LEU:CD1	11:S9:95:TYR:HB3	2.51	0.41
47:M0:208:ASN:CB	47:M0:211:ARG:HD2	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:71:CYS:O	47:M0:72:ALA:C	3.05	0.41
87:1:3965:OHX:N1	64:N8:24:LYS:O	2.53	0.41
44:L7:39:GLU:C	44:L7:41:ARG:N	3.01	0.41
36:1:113:C:N4	36:1:154:U:O2	2.54	0.41
10:S8:188:GLU:HG2	13:C1:13:PHE:CE2	2.55	0.41
26:D4:75:VAL:HG13	26:D4:75:VAL:O	2.21	0.41
10:S8:83:TYR:CD1	10:S8:84:HIS:N	2.88	0.41
41:L4:166:VAL:O	41:L4:170:LYS:HB2	3.94	0.41
1:2:1532:U:O2'	1:2:1539:G:N2	2.54	0.41
7:S5:25:LEU:O	7:S5:27:THR:N	4.79	0.41
67:O1:31:ARG:HB3	67:O1:31:ARG:NH1	2.25	0.41
67:O1:17:HIS:CD2	67:O1:69:TYR:HD1	2.58	0.41
61:N5:76:VAL:HA	61:N5:81:ILE:O	2.67	0.41
42:L5:198:TYR:CE1	42:L5:203:HIS:CG	3.53	0.41
21:C9:132:LEU:HD13	21:C9:132:LEU:HA	4.03	0.41
5:S3:118:ALA:O	5:S3:121:GLY:N	2.54	0.41
1:2:1073:G:H4'	15:C3:10:GLY:HA2	2.03	0.41
15:C3:114:ARG:HA	15:C3:114:ARG:HD3	1.91	0.41
36:5:70:A:OP1	36:5:101:G:H1'	2.20	0.41
1:2:103:A:C2	1:2:309:C:C5	3.08	0.41
36:5:2126:A:C2	36:5:2127:U:C4	3.09	0.41
8:S6:7:TYR:HB3	8:S6:124:LEU:HG	3.46	0.41
1:6:910:C:H2'	1:6:911:U:C6	2.56	0.41
28:D6:46:GLU:HB2	28:D6:47:ALA:H	1.46	0.41
19:C7:105:GLN:CD	19:C7:105:GLN:H	2.23	0.41
9:S7:140:VAL:O	24:D2:51:GLU:HA	2.31	0.41
48:M1:14:ILE:HG13	48:M1:131:MET:SD	3.23	0.41
48:M1:13:LYS:HE2	48:M1:132:ASN:OD1	5.25	0.41
63:N7:34:LYS:HA	63:N7:34:LYS:HD2	3.16	0.41
66:O0:30:THR:O	66:O0:34:LEU:HD22	2.20	0.41
70:O4:81:CYS:O	70:O4:82:ALA:HB3	2.19	0.41
70:O4:86:LYS:O	70:O4:90:ILE:HG12	2.20	0.41
70:O4:99:LYS:HG2	70:O4:103:LYS:CE	2.48	0.41
55:M9:40:ALA:O	55:M9:44:LEU:HG	4.44	0.41
71:O5:7:TYR:HE2	38:8:86:U:H2'	20.79	0.41
71:O5:7:TYR:H	71:O5:7:TYR:HD2	1.69	0.41
1:2:1525:A:N1	1:2:1608:U:H1'	2.35	0.41
1:6:1231:U:C4	1:6:1255:G:N2	2.88	0.41
14:C2:66:VAL:HB	14:C2:67:THR:H	1.60	0.41
14:C2:79:ALA:HB1	14:C2:87:PRO:O	2.21	0.41
1:2:1460:A:C2	1:2:1461:C:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1211:A:N6	1:6:1212:G:C5	2.89	0.41
35:SM:70:ASN:C	35:SM:72:ARG:N	2.74	0.41
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.19	0.41
6:S4:176:ASP:O	6:S4:177:ALA:O	3.33	0.41
6:S4:195:ILE:CG2	6:S4:196:VAL:H	3.30	0.41
60:N4:56:ARG:C	60:N4:58:HIS:N	3.39	0.41
1:2:1423:U:H2'	1:2:1424:A:O4'	2.20	0.41
36:1:1084:A:H5''	57:N1:35:LYS:HD2	2.02	0.41
50:M4:122:VAL:O	50:M4:125:LYS:HB2	2.21	0.41
69:O3:45:LEU:HA	69:O3:71:VAL:CG1	2.50	0.41
3:S1:104:ASP:HB3	3:S1:105:PHE:H	1.59	0.41
36:1:211:A:H3'	41:L4:221:ASN:OD1	2.20	0.41
36:5:3287:U:H2'	36:5:3288:G:C5'	2.43	0.41
8:S6:68:LEU:O	8:S6:69:LEU:HB2	2.20	0.41
40:L3:108:GLU:HA	40:L3:137:TYR:CD2	2.56	0.41
36:1:2185:G:OP1	39:L2:202:VAL:HG12	2.21	0.41
26:D4:8:ARG:HB3	1:6:780:A:O2'	437.27	0.41
39:L2:117:GLU:HG2	39:L2:122:ASP:OD2	2.60	0.41
36:1:2189:U:O3'	79:Q3:21:SER:OG	2.24	0.41
36:5:19:U:H3	38:8:140:G:H1	1.67	0.41
51:M5:109:ARG:HG3	51:M5:109:ARG:O	2.66	0.41
38:8:43:A:H2	38:8:102:U:H1'	1.86	0.41
46:L9:129:ARG:O	46:L9:130:ASP:C	3.54	0.41
46:L9:157:ASN:HA	46:L9:157:ASN:HD22	1.61	0.41
60:N4:97:LYS:HA	60:N4:98:PRO:HD3	4.24	0.41
37:3:39:C:N3	48:M1:70:THR:HG23	2.36	0.41
37:7:37:G:C6	37:7:41:G:C2	3.09	0.41
48:M1:43:GLN:HE21	48:M1:69:VAL:HG22	1.86	0.41
40:L3:41:VAL:HA	40:L3:185:GLY:N	2.35	0.41
40:L3:194:TRP:CD1	40:L3:198:HIS:CE1	3.25	0.41
36:5:170:G:N2	36:5:249:U:O2	2.54	0.41
36:1:645:A:C5	36:1:649:A:C5	3.08	0.41
1:2:731:C:H4'	1:2:732:G:OP1	2.19	0.41
35:SM:51:ARG:O	35:SM:52:PRO:C	2.58	0.41
60:N4:34:SER:HB2	36:5:3085:G:OP1	227.60	0.41
4:S2:48:GLY:O	4:S2:49:LYS:HD3	2.20	0.41
4:S2:145:GLY:HA2	24:D2:98:GLN:OE1	2.20	0.41
15:C3:140:LYS:HG2	15:C3:141:TYR:O	3.83	0.41
36:5:1103:A:O5'	36:5:1104:G:H5'	2.20	0.41
54:M8:148:GLU:O	54:M8:151:ARG:HG3	2.44	0.41
42:L5:215:ASP:O	42:L5:218:ARG:N	4.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:65:ARG:HB3	51:M5:127:TYR:CD1	2.55	0.41
36:5:979:U:H4'	36:5:980:A:OP1	2.20	0.41
42:L5:25:GLU:HG3	42:L5:27:LYS:HD2	6.03	0.41
1:2:188:A:C6	1:2:189:C:O2	2.73	0.41
1:6:190:C:O2'	1:6:191:C:H5'	2.19	0.41
36:1:1794:G:H4'	39:L2:191:LEU:HD13	2.03	0.41
36:1:3117:C:H2'	36:1:3118:C:O4'	2.19	0.41
55:M9:64:ARG:O	55:M9:65:ALA:C	2.90	0.41
36:1:3205:G:C4	56:N0:171:PHE:CE1	3.09	0.41
50:M4:58:ILE:O	50:M4:58:ILE:HG23	2.42	0.41
36:5:2822:U:O2'	36:5:2941:A:H1'	2.20	0.41
28:D6:58:VAL:HG22	28:D6:59:TYR:N	4.30	0.41
41:L4:321:LYS:C	41:L4:323:VAL:N	2.73	0.41
1:6:1344:A:O2'	1:6:1345:A:P	2.78	0.41
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.03	0.41
36:5:1466:G:H5''	36:5:1467:A:OP2	2.20	0.41
44:L7:94:LYS:O	44:L7:95:ILE:HD13	2.21	0.41
1:6:5:U:C2	1:6:6:G:N7	2.89	0.41
59:N3:15:LEU:HD23	59:N3:15:LEU:HA	1.82	0.41
36:1:1266:G:OP2	36:1:1266:G:H8	2.03	0.41
36:1:2697:A:N1	36:1:2698:G:C6	2.89	0.41
9:S7:62:VAL:HG11	9:S7:67:LEU:HD23	2.02	0.41
1:2:23:G:H2'	1:2:24:U:H5'	2.03	0.41
1:2:24:U:O2	1:2:601:A:H2	2.03	0.41
57:N1:17:ARG:NH1	57:N1:17:ARG:HB3	4.73	0.41
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	2.17	0.41
1:2:980:G:H4'	1:2:1776:A:H4'	2.01	0.41
15:C3:85:PRO:HG2	15:C3:129:TYR:CD2	3.00	0.41
42:L5:282:ARG:O	42:L5:285:ARG:N	3.02	0.41
8:S6:109:LEU:HD13	8:S6:111:LEU:HG	3.93	0.41
1:6:1716:C:O2'	1:6:1717:G:P	2.79	0.41
10:S8:2:GLY:N	1:6:1729:C:HO2'	289.34	0.41
1:6:1007:C:O2'	1:6:1008:G:H5'	2.20	0.41
36:1:3078:U:O4'	36:1:3078:U:O2	2.37	0.41
46:L9:176:LEU:HB3	76:Q0:86:ALA:HB1	3.37	0.41
45:L8:115:ALA:O	45:L8:117:ALA:N	4.18	0.41
36:1:512:U:O2'	36:1:513:G:H5'	2.20	0.41
3:S1:95:ASN:HD22	3:S1:95:ASN:HA	1.65	0.41
33:E1:118:ARG:HH11	33:E1:118:ARG:N	2.58	0.41
36:5:2953:U:O5'	36:5:2953:U:H6	2.04	0.41
44:L7:58:ALA:O	44:L7:61:ASN:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.35	0.41
36:5:1908:A:H2'	36:5:1909:A:O4'	2.21	0.41
15:C3:54:LEU:HD22	15:C3:60:VAL:HG11	5.01	0.41
36:5:1010:G:H8	36:5:1010:G:H5''	1.86	0.41
36:1:1654:A:N6	36:1:1655:G:C2	2.89	0.41
1:2:789:A:C2	11:S9:71:PHE:HE1	2.37	0.41
45:L8:226:TYR:O	45:L8:229:VAL:N	2.39	0.41
76:Q0:113:ARG:NH2	36:5:1191:U:H3'	291.33	0.41
1:6:739:G:H2'	1:6:740:A:H8	1.86	0.41
59:N3:18:PRO:O	59:N3:19:VAL:C	2.58	0.41
9:S7:97:ARG:HG2	9:S7:97:ARG:HH11	3.14	0.41
41:L4:69:ARG:O	41:L4:71:VAL:HB	4.70	0.41
41:L4:348:GLY:O	41:L4:349:THR:O	2.39	0.41
16:C4:78:ALA:HB2	16:C4:111:ARG:HB2	2.06	0.41
1:2:1296:A:C2	1:2:1302:U:C2	3.09	0.41
36:5:3335:A:H2'	36:5:3336:A:C8	2.56	0.41
36:5:2332:A:H2'	36:5:2333:C:O4'	2.21	0.41
14:C2:24:ILE:O	14:C2:26:ASP:N	2.95	0.41
36:5:1392:G:H1'	36:5:1418:A:N6	2.35	0.41
58:N2:99:LYS:HD2	58:N2:102:GLU:OE1	2.20	0.41
20:C8:17:LEU:HG	20:C8:17:LEU:H	3.50	0.41
57:N1:36:VAL:HG23	57:N1:36:VAL:H	1.51	0.41
22:D0:22:ILE:HA	22:D0:22:ILE:HD12	3.14	0.41
68:O2:36:LYS:HZ3	68:O2:36:LYS:HG3	1.64	0.41
36:1:284:A:C8	78:Q2:41:ARG:NH1	2.89	0.41
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.86	0.41
32:E0:10:ARG:H	32:E0:10:ARG:HG2	2.36	0.41
36:5:92:G:C6	36:5:94:G:N2	2.89	0.41
36:1:1847:A:C4	53:M7:130:TYR:CD2	3.09	0.41
53:M7:32:THR:HG21	53:M7:87:SER:OG	3.23	0.41
1:2:1153:G:H5'	28:D6:85:ARG:CD	2.51	0.41
1:2:1796:C:H1'	28:D6:7:SER:OG	2.20	0.41
16:C4:133:ARG:O	28:D6:28:LYS:HG3	4.28	0.41
11:S9:92:LYS:O	11:S9:94:ASP:N	2.54	0.41
47:M0:135:ILE:HD12	47:M0:135:ILE:N	2.35	0.41
47:M0:191:LYS:HG3	47:M0:192:ASP:O	2.21	0.41
47:M0:77:THR:O	47:M0:80:SER:N	3.52	0.41
44:L7:214:TRP:O	44:L7:216:VAL:HG13	2.21	0.41
26:D4:23:PHE:CE2	26:D4:75:VAL:HG23	6.35	0.41
36:1:728:G:H2'	36:1:729:C:O4'	2.20	0.41
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	3.75	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:50:ILE:O	19:C7:54:THR:HG22	2.20	0.41
41:L4:74:ILE:CG2	41:L4:93:MET:HE1	2.46	0.41
36:1:527:A:C5	36:1:528:U:C4	3.09	0.41
36:1:529:A:C2	36:1:564:G:C6	3.09	0.41
7:S5:40:ILE:HD11	7:S5:47:SER:HB2	2.03	0.41
7:S5:42:LEU:HD12	7:S5:46:TRP:C	2.41	0.41
46:L9:92:TYR:N	46:L9:92:TYR:CD2	3.98	0.41
67:O1:88:PRO:C	67:O1:89:LEU:HD12	2.90	0.41
75:O9:13:MET:SD	36:5:1493:G:C5	112.93	0.41
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.55	0.41
61:N5:99:VAL:O	61:N5:103:TYR:HB2	2.21	0.41
1:2:391:A:C4	1:2:392:G:C8	3.09	0.41
36:1:974:G:C4	36:1:975:C:C5	3.09	0.41
42:L5:146:LEU:HD13	42:L5:148:ILE:HD11	5.17	0.41
1:2:1275:A:C6	1:2:1438:G:C5	3.08	0.41
1:2:1481:C:C4	21:C9:79:LEU:HD11	2.55	0.41
21:C9:60:SER:OG	1:6:1480:G:OP1	399.85	0.41
12:C0:72:GLY:O	12:C0:76:LEU:HD22	2.21	0.41
31:D9:30:LEU:HD12	31:D9:32:ARG:HD3	2.02	0.41
31:D9:42:CYS:O	31:D9:43:PHE:C	2.59	0.41
5:S3:82:GLY:C	5:S3:84:ILE:H	2.24	0.41
1:6:863:A:C8	1:6:865:A:C8	3.09	0.41
15:C3:4:MET:HG3	15:C3:5:HIS:N	2.35	0.41
36:1:699:A:C6	36:1:700:C:C2	3.09	0.41
1:2:1772:C:H5''	77:Q1:2:ARG:HH11	1.86	0.41
77:Q1:2:ARG:O	77:Q1:5:TRP:N	2.53	0.41
77:Q1:1:MET:HG3	77:Q1:6:ARG:HG3	4.74	0.41
1:2:898:A:H4'	16:C4:46:MET:CE	2.50	0.41
1:2:900:A:OP1	16:C4:43:THR:OG1	2.23	0.41
2:S0:185:ARG:N	23:D1:44:ARG:HA	2.30	0.41
23:D1:44:ARG:HB2	23:D1:44:ARG:HE	4.29	0.41
54:M8:62:VAL:HG12	54:M8:63:SER:O	2.21	0.41
1:6:1702:A:H8	1:6:1703:C:H6	1.68	0.41
63:N7:136:PHE:N	63:N7:136:PHE:CD1	2.88	0.41
63:N7:4:PHE:CE2	66:O0:35:ARG:HA	2.56	0.41
36:1:1765:U:C5	55:M9:46:LYS:HE3	2.56	0.41
36:1:2179:C:O2'	39:L2:174:ARG:NH2	2.54	0.41
14:C2:41:LEU:HD23	14:C2:123:VAL:HG13	2.02	0.41
14:C2:32:LEU:HD22	14:C2:41:LEU:HD11	2.02	0.41
14:C2:62:LEU:HD21	14:C2:90:LYS:HG2	6.26	0.41
1:2:1460:A:H2	1:2:1461:C:C5	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:65:LEU:C	6:S4:67:GLN:H	2.24	0.41
50:M4:40:ASP:C	50:M4:40:ASP:OD1	2.97	0.41
47:M0:10:ARG:NE	47:M0:11:TYR:HE1	2.89	0.41
56:N0:14:LEU:HG	56:N0:56:GLY:CA	3.09	0.41
41:L4:362:ASP:H	56:N0:26:ARG:HH12	1.68	0.41
57:N1:137:GLU:O	57:N1:139:ARG:HD2	2.21	0.41
36:1:3261:C:P	50:M4:126:GLN:HE21	2.42	0.41
42:L5:261:THR:O	42:L5:264:GLN:HG3	2.21	0.41
42:L5:262:LYS:O	42:L5:265:TYR:HB2	2.56	0.41
1:6:67:A:H4'	1:6:68:A:H2	1.86	0.41
1:6:77:U:H4'	1:6:78:A:O5'	2.21	0.41
18:C6:99:GLU:O	18:C6:100:GLN:C	3.09	0.41
34:SR:205:SER:HB2	34:SR:210:LEU:HD13	3.28	0.41
34:SR:216:LYS:HA	34:SR:239:GLU:CG	2.67	0.41
34:SR:32:LEU:HA	34:SR:45:TRP:O	2.20	0.41
52:M6:121:PRO:C	52:M6:123:ALA:H	2.60	0.41
73:O7:52:LYS:CD	73:O7:56:ARG:HH21	2.28	0.41
79:Q3:60:CYS:O	79:Q3:62:LYS:N	2.49	0.41
40:L3:117:ARG:HE	40:L3:117:ARG:HB2	2.23	0.41
40:L3:47:LEU:HA	40:L3:47:LEU:HD12	2.23	0.41
36:5:3179:U:H3'	36:5:3180:A:H5'	2.03	0.41
52:M6:34:VAL:HG11	52:M6:112:TYR:CE1	2.55	0.41
8:S6:58:LYS:HB2	8:S6:59:GLN:HE22	1.84	0.41
36:5:811:U:O2'	36:5:812:G:H5'	2.20	0.41
36:5:929:A:C5	36:5:930:U:C5	3.09	0.41
40:L3:105:VAL:HG12	40:L3:105:VAL:O	2.53	0.41
36:1:1098:A:C2	36:1:1099:A:C8	3.09	0.41
36:1:1097:G:H4'	36:1:1098:A:O5'	2.20	0.41
57:N1:102:ARG:HD2	57:N1:102:ARG:HA	1.78	0.41
36:1:58:G:H4'	51:M5:155:VAL:HG13	2.02	0.41
72:O6:15:LYS:HE2	72:O6:16:LYS:O	5.01	0.41
36:1:3028:G:N1	36:1:3029:A:C2	2.89	0.41
26:D4:29:HIS:CE1	26:D4:69:SER:N	4.12	0.41
36:1:2402:A:N3	36:1:2871:G:C4	2.88	0.41
36:5:939:U:C2	36:5:940:G:C8	3.09	0.41
38:8:138:A:C6	38:8:139:U:C4	3.09	0.41
71:O5:54:VAL:HG12	71:O5:58:ILE:HD11	2.61	0.41
1:2:1092:A:C2	1:2:1094:G:C5	3.09	0.41
1:6:913:G:C8	36:5:2205:U:C2	3.08	0.41
36:5:122:A:C5	36:5:146:U:C4	3.09	0.41
37:3:39:C:O5'	37:3:39:C:H6	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:39:C:H5''	37:7:40:C:OP2	2.21	0.41
4:S2:78:ASP:CB	4:S2:129:ILE:HD13	2.50	0.41
17:C5:81:ARG:NH1	17:C5:120:SER:HB3	2.91	0.41
35:SM:40:PRO:CG	35:SM:41:SER:H	2.48	0.41
52:M6:141:LEU:O	52:M6:145:VAL:HG22	2.43	0.41
1:6:822:U:C4	1:6:823:G:N2	2.89	0.41
1:2:326:G:C6	1:2:327:U:C4	3.09	0.41
40:L3:332:ARG:HD3	40:L3:332:ARG:O	2.38	0.41
42:L5:16:PHE:O	57:N1:20:ARG:HG2	4.87	0.41
38:8:14:C:H2'	38:8:15:G:C8	2.56	0.41
22:D0:47:GLN:HG2	22:D0:47:GLN:O	2.21	0.41
36:1:2509:U:H2'	36:1:2510:U:H5'	2.02	0.41
33:E1:144:CYS:HB2	33:E1:147:VAL:HG12	3.67	0.41
1:6:557:G:O2'	1:6:558:U:OP1	2.31	0.41
36:5:216:G:C4	36:5:217:U:C5	3.08	0.41
76:Q0:102:ARG:NH2	36:5:2896:A:OP1	319.77	0.41
36:5:585:A:H2'	36:5:586:C:C6	2.55	0.41
8:S6:25:ARG:O	8:S6:28:PHE:HB2	2.21	0.41
36:5:1617:G:H2'	36:5:1618:G:O4'	2.21	0.41
36:5:2939:G:O2'	36:5:2940:A:H5'	2.21	0.41
36:5:1724:U:O2	36:5:1725:C:N1	2.53	0.41
1:6:190:C:O2'	1:6:191:C:H2'	2.20	0.41
22:D0:51:VAL:HG11	22:D0:94:GLU:OE1	2.20	0.41
1:6:515:A:N6	1:6:537:G:O2'	2.49	0.41
36:1:3073:A:N1	36:1:3074:G:C4	2.88	0.41
36:5:1861:G:H2'	36:5:1862:U:O4'	2.21	0.41
50:M4:98:SER:O	50:M4:102:LYS:HE3	2.20	0.41
1:2:1263:G:C6	1:2:1264:G:C4	3.09	0.41
36:5:258:G:C6	36:5:259:C:N4	2.89	0.41
1:6:59:C:C4	1:6:452:A:C6	3.08	0.41
1:6:1338:C:H2'	1:6:1339:C:C6	2.55	0.41
27:D5:56:THR:H	27:D5:103:ARG:NE	2.17	0.41
36:1:5:G:H2'	36:1:6:A:O4'	2.21	0.41
9:S7:116:ARG:NH2	1:6:856:A:C4	355.49	0.41
1:2:639:U:O2	9:S7:118:LEU:HD23	2.21	0.41
1:2:824:G:H2'	1:2:825:U:H5'	2.03	0.41
1:2:110:U:O3'	1:2:797:G:N2	2.53	0.41
57:N1:48:ILE:HD13	57:N1:48:ILE:HA	1.81	0.41
22:D0:52:LYS:HB3	22:D0:53:LYS:H	4.11	0.41
1:2:712:G:H22	1:2:726:C:H1'	1.85	0.41
36:1:2629:U:H2'	36:1:2630:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1562:C:H2'	36:1:1563:C:C6	2.55	0.41
13:C1:109:VAL:HG21	13:C1:125:VAL:HG11	2.30	0.41
36:1:686:G:C5	36:1:687:U:C6	3.09	0.41
54:M8:94:PHE:CD1	64:N8:119:PRO:HG3	4.12	0.41
1:2:1637:C:C2	35:SM:93:ARG:HG3	2.55	0.41
36:5:3216:G:H5''	36:5:3219:G:C2	2.56	0.41
79:Q3:81:SER:O	79:Q3:84:ARG:HB2	2.21	0.41
36:1:1519:G:H2'	36:1:1520:G:C8	2.50	0.41
36:5:25:U:O4	87:5:3902:OHX:N5	2.54	0.41
36:1:3218:A:C6	69:O3:5:HIS:ND1	2.89	0.41
45:L8:100:GLU:OE2	45:L8:108:ARG:NH1	2.53	0.41
45:L8:105:LYS:CE	45:L8:109:LEU:HD21	2.51	0.41
1:6:1042:G:H1	1:6:1076:A:N6	2.19	0.41
36:1:555:U:H6	36:1:555:U:H2'	1.61	0.41
36:1:1454:A:N6	36:1:1879:A:C4	2.88	0.41
14:C2:105:LYS:H	14:C2:113:ARG:CB	4.10	0.41
65:N9:23:LYS:HD2	65:N9:24:PRO:CG	4.40	0.41
36:5:2422:C:H2'	36:5:2423:U:H6	1.84	0.41
6:S4:240:LYS:H	6:S4:240:LYS:HD3	1.85	0.41
36:5:602:A:N6	36:5:603:A:N6	2.68	0.41
36:1:1471:U:C2	36:1:1472:U:C5	3.09	0.41
69:O3:26:ASN:O	69:O3:84:THR:HG22	2.20	0.41
36:5:2121:G:H3'	36:5:2121:G:C8	2.56	0.41
36:5:521:A:C4	36:5:572:A:C2	3.09	0.41
1:6:1362:U:C6	1:6:1363:U:C5	3.08	0.41
40:L3:50:LYS:HE2	40:L3:331:ASN:HA	2.15	0.41
1:2:1149:G:C4	1:2:1629:G:N2	2.89	0.41
37:3:92:A:H8	37:3:92:A:O5'	2.04	0.41
1:2:1215:C:O5'	1:2:1215:C:H6	2.03	0.41
36:5:1770:G:C2	36:5:1771:C:C6	3.09	0.41
8:S6:33:GLY:O	8:S6:51:LYS:HG3	2.21	0.41
5:S3:212:LYS:HA	5:S3:212:LYS:HD3	3.29	0.41
1:2:350:U:H4'	1:2:351:C:H5''	2.03	0.41
36:5:158:G:N2	36:5:264:G:H1'	2.36	0.41
65:N9:39:PHE:O	65:N9:40:ARG:C	3.28	0.41
1:6:98:U:C2	1:6:99:C:C5	3.09	0.41
36:1:2515:A:C8	36:1:2516:U:C5	3.09	0.41
1:6:114:C:C4	1:6:248:U:C4	3.09	0.41
29:D7:64:CYS:HA	29:D7:72:LYS:O	2.21	0.41
36:5:2124:G:H2'	36:5:2125:A:H8	1.86	0.41
29:D7:51:GLN:O	29:D7:66:PRO:HB3	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2211:U:H6	36:1:2211:U:O5'	2.04	0.41
36:1:3310:A:N3	36:1:3310:A:H2'	2.34	0.41
36:1:1375:G:O6	64:N8:10:LYS:HE3	2.21	0.41
1:6:567:A:H2	1:6:583:C:O2	2.04	0.41
25:D3:49:ALA:CB	25:D3:76:LEU:HD13	2.50	0.41
76:Q0:96:CYS:C	76:Q0:98:LYS:H	2.30	0.41
20:C8:2:SER:O	20:C8:4:VAL:HG22	6.26	0.41
27:D5:43:ASP:O	27:D5:45:GLU:N	2.54	0.41
1:2:1547:A:H1'	20:C8:87:ASN:O	2.20	0.41
36:5:3195:U:O2	36:5:3195:U:H2'	2.19	0.41
46:L9:80:THR:OG1	46:L9:81:GLY:N	2.96	0.41
46:L9:16:VAL:HA	46:L9:28:VAL:O	2.21	0.41
36:1:1468:A:C2	36:1:1469:C:C2	3.09	0.41
53:M7:22:LEU:HD12	53:M7:146:ILE:HG13	2.44	0.41
53:M7:136:ILE:CG2	53:M7:137:ASN:N	3.77	0.41
53:M7:41:LEU:C	53:M7:41:LEU:HD13	2.49	0.41
11:S9:3:ARG:HD3	1:6:462:G:OP2	367.94	0.41
1:2:466:U:C5	1:2:467:G:C5	3.08	0.41
1:2:381:C:O2'	1:2:755:A:N1	2.45	0.41
28:D6:73:TYR:CE2	28:D6:82:ARG:HG2	2.56	0.41
28:D6:4:LYS:O	28:D6:4:LYS:HE2	2.20	0.41
11:S9:38:ASN:HB2	11:S9:41:GLU:CG	2.50	0.41
11:S9:31:ALA:HB2	11:S9:42:ILE:HD11	2.03	0.41
11:S9:87:SER:CB	11:S9:90:LYS:HD3	7.09	0.41
1:6:546:U:O2'	1:6:595:G:N2	2.52	0.41
32:E0:34:ALA:O	32:E0:37:ARG:HB3	2.27	0.41
47:M0:147:VAL:CG1	47:M0:147:VAL:O	3.13	0.41
47:M0:152:LEU:O	47:M0:155:ALA:HB3	2.20	0.41
36:1:1039:U:H2'	36:1:1040:A:H8	1.85	0.41
47:M0:63:GLU:HG2	47:M0:63:GLU:H	1.42	0.41
65:N9:18:ARG:HB2	65:N9:19:ASN:OD1	5.25	0.41
41:L4:337:GLU:O	41:L4:339:LEU:N	2.53	0.41
44:L7:153:PHE:CD2	44:L7:153:PHE:N	2.89	0.41
45:L8:241:LYS:HA	36:5:2527:G:O2'	192.23	0.41
51:M5:16:SER:O	51:M5:17:ASP:C	2.89	0.41
51:M5:21:PHE:O	51:M5:23:GLN:N	2.54	0.41
6:S4:7:LYS:O	6:S4:30:ARG:HD2	2.20	0.41
10:S8:66:SER:O	10:S8:183:ILE:HG22	5.41	0.41
10:S8:49:ARG:HD3	1:6:333:A:N7	308.76	0.41
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.34	0.41
26:D4:53:ASP:O	26:D4:79:VAL:HG13	5.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:51:ARG:O	6:S4:53:LYS:HG2	2.20	0.41
10:S8:159:GLN:OE1	10:S8:165:LEU:HA	2.21	0.41
36:5:1382:G:C6	36:5:1383:G:C5	3.09	0.41
54:M8:50:LYS:O	54:M8:51:ALA:C	2.59	0.41
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.60	0.41
43:L6:134:ARG:O	43:L6:137:ASP:N	2.54	0.41
43:L6:64:LEU:CD1	43:L6:76:LEU:HD23	2.34	0.41
36:1:936:A:H2'	36:1:938:C:N4	2.36	0.41
19:C7:14:LYS:O	19:C7:16:LEU:N	2.53	0.41
5:S3:164:VAL:HG12	5:S3:165:ASN:N	2.36	0.41
73:O7:17:THR:HB	73:O7:18:LEU:H	2.16	0.41
1:2:813:U:C5	55:M9:163:ARG:HD2	2.56	0.41
36:1:563:U:H2'	36:1:564:G:C8	2.56	0.41
18:C6:42:GLU:O	18:C6:43:ILE:C	2.58	0.41
20:C8:28:ILE:O	20:C8:29:VAL:C	2.92	0.41
27:D5:59:TYR:CG	27:D5:60:VAL:N	3.33	0.41
27:D5:76:ALA:O	27:D5:80:LEU:HD12	2.21	0.41
50:M4:77:ARG:HH21	36:5:524:U:H5''	341.40	0.41
1:2:1543:A:C5	1:2:1569:A:C8	3.08	0.41
1:6:1469:A:OP2	87:6:2179:OHX:N1	2.53	0.41
7:S5:146:THR:HA	7:S5:158:GLN:O	2.21	0.41
36:5:3328:G:C2	36:5:3379:C:C2	3.09	0.41
67:O1:59:ILE:O	67:O1:61:LYS:N	4.45	0.41
61:N5:107:VAL:HG13	61:N5:124:VAL:HG13	2.82	0.41
36:1:3375:A:C2	36:1:3378:C:H5''	2.56	0.41
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.60	0.41
42:L5:148:ILE:HA	42:L5:148:ILE:HD13	4.34	0.41
42:L5:50:ARG:HG2	42:L5:147:ASP:HB2	3.98	0.41
1:6:1198:G:O2'	1:6:1199:G:OP2	2.37	0.41
1:6:1506:G:H2'	1:6:1507:G:H5'	2.03	0.41
21:C9:66:TYR:HA	21:C9:124:ILE:HG21	2.03	0.41
33:E1:121:CYS:N	33:E1:132:LEU:HD21	3.27	0.41
1:6:1499:G:H2'	1:6:1500:C:O4'	2.21	0.41
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	2.01	0.41
17:C5:41:VAL:O	17:C5:44:ARG:N	2.52	0.41
21:C9:79:LEU:HD23	21:C9:80:TYR:CZ	2.56	0.41
31:D9:19:ARG:NE	31:D9:32:ARG:NH1	2.69	0.41
31:D9:39:CYS:O	31:D9:40:ARG:C	3.04	0.41
48:M1:108:GLU:HA	48:M1:122:ILE:CG2	3.07	0.41
15:C3:3:ARG:HB2	15:C3:8:GLY:O	2.21	0.41
29:D7:49:HIS:ND1	29:D7:49:HIS:N	4.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:959:U:H5'	15:C3:15:ALA:O	2.21	0.41
1:2:1775:U:OP2	77:Q1:7:LYS:HE2	2.21	0.41
1:6:1774:G:H5''	1:6:1775:U:OP2	2.20	0.41
1:2:915:A:C5	1:2:916:U:C4	3.09	0.41
1:6:901:G:C2	1:6:902:G:C6	3.09	0.41
3:S1:61:LEU:HG	3:S1:64:ARG:HH21	1.86	0.41
3:S1:70:LEU:O	3:S1:74:GLN:N	2.54	0.41
38:4:16:G:N7	87:4:224:OHX:N3	2.69	0.41
16:C4:81:VAL:O	16:C4:115:ILE:HB	2.21	0.41
16:C4:16:VAL:HB	16:C4:18:ARG:HE	1.86	0.41
3:S1:35:PRO:HB2	3:S1:36:SER:H	1.63	0.41
2:S0:50:VAL:HA	2:S0:53:THR:OG1	2.20	0.41
1:6:1142:A:C6	1:6:1143:A:C6	3.09	0.41
4:S2:134:LEU:C	4:S2:136:VAL:H	2.23	0.41
4:S2:226:THR:O	4:S2:227:PRO:C	2.80	0.41
36:5:2990:G:C6	36:5:2991:A:N7	2.89	0.41
54:M8:110:ALA:O	54:M8:114:ILE:HB	3.15	0.41
55:M9:124:TYR:HE2	36:5:1720:U:C4	234.49	0.41
36:1:1636:U:H4'	63:N7:74:VAL:O	2.21	0.41
66:O0:44:ILE:HA	66:O0:89:VAL:HA	2.77	0.41
68:O2:81:ASP:O	68:O2:83:GLU:N	2.71	0.41
36:5:1949:G:O5'	36:5:1949:G:H8	2.03	0.41
36:5:2555:G:C6	36:5:2556:C:N3	2.89	0.41
63:N7:88:ASP:CG	63:N7:89:VAL:N	3.27	0.41
68:O2:81:ASP:O	68:O2:82:LEU:C	2.64	0.41
38:4:83:C:H1'	38:4:85:G:H21	1.85	0.41
36:1:1764:U:H3'	36:1:1765:U:C5'	2.45	0.41
36:5:1875:G:C2	36:5:1876:U:C2	3.09	0.41
55:M9:3:ASN:C	55:M9:4:LEU:HD23	2.48	0.41
55:M9:43:LYS:O	55:M9:46:LYS:N	2.53	0.41
1:2:1525:A:OP1	21:C9:82:GLY:HA2	2.21	0.41
14:C2:40:GLY:HA2	14:C2:124:LYS:HB2	3.70	0.41
1:6:1178:G:H5''	1:6:1179:G:OP2	2.20	0.41
1:6:1185:U:H5'	1:6:1185:U:O2	2.21	0.41
1:6:1649:G:N2	1:6:1650:U:C2	2.89	0.41
6:S4:88:ASP:O	6:S4:100:ARG:HA	2.21	0.41
36:5:533:A:N1	36:5:560:G:N2	2.69	0.41
50:M4:85:TRP:CD2	50:M4:90:VAL:HG21	3.89	0.41
56:N0:144:LEU:O	56:N0:145:THR:C	3.20	0.41
56:N0:27:MET:HE3	56:N0:27:MET:HB3	2.23	0.41
60:N4:49:ILE:HD12	60:N4:49:ILE:HG23	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:56:ARG:O	60:N4:57:LYS:C	3.54	0.41
36:5:1256:G:H2'	36:5:1257:C:C6	2.56	0.41
36:5:3093:C:O2'	36:5:3094:A:H5'	2.20	0.41
36:1:3261:C:OP1	50:M4:126:GLN:NE2	2.36	0.41
69:O3:85:PHE:O	87:O3:202:OHX:N1	2.54	0.41
42:L5:269:SER:CB	37:7:1:G:H21	319.07	0.41
8:S6:160:ARG:CZ	1:6:68:A:C5	339.74	0.41
18:C6:100:GLN:C	18:C6:102:LYS:H	3.47	0.41
34:SR:131:ILE:HG23	34:SR:154:VAL:HG11	2.03	0.41
1:2:66:U:O2'	1:2:67:A:H5'	2.21	0.41
1:6:66:U:H2'	1:6:66:U:H6	1.72	0.41
8:S6:136:LYS:O	8:S6:175:ILE:HA	2.39	0.41
34:SR:204:ALA:HA	34:SR:210:LEU:O	2.20	0.41
34:SR:23:LEU:HD12	34:SR:292:LEU:HA	2.03	0.41
34:SR:85:TRP:HD1	34:SR:85:TRP:N	2.17	0.41
35:SM:29:ASN:OD1	35:SM:29:ASN:C	2.59	0.41
36:1:53:G:C2	36:1:54:C:C6	3.09	0.41
36:5:348:A:O2'	36:5:367:A:N6	2.51	0.41
39:L2:79:ASN:O	39:L2:80:GLU:HB3	4.58	0.41
39:L2:135:ILE:O	39:L2:148:VAL:HG12	2.21	0.41
26:D4:122:GLY:O	26:D4:126:ALA:N	2.54	0.41
50:M4:106:ARG:HD3	36:5:3209:A:N7	293.92	0.41
50:M4:108:ARG:O	50:M4:109:ARG:C	2.87	0.41
3:S1:207:LEU:HB3	3:S1:210:ILE:HD11	2.03	0.41
36:1:211:A:H2	36:1:228:U:O4	2.04	0.41
4:S2:88:LYS:O	4:S2:94:GLN:HG2	3.06	0.41
40:L3:166:ILE:CG1	40:L3:171:LEU:HD12	4.47	0.41
49:M3:174:ARG:HH12	72:O6:9:ILE:HD13	1.85	0.41
52:M6:25:LYS:O	52:M6:26:GLN:C	2.58	0.41
36:5:3163:A:C6	36:5:3288:G:C6	3.09	0.41
1:6:1148:C:O2	1:6:1765:A:H2	2.03	0.41
8:S6:58:LYS:O	1:6:155:U:H5''	300.76	0.41
36:5:3159:C:O2'	36:5:3160:U:H5'	2.21	0.41
1:6:1764:C:N4	1:6:1767:G:N3	2.69	0.41
8:S6:57:ASP:CA	8:S6:106:LEU:HD23	2.51	0.41
36:5:2211:U:H5	36:5:2234:G:N1	2.19	0.41
36:5:3174:A:H2'	36:5:3175:U:H5'	2.03	0.41
36:5:1807:G:C6	36:5:1808:G:N1	2.88	0.41
49:M3:42:ARG:O	49:M3:45:LYS:N	2.89	0.41
51:M5:62:TYR:O	51:M5:131:GLU:HA	2.21	0.41
51:M5:150:TRP:C	51:M5:152:CYS:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1101:G:C2'	1:6:1102:G:H5'	2.51	0.41
36:5:3017:A:C2'	36:5:3018:C:H5'	2.50	0.41
26:D4:62:THR:HG23	1:6:531:C:O2	420.91	0.41
39:L2:40:TYR:HA	39:L2:90:ALA:O	2.23	0.41
36:1:1697:A:N6	36:1:1748:G:O2'	2.54	0.41
1:6:1092:A:C5	1:6:1094:G:C8	3.08	0.41
71:O5:85:THR:O	71:O5:89:ARG:HB2	2.21	0.41
1:6:681:U:H1'	1:6:682:C:C5	2.55	0.41
1:2:774:A:C6	1:2:787:G:C2	3.09	0.41
1:6:1268:G:C2	1:6:1270:G:C5	3.09	0.41
1:2:561:G:C6	1:2:585:A:N1	2.89	0.41
36:5:2203:U:H2'	36:5:2204:C:H6	1.84	0.41
76:Q0:78:ILE:HG13	76:Q0:83:LYS:HD2	2.03	0.41
36:5:124:U:H4'	36:5:150:A:O2'	2.21	0.41
1:2:591:A:N1	1:2:592:A:C6	2.88	0.41
48:M1:41:SER:C	48:M1:43:GLN:N	2.94	0.41
48:M1:41:SER:O	48:M1:43:GLN:N	2.66	0.41
48:M1:40:LEU:HD11	48:M1:79:ILE:HD13	4.27	0.41
36:5:247:C:H3'	36:5:248:U:H6	1.86	0.41
36:5:3317:U:O4'	36:5:3317:U:O2	2.38	0.41
1:2:730:G:H21	1:2:731:C:C5'	2.34	0.41
48:M1:52:TYR:HB2	48:M1:53:THR:H	1.47	0.41
36:5:2143:A:H3'	36:5:2143:A:C8	2.56	0.41
9:S7:107:ARG:NH1	1:6:743:U:OP2	342.43	0.41
70:O4:51:LEU:HA	70:O4:51:LEU:HD23	3.80	0.41
42:L5:56:THR:C	42:L5:58:LYS:N	2.74	0.41
36:1:2309:A:H4'	87:1:4137:OHX:N4	2.36	0.41
64:N8:133:LEU:HD11	64:N8:137:LYS:CE	3.01	0.41
64:N8:99:ALA:HB1	64:N8:122:PRO:O	3.31	0.41
1:6:846:G:C4	1:6:847:A:C8	3.08	0.41
68:O2:33:ARG:NH2	36:5:1408:G:P	160.56	0.41
2:S0:29:VAL:CG2	2:S0:150:ASP:HB3	2.51	0.41
36:5:1104:G:N2	36:5:1105:A:C4	2.88	0.41
36:5:1108:U:C2	36:5:1109:U:C5	3.08	0.41
38:8:13:A:C5	38:8:14:C:C5	3.09	0.41
9:S7:24:PHE:O	9:S7:28:GLU:N	2.47	0.41
1:6:1520:U:O2	87:6:2083:OHX:N4	2.54	0.41
1:2:802:G:C6	1:2:803:A:N1	2.89	0.41
36:5:2816:G:C8	36:5:2869:U:H3'	2.56	0.41
62:N6:60:ARG:NH1	62:N6:60:ARG:CG	2.84	0.41
76:Q0:93:LYS:HB3	76:Q0:103:LEU:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2785:A:C4	36:5:2786:G:C8	3.09	0.41
36:5:839:C:H2'	36:5:840:C:H6	1.86	0.41
36:1:1746:U:H2'	36:1:1747:G:C8	2.56	0.41
36:1:1754:G:OP1	87:1:4153:OHX:N1	2.54	0.41
40:L3:339:ARG:HH12	40:L3:342:LEU:HD11	2.19	0.41
1:6:514:G:C4	1:6:515:A:C8	3.08	0.41
36:5:1946:A:C6	36:5:1947:G:C5	3.08	0.41
36:5:3189:G:H2'	36:5:3190:C:C6	2.53	0.41
34:SR:123:ILE:HG22	34:SR:133:VAL:HG13	2.02	0.41
51:M5:194:GLN:H	51:M5:194:GLN:HG2	1.69	0.41
42:L5:184:ASP:CG	42:L5:187:THR:HG22	2.41	0.41
43:L6:23:LYS:HE3	36:5:503:C:O2	240.78	0.41
37:7:103:A:H8	37:7:103:A:O5'	2.04	0.41
36:5:2943:G:N7	36:5:2944:U:C5	2.89	0.41
36:5:1192:C:C5	87:5:4086:OHX:N6	2.79	0.41
36:5:2546:C:H2'	36:5:2547:A:C8	2.55	0.41
65:N9:54:LEU:HD23	65:N9:54:LEU:HA	1.90	0.41
36:1:1522:U:C5	61:N5:116:PRO:HG3	2.55	0.41
13:C1:57:LYS:HG2	13:C1:131:ILE:HD12	2.02	0.41
58:N2:39:ASP:OD2	58:N2:39:ASP:N	2.54	0.41
58:N2:36:TYR:CZ	58:N2:40:HIS:CD2	3.09	0.41
25:D3:38:PHE:N	25:D3:38:PHE:CD2	3.42	0.41
36:1:383:G:C6	36:1:387:A:N6	2.89	0.41
38:4:12:A:H2'	38:4:13:A:O5'	2.21	0.41
36:1:3170:A:C5	36:1:3171:U:C5	3.09	0.41
22:D0:109:GLU:HG3	22:D0:110:PRO:CD	2.63	0.41
71:O5:15:GLU:HA	71:O5:18:ALA:HB2	4.59	0.41
14:C2:31:VAL:HG23	14:C2:132:GLU:HG2	2.03	0.41
1:2:109:G:H1	1:2:305:C:H42	1.69	0.41
53:M7:10:ASN:OD1	53:M7:12:ALA:HB3	2.20	0.41
36:5:2398:A:C2	36:5:2399:A:C4	3.09	0.41
29:D7:24:LEU:HA	29:D7:24:LEU:HD12	1.78	0.41
55:M9:109:TYR:HD1	55:M9:109:TYR:N	2.18	0.41
55:M9:123:LEU:HA	55:M9:126:GLU:HB2	2.38	0.41
55:M9:143:ILE:CG1	36:5:2093:A:H5''	248.37	0.41
36:5:638:C:H2'	36:5:639:G:H8	1.85	0.41
36:1:1245:A:N6	36:1:1272:C:H4'	2.36	0.41
39:L2:20:THR:OG1	39:L2:23:ARG:HD3	2.21	0.41
36:5:2441:A:N6	36:5:2507:C:C4	2.89	0.41
45:L8:91:PHE:CZ	45:L8:185:ARG:HD3	4.33	0.41
36:1:1347:U:O4'	41:L4:305:ALA:HA	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:753:A:H2'	1:2:754:A:O4'	2.21	0.41
47:M0:129:VAL:HG13	47:M0:133:GLN:HG2	2.03	0.41
36:1:701:G:C5	36:1:702:C:C4	3.09	0.41
57:N1:17:ARG:HD2	36:5:2700:G:H5''	264.34	0.41
4:S2:139:ILE:HG13	4:S2:218:ILE:HB	3.32	0.41
38:8:85:G:C8	38:8:85:G:H3'	2.55	0.41
68:O2:92:TYR:CD2	68:O2:92:TYR:N	2.89	0.41
36:1:3057:U:C5	36:1:3059:G:H1'	2.56	0.41
17:C5:116:LEU:HD23	17:C5:116:LEU:HA	1.93	0.41
62:N6:69:LYS:HB2	62:N6:69:LYS:HE3	4.49	0.41
36:5:1252:A:H5'	36:5:1253:U:OP2	2.21	0.41
36:1:2105:G:C2'	36:1:2106:A:H5'	2.51	0.41
1:2:123:G:OP1	6:S4:75:LYS:HD2	2.21	0.41
36:1:3102:G:C2	36:1:3103:A:C4	3.09	0.41
1:2:603:U:H2'	1:2:604:A:C8	2.50	0.41
41:L4:264:SER:C	41:L4:266:THR:N	2.73	0.41
3:S1:32:ILE:HG13	3:S1:44:GLY:O	4.70	0.41
73:O7:28:HIS:CD2	73:O7:31:LYS:HD3	5.36	0.41
36:5:589:A:H3'	36:5:589:A:OP2	2.20	0.41
36:1:873:C:O3'	36:1:875:G:H5'	2.19	0.41
36:5:2756:C:H2'	36:5:2757:U:O4'	2.21	0.41
36:5:2630:C:O4'	36:5:2758:A:H1'	2.21	0.41
36:1:201:A:H2'	36:1:202:G:C8	2.55	0.41
20:C8:84:TRP:CZ2	21:C9:36:ILE:HD11	5.13	0.41
36:5:3360:C:H2'	36:5:3361:G:H5'	2.03	0.41
1:6:628:G:C5	1:6:969:C:C5	3.09	0.41
36:1:1069:C:C2	36:1:1070:U:C5	3.09	0.41
36:1:2266:U:H2'	36:1:2267:C:C6	2.56	0.41
87:1:4139:OHX:N1	87:1:4184:OHX:N2	2.69	0.41
37:3:76:A:O4'	37:3:78:U:C6	2.74	0.41
3:S1:219:LYS:NZ	79:Q3:92:ALA:H	12.38	0.41
36:1:669:U:H2'	36:1:670:C:O4'	2.21	0.41
21:C9:68:ARG:NH1	1:6:1521:G:O6	415.34	0.41
21:C9:64:HIS:CE1	1:6:1523:G:N7	410.14	0.41
56:N0:34:GLU:HG2	56:N0:34:GLU:H	1.57	0.41
36:5:2947:G:H2'	36:5:2948:C:H6	1.86	0.41
36:5:384:A:H3'	36:5:385:A:H8	1.86	0.41
36:5:384:A:C4	36:5:385:A:C8	3.08	0.41
36:5:2609:A:C2	36:5:2610:G:C8	3.08	0.41
45:L8:209:ALA:C	45:L8:211:LEU:H	2.42	0.41
51:M5:178:HIS:O	51:M5:181:ASN:ND2	4.15	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1839:A:N1	36:1:1843:C:C6	2.89	0.41
38:4:27:U:O2'	38:4:28:C:H5'	2.21	0.41
46:L9:58:HIS:HB2	36:5:3186:A:C6	322.43	0.41
44:L7:118:LYS:HB2	44:L7:195:PHE:CD1	2.98	0.41
36:1:277:G:OP1	87:1:3877:OHX:N3	2.54	0.41
36:5:278:U:H2'	36:5:279:U:H6	1.85	0.41
36:5:2623:G:C5	36:5:2624:G:N7	2.89	0.41
50:M4:131:VAL:C	50:M4:133:LYS:H	2.23	0.41
7:S5:20:PHE:O	7:S5:21:THR:OG1	2.35	0.41
1:2:287:G:C4	1:2:288:A:C8	3.09	0.41
36:5:1569:U:H5'	36:5:1570:U:C6	2.54	0.41
1:2:1601:G:OP1	21:C9:86:ARG:NH2	2.54	0.41
36:1:2645:G:C6	36:1:2646:C:C4	3.09	0.41
68:O2:3:SER:O	68:O2:4:LEU:C	2.59	0.41
36:5:110:G:C2	36:5:111:C:H1'	2.55	0.41
36:1:1056:U:H2'	36:1:1057:A:H5'	2.01	0.41
1:6:1176:G:C6	1:6:1464:G:C6	3.09	0.41
36:1:1018:G:H2'	36:1:1019:G:C8	2.55	0.41
37:7:19:C:H6	37:7:19:C:H5''	1.86	0.41
36:1:2865:U:OP1	47:M0:115:MET:HB2	2.21	0.41
78:Q2:99:GLN:HG2	78:Q2:102:GLN:HG2	2.03	0.41
36:5:1867:A:C2	36:5:1868:G:C4	3.09	0.41
1:2:688:G:N1	1:2:689:G:C5	2.89	0.41
29:D7:75:GLU:HB3	29:D7:76:GLY:H	1.66	0.41
36:5:1683:A:H5'	36:5:1683:A:H8	1.86	0.41
1:6:723:G:H5'	1:6:724:C:OP2	2.21	0.41
16:C4:78:ALA:CB	16:C4:111:ARG:HB2	2.68	0.41
60:N4:78:ALA:HB1	60:N4:79:GLN:H	3.48	0.41
34:SR:201:THR:HG21	34:SR:242:SER:CA	2.93	0.41
36:5:527:A:C4	36:5:566:G:N2	2.89	0.41
72:O6:18:THR:O	72:O6:18:THR:OG1	3.69	0.41
40:L3:337:THR:O	40:L3:337:THR:HG22	2.19	0.41
8:S6:210:GLN:H	8:S6:210:GLN:HG3	2.88	0.41
36:5:708:G:H8	36:5:708:G:C5'	2.34	0.41
76:Q0:85:LEU:HA	76:Q0:85:LEU:HD23	2.19	0.41
79:Q3:6:LYS:HB3	79:Q3:6:LYS:HE2	1.36	0.41
1:6:394:C:H2'	1:6:395:U:O4'	2.21	0.41
36:1:3255:U:H2'	36:1:3256:G:C8	2.55	0.41
25:D3:66:SER:O	25:D3:67:ALA:HB2	2.24	0.41
42:L5:92:LEU:HD23	42:L5:92:LEU:HA	3.99	0.41
32:E0:26:LYS:H	32:E0:26:LYS:HE3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1673:G:C4	36:5:1775:G:C2	3.09	0.41
38:8:48:A:C2	38:8:51:G:N1	2.89	0.41
2:S0:155:PHE:CZ	23:D1:61:SER:HB3	2.56	0.41
13:C1:76:VAL:HG13	13:C1:85:VAL:O	2.20	0.41
25:D3:91:GLY:C	25:D3:93:LEU:H	2.24	0.41
20:C8:4:VAL:HG11	27:D5:47:TYR:CD2	2.56	0.41
36:5:1888:U:C5	36:5:1889:G:C8	3.09	0.41
26:D4:103:ALA:O	26:D4:104:SER:O	2.39	0.41
1:6:1006:C:OP1	87:6:2057:OHX:N4	2.54	0.41
1:2:1796:C:OP1	28:D6:87:ARG:HD3	2.21	0.41
1:6:766:U:C4	1:6:769:A:N7	2.89	0.41
47:M0:153:ARG:NH1	47:M0:153:ARG:HG2	2.36	0.41
44:L7:140:SER:O	44:L7:144:ILE:HG13	2.25	0.41
44:L7:153:PHE:HD2	44:L7:153:PHE:N	2.18	0.41
51:M5:18:VAL:O	51:M5:21:PHE:HB3	2.21	0.41
10:S8:48:THR:OG1	10:S8:52:ASN:HB2	2.21	0.41
36:1:739:G:C2	36:1:740:G:N7	2.89	0.41
41:L4:119:ARG:HA	41:L4:122:THR:OG1	2.21	0.41
41:L4:135:VAL:HG12	41:L4:140:HIS:HB2	3.25	0.41
41:L4:186:LYS:HD3	36:5:1388:U:O4	118.47	0.41
43:L6:97:ASN:O	43:L6:99:GLU:N	2.52	0.41
1:6:1403:C:H2'	1:6:1404:C:C6	2.56	0.41
52:M6:15:LEU:O	52:M6:16:VAL:C	2.57	0.41
36:1:561:C:H2'	36:1:562:C:H6	1.80	0.41
20:C8:61:LEU:HD22	20:C8:66:LEU:HD23	6.06	0.41
7:S5:121:ILE:O	7:S5:125:THR:OG1	4.31	0.41
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.48	0.41
7:S5:35:GLN:HG3	7:S5:39:GLU:HB2	5.55	0.41
7:S5:94:THR:OG1	7:S5:95:ASN:N	2.54	0.41
67:O1:12:TYR:HD2	67:O1:75:ILE:HG13	1.85	0.41
67:O1:33:VAL:C	67:O1:35:GLU:N	3.02	0.41
1:2:1671:A:C4	1:2:1731:A:C2	3.09	0.41
1:6:1554:U:C5	1:6:1555:A:N7	2.88	0.41
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.93	0.41
17:C5:39:ALA:HB2	1:6:1549:C:C5	384.42	0.41
17:C5:84:ILE:N	17:C5:84:ILE:HD12	3.99	0.41
21:C9:5:SER:OG	21:C9:7:ARG:N	3.32	0.41
21:C9:61:VAL:O	21:C9:62:ALA:C	2.71	0.41
5:S3:66:ILE:O	5:S3:70:THR:N	2.75	0.41
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.55	0.41
36:1:156:G:H8	36:1:156:G:O5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1774:G:H2'	1:2:1775:U:O4'	2.21	0.41
1:2:896:U:C1'	16:C4:38:THR:HG21	2.51	0.41
16:C4:49:LYS:HG3	16:C4:49:LYS:HZ3	3.70	0.41
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.37	0.41
36:1:407:A:C2'	36:1:408:A:H5'	2.51	0.41
23:D1:40:ASP:OD1	23:D1:44:ARG:HD3	2.21	0.41
2:S0:12:GLU:HG2	2:S0:13:ASP:N	2.36	0.41
2:S0:96:THR:HA	2:S0:97:PRO:HD3	2.04	0.41
54:M8:81:VAL:HG13	54:M8:101:VAL:HA	2.03	0.41
36:1:1719:G:H4'	36:1:1732:U:O2'	2.20	0.41
36:1:1722:U:H2'	36:1:1723:A:H5'	2.03	0.41
63:N7:73:LYS:NZ	36:5:1637:A:OP2	209.25	0.41
55:M9:134:HIS:HB2	55:M9:135:LYS:H	1.65	0.41
66:O0:52:ARG:HB2	66:O0:52:ARG:HE	2.71	0.41
63:N7:17:ARG:HG2	70:O4:73:SER:HB2	3.16	0.41
43:L6:10:TYR:HB3	68:O2:88:HIS:CE1	2.55	0.41
1:6:1074:G:H8	1:6:1074:G:H5'	1.86	0.41
36:1:1764:U:H2'	36:1:1765:U:H4'	2.02	0.41
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	2.03	0.41
14:C2:97:LEU:HA	14:C2:97:LEU:HD23	1.88	0.41
36:1:3017:A:C6	36:1:3018:C:C4	3.09	0.41
6:S4:143:ASP:OD1	6:S4:145:ARG:NE	2.52	0.41
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.50	0.41
6:S4:222:LEU:HD23	6:S4:222:LEU:O	2.21	0.41
56:N0:117:ARG:NH1	37:7:88:G:H4'	283.54	0.41
56:N0:142:GLN:O	56:N0:145:THR:HG23	2.21	0.41
8:S6:169:TYR:CG	1:6:72:A:N6	362.49	0.41
57:N1:139:ARG:HH21	57:N1:139:ARG:CG	3.91	0.41
59:N3:83:LYS:HE2	59:N3:84:SER:OG	2.21	0.41
36:1:3261:C:C2'	36:1:3262:U:H5'	2.51	0.41
43:L6:158:TYR:CE1	50:M4:115:PHE:HA	2.83	0.41
69:O3:89:LEU:HA	69:O3:89:LEU:HD23	1.63	0.41
9:S7:162:ILE:CA	9:S7:165:LYS:HB2	2.51	0.41
18:C6:120:ASP:C	18:C6:122:ARG:N	3.69	0.41
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.83	0.41
34:SR:236:ALA:O	34:SR:237:GLN:HB2	2.24	0.41
1:2:985:G:C2	1:2:986:G:H1'	2.56	0.41
39:L2:134:VAL:CG2	39:L2:148:VAL:HB	3.42	0.41
39:L2:155:LYS:HZ1	39:L2:253:GLN:C	2.24	0.41
39:L2:114:SER:HB2	39:L2:169:ILE:CD1	2.67	0.41
39:L2:83:HIS:O	39:L2:84:THR:C	2.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:46:LYS:O	39:L2:84:THR:HG22	4.82	0.41
50:M4:109:ARG:HG2	52:M6:198:GLY:HA3	2.70	0.41
52:M6:189:ASP:OD1	52:M6:189:ASP:N	3.04	0.41
41:L4:158:SER:HA	41:L4:213:ASN:HB2	2.03	0.41
1:6:1637:C:OP2	87:6:2119:OHX:N4	2.54	0.41
1:6:1764:C:N4	1:6:1767:G:C2	2.89	0.41
8:S6:2:LYS:HB2	8:S6:2:LYS:HE3	1.81	0.41
36:5:28:C:C2'	36:5:29:C:O5'	2.68	0.41
49:M3:149:GLN:HA	49:M3:150:PRO:HD3	1.86	0.41
40:L3:97:ARG:NH1	36:5:3244:A:C2	246.16	0.41
46:L9:96:HIS:CD2	36:5:3024:A:H5''	339.74	0.41
36:1:896:A:C2	39:L2:196:TRP:CH2	3.09	0.41
49:M3:2:ALA:CB	64:N8:33:GLY:H	2.24	0.41
25:D3:31:LYS:HA	25:D3:31:LYS:HD3	2.20	0.41
35:SM:39:PRO:HD3	48:M1:52:TYR:CZ	3.54	0.41
36:5:1712:G:C2	36:5:1713:G:N2	2.89	0.41
70:O4:41:ARG:NH2	70:O4:51:LEU:O	3.94	0.41
36:1:2274:U:C2'	36:1:2275:A:H5'	2.51	0.41
56:N0:103:VAL:HG12	56:N0:107:TYR:HD2	2.88	0.41
64:N8:95:SER:HB2	64:N8:96:LYS:O	2.21	0.41
41:L4:295:ILE:CG2	41:L4:299:ILE:HD11	2.51	0.41
62:N6:100:HIS:HA	62:N6:101:PRO:HD2	1.55	0.41
36:5:1594:A:H1'	36:5:1615:C:H1'	2.03	0.41
10:S8:70:GLU:O	10:S8:72:ILE:HG23	2.33	0.41
36:1:1217:A:C2	36:1:1289:G:C4	3.09	0.41
36:1:1216:C:H5'	36:1:1217:A:P	2.60	0.41
36:5:1879:A:H2'	36:5:1879:A:N3	2.36	0.41
38:4:142:C:O2'	38:4:143:U:H5'	2.21	0.41
36:1:831:G:N7	87:1:3889:OHX:N1	2.68	0.41
36:5:3187:A:C2	36:5:3188:G:C1'	3.03	0.41
34:SR:123:ILE:HA	34:SR:132:LYS:O	2.20	0.41
42:L5:178:ASN:HB2	42:L5:183:TRP:NE1	2.36	0.41
36:1:1536:G:C6	36:1:1537:A:C5	3.09	0.41
52:M6:93:ALA:HB3	36:5:632:G:OP1	219.98	0.41
13:C1:80:MET:HE2	13:C1:83:THR:OG1	3.18	0.41
56:N0:169:SER:HA	36:5:3185:U:O2	302.50	0.41
58:N2:57:THR:O	58:N2:63:VAL:HG13	2.21	0.41
36:1:660:A:OP1	41:L4:92:ASN:ND2	2.54	0.41
36:5:1348:U:H5	36:5:1355:A:N7	2.19	0.41
36:5:1348:U:OP1	36:5:1349:G:H8	2.04	0.41
1:2:1160:A:C2	1:2:1161:C:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:930:A:N3	3:S1:114:VAL:HG11	2.36	0.41
36:5:1943:C:OP1	36:5:3346:U:H1'	2.20	0.41
36:1:162:G:C2	36:1:163:C:C2	3.09	0.41
8:S6:3:LEU:HD23	8:S6:109:LEU:HB3	2.09	0.41
1:2:1008:G:H2'	1:2:1009:U:O4'	2.20	0.41
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	2.03	0.41
5:S3:140:GLY:O	5:S3:147:ALA:HB1	2.83	0.41
36:5:2782:U:H6	36:5:2782:U:H5''	1.85	0.41
36:5:306:A:H5''	36:5:307:A:OP2	2.21	0.41
1:2:1393:C:O2'	1:2:1394:G:H5'	2.21	0.41
36:5:909:G:N2	36:5:910:G:H1'	2.36	0.41
36:1:2995:A:O4'	38:4:1:A:N6	2.54	0.41
10:S8:90:LEU:HG	10:S8:90:LEU:H	1.55	0.41
1:2:1149:G:H1	1:2:1628:U:H3	1.69	0.41
36:1:1718:G:C2	36:1:1727:G:N1	2.89	0.41
1:2:1720:G:H8	1:2:1720:G:O5'	2.04	0.41
52:M6:155:LYS:HE2	52:M6:155:LYS:HB2	1.79	0.41
36:1:2332:A:H2'	36:1:2333:C:C5'	2.51	0.41
44:L7:163:LEU:HA	44:L7:163:LEU:HD22	1.77	0.41
52:M6:177:LYS:HB2	52:M6:177:LYS:HE3	1.90	0.41
36:5:959:C:H5'	36:5:960:U:O5'	2.21	0.41
36:1:2139:A:H62	73:O7:4:GLY:HA3	1.85	0.41
1:2:551:G:H1	1:2:573:C:H42	1.68	0.41
36:5:2925:C:C5	36:5:2926:A:C8	3.08	0.41
1:2:806:A:H2'	1:2:807:A:O4'	2.20	0.41
42:L5:125:VAL:HG12	42:L5:125:VAL:O	2.54	0.41
36:1:2872:A:H2'	36:1:2872:A:N3	2.36	0.41
46:L9:107:ASP:OD2	46:L9:107:ASP:N	2.53	0.41
9:S7:126:LEU:HD12	9:S7:126:LEU:HA	3.03	0.41
36:5:3370:A:N6	36:5:3371:G:N1	2.68	0.41
36:5:3087:A:H2'	36:5:3088:G:O4'	2.20	0.41
36:1:3244:A:N6	52:M6:105:PHE:CE1	2.89	0.41
1:6:1684:U:C2	1:6:1718:G:N1	2.89	0.41
47:M0:27:PRO:HB2	47:M0:28:ASP:H	1.56	0.41
36:1:2264:U:H6	36:1:2264:U:O5'	2.03	0.40
36:1:639:G:C2'	36:1:640:U:H5'	2.51	0.40
52:M6:68:ARG:NH1	36:5:2988:C:P	217.21	0.40
53:M7:53:ASP:O	53:M7:54:HIS:C	2.60	0.40
1:2:462:G:OP1	11:S9:3:ARG:HG2	2.21	0.40
1:2:463:U:C2	1:2:464:A:C8	3.09	0.40
1:6:512:A:H2'	1:6:513:U:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:83:VAL:HA	11:S9:149:ARG:HA	2.46	0.40
47:M0:70:ILE:O	47:M0:71:CYS:C	2.59	0.40
64:N8:23:GLY:C	64:N8:24:LYS:HG3	2.96	0.40
87:6:2130:OHX:N2	87:6:2155:OHX:N1	2.69	0.40
13:C1:53:TYR:HE1	13:C1:55:ASP:HB3	1.86	0.40
36:1:739:G:C2	36:1:740:G:C8	3.09	0.40
43:L6:96:VAL:HG22	43:L6:144:ALA:HB3	3.16	0.40
19:C7:24:LEU:HA	19:C7:24:LEU:HD23	1.82	0.40
55:M9:156:ASN:O	55:M9:159:ALA:HB3	2.22	0.40
18:C6:105:LEU:HA	18:C6:105:LEU:HD12	1.90	0.40
20:C8:69:ILE:O	20:C8:73:MET:HG3	2.21	0.40
7:S5:120:ILE:HG23	27:D5:59:TYR:CE1	2.56	0.40
7:S5:41:LYS:HB3	7:S5:41:LYS:HZ3	3.96	0.40
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.36	0.40
42:L5:122:VAL:C	42:L5:124:GLU:N	3.28	0.40
12:C0:38:LYS:HB2	12:C0:41:TYR:CG	2.55	0.40
17:C5:15:HIS:O	17:C5:22:LEU:HB3	4.58	0.40
31:D9:30:LEU:HA	31:D9:39:CYS:HA	2.03	0.40
48:M1:106:ILE:HD13	48:M1:106:ILE:N	3.89	0.40
15:C3:117:LEU:O	15:C3:120:SER:N	2.53	0.40
1:2:977:A:C6	1:2:1025:A:C8	3.09	0.40
1:6:1762:A:C2'	1:6:1763:A:H5'	2.51	0.40
3:S1:34:ALA:O	3:S1:41:ARG:NE	2.55	0.40
4:S2:216:VAL:O	4:S2:219:GLY:N	3.19	0.40
4:S2:67:GLN:O	4:S2:68:ILE:C	2.59	0.40
48:M1:10:ARG:HB2	48:M1:133:ARG:HG2	4.26	0.40
63:N7:95:VAL:HG12	63:N7:96:VAL:HG23	2.04	0.40
55:M9:18:GLY:C	55:M9:20:ARG:H	2.67	0.40
21:C9:93:HIS:O	21:C9:94:ILE:HD13	4.30	0.40
1:2:1171:A:H2'	1:2:1172:G:C8	2.56	0.40
20:C8:142:GLY:HA2	1:6:1173:C:OP2	341.22	0.40
36:5:1213:G:N2	36:5:1214:U:C2	2.89	0.40
50:M4:19:ARG:O	50:M4:35:ILE:HG13	2.20	0.40
56:N0:124:LEU:HD13	57:N1:155:PRO:HG3	2.89	0.40
57:N1:35:LYS:HG3	57:N1:38:ASP:OD1	3.22	0.40
36:5:3224:G:C5	36:5:3225:C:C5	3.09	0.40
43:L6:170:LYS:H	43:L6:174:LEU:HD12	1.86	0.40
69:O3:39:GLN:C	69:O3:41:ALA:N	2.89	0.40
69:O3:49:ILE:HD13	69:O3:49:ILE:HG21	3.38	0.40
52:M6:11:GLY:O	52:M6:12:LYS:C	2.59	0.40
29:D7:59:CYS:O	29:D7:60:SER:C	2.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:110:GLY:O	39:L2:112:ILE:HG23	5.90	0.40
79:Q3:57:CYS:N	79:Q3:62:LYS:O	3.38	0.40
9:S7:143:LEU:HA	24:D2:49:GLU:HG3	2.03	0.40
1:2:1291:G:H21	1:2:1324:G:N2	2.01	0.40
4:S2:121:VAL:O	4:S2:124:ALA:N	2.62	0.40
36:1:1481:A:O2'	36:1:1858:A:C2	2.66	0.40
8:S6:69:LEU:HB3	8:S6:71:THR:OG1	2.20	0.40
53:M7:168:LEU:CD1	53:M7:173:ARG:HG2	2.51	0.40
57:N1:130:ARG:HH21	36:5:988:U:H1'	255.61	0.40
57:N1:103:GLN:O	57:N1:107:GLU:HG3	2.21	0.40
51:M5:172:ARG:HB3	51:M5:174:ILE:HD11	2.03	0.40
1:6:519:C:C2	1:6:534:A:C4	3.08	0.40
39:L2:36:GLU:OE2	39:L2:163:ARG:NH1	2.86	0.40
1:6:1039:A:N7	1:6:1091:A:C5	2.89	0.40
36:1:2402:A:C2	36:1:2871:G:C4	3.09	0.40
38:8:44:A:C5	38:8:45:C:C5	3.09	0.40
36:1:213:A:O4'	62:N6:2:ALA:HB1	2.21	0.40
45:L8:153:ILE:HA	45:L8:197:VAL:HG12	3.44	0.40
43:L6:38:THR:HG23	43:L6:90:LYS:HE2	2.02	0.40
43:L6:18:LEU:HB3	36:5:591:G:N3	219.10	0.40
48:M1:59:ILE:HD13	36:5:2680:A:N3	306.59	0.40
34:SR:116:ASP:CG	34:SR:120:SER:HG	2.42	0.40
20:C8:47:CYS:C	20:C8:49:LYS:N	2.94	0.40
1:2:829:A:O2'	1:2:830:U:OP2	2.29	0.40
36:5:1700:G:N1	36:5:1745:C:N3	2.42	0.40
70:O4:56:THR:OG1	36:5:1739:U:O2'	177.43	0.40
37:7:49:G:H4'	37:7:50:U:O5'	2.21	0.40
36:5:750:G:H2'	36:5:751:A:H8	1.85	0.40
36:5:846:A:H2'	36:5:847:A:O4'	2.22	0.40
36:1:2436:U:O2	36:1:2512:C:O2	2.39	0.40
36:1:2536:A:O5'	36:1:2536:A:H8	2.03	0.40
13:C1:73:GLY:HA3	13:C1:88:ARG:CG	3.46	0.40
16:C4:87:GLY:HA2	16:C4:92:LYS:NZ	6.33	0.40
79:Q3:55:TRP:CE2	79:Q3:71:VAL:HA	3.06	0.40
36:5:1953:G:C6	36:5:2094:C:N4	2.89	0.40
36:5:1861:G:C6	36:5:1862:U:C4	3.09	0.40
55:M9:66:HIS:CD2	55:M9:75:HIS:HD2	6.42	0.40
55:M9:69:SER:O	55:M9:72:GLU:N	4.02	0.40
55:M9:70:LYS:C	55:M9:72:GLU:N	2.74	0.40
36:1:119:U:C2	45:L8:138:HIS:CE1	3.09	0.40
36:5:1192:C:C5	87:5:4086:OHX:N3	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:704:C:H2'	1:6:705:U:O4'	2.21	0.40
36:5:1116:G:C4	36:5:2817:A:C2	3.09	0.40
36:5:953:G:O2'	36:5:1116:G:H5'	2.21	0.40
1:2:1790:A:C2'	1:2:1791:A:H5'	2.52	0.40
8:S6:76:LEU:HA	8:S6:76:LEU:HD23	1.81	0.40
36:5:2709:C:H2'	36:5:2710:C:C6	2.57	0.40
42:L5:293:LEU:HD23	42:L5:293:LEU:HA	2.57	0.40
36:1:384:A:H2'	36:1:385:A:O4'	2.21	0.40
1:2:1039:A:O2'	1:2:1040:G:P	2.79	0.40
1:2:1315:U:H5''	1:2:1316:G:OP2	2.21	0.40
66:O0:18:ILE:HG23	66:O0:19:LYS:N	2.36	0.40
74:O8:5:ILE:CG2	74:O8:54:LEU:HB2	3.58	0.40
36:5:659:G:N2	36:5:1437:C:N3	2.69	0.40
36:1:1274:A:N6	36:1:1275:C:H41	2.18	0.40
45:L8:181:LYS:HD3	38:8:154:C:OP1	150.74	0.40
5:S3:128:GLU:C	5:S3:130:GLY:N	2.72	0.40
1:6:225:A:N6	1:6:226:A:H62	2.19	0.40
1:6:720:G:N3	1:6:720:G:H5''	2.36	0.40
1:2:1329:A:C8	1:2:1329:A:O5'	2.71	0.40
1:6:432:G:H5''	1:6:433:C:OP2	2.21	0.40
49:M3:36:ARG:O	49:M3:39:ARG:N	3.28	0.40
1:2:4:C:H5'	4:S2:204:THR:OG1	2.21	0.40
43:L6:50:LYS:HE3	36:5:3219:G:H22	264.26	0.40
36:1:162:G:H1	36:1:259:C:H42	1.68	0.40
26:D4:58:PHE:CE2	26:D4:72:PHE:HB3	2.96	0.40
13:C1:122:ILE:H	13:C1:144:ALA:CB	2.34	0.40
36:5:3296:A:H2'	36:5:3297:U:O4'	2.22	0.40
36:1:1820:U:HO2'	36:1:1821:U:P	2.42	0.40
38:4:109:A:H2'	38:4:110:C:H5'	2.03	0.40
5:S3:140:GLY:O	5:S3:147:ALA:HA	2.22	0.40
36:5:1020:G:H2'	36:5:1021:G:O4'	2.21	0.40
1:6:1172:G:H8	1:6:1172:G:OP2	2.04	0.40
44:L7:136:TYR:HE2	44:L7:231:ASN:HD22	3.06	0.40
7:S5:137:ILE:HA	7:S5:175:LEU:HD11	2.83	0.40
70:O4:30:LEU:HA	70:O4:30:LEU:HD23	1.80	0.40
36:5:796:U:H2'	36:5:797:U:C6	2.57	0.40
1:2:1362:U:C2	1:2:1363:U:C4	3.08	0.40
51:M5:105:ARG:HH11	51:M5:105:ARG:HD3	1.59	0.40
60:N4:1:MET:HG3	60:N4:1:MET:O	3.88	0.40
1:6:524:U:O2	1:6:526:A:H3'	2.21	0.40
1:6:527:A:C2'	1:6:528:U:H5'	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2995:A:O4'	38:4:1:A:C6	2.74	0.40
87:5:4006:OHX:N3	87:5:4195:OHX:N1	2.69	0.40
24:D2:24:GLN:HE22	29:D7:5:GLN:HG2	1.87	0.40
25:D3:5:LYS:NZ	1:6:612:U:OP2	352.41	0.40
38:8:68:G:C2	38:8:69:U:C2	3.09	0.40
14:C2:81:ASP:CG	14:C2:81:ASP:O	2.82	0.40
36:5:1293:U:O2'	36:5:1294:A:H5'	2.20	0.40
36:5:1703:U:H1'	36:5:1743:G:C2	2.56	0.40
1:2:751:G:N3	1:2:799:A:C2	2.89	0.40
33:E1:88:PRO:C	33:E1:89:LYS:HZ2	5.67	0.40
36:1:30:G:C6	36:1:55:G:C6	3.09	0.40
36:5:2927:C:H2'	36:5:2928:C:C6	2.55	0.40
62:N6:97:ILE:HD12	62:N6:97:ILE:H	1.87	0.40
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.53	0.40
23:D1:62:ARG:HD3	23:D1:62:ARG:HA	1.60	0.40
77:Q1:4:LYS:HE2	77:Q1:4:LYS:HB2	1.61	0.40
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.50	0.40
36:5:1923:C:H6	36:5:1923:C:O5'	2.03	0.40
36:1:1656:A:H4'	36:1:1657:C:O5'	2.20	0.40
45:L8:45:ASN:CG	61:N5:26:VAL:HG13	6.85	0.40
8:S6:27:PHE:C	8:S6:30:LYS:HG2	2.42	0.40
36:1:571:U:H2'	36:1:572:A:C8	2.56	0.40
25:D3:98:GLU:C	25:D3:100:ASP:N	2.75	0.40
78:Q2:98:LYS:HD2	36:5:2656:A:H4'	252.43	0.40
78:Q2:98:LYS:HG3	36:5:2656:A:P	249.94	0.40
36:1:1319:G:C2	36:1:1320:C:C5	3.09	0.40
36:1:2989:U:H1'	40:L3:266:ARG:HB2	2.04	0.40
36:1:1444:G:C6	36:1:1445:U:O2	2.74	0.40
36:1:1470:U:OP1	87:1:3928:OHX:N3	2.54	0.40
36:1:2357:A:C2	36:1:2358:A:C4	3.08	0.40
28:D6:73:TYR:CZ	28:D6:83:ILE:HD12	10.69	0.40
65:N9:19:ASN:N	65:N9:19:ASN:OD1	3.91	0.40
45:L8:136:LEU:HD13	51:M5:3:ALA:HB3	2.02	0.40
51:M5:27:VAL:O	51:M5:28:TRP:C	2.78	0.40
45:L8:62:LYS:HD3	51:M5:29:GLU:HG3	5.34	0.40
1:6:298:C:C5	1:6:299:A:C8	3.09	0.40
6:S4:49:ARG:HG2	6:S4:50:ASN:OD1	2.20	0.40
36:5:1426:C:C2	36:5:1427:U:C5	3.09	0.40
41:L4:183:LYS:HD2	41:L4:183:LYS:HA	2.76	0.40
41:L4:237:GLN:HG2	41:L4:246:ARG:HH21	3.32	0.40
41:L4:206:LEU:HB2	41:L4:246:ARG:HD2	2.08	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:281:ILE:O	41:L4:281:ILE:HG23	2.35	0.40
41:L4:42:VAL:C	41:L4:44:LYS:H	2.75	0.40
19:C7:41:ILE:O	19:C7:43:SER:N	2.61	0.40
87:2:2095:OHX:N3	87:2:2109:OHX:N5	2.69	0.40
18:C6:21:HIS:HB2	18:C6:66:ARG:CG	2.42	0.40
18:C6:23:LYS:HE3	18:C6:64:ASP:O	6.25	0.40
18:C6:60:PHE:HA	18:C6:63:ILE:CD1	2.54	0.40
27:D5:96:SER:O	27:D5:98:GLN:N	2.54	0.40
7:S5:101:GLY:HA2	7:S5:104:ASN:OD1	2.63	0.40
7:S5:57:SER:OG	7:S5:58:LEU:HG	2.21	0.40
36:1:3086:A:H5'	36:1:3087:A:OP2	2.21	0.40
36:1:3087:A:C2	36:1:3088:G:C4	3.09	0.40
67:O1:31:ARG:HH11	67:O1:31:ARG:CB	2.25	0.40
1:2:1553:G:H2'	1:2:1555:A:OP2	2.21	0.40
1:2:1595:U:OP1	31:D9:32:ARG:N	2.46	0.40
1:6:1480:G:H3'	1:6:1481:C:C6	2.57	0.40
12:C0:14:TYR:HD2	12:C0:21:VAL:HG22	2.53	0.40
21:C9:128:GLY:O	21:C9:131:ASP:N	2.86	0.40
21:C9:66:TYR:HA	21:C9:124:ILE:CG2	2.51	0.40
31:D9:14:TYR:CD2	31:D9:14:TYR:C	3.34	0.40
31:D9:14:TYR:HD2	31:D9:14:TYR:C	2.80	0.40
31:D9:33:LYS:HD3	31:D9:34:TYR:CE2	3.76	0.40
48:M1:81:GLU:O	48:M1:82:ARG:C	2.70	0.40
1:6:879:G:H2'	1:6:880:C:C6	2.56	0.40
1:6:962:C:O2'	1:6:963:A:H5'	2.21	0.40
1:2:864:U:O2'	15:C3:11:ILE:HG21	2.20	0.40
36:1:300:G:O6	87:1:4149:OHX:N1	2.55	0.40
71:O5:102:GLU:O	71:O5:105:ARG:HB3	2.73	0.40
1:2:103:A:O2'	1:2:104:A:OP1	2.37	0.40
47:M0:18:PRO:HA	47:M0:96:VAL:HG23	3.10	0.40
24:D2:95:PRO:HD3	24:D2:130:TYR:CD1	2.55	0.40
2:S0:123:VAL:N	2:S0:144:ILE:O	2.76	0.40
2:S0:176:LEU:O	2:S0:179:ARG:HB3	2.34	0.40
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	2.35	0.40
4:S2:215:PHE:O	4:S2:219:GLY:N	2.49	0.40
6:S4:221:ARG:HG2	6:S4:221:ARG:H	1.50	0.40
55:M9:105:LEU:O	55:M9:105:LEU:HD22	4.40	0.40
63:N7:76:ASN:OD1	63:N7:78:ASN:HB2	2.20	0.40
68:O2:76:VAL:HG12	68:O2:96:ILE:HA	2.03	0.40
71:O5:62:GLN:HA	71:O5:65:ALA:CB	2.51	0.40
1:2:1452:U:C2	1:2:1453:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:71:LYS:HA	6:S4:76:VAL:O	2.21	0.40
56:N0:13:ARG:O	56:N0:22:PRO:HG3	3.82	0.40
69:O3:8:TYR:N	69:O3:8:TYR:CD1	2.88	0.40
42:L5:270:LYS:HA	42:L5:272:TYR:HB2	5.23	0.40
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.53	0.40
1:6:65:A:C2	1:6:83:G:C2	3.09	0.40
8:S6:132:ARG:C	8:S6:133:LEU:HD13	2.41	0.40
18:C6:122:ARG:CD	1:6:1584:G:H5''	394.32	0.40
34:SR:306:THR:C	34:SR:308:ASN:N	2.72	0.40
18:C6:100:GLN:HB2	34:SR:57:PRO:HG2	3.39	0.40
56:N0:29:ILE:HD13	56:N0:40:ARG:HB2	2.03	0.40
29:D7:55:THR:HG1	29:D7:56:CYS:H	1.53	0.40
41:L4:95:ARG:NE	36:5:343:U:O4'	126.25	0.40
70:O4:102:LYS:O	70:O4:106:LYS:HG3	3.84	0.40
3:S1:113:MET:HE3	3:S1:211:HIS:CD2	3.85	0.40
3:S1:211:HIS:N	3:S1:211:HIS:CD2	3.26	0.40
78:Q2:40:LYS:HD3	78:Q2:40:LYS:HA	1.80	0.40
1:2:1291:G:N2	1:2:1324:G:N1	2.65	0.40
70:O4:4:ARG:HG2	36:5:1857:C:H2'	154.13	0.40
1:6:1765:A:C5	1:6:1767:G:C6	3.08	0.40
36:5:2234:G:O5'	36:5:2234:G:H8	2.04	0.40
52:M6:81:TYR:HE2	52:M6:85:ARG:HG3	1.86	0.40
36:1:3174:A:C2'	36:1:3175:U:H5'	2.50	0.40
36:1:980:A:C4	36:1:981:U:N3	2.89	0.40
58:N2:42:LYS:HB2	58:N2:75:TYR:OH	2.21	0.40
49:M3:80:VAL:O	49:M3:85:LEU:HD23	2.20	0.40
26:D4:60:PHE:CG	26:D4:71:GLY:HA3	2.56	0.40
36:1:2402:A:H5''	41:L4:67:THR:OG1	2.21	0.40
38:4:49:G:C6	38:4:50:C:C4	3.09	0.40
38:8:41:A:N6	38:8:103:G:H1'	2.35	0.40
36:5:172:G:H2'	36:5:172:G:N3	2.36	0.40
36:5:173:G:C5	36:5:174:C:C4	3.09	0.40
67:O1:10:ARG:NH2	36:5:3386:G:H5'	155.40	0.40
10:S8:171:SER:OG	10:S8:178:ARG:O	2.20	0.40
6:S4:184:THR:O	6:S4:184:THR:OG1	2.35	0.40
1:6:1382:A:C2	1:6:1383:G:C5	3.09	0.40
1:6:1511:U:H2'	1:6:1512:G:C8	2.56	0.40
1:6:804:A:C4	1:6:805:U:C5	3.10	0.40
36:5:1617:G:C8	36:5:1617:G:H3'	2.56	0.40
42:L5:23:ARG:O	42:L5:24:ARG:C	2.74	0.40
36:5:2196:C:N3	36:5:2242:A:C6	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:82:ASP:HB3	56:N0:87:THR:CA	2.51	0.40
61:N5:38:LEU:HD12	38:8:147:U:C4'	122.39	0.40
36:5:2596:U:H2'	36:5:2597:U:H6	1.87	0.40
1:2:1106:U:H2'	1:2:1107:G:C8	2.43	0.40
25:D3:56:LYS:HD2	25:D3:97:ASP:HA	2.03	0.40
36:1:548:G:C6	36:1:549:U:N3	2.89	0.40
49:M3:9:ILE:HD11	64:N8:45:MET:CE	2.47	0.40
36:5:2531:C:H2'	36:5:2532:U:H6	1.87	0.40
1:6:1384:A:H5''	1:6:1385:G:OP2	2.21	0.40
8:S6:79:LYS:O	8:S6:80:ASN:HB2	2.49	0.40
37:3:80:G:C6	37:3:81:U:C4	3.09	0.40
1:2:126:A:N6	1:2:292:U:C2	2.89	0.40
36:5:127:G:H2'	36:5:128:G:C8	2.56	0.40
1:6:687:G:H2'	1:6:687:G:N3	2.36	0.40
36:1:1158:A:C6	44:L7:93:ASN:ND2	2.90	0.40
74:O8:41:THR:OG1	74:O8:43:PHE:HE2	2.04	0.40
73:O7:29:VAL:HG11	38:8:111:A:C6	133.59	0.40
36:5:2514:U:OP1	36:5:2514:U:C6	2.67	0.40
36:5:1350:A:C6	36:5:1351:U:O2	2.75	0.40
36:1:1662:G:C5	36:1:1663:C:C4	3.09	0.40
36:1:2649:A:H4'	36:1:2696:A:O4'	2.21	0.40
36:5:255:A:C2	36:5:256:G:C4	3.09	0.40
40:L3:109:HIS:ND1	40:L3:109:HIS:N	3.01	0.40
36:5:1779:C:H3'	36:5:1780:G:C5'	2.51	0.40
1:6:985:G:C2	1:6:1017:U:O2	2.75	0.40
78:Q2:15:LYS:NZ	36:5:2771:U:O3'	183.00	0.40
36:1:3059:G:C6	36:1:3060:C:N4	2.89	0.40
22:D0:118:VAL:O	22:D0:119:ALA:HB2	3.51	0.40
61:N5:77:GLU:HA	61:N5:133:LEU:HB2	2.03	0.40
36:1:291:C:OP1	51:M5:68:ARG:HG2	2.21	0.40
36:5:2632:G:H5''	36:5:2633:U:OP2	2.22	0.40
1:2:1380:U:H2'	1:2:1381:U:O4'	2.20	0.40
65:N9:45:HIS:CE1	36:5:1075:A:C6	194.03	0.40
1:2:553:G:OP2	1:2:554:C:O2'	2.15	0.40
36:5:766:U:H4'	36:5:767:U:O5'	2.21	0.40
15:C3:111:ALA:C	15:C3:113:PHE:N	3.24	0.40
36:1:126:U:C5	36:1:127:G:N7	2.88	0.40
36:5:886:C:O2'	36:5:887:G:H5'	2.20	0.40
36:5:2574:G:H2'	36:5:2575:G:C8	2.56	0.40
37:7:19:C:H2'	37:7:20:A:H8	1.86	0.40
11:S9:10:LYS:HE3	11:S9:10:LYS:HB2	4.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:296:A:N7	36:1:297:G:C6	2.89	0.40
2:S0:35:PRO:C	2:S0:37:VAL:N	2.75	0.40
1:6:739:G:H2'	1:6:740:A:C8	2.55	0.40
36:1:2137:U:C6	36:1:2141:U:C4	3.08	0.40
9:S7:97:ARG:HD3	1:6:694:U:O2	366.46	0.40
1:6:63:G:C2	1:6:64:U:C6	3.08	0.40
36:5:80:G:C6	36:5:81:C:N4	2.89	0.40
39:L2:69:TYR:HE2	36:5:1650:G:C1'	180.92	0.40
36:5:629:U:H2'	36:5:630:A:C8	2.56	0.40
38:8:72:A:H2	38:8:89:A:H5'	1.86	0.40
36:1:2639:G:N3	36:1:2639:G:H2'	2.36	0.40
62:N6:15:ALA:HB1	36:5:215:G:H4'	78.81	0.40
1:2:367:A:OP1	87:2:2160:OHX:N6	2.54	0.40
1:6:570:A:H5"	1:6:571:G:OP2	2.21	0.40
78:Q2:9:LYS:O	36:5:2713:U:H3'	223.47	0.40
20:C8:133:VAL:HG22	20:C8:133:VAL:O	2.22	0.40
36:1:2342:U:H1'	36:1:3054:U:O2'	2.22	0.40
36:1:2353:G:H2'	36:1:2354:C:O4'	2.21	0.40
1:2:755:A:C6	1:2:756:A:C5	3.08	0.40
1:2:943:C:H42	28:D6:15:ARG:HG2	1.86	0.40
28:D6:5:ARG:HB3	28:D6:8:ASN:O	2.71	0.40
11:S9:36:LEU:H	11:S9:36:LEU:HG	1.76	0.40
47:M0:150:GLU:O	47:M0:154:ARG:N	2.72	0.40
47:M0:69:ARG:HD2	47:M0:70:ILE:N	2.68	0.40
41:L4:327:LEU:HA	41:L4:327:LEU:HD12	2.70	0.40
45:L8:165:PHE:HA	72:O6:47:ILE:CD1	3.50	0.40
1:6:300:A:C6	1:6:301:A:C5	3.10	0.40
10:S8:76:THR:HG22	10:S8:108:PRO:CG	2.51	0.40
36:1:404:G:C5'	36:1:404:G:H8	2.34	0.40
41:L4:30:ILE:HA	41:L4:124:SER:OG	2.21	0.40
41:L4:20:LEU:HD23	41:L4:20:LEU:HA	2.11	0.40
41:L4:26:PHE:HE2	41:L4:258:LEU:HD23	2.46	0.40
43:L6:96:VAL:CG1	43:L6:141:VAL:HG13	2.51	0.40
1:2:1614:A:C5	1:2:1615:C:C5	3.10	0.40
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	1.98	0.40
18:C6:64:ASP:O	18:C6:65:ILE:HD13	2.21	0.40
20:C8:46:VAL:HG11	20:C8:73:MET:HG3	2.03	0.40
21:C9:12:GLN:O	21:C9:16:ASN:N	3.48	0.40
21:C9:70:GLN:O	21:C9:70:GLN:HG2	2.99	0.40
7:S5:46:TRP:HH2	7:S5:115:LYS:HG2	1.85	0.40
46:L9:124:ARG:HB3	46:L9:164:ILE:CD1	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:144:ILE:O	46:L9:144:ILE:HG22	2.87	0.40
46:L9:91:ARG:NH2	46:L9:91:ARG:HG3	2.34	0.40
67:O1:48:ASP:O	67:O1:90:PHE:HB2	2.21	0.40
67:O1:62:ARG:HB2	67:O1:66:GLY:O	2.21	0.40
42:L5:163:LEU:HD12	42:L5:163:LEU:HA	4.45	0.40
1:6:1203:A:C6	1:6:1555:A:C6	3.10	0.40
5:S3:75:LYS:NZ	12:C0:34:GLU:OE2	2.36	0.40
12:C0:68:LEU:HD12	12:C0:69:THR:N	2.37	0.40
12:C0:54:TYR:HA	12:C0:72:GLY:H	1.86	0.40
17:C5:25:LEU:HD23	17:C5:25:LEU:HA	3.15	0.40
21:C9:127:ASN:HA	21:C9:130:ARG:HD2	4.68	0.40
15:C3:46:THR:HG23	15:C3:49:GLN:OE1	2.21	0.40
36:5:2127:U:C4	36:5:2128:C:C5	3.09	0.40
1:6:1775:U:H2'	1:6:1776:A:H8	1.86	0.40
1:2:906:A:H2'	1:2:906:A:N3	2.36	0.40
1:2:914:G:O3'	1:2:915:A:H8	2.04	0.40
16:C4:41:ARG:HG3	16:C4:41:ARG:O	3.98	0.40
3:S1:178:GLY:O	3:S1:183:GLN:HB3	2.21	0.40
2:S0:198:MET:HA	2:S0:199:PRO:HD2	1.83	0.40
2:S0:63:ILE:HG21	23:D1:34:ILE:CG2	4.94	0.40
4:S2:184:VAL:HA	4:S2:211:LEU:HD21	2.76	0.40
4:S2:35:TRP:NE1	4:S2:37:PRO:HB3	2.36	0.40
4:S2:152:HIS:CD2	4:S2:153:SER:N	2.95	0.40
55:M9:101:VAL:O	55:M9:105:LEU:N	2.48	0.40
55:M9:103:ARG:NH1	55:M9:124:TYR:CZ	2.89	0.40
43:L6:3:ALA:HB3	68:O2:75:LEU:O	3.26	0.40
68:O2:78:ASN:O	68:O2:81:ASP:HB2	2.21	0.40
1:6:1045:C:H2'	1:6:1046:G:H8	1.86	0.40
36:5:1478:C:H2'	36:5:1479:U:H6	1.86	0.40
71:O5:61:GLN:HA	71:O5:64:GLU:HG2	2.04	0.40
61:N5:50:ALA:O	71:O5:66:VAL:HG21	2.22	0.40
40:L3:60:LEU:HD23	40:L3:67:PHE:O	2.22	0.40
1:2:1178:G:H2'	1:2:1179:G:C8	2.57	0.40
6:S4:129:VAL:HG12	6:S4:156:VAL:HG23	2.04	0.40
52:M6:159:LYS:O	52:M6:160:ARG:C	2.74	0.40
35:SM:82:THR:HB	35:SM:83:LYS:H	1.42	0.40
36:1:1167:U:OP1	69:O3:73:ARG:NH2	2.54	0.40
1:2:1622:G:C5	1:2:1623:C:C5	3.09	0.40
9:S7:131:PHE:CG	9:S7:132:PRO:N	3.60	0.40
75:O9:19:GLN:HB3	38:8:52:A:O3'	90.45	0.40
37:3:23:A:H2'	37:3:24:A:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:137:ARG:O	8:S6:140:ASN:HB2	2.20	0.40
8:S6:144:PHE:O	8:S6:144:PHE:CG	2.73	0.40
36:5:1055:A:N3	37:7:81:U:O2'	2.52	0.40
73:O7:52:LYS:HB2	73:O7:52:LYS:HE3	2.27	0.40
39:L2:137:ILE:HG13	39:L2:147:ARG:HB3	2.04	0.40
39:L2:89:TYR:CD1	36:5:2551:U:C4	220.65	0.40
3:S1:206:PRO:HB2	3:S1:207:LEU:H	1.92	0.40
40:L3:163:HIS:HA	40:L3:177:HIS:O	2.40	0.40
36:5:3163:A:O2'	36:5:3164:C:H5'	2.21	0.40
1:2:153:G:C6	1:2:154:G:C6	3.09	0.40
1:6:156:A:H1'	1:6:416:A:C8	2.57	0.40
36:5:806:A:N3	36:5:2812:C:O2'	2.50	0.40
72:O6:90:MET:O	72:O6:93:ILE:N	2.90	0.40
38:8:143:U:C2	38:8:144:G:C8	3.10	0.40
36:5:1565:G:C2	36:5:1566:A:H1'	2.56	0.40
39:L2:213:GLY:HA2	36:5:2967:A:H5''	204.96	0.40
36:1:2900:A:H2	36:1:3025:C:O2	2.04	0.40
57:N1:26:HIS:CE1	37:7:10:C:OP2	270.73	0.40
61:N5:45:LYS:O	61:N5:46:TYR:HB3	2.94	0.40
38:8:96:A:H5''	38:8:97:A:OP2	2.21	0.40
46:L9:109:ALA:HB1	46:L9:111:PHE:CD2	2.57	0.40
39:L2:192:LYS:HB3	39:L2:193:ARG:NH1	2.39	0.40
36:5:148:G:O2'	36:5:149:U:OP2	2.28	0.40
1:2:219:A:N1	1:2:842:C:O2	2.55	0.40
70:O4:56:THR:N	70:O4:57:LEU:HD23	3.29	0.40
37:7:25:G:N2	37:7:26:C:H1'	2.36	0.40
36:1:2286:U:C4	36:1:2288:G:C1'	3.04	0.40
52:M6:142:SER:C	52:M6:144:SER:N	2.80	0.40
36:1:2623:G:C6	36:1:2624:G:C5	3.09	0.40
36:5:1404:G:C6	87:5:4084:OHX:N3	2.86	0.40
36:5:944:C:H2'	36:5:944:C:O2	2.21	0.40
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.55	0.40
14:C2:138:GLU:OE1	14:C2:142:GLN:HB3	3.88	0.40
36:5:408:A:O2'	36:5:409:A:H5'	2.22	0.40
1:6:1512:G:C6	1:6:1513:G:C5	3.09	0.40
25:D3:136:TRP:O	25:D3:137:LYS:HG3	5.02	0.40
25:D3:137:LYS:O	25:D3:139:LYS:HG3	5.48	0.40
46:L9:40:HIS:CD2	46:L9:40:HIS:H	2.38	0.40
36:1:2344:U:H2'	36:1:2345:A:C8	2.57	0.40
36:1:1573:G:N3	36:1:1573:G:H2'	2.36	0.40
36:5:372:A:C5	36:5:373:A:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:191:LEU:HD11	36:5:1795:U:OP1	191.00	0.40
79:Q3:52:ALA:O	79:Q3:54:ILE:HG13	2.21	0.40
22:D0:21:LYS:H	22:D0:21:LYS:HG2	4.09	0.40
50:M4:22:LEU:HD12	50:M4:31:LYS:O	2.42	0.40
55:M9:130:ASN:HB2	36:5:854:G:O2'	240.85	0.40
1:2:291:G:H2'	1:2:292:U:C5	2.56	0.40
36:5:1461:A:C4	36:5:1462:A:C8	3.09	0.40
47:M0:129:VAL:HG12	47:M0:130:ASP:O	2.65	0.40
3:S1:114:VAL:HG11	1:6:930:A:C2'	308.31	0.40
37:3:61:G:C4	37:3:62:U:C5	3.10	0.40
36:1:1490:A:C2	36:1:1491:A:C1'	3.04	0.40
36:5:3297:U:O2	36:5:3297:U:H2'	2.22	0.40
36:5:1421:G:N3	36:5:1422:G:C8	2.89	0.40
49:M3:188:ARG:HA	49:M3:191:ALA:HB3	2.04	0.40
41:L4:264:SER:HG	41:L4:267:VAL:HG12	3.87	0.40
54:M8:69:ARG:O	54:M8:70:ALA:C	2.59	0.40
36:1:3015:G:C2	36:1:3040:A:N3	2.90	0.40
1:2:497:G:O2'	1:2:498:G:C8	2.68	0.40
78:Q2:53:GLN:HG3	78:Q2:55:LYS:O	2.22	0.40
62:N6:107:THR:OG1	62:N6:108:LYS:N	2.88	0.40
48:M1:117:ASP:HA	48:M1:118:PRO:HD2	1.90	0.40
65:N9:23:LYS:HG3	65:N9:24:PRO:HD3	5.57	0.40
38:8:4:C:C4	38:8:5:U:C4	3.09	0.40
36:1:824:C:H2'	36:1:825:U:O4'	2.22	0.40
74:O8:47:GLY:C	74:O8:49:SER:N	2.74	0.40
36:5:2520:A:C6	36:5:2521:U:C4	3.09	0.40
36:1:891:G:C6	36:1:892:U:N3	2.90	0.40
1:2:1496:U:O2'	1:2:1519:U:O2'	2.33	0.40
36:1:1056:U:C2'	36:1:1057:A:H5'	2.51	0.40
6:S4:211:LYS:HB2	6:S4:211:LYS:HZ3	1.85	0.40
87:5:3996:OHX:N2	87:5:4187:OHX:N5	2.70	0.40
38:8:19:C:C5	38:8:20:U:C5	3.09	0.40
1:2:970:A:H5"	1:2:970:A:C8	2.56	0.40
5:S3:203:PRO:HA	19:C7:42:GLN:HG3	2.03	0.40
36:5:81:C:H2'	36:5:82:C:C6	2.56	0.40
36:5:2316:G:C4	36:5:2317:A:C8	3.10	0.40
1:2:156:A:H2'	1:2:157:A:O4'	2.21	0.40
20:C8:108:LYS:O	20:C8:111:ASP:HB2	2.26	0.40
1:6:1718:G:H2'	1:6:1719:A:O4'	2.21	0.40
20:C8:129:TRP:CD1	35:SM:67:GLY:HA2	3.22	0.40
36:5:2519:A:H61	36:5:2588:U:H3	1.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:111:VAL:HG21	4:S2:191:ALA:HB2	3.13	0.40
33:E1:113:LYS:HB3	33:E1:113:LYS:HE3	2.58	0.40
54:M8:111:ARG:HD2	54:M8:111:ARG:HH11	1.62	0.40
39:L2:104:LEU:HD12	39:L2:104:LEU:HA	2.64	0.40
41:L4:202:ARG:HA	41:L4:202:ARG:NE	2.50	0.40
45:L8:24:ASN:N	45:L8:25:PRO:HD2	2.36	0.40
1:6:570:A:H8	1:6:570:A:OP2	2.04	0.40
78:Q2:74:CYS:SG	78:Q2:77:CYS:SG	3.17	0.40
25:D3:71:CYS:O	25:D3:72:VAL:HG13	2.21	0.40
36:1:1208:U:H2'	76:Q0:109:ASN:OD1	2.21	0.40
46:L9:12:VAL:H	46:L9:51:GLN:C	2.25	0.40
1:6:88:U:C2	1:6:89:G:C8	3.09	0.40
11:S9:133:HIS:HE1	1:6:512:A:O2'	447.48	0.40
47:M0:39:LYS:HG2	47:M0:40:LYS:HG2	5.44	0.40
36:5:1333:C:C2'	36:5:1334:U:H5'	2.51	0.40
44:L7:141:TYR:C	44:L7:143:THR:N	3.02	0.40
44:L7:107:ARG:NE	44:L7:204:PRO:HG3	2.34	0.40
37:3:86:U:H2'	44:L7:218:ARG:CZ	2.52	0.40
44:L7:239:LEU:HD22	44:L7:243:MET:SD	2.64	0.40
10:S8:188:GLU:HA	13:C1:13:PHE:CE2	3.28	0.40
26:D4:84:LYS:HG3	26:D4:85:PHE:CD1	2.57	0.40
10:S8:106:ALA:O	10:S8:110:ARG:N	2.54	0.40
10:S8:122:GLY:O	87:S8:302:OHX:N5	2.54	0.40
10:S8:193:LEU:O	10:S8:196:LEU:N	2.74	0.40
41:L4:6:VAL:HG21	41:L4:255:PHE:CE1	2.56	0.40
43:L6:76:LEU:N	43:L6:138:GLN:HE22	2.19	0.40
19:C7:46:LEU:HD22	19:C7:50:ILE:HD11	3.30	0.40
5:S3:188:ILE:HG13	5:S3:188:ILE:H	2.53	0.40
36:5:359:U:C2	36:5:920:A:N1	2.90	0.40
50:M4:36:VAL:O	50:M4:36:VAL:HG12	2.98	0.40
1:2:1609:U:H2'	1:2:1610:G:C5'	2.52	0.40
27:D5:90:LYS:HA	27:D5:91:PRO:HD2	1.90	0.40
46:L9:166:ARG:NH2	36:5:3108:G:H1'	312.45	0.40
67:O1:36:ILE:HG22	67:O1:37:LYS:N	2.35	0.40
75:O9:5:LYS:HD3	75:O9:13:MET:HE3	3.76	0.40
42:L5:107:ARG:O	42:L5:108:ARG:C	2.59	0.40
42:L5:108:ARG:HD3	42:L5:253:PHE:HB2	3.47	0.40
12:C0:56:LYS:O	12:C0:66:TYR:HA	2.91	0.40
20:C8:90:ASN:C	20:C8:90:ASN:HD22	5.00	0.40
20:C8:90:ASN:C	20:C8:90:ASN:ND2	4.76	0.40
20:C8:94:ASP:OD2	20:C8:95:GLY:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:85:LYS:O	48:M1:88:GLU:N	2.55	0.40
5:S3:101:GLN:HA	5:S3:104:SER:HB3	2.32	0.40
5:S3:32:GLU:O	5:S3:53:THR:OG1	2.38	0.40
1:2:983:A:C2	1:2:1019:A:C6	3.10	0.40
1:2:1018:U:H2'	1:2:1019:A:C8	2.56	0.40
1:2:984:G:N1	1:2:1018:U:C2	2.90	0.40
24:D2:55:ASP:OD1	24:D2:57:ARG:HB2	2.81	0.40
23:D1:41:GLU:H	23:D1:41:GLU:CD	2.19	0.40
2:S0:64:ILE:CG2	2:S0:181:VAL:HG11	2.52	0.40
2:S0:65:ALA:C	2:S0:67:ILE:H	3.26	0.40
54:M8:101:VAL:HG21	54:M8:114:ILE:HD11	2.35	0.40
1:6:795:U:O4	1:6:796:A:C6	2.75	0.40
43:L6:13:GLU:OE2	68:O2:88:HIS:HA	2.65	0.40
68:O2:87:MET:O	68:O2:88:HIS:CG	2.75	0.40
1:6:1045:C:H2'	1:6:1046:G:C8	2.56	0.40
36:1:1602:A:C6	36:1:1603:A:N1	2.90	0.40
38:4:65:A:C2	38:4:96:A:C8	3.09	0.40
38:8:91:C:H2'	38:8:92:A:O4'	2.21	0.40
38:8:93:U:H2'	38:8:94:C:H6	1.86	0.40
62:N6:115:ARG:O	62:N6:118:LEU:HB3	2.69	0.40
1:2:1212:G:O6	87:2:2029:OHX:N4	2.54	0.40
1:6:1182:U:O2	1:6:1184:A:H8	2.05	0.40
36:5:3182:G:C4	36:5:3183:A:C8	3.09	0.40
56:N0:12:ARG:HD3	56:N0:59:VAL:HG21	3.36	0.40
44:L7:74:SER:OG	57:N1:142:SER:HA	3.12	0.40
36:1:2661:G:O5'	36:1:2661:G:H8	2.05	0.40
9:S7:164:TYR:CD2	9:S7:164:TYR:N	2.89	0.40
9:S7:56:LYS:HB2	9:S7:88:ARG:CZ	2.50	0.40
1:2:67:A:OP1	8:S6:171:LYS:NZ	2.34	0.40
36:5:2279:A:C2	36:5:2288:G:N1	2.89	0.40
52:M6:136:THR:CG2	52:M6:137:THR:N	3.74	0.40
52:M6:118:VAL:HG21	56:N0:163:PHE:HB3	2.02	0.40
62:N6:63:LYS:O	62:N6:66:GLN:HG3	2.21	0.40
39:L2:140:ASN:HB3	39:L2:145:LYS:HB2	2.02	0.40
79:Q3:36:ARG:HH22	79:Q3:46:THR:HG23	3.40	0.40
3:S1:200:ALA:HB3	3:S1:201:THR:HG23	6.22	0.40
36:1:2424:A:O5'	36:1:2424:A:C8	2.70	0.40
36:1:188:U:H1'	36:1:208:C:H1'	2.02	0.40
52:M6:116:LYS:HB2	36:5:3180:A:H4'	277.18	0.40
36:1:500:C:H42	36:1:613:G:H1	1.68	0.40
1:2:1718:G:H2'	1:2:1719:A:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3174:A:N6	36:5:3278:C:C2	2.88	0.40
49:M3:95:ILE:HG12	49:M3:95:ILE:H	3.37	0.40
51:M5:179:LYS:O	36:5:287:G:H5'	124.13	0.40
1:2:631:G:C6	1:2:632:U:C4	3.09	0.40
26:D4:42:GLU:CG	26:D4:52:LYS:HE3	3.34	0.40
61:N5:56:ARG:HG2	38:8:134:G:OP1	76.60	0.40
1:2:218:A:N1	1:2:843:U:O2'	2.53	0.40
71:O5:31:LEU:HD23	71:O5:44:ILE:HA	5.04	0.40
46:L9:106:LYS:H	46:L9:109:ALA:CB	2.34	0.40
46:L9:146:LEU:H	46:L9:146:LEU:HD12	2.36	0.40
76:Q0:78:ILE:HA	76:Q0:78:ILE:HD12	1.86	0.40
76:Q0:80:PRO:C	76:Q0:82:LEU:N	3.84	0.40
1:2:967:A:O2'	1:2:1034:C:H1'	2.20	0.40
8:S6:159:ARG:HG2	8:S6:172:ALA:HB2	2.11	0.40
48:M1:70:THR:O	48:M1:70:THR:OG1	2.38	0.40
36:5:968:G:C5	36:5:969:C:C4	3.10	0.40
36:5:782:U:N3	36:5:783:A:C4	2.90	0.40
1:2:1433:G:O2'	31:D9:26:SER:HB2	2.22	0.40
56:N0:66:GLU:O	56:N0:69:PRO:HG3	2.65	0.40
32:E0:50:VAL:C	32:E0:52:GLY:H	4.26	0.40
57:N1:28:SER:O	57:N1:29:THR:C	3.45	0.40
36:5:733:G:O6	87:5:4059:OHX:N1	2.54	0.40
36:1:221:A:N6	62:N6:103:LYS:NZ	2.68	0.40
34:SR:174:ASN:CG	34:SR:198:ASN:HB3	3.51	0.40
46:L9:38:LEU:CD1	46:L9:71:VAL:HG13	2.51	0.40
8:S6:22:HIS:HA	8:S6:25:ARG:CZ	4.16	0.40
36:5:1025:A:H3'	36:5:1026:A:H4'	2.04	0.40
36:1:3116:G:H3'	36:1:3117:C:H5'	2.03	0.40
38:8:25:G:O5'	38:8:25:G:H8	2.04	0.40
36:5:1327:C:O2'	36:5:1328:C:H5'	2.20	0.40
36:1:1326:A:O2'	69:O3:77:ASN:OD1	2.35	0.40
68:O2:7:PRO:HG2	68:O2:63:THR:HG23	2.03	0.40
63:N7:104:PRO:C	63:N7:106:GLN:N	2.75	0.40
36:1:995:U:C2	36:1:2637:A:C8	3.09	0.40
36:1:1537:A:O2'	36:1:1538:G:H5'	2.21	0.40
1:2:1263:G:C2	1:2:1264:G:H1'	2.56	0.40
36:1:1882:G:C2	36:1:2351:U:O2	2.75	0.40
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.94	0.40
36:5:198:A:N3	36:5:218:G:O2'	2.54	0.40
58:N2:28:PHE:HD1	58:N2:28:PHE:HA	2.62	0.40
22:D0:38:SER:O	22:D0:41:ILE:HG22	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:31:VAL:HG23	14:C2:132:GLU:CG	2.52	0.40
4:S2:214:ALA:O	4:S2:217:ALA:HB3	2.22	0.40
1:6:228:G:N2	1:6:237:C:N3	2.70	0.40
45:L8:48:ARG:NH2	36:5:2526:C:C2	185.19	0.40
1:2:503:G:O2'	1:2:504:U:OP1	2.32	0.40
36:1:2108:C:C4	36:1:2109:U:C4	3.09	0.40
36:1:256:G:H2'	36:1:257:U:H6	1.85	0.40
1:2:601:A:H2'	1:2:602:U:C6	2.56	0.40
36:1:608:A:C6	43:L6:22:ARG:HD3	2.57	0.40
1:6:1283:U:H2'	1:6:1284:C:C5	2.56	0.40
36:5:2584:G:OP1	36:5:2584:G:C4'	2.69	0.40
37:3:62:U:N3	37:3:63:A:N7	2.70	0.40
42:L5:208:MET:CE	42:L5:233:ALA:H	2.34	0.40
16:C4:135:ARG:HG2	1:6:1007:C:H5''	297.53	0.40
36:5:3296:A:C5	36:5:3297:U:C5	3.09	0.40
43:L6:142:ASP:O	43:L6:145:LEU:HB2	3.45	0.40
19:C7:74:GLN:O	19:C7:78:ARG:HB2	2.77	0.40
36:1:3009:G:N7	87:1:3902:OHX:N5	2.69	0.40
14:C2:84:ASN:OD1	14:C2:85:LYS:N	2.42	0.40
36:5:413:U:H2'	36:5:414:U:O4'	2.21	0.40
73:O7:27:PHE:CE1	73:O7:33:THR:HA	2.72	0.40
36:5:3147:G:O5'	36:5:3147:G:H8	2.03	0.40
17:C5:77:ARG:HA	17:C5:95:GLY:CA	2.64	0.40
36:1:1346:G:C2	36:1:1359:C:C2	3.09	0.40
36:5:1881:A:C6	36:5:2352:A:N6	2.89	0.40
1:2:131:C:HO2'	1:2:132:U:P	2.43	0.40
36:5:574:U:H2'	36:5:575:G:C8	2.55	0.40
36:1:2228:A:H2'	36:1:2229:A:H8	1.87	0.40
11:S9:43:TYR:C	11:S9:45:ILE:H	3.20	0.40
52:M6:174:PHE:C	52:M6:176:LYS:N	2.80	0.40
36:5:768:C:N4	36:5:769:G:C6	2.89	0.40
1:6:797:G:H2'	1:6:798:C:O4'	2.22	0.40
36:5:572:A:C8	36:5:573:C:C5	3.09	0.40
14:C2:81:ASP:HA	14:C2:82:PRO:HD2	2.48	0.40
1:6:968:U:O3'	1:6:1032:G:N2	2.55	0.40
1:2:680:U:C4	1:2:681:U:C4	3.09	0.40
1:2:682:C:H2'	1:2:683:C:O4'	2.20	0.40
47:M0:6:ALA:HB3	36:5:2855:U:OP2	284.94	0.40
49:M3:185:LYS:O	49:M3:189:GLU:HB2	2.56	0.40
36:5:544:C:H2'	36:5:546:C:C5	2.57	0.40
36:5:2639:G:C4	36:5:2640:A:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1342:C:H2'	1:2:1343:U:H6	1.86	0.40
1:2:551:G:N7	1:2:582:U:C2	2.89	0.40
36:1:1909:A:O2'	36:1:1910:A:H5'	2.22	0.40
48:M1:145:LYS:HB2	48:M1:145:LYS:HE2	1.77	0.40
36:1:1832:C:OP1	61:N5:120:LYS:HE2	2.21	0.40
70:O4:15:THR:HG22	36:5:826:G:O2'	158.44	0.40
34:SR:201:THR:HG21	34:SR:242:SER:HA	2.81	0.40
36:1:2849:C:C5	36:1:2850:G:N7	2.89	0.40
36:1:2732:G:C6	36:1:2733:A:C4	3.09	0.40
9:S7:8:ILE:HG12	9:S7:42:GLN:HA	2.03	0.40
25:D3:74:VAL:O	25:D3:82:LYS:HA	2.22	0.40
36:1:2741:C:HO2'	78:Q2:20:HIS:CG	2.32	0.40
36:5:3197:G:H3'	36:5:3197:G:C8	2.57	0.40
46:L9:87:LYS:HE3	46:L9:187:ILE:HA	4.08	0.40
36:1:45:A:OP2	51:M5:85:THR:OG1	2.33	0.40
78:Q2:46:LYS:O	78:Q2:48:SER:N	3.33	0.40
36:5:2356:A:H2'	36:5:2356:A:N3	2.37	0.40
53:M7:24:VAL:O	53:M7:143:PRO:HA	2.21	0.40
1:6:25:C:H1'	1:6:26:A:OP2	2.22	0.40
11:S9:64:GLU:HA	11:S9:69:ARG:CD	2.83	0.40
11:S9:59:LEU:HD13	11:S9:69:ARG:HA	4.36	0.40
47:M0:34:TYR:O	47:M0:88:ARG:HA	2.53	0.40
36:1:1363:A:OP2	87:1:4044:OHX:N6	2.55	0.40
44:L7:103:LEU:HG	44:L7:130:ILE:HD11	5.37	0.40
36:1:115:A:HO2'	36:1:116:A:P	2.41	0.40
36:1:115:A:N6	36:1:154:U:C4	2.90	0.40
45:L8:68:ARG:NE	45:L8:237:ILE:O	3.14	0.40
1:6:334:G:O2'	1:6:335:U:H5'	2.21	0.40
10:S8:157:GLU:O	10:S8:159:GLN:N	3.30	0.40
41:L4:25:VAL:O	41:L4:28:ALA:N	2.42	0.40
54:M8:24:VAL:O	54:M8:27:LYS:HB2	2.22	0.40
43:L6:82:ARG:HA	43:L6:82:ARG:HD3	1.73	0.40
1:6:1394:G:N1	1:6:1405:G:C5	2.89	0.40
1:2:1477:G:C2	1:2:1531:G:C2	3.09	0.40
7:S5:131:GLN:O	7:S5:134:VAL:HB	2.21	0.40
7:S5:207:THR:O	7:S5:212:LYS:NZ	2.51	0.40
46:L9:92:TYR:OH	46:L9:101:VAL:HB	2.21	0.40
42:L5:239:ILE:O	42:L5:243:ALA:HB2	2.89	0.40
42:L5:83:LEU:HB3	42:L5:88:ILE:HG13	4.63	0.40
1:2:1553:G:C5	17:C5:47:ARG:NH2	2.89	0.40
22:D0:75:GLY:O	22:D0:76:SER:C	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:165:GLN:CG	48:M1:166:LYS:H	2.33	0.40
1:2:950:C:N3	1:2:951:A:C5	2.90	0.40
71:O5:104:GLN:NE2	36:5:112:U:H5''	66.73	0.40
1:2:310:C:C4	1:2:311:U:C5	3.10	0.40
1:2:310:C:N3	1:2:357:G:C2	2.89	0.40
8:S6:124:LEU:HA	8:S6:124:LEU:HD12	1.90	0.40
57:N1:32:LYS:NZ	57:N1:97:LYS:HA	2.37	0.40
47:M0:15:LYS:O	47:M0:16:PRO:C	2.93	0.40
1:2:918:U:N3	1:2:919:A:N7	2.69	0.40
16:C4:67:VAL:O	16:C4:70:LYS:N	2.62	0.40
16:C4:95:GLY:HA2	16:C4:96:PRO:HD3	1.89	0.40
2:S0:179:ARG:HG2	2:S0:183:ARG:HD2	2.79	0.40
4:S2:56:ILE:H	4:S2:56:ILE:HG13	1.78	0.40
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.36	0.40
48:M1:152:HIS:CE1	37:7:55:A:N3	326.34	0.40
4:S2:152:HIS:HD1	4:S2:174:ARG:HA	1.85	0.40
36:1:1949:G:N2	36:1:1950:U:O2	2.55	0.40
66:O0:39:SER:O	66:O0:40:LYS:HD2	2.21	0.40
66:O0:41:LEU:O	66:O0:91:SER:HA	3.42	0.40
38:4:67:U:O2'	38:4:68:G:H5'	2.22	0.40
79:Q3:30:GLU:O	79:Q3:33:GLN:HG2	2.22	0.40
17:C5:99:GLY:O	1:6:1211:A:H1'	374.73	0.40
1:6:74:U:O5'	1:6:74:U:H6	2.04	0.40
56:N0:80:ARG:HG2	56:N0:81:TYR:N	3.74	0.40
57:N1:136:ARG:HD2	57:N1:139:ARG:HH22	1.86	0.40
57:N1:15:PHE:HA	57:N1:15:PHE:HD2	1.71	0.40
40:L3:296:THR:O	40:L3:300:ARG:N	2.51	0.40
40:L3:361:THR:HG23	40:L3:361:THR:O	2.92	0.40
40:L3:73:VAL:HG13	59:N3:89:ASP:C	2.42	0.40
43:L6:158:TYR:HB2	50:M4:115:PHE:CE2	3.05	0.40
50:M4:118:PHE:O	50:M4:122:VAL:HG23	2.54	0.40
69:O3:35:VAL:HG12	69:O3:35:VAL:O	3.25	0.40
69:O3:49:ILE:CG2	69:O3:85:PHE:CE1	3.85	0.40
9:S7:131:PHE:C	9:S7:133:THR:H	2.24	0.40
9:S7:46:ILE:HD13	9:S7:60:ILE:HG12	2.86	0.40
34:SR:296:ALA:C	34:SR:298:GLY:H	2.78	0.40
37:7:97:A:H2'	37:7:98:C:H6	1.86	0.40
62:N6:57:LEU:HD22	62:N6:58:VAL:N	2.36	0.40
36:1:366:A:C5'	41:L4:95:ARG:HH22	2.34	0.40
1:6:150:U:H2'	1:6:151:G:O4'	2.21	0.40
52:M6:114:LYS:HA	36:5:3180:A:C4	274.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3163:A:C6	36:5:3288:G:O6	2.74	0.40
1:6:1764:C:H5	1:6:1767:G:O2'	2.03	0.40
36:1:2916:U:O2'	36:1:2917:G:H5'	2.22	0.40
36:1:2383:C:H2'	36:1:2384:A:H5'	2.03	0.40
51:M5:154:PRO:O	51:M5:157:LYS:HD2	4.56	0.40
26:D4:35:VAL:HG13	26:D4:36:SER:N	2.36	0.40
26:D4:37:LYS:O	26:D4:41:ARG:N	3.18	0.40
26:D4:59:GLY:O	26:D4:60:PHE:CB	2.70	0.40
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	4.06	0.40
71:O5:24:LEU:HB3	71:O5:51:ILE:HG12	2.67	0.40
1:6:1267:G:O2'	1:6:1268:G:H5'	2.22	0.40
36:5:2648:G:N2	36:5:2649:A:H1'	2.37	0.40
46:L9:173:ARG:HD3	46:L9:173:ARG:HH11	2.17	0.40
36:5:1698:C:C4	36:5:1699:A:N7	2.90	0.40
64:N8:74:ASN:CB	64:N8:76:ASP:H	2.30	0.40
36:5:3006:A:H2'	36:5:3007:U:O4'	2.22	0.40
4:S2:144:TRP:C	24:D2:98:GLN:HE22	3.56	0.40
13:C1:6:THR:HB	13:C1:9:SER:CB	2.49	0.40
22:D0:19:ILE:HA	22:D0:96:PRO:HB3	4.60	0.40
36:5:2815:G:H3'	36:5:2816:G:H5''	2.02	0.40
25:D3:139:LYS:HE3	25:D3:139:LYS:HB3	4.56	0.40
36:5:1674:G:H2'	36:5:1675:G:O4'	2.22	0.40
62:N6:60:ARG:NH2	36:5:190:U:C2	84.97	0.40
37:7:77:G:N2	37:7:102:A:OP2	2.36	0.40
1:2:190:C:O2'	1:2:191:C:H5'	2.21	0.40
39:L2:57:PRO:HB3	79:Q3:54:ILE:CG2	4.64	0.40
1:2:1231:U:OP1	1:2:1259:U:H1'	2.21	0.40
87:5:4184:OHX:N3	87:5:4186:OHX:N6	2.69	0.40
36:1:1326:A:H2'	36:1:1327:C:O4'	2.21	0.40
45:L8:244:ALA:O	45:L8:247:ASP:HB2	2.84	0.40
59:N3:119:GLY:O	59:N3:122:CYS:N	2.92	0.40
36:1:3206:C:H2'	50:M4:99:TRP:NE1	2.36	0.40
36:5:3189:G:C4	36:5:3190:C:C5	3.09	0.40
50:M4:107:GLU:O	50:M4:110:ALA:HB3	2.25	0.40
1:2:1219:A:N3	12:C0:51:SER:OG	2.54	0.40
36:1:120:G:C6	45:L8:128:LYS:HB2	2.56	0.40
1:6:1619:C:O2'	1:6:1620:C:H5'	2.20	0.40
65:N9:54:LEU:HA	65:N9:57:ALA:HB2	2.04	0.40
36:1:549:U:H2'	36:1:550:A:C8	2.57	0.40
36:1:1277:C:O2'	36:1:1278:A:C8	2.74	0.40
58:N2:35:LYS:HA	58:N2:38:ILE:HB	3.12	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:40:HIS:HA	58:N2:47:VAL:HG11	2.04	0.40
36:1:2856:G:H2'	36:1:2857:C:H6	1.87	0.40
1:6:268:C:O2'	1:6:269:G:H5'	2.21	0.40
32:E0:18:THR:HA	32:E0:19:PRO:HD2	2.32	0.40
36:1:1209:G:H5''	36:1:1210:U:OP2	2.21	0.40
1:2:1308:G:C2	1:2:1309:C:C2	3.09	0.40
74:O8:11:PHE:CD2	74:O8:54:LEU:HD22	2.57	0.40
1:6:228:G:C4	1:6:834:G:C6	3.09	0.40
36:5:2440:G:H22	36:5:2508:U:H1'	1.86	0.40
36:5:256:G:C5	36:5:257:U:C5	3.09	0.40
1:2:1618:C:O4'	1:2:1619:C:H5	2.04	0.40
36:1:3223:A:C5	36:1:3263:G:C6	3.10	0.40
1:2:1086:A:OP2	4:S2:161:LYS:NZ	2.46	0.40
36:1:1236:G:O2'	36:1:1237:G:O5'	2.26	0.40
36:1:3305:A:C4	36:1:3306:U:O2	2.74	0.40
36:5:3216:G:C5	36:5:3259:U:C4	3.10	0.40
36:1:3332:U:O5'	36:1:3332:U:H6	2.05	0.40
50:M4:39:ILE:HG12	56:N0:72:VAL:HG13	2.93	0.40
37:7:61:G:C4	37:7:62:U:C5	3.09	0.40
42:L5:276:LYS:HG3	42:L5:277:LEU:N	4.81	0.40
79:Q3:84:ARG:HD2	79:Q3:84:ARG:HA	1.80	0.40
36:1:726:G:H3'	36:1:742:G:H22	1.84	0.40
14:C2:46:ARG:O	14:C2:49:THR:OG1	2.58	0.40
74:O8:31:LEU:HA	74:O8:37:PRO:CA	2.50	0.40
36:1:27:C:H1'	36:1:328:U:H1'	2.04	0.40
36:1:1154:A:H5''	36:1:1155:C:C5	2.49	0.40
11:S9:34:PHE:CD2	11:S9:105:LEU:HD23	2.57	0.40
36:5:966:U:C2	36:5:967:A:C8	3.09	0.40
1:2:1562:G:H2'	1:2:1563:C:C6	2.57	0.40
57:N1:8:ARG:HD2	36:5:2756:C:O2'	243.29	0.40
36:5:2757:U:H5''	36:5:2758:A:OP2	2.22	0.40
36:5:2752:U:O2	87:5:4226:OHX:N3	2.55	0.40
1:2:1372:U:C4	1:2:1373:C:C5	3.09	0.40
1:2:121:U:H1'	6:S4:33:ALA:C	2.42	0.40
9:S7:78:THR:HA	9:S7:81:LEU:HB2	3.33	0.40
36:5:2761:G:C4	36:5:2795:U:C5	3.10	0.40
36:5:702:C:C2	36:5:703:G:C8	3.09	0.40
36:5:1229:G:C6	36:5:1230:G:C5	3.09	0.40
11:S9:177:ALA:O	11:S9:179:ARG:N	4.16	0.40
1:6:755:A:H2'	1:6:755:A:H8	1.69	0.40
36:1:3010:U:C3'	36:1:3010:U:C6	3.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1603:U:H2'	1:6:1604:U:C6	2.57	0.40
34:SR:151:VAL:HA	34:SR:173:GLY:HA2	2.04	0.40
1:6:799:A:H2'	1:6:800:U:O4'	2.22	0.40
36:1:3217:C:N3	53:M7:182:ILE:HG23	2.37	0.40
1:2:167:U:H4'	8:S6:134:GLY:O	2.21	0.40
8:S6:134:GLY:HA3	8:S6:158:ILE:HG13	4.88	0.40
2:S0:87:LEU:HA	2:S0:87:LEU:HD12	1.69	0.40
1:2:429:G:OP1	1:2:438:A:O2'	2.23	0.40
16:C4:111:ARG:HA	16:C4:111:ARG:HD2	1.76	0.40
1:2:1302:U:O2'	1:2:1303:U:H5'	2.20	0.40
29:D7:64:CYS:HB2	29:D7:71:ALA:HB1	2.02	0.40
8:S6:27:PHE:CE2	8:S6:41:VAL:HG22	4.03	0.40
1:2:623:A:OP1	87:2:2157:OHX:N2	2.55	0.40
36:5:39:A:H2'	36:5:42:C:N4	2.37	0.40
38:4:48:A:N1	38:4:51:G:C6	2.90	0.40
36:1:1704:A:C8	36:1:1739:U:O4	2.73	0.40
44:L7:197:GLN:OE1	44:L7:197:GLN:N	2.36	0.40
25:D3:32:ARG:HH11	25:D3:32:ARG:HD3	1.73	0.40
36:1:1698:C:H6	36:1:1698:C:O5'	2.05	0.40
36:5:720:A:H2'	36:5:720:A:N3	2.37	0.40
1:2:816:G:C2	1:2:817:A:C8	3.10	0.40
5:S3:220:PRO:HB2	5:S3:221:SER:H	1.64	0.40
36:1:2506:U:H2'	36:1:2507:C:C6	2.57	0.40

All (3) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1491:U:O2'	22:d0:12:GLN:OE1[1_454]	2.02	0.18
36:1:3154:C:N4	34:sR:77:GLY:O[2_656]	2.15	0.05
34:sR:160:GLU:OE2	87:1:4023:OHX:N4[2_646]	2.17	0.03

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	S0	204/251 (81%)	137 (67%)	42 (21%)	25 (12%)	0	8
2	s0	204/251 (81%)	139 (68%)	31 (15%)	34 (17%)	0	4
3	S1	212/254 (84%)	142 (67%)	42 (20%)	28 (13%)	0	6
3	s1	214/254 (84%)	155 (72%)	39 (18%)	20 (9%)	1	13
4	S2	215/253 (85%)	148 (69%)	47 (22%)	20 (9%)	1	13
4	s2	215/253 (85%)	156 (73%)	30 (14%)	29 (14%)	0	6
5	S3	221/239 (92%)	154 (70%)	48 (22%)	19 (9%)	1	14
5	s3	221/239 (92%)	147 (66%)	51 (23%)	23 (10%)	1	11
6	S4	258/260 (99%)	184 (71%)	44 (17%)	30 (12%)	0	9
6	s4	258/260 (99%)	175 (68%)	53 (20%)	30 (12%)	0	9
7	S5	204/224 (91%)	129 (63%)	46 (22%)	29 (14%)	0	5
7	s5	204/224 (91%)	124 (61%)	51 (25%)	29 (14%)	0	5
8	S6	224/236 (95%)	166 (74%)	37 (16%)	21 (9%)	1	12
8	s6	216/236 (92%)	165 (76%)	36 (17%)	15 (7%)	1	20
9	S7	182/189 (96%)	131 (72%)	35 (19%)	16 (9%)	1	14
9	s7	184/189 (97%)	126 (68%)	37 (20%)	21 (11%)	0	9
10	S8	184/200 (92%)	132 (72%)	32 (17%)	20 (11%)	0	9
10	s8	184/200 (92%)	144 (78%)	26 (14%)	14 (8%)	1	17
11	S9	183/196 (93%)	128 (70%)	36 (20%)	19 (10%)	1	11
11	s9	183/196 (93%)	122 (67%)	42 (23%)	19 (10%)	1	11
12	C0	94/105 (90%)	54 (57%)	21 (22%)	19 (20%)	0	2
12	c0	92/105 (88%)	56 (61%)	17 (18%)	19 (21%)	0	2
13	C1	153/155 (99%)	113 (74%)	22 (14%)	18 (12%)	0	8
13	c1	144/155 (93%)	108 (75%)	20 (14%)	16 (11%)	0	9
14	C2	122/142 (86%)	71 (58%)	22 (18%)	29 (24%)	0	1
14	c2	122/142 (86%)	65 (53%)	36 (30%)	21 (17%)	0	3
15	C3	148/150 (99%)	107 (72%)	29 (20%)	12 (8%)	1	15
15	c3	148/150 (99%)	95 (64%)	28 (19%)	25 (17%)	0	3
16	C4	125/136 (92%)	80 (64%)	25 (20%)	20 (16%)	0	4
16	c4	126/136 (93%)	90 (71%)	24 (19%)	12 (10%)	1	12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	C5	122/141 (86%)	78 (64%)	26 (21%)	18 (15%)	0	5
17	c5	133/141 (94%)	75 (56%)	29 (22%)	29 (22%)	0	1
18	C6	139/142 (98%)	105 (76%)	22 (16%)	12 (9%)	1	14
18	c6	140/142 (99%)	97 (69%)	24 (17%)	19 (14%)	0	6
19	C7	116/136 (85%)	76 (66%)	22 (19%)	18 (16%)	0	4
19	c7	113/136 (83%)	73 (65%)	29 (26%)	11 (10%)	1	12
20	C8	143/145 (99%)	107 (75%)	27 (19%)	9 (6%)	2	23
20	c8	143/145 (99%)	98 (68%)	27 (19%)	18 (13%)	0	7
21	C9	141/143 (99%)	99 (70%)	31 (22%)	11 (8%)	1	16
21	c9	141/143 (99%)	98 (70%)	36 (26%)	7 (5%)	3	29
22	D0	105/120 (88%)	74 (70%)	22 (21%)	9 (9%)	1	14
22	d0	108/120 (90%)	75 (69%)	15 (14%)	18 (17%)	0	4
23	D1	85/87 (98%)	53 (62%)	18 (21%)	14 (16%)	0	4
23	d1	85/87 (98%)	64 (75%)	14 (16%)	7 (8%)	1	15
24	D2	127/129 (98%)	91 (72%)	28 (22%)	8 (6%)	2	23
24	d2	127/129 (98%)	105 (83%)	17 (13%)	5 (4%)	4	36
25	D3	142/144 (99%)	87 (61%)	29 (20%)	26 (18%)	0	3
25	d3	142/144 (99%)	119 (84%)	16 (11%)	7 (5%)	3	29
26	D4	132/134 (98%)	98 (74%)	25 (19%)	9 (7%)	1	21
26	d4	132/134 (98%)	101 (76%)	17 (13%)	14 (11%)	0	10
27	D5	68/107 (64%)	43 (63%)	16 (24%)	9 (13%)	0	6
27	d5	67/107 (63%)	45 (67%)	14 (21%)	8 (12%)	0	8
28	D6	95/97 (98%)	53 (56%)	18 (19%)	24 (25%)	0	1
28	d6	95/97 (98%)	71 (75%)	16 (17%)	8 (8%)	1	15
29	D7	79/81 (98%)	58 (73%)	14 (18%)	7 (9%)	1	13
29	d7	79/81 (98%)	61 (77%)	11 (14%)	7 (9%)	1	13
30	D8	61/66 (92%)	45 (74%)	11 (18%)	5 (8%)	1	15
30	d8	61/66 (92%)	39 (64%)	14 (23%)	8 (13%)	0	7
31	D9	51/55 (93%)	32 (63%)	11 (22%)	8 (16%)	0	4
31	d9	51/55 (93%)	35 (69%)	8 (16%)	8 (16%)	0	4
32	E0	58/60 (97%)	34 (59%)	16 (28%)	8 (14%)	0	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	E1	69/76 (91%)	39 (56%)	13 (19%)	17 (25%)	0	1
34	SR	316/318 (99%)	237 (75%)	56 (18%)	23 (7%)	1	18
34	sR	316/318 (99%)	251 (79%)	46 (15%)	19 (6%)	2	24
35	SM	155/273 (57%)	90 (58%)	40 (26%)	25 (16%)	0	4
35	sM	98/273 (36%)	59 (60%)	20 (20%)	19 (19%)	0	2
39	L2	250/253 (99%)	197 (79%)	31 (12%)	22 (9%)	1	14
39	l2	250/253 (99%)	192 (77%)	42 (17%)	16 (6%)	2	23
40	L3	384/386 (100%)	290 (76%)	63 (16%)	31 (8%)	1	15
40	l3	384/386 (100%)	299 (78%)	53 (14%)	32 (8%)	1	15
41	L4	359/361 (99%)	260 (72%)	62 (17%)	37 (10%)	1	11
41	l4	359/361 (99%)	251 (70%)	68 (19%)	40 (11%)	0	9
42	L5	294/296 (99%)	200 (68%)	58 (20%)	36 (12%)	0	8
42	l5	292/296 (99%)	221 (76%)	44 (15%)	27 (9%)	1	13
43	L6	152/175 (87%)	123 (81%)	17 (11%)	12 (8%)	1	16
43	l6	153/175 (87%)	107 (70%)	27 (18%)	19 (12%)	0	8
44	L7	220/243 (90%)	154 (70%)	45 (20%)	21 (10%)	1	12
44	l7	221/243 (91%)	165 (75%)	34 (15%)	22 (10%)	1	11
45	L8	231/255 (91%)	137 (59%)	65 (28%)	29 (13%)	0	7
45	l8	229/255 (90%)	155 (68%)	52 (23%)	22 (10%)	1	12
46	L9	189/191 (99%)	137 (72%)	30 (16%)	22 (12%)	0	9
46	l9	189/191 (99%)	142 (75%)	27 (14%)	20 (11%)	0	10
47	M0	207/220 (94%)	148 (72%)	38 (18%)	21 (10%)	1	11
47	m0	209/220 (95%)	149 (71%)	41 (20%)	19 (9%)	1	13
48	M1	167/173 (96%)	116 (70%)	27 (16%)	24 (14%)	0	5
48	m1	167/173 (96%)	120 (72%)	27 (16%)	20 (12%)	0	8
49	M3	191/198 (96%)	134 (70%)	46 (24%)	11 (6%)	2	25
49	m3	192/198 (97%)	126 (66%)	37 (19%)	29 (15%)	0	5
50	M4	134/137 (98%)	97 (72%)	25 (19%)	12 (9%)	1	13
50	m4	135/137 (98%)	92 (68%)	35 (26%)	8 (6%)	2	24
51	M5	201/203 (99%)	151 (75%)	38 (19%)	12 (6%)	2	24
51	m5	201/203 (99%)	151 (75%)	35 (17%)	15 (8%)	1	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	M6	195/198 (98%)	146 (75%)	36 (18%)	13 (7%)	1	21
52	m6	195/198 (98%)	151 (77%)	26 (13%)	18 (9%)	1	13
53	M7	181/183 (99%)	128 (71%)	34 (19%)	19 (10%)	1	10
53	m7	153/183 (84%)	111 (72%)	29 (19%)	13 (8%)	1	14
54	M8	183/185 (99%)	132 (72%)	36 (20%)	15 (8%)	1	15
54	m8	183/185 (99%)	134 (73%)	36 (20%)	13 (7%)	1	19
55	M9	186/188 (99%)	136 (73%)	33 (18%)	17 (9%)	1	13
55	m9	186/188 (99%)	125 (67%)	40 (22%)	21 (11%)	0	9
56	N0	170/172 (99%)	139 (82%)	21 (12%)	10 (6%)	2	24
56	n0	170/172 (99%)	145 (85%)	16 (9%)	9 (5%)	2	27
57	N1	157/159 (99%)	115 (73%)	28 (18%)	14 (9%)	1	13
57	n1	157/159 (99%)	121 (77%)	27 (17%)	9 (6%)	2	25
58	N2	98/120 (82%)	65 (66%)	26 (26%)	7 (7%)	1	19
58	n2	96/120 (80%)	64 (67%)	24 (25%)	8 (8%)	1	15
59	N3	134/136 (98%)	109 (81%)	16 (12%)	9 (7%)	1	21
59	n3	134/136 (98%)	113 (84%)	12 (9%)	9 (7%)	1	21
60	N4	96/155 (62%)	63 (66%)	16 (17%)	17 (18%)	0	3
60	n4	133/155 (86%)	88 (66%)	25 (19%)	20 (15%)	0	5
61	N5	119/141 (84%)	81 (68%)	30 (25%)	8 (7%)	1	21
61	n5	118/141 (84%)	91 (77%)	17 (14%)	10 (8%)	1	14
62	N6	124/126 (98%)	94 (76%)	18 (14%)	12 (10%)	1	12
62	n6	124/126 (98%)	92 (74%)	17 (14%)	15 (12%)	0	8
63	N7	133/135 (98%)	98 (74%)	19 (14%)	16 (12%)	0	8
63	n7	133/135 (98%)	94 (71%)	26 (20%)	13 (10%)	1	12
64	N8	146/148 (99%)	100 (68%)	30 (20%)	16 (11%)	0	9
64	n8	146/148 (99%)	104 (71%)	28 (19%)	14 (10%)	1	12
65	N9	56/58 (97%)	40 (71%)	11 (20%)	5 (9%)	1	13
65	n9	56/58 (97%)	33 (59%)	14 (25%)	9 (16%)	0	4
66	O0	95/104 (91%)	82 (86%)	10 (10%)	3 (3%)	5	42
66	o0	98/104 (94%)	75 (76%)	18 (18%)	5 (5%)	2	28
67	O1	107/112 (96%)	86 (80%)	12 (11%)	9 (8%)	1	15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
67	o1	107/112 (96%)	73 (68%)	14 (13%)	20 (19%)	0	3
68	O2	125/129 (97%)	95 (76%)	20 (16%)	10 (8%)	1	16
68	o2	125/129 (97%)	89 (71%)	23 (18%)	13 (10%)	1	11
69	O3	104/106 (98%)	90 (86%)	7 (7%)	7 (7%)	1	21
69	o3	104/106 (98%)	82 (79%)	13 (12%)	9 (9%)	1	14
70	O4	110/119 (92%)	80 (73%)	19 (17%)	11 (10%)	1	11
70	o4	110/119 (92%)	75 (68%)	24 (22%)	11 (10%)	1	11
71	O5	117/119 (98%)	75 (64%)	28 (24%)	14 (12%)	0	8
71	o5	117/119 (98%)	80 (68%)	18 (15%)	19 (16%)	0	4
72	O6	97/99 (98%)	69 (71%)	16 (16%)	12 (12%)	0	8
72	o6	97/99 (98%)	67 (69%)	18 (19%)	12 (12%)	0	8
73	O7	85/87 (98%)	63 (74%)	16 (19%)	6 (7%)	1	19
73	o7	85/87 (98%)	60 (71%)	14 (16%)	11 (13%)	0	7
74	O8	75/77 (97%)	55 (73%)	12 (16%)	8 (11%)	0	10
74	o8	75/77 (97%)	53 (71%)	18 (24%)	4 (5%)	2	27
75	O9	48/50 (96%)	34 (71%)	10 (21%)	4 (8%)	1	15
75	o9	48/50 (96%)	36 (75%)	8 (17%)	4 (8%)	1	15
76	Q0	50/52 (96%)	32 (64%)	12 (24%)	6 (12%)	0	8
76	q0	50/52 (96%)	39 (78%)	6 (12%)	5 (10%)	1	11
77	Q1	23/25 (92%)	18 (78%)	3 (13%)	2 (9%)	1	14
77	q1	23/25 (92%)	16 (70%)	3 (13%)	4 (17%)	0	3
78	Q2	103/105 (98%)	75 (73%)	20 (19%)	8 (8%)	1	16
78	q2	103/105 (98%)	83 (81%)	14 (14%)	6 (6%)	2	25
79	Q3	89/91 (98%)	59 (66%)	16 (18%)	14 (16%)	0	4
79	q3	89/91 (98%)	71 (80%)	9 (10%)	9 (10%)	1	11
80	e0	60/62 (97%)	37 (62%)	14 (23%)	9 (15%)	0	5
81	e1	74/76 (97%)	28 (38%)	26 (35%)	20 (27%)	0	0
83	p0	139/311 (45%)	103 (74%)	27 (19%)	9 (6%)	1	22
All	All	22333/24141 (92%)	15914 (71%)	4073 (18%)	2346 (10%)	1	10

All (2346) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	30	GLN
2	S0	39	ASN
2	S0	95	ALA
2	S0	132	ALA
2	S0	140	ASN
2	S0	158	VAL
2	S0	190	ASP
2	S0	191	ARG
3	S1	49	ASN
3	S1	63	GLY
3	S1	82	ARG
3	S1	177	GLN
3	S1	179	SER
3	S1	206	PRO
3	S1	207	LEU
4	S2	121	VAL
4	S2	135	SER
4	S2	148	LEU
4	S2	163	GLY
4	S2	208	GLU
4	S2	236	PRO
5	S3	44	THR
5	S3	129	SER
5	S3	211	PRO
5	S3	216	PRO
5	S3	220	PRO
6	S4	104	ASP
6	S4	119	ALA
6	S4	142	HIS
6	S4	188	ASN
6	S4	245	LYS
7	S5	31	GLU
7	S5	37	GLN
7	S5	63	GLN
7	S5	78	ALA
7	S5	81	ARG
7	S5	98	MET
7	S5	101	GLY
7	S5	109	LYS
8	S6	10	ASN
8	S6	25	ARG
8	S6	138	ALA

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Mol	Chain	Res	Type
8	S6	154	ARG
8	S6	173	PRO
8	S6	174	LYS
9	S7	5	GLN
9	S7	64	VAL
9	S7	73	VAL
9	S7	116	ARG
9	S7	131	PHE
10	S8	22	ARG
10	S8	137	LYS
10	S8	199	LYS
11	S9	100	LYS
11	S9	134	ILE
11	S9	153	GLU
11	S9	156	ILE
11	S9	164	PHE
11	S9	168	ARG
12	C0	60	SER
12	C0	61	TRP
12	C0	81	ASN
12	C0	87	VAL
12	C0	88	PRO
13	C1	3	THR
13	C1	6	THR
13	C1	7	VAL
13	C1	29	LYS
13	C1	96	LYS
13	C1	144	ALA
13	C1	146	ALA
13	C1	149	ALA
13	C1	154	ALA
14	C2	87	PRO
14	C2	91	VAL
14	C2	113	ARG
14	C2	141	SER
15	C3	27	LYS
15	C3	28	LEU
15	C3	118	ILE
16	C4	18	ARG
16	C4	48	VAL
16	C4	50	ALA
16	C4	51	ASP

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Mol	Chain	Res	Type
16	C4	94	PRO
17	C5	11	VAL
17	C5	22	LEU
17	C5	29	SER
17	C5	125	PRO
17	C5	126	VAL
17	C5	127	ARG
18	C6	39	VAL
18	C6	41	PRO
18	C6	42	GLU
18	C6	113	ASP
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
19	C7	124	VAL
20	C8	14	ILE
20	C8	92	ILE
20	C8	144	ARG
21	C9	39	THR
21	C9	41	SER
21	C9	69	LYS
22	D0	16	GLN
22	D0	17	GLN
22	D0	117	VAL
22	D0	118	VAL
23	D1	2	GLU
23	D1	4	ASP
23	D1	10	GLU
23	D1	28	ASP
24	D2	29	PRO
24	D2	30	SER
24	D2	83	ILE
25	D3	3	LYS
25	D3	5	LYS
25	D3	36	THR
25	D3	78	LYS
25	D3	99	ASN
25	D3	137	LYS
25	D3	138	GLU
25	D3	144	ARG
26	D4	33	ALA
26	D4	35	VAL

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Mol	Chain	Res	Type
26	D4	104	SER
27	D5	43	ASP
27	D5	44	GLN
27	D5	71	ILE
27	D5	97	LYS
28	D6	5	ARG
28	D6	45	VAL
28	D6	47	ALA
28	D6	84	VAL
28	D6	86	VAL
29	D7	18	LYS
29	D7	38	PRO
29	D7	63	LEU
31	D9	11	PRO
31	D9	25	SER
31	D9	26	SER
31	D9	27	HIS
31	D9	34	TYR
33	E1	84	VAL
33	E1	106	TYR
33	E1	107	LYS
33	E1	110	ALA
33	E1	111	GLU
33	E1	137	ASP
34	SR	51	ASP
34	SR	80	ALA
34	SR	94	VAL
34	SR	162	ALA
35	SM	52	PRO
35	SM	54	PRO
35	SM	64	LYS
35	SM	65	THR
35	SM	69	ARG
35	SM	90	ALA
35	SM	91	THR
35	SM	116	GLU
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
35	SM	173	GLU
39	L2	17	THR
39	L2	20	THR

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Mol	Chain	Res	Type
39	L2	144	ASN
39	L2	229	ALA
40	L3	83	PRO
40	L3	96	PRO
40	L3	140	ASP
40	L3	188	ILE
40	L3	240	ARG
40	L3	289	ASP
40	L3	308	MET
40	L3	310	GLY
40	L3	333	LYS
41	L4	4	PRO
41	L4	24	ALA
41	L4	61	SER
41	L4	72	ALA
41	L4	130	ALA
41	L4	132	ALA
41	L4	184	SER
41	L4	190	GLY
41	L4	197	ARG
41	L4	220	ARG
41	L4	349	THR
41	L4	361	HIS
42	L5	19	PRO
42	L5	37	VAL
42	L5	57	ASN
42	L5	85	ARG
42	L5	125	VAL
42	L5	178	ASN
42	L5	234	ASP
42	L5	236	LEU
42	L5	260	PHE
42	L5	263	GLU
43	L6	93	VAL
43	L6	98	VAL
43	L6	100	LYS
43	L6	107	ALA
44	L7	24	GLU
44	L7	25	GLN
44	L7	38	LYS
44	L7	112	ASN
44	L7	129	LEU

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Mol	Chain	Res	Type
44	L7	171	ALA
44	L7	175	LYS
44	L7	217	PRO
45	L8	31	PRO
45	L8	36	ILE
45	L8	37	GLY
45	L8	40	VAL
45	L8	64	ILE
45	L8	92	LYS
45	L8	121	SER
46	L9	48	VAL
46	L9	49	ASN
46	L9	50	ASN
46	L9	110	LYS
46	L9	162	GLN
46	L9	189	GLU
47	M0	16	PRO
47	M0	38	LYS
47	M0	145	LYS
47	M0	207	GLU
48	M1	8	PRO
48	M1	11	ASP
48	M1	12	LEU
48	M1	24	GLY
48	M1	94	ARG
48	M1	95	ASN
48	M1	112	LEU
49	M3	50	PRO
49	M3	164	GLU
50	M4	8	LYS
50	M4	62	GLN
50	M4	99	TRP
50	M4	134	ALA
50	M4	135	LEU
50	M4	136	ALA
51	M5	81	TYR
51	M5	158	HIS
51	M5	166	ALA
52	M6	85	ARG
52	M6	111	PRO
52	M6	149	TYR
52	M6	182	ASN

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Mol	Chain	Res	Type
53	M7	9	THR
53	M7	37	ASN
53	M7	158	ALA
53	M7	163	LYS
53	M7	177	ALA
54	M8	41	ASP
54	M8	99	THR
54	M8	116	LYS
54	M8	151	ARG
54	M8	152	HIS
55	M9	15	VAL
55	M9	35	ALA
55	M9	66	HIS
55	M9	121	HIS
56	N0	59	VAL
57	N1	55	LYS
57	N1	101	CYS
57	N1	119	ALA
57	N1	120	LYS
57	N1	122	GLN
57	N1	133	ALA
57	N1	138	SER
58	N2	11	ILE
58	N2	51	GLY
58	N2	91	ASP
59	N3	9	THR
59	N3	10	LYS
59	N3	66	LYS
59	N3	67	PRO
59	N3	82	ALA
60	N4	25	ASP
60	N4	35	LYS
60	N4	77	LYS
60	N4	81	PRO
60	N4	86	SER
61	N5	36	LYS
61	N5	62	VAL
62	N6	31	LEU
62	N6	37	LYS
62	N6	91	ASN
62	N6	92	GLY
63	N7	18	TYR

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Mol	Chain	Res	Type
63	N7	35	SER
63	N7	59	ALA
63	N7	98	THR
63	N7	105	SER
63	N7	128	GLN
64	N8	15	VAL
64	N8	30	GLY
64	N8	79	TRP
64	N8	93	SER
64	N8	117	ARG
65	N9	5	LYS
65	N9	24	PRO
67	O1	6	ASP
67	O1	7	VAL
67	O1	46	THR
68	O2	41	VAL
68	O2	62	LYS
69	O3	33	GLU
69	O3	90	PRO
69	O3	94	PHE
70	O4	46	ASP
70	O4	108	GLN
70	O4	109	THR
71	O5	30	GLU
71	O5	31	LEU
71	O5	86	ARG
71	O5	96	GLU
71	O5	97	ALA
71	O5	119	LYS
72	O6	11	LEU
72	O6	21	THR
72	O6	27	SER
72	O6	89	GLU
73	O7	32	LYS
73	O7	51	ALA
74	O8	33	LYS
75	O9	4	GLN
75	O9	10	LYS
75	O9	27	ILE
76	Q0	78	ILE
76	Q0	117	HIS
77	Q1	23	ARG

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Mol	Chain	Res	Type
78	Q2	15	LYS
78	Q2	17	CYS
78	Q2	60	LYS
78	Q2	100	LYS
79	Q3	21	SER
79	Q3	53	GLY
79	Q3	60	CYS
79	Q3	61	LYS
2	s0	4	PRO
2	s0	95	ALA
2	s0	97	PRO
2	s0	111	ILE
2	s0	114	SER
2	s0	152	PRO
2	s0	155	PHE
2	s0	158	VAL
2	s0	164	ASN
2	s0	177	LEU
2	s0	178	ALA
2	s0	189	VAL
2	s0	194	PRO
2	s0	206	ASP
3	s1	26	ARG
3	s1	81	PHE
3	s1	82	ARG
3	s1	93	GLY
3	s1	108	ASP
3	s1	147	ALA
3	s1	206	PRO
4	s2	106	ASP
4	s2	121	VAL
4	s2	148	LEU
4	s2	149	GLY
4	s2	164	SER
4	s2	228	ASN
4	s2	234	PRO
4	s2	236	PRO
5	s3	9	ARG
5	s3	30	ALA
5	s3	115	ILE
5	s3	142	LEU
5	s3	144	ALA

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Mol	Chain	Res	Type
5	s3	177	MET
5	s3	219	ALA
5	s3	220	PRO
5	s3	221	SER
6	s4	57	ASN
6	s4	80	THR
6	s4	142	HIS
6	s4	150	PRO
6	s4	163	ASP
6	s4	171	ASP
6	s4	177	ALA
6	s4	178	GLY
6	s4	196	VAL
7	s5	28	PRO
7	s5	33	VAL
7	s5	34	GLN
7	s5	36	ALA
7	s5	37	GLN
7	s5	41	LYS
7	s5	55	ASP
7	s5	100	ASN
7	s5	151	GLY
7	s5	155	ALA
7	s5	184	PHE
8	s6	58	LYS
8	s6	70	PRO
8	s6	122	GLU
8	s6	154	ARG
8	s6	156	PHE
8	s6	173	PRO
8	s6	174	LYS
9	s7	64	VAL
9	s7	74	GLN
9	s7	112	ARG
9	s7	113	PRO
9	s7	118	LEU
9	s7	131	PHE
9	s7	147	ASN
9	s7	149	ILE
9	s7	158	ASP
9	s7	165	LYS
10	s8	3	ILE

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Mol	Chain	Res	Type
10	s8	100	ALA
10	s8	101	ILE
10	s8	107	THR
10	s8	147	ALA
10	s8	148	ALA
11	s9	118	LEU
11	s9	167	ALA
11	s9	182	GLU
12	c0	24	LYS
12	c0	25	LYS
12	c0	35	ILE
12	c0	82	LEU
12	c0	83	PRO
12	c0	88	PRO
12	c0	92	ILE
12	c0	94	GLU
12	c0	97	PRO
13	c1	8	GLN
13	c1	75	VAL
13	c1	144	ALA
14	c2	22	VAL
14	c2	39	ASP
14	c2	66	VAL
14	c2	82	PRO
14	c2	101	ALA
14	c2	131	ASP
15	c3	12	SER
15	c3	19	SER
15	c3	60	VAL
15	c3	62	GLN
15	c3	66	ILE
15	c3	87	ASP
15	c3	106	ARG
15	c3	122	ILE
15	c3	139	TRP
15	c3	149	LEU
16	c4	39	ILE
16	c4	50	ALA
16	c4	126	THR
16	c4	132	ARG
17	c5	7	ALA
17	c5	18	ARG

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Mol	Chain	Res	Type
17	c5	26	LEU
17	c5	27	GLU
17	c5	41	VAL
17	c5	49	MET
17	c5	51	SER
17	c5	71	GLU
17	c5	75	PRO
17	c5	125	PRO
17	c5	126	VAL
17	c5	127	ARG
18	c6	39	VAL
18	c6	106	LYS
18	c6	110	THR
19	c7	63	LYS
19	c7	88	VAL
19	c7	99	VAL
19	c7	116	LYS
20	c8	9	GLY
20	c8	29	VAL
20	c8	46	VAL
20	c8	91	ASP
20	c8	128	PHE
20	c8	145	ARG
21	c9	11	ALA
21	c9	29	GLU
22	d0	15	GLN
22	d0	16	GLN
22	d0	17	GLN
22	d0	49	ASN
22	d0	51	VAL
22	d0	96	PRO
22	d0	97	VAL
22	d0	118	VAL
22	d0	119	ALA
22	d0	120	SER
23	d1	43	GLY
23	d1	66	ASP
23	d1	67	ASP
24	d2	68	ARG
24	d2	95	PRO
25	d3	131	SER
25	d3	138	GLU

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Mol	Chain	Res	Type
26	d4	4	ALA
26	d4	30	PRO
26	d4	33	ALA
26	d4	54	ALA
26	d4	68	LYS
26	d4	125	LEU
27	d5	38	HIS
27	d5	85	LYS
27	d5	87	GLY
27	d5	104	ALA
28	d6	28	LYS
28	d6	63	ALA
29	d7	4	VAL
29	d7	38	PRO
29	d7	57	GLU
29	d7	60	SER
30	d8	52	ASP
31	d9	6	VAL
31	d9	7	TRP
80	e0	48	THR
80	e0	49	LEU
80	e0	60	PRO
81	e1	83	LYS
81	e1	84	VAL
81	e1	87	THR
81	e1	100	LEU
81	e1	102	VAL
81	e1	103	LEU
81	e1	106	TYR
81	e1	124	PRO
81	e1	125	THR
81	e1	127	GLY
81	e1	148	TYR
34	sR	4	ASN
34	sR	75	ALA
34	sR	149	ASP
34	sR	160	GLU
34	sR	162	ALA
34	sR	165	ASP
34	sR	166	SER
34	sR	226	ALA
34	sR	285	ALA

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Mol	Chain	Res	Type
34	sR	318	ALA
35	sM	41	SER
35	sM	47	ALA
35	sM	48	ARG
35	sM	50	ASN
35	sM	64	LYS
35	sM	172	VAL
39	l2	24	GLN
39	l2	130	SER
39	l2	143	GLU
39	l2	212	GLY
39	l2	249	SER
40	l3	23	ALA
40	l3	129	ALA
40	l3	140	ASP
40	l3	142	ALA
40	l3	170	PRO
40	l3	188	ILE
40	l3	235	THR
40	l3	252	ILE
40	l3	263	SER
40	l3	302	LYS
41	l4	15	ALA
41	l4	17	ALA
41	l4	74	ILE
41	l4	132	ALA
41	l4	133	SER
41	l4	193	LYS
41	l4	301	PRO
41	l4	305	ALA
41	l4	349	THR
42	l5	57	ASN
42	l5	116	ASP
42	l5	178	ASN
42	l5	212	ALA
42	l5	216	GLU
42	l5	228	ALA
43	l6	8	LYS
43	l6	24	ALA
43	l6	26	ARG
43	l6	32	ALA
43	l6	81	ALA

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Mol	Chain	Res	Type
43	l6	98	VAL
43	l6	107	ALA
43	l6	129	GLU
43	l6	142	ASP
43	l6	171	PRO
44	l7	66	LYS
44	l7	67	ARG
44	l7	130	ILE
44	l7	168	ILE
44	l7	178	ILE
44	l7	180	SER
44	l7	193	PRO
45	l8	25	PRO
45	l8	26	LEU
45	l8	34	PHE
45	l8	122	LYS
45	l8	240	ASN
45	l8	241	LYS
46	l9	2	LYS
46	l9	77	ASN
46	l9	144	ILE
47	m0	16	PRO
47	m0	38	LYS
47	m0	77	THR
47	m0	78	THR
47	m0	79	VAL
47	m0	82	ARG
47	m0	91	VAL
47	m0	118	ALA
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	23	VAL
48	m1	115	LYS
48	m1	117	ASP
48	m1	173	ASP
49	m3	19	GLN
49	m3	47	ALA
49	m3	50	PRO
49	m3	133	PRO
49	m3	134	GLU
49	m3	141	ALA

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Mol	Chain	Res	Type
49	m3	150	PRO
49	m3	152	THR
49	m3	161	ASP
49	m3	186	ARG
50	m4	90	VAL
50	m4	136	ALA
51	m5	17	ASP
51	m5	77	LYS
51	m5	81	TYR
51	m5	183	THR
51	m5	187	ARG
52	m6	4	GLU
52	m6	63	ALA
52	m6	94	ARG
52	m6	122	GLN
52	m6	178	VAL
52	m6	196	ALA
53	m7	12	ALA
53	m7	34	GLN
53	m7	67	ILE
53	m7	109	ALA
54	m8	99	THR
54	m8	108	ALA
54	m8	112	ALA
54	m8	149	ALA
55	m9	7	GLN
55	m9	36	ASN
55	m9	47	ASN
55	m9	55	VAL
55	m9	117	LYS
55	m9	130	ASN
55	m9	182	ASP
55	m9	183	ALA
56	n0	98	SER
56	n0	142	GLN
57	n1	38	ASP
57	n1	55	LYS
57	n1	126	VAL
57	n1	127	GLN
57	n1	146	ASN
58	n2	50	LEU
59	n3	124	ASP

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Mol	Chain	Res	Type
60	n4	14	TYR
60	n4	16	GLY
60	n4	25	ASP
60	n4	57	LYS
60	n4	71	ARG
60	n4	77	LYS
60	n4	133	THR
60	n4	134	GLN
61	n5	44	PRO
61	n5	45	LYS
61	n5	46	TYR
62	n6	25	SER
62	n6	37	LYS
62	n6	62	SER
62	n6	71	SER
62	n6	83	ASP
62	n6	84	LYS
62	n6	96	PRO
62	n6	125	LYS
62	n6	126	LEU
63	n7	5	LEU
63	n7	36	HIS
63	n7	103	GLN
63	n7	130	PHE
64	n8	12	ARG
64	n8	76	ASP
64	n8	78	LEU
64	n8	79	TRP
65	n9	23	LYS
65	n9	39	PHE
65	n9	42	ASN
67	o1	5	LYS
67	o1	33	VAL
67	o1	45	GLY
67	o1	63	GLY
67	o1	84	ASP
67	o1	86	LYS
67	o1	99	ALA
68	o2	6	HIS
68	o2	27	ARG
68	o2	124	GLY
69	o3	40	ASP

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Mol	Chain	Res	Type
69	o3	60	ARG
69	o3	90	PRO
70	o4	32	ALA
70	o4	35	VAL
71	o5	6	ALA
71	o5	39	PRO
71	o5	43	LYS
71	o5	83	LYS
71	o5	87	ALA
71	o5	99	GLN
71	o5	119	LYS
72	o6	13	LYS
72	o6	64	SER
72	o6	91	ASN
72	o6	98	ARG
73	o7	12	HIS
73	o7	67	LEU
73	o7	86	ALA
75	o9	30	ARG
75	o9	35	ILE
76	q0	78	ILE
76	q0	80	PRO
76	q0	81	SER
76	q0	120	GLN
77	q1	14	LYS
78	q2	73	GLU
79	q3	10	ILE
79	q3	20	SER
79	q3	21	SER
79	q3	45	LYS
79	q3	51	ALA
83	p0	206	ASP
2	S0	26	ALA
2	S0	36	TYR
2	S0	37	VAL
2	S0	130	ALA
3	S1	21	VAL
3	S1	54	LEU
3	S1	158	SER
3	S1	213	ARG
3	S1	224	ASP
4	S2	75	GLY

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Mol	Chain	Res	Type
4	S2	182	PRO
4	S2	200	SER
4	S2	207	LEU
5	S3	31	GLU
5	S3	61	GLU
5	S3	78	LYS
5	S3	130	GLY
5	S3	217	ILE
6	S4	12	LEU
6	S4	66	MET
6	S4	87	MET
6	S4	95	THR
6	S4	178	GLY
6	S4	231	GLN
6	S4	260	GLY
7	S5	39	GLU
7	S5	43	PHE
7	S5	45	LYS
7	S5	127	GLN
8	S6	44	GLU
8	S6	148	SER
8	S6	149	LYS
9	S7	32	PRO
9	S7	98	ILE
9	S7	111	LYS
9	S7	118	LEU
9	S7	133	THR
9	S7	167	GLU
10	S8	10	LYS
10	S8	41	LYS
10	S8	152	ILE
11	S9	67	PRO
11	S9	122	VAL
11	S9	150	LEU
11	S9	162	SER
11	S9	163	PRO
11	S9	169	PRO
12	C0	25	LYS
12	C0	31	LYS
12	C0	33	GLU
12	C0	64	TYR
12	C0	84	GLU

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Mol	Chain	Res	Type
13	C1	55	ASP
13	C1	88	ARG
13	C1	95	PRO
13	C1	145	ALA
13	C1	147	ALA
14	C2	67	THR
14	C2	126	TRP
14	C2	127	GLY
14	C2	131	ASP
14	C2	142	GLN
15	C3	68	GLY
15	C3	117	LEU
16	C4	35	GLY
16	C4	36	LYS
16	C4	47	LYS
16	C4	64	ALA
16	C4	75	GLY
16	C4	79	VAL
16	C4	123	SER
17	C5	52	LYS
17	C5	53	PRO
17	C5	69	GLU
18	C6	40	GLU
18	C6	59	LYS
18	C6	107	LYS
19	C7	6	THR
19	C7	23	LYS
19	C7	113	LEU
19	C7	120	SER
20	C8	8	GLN
20	C8	70	VAL
20	C8	119	ILE
20	C8	120	ARG
21	C9	40	SER
21	C9	119	LYS
25	D3	79	ASN
25	D3	131	SER
26	D4	5	VAL
26	D4	11	LYS
27	D5	37	GLN
27	D5	88	ILE
28	D6	32	LYS

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Mol	Chain	Res	Type
28	D6	53	LEU
28	D6	61	GLU
28	D6	62	TYR
28	D6	65	PRO
28	D6	80	HIS
28	D6	85	ARG
28	D6	97	PRO
29	D7	51	GLN
30	D8	36	THR
31	D9	6	VAL
31	D9	8	PHE
32	E0	6	GLY
32	E0	13	LYS
32	E0	47	VAL
32	E0	52	GLY
33	E1	83	LYS
33	E1	98	VAL
33	E1	102	VAL
33	E1	118	ARG
34	SR	217	ASP
34	SR	237	GLN
35	SM	41	SER
35	SM	71	ASN
35	SM	87	THR
35	SM	89	ARG
35	SM	133	GLU
35	SM	139	GLU
39	L2	7	ASN
39	L2	13	GLY
39	L2	133	TYR
39	L2	146	THR
39	L2	175	VAL
39	L2	220	GLY
40	L3	139	GLN
40	L3	142	ALA
40	L3	245	GLY
40	L3	348	ARG
40	L3	351	LEU
40	L3	378	ALA
40	L3	385	LYS
40	L3	386	ASP
41	L4	14	GLU

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Mol	Chain	Res	Type
41	L4	26	PHE
41	L4	82	THR
41	L4	174	ALA
41	L4	291	ASN
41	L4	295	ILE
41	L4	311	HIS
41	L4	317	PRO
42	L5	7	ALA
42	L5	59	ASP
42	L5	115	LEU
42	L5	126	GLU
42	L5	177	GLU
42	L5	221	GLU
42	L5	231	ILE
42	L5	256	THR
42	L5	258	LYS
43	L6	59	GLU
43	L6	61	ASN
43	L6	90	LYS
44	L7	91	GLY
44	L7	122	ALA
44	L7	185	ILE
44	L7	193	PRO
44	L7	241	LYS
45	L8	78	PHE
45	L8	103	ALA
45	L8	182	GLY
45	L8	209	ALA
45	L8	240	ASN
46	L9	39	LYS
46	L9	66	ALA
46	L9	67	ALA
46	L9	161	LEU
46	L9	169	ASN
47	M0	41	ALA
47	M0	84	ALA
47	M0	117	GLY
47	M0	149	VAL
47	M0	155	ALA
47	M0	208	ASN
48	M1	115	LYS
48	M1	138	VAL

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Mol	Chain	Res	Type
48	M1	139	THR
48	M1	140	ARG
48	M1	167	TYR
48	M1	171	VAL
49	M3	47	ALA
49	M3	193	ALA
51	M5	94	TYR
52	M6	191	ALA
52	M6	195	ALA
53	M7	36	ILE
53	M7	54	HIS
53	M7	157	VAL
53	M7	161	ALA
53	M7	164	LYS
53	M7	178	ALA
54	M8	44	PHE
54	M8	46	LYS
54	M8	91	ALA
54	M8	183	GLY
55	M9	14	VAL
55	M9	20	ARG
55	M9	65	ALA
55	M9	67	ALA
56	N0	139	TYR
57	N1	16	GLN
57	N1	18	ASP
57	N1	81	GLY
57	N1	124	VAL
58	N2	27	VAL
58	N2	52	ASN
59	N3	6	ALA
60	N4	16	GLY
60	N4	36	SER
60	N4	46	PRO
60	N4	62	GLY
60	N4	76	VAL
62	N6	45	ILE
62	N6	90	VAL
62	N6	101	PRO
63	N7	3	LYS
63	N7	28	PRO
63	N7	55	LYS

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Mol	Chain	Res	Type
64	N8	4	ARG
64	N8	27	LYS
64	N8	29	PRO
64	N8	81	LEU
64	N8	84	GLU
66	O0	71	GLN
67	O1	5	LYS
67	O1	31	ARG
67	O1	47	ASP
67	O1	61	LYS
68	O2	13	HIS
68	O2	27	ARG
70	O4	33	GLN
70	O4	98	GLN
71	O5	8	GLU
71	O5	43	LYS
71	O5	75	TYR
71	O5	82	ALA
71	O5	95	PHE
72	O6	94	ILE
73	O7	77	GLY
73	O7	85	LYS
73	O7	86	ALA
74	O8	37	PRO
74	O8	74	LYS
76	Q0	120	GLN
77	Q1	3	ALA
78	Q2	32	LYS
78	Q2	34	SER
79	Q3	74	ALA
79	Q3	85	ARG
79	Q3	89	MET
2	s0	9	LEU
2	s0	31	VAL
2	s0	65	ALA
2	s0	115	PHE
2	s0	130	ALA
2	s0	185	ARG
2	s0	196	SER
3	s1	21	VAL
3	s1	107	THR
3	s1	191	GLU

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Mol	Chain	Res	Type
3	s1	218	LEU
3	s1	224	ASP
4	s2	91	ARG
4	s2	92	ALA
4	s2	163	GLY
4	s2	192	GLY
4	s2	204	THR
4	s2	233	GLN
5	s3	161	GLY
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
6	s4	12	LEU
6	s4	31	PRO
6	s4	168	LYS
6	s4	195	ILE
6	s4	248	ILE
6	s4	259	GLN
7	s5	43	PHE
7	s5	75	GLY
7	s5	204	GLY
7	s5	224	ASN
8	s6	68	LEU
8	s6	153	VAL
8	s6	157	VAL
8	s6	195	VAL
9	s7	9	LEU
9	s7	25	VAL
9	s7	35	LYS
9	s7	54	GLY
9	s7	145	GLY
9	s7	160	GLN
10	s8	88	ASN
10	s8	153	GLU
10	s8	174	GLY
11	s9	121	SER
11	s9	128	LEU
11	s9	158	PHE
12	c0	23	ALA
12	c0	30	ALA
12	c0	51	SER
12	c0	73	VAL

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Mol	Chain	Res	Type
13	c1	53	TYR
13	c1	61	THR
13	c1	82	ARG
13	c1	114	ALA
13	c1	119	VAL
13	c1	128	CYS
14	c2	45	LEU
14	c2	103	LEU
14	c2	113	ARG
14	c2	115	VAL
15	c3	18	TYR
15	c3	88	LEU
15	c3	89	TYR
15	c3	137	PRO
15	c3	138	ASN
15	c3	140	LYS
16	c4	32	ASP
16	c4	36	LYS
16	c4	124	ASP
17	c5	13	LYS
17	c5	29	SER
17	c5	38	PRO
17	c5	52	LYS
17	c5	69	GLU
17	c5	72	LYS
18	c6	37	THR
18	c6	42	GLU
18	c6	101	SER
18	c6	107	LYS
18	c6	113	ASP
18	c6	115	THR
18	c6	116	LEU
18	c6	142	TYR
19	c7	42	GLN
19	c7	67	ARG
20	c8	14	ILE
20	c8	115	ARG
20	c8	127	HIS
21	c9	86	ARG
22	d0	18	GLN
22	d0	35	GLU
22	d0	39	SER

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Mol	Chain	Res	Type
22	d0	43	LYS
22	d0	53	LYS
23	d1	4	ASP
25	d3	101	GLU
25	d3	119	GLY
25	d3	125	VAL
26	d4	53	ASP
26	d4	58	PHE
26	d4	67	GLY
28	d6	9	GLY
28	d6	58	VAL
28	d6	62	TYR
29	d7	3	LEU
29	d7	59	CYS
30	d8	32	PHE
31	d9	11	PRO
80	e0	47	VAL
81	e1	98	VAL
81	e1	128	ALA
81	e1	129	GLY
81	e1	136	LYS
81	e1	137	ASP
34	sR	163	ASP
34	sR	231	MET
34	sR	297	ASP
35	sM	63	ASP
35	sM	67	GLY
39	l2	14	SER
39	l2	15	ILE
39	l2	115	ASN
39	l2	182	ALA
39	l2	240	ALA
40	l3	3	HIS
40	l3	24	SER
40	l3	131	THR
40	l3	330	GLY
40	l3	385	LYS
41	l4	24	ALA
41	l4	25	VAL
41	l4	172	VAL
41	l4	259	ASP
41	l4	272	VAL

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Mol	Chain	Res	Type
41	14	311	HIS
41	14	327	LEU
41	14	329	PRO
42	15	29	ASP
42	15	72	ASP
42	15	123	GLU
42	15	125	VAL
42	15	249	ALA
42	15	294	ALA
43	16	31	ARG
43	16	94	GLU
43	16	141	VAL
44	17	28	ALA
44	17	91	GLY
44	17	207	LEU
44	17	223	PHE
45	18	79	GLN
45	18	121	SER
45	18	162	LEU
45	18	225	LYS
45	18	239	GLY
45	18	253	SER
46	19	5	GLN
46	19	40	HIS
46	19	76	ASP
46	19	151	VAL
46	19	190	ASP
47	m0	3	ARG
47	m0	25	ALA
47	m0	27	PRO
47	m0	113	GLN
47	m0	176	LEU
48	m1	39	GLN
48	m1	111	ASP
48	m1	145	LYS
48	m1	153	LYS
49	m3	76	THR
49	m3	157	ARG
50	m4	133	LYS
51	m5	23	GLN
51	m5	42	PRO
51	m5	57	GLN

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Mol	Chain	Res	Type
52	m6	16	VAL
52	m6	62	THR
52	m6	110	PRO
52	m6	113	ASP
52	m6	186	ALA
53	m7	23	ARG
53	m7	33	ALA
53	m7	54	HIS
53	m7	86	LYS
53	m7	89	LYS
54	m8	46	LYS
54	m8	84	VAL
54	m8	109	GLY
54	m8	180	ARG
54	m8	183	GLY
55	m9	6	THR
55	m9	94	VAL
55	m9	97	ARG
55	m9	120	TYR
56	n0	12	ARG
56	n0	45	LEU
56	n0	50	LYS
56	n0	145	THR
56	n0	168	PRO
58	n2	41	ILE
58	n2	51	GLY
59	n3	54	LEU
60	n4	64	THR
60	n4	72	SER
60	n4	76	VAL
61	n5	47	ALA
61	n5	55	ASN
61	n5	116	PRO
63	n7	7	ALA
63	n7	92	PHE
63	n7	105	SER
63	n7	134	LEU
64	n8	65	GLN
64	n8	70	LYS
64	n8	85	ASP
64	n8	109	TYR
65	n9	24	PRO

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Mol	Chain	Res	Type
65	n9	30	PRO
65	n9	41	ARG
66	o0	12	GLN
66	o0	19	LYS
66	o0	71	GLN
67	o1	7	VAL
67	o1	18	LYS
67	o1	34	LYS
67	o1	40	ALA
67	o1	60	TRP
68	o2	12	LYS
68	o2	41	VAL
68	o2	125	ARG
69	o3	26	ASN
70	o4	10	ARG
70	o4	33	GLN
70	o4	62	TYR
70	o4	79	SER
70	o4	83	ASN
71	o5	12	LYS
72	o6	28	TYR
72	o6	65	GLY
73	o7	32	LYS
73	o7	55	ARG
73	o7	73	ARG
74	o8	18	ALA
75	o9	3	ALA
76	q0	107	ALA
78	q2	78	LYS
79	q3	18	TYR
79	q3	77	ALA
83	p0	201	ILE
2	S0	66	ALA
2	S0	162	CYS
2	S0	195	TRP
2	S0	196	SER
3	S1	35	PRO
3	S1	64	ARG
3	S1	73	LEU
3	S1	79	HIS
3	S1	194	ASN
3	S1	199	ASN

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Mol	Chain	Res	Type
4	S2	41	LEU
4	S2	106	ASP
4	S2	145	GLY
5	S3	46	THR
5	S3	74	GLN
5	S3	81	PRO
5	S3	118	ALA
6	S4	3	ARG
6	S4	24	SER
6	S4	26	CYS
6	S4	195	ILE
6	S4	200	ARG
6	S4	242	LYS
6	S4	250	GLU
7	S5	25	LEU
7	S5	58	LEU
7	S5	64	VAL
7	S5	108	LEU
8	S6	58	LYS
8	S6	196	ARG
9	S7	103	SER
9	S7	166	LEU
10	S8	12	SER
10	S8	58	LEU
10	S8	106	ALA
10	S8	120	THR
10	S8	154	SER
11	S9	91	LYS
11	S9	149	ARG
11	S9	167	ALA
12	C0	36	ASP
13	C1	30	ARG
14	C2	54	ARG
14	C2	55	GLY
14	C2	68	GLU
14	C2	84	ASN
14	C2	125	ASN
15	C3	95	ALA
15	C3	128	TYR
16	C4	40	ALA
17	C5	23	GLU
17	C5	51	SER

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Mol	Chain	Res	Type
17	C5	54	ALA
18	C6	74	HIS
18	C6	115	THR
18	C6	120	ASP
19	C7	12	ALA
19	C7	24	LEU
19	C7	84	TYR
20	C8	61	LEU
21	C9	28	LEU
22	D0	21	LYS
22	D0	120	SER
23	D1	7	GLN
23	D1	15	ARG
23	D1	16	LYS
23	D1	44	ARG
23	D1	81	ASN
24	D2	66	ASN
24	D2	67	GLY
24	D2	96	ALA
25	D3	16	ARG
25	D3	40	SER
25	D3	41	SER
25	D3	67	ALA
25	D3	70	LYS
25	D3	128	SER
26	D4	16	PRO
26	D4	34	ASN
28	D6	11	ASN
28	D6	36	ILE
28	D6	52	ASP
28	D6	64	LEU
28	D6	94	ASN
29	D7	70	LYS
30	D8	34	GLU
31	D9	5	ASN
32	E0	16	SER
32	E0	33	ARG
33	E1	85	TYR
33	E1	87	THR
33	E1	99	LYS
33	E1	100	LEU
34	SR	48	THR

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Mol	Chain	Res	Type
34	SR	79	TYR
34	SR	111	MET
34	SR	117	LYS
34	SR	128	ASP
34	SR	194	GLY
35	SM	17	VAL
35	SM	88	ARG
39	L2	34	TYR
39	L2	47	GLN
39	L2	227	ARG
39	L2	246	LEU
39	L2	251	LYS
40	L3	69	LYS
40	L3	127	LYS
40	L3	138	ALA
40	L3	155	ALA
40	L3	244	ARG
40	L3	246	LEU
41	L4	5	GLN
41	L4	175	HIS
41	L4	185	LYS
41	L4	189	ALA
41	L4	215	ILE
41	L4	292	SER
41	L4	339	LEU
42	L5	6	ASP
42	L5	78	ALA
42	L5	108	ARG
42	L5	110	LEU
42	L5	162	ALA
42	L5	255	PRO
43	L6	36	PRO
43	L6	154	LEU
44	L7	79	ALA
44	L7	148	VAL
44	L7	163	LEU
44	L7	210	PRO
45	L8	25	PRO
45	L8	79	GLN
45	L8	99	PRO
45	L8	168	ALA
45	L8	169	LEU

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Mol	Chain	Res	Type
45	L8	226	TYR
46	L9	2	LYS
47	M0	26	VAL
47	M0	27	PRO
47	M0	71	CYS
47	M0	122	PRO
47	M0	146	ASP
48	M1	39	GLN
48	M1	118	PRO
48	M1	165	GLN
48	M1	166	LYS
49	M3	30	GLY
49	M3	51	LEU
49	M3	136	GLU
50	M4	4	ASP
50	M4	9	ALA
50	M4	79	ALA
50	M4	125	LYS
51	M5	22	LEU
51	M5	171	SER
51	M5	181	ASN
52	M6	41	LEU
52	M6	63	ALA
52	M6	196	ALA
54	M8	51	ALA
55	M9	26	PRO
55	M9	53	LYS
56	N0	104	GLU
59	N3	68	GLU
59	N3	109	MET
60	N4	9	SER
60	N4	14	TYR
60	N4	70	LYS
60	N4	96	LEU
60	N4	97	LYS
61	N5	100	LYS
61	N5	108	LEU
61	N5	137	ASN
62	N6	44	GLY
63	N7	78	ASN
64	N8	83	PRO
64	N8	104	THR

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Mol	Chain	Res	Type
64	N8	116	GLY
66	O0	20	SER
66	O0	97	ASP
67	O1	83	GLU
68	O2	29	ALA
68	O2	80	LYS
69	O3	42	GLN
70	O4	47	CYS
70	O4	48	GLY
70	O4	67	LYS
72	O6	3	VAL
72	O6	18	THR
72	O6	28	TYR
73	O7	70	VAL
74	O8	48	SER
74	O8	63	LYS
78	Q2	62	ALA
79	Q3	40	SER
79	Q3	71	VAL
2	s0	68	PRO
2	s0	127	ARG
2	s0	179	ARG
3	s1	154	SER
3	s1	160	HIS
3	s1	192	VAL
4	s2	37	PRO
4	s2	146	THR
5	s3	145	ALA
5	s3	163	PRO
5	s3	195	SER
6	s4	90	ILE
6	s4	94	ALA
7	s5	26	ALA
7	s5	56	ALA
7	s5	67	PRO
7	s5	129	PRO
7	s5	209	TYR
8	s6	131	LYS
8	s6	208	TYR
9	s7	10	SER
10	s8	70	GLU
11	s9	67	PRO

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Mol	Chain	Res	Type
11	s9	110	GLN
11	s9	144	PRO
12	c0	31	LYS
12	c0	93	GLN
12	c0	95	ARG
13	c1	130	PRO
13	c1	133	LYS
14	c2	90	LYS
14	c2	107	ASP
14	c2	108	ARG
14	c2	109	GLU
14	c2	125	ASN
15	c3	47	PRO
15	c3	57	ALA
17	c5	34	VAL
17	c5	54	ALA
17	c5	66	ALA
17	c5	98	ASN
17	c5	133	ALA
17	c5	135	THR
18	c6	3	ALA
18	c6	40	GLU
18	c6	141	SER
19	c7	68	GLY
19	c7	104	ASN
20	c8	3	LEU
20	c8	7	GLU
20	c8	60	GLU
20	c8	121	ALA
22	d0	72	ASN
23	d1	41	GLU
23	d1	44	ARG
24	d2	4	SER
24	d2	70	ASN
25	d3	137	LYS
26	d4	35	VAL
26	d4	52	LYS
27	d5	54	VAL
27	d5	57	TYR
27	d5	103	ARG
30	d8	6	PRO
30	d8	36	THR

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Mol	Chain	Res	Type
31	d9	25	SER
80	e0	15	LYS
80	e0	50	VAL
81	e1	91	ILE
81	e1	97	LYS
34	sR	17	ASN
35	sM	42	ALA
35	sM	68	ARG
39	l2	35	ALA
39	l2	180	LEU
40	l3	111	SER
40	l3	197	GLU
40	l3	200	GLU
40	l3	262	TRP
40	l3	386	ASP
41	l4	5	GLN
41	l4	16	THR
41	l4	18	ASN
41	l4	67	THR
41	l4	90	PHE
41	l4	146	PRO
41	l4	189	ALA
41	l4	215	ILE
41	l4	247	PHE
41	l4	252	GLU
41	l4	320	ASN
41	l4	326	ARG
41	l4	330	TYR
41	l4	331	ALA
41	l4	353	ALA
42	l5	9	SER
42	l5	132	THR
42	l5	227	LEU
42	l5	245	GLU
42	l5	280	GLU
43	l6	10	TYR
43	l6	84	VAL
44	l7	54	GLU
44	l7	124	LEU
44	l7	217	PRO
44	l7	228	SER
45	l8	163	VAL

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Mol	Chain	Res	Type
45	l8	203	VAL
45	l8	237	ILE
46	l9	117	PHE
46	l9	120	ASP
46	l9	137	SER
46	l9	152	GLU
47	m0	12	GLN
47	m0	18	PRO
48	m1	11	ASP
48	m1	26	SER
48	m1	82	ARG
48	m1	108	GLU
48	m1	138	VAL
49	m3	51	LEU
49	m3	130	GLY
49	m3	135	ALA
49	m3	162	ASN
49	m3	187	ALA
49	m3	193	ALA
50	m4	86	ALA
50	m4	87	ALA
51	m5	68	ARG
51	m5	201	ARG
52	m6	12	LYS
52	m6	100	GLU
52	m6	175	THR
52	m6	195	ALA
53	m7	37	ASN
53	m7	55	GLN
54	m8	61	PRO
55	m9	112	ALA
56	n0	133	ALA
57	n1	135	PRO
57	n1	143	THR
58	n2	52	ASN
58	n2	91	ASP
59	n3	46	LEU
59	n3	47	ASN
59	n3	94	TYR
60	n4	46	PRO
61	n5	48	SER
61	n5	117	ASN

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Mol	Chain	Res	Type
62	n6	24	SER
62	n6	102	SER
63	n7	28	PRO
64	n8	15	VAL
64	n8	29	PRO
64	n8	47	LYS
67	o1	47	ASP
67	o1	61	LYS
67	o1	82	GLU
67	o1	83	GLU
68	o2	26	HIS
68	o2	40	SER
68	o2	45	ARG
68	o2	66	LEU
68	o2	87	MET
70	o4	76	TYR
71	o5	88	LEU
71	o5	89	ARG
71	o5	101	THR
72	o6	29	LYS
72	o6	76	ARG
73	o7	58	THR
73	o7	87	SER
75	o9	45	ARG
78	q2	33	ALA
78	q2	76	LYS
78	q2	96	GLU
83	p0	93	LEU
2	S0	5	ALA
2	S0	80	THR
3	S1	26	ARG
3	S1	176	VAL
3	S1	209	ASN
4	S2	60	SER
4	S2	85	PRO
4	S2	91	ARG
5	S3	8	LYS
5	S3	99	VAL
5	S3	193	ALA
6	S4	83	PRO
6	S4	165	ALA
6	S4	179	LYS

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Mol	Chain	Res	Type
6	S4	259	GLN
7	S5	62	VAL
7	S5	74	ALA
7	S5	174	LEU
8	S6	11	GLY
8	S6	104	PRO
8	S6	152	ASP
8	S6	199	GLN
10	S8	151	LYS
10	S8	153	GLU
10	S8	155	SER
10	S8	186	GLY
11	S9	84	GLY
11	S9	118	LEU
12	C0	18	GLU
12	C0	26	ASP
12	C0	28	ASN
14	C2	101	ALA
14	C2	105	LYS
14	C2	106	ILE
14	C2	108	ARG
14	C2	111	ASN
14	C2	119	SER
15	C3	3	ARG
15	C3	22	ALA
15	C3	24	ALA
15	C3	32	SER
16	C4	90	ARG
16	C4	126	THR
17	C5	20	VAL
19	C7	13	SER
19	C7	14	LYS
19	C7	83	GLN
20	C8	83	ALA
21	C9	29	GLU
21	C9	130	ARG
22	D0	73	GLY
23	D1	49	GLU
23	D1	66	ASP
23	D1	82	VAL
25	D3	20	ARG
25	D3	92	CYS

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Mol	Chain	Res	Type
25	D3	109	ARG
25	D3	112	LYS
26	D4	51	GLU
28	D6	35	ALA
28	D6	54	SER
28	D6	58	VAL
30	D8	21	SER
30	D8	22	ARG
32	E0	54	ARG
34	SR	10	ARG
34	SR	63	GLY
34	SR	105	GLY
35	SM	100	THR
35	SM	153	ASP
39	L2	35	ALA
39	L2	174	ARG
39	L2	180	LEU
40	L3	8	ALA
40	L3	144	ILE
40	L3	241	LYS
41	L4	29	PRO
41	L4	90	PHE
41	L4	140	HIS
41	L4	306	THR
42	L5	11	ALA
42	L5	107	ARG
42	L5	119	TYR
42	L5	268	GLU
43	L6	30	LEU
44	L7	178	ILE
44	L7	205	PHE
44	L7	216	VAL
44	L7	239	LEU
45	L8	53	PRO
45	L8	76	ALA
45	L8	157	VAL
45	L8	161	GLU
45	L8	180	VAL
46	L9	5	GLN
46	L9	30	PRO
46	L9	72	LYS
46	L9	85	GLY

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Mol	Chain	Res	Type
46	L9	127	PRO
46	L9	190	ASP
47	M0	7	ARG
47	M0	70	ILE
47	M0	220	GLN
48	M1	74	PRO
48	M1	114	ILE
49	M3	85	LEU
51	M5	21	PHE
51	M5	75	VAL
53	M7	3	ARG
53	M7	44	ALA
53	M7	143	PRO
54	M8	77	ALA
54	M8	112	ALA
54	M8	162	ALA
54	M8	171	LYS
55	M9	3	ASN
55	M9	34	GLN
55	M9	151	ARG
55	M9	178	ALA
56	N0	24	LEU
56	N0	167	ARG
57	N1	110	LYS
57	N1	127	GLN
60	N4	23	ARG
61	N5	116	PRO
62	N6	107	THR
62	N6	126	LEU
63	N7	70	PRO
63	N7	117	ALA
63	N7	127	ASN
64	N8	65	GLN
65	N9	25	LYS
65	N9	32	LEU
67	O1	60	TRP
68	O2	40	SER
68	O2	65	PHE
70	O4	112	ALA
72	O6	29	LYS
72	O6	84	LYS
72	O6	88	GLU

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Mol	Chain	Res	Type
74	O8	34	ALA
76	Q0	79	GLU
76	Q0	88	LYS
78	Q2	30	ALA
79	Q3	84	ARG
2	s0	5	ALA
2	s0	80	THR
2	s0	103	THR
2	s0	167	LYS
3	s1	41	ARG
4	s2	95	ARG
4	s2	147	ASN
4	s2	223	GLY
4	s2	238	SER
5	s3	59	LEU
5	s3	62	ASN
5	s3	107	PHE
6	s4	3	ARG
6	s4	30	ARG
6	s4	96	ASN
6	s4	143	ASP
6	s4	157	ASN
6	s4	166	SER
7	s5	60	ASP
7	s5	84	LYS
9	s7	11	GLN
9	s7	24	PHE
9	s7	170	GLN
10	s8	78	ILE
10	s8	108	PRO
11	s9	25	ASP
11	s9	26	ALA
11	s9	44	ARG
11	s9	115	LYS
11	s9	178	ALA
11	s9	183	ALA
13	c1	7	VAL
13	c1	15	LYS
13	c1	129	ARG
14	c2	25	GLU
14	c2	40	GLY
14	c2	89	ILE

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Mol	Chain	Res	Type
14	c2	106	ILE
16	c4	72	LYS
16	c4	92	LYS
16	c4	123	SER
17	c5	6	ASN
17	c5	31	GLU
18	c6	112	TYR
19	c7	117	LEU
20	c8	64	GLU
20	c8	102	ALA
20	c8	109	LEU
21	c9	34	VAL
21	c9	143	ASP
22	d0	44	ASN
22	d0	100	VAL
23	d1	42	GLU
26	d4	78	SER
26	d4	82	ALA
28	d6	59	TYR
34	sR	153	GLN
34	sR	296	ALA
35	sM	65	THR
35	sM	79	SER
35	sM	132	ALA
35	sM	168	GLU
39	l2	34	TYR
40	l3	10	ARG
40	l3	34	LYS
40	l3	108	GLU
40	l3	187	SER
41	l4	190	GLY
41	l4	328	ASN
41	l4	351	PRO
42	l5	11	ALA
42	l5	15	ARG
42	l5	119	TYR
42	l5	197	SER
42	l5	234	ASP
42	l5	258	LYS
42	l5	265	TYR
43	l6	36	PRO
43	l6	72	ASN

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Mol	Chain	Res	Type
43	l6	108	LYS
44	l7	39	GLU
44	l7	47	ARG
44	l7	159	GLN
44	l7	191	VAL
45	l8	74	THR
45	l8	140	VAL
46	l9	14	GLU
46	l9	110	LYS
46	l9	167	VAL
47	m0	207	GLU
48	m1	116	TYR
49	m3	60	ALA
49	m3	101	ARG
49	m3	140	SER
50	m4	49	PRO
50	m4	97	SER
51	m5	12	ARG
51	m5	33	LYS
52	m6	20	ALA
53	m7	134	GLY
54	m8	97	PRO
54	m8	150	VAL
55	m9	61	SER
55	m9	155	LEU
55	m9	157	GLU
56	n0	97	VAL
58	n2	33	TYR
58	n2	45	GLY
59	n3	16	GLY
59	n3	123	ALA
59	n3	131	SER
60	n4	63	ILE
60	n4	68	ALA
60	n4	83	THR
60	n4	86	SER
60	n4	132	GLY
62	n6	26	GLN
62	n6	116	LYS
63	n7	91	ALA
64	n8	89	GLN
65	n9	29	TYR

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Mol	Chain	Res	Type
66	o0	27	TYR
67	o1	37	LYS
68	o2	50	ILE
68	o2	65	PHE
69	o3	19	SER
69	o3	58	GLU
69	o3	94	PHE
70	o4	28	GLY
71	o5	71	LYS
72	o6	34	SER
72	o6	67	LYS
73	o7	65	ARG
73	o7	85	LYS
74	o8	46	ARG
78	q2	77	CYS
83	p0	72	ASP
83	p0	193	ASN
2	S0	118	PRO
2	S0	203	PHE
3	S1	93	GLY
3	S1	116	LYS
3	S1	127	VAL
4	S2	92	ALA
4	S2	227	PRO
5	S3	59	LEU
6	S4	9	LEU
6	S4	35	PRO
6	S4	77	ARG
6	S4	201	HIS
6	S4	205	PHE
6	S4	214	LEU
6	S4	233	LYS
7	S5	27	THR
7	S5	34	GLN
7	S5	36	ALA
7	S5	163	SER
8	S6	9	VAL
8	S6	70	PRO
8	S6	126	ASP
8	S6	200	ALA
9	S7	39	ARG
9	S7	85	PHE

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Mol	Chain	Res	Type
10	S8	11	ARG
10	S8	52	ASN
10	S8	173	PRO
11	S9	30	LEU
11	S9	82	ARG
12	C0	70	GLU
12	C0	94	GLU
13	C1	9	SER
13	C1	108	PRO
14	C2	92	ALA
14	C2	107	ASP
14	C2	112	ALA
14	C2	140	PHE
15	C3	21	ASN
16	C4	25	ASP
16	C4	42	VAL
17	C5	10	ARG
17	C5	71	GLU
18	C6	85	ILE
19	C7	9	VAL
19	C7	42	GLN
19	C7	44	LYS
21	C9	105	LEU
24	D2	22	LYS
25	D3	11	SER
25	D3	143	PRO
26	D4	63	GLN
27	D5	42	LEU
28	D6	3	LYS
28	D6	59	TYR
29	D7	60	SER
32	E0	27	PRO
33	E1	125	THR
34	SR	160	GLU
34	SR	186	PHE
34	SR	230	ALA
34	SR	232	TYR
34	SR	307	ASP
39	L2	69	TYR
39	L2	206	PRO
40	L3	111	SER
40	L3	116	ARG

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Mol	Chain	Res	Type
40	L3	185	GLY
41	L4	96	GLY
41	L4	233	LEU
41	L4	318	LEU
42	L5	58	LYS
42	L5	132	THR
42	L5	187	THR
45	L8	86	THR
45	L8	91	PHE
45	L8	97	TYR
45	L8	114	ALA
45	L8	156	ASP
46	L9	13	PRO
46	L9	15	GLY
46	L9	81	GLY
47	M0	24	ARG
47	M0	156	ARG
47	M0	196	PHE
48	M1	172	LEU
49	M3	76	THR
49	M3	163	GLY
50	M4	6	ILE
51	M5	73	ARG
52	M6	181	ALA
53	M7	45	GLN
53	M7	121	GLN
55	M9	107	ALA
56	N0	124	LEU
57	N1	126	VAL
58	N2	20	SER
58	N2	38	ILE
62	N6	15	ALA
62	N6	84	LYS
64	N8	47	LYS
64	N8	66	ALA
68	O2	4	LEU
68	O2	45	ARG
69	O3	59	VAL
69	O3	91	ALA
71	O5	90	ARG
71	O5	91	ALA
72	O6	52	PRO

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Mol	Chain	Res	Type
74	O8	18	ALA
75	O9	28	ARG
79	Q3	18	TYR
79	Q3	35	ALA
79	Q3	51	ALA
79	Q3	75	ALA
2	s0	202	TYR
2	s0	205	ARG
3	s1	159	SER
3	s1	193	ILE
4	s2	242	ILE
4	s2	245	ASP
5	s3	45	LYS
6	s4	149	TYR
6	s4	164	LEU
6	s4	204	GLY
6	s4	223	ASN
7	s5	29	ILE
7	s5	39	GLU
8	s6	69	LEU
9	s7	161	GLN
10	s8	112	TRP
10	s8	158	SER
11	s9	162	SER
13	c1	120	GLY
15	c3	29	SER
15	c3	116	ILE
15	c3	145	THR
16	c4	114	ARG
17	c5	14	THR
17	c5	28	MET
18	c6	99	GLU
18	c6	109	PHE
18	c6	124	PRO
19	c7	51	ALA
19	c7	86	PRO
20	c8	90	ASN
21	c9	19	ALA
25	d3	39	LYS
28	d6	35	ALA
28	d6	46	GLU
30	d8	51	ASN

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Mol	Chain	Res	Type
30	d8	61	ARG
31	d9	12	ARG
31	d9	27	HIS
80	e0	13	LYS
80	e0	14	VAL
81	e1	85	TYR
34	sR	48	THR
35	sM	39	PRO
35	sM	46	LYS
39	l2	238	ILE
40	l3	5	LYS
40	l3	40	PRO
40	l3	297	SER
40	l3	358	TRP
41	l4	72	ALA
41	l4	233	LEU
42	l5	260	PHE
44	l7	97	PRO
45	l8	81	THR
45	l8	93	LEU
45	l8	133	LYS
46	l9	43	VAL
46	l9	48	VAL
46	l9	116	ASN
46	l9	158	ALA
48	m1	85	LYS
48	m1	114	ILE
49	m3	5	LYS
49	m3	62	THR
49	m3	124	ILE
49	m3	153	ASP
51	m5	7	LEU
51	m5	32	GLN
51	m5	125	SER
54	m8	24	VAL
55	m9	65	ALA
57	n1	122	GLN
60	n4	56	ARG
60	n4	85	ALA
61	n5	39	LYS
61	n5	115	ARG
62	n6	91	ASN

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Mol	Chain	Res	Type
63	n7	17	ARG
64	n8	129	PHE
65	n9	25	LYS
67	o1	24	SER
67	o1	103	GLY
69	o3	10	LYS
70	o4	58	ARG
71	o5	42	PRO
71	o5	51	ILE
71	o5	65	ALA
72	o6	33	ALA
73	o7	66	TYR
74	o8	32	ASN
74	o8	76	ASN
77	q1	7	LYS
77	q1	13	LEU
79	q3	49	ARG
79	q3	59	CYS
83	p0	33	VAL
83	p0	47	GLY
83	p0	210	VAL
2	S0	68	PRO
2	S0	78	SER
2	S0	103	THR
2	S0	206	ASP
3	S1	58	SER
3	S1	62	LYS
7	S5	51	VAL
7	S5	79	ASN
7	S5	137	ILE
7	S5	150	GLY
10	S8	34	ALA
10	S8	194	ARG
12	C0	17	GLN
14	C2	66	VAL
14	C2	85	LYS
17	C5	97	TYR
19	C7	61	ILE
21	C9	95	ASP
23	D1	48	GLY
24	D2	98	GLN
25	D3	8	GLY

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Mol	Chain	Res	Type
27	D5	74	SER
33	E1	88	PRO
33	E1	148	TYR
35	SM	12	VAL
35	SM	152	GLN
40	L3	170	PRO
40	L3	317	ILE
41	L4	162	THR
41	L4	232	SER
41	L4	320	ASN
42	L5	91	GLY
42	L5	106	ALA
43	L6	92	SER
45	L8	72	PRO
48	M1	13	LYS
48	M1	55	ARG
48	M1	101	ASN
48	M1	152	HIS
51	M5	46	ASP
52	M6	83	ALA
53	M7	63	PHE
53	M7	160	ALA
55	M9	184	LEU
56	N0	22	PRO
56	N0	69	PRO
63	N7	103	GLN
70	O4	82	ALA
74	O8	8	ILE
2	s0	10	THR
3	s1	22	ASP
3	s1	99	ASN
4	s2	48	GLY
4	s2	85	PRO
4	s2	246	GLU
5	s3	43	PRO
5	s3	179	GLN
6	s4	213	SER
6	s4	245	LYS
7	s5	102	ARG
7	s5	180	ARG
8	s6	86	PRO
11	s9	184	SER

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Mol	Chain	Res	Type
15	c3	10	GLY
15	c3	150	VAL
17	c5	43	ARG
21	c9	46	PRO
26	d4	11	LYS
27	d5	63	SER
30	d8	24	GLY
31	d9	24	CYS
31	d9	41	GLN
39	l2	248	GLY
40	l3	12	GLY
41	l4	196	ASN
42	l5	237	GLU
43	l6	158	TYR
44	l7	27	ALA
44	l7	231	ASN
45	l8	39	ALA
47	m0	101	LYS
49	m3	43	ALA
49	m3	49	ARG
50	m4	134	ALA
52	m6	111	PRO
52	m6	176	LYS
55	m9	93	VAL
55	m9	172	ARG
57	n1	101	CYS
60	n4	131	ALA
62	n6	90	VAL
64	n8	56	VAL
67	o1	17	HIS
71	o5	21	LEU
71	o5	54	VAL
71	o5	112	PRO
77	q1	21	ARG
9	S7	63	PRO
14	C2	63	VAL
16	C4	39	ILE
17	C5	68	PRO
17	C5	129	GLY
18	C6	33	GLY
21	C9	118	PRO
23	D1	23	ILE

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Mol	Chain	Res	Type
30	D8	12	VAL
34	SR	49	GLY
35	SM	20	LEU
39	L2	196	TRP
42	L5	87	GLY
50	M4	75	GLY
51	M5	151	ILE
52	M6	16	VAL
53	M7	88	VAL
63	N7	104	PRO
2	s0	58	VAL
2	s0	139	VAL
2	s0	186	GLY
7	s5	21	THR
12	c0	3	MET
16	c4	131	GLY
29	d7	68	GLY
34	sR	15	GLY
39	l2	210	PRO
40	l3	239	PRO
47	m0	214	PRO
59	n3	104	ASN
63	n7	70	PRO
63	n7	89	VAL
65	n9	21	ILE
66	o0	87	VAL
70	o4	48	GLY
71	o5	22	VAL
7	S5	164	PRO
8	S6	69	LEU
12	C0	86	ILE
14	C2	115	VAL
16	C4	122	PRO
22	D0	95	ALA
27	D5	41	ILE
28	D6	60	PRO
34	SR	20	VAL
42	L5	295	GLY
49	M3	133	PRO
52	M6	70	PRO
54	M8	43	PRO
56	N0	135	VAL

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Mol	Chain	Res	Type
63	N7	36	HIS
65	N9	21	ILE
71	O5	41	LEU
76	Q0	123	PRO
4	s2	104	VAL
4	s2	145	GLY
4	s2	239	PRO
6	s4	227	VAL
7	s5	59	VAL
14	c2	63	VAL
14	c2	87	PRO
24	d2	6	VAL
80	e0	4	VAL
34	sR	193	ILE
35	sM	43	ASP
40	l3	166	ILE
40	l3	245	GLY
49	m3	84	GLY
55	m9	101	VAL
55	m9	113	GLY
83	p0	204	ILE
3	S1	210	ILE
5	S3	84	ILE
7	S5	172	ILE
12	C0	92	ILE
13	C1	41	GLY
16	C4	67	VAL
25	D3	88	PRO
29	D7	62	ILE
43	L6	171	PRO
46	L9	187	ILE
55	M9	143	ILE
56	N0	21	GLU
11	s9	134	ILE
18	c6	4	VAL
20	c8	76	PRO
30	d8	12	VAL
41	l4	145	ILE
45	l8	98	ARG
47	m0	194	GLY
48	m1	113	GLY
49	m3	159	VAL

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Mol	Chain	Res	Type
53	m7	88	VAL
58	n2	27	VAL
69	o3	59	VAL
4	S2	234	PRO
8	S6	162	VAL
14	C2	89	ILE
25	D3	17	VAL
25	D3	96	VAL
34	SR	206	PRO
61	N5	79	GLY
4	s2	235	LEU
5	s3	81	PRO
11	s9	168	ARG
12	c0	11	ILE
13	c1	54	ILE
81	e1	130	VAL
35	sM	51	ARG
41	l4	23	PRO
72	o6	9	ILE
3	S1	43	VAL
4	S2	150	GLN
22	D0	108	ILE
39	L2	98	VAL
59	N3	3	GLY
60	N4	80	ARG
61	N5	44	PRO
70	O4	89	ILE
7	s5	152	GLY
12	c0	72	GLY
15	c3	22	ALA
15	c3	52	VAL
35	sM	40	PRO
42	l5	255	PRO
46	l9	30	PRO
69	O3	104	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was

analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	S0	164/209 (78%)	117 (71%)	47 (29%)	0	4
2	s0	165/209 (79%)	123 (74%)	42 (26%)	1	6
3	S1	191/223 (86%)	139 (73%)	52 (27%)	0	4
3	s1	192/223 (86%)	147 (77%)	45 (23%)	1	7
4	S2	176/204 (86%)	126 (72%)	50 (28%)	0	4
4	s2	176/204 (86%)	119 (68%)	57 (32%)	0	2
5	S3	182/194 (94%)	133 (73%)	49 (27%)	0	4
5	s3	182/194 (94%)	131 (72%)	51 (28%)	0	4
6	S4	221/221 (100%)	170 (77%)	51 (23%)	1	7
6	s4	221/221 (100%)	165 (75%)	56 (25%)	1	6
7	S5	173/190 (91%)	136 (79%)	37 (21%)	1	9
7	s5	173/190 (91%)	125 (72%)	48 (28%)	0	4
8	S6	188/201 (94%)	139 (74%)	49 (26%)	0	5
8	s6	187/201 (93%)	132 (71%)	55 (29%)	0	3
9	S7	165/169 (98%)	127 (77%)	38 (23%)	1	7
9	s7	165/169 (98%)	122 (74%)	43 (26%)	0	5
10	S8	150/161 (93%)	118 (79%)	32 (21%)	1	10
10	s8	150/161 (93%)	106 (71%)	44 (29%)	0	4
11	S9	158/165 (96%)	121 (77%)	37 (23%)	1	7
11	s9	158/165 (96%)	116 (73%)	42 (27%)	0	5
12	C0	77/98 (79%)	58 (75%)	19 (25%)	1	6
12	c0	73/98 (74%)	54 (74%)	19 (26%)	0	5
13	C1	129/136 (95%)	111 (86%)	18 (14%)	4	28
13	c1	129/136 (95%)	98 (76%)	31 (24%)	1	6
14	C2	88/118 (75%)	66 (75%)	22 (25%)	1	6
14	c2	88/118 (75%)	62 (70%)	26 (30%)	0	3
15	C3	127/127 (100%)	101 (80%)	26 (20%)	1	11
15	c3	127/127 (100%)	96 (76%)	31 (24%)	1	6
16	C4	81/104 (78%)	58 (72%)	23 (28%)	0	4
16	c4	97/104 (93%)	67 (69%)	30 (31%)	0	3
17	C5	101/117 (86%)	72 (71%)	29 (29%)	0	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	c5	103/117 (88%)	73 (71%)	30 (29%)	0	4
18	C6	117/118 (99%)	83 (71%)	34 (29%)	0	4
18	c6	118/118 (100%)	87 (74%)	31 (26%)	0	5
19	C7	94/124 (76%)	65 (69%)	29 (31%)	0	3
19	c7	92/124 (74%)	61 (66%)	31 (34%)	0	2
20	C8	128/128 (100%)	101 (79%)	27 (21%)	1	10
20	c8	128/128 (100%)	96 (75%)	32 (25%)	1	6
21	C9	115/115 (100%)	83 (72%)	32 (28%)	0	4
21	c9	115/115 (100%)	85 (74%)	30 (26%)	0	5
22	D0	100/113 (88%)	74 (74%)	26 (26%)	0	5
22	d0	103/113 (91%)	67 (65%)	36 (35%)	0	2
23	D1	74/74 (100%)	59 (80%)	15 (20%)	1	11
23	d1	74/74 (100%)	52 (70%)	22 (30%)	0	3
24	D2	110/110 (100%)	81 (74%)	29 (26%)	0	5
24	d2	110/110 (100%)	88 (80%)	22 (20%)	1	11
25	D3	119/119 (100%)	79 (66%)	40 (34%)	0	2
25	d3	119/119 (100%)	89 (75%)	30 (25%)	1	6
26	D4	112/112 (100%)	88 (79%)	24 (21%)	1	9
26	d4	112/112 (100%)	89 (80%)	23 (20%)	1	11
27	D5	61/88 (69%)	47 (77%)	14 (23%)	1	7
27	d5	61/88 (69%)	47 (77%)	14 (23%)	1	7
28	D6	83/83 (100%)	60 (72%)	23 (28%)	0	4
28	d6	83/83 (100%)	51 (61%)	32 (39%)	0	1
29	D7	70/70 (100%)	57 (81%)	13 (19%)	2	13
29	d7	70/70 (100%)	54 (77%)	16 (23%)	1	8
30	D8	56/59 (95%)	39 (70%)	17 (30%)	0	3
30	d8	56/59 (95%)	42 (75%)	14 (25%)	1	6
31	D9	47/48 (98%)	34 (72%)	13 (28%)	0	4
31	d9	47/48 (98%)	32 (68%)	15 (32%)	0	3
32	E0	51/51 (100%)	35 (69%)	16 (31%)	0	3
33	E1	62/66 (94%)	47 (76%)	15 (24%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	SR	260/261 (100%)	216 (83%)	44 (17%)	2	18
34	sR	260/261 (100%)	213 (82%)	47 (18%)	2	15
35	SM	97/228 (42%)	68 (70%)	29 (30%)	0	3
35	sM	54/228 (24%)	39 (72%)	15 (28%)	0	4
39	L2	193/195 (99%)	138 (72%)	55 (28%)	0	4
39	l2	192/195 (98%)	137 (71%)	55 (29%)	0	4
40	L3	321/322 (100%)	229 (71%)	92 (29%)	0	4
40	l3	321/322 (100%)	235 (73%)	86 (27%)	0	4
41	L4	288/288 (100%)	212 (74%)	76 (26%)	0	5
41	l4	288/288 (100%)	208 (72%)	80 (28%)	0	4
42	L5	244/244 (100%)	195 (80%)	49 (20%)	1	11
42	l5	243/244 (100%)	176 (72%)	67 (28%)	0	4
43	L6	134/152 (88%)	110 (82%)	24 (18%)	2	15
43	l6	135/152 (89%)	105 (78%)	30 (22%)	1	8
44	L7	186/204 (91%)	138 (74%)	48 (26%)	0	5
44	l7	187/204 (92%)	146 (78%)	41 (22%)	1	9
45	L8	187/207 (90%)	144 (77%)	43 (23%)	1	7
45	l8	177/207 (86%)	134 (76%)	43 (24%)	1	6
46	L9	171/171 (100%)	110 (64%)	61 (36%)	0	1
46	l9	171/171 (100%)	119 (70%)	52 (30%)	0	3
47	M0	177/186 (95%)	135 (76%)	42 (24%)	1	7
47	m0	179/186 (96%)	131 (73%)	48 (27%)	0	4
48	M1	147/150 (98%)	111 (76%)	36 (24%)	1	6
48	m1	147/150 (98%)	91 (62%)	56 (38%)	0	1
49	M3	154/158 (98%)	114 (74%)	40 (26%)	0	5
49	m3	154/158 (98%)	102 (66%)	52 (34%)	0	2
50	M4	107/108 (99%)	78 (73%)	29 (27%)	0	4
50	m4	108/108 (100%)	81 (75%)	27 (25%)	1	6
51	M5	175/175 (100%)	143 (82%)	32 (18%)	2	14
51	m5	175/175 (100%)	132 (75%)	43 (25%)	1	6
52	M6	160/161 (99%)	120 (75%)	40 (25%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	m6	160/161 (99%)	119 (74%)	41 (26%)	0	6
53	M7	140/145 (97%)	98 (70%)	42 (30%)	0	3
53	m7	125/145 (86%)	83 (66%)	42 (34%)	0	2
54	M8	150/150 (100%)	115 (77%)	35 (23%)	1	7
54	m8	150/150 (100%)	104 (69%)	46 (31%)	0	3
55	M9	153/153 (100%)	112 (73%)	41 (27%)	0	4
55	m9	153/153 (100%)	113 (74%)	40 (26%)	0	5
56	N0	156/156 (100%)	108 (69%)	48 (31%)	0	3
56	n0	156/156 (100%)	114 (73%)	42 (27%)	0	4
57	N1	136/136 (100%)	100 (74%)	36 (26%)	0	5
57	n1	136/136 (100%)	100 (74%)	36 (26%)	0	5
58	N2	87/106 (82%)	68 (78%)	19 (22%)	1	9
58	n2	85/106 (80%)	68 (80%)	17 (20%)	1	11
59	N3	104/104 (100%)	79 (76%)	25 (24%)	1	6
59	n3	104/104 (100%)	78 (75%)	26 (25%)	1	6
60	N4	57/129 (44%)	45 (79%)	12 (21%)	1	10
60	n4	100/129 (78%)	69 (69%)	31 (31%)	0	3
61	N5	104/117 (89%)	83 (80%)	21 (20%)	1	11
61	n5	104/117 (89%)	70 (67%)	34 (33%)	0	2
62	N6	109/109 (100%)	80 (73%)	29 (27%)	0	5
62	n6	109/109 (100%)	75 (69%)	34 (31%)	0	3
63	N7	115/115 (100%)	92 (80%)	23 (20%)	1	11
63	n7	115/115 (100%)	93 (81%)	22 (19%)	2	12
64	N8	118/118 (100%)	95 (80%)	23 (20%)	2	12
64	n8	118/118 (100%)	85 (72%)	33 (28%)	0	4
65	N9	46/46 (100%)	30 (65%)	16 (35%)	0	2
65	n9	46/46 (100%)	23 (50%)	23 (50%)	0	0
66	O0	81/87 (93%)	62 (76%)	19 (24%)	1	7
66	o0	84/87 (97%)	54 (64%)	30 (36%)	0	1
67	O1	92/96 (96%)	67 (73%)	25 (27%)	0	4
67	o1	94/96 (98%)	67 (71%)	27 (29%)	0	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
68	O2	109/110 (99%)	73 (67%)	36 (33%)	0	2
68	o2	109/110 (99%)	78 (72%)	31 (28%)	0	4
69	O3	90/90 (100%)	71 (79%)	19 (21%)	1	10
69	o3	90/90 (100%)	62 (69%)	28 (31%)	0	3
70	O4	95/101 (94%)	66 (70%)	29 (30%)	0	3
70	o4	95/101 (94%)	70 (74%)	25 (26%)	0	5
71	O5	104/104 (100%)	69 (66%)	35 (34%)	0	2
71	o5	103/104 (99%)	77 (75%)	26 (25%)	1	6
72	O6	81/81 (100%)	56 (69%)	25 (31%)	0	3
72	o6	80/81 (99%)	55 (69%)	25 (31%)	0	3
73	O7	70/70 (100%)	51 (73%)	19 (27%)	0	4
73	o7	70/70 (100%)	48 (69%)	22 (31%)	0	3
74	O8	68/68 (100%)	53 (78%)	15 (22%)	1	8
74	o8	67/68 (98%)	52 (78%)	15 (22%)	1	8
75	O9	45/45 (100%)	35 (78%)	10 (22%)	1	8
75	o9	45/45 (100%)	34 (76%)	11 (24%)	1	6
76	Q0	47/47 (100%)	36 (77%)	11 (23%)	1	7
76	q0	47/47 (100%)	33 (70%)	14 (30%)	0	3
77	Q1	23/23 (100%)	15 (65%)	8 (35%)	0	2
77	q1	23/23 (100%)	14 (61%)	9 (39%)	0	1
78	Q2	90/90 (100%)	65 (72%)	25 (28%)	0	4
78	q2	90/90 (100%)	58 (64%)	32 (36%)	0	1
79	Q3	71/71 (100%)	54 (76%)	17 (24%)	1	6
79	q3	71/71 (100%)	49 (69%)	22 (31%)	0	3
80	e0	53/53 (100%)	41 (77%)	12 (23%)	1	8
81	e1	66/66 (100%)	41 (62%)	25 (38%)	0	1
83	p0	105/253 (42%)	79 (75%)	26 (25%)	1	6
All	All	18730/20239 (92%)	13794 (74%)	4936 (26%)	0	5

All (4936) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	6	THR

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Mol	Chain	Res	Type
2	S0	7	PHE
2	S0	8	ASP
2	S0	16	LEU
2	S0	21	ASN
2	S0	22	THR
2	S0	27	ARG
2	S0	34	GLU
2	S0	37	VAL
2	S0	43	ASP
2	S0	45	VAL
2	S0	50	VAL
2	S0	62	ARG
2	S0	84	ARG
2	S0	87	LEU
2	S0	88	LYS
2	S0	96	THR
2	S0	98	ILE
2	S0	101	ARG
2	S0	103	THR
2	S0	106	SER
2	S0	110	TYR
2	S0	111	ILE
2	S0	124	THR
2	S0	129	ASP
2	S0	135	GLU
2	S0	137	SER
2	S0	141	ILE
2	S0	143	VAL
2	S0	146	LEU
2	S0	150	ASP
2	S0	156	VAL
2	S0	157	ASP
2	S0	165	ARG
2	S0	169	SER
2	S0	170	ILE
2	S0	172	LEU
2	S0	177	LEU
2	S0	181	VAL
2	S0	184	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	189	VAL

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Mol	Chain	Res	Type
2	S0	196	SER
2	S0	197	ILE
2	S0	198	MET
2	S0	203	PHE
3	S1	21	VAL
3	S1	25	THR
3	S1	37	THR
3	S1	38	PHE
3	S1	40	ASN
3	S1	46	THR
3	S1	59	ASP
3	S1	61	LEU
3	S1	70	LEU
3	S1	73	LEU
3	S1	78	ASP
3	S1	80	SER
3	S1	81	PHE
3	S1	82	ARG
3	S1	85	LYS
3	S1	89	ASP
3	S1	95	ASN
3	S1	96	LEU
3	S1	97	LEU
3	S1	101	HIS
3	S1	104	ASP
3	S1	105	PHE
3	S1	111	ARG
3	S1	119	THR
3	S1	125	VAL
3	S1	129	THR
3	S1	130	SER
3	S1	131	ASP
3	S1	137	ILE
3	S1	149	GLN
3	S1	154	SER
3	S1	155	TYR
3	S1	169	SER
3	S1	173	THR
3	S1	176	VAL
3	S1	177	GLN
3	S1	180	THR
3	S1	181	LEU

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Mol	Chain	Res	Type
3	S1	186	SER
3	S1	188	LEU
3	S1	191	GLU
3	S1	193	ILE
3	S1	198	GLU
3	S1	199	ASN
3	S1	202	LYS
3	S1	212	VAL
3	S1	214	LYS
3	S1	218	LEU
3	S1	219	LYS
3	S1	220	GLN
3	S1	223	PHE
3	S1	228	LEU
4	S2	38	VAL
4	S2	41	LEU
4	S2	53	ILE
4	S2	54	GLU
4	S2	60	SER
4	S2	61	LEU
4	S2	70	ASP
4	S2	72	LEU
4	S2	76	LEU
4	S2	77	GLN
4	S2	86	VAL
4	S2	87	GLN
4	S2	89	GLN
4	S2	90	THR
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	111	VAL
4	S2	113	LEU
4	S2	117	THR
4	S2	125	ILE
4	S2	131	ILE
4	S2	134	LEU
4	S2	137	ILE
4	S2	139	ILE
4	S2	141	ARG
4	S2	146	THR
4	S2	148	LEU

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Mol	Chain	Res	Type
4	S2	150	GLN
4	S2	152	HIS
4	S2	153	SER
4	S2	158	THR
4	S2	166	THR
4	S2	168	ARG
4	S2	174	ARG
4	S2	187	LEU
4	S2	188	LEU
4	S2	201	ASN
4	S2	205	ARG
4	S2	207	LEU
4	S2	218	ILE
4	S2	222	TYR
4	S2	224	PHE
4	S2	229	LEU
4	S2	234	PRO
4	S2	236	PRO
4	S2	237	VAL
4	S2	242	ILE
4	S2	246	GLU
4	S2	248	SER
5	S3	4	LEU
5	S3	6	SER
5	S3	7	LYS
5	S3	9	ARG
5	S3	16	VAL
5	S3	21	LEU
5	S3	26	THR
5	S3	37	VAL
5	S3	38	GLU
5	S3	39	VAL
5	S3	42	THR
5	S3	44	THR
5	S3	57	ASP
5	S3	65	ARG
5	S3	66	ILE
5	S3	67	ASN
5	S3	76	ARG
5	S3	79	TYR
5	S3	84	ILE
5	S3	92	GLN

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Mol	Chain	Res	Type
5	S3	93	ASP
5	S3	94	ARG
5	S3	99	VAL
5	S3	108	LYS
5	S3	113	LEU
5	S3	115	ILE
5	S3	117	ARG
5	S3	127	MET
5	S3	128	GLU
5	S3	137	VAL
5	S3	139	SER
5	S3	143	ARG
5	S3	158	ILE
5	S3	160	SER
5	S3	169	ASP
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	181	VAL
5	S3	182	LEU
5	S3	187	LYS
5	S3	190	ARG
5	S3	204	ASP
5	S3	207	THR
5	S3	212	LYS
5	S3	218	LEU
5	S3	221	SER
5	S3	224	ASP
6	S4	7	LYS
6	S4	9	LEU
6	S4	12	LEU
6	S4	21	ASP
6	S4	22	LYS
6	S4	38	LEU
6	S4	39	ARG
6	S4	42	LEU
6	S4	45	ILE
6	S4	49	ARG
6	S4	54	TYR
6	S4	68	ARG
6	S4	69	HIS

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Mol	Chain	Res	Type
6	S4	71	LYS
6	S4	77	ARG
6	S4	88	ASP
6	S4	102	VAL
6	S4	105	VAL
6	S4	108	ARG
6	S4	109	PHE
6	S4	131	LEU
6	S4	133	LYS
6	S4	140	VAL
6	S4	143	ASP
6	S4	162	ILE
6	S4	174	LYS
6	S4	176	ASP
6	S4	180	LEU
6	S4	182	TYR
6	S4	187	ARG
6	S4	189	LEU
6	S4	191	ARG
6	S4	199	GLU
6	S4	200	ARG
6	S4	211	LYS
6	S4	217	THR
6	S4	219	VAL
6	S4	221	ARG
6	S4	226	PHE
6	S4	227	VAL
6	S4	228	ILE
6	S4	240	LYS
6	S4	242	LYS
6	S4	244	ILE
6	S4	246	LEU
6	S4	248	ILE
6	S4	252	ARG
6	S4	253	ASP
6	S4	256	ARG
6	S4	259	GLN
6	S4	261	LEU
7	S5	23	VAL
7	S5	25	LEU
7	S5	32	GLU
7	S5	41	LYS

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Mol	Chain	Res	Type
7	S5	43	PHE
7	S5	45	LYS
7	S5	48	PHE
7	S5	49	GLU
7	S5	52	GLU
7	S5	65	ARG
7	S5	66	GLN
7	S5	70	VAL
7	S5	76	ARG
7	S5	83	ARG
7	S5	86	GLN
7	S5	87	CYS
7	S5	89	ILE
7	S5	97	LEU
7	S5	112	ARG
7	S5	114	ILE
7	S5	119	ASP
7	S5	122	ASN
7	S5	130	ILE
7	S5	131	GLN
7	S5	139	ASN
7	S5	147	THR
7	S5	148	ARG
7	S5	149	VAL
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	165	LEU
7	S5	170	GLN
7	S5	188	LYS
7	S5	194	LEU
7	S5	196	GLU
7	S5	216	GLU
8	S6	2	LYS
8	S6	5	ILE
8	S6	7	TYR
8	S6	15	THR
8	S6	18	ILE
8	S6	21	GLU
8	S6	25	ARG
8	S6	29	ASP
8	S6	30	LYS

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Mol	Chain	Res	Type
8	S6	34	GLN
8	S6	37	ASP
8	S6	45	PHE
8	S6	67	VAL
8	S6	71	THR
8	S6	72	ARG
8	S6	74	LYS
8	S6	76	LEU
8	S6	78	THR
8	S6	98	ARG
8	S6	108	VAL
8	S6	115	LYS
8	S6	124	LEU
8	S6	125	THR
8	S6	127	THR
8	S6	128	THR
8	S6	132	ARG
8	S6	133	LEU
8	S6	137	ARG
8	S6	141	ILE
8	S6	142	ARG
8	S6	150	GLU
8	S6	151	ASP
8	S6	154	ARG
8	S6	163	THR
8	S6	164	LYS
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	176	GLN
8	S6	177	ARG
8	S6	180	THR
8	S6	182	GLN
8	S6	184	LEU
8	S6	193	LEU
8	S6	201	GLN
8	S6	202	ARG
8	S6	211	LEU
8	S6	216	LEU
8	S6	223	LYS
9	S7	11	GLN
9	S7	14	THR

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Mol	Chain	Res	Type
9	S7	20	VAL
9	S7	34	LEU
9	S7	37	GLU
9	S7	38	LEU
9	S7	50	ASP
9	S7	77	LEU
9	S7	79	ARG
9	S7	80	GLU
9	S7	85	PHE
9	S7	97	ARG
9	S7	103	SER
9	S7	108	GLN
9	S7	109	VAL
9	S7	110	GLN
9	S7	112	ARG
9	S7	113	PRO
9	S7	114	ARG
9	S7	115	SER
9	S7	116	ARG
9	S7	118	LEU
9	S7	130	VAL
9	S7	131	PHE
9	S7	136	VAL
9	S7	139	ARG
9	S7	141	ARG
9	S7	144	VAL
9	S7	147	ASN
9	S7	152	VAL
9	S7	156	SER
9	S7	157	LYS
9	S7	160	GLN
9	S7	168	SER
9	S7	174	ASN
9	S7	180	GLN
9	S7	181	ILE
9	S7	185	ILE
10	S8	3	ILE
10	S8	7	SER
10	S8	8	ARG
10	S8	9	HIS
10	S8	11	ARG
10	S8	20	GLN

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Mol	Chain	Res	Type
10	S8	21	PHE
10	S8	22	ARG
10	S8	23	LYS
10	S8	25	ARG
10	S8	26	LYS
10	S8	29	LEU
10	S8	31	ARG
10	S8	36	THR
10	S8	48	THR
10	S8	58	LEU
10	S8	60	ILE
10	S8	72	ILE
10	S8	95	THR
10	S8	97	THR
10	S8	110	ARG
10	S8	121	LEU
10	S8	138	ASN
10	S8	140	GLU
10	S8	142	LYS
10	S8	151	LYS
10	S8	152	ILE
10	S8	154	SER
10	S8	172	ARG
10	S8	176	SER
10	S8	178	ARG
10	S8	194	ARG
11	S9	3	ARG
11	S9	6	ARG
11	S9	7	THR
11	S9	14	THR
11	S9	21	SER
11	S9	22	SER
11	S9	28	LEU
11	S9	36	LEU
11	S9	40	LYS
11	S9	58	ASP
11	S9	60	LEU
11	S9	69	ARG
11	S9	78	ARG
11	S9	80	LEU
11	S9	88	GLU
11	S9	89	ASP

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Mol	Chain	Res	Type
11	S9	91	LYS
11	S9	93	LEU
11	S9	95	TYR
11	S9	109	LEU
11	S9	113	VAL
11	S9	120	LYS
11	S9	130	THR
11	S9	134	ILE
11	S9	138	LYS
11	S9	140	ILE
11	S9	145	SER
11	S9	149	ARG
11	S9	155	HIS
11	S9	156	ILE
11	S9	157	ASP
11	S9	161	THR
11	S9	171	ARG
11	S9	172	VAL
11	S9	180	LYS
11	S9	182	GLU
11	S9	186	GLU
12	C0	5	LYS
12	C0	8	ARG
12	C0	26	ASP
12	C0	27	PHE
12	C0	31	LYS
12	C0	32	HIS
12	C0	47	GLN
12	C0	52	LYS
12	C0	55	VAL
12	C0	56	LYS
12	C0	65	TYR
12	C0	68	LEU
12	C0	69	THR
12	C0	70	GLU
12	C0	74	GLU
12	C0	76	LEU
12	C0	77	ARG
12	C0	78	GLU
12	C0	82	LEU
13	C1	11	ARG
13	C1	29	LYS

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Mol	Chain	Res	Type
13	C1	37	ASN
13	C1	44	THR
13	C1	63	LEU
13	C1	67	ARG
13	C1	69	LYS
13	C1	74	THR
13	C1	76	VAL
13	C1	80	MET
13	C1	83	THR
13	C1	87	ARG
13	C1	99	ARG
13	C1	108	PRO
13	C1	112	SER
13	C1	115	PHE
13	C1	131	ILE
13	C1	134	THR
14	C2	28	LEU
14	C2	30	VAL
14	C2	39	ASP
14	C2	43	ARG
14	C2	46	ARG
14	C2	54	ARG
14	C2	62	LEU
14	C2	64	SER
14	C2	71	ILE
14	C2	73	LYS
14	C2	81	ASP
14	C2	83	GLU
14	C2	89	ILE
14	C2	97	LEU
14	C2	103	LEU
14	C2	121	VAL
14	C2	124	LYS
14	C2	126	TRP
14	C2	131	ASP
14	C2	135	MET
14	C2	137	MET
14	C2	139	HIS
15	C3	9	LYS
15	C3	16	ILE
15	C3	27	LYS
15	C3	30	SER

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Mol	Chain	Res	Type
15	C3	35	GLU
15	C3	39	LYS
15	C3	45	LEU
15	C3	61	THR
15	C3	64	ARG
15	C3	66	ILE
15	C3	72	MET
15	C3	76	LYS
15	C3	83	GLU
15	C3	84	ILE
15	C3	97	SER
15	C3	102	LEU
15	C3	105	ASN
15	C3	114	ARG
15	C3	115	LEU
15	C3	121	ARG
15	C3	125	LEU
15	C3	127	ARG
15	C3	132	VAL
15	C3	134	VAL
15	C3	135	LEU
15	C3	149	LEU
16	C4	13	VAL
16	C4	16	VAL
16	C4	24	ASN
16	C4	26	THR
16	C4	29	HIS
16	C4	31	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	43	THR
16	C4	51	ASP
16	C4	52	ARG
16	C4	55	SER
16	C4	56	SER
16	C4	86	THR
16	C4	92	LYS
16	C4	103	ARG
16	C4	111	ARG
16	C4	119	THR
16	C4	123	SER
16	C4	126	THR

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Mol	Chain	Res	Type
16	C4	132	ARG
16	C4	133	ARG
16	C4	137	LEU
17	C5	13	LYS
17	C5	14	THR
17	C5	18	ARG
17	C5	20	VAL
17	C5	22	LEU
17	C5	29	SER
17	C5	32	ASP
17	C5	34	VAL
17	C5	36	LEU
17	C5	40	ARG
17	C5	43	ARG
17	C5	52	LYS
17	C5	58	LYS
17	C5	60	LEU
17	C5	78	THR
17	C5	84	ILE
17	C5	86	VAL
17	C5	89	MET
17	C5	93	VAL
17	C5	106	GLU
17	C5	108	ARG
17	C5	110	GLU
17	C5	111	MET
17	C5	120	SER
17	C5	123	TYR
17	C5	124	THR
17	C5	125	PRO
17	C5	127	ARG
17	C5	128	HIS
18	C6	4	VAL
18	C6	7	VAL
18	C6	14	LYS
18	C6	15	SER
18	C6	17	THR
18	C6	28	LEU
18	C6	34	SER
18	C6	36	ILE
18	C6	40	GLU
18	C6	43	ILE

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Mol	Chain	Res	Type
18	C6	52	LEU
18	C6	54	LEU
18	C6	57	LEU
18	C6	59	LYS
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	70	THR
18	C6	76	SER
18	C6	93	HIS
18	C6	97	VAL
18	C6	98	ASP
18	C6	104	GLU
18	C6	109	PHE
18	C6	110	THR
18	C6	114	ARG
18	C6	116	LEU
18	C6	118	ILE
18	C6	123	ARG
18	C6	125	GLU
18	C6	136	SER
18	C6	137	ARG
18	C6	138	PHE
18	C6	143	ARG
19	C7	3	ARG
19	C7	5	ARG
19	C7	6	THR
19	C7	8	THR
19	C7	16	LEU
19	C7	26	LEU
19	C7	29	GLN
19	C7	34	LEU
19	C7	36	ASP
19	C7	37	GLU
19	C7	38	ILE
19	C7	40	THR
19	C7	43	SER
19	C7	49	LYS
19	C7	54	THR
19	C7	55	THR
19	C7	57	LEU
19	C7	62	GLN

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Mol	Chain	Res	Type
19	C7	69	ILE
19	C7	72	LYS
19	C7	76	GLU
19	C7	77	GLU
19	C7	78	ARG
19	C7	83	GLN
19	C7	86	PRO
19	C7	88	VAL
19	C7	105	GLN
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	16	ARG
20	C8	28	ILE
20	C8	32	LEU
20	C8	38	VAL
20	C8	40	ARG
20	C8	44	ASN
20	C8	61	LEU
20	C8	63	GLN
20	C8	71	GLN
20	C8	77	THR
20	C8	80	LYS
20	C8	86	LEU
20	C8	88	ARG
20	C8	90	ASN
20	C8	92	ILE
20	C8	98	TYR
20	C8	100	THR
20	C8	105	VAL
20	C8	108	LYS
20	C8	132	ARG
20	C8	136	GLN
20	C8	143	ARG
21	C9	4	VAL
21	C9	13	ASP
21	C9	15	ILE
21	C9	16	ASN

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Mol	Chain	Res	Type
21	C9	18	TYR
21	C9	22	LEU
21	C9	28	LEU
21	C9	29	GLU
21	C9	30	VAL
21	C9	33	TYR
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	39	THR
21	C9	54	PHE
21	C9	57	ARG
21	C9	66	TYR
21	C9	70	GLN
21	C9	71	VAL
21	C9	75	LYS
21	C9	84	LYS
21	C9	88	VAL
21	C9	89	ARG
21	C9	94	ILE
21	C9	100	ILE
21	C9	124	ILE
21	C9	130	ARG
21	C9	134	ARG
21	C9	139	THR
21	C9	140	LEU
21	C9	142	GLU
21	C9	144	GLU
22	D0	16	GLN
22	D0	17	GLN
22	D0	18	GLN
22	D0	19	ILE
22	D0	22	ILE
22	D0	23	ARG
22	D0	27	THR
22	D0	31	VAL
22	D0	39	SER
22	D0	40	ASN
22	D0	42	VAL
22	D0	47	GLN
22	D0	57	ARG
22	D0	61	LYS

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Mol	Chain	Res	Type
22	D0	64	LYS
22	D0	74	GLU
22	D0	76	SER
22	D0	80	GLU
22	D0	81	THR
22	D0	84	MET
22	D0	85	ARG
22	D0	89	ARG
22	D0	99	ILE
22	D0	100	VAL
22	D0	103	ILE
22	D0	121	ASN
23	D1	5	LYS
23	D1	7	GLN
23	D1	16	LYS
23	D1	17	CYS
23	D1	27	ASP
23	D1	31	SER
23	D1	41	GLU
23	D1	44	ARG
23	D1	51	VAL
23	D1	52	THR
23	D1	62	ARG
23	D1	75	ASN
23	D1	76	ASP
23	D1	78	LEU
23	D1	80	LYS
24	D2	4	SER
24	D2	7	LEU
24	D2	19	LYS
24	D2	20	THR
24	D2	22	LYS
24	D2	24	GLN
24	D2	25	VAL
24	D2	26	LEU
24	D2	36	LYS
24	D2	37	PHE
24	D2	53	ILE
24	D2	65	LEU
24	D2	68	ARG
24	D2	72	CYS
24	D2	76	SER

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Mol	Chain	Res	Type
24	D2	81	VAL
24	D2	82	LYS
24	D2	93	LEU
24	D2	97	ARG
24	D2	99	PHE
24	D2	103	ILE
24	D2	104	LEU
24	D2	107	SER
24	D2	110	ILE
24	D2	111	MET
24	D2	121	VAL
24	D2	124	LYS
24	D2	126	LEU
24	D2	129	VAL
25	D3	7	ARG
25	D3	9	LEU
25	D3	14	LYS
25	D3	17	VAL
25	D3	19	ARG
25	D3	30	LYS
25	D3	34	LEU
25	D3	38	PHE
25	D3	40	SER
25	D3	43	PHE
25	D3	54	LEU
25	D3	57	LEU
25	D3	59	ILE
25	D3	63	GLN
25	D3	70	LYS
25	D3	72	VAL
25	D3	74	VAL
25	D3	77	ILE
25	D3	78	LYS
25	D3	82	LYS
25	D3	83	VAL
25	D3	84	THR
25	D3	86	PHE
25	D3	87	VAL
25	D3	94	ASN
25	D3	96	VAL
25	D3	99	ASN
25	D3	100	ASP

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Mol	Chain	Res	Type
25	D3	107	PHE
25	D3	109	ARG
25	D3	110	LYS
25	D3	114	LYS
25	D3	116	ASP
25	D3	117	ILE
25	D3	126	LYS
25	D3	130	VAL
25	D3	132	LEU
25	D3	133	LEU
25	D3	138	GLU
25	D3	140	LYS
26	D4	2	SER
26	D4	3	ASP
26	D4	5	VAL
26	D4	8	ARG
26	D4	10	ARG
26	D4	11	LYS
26	D4	14	SER
26	D4	17	LEU
26	D4	21	LYS
26	D4	32	ARG
26	D4	34	ASN
26	D4	51	GLU
26	D4	61	ARG
26	D4	62	THR
26	D4	63	GLN
26	D4	77	ASN
26	D4	79	VAL
26	D4	100	VAL
26	D4	102	LYS
26	D4	111	LYS
26	D4	123	LYS
26	D4	124	ARG
26	D4	127	LYS
26	D4	129	VAL
27	D5	40	VAL
27	D5	42	LEU
27	D5	63	SER
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU

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Mol	Chain	Res	Type
27	D5	77	ARG
27	D5	84	GLU
27	D5	85	LYS
27	D5	88	ILE
27	D5	92	ILE
27	D5	95	HIS
27	D5	98	GLN
27	D5	100	ILE
28	D6	5	ARG
28	D6	30	ILE
28	D6	36	ILE
28	D6	38	ARG
28	D6	41	ILE
28	D6	44	ILE
28	D6	45	VAL
28	D6	46	GLU
28	D6	53	LEU
28	D6	57	SER
28	D6	58	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	66	LYS
28	D6	68	TYR
28	D6	69	ASN
28	D6	76	SER
28	D6	77	CYS
28	D6	82	ARG
28	D6	86	VAL
28	D6	88	SER
28	D6	89	ARG
28	D6	91	ASP
29	D7	3	LEU
29	D7	8	LEU
29	D7	15	GLU
29	D7	23	THR
29	D7	33	LEU
29	D7	34	ASP
29	D7	35	VAL
29	D7	52	THR
29	D7	55	THR
29	D7	57	GLU
29	D7	58	SER

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Mol	Chain	Res	Type
29	D7	63	LEU
29	D7	73	LEU
30	D8	7	VAL
30	D8	8	THR
30	D8	14	LYS
30	D8	19	THR
30	D8	28	VAL
30	D8	29	ARG
30	D8	30	VAL
30	D8	32	PHE
30	D8	33	LEU
30	D8	34	GLU
30	D8	36	THR
30	D8	39	THR
30	D8	49	ARG
30	D8	55	VAL
30	D8	58	GLU
30	D8	64	ARG
30	D8	65	ARG
31	D9	5	ASN
31	D9	8	PHE
31	D9	10	HIS
31	D9	12	ARG
31	D9	19	ARG
31	D9	20	GLN
31	D9	21	CYS
31	D9	23	VAL
31	D9	27	HIS
31	D9	28	THR
31	D9	30	LEU
31	D9	31	ILE
31	D9	41	GLN
32	E0	3	LYS
32	E0	14	VAL
32	E0	16	SER
32	E0	20	LYS
32	E0	21	VAL
32	E0	22	GLU
32	E0	24	THR
32	E0	26	LYS
32	E0	38	LEU
32	E0	39	LEU

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Mol	Chain	Res	Type
32	E0	42	ARG
32	E0	48	THR
32	E0	49	LEU
32	E0	50	VAL
32	E0	55	ARG
32	E0	56	MET
33	E1	82	LYS
33	E1	84	VAL
33	E1	91	ILE
33	E1	97	LYS
33	E1	103	LEU
33	E1	108	VAL
33	E1	109	ASP
33	E1	115	THR
33	E1	118	ARG
33	E1	130	VAL
33	E1	134	ASN
33	E1	137	ASP
33	E1	140	TYR
33	E1	149	LYS
33	E1	150	VAL
34	SR	6	VAL
34	SR	9	LEU
34	SR	10	ARG
34	SR	16	HIS
34	SR	25	THR
34	SR	26	SER
34	SR	29	GLN
34	SR	32	LEU
34	SR	51	ASP
34	SR	52	GLN
34	SR	58	VAL
34	SR	60	SER
34	SR	66	HIS
34	SR	70	ASP
34	SR	72	THR
34	SR	73	LEU
34	SR	76	ASP
34	SR	87	LYS
34	SR	96	THR
34	SR	103	PHE
34	SR	110	VAL

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Mol	Chain	Res	Type
34	SR	117	LYS
34	SR	135	THR
34	SR	140	CYS
34	SR	144	LEU
34	SR	149	ASP
34	SR	152	SER
34	SR	153	GLN
34	SR	154	VAL
34	SR	178	VAL
34	SR	191	ASP
34	SR	200	ASN
34	SR	216	LYS
34	SR	220	ILE
34	SR	238	ASP
34	SR	242	SER
34	SR	246	SER
34	SR	263	PHE
34	SR	272	ASP
34	SR	283	LYS
34	SR	288	HIS
34	SR	314	GLN
34	SR	317	THR
34	SR	319	ASN
35	SM	25	ILE
35	SM	27	LYS
35	SM	28	SER
35	SM	30	THR
35	SM	43	ASP
35	SM	45	SER
35	SM	48	ARG
35	SM	50	ASN
35	SM	55	SER
35	SM	62	ARG
35	SM	74	LYS
35	SM	78	ASP
35	SM	81	THR
35	SM	82	THR
35	SM	83	LYS
35	SM	84	LYS
35	SM	85	SER
35	SM	87	THR
35	SM	88	ARG

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Mol	Chain	Res	Type
35	SM	89	ARG
35	SM	91	THR
35	SM	92	ASP
35	SM	100	THR
35	SM	102	THR
35	SM	106	VAL
35	SM	112	ASP
35	SM	113	ASP
35	SM	115	LYS
35	SM	120	GLU
39	L2	8	GLN
39	L2	17	THR
39	L2	18	SER
39	L2	19	HIS
39	L2	21	ARG
39	L2	29	LEU
39	L2	31	THR
39	L2	32	LEU
39	L2	37	ARG
39	L2	41	ILE
39	L2	44	ILE
39	L2	45	VAL
39	L2	49	VAL
39	L2	52	SER
39	L2	62	VAL
39	L2	68	LYS
39	L2	70	ARG
39	L2	71	LEU
39	L2	74	GLU
39	L2	79	ASN
39	L2	84	THR
39	L2	86	GLN
39	L2	88	ILE
39	L2	96	LEU
39	L2	97	ASN
39	L2	98	VAL
39	L2	101	VAL
39	L2	104	LEU
39	L2	109	GLU
39	L2	114	SER
39	L2	118	GLU
39	L2	122	ASP

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Mol	Chain	Res	Type
39	L2	137	ILE
39	L2	142	ASP
39	L2	143	GLU
39	L2	148	VAL
39	L2	152	SER
39	L2	157	VAL
39	L2	158	ILE
39	L2	163	ARG
39	L2	168	VAL
39	L2	175	VAL
39	L2	179	LEU
39	L2	181	LYS
39	L2	192	LYS
39	L2	199	THR
39	L2	200	ARG
39	L2	204	MET
39	L2	207	VAL
39	L2	227	ARG
39	L2	230	VAL
39	L2	242	ARG
39	L2	245	LEU
39	L2	250	GLN
39	L2	251	LYS
40	L3	3	HIS
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	25	ILE
40	L3	34	LYS
40	L3	37	ARG
40	L3	39	LYS
40	L3	40	PRO
40	L3	43	LEU
40	L3	47	LEU
40	L3	50	LYS
40	L3	56	ILE
40	L3	58	ARG
40	L3	67	PHE
40	L3	73	VAL
40	L3	76	VAL
40	L3	77	THR
40	L3	80	ASP

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Mol	Chain	Res	Type
40	L3	83	PRO
40	L3	84	VAL
40	L3	85	VAL
40	L3	87	VAL
40	L3	97	ARG
40	L3	102	LEU
40	L3	109	HIS
40	L3	114	VAL
40	L3	116	ARG
40	L3	126	LYS
40	L3	128	LYS
40	L3	134	SER
40	L3	139	GLN
40	L3	144	ILE
40	L3	147	GLU
40	L3	150	ARG
40	L3	156	SER
40	L3	157	VAL
40	L3	159	ARG
40	L3	167	ARG
40	L3	168	LYS
40	L3	169	THR
40	L3	184	ASN
40	L3	187	SER
40	L3	188	ILE
40	L3	192	VAL
40	L3	201	LYS
40	L3	205	VAL
40	L3	206	ASP
40	L3	210	GLU
40	L3	211	GLN
40	L3	212	ASN
40	L3	215	ILE
40	L3	216	ASP
40	L3	226	PHE
40	L3	229	VAL
40	L3	230	THR
40	L3	232	ARG
40	L3	235	THR
40	L3	236	LYS
40	L3	241	LYS
40	L3	242	THR

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Mol	Chain	Res	Type
40	L3	246	LEU
40	L3	248	LYS
40	L3	261	MET
40	L3	264	VAL
40	L3	270	ARG
40	L3	272	TYR
40	L3	274	SER
40	L3	284	ARG
40	L3	287	LYS
40	L3	291	GLU
40	L3	297	SER
40	L3	305	ILE
40	L3	319	ASN
40	L3	320	ASP
40	L3	324	VAL
40	L3	327	CYS
40	L3	328	ILE
40	L3	332	ARG
40	L3	335	ILE
40	L3	337	THR
40	L3	342	LEU
40	L3	344	THR
40	L3	351	LEU
40	L3	353	GLU
40	L3	356	LEU
40	L3	359	ILE
40	L3	364	LYS
40	L3	370	PHE
40	L3	372	THR
40	L3	379	PHE
40	L3	382	THR
41	L4	6	VAL
41	L4	11	LEU
41	L4	22	LEU
41	L4	25	VAL
41	L4	27	SER
41	L4	30	ILE
41	L4	35	VAL
41	L4	39	PHE
41	L4	44	LYS
41	L4	60	THR
41	L4	63	GLU

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Mol	Chain	Res	Type
41	L4	67	THR
41	L4	71	VAL
41	L4	73	ARG
41	L4	74	ILE
41	L4	77	VAL
41	L4	92	ASN
41	L4	93	MET
41	L4	95	ARG
41	L4	99	MET
41	L4	105	THR
41	L4	107	ARG
41	L4	112	LYS
41	L4	120	TYR
41	L4	124	SER
41	L4	138	ARG
41	L4	148	ILE
41	L4	150	LEU
41	L4	151	VAL
41	L4	154	THR
41	L4	159	ILE
41	L4	176	SER
41	L4	178	LEU
41	L4	179	LEU
41	L4	180	LYS
41	L4	182	LEU
41	L4	187	LEU
41	L4	188	ARG
41	L4	193	LYS
41	L4	194	TYR
41	L4	198	ARG
41	L4	200	THR
41	L4	220	ARG
41	L4	222	VAL
41	L4	223	PRO
41	L4	227	THR
41	L4	230	VAL
41	L4	244	LEU
41	L4	246	ARG
41	L4	256	THR
41	L4	259	ASP
41	L4	275	THR
41	L4	278	SER

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Mol	Chain	Res	Type
41	L4	281	ILE
41	L4	282	SER
41	L4	283	THR
41	L4	287	THR
41	L4	292	SER
41	L4	297	SER
41	L4	300	ARG
41	L4	311	HIS
41	L4	313	LEU
41	L4	314	LYS
41	L4	321	LYS
41	L4	323	VAL
41	L4	324	LEU
41	L4	326	ARG
41	L4	327	LEU
41	L4	339	LEU
41	L4	345	GLU
41	L4	346	LYS
41	L4	347	THR
41	L4	349	THR
41	L4	350	LYS
41	L4	354	VAL
41	L4	362	ASP
42	L5	8	LYS
42	L5	9	SER
42	L5	19	PRO
42	L5	23	ARG
42	L5	32	GLN
42	L5	33	ARG
42	L5	35	ARG
42	L5	41	LYS
42	L5	50	ARG
42	L5	52	VAL
42	L5	64	ILE
42	L5	66	SER
42	L5	69	ILE
42	L5	70	THR
42	L5	80	SER
42	L5	81	HIS
42	L5	92	LEU
42	L5	94	ASN
42	L5	95	TRP

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Mol	Chain	Res	Type
42	L5	105	ILE
42	L5	110	LEU
42	L5	112	LYS
42	L5	115	LEU
42	L5	117	GLU
42	L5	125	VAL
42	L5	131	LEU
42	L5	135	VAL
42	L5	140	ARG
42	L5	146	LEU
42	L5	151	GLN
42	L5	163	LEU
42	L5	168	ASP
42	L5	185	PHE
42	L5	188	GLU
42	L5	189	GLU
42	L5	194	LEU
42	L5	196	ARG
42	L5	207	TYR
42	L5	217	GLU
42	L5	219	PHE
42	L5	220	SER
42	L5	222	LEU
42	L5	231	ILE
42	L5	232	ASP
42	L5	257	GLU
42	L5	259	LYS
42	L5	263	GLU
42	L5	264	GLN
42	L5	276	LYS
43	L6	4	GLN
43	L6	5	LYS
43	L6	19	LYS
43	L6	21	THR
43	L6	29	LYS
43	L6	41	ILE
43	L6	46	ARG
43	L6	52	VAL
43	L6	65	ILE
43	L6	78	ARG
43	L6	84	VAL
43	L6	88	SER

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Mol	Chain	Res	Type
43	L6	89	THR
43	L6	92	SER
43	L6	98	VAL
43	L6	99	GLU
43	L6	129	GLU
43	L6	134	ARG
43	L6	146	ILE
43	L6	151	LYS
43	L6	154	LEU
43	L6	155	LEU
43	L6	163	PHE
43	L6	174	LEU
44	L7	24	GLU
44	L7	25	GLN
44	L7	29	GLU
44	L7	30	ARG
44	L7	33	ARG
44	L7	34	LYS
44	L7	38	LYS
44	L7	39	GLU
44	L7	40	LYS
44	L7	43	ILE
44	L7	44	ILE
44	L7	47	ARG
44	L7	59	GLU
44	L7	60	ARG
44	L7	63	ILE
44	L7	77	VAL
44	L7	80	GLN
44	L7	83	LEU
44	L7	88	ARG
44	L7	89	ILE
44	L7	92	ILE
44	L7	97	PRO
44	L7	98	LYS
44	L7	101	LYS
44	L7	110	ARG
44	L7	112	ASN
44	L7	113	SER
44	L7	121	LYS
44	L7	123	THR
44	L7	124	LEU

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Mol	Chain	Res	Type
44	L7	127	LEU
44	L7	134	VAL
44	L7	153	PHE
44	L7	157	ASN
44	L7	158	LYS
44	L7	160	ARG
44	L7	163	LEU
44	L7	164	SER
44	L7	179	LEU
44	L7	181	ILE
44	L7	183	ASP
44	L7	184	LEU
44	L7	185	ILE
44	L7	202	LEU
44	L7	216	VAL
44	L7	219	LYS
44	L7	224	ILE
44	L7	239	LEU
45	L8	26	LEU
45	L8	27	THR
45	L8	31	PRO
45	L8	36	ILE
45	L8	38	GLN
45	L8	41	GLN
45	L8	42	PRO
45	L8	47	SER
45	L8	49	TYR
45	L8	55	TYR
45	L8	67	ILE
45	L8	69	LEU
45	L8	71	VAL
45	L8	79	GLN
45	L8	81	THR
45	L8	83	ASP
45	L8	84	ARG
45	L8	95	ASN
45	L8	106	LYS
45	L8	108	ARG
45	L8	109	LEU
45	L8	110	THR
45	L8	132	VAL
45	L8	134	TYR

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Mol	Chain	Res	Type
45	L8	136	LEU
45	L8	137	ASN
45	L8	150	LEU
45	L8	155	ASN
45	L8	156	ASP
45	L8	160	ILE
45	L8	164	VAL
45	L8	183	LYS
45	L8	185	ARG
45	L8	189	LEU
45	L8	190	VAL
45	L8	197	VAL
45	L8	203	VAL
45	L8	204	ARG
45	L8	214	LEU
45	L8	216	SER
45	L8	218	ILE
45	L8	246	MET
45	L8	255	SER
46	L9	2	LYS
46	L9	5	GLN
46	L9	6	THR
46	L9	12	VAL
46	L9	14	GLU
46	L9	18	VAL
46	L9	19	SER
46	L9	20	ILE
46	L9	21	LYS
46	L9	24	ILE
46	L9	25	VAL
46	L9	41	ILE
46	L9	44	THR
46	L9	52	LEU
46	L9	53	ILE
46	L9	55	VAL
46	L9	63	LYS
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	72	LYS
46	L9	78	MET
46	L9	79	ILE

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Mol	Chain	Res	Type
46	L9	82	VAL
46	L9	90	MET
46	L9	92	TYR
46	L9	94	TYR
46	L9	102	ASN
46	L9	104	VAL
46	L9	106	LYS
46	L9	107	ASP
46	L9	111	PHE
46	L9	118	LEU
46	L9	120	ASP
46	L9	121	LYS
46	L9	122	LYS
46	L9	123	ILE
46	L9	125	ASN
46	L9	130	ASP
46	L9	133	THR
46	L9	139	ASN
46	L9	146	LEU
46	L9	147	SER
46	L9	150	SER
46	L9	151	VAL
46	L9	154	VAL
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	163	GLN
46	L9	166	ARG
46	L9	168	ARG
46	L9	172	ILE
46	L9	173	ARG
46	L9	174	LYS
46	L9	176	LEU
46	L9	182	SER
46	L9	186	PHE
46	L9	188	THR
46	L9	189	GLU
46	L9	191	LEU
47	M0	7	ARG
47	M0	12	GLN
47	M0	15	LYS
47	M0	16	PRO

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Mol	Chain	Res	Type
47	M0	20	SER
47	M0	21	ARG
47	M0	22	TYR
47	M0	26	VAL
47	M0	30	LYS
47	M0	31	ILE
47	M0	33	ILE
47	M0	39	LYS
47	M0	42	THR
47	M0	50	VAL
47	M0	52	LEU
47	M0	53	VAL
47	M0	61	SER
47	M0	63	GLU
47	M0	73	ASN
47	M0	82	ARG
47	M0	87	LEU
47	M0	99	ILE
47	M0	102	MET
47	M0	128	ARG
47	M0	130	ASP
47	M0	133	GLN
47	M0	134	ILE
47	M0	138	VAL
47	M0	139	ARG
47	M0	143	SER
47	M0	146	ASP
47	M0	163	GLN
47	M0	165	ILE
47	M0	174	THR
47	M0	177	ASP
47	M0	191	LYS
47	M0	197	VAL
47	M0	200	LEU
47	M0	201	SER
47	M0	203	LYS
47	M0	208	ASN
47	M0	215	GLU
48	M1	6	GLN
48	M1	10	ARG
48	M1	12	LEU
48	M1	13	LYS

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Mol	Chain	Res	Type
48	M1	19	LEU
48	M1	22	SER
48	M1	23	VAL
48	M1	26	SER
48	M1	28	ASP
48	M1	29	ARG
48	M1	30	LEU
48	M1	43	GLN
48	M1	46	VAL
48	M1	52	TYR
48	M1	56	THR
48	M1	59	ILE
48	M1	70	THR
48	M1	71	VAL
48	M1	77	GLU
48	M1	79	ILE
48	M1	85	LYS
48	M1	99	THR
48	M1	101	ASN
48	M1	106	ILE
48	M1	107	ASP
48	M1	119	SER
48	M1	137	ARG
48	M1	140	ARG
48	M1	142	LYS
48	M1	145	LYS
48	M1	147	THR
48	M1	150	ASN
48	M1	155	THR
48	M1	158	ASP
48	M1	166	LYS
48	M1	173	ASP
49	M3	9	ILE
49	M3	13	HIS
49	M3	15	ARG
49	M3	21	ARG
49	M3	22	VAL
49	M3	23	LYS
49	M3	24	VAL
49	M3	35	ARG
49	M3	41	THR
49	M3	46	ILE

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Mol	Chain	Res	Type
49	M3	50	PRO
49	M3	53	LEU
49	M3	55	ARG
49	M3	58	VAL
49	M3	59	ARG
49	M3	69	VAL
49	M3	73	ARG
49	M3	86	THR
49	M3	91	ARG
49	M3	98	ASP
49	M3	101	ARG
49	M3	106	GLN
49	M3	110	ASP
49	M3	115	ARG
49	M3	120	GLN
49	M3	121	SER
49	M3	122	LYS
49	M3	124	ILE
49	M3	131	LYS
49	M3	136	GLU
49	M3	137	GLN
49	M3	138	VAL
49	M3	152	THR
49	M3	154	VAL
49	M3	157	ARG
49	M3	159	VAL
49	M3	168	ARG
49	M3	171	ARG
49	M3	174	ARG
49	M3	194	GLU
50	M4	5	SER
50	M4	11	ASN
50	M4	15	VAL
50	M4	27	GLN
50	M4	28	SER
50	M4	38	ILE
50	M4	44	VAL
50	M4	50	LYS
50	M4	53	VAL
50	M4	55	ARG
50	M4	66	THR
50	M4	68	LEU

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Mol	Chain	Res	Type
50	M4	82	SER
50	M4	83	LYS
50	M4	90	VAL
50	M4	91	CYS
50	M4	92	GLU
50	M4	102	LYS
50	M4	106	ARG
50	M4	107	GLU
50	M4	108	ARG
50	M4	109	ARG
50	M4	113	THR
50	M4	117	ARG
50	M4	127	LYS
50	M4	131	VAL
50	M4	133	LYS
50	M4	135	LEU
50	M4	137	LYS
51	M5	5	LYS
51	M5	10	LEU
51	M5	22	LEU
51	M5	23	GLN
51	M5	25	VAL
51	M5	38	ARG
51	M5	43	THR
51	M5	49	ARG
51	M5	51	LEU
51	M5	54	LYS
51	M5	57	GLN
51	M5	62	TYR
51	M5	64	VAL
51	M5	80	THR
51	M5	90	ASN
51	M5	96	ARG
51	M5	101	THR
51	M5	104	GLU
51	M5	113	LEU
51	M5	117	ASN
51	M5	128	LYS
51	M5	133	ILE
51	M5	142	ILE
51	M5	151	ILE
51	M5	153	ASP

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Mol	Chain	Res	Type
51	M5	155	VAL
51	M5	165	THR
51	M5	174	ILE
51	M5	184	LYS
51	M5	190	THR
51	M5	201	ARG
51	M5	204	LYS
52	M6	8	VAL
52	M6	16	VAL
52	M6	41	LEU
52	M6	42	ASN
52	M6	44	SER
52	M6	47	PHE
52	M6	57	PHE
52	M6	58	LEU
52	M6	59	ARG
52	M6	67	THR
52	M6	68	ARG
52	M6	70	PRO
52	M6	78	ARG
52	M6	82	LYS
52	M6	85	ARG
52	M6	87	MET
52	M6	89	SER
52	M6	92	THR
52	M6	104	VAL
52	M6	105	PHE
52	M6	106	GLU
52	M6	110	PRO
52	M6	117	ARG
52	M6	118	VAL
52	M6	122	GLN
52	M6	124	LEU
52	M6	126	VAL
52	M6	141	LEU
52	M6	142	SER
52	M6	143	THR
52	M6	155	LYS
52	M6	156	LEU
52	M6	161	LYS
52	M6	164	SER
52	M6	166	GLU

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Mol	Chain	Res	Type
52	M6	170	LYS
52	M6	177	LYS
52	M6	184	THR
52	M6	190	VAL
52	M6	194	LEU
53	M7	7	THR
53	M7	9	THR
53	M7	13	LYS
53	M7	14	SER
53	M7	16	SER
53	M7	20	SER
53	M7	21	TYR
53	M7	26	PHE
53	M7	34	GLN
53	M7	36	ILE
53	M7	42	THR
53	M7	49	GLU
53	M7	52	LEU
53	M7	53	ASP
53	M7	54	HIS
53	M7	55	GLN
53	M7	56	ARG
53	M7	61	ARG
53	M7	62	ARG
53	M7	67	ILE
53	M7	69	ARG
53	M7	78	VAL
53	M7	79	THR
53	M7	86	LYS
53	M7	90	PHE
53	M7	91	VAL
53	M7	107	LEU
53	M7	111	LYS
53	M7	112	LEU
53	M7	125	GLN
53	M7	127	ARG
53	M7	128	ARG
53	M7	131	ARG
53	M7	136	ILE
53	M7	138	LYS
53	M7	141	SER
53	M7	144	SER

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Mol	Chain	Res	Type
53	M7	154	GLU
53	M7	155	GLU
53	M7	168	LEU
53	M7	180	LYS
53	M7	181	ARG
54	M8	3	ILE
54	M8	6	THR
54	M8	7	SER
54	M8	8	LYS
54	M8	11	LYS
54	M8	20	LYS
54	M8	26	LEU
54	M8	29	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	39	ARG
54	M8	41	ASP
54	M8	46	LYS
54	M8	49	LEU
54	M8	55	SER
54	M8	56	LYS
54	M8	63	SER
54	M8	66	ARG
54	M8	67	ILE
54	M8	93	ILE
54	M8	100	THR
54	M8	105	ARG
54	M8	106	PHE
54	M8	107	THR
54	M8	111	ARG
54	M8	115	VAL
54	M8	124	LEU
54	M8	133	LYS
54	M8	146	SER
54	M8	147	ARG
54	M8	150	VAL
54	M8	174	ARG
54	M8	176	ARG
54	M8	180	ARG
54	M8	186	VAL
55	M9	4	LEU
55	M9	5	ARG

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Mol	Chain	Res	Type
55	M9	10	LEU
55	M9	17	VAL
55	M9	24	LEU
55	M9	25	ASP
55	M9	28	GLU
55	M9	31	GLU
55	M9	37	SER
55	M9	41	ILE
55	M9	44	LEU
55	M9	46	LYS
55	M9	49	THR
55	M9	55	VAL
55	M9	57	VAL
55	M9	63	THR
55	M9	70	LYS
55	M9	71	ARG
55	M9	74	ARG
55	M9	81	ARG
55	M9	84	THR
55	M9	89	LEU
55	M9	92	GLN
55	M9	100	ARG
55	M9	104	ARG
55	M9	105	LEU
55	M9	106	LEU
55	M9	116	ASP
55	M9	119	LEU
55	M9	125	LYS
55	M9	130	ASN
55	M9	134	HIS
55	M9	135	LYS
55	M9	139	VAL
55	M9	141	HIS
55	M9	164	LEU
55	M9	165	LYS
55	M9	167	ARG
55	M9	173	ARG
55	M9	176	ARG
55	M9	188	ASP
56	N0	1	MET
56	N0	3	HIS
56	N0	5	LYS

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Mol	Chain	Res	Type
56	N0	7	TYR
56	N0	8	GLN
56	N0	16	THR
56	N0	17	GLU
56	N0	18	SER
56	N0	23	LYS
56	N0	34	GLU
56	N0	36	ILE
56	N0	45	LEU
56	N0	47	LYS
56	N0	51	VAL
56	N0	55	SER
56	N0	57	GLU
56	N0	58	ILE
56	N0	63	GLN
56	N0	71	LYS
56	N0	81	TYR
56	N0	82	ASP
56	N0	87	THR
56	N0	88	HIS
56	N0	98	SER
56	N0	100	VAL
56	N0	106	LEU
56	N0	107	TYR
56	N0	108	GLN
56	N0	117	ARG
56	N0	119	ARG
56	N0	120	SER
56	N0	123	ILE
56	N0	137	ARG
56	N0	142	GLN
56	N0	145	THR
56	N0	148	LEU
56	N0	149	LYS
56	N0	155	ARG
56	N0	156	VAL
56	N0	158	LYS
56	N0	159	SER
56	N0	162	THR
56	N0	166	LYS
56	N0	167	ARG
56	N0	169	SER

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Mol	Chain	Res	Type
56	N0	170	THR
56	N0	171	PHE
56	N0	172	TYR
57	N1	5	HIS
57	N1	9	SER
57	N1	12	ARG
57	N1	15	PHE
57	N1	25	VAL
57	N1	29	THR
57	N1	32	LYS
57	N1	35	LYS
57	N1	60	LYS
57	N1	69	LYS
57	N1	72	VAL
57	N1	74	VAL
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	88	ARG
57	N1	92	ARG
57	N1	93	VAL
57	N1	97	LYS
57	N1	98	HIS
57	N1	102	ARG
57	N1	103	GLN
57	N1	104	GLU
57	N1	106	LEU
57	N1	118	GLU
57	N1	120	LYS
57	N1	122	GLN
57	N1	124	VAL
57	N1	126	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	130	ARG
57	N1	139	ARG
57	N1	141	VAL
57	N1	158	THR
57	N1	160	ILE
58	N2	14	THR
58	N2	27	VAL
58	N2	29	ASP

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Mol	Chain	Res	Type
58	N2	32	SER
58	N2	35	LYS
58	N2	39	ASP
58	N2	43	VAL
58	N2	50	LEU
58	N2	52	ASN
58	N2	54	VAL
58	N2	68	THR
58	N2	70	LYS
58	N2	72	SER
58	N2	91	ASP
58	N2	93	ILE
58	N2	94	ARG
58	N2	95	PHE
58	N2	100	THR
58	N2	108	TYR
59	N3	12	ARG
59	N3	13	ILE
59	N3	29	SER
59	N3	36	ILE
59	N3	40	LYS
59	N3	42	SER
59	N3	45	ARG
59	N3	54	LEU
59	N3	59	MET
59	N3	68	GLU
59	N3	70	ARG
59	N3	72	LYS
59	N3	74	MET
59	N3	86	ARG
59	N3	87	ARG
59	N3	96	GLU
59	N3	97	ASP
59	N3	102	ILE
59	N3	104	ASN
59	N3	114	ILE
59	N3	120	LYS
59	N3	124	ASP
59	N3	128	ARG
59	N3	136	VAL
59	N3	137	VAL
60	N4	4	GLU

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Mol	Chain	Res	Type
60	N4	9	SER
60	N4	19	THR
60	N4	21	PHE
60	N4	23	ARG
60	N4	27	LYS
60	N4	38	SER
60	N4	39	LEU
60	N4	42	GLN
60	N4	45	ASN
60	N4	47	ARG
60	N4	52	THR
61	N5	24	LEU
61	N5	27	ARG
61	N5	32	PHE
61	N5	34	LEU
61	N5	38	LEU
61	N5	46	TYR
61	N5	58	ASP
61	N5	60	TYR
61	N5	61	LYS
61	N5	63	ILE
61	N5	65	GLN
61	N5	71	THR
61	N5	80	ASN
61	N5	85	GLN
61	N5	108	LEU
61	N5	115	ARG
61	N5	127	THR
61	N5	133	LEU
61	N5	134	ASP
61	N5	135	ILE
61	N5	139	ILE
62	N6	5	SER
62	N6	7	ASP
62	N6	8	VAL
62	N6	13	ARG
62	N6	25	SER
62	N6	26	GLN
62	N6	36	SER
62	N6	37	LYS
62	N6	38	GLU
62	N6	39	LEU

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Mol	Chain	Res	Type
62	N6	42	GLN
62	N6	45	ILE
62	N6	46	LYS
62	N6	50	ILE
62	N6	51	ARG
62	N6	57	LEU
62	N6	60	ARG
62	N6	62	SER
62	N6	74	TYR
62	N6	80	VAL
62	N6	83	ASP
62	N6	88	GLU
62	N6	90	VAL
62	N6	94	SER
62	N6	95	VAL
62	N6	115	ARG
62	N6	118	LEU
62	N6	126	LEU
62	N6	127	GLU
63	N7	9	LYS
63	N7	14	VAL
63	N7	33	SER
63	N7	34	LYS
63	N7	46	ILE
63	N7	52	LYS
63	N7	56	LYS
63	N7	57	HIS
63	N7	72	ILE
63	N7	75	VAL
63	N7	81	LEU
63	N7	88	ASP
63	N7	92	PHE
63	N7	99	GLU
63	N7	100	THR
63	N7	102	GLU
63	N7	107	ARG
63	N7	109	GLU
63	N7	121	ARG
63	N7	129	TRP
63	N7	132	SER
63	N7	134	LEU
63	N7	136	PHE

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Mol	Chain	Res	Type
64	N8	8	THR
64	N8	15	VAL
64	N8	22	ILE
64	N8	38	GLN
64	N8	42	ARG
64	N8	43	ILE
64	N8	45	MET
64	N8	47	LYS
64	N8	56	VAL
64	N8	60	TYR
64	N8	75	LEU
64	N8	78	LEU
64	N8	83	PRO
64	N8	84	GLU
64	N8	86	LYS
64	N8	93	SER
64	N8	96	LYS
64	N8	98	THR
64	N8	115	LYS
64	N8	120	ASN
64	N8	135	GLU
64	N8	136	GLU
64	N8	139	ARG
65	N9	3	LYS
65	N9	6	ASN
65	N9	10	HIS
65	N9	13	THR
65	N9	14	ARG
65	N9	22	LYS
65	N9	25	LYS
65	N9	26	THR
65	N9	28	LYS
65	N9	33	LYS
65	N9	35	VAL
65	N9	37	PRO
65	N9	38	LYS
65	N9	50	THR
65	N9	58	LYS
65	N9	59	LYS
66	O0	18	ILE
66	O0	30	THR
66	O0	32	LYS

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Mol	Chain	Res	Type
66	O0	34	LEU
66	O0	40	LYS
66	O0	41	LEU
66	O0	43	ILE
66	O0	48	THR
66	O0	52	ARG
66	O0	61	MET
66	O0	62	LEU
66	O0	65	THR
66	O0	66	LYS
66	O0	83	LYS
66	O0	87	VAL
66	O0	90	VAL
66	O0	92	ILE
66	O0	97	ASP
66	O0	100	ILE
67	O1	9	THR
67	O1	13	THR
67	O1	14	ILE
67	O1	16	LEU
67	O1	18	LYS
67	O1	21	HIS
67	O1	24	SER
67	O1	26	LYS
67	O1	31	ARG
67	O1	35	GLU
67	O1	41	LYS
67	O1	46	THR
67	O1	64	VAL
67	O1	73	LEU
67	O1	75	ILE
67	O1	79	ARG
67	O1	82	GLU
67	O1	83	GLU
67	O1	84	ASP
67	O1	86	LYS
67	O1	89	LEU
67	O1	93	VAL
67	O1	98	VAL
67	O1	100	SER
67	O1	110	GLU
68	O2	6	HIS

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Mol	Chain	Res	Type
68	O2	10	VAL
68	O2	14	THR
68	O2	18	LYS
68	O2	19	ARG
68	O2	26	HIS
68	O2	33	ARG
68	O2	36	LYS
68	O2	38	ILE
68	O2	39	ASP
68	O2	41	VAL
68	O2	44	ARG
68	O2	47	ARG
68	O2	49	ASN
68	O2	50	ILE
68	O2	61	LYS
68	O2	62	LYS
68	O2	67	SER
68	O2	68	PRO
68	O2	74	PHE
68	O2	75	LEU
68	O2	76	VAL
68	O2	78	ASN
68	O2	80	LYS
68	O2	82	LEU
68	O2	84	THR
68	O2	85	LEU
68	O2	86	THR
68	O2	96	ILE
68	O2	100	ILE
68	O2	103	LYS
68	O2	104	ASN
68	O2	105	ARG
68	O2	108	ILE
68	O2	109	LEU
68	O2	121	ASN
69	O3	20	LYS
69	O3	21	ARG
69	O3	22	VAL
69	O3	29	LEU
69	O3	31	LYS
69	O3	37	THR
69	O3	38	PRO

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Mol	Chain	Res	Type
69	O3	56	SER
69	O3	59	VAL
69	O3	60	ARG
69	O3	62	SER
69	O3	67	MET
69	O3	70	LYS
69	O3	82	ARG
69	O3	84	THR
69	O3	86	ARG
69	O3	98	VAL
69	O3	106	ASN
69	O3	107	ILE
70	O4	4	ARG
70	O4	8	ARG
70	O4	10	ARG
70	O4	14	ASN
70	O4	15	THR
70	O4	18	ASN
70	O4	20	ILE
70	O4	22	VAL
70	O4	29	ILE
70	O4	35	VAL
70	O4	38	LEU
70	O4	43	LYS
70	O4	44	CYS
70	O4	51	LEU
70	O4	52	GLN
70	O4	56	THR
70	O4	57	LEU
70	O4	58	ARG
70	O4	65	VAL
70	O4	66	SER
70	O4	68	THR
70	O4	71	THR
70	O4	81	CYS
70	O4	88	ARG
70	O4	89	ILE
70	O4	98	GLN
70	O4	102	LYS
70	O4	105	VAL
70	O4	110	GLU
71	O5	4	VAL

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Mol	Chain	Res	Type
71	O5	7	TYR
71	O5	8	GLU
71	O5	11	THR
71	O5	13	SER
71	O5	15	GLU
71	O5	28	LEU
71	O5	36	LEU
71	O5	41	LEU
71	O5	45	LYS
71	O5	46	THR
71	O5	47	VAL
71	O5	48	ARG
71	O5	49	LYS
71	O5	50	SER
71	O5	51	ILE
71	O5	55	LEU
71	O5	58	ILE
71	O5	62	GLN
71	O5	68	GLN
71	O5	69	LEU
71	O5	71	LYS
71	O5	73	LYS
71	O5	74	LYS
71	O5	81	ARG
71	O5	86	ARG
71	O5	89	ARG
71	O5	93	THR
71	O5	96	GLU
71	O5	101	THR
71	O5	102	GLU
71	O5	107	LYS
71	O5	115	LYS
71	O5	118	ILE
71	O5	119	LYS
72	O6	2	THR
72	O6	18	THR
72	O6	20	MET
72	O6	21	THR
72	O6	25	LYS
72	O6	28	TYR
72	O6	29	LYS
72	O6	43	LEU

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Mol	Chain	Res	Type
72	O6	44	VAL
72	O6	45	ARG
72	O6	50	LEU
72	O6	52	PRO
72	O6	58	ILE
72	O6	59	ASP
72	O6	60	LEU
72	O6	64	SER
72	O6	68	ARG
72	O6	71	LYS
72	O6	76	ARG
72	O6	84	LYS
72	O6	87	VAL
72	O6	88	GLU
72	O6	90	MET
72	O6	98	ARG
72	O6	99	ARG
73	O7	3	LYS
73	O7	11	ARG
73	O7	17	THR
73	O7	18	LEU
73	O7	24	ARG
73	O7	31	LYS
73	O7	32	LYS
73	O7	33	THR
73	O7	43	LYS
73	O7	45	ARG
73	O7	55	ARG
73	O7	58	THR
73	O7	65	ARG
73	O7	67	LEU
73	O7	74	PHE
73	O7	75	LYS
73	O7	80	THR
73	O7	82	SER
73	O7	85	LYS
74	O8	8	ILE
74	O8	14	LEU
74	O8	17	ARG
74	O8	20	VAL
74	O8	24	THR
74	O8	31	LEU

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Mol	Chain	Res	Type
74	O8	32	ASN
74	O8	36	LYS
74	O8	41	THR
74	O8	53	THR
74	O8	61	LYS
74	O8	65	LEU
74	O8	69	LEU
74	O8	72	THR
74	O8	77	ARG
75	O9	7	PHE
75	O9	12	LYS
75	O9	17	LYS
75	O9	21	ARG
75	O9	23	LEU
75	O9	28	ARG
75	O9	29	LEU
75	O9	41	ARG
75	O9	42	ARG
75	O9	45	ARG
76	Q0	85	LEU
76	Q0	88	LYS
76	Q0	89	TYR
76	Q0	92	ASP
76	Q0	94	SER
76	Q0	99	CYS
76	Q0	108	THR
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	122	ARG
76	Q0	127	LEU
77	Q1	1	MET
77	Q1	2	ARG
77	Q1	4	LYS
77	Q1	7	LYS
77	Q1	11	ARG
77	Q1	16	LYS
77	Q1	17	ARG
77	Q1	21	ARG
78	Q2	6	LYS
78	Q2	7	THR
78	Q2	8	ARG
78	Q2	15	LYS

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Mol	Chain	Res	Type
78	Q2	16	THR
78	Q2	19	LYS
78	Q2	20	HIS
78	Q2	28	TYR
78	Q2	35	LEU
78	Q2	40	LYS
78	Q2	45	ARG
78	Q2	54	THR
78	Q2	55	LYS
78	Q2	57	VAL
78	Q2	58	PHE
78	Q2	61	LYS
78	Q2	64	THR
78	Q2	78	LYS
78	Q2	80	ARG
78	Q2	83	LEU
78	Q2	85	LEU
78	Q2	90	HIS
78	Q2	93	LEU
78	Q2	96	GLU
78	Q2	105	GLN
79	Q3	5	THR
79	Q3	6	LYS
79	Q3	7	LYS
79	Q3	8	VAL
79	Q3	20	SER
79	Q3	21	SER
79	Q3	25	GLN
79	Q3	41	PHE
79	Q3	42	CYS
79	Q3	45	LYS
79	Q3	48	LYS
79	Q3	49	ARG
79	Q3	58	SER
79	Q3	70	THR
79	Q3	81	SER
79	Q3	84	ARG
79	Q3	91	GLU
2	s0	6	THR
2	s0	9	LEU
2	s0	12	GLU
2	s0	15	GLN

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Mol	Chain	Res	Type
2	s0	22	THR
2	s0	24	LEU
2	s0	28	ASN
2	s0	29	VAL
2	s0	41	ARG
2	s0	50	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	63	ILE
2	s0	69	ASN
2	s0	72	ASP
2	s0	84	ARG
2	s0	86	VAL
2	s0	87	LEU
2	s0	96	THR
2	s0	98	ILE
2	s0	110	TYR
2	s0	111	ILE
2	s0	113	ARG
2	s0	119	ARG
2	s0	122	ILE
2	s0	128	SER
2	s0	129	ASP
2	s0	131	GLN
2	s0	133	ILE
2	s0	141	ILE
2	s0	153	SER
2	s0	156	VAL
2	s0	157	ASP
2	s0	165	ARG
2	s0	172	LEU
2	s0	177	LEU
2	s0	181	VAL
2	s0	183	ARG
2	s0	185	ARG
2	s0	188	LEU
2	s0	189	VAL
2	s0	196	SER
3	s1	21	VAL
3	s1	36	SER
3	s1	37	THR
3	s1	46	THR

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Mol	Chain	Res	Type
3	s1	47	LEU
3	s1	50	LYS
3	s1	55	LYS
3	s1	59	ASP
3	s1	61	LEU
3	s1	62	LYS
3	s1	65	VAL
3	s1	66	VAL
3	s1	70	LEU
3	s1	73	LEU
3	s1	76	SER
3	s1	77	GLU
3	s1	79	HIS
3	s1	81	PHE
3	s1	89	ASP
3	s1	90	GLU
3	s1	98	THR
3	s1	105	PHE
3	s1	108	ASP
3	s1	115	ARG
3	s1	126	THR
3	s1	129	THR
3	s1	137	ILE
3	s1	158	SER
3	s1	162	ARG
3	s1	173	THR
3	s1	180	THR
3	s1	181	LEU
3	s1	185	THR
3	s1	188	LEU
3	s1	193	ILE
3	s1	194	ASN
3	s1	202	LYS
3	s1	205	PHE
3	s1	208	GLN
3	s1	209	ASN
3	s1	211	HIS
3	s1	222	LYS
3	s1	223	PHE
3	s1	232	HIS
3	s1	234	GLU
4	s2	41	LEU

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Mol	Chain	Res	Type
4	s2	43	ARG
4	s2	46	LYS
4	s2	51	THR
4	s2	52	THR
4	s2	53	ILE
4	s2	56	ILE
4	s2	58	LEU
4	s2	60	SER
4	s2	66	PHE
4	s2	69	ILE
4	s2	70	ASP
4	s2	72	LEU
4	s2	80	VAL
4	s2	83	ILE
4	s2	86	VAL
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	95	ARG
4	s2	96	THR
4	s2	97	ARG
4	s2	107	SER
4	s2	111	VAL
4	s2	113	LEU
4	s2	117	THR
4	s2	119	LYS
4	s2	130	ILE
4	s2	131	ILE
4	s2	139	ILE
4	s2	140	ARG
4	s2	141	ARG
4	s2	146	THR
4	s2	147	ASN
4	s2	150	GLN
4	s2	152	HIS
4	s2	154	LEU
4	s2	164	SER
4	s2	166	THR
4	s2	167	VAL
4	s2	170	ILE
4	s2	174	ARG
4	s2	179	VAL

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Mol	Chain	Res	Type
4	s2	181	SER
4	s2	187	LEU
4	s2	189	GLN
4	s2	195	ASP
4	s2	205	ARG
4	s2	216	VAL
4	s2	222	TYR
4	s2	224	PHE
4	s2	225	LEU
4	s2	229	LEU
4	s2	232	GLU
4	s2	233	GLN
4	s2	246	GLU
4	s2	250	GLN
5	s3	4	LEU
5	s3	14	ASP
5	s3	21	LEU
5	s3	26	THR
5	s3	32	GLU
5	s3	34	TYR
5	s3	37	VAL
5	s3	40	ARG
5	s3	41	VAL
5	s3	44	THR
5	s3	54	ARG
5	s3	57	ASP
5	s3	59	LEU
5	s3	66	ILE
5	s3	67	ASN
5	s3	69	LEU
5	s3	70	THR
5	s3	72	LEU
5	s3	74	GLN
5	s3	76	ARG
5	s3	84	ILE
5	s3	90	ARG
5	s3	94	ARG
5	s3	97	SER
5	s3	103	GLU
5	s3	109	LEU
5	s3	115	ILE
5	s3	117	ARG

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Mol	Chain	Res	Type
5	s3	128	GLU
5	s3	139	SER
5	s3	142	LEU
5	s3	143	ARG
5	s3	148	LYS
5	s3	152	PHE
5	s3	154	ASP
5	s3	158	ILE
5	s3	162	GLN
5	s3	167	PHE
5	s3	168	ILE
5	s3	174	HIS
5	s3	178	ARG
5	s3	181	VAL
5	s3	189	MET
5	s3	195	SER
5	s3	196	ARG
5	s3	197	THR
5	s3	207	THR
5	s3	212	LYS
5	s3	213	GLU
5	s3	217	ILE
5	s3	223	LYS
6	s4	12	LEU
6	s4	20	LEU
6	s4	23	LEU
6	s4	32	SER
6	s4	38	LEU
6	s4	39	ARG
6	s4	42	LEU
6	s4	45	ILE
6	s4	49	ARG
6	s4	56	LEU
6	s4	57	ASN
6	s4	65	LEU
6	s4	77	ARG
6	s4	80	THR
6	s4	82	TYR
6	s4	88	ASP
6	s4	100	ARG
6	s4	108	ARG
6	s4	113	ARG

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Mol	Chain	Res	Type
6	s4	115	THR
6	s4	116	ASP
6	s4	127	LYS
6	s4	130	GLN
6	s4	131	LEU
6	s4	133	LYS
6	s4	140	VAL
6	s4	143	ASP
6	s4	147	ILE
6	s4	151	ASP
6	s4	156	VAL
6	s4	160	VAL
6	s4	164	LEU
6	s4	169	ILE
6	s4	170	THR
6	s4	171	ASP
6	s4	174	LYS
6	s4	180	LEU
6	s4	182	TYR
6	s4	187	ARG
6	s4	194	THR
6	s4	195	ILE
6	s4	202	ASP
6	s4	209	HIS
6	s4	214	LEU
6	s4	217	THR
6	s4	219	VAL
6	s4	220	THR
6	s4	221	ARG
6	s4	227	VAL
6	s4	230	GLU
6	s4	240	LYS
6	s4	244	ILE
6	s4	246	LEU
6	s4	248	ILE
6	s4	254	ARG
6	s4	259	GLN
7	s5	20	PHE
7	s5	21	THR
7	s5	25	LEU
7	s5	28	PRO
7	s5	31	GLU

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Mol	Chain	Res	Type
7	s5	32	GLU
7	s5	38	THR
7	s5	39	GLU
7	s5	40	ILE
7	s5	41	LYS
7	s5	44	ASN
7	s5	45	LYS
7	s5	53	VAL
7	s5	57	SER
7	s5	59	VAL
7	s5	63	GLN
7	s5	64	VAL
7	s5	65	ARG
7	s5	68	ILE
7	s5	70	VAL
7	s5	73	THR
7	s5	76	ARG
7	s5	79	ASN
7	s5	89	ILE
7	s5	92	ARG
7	s5	93	LEU
7	s5	96	SER
7	s5	99	MET
7	s5	112	ARG
7	s5	119	ASP
7	s5	127	GLN
7	s5	146	THR
7	s5	147	THR
7	s5	148	ARG
7	s5	156	ARG
7	s5	157	ARG
7	s5	162	VAL
7	s5	166	ARG
7	s5	170	GLN
7	s5	187	ILE
7	s5	190	ILE
7	s5	194	LEU
7	s5	203	LYS
7	s5	205	SER
7	s5	217	LEU
7	s5	219	ARG
7	s5	223	SER

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Mol	Chain	Res	Type
7	s5	225	ARG
8	s6	1	MET
8	s6	5	ILE
8	s6	6	SER
8	s6	7	TYR
8	s6	10	ASN
8	s6	15	THR
8	s6	19	ASP
8	s6	22	HIS
8	s6	24	ILE
8	s6	29	ASP
8	s6	44	GLU
8	s6	49	VAL
8	s6	50	PHE
8	s6	57	ASP
8	s6	67	VAL
8	s6	71	THR
8	s6	73	ILE
8	s6	76	LEU
8	s6	78	THR
8	s6	79	LYS
8	s6	81	VAL
8	s6	93	LYS
8	s6	108	VAL
8	s6	111	LEU
8	s6	119	GLN
8	s6	120	GLU
8	s6	121	LEU
8	s6	122	GLU
8	s6	126	ASP
8	s6	127	THR
8	s6	129	VAL
8	s6	133	LEU
8	s6	143	LYS
8	s6	150	GLU
8	s6	151	ASP
8	s6	153	VAL
8	s6	154	ARG
8	s6	156	PHE
8	s6	157	VAL
8	s6	158	ILE
8	s6	162	VAL

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Mol	Chain	Res	Type
8	s6	168	THR
8	s6	171	LYS
8	s6	173	PRO
8	s6	175	ILE
8	s6	177	ARG
8	s6	182	GLN
8	s6	184	LEU
8	s6	185	GLN
8	s6	197	ASN
8	s6	210	GLN
8	s6	211	LEU
8	s6	215	ARG
8	s6	216	LEU
8	s6	217	SER
9	s7	7	LYS
9	s7	11	GLN
9	s7	16	LEU
9	s7	25	VAL
9	s7	26	GLU
9	s7	35	LYS
9	s7	37	GLU
9	s7	38	LEU
9	s7	39	ARG
9	s7	48	GLU
9	s7	49	ILE
9	s7	50	ASP
9	s7	67	LEU
9	s7	77	LEU
9	s7	79	ARG
9	s7	80	GLU
9	s7	84	LYS
9	s7	87	ASP
9	s7	90	VAL
9	s7	97	ARG
9	s7	104	ARG
9	s7	105	THR
9	s7	107	ARG
9	s7	108	GLN
9	s7	109	VAL
9	s7	114	ARG
9	s7	116	ARG
9	s7	118	LEU

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Mol	Chain	Res	Type
9	s7	119	THR
9	s7	123	ASP
9	s7	125	ILE
9	s7	126	LEU
9	s7	129	LEU
9	s7	135	ILE
9	s7	144	VAL
9	s7	149	ILE
9	s7	154	LEU
9	s7	157	LYS
9	s7	160	GLN
9	s7	161	GLN
9	s7	166	LEU
9	s7	167	GLU
9	s7	185	ILE
10	s8	3	ILE
10	s8	4	SER
10	s8	6	ASP
10	s8	8	ARG
10	s8	9	HIS
10	s8	11	ARG
10	s8	17	LYS
10	s8	18	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	38	ILE
10	s8	41	LYS
10	s8	43	ILE
10	s8	45	SER
10	s8	46	VAL
10	s8	47	ARG
10	s8	48	THR
10	s8	56	ARG
10	s8	59	ARG
10	s8	61	GLU
10	s8	62	THR
10	s8	64	ASN
10	s8	66	SER
10	s8	72	ILE
10	s8	76	THR
10	s8	89	GLU
10	s8	92	ARG

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Mol	Chain	Res	Type
10	s8	93	THR
10	s8	101	ILE
10	s8	111	GLN
10	s8	120	THR
10	s8	121	LEU
10	s8	136	SER
10	s8	151	LYS
10	s8	152	ILE
10	s8	153	GLU
10	s8	155	SER
10	s8	158	SER
10	s8	169	ILE
10	s8	184	LEU
10	s8	193	LEU
10	s8	195	ARG
10	s8	196	LEU
10	s8	197	THR
11	s9	3	ARG
11	s9	7	THR
11	s9	9	SER
11	s9	11	THR
11	s9	16	LYS
11	s9	17	ARG
11	s9	20	GLU
11	s9	28	LEU
11	s9	30	LEU
11	s9	39	LYS
11	s9	40	LYS
11	s9	45	ILE
11	s9	46	SER
11	s9	49	LEU
11	s9	53	ARG
11	s9	59	LEU
11	s9	60	LEU
11	s9	61	THR
11	s9	78	ARG
11	s9	82	ARG
11	s9	83	VAL
11	s9	90	LYS
11	s9	93	LEU
11	s9	101	VAL
11	s9	105	LEU

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Mol	Chain	Res	Type
11	s9	109	LEU
11	s9	110	GLN
11	s9	112	GLN
11	s9	115	LYS
11	s9	126	ARG
11	s9	127	VAL
11	s9	130	THR
11	s9	134	ILE
11	s9	140	ILE
11	s9	150	LEU
11	s9	154	LYS
11	s9	155	HIS
11	s9	162	SER
11	s9	168	ARG
11	s9	171	ARG
11	s9	172	VAL
11	s9	180	LYS
12	c0	2	LEU
12	c0	3	MET
12	c0	5	LYS
12	c0	6	GLU
12	c0	8	ARG
12	c0	15	LEU
12	c0	20	VAL
12	c0	33	GLU
12	c0	36	ASP
12	c0	49	LEU
12	c0	51	SER
12	c0	55	VAL
12	c0	57	THR
12	c0	64	TYR
12	c0	67	THR
12	c0	70	GLU
12	c0	73	VAL
12	c0	74	GLU
12	c0	75	TYR
13	c1	5	LEU
13	c1	8	GLN
13	c1	9	SER
13	c1	16	GLN
13	c1	19	ILE
13	c1	21	ASN

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Mol	Chain	Res	Type
13	c1	25	VAL
13	c1	26	LYS
13	c1	30	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	47	THR
13	c1	56	LYS
13	c1	60	PHE
13	c1	63	LEU
13	c1	67	ARG
13	c1	72	THR
13	c1	74	THR
13	c1	77	SER
13	c1	80	MET
13	c1	86	ILE
13	c1	87	ARG
13	c1	91	LEU
13	c1	103	ARG
13	c1	105	LYS
13	c1	111	VAL
13	c1	117	VAL
13	c1	123	VAL
13	c1	124	THR
13	c1	136	ARG
13	c1	143	SER
14	c2	28	LEU
14	c2	30	VAL
14	c2	36	LEU
14	c2	41	LEU
14	c2	43	ARG
14	c2	58	LEU
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	66	VAL
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU

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Mol	Chain	Res	Type
14	c2	116	VAL
14	c2	119	SER
14	c2	121	VAL
14	c2	125	ASN
14	c2	126	TRP
14	c2	132	GLU
14	c2	135	MET
14	c2	136	ILE
14	c2	140	PHE
15	c3	13	SER
15	c3	16	ILE
15	c3	20	ARG
15	c3	26	PHE
15	c3	28	LEU
15	c3	30	SER
15	c3	35	GLU
15	c3	36	GLN
15	c3	37	ILE
15	c3	42	ARG
15	c3	50	ILE
15	c3	64	ARG
15	c3	66	ILE
15	c3	67	THR
15	c3	71	ILE
15	c3	72	MET
15	c3	80	LEU
15	c3	82	PRO
15	c3	84	ILE
15	c3	94	LYS
15	c3	98	VAL
15	c3	102	LEU
15	c3	104	ARG
15	c3	110	ASP
15	c3	114	ARG
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	131	THR
15	c3	134	VAL
15	c3	138	ASN
16	c4	10	ASN
16	c4	13	VAL

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Mol	Chain	Res	Type
16	c4	14	PHE
16	c4	18	ARG
16	c4	20	TYR
16	c4	22	SER
16	c4	43	THR
16	c4	49	LYS
16	c4	52	ARG
16	c4	55	SER
16	c4	58	TYR
16	c4	66	ASP
16	c4	67	VAL
16	c4	81	VAL
16	c4	82	LYS
16	c4	83	ILE
16	c4	90	ARG
16	c4	91	THR
16	c4	92	LYS
16	c4	93	THR
16	c4	102	LEU
16	c4	107	ARG
16	c4	114	ARG
16	c4	123	SER
16	c4	124	ASP
16	c4	125	SER
16	c4	127	ARG
16	c4	133	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	15	HIS
17	c5	16	SER
17	c5	20	VAL
17	c5	22	LEU
17	c5	24	LYS
17	c5	27	GLU
17	c5	29	SER
17	c5	34	VAL
17	c5	36	LEU
17	c5	41	VAL
17	c5	43	ARG
17	c5	45	PHE
17	c5	49	MET
17	c5	52	LYS

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Mol	Chain	Res	Type
17	c5	60	LEU
17	c5	61	ARG
17	c5	64	LYS
17	c5	65	LEU
17	c5	69	GLU
17	c5	72	LYS
17	c5	76	VAL
17	c5	86	VAL
17	c5	92	SER
17	c5	93	VAL
17	c5	94	VAL
17	c5	110	GLU
17	c5	120	SER
17	c5	121	ILE
17	c5	124	THR
17	c5	127	ARG
18	c6	8	GLN
18	c6	15	SER
18	c6	17	THR
18	c6	23	LYS
18	c6	26	LYS
18	c6	32	ASN
18	c6	36	ILE
18	c6	43	ILE
18	c6	50	GLU
18	c6	53	LEU
18	c6	54	LEU
18	c6	55	VAL
18	c6	57	LEU
18	c6	61	SER
18	c6	63	ILE
18	c6	68	ARG
18	c6	69	VAL
18	c6	81	ILE
18	c6	101	SER
18	c6	103	ASN
18	c6	105	LEU
18	c6	111	SER
18	c6	113	ASP
18	c6	114	ARG
18	c6	115	THR
18	c6	117	LEU

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Mol	Chain	Res	Type
18	c6	118	ILE
18	c6	123	ARG
18	c6	132	LYS
18	c6	137	ARG
18	c6	143	ARG
19	c7	3	ARG
19	c7	4	VAL
19	c7	5	ARG
19	c7	6	THR
19	c7	7	LYS
19	c7	14	LYS
19	c7	25	THR
19	c7	29	GLN
19	c7	30	THR
19	c7	34	LEU
19	c7	35	CYS
19	c7	36	ASP
19	c7	38	ILE
19	c7	44	LYS
19	c7	46	LEU
19	c7	49	LYS
19	c7	54	THR
19	c7	55	THR
19	c7	56	HIS
19	c7	69	ILE
19	c7	72	LYS
19	c7	73	LEU
19	c7	78	ARG
19	c7	83	GLN
19	c7	88	VAL
19	c7	104	ASN
19	c7	105	GLN
19	c7	106	THR
19	c7	108	ASP
19	c7	112	SER
19	c7	113	LEU
20	c8	3	LEU
20	c8	5	VAL
20	c8	13	HIS
20	c8	17	LEU
20	c8	19	ASN
20	c8	25	ASN

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Mol	Chain	Res	Type
20	c8	29	VAL
20	c8	36	LYS
20	c8	38	VAL
20	c8	40	ARG
20	c8	41	ARG
20	c8	53	ASP
20	c8	57	ARG
20	c8	61	LEU
20	c8	63	GLN
20	c8	65	GLU
20	c8	67	GLU
20	c8	75	ASN
20	c8	86	LEU
20	c8	89	GLN
20	c8	90	ASN
20	c8	94	ASP
20	c8	96	LYS
20	c8	100	THR
20	c8	109	LEU
20	c8	112	ASP
20	c8	116	LEU
20	c8	134	ARG
20	c8	136	GLN
20	c8	138	THR
20	c8	141	THR
20	c8	145	ARG
21	c9	4	VAL
21	c9	5	SER
21	c9	6	VAL
21	c9	16	ASN
21	c9	25	GLN
21	c9	27	LYS
21	c9	33	TYR
21	c9	36	ILE
21	c9	41	SER
21	c9	44	GLU
21	c9	51	GLU
21	c9	57	ARG
21	c9	68	ARG
21	c9	70	GLN
21	c9	84	LYS
21	c9	86	ARG

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Mol	Chain	Res	Type
21	c9	89	ARG
21	c9	94	ILE
21	c9	110	LYS
21	c9	111	ILE
21	c9	116	ILE
21	c9	123	ARG
21	c9	126	GLU
21	c9	130	ARG
21	c9	132	LEU
21	c9	133	ASP
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
21	c9	144	GLU
22	d0	13	GLU
22	d0	14	GLN
22	d0	15	GLN
22	d0	20	ILE
22	d0	21	LYS
22	d0	22	ILE
22	d0	23	ARG
22	d0	24	ILE
22	d0	27	THR
22	d0	33	GLN
22	d0	34	LEU
22	d0	43	LYS
22	d0	44	ASN
22	d0	46	GLU
22	d0	48	HIS
22	d0	50	LEU
22	d0	53	LYS
22	d0	62	VAL
22	d0	66	SER
22	d0	67	THR
22	d0	69	LYS
22	d0	70	THR
22	d0	74	GLU
22	d0	77	LYS
22	d0	78	THR
22	d0	94	GLU
22	d0	99	ILE
22	d0	102	ARG

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Mol	Chain	Res	Type
22	d0	103	ILE
22	d0	105	GLN
22	d0	107	THR
22	d0	108	ILE
22	d0	109	GLU
22	d0	115	GLU
22	d0	116	VAL
22	d0	120	SER
23	d1	3	ASN
23	d1	4	ASP
23	d1	5	LYS
23	d1	7	GLN
23	d1	8	LEU
23	d1	10	GLU
23	d1	12	TYR
23	d1	21	ASN
23	d1	23	ILE
23	d1	25	LYS
23	d1	32	VAL
23	d1	38	LYS
23	d1	42	GLU
23	d1	44	ARG
23	d1	52	THR
23	d1	53	TYR
23	d1	56	SER
23	d1	61	SER
23	d1	62	ARG
23	d1	75	ASN
23	d1	78	LEU
23	d1	86	SER
24	d2	4	SER
24	d2	6	VAL
24	d2	7	LEU
24	d2	9	ASP
24	d2	12	ASN
24	d2	15	ASN
24	d2	23	ARG
24	d2	25	VAL
24	d2	31	SER
24	d2	33	VAL
24	d2	37	PHE
24	d2	42	GLN

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Mol	Chain	Res	Type
24	d2	43	LYS
24	d2	56	HIS
24	d2	65	LEU
24	d2	76	SER
24	d2	98	GLN
24	d2	103	ILE
24	d2	110	ILE
24	d2	117	ARG
24	d2	126	LEU
24	d2	129	VAL
25	d3	7	ARG
25	d3	9	LEU
25	d3	14	LYS
25	d3	16	ARG
25	d3	19	ARG
25	d3	33	LEU
25	d3	36	THR
25	d3	40	SER
25	d3	50	LYS
25	d3	52	ILE
25	d3	55	GLU
25	d3	64	PRO
25	d3	73	ARG
25	d3	76	LEU
25	d3	77	ILE
25	d3	78	LYS
25	d3	83	VAL
25	d3	84	THR
25	d3	92	CYS
25	d3	97	ASP
25	d3	107	PHE
25	d3	109	ARG
25	d3	117	ILE
25	d3	123	LYS
25	d3	126	LYS
25	d3	132	LEU
25	d3	133	LEU
25	d3	140	LYS
25	d3	144	ARG
25	d3	145	SER
26	d4	3	ASP
26	d4	7	ILE

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Mol	Chain	Res	Type
26	d4	10	ARG
26	d4	12	VAL
26	d4	13	ILE
26	d4	28	LEU
26	d4	30	PRO
26	d4	32	ARG
26	d4	43	LYS
26	d4	44	LEU
26	d4	47	VAL
26	d4	49	LYS
26	d4	51	GLU
26	d4	55	VAL
26	d4	58	PHE
26	d4	62	THR
26	d4	63	GLN
26	d4	88	THR
26	d4	91	LEU
26	d4	104	SER
26	d4	125	LEU
26	d4	128	LYS
26	d4	132	ARG
27	d5	42	LEU
27	d5	51	LEU
27	d5	58	ARG
27	d5	60	VAL
27	d5	62	VAL
27	d5	63	SER
27	d5	68	ARG
27	d5	71	ILE
27	d5	74	SER
27	d5	81	ARG
27	d5	85	LYS
27	d5	92	ILE
27	d5	102	THR
27	d5	105	THR
28	d6	4	LYS
28	d6	5	ARG
28	d6	7	SER
28	d6	10	ARG
28	d6	12	LYS
28	d6	15	ARG
28	d6	18	VAL

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Mol	Chain	Res	Type
28	d6	22	ARG
28	d6	27	SER
28	d6	33	ASP
28	d6	34	LYS
28	d6	36	ILE
28	d6	39	MET
28	d6	41	ILE
28	d6	42	ARG
28	d6	44	ILE
28	d6	46	GLU
28	d6	50	VAL
28	d6	51	ARG
28	d6	53	LEU
28	d6	55	GLU
28	d6	57	SER
28	d6	64	LEU
28	d6	67	THR
28	d6	73	TYR
28	d6	76	SER
28	d6	83	ILE
28	d6	85	ARG
28	d6	86	VAL
28	d6	88	SER
28	d6	90	GLU
28	d6	95	ARG
29	d7	2	VAL
29	d7	3	LEU
29	d7	5	GLN
29	d7	18	LYS
29	d7	24	LEU
29	d7	31	TYR
29	d7	34	ASP
29	d7	35	VAL
29	d7	37	CYS
29	d7	41	LEU
29	d7	43	ILE
29	d7	45	THR
29	d7	48	SER
29	d7	49	HIS
29	d7	58	SER
29	d7	67	THR
30	d8	14	LYS

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Mol	Chain	Res	Type
30	d8	15	VAL
30	d8	18	ARG
30	d8	22	ARG
30	d8	26	THR
30	d8	32	PHE
30	d8	33	LEU
30	d8	36	THR
30	d8	38	ARG
30	d8	49	ARG
30	d8	52	ASP
30	d8	53	ILE
30	d8	54	LEU
30	d8	65	ARG
31	d9	4	GLU
31	d9	6	VAL
31	d9	7	TRP
31	d9	8	PHE
31	d9	10	HIS
31	d9	14	TYR
31	d9	19	ARG
31	d9	20	GLN
31	d9	28	THR
31	d9	31	ILE
31	d9	42	CYS
31	d9	44	ARG
31	d9	50	ILE
31	d9	54	LYS
31	d9	56	ARG
80	e0	5	HIS
80	e0	7	SER
80	e0	8	LEU
80	e0	13	LYS
80	e0	15	LYS
80	e0	26	LYS
80	e0	44	PHE
80	e0	45	VAL
80	e0	50	VAL
80	e0	53	LYS
80	e0	56	MET
80	e0	62	VAL
81	e1	78	LYS
81	e1	79	LYS

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Mol	Chain	Res	Type
81	e1	80	ARG
81	e1	84	VAL
81	e1	86	THR
81	e1	89	LYS
81	e1	90	LYS
81	e1	92	LYS
81	e1	96	LYS
81	e1	98	VAL
81	e1	100	LEU
81	e1	102	VAL
81	e1	106	TYR
81	e1	108	VAL
81	e1	109	ASP
81	e1	113	LYS
81	e1	118	ARG
81	e1	119	ARG
81	e1	121	CYS
81	e1	135	HIS
81	e1	140	TYR
81	e1	144	CYS
81	e1	147	VAL
81	e1	149	LYS
81	e1	151	ASN
34	sR	5	GLU
34	sR	8	VAL
34	sR	17	ASN
34	sR	20	VAL
34	sR	23	LEU
34	sR	25	THR
34	sR	29	GLN
34	sR	43	ILE
34	sR	56	VAL
34	sR	58	VAL
34	sR	59	ARG
34	sR	60	SER
34	sR	69	GLN
34	sR	72	THR
34	sR	82	SER
34	sR	96	THR
34	sR	98	GLU
34	sR	102	ARG
34	sR	104	VAL

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Mol	Chain	Res	Type
34	sR	106	HIS
34	sR	108	SER
34	sR	115	ILE
34	sR	116	ASP
34	sR	128	ASP
34	sR	136	ILE
34	sR	145	LEU
34	sR	154	VAL
34	sR	159	ASN
34	sR	160	GLU
34	sR	164	ASP
34	sR	166	SER
34	sR	167	VAL
34	sR	170	ILE
34	sR	178	VAL
34	sR	205	SER
34	sR	228	LYS
34	sR	232	TYR
34	sR	233	THR
34	sR	258	THR
34	sR	269	TYR
34	sR	275	ARG
34	sR	283	LYS
34	sR	297	ASP
34	sR	299	GLN
34	sR	314	GLN
34	sR	315	VAL
34	sR	317	THR
35	sM	25	ILE
35	sM	27	LYS
35	sM	30	THR
35	sM	41	SER
35	sM	43	ASP
35	sM	49	LYS
35	sM	51	ARG
35	sM	61	ILE
35	sM	64	LYS
35	sM	68	ARG
35	sM	72	ARG
35	sM	74	LYS
35	sM	77	THR
35	sM	81	THR

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Mol	Chain	Res	Type
35	sM	82	THR
39	12	18	SER
39	12	23	ARG
39	12	29	LEU
39	12	45	VAL
39	12	46	LYS
39	12	48	ILE
39	12	52	SER
39	12	62	VAL
39	12	67	TYR
39	12	73	GLU
39	12	74	GLU
39	12	79	ASN
39	12	82	VAL
39	12	96	LEU
39	12	101	VAL
39	12	104	LEU
39	12	106	SER
39	12	107	VAL
39	12	109	GLU
39	12	111	THR
39	12	114	SER
39	12	119	LYS
39	12	126	LEU
39	12	128	ARG
39	12	134	VAL
39	12	136	ILE
39	12	142	ASP
39	12	147	ARG
39	12	152	SER
39	12	158	ILE
39	12	159	SER
39	12	161	ASP
39	12	179	LEU
39	12	180	LEU
39	12	186	PHE
39	12	188	LYS
39	12	193	ARG
39	12	196	TRP
39	12	200	ARG
39	12	204	MET
39	12	205	ASN

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Mol	Chain	Res	Type
39	12	207	VAL
39	12	210	PRO
39	12	217	GLN
39	12	219	ILE
39	12	224	THR
39	12	225	ILE
39	12	238	ILE
39	12	242	ARG
39	12	243	THR
39	12	246	LEU
39	12	247	ARG
39	12	249	SER
39	12	250	GLN
39	12	251	LYS
40	13	3	HIS
40	13	4	ARG
40	13	10	ARG
40	13	17	LEU
40	13	19	ARG
40	13	20	LYS
40	13	24	SER
40	13	25	ILE
40	13	30	LYS
40	13	34	LYS
40	13	37	ARG
40	13	40	PRO
40	13	41	VAL
40	13	47	LEU
40	13	55	THR
40	13	56	ILE
40	13	65	SER
40	13	66	LYS
40	13	70	ARG
40	13	72	VAL
40	13	81	THR
40	13	83	PRO
40	13	85	VAL
40	13	86	VAL
40	13	87	VAL
40	13	101	SER
40	13	103	THR
40	13	109	HIS

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Mol	Chain	Res	Type
40	l3	112	ASP
40	l3	114	VAL
40	l3	120	LYS
40	l3	123	TYR
40	l3	125	SER
40	l3	127	LYS
40	l3	134	SER
40	l3	140	ASP
40	l3	146	ARG
40	l3	148	LEU
40	l3	150	ARG
40	l3	157	VAL
40	l3	162	VAL
40	l3	167	ARG
40	l3	183	LEU
40	l3	184	ASN
40	l3	188	ILE
40	l3	192	VAL
40	l3	201	LYS
40	l3	202	THR
40	l3	207	SER
40	l3	208	VAL
40	l3	210	GLU
40	l3	211	GLN
40	l3	213	GLU
40	l3	214	MET
40	l3	221	THR
40	l3	226	PHE
40	l3	229	VAL
40	l3	231	HIS
40	l3	232	ARG
40	l3	235	THR
40	l3	236	LYS
40	l3	246	LEU
40	l3	247	ARG
40	l3	248	LYS
40	l3	252	ILE
40	l3	263	SER
40	l3	264	VAL
40	l3	270	ARG
40	l3	274	SER
40	l3	276	THR

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Mol	Chain	Res	Type
40	l3	278	ILE
40	l3	284	ARG
40	l3	296	THR
40	l3	308	MET
40	l3	316	GLU
40	l3	328	ILE
40	l3	332	ARG
40	l3	344	THR
40	l3	345	ASN
40	l3	353	GLU
40	l3	359	ILE
40	l3	361	THR
40	l3	364	LYS
40	l3	379	PHE
40	l3	382	THR
40	l3	387	LEU
41	l4	3	ARG
41	l4	12	THR
41	l4	16	THR
41	l4	18	ASN
41	l4	22	LEU
41	l4	25	VAL
41	l4	33	ASP
41	l4	37	THR
41	l4	48	GLN
41	l4	50	TYR
41	l4	53	SER
41	l4	54	GLU
41	l4	64	SER
41	l4	65	TRP
41	l4	69	ARG
41	l4	73	ARG
41	l4	82	THR
41	l4	93	MET
41	l4	94	CYS
41	l4	105	THR
41	l4	110	ASN
41	l4	112	LYS
41	l4	113	VAL
41	l4	120	TYR
41	l4	134	LEU
41	l4	136	LEU

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Mol	Chain	Res	Type
41	14	138	ARG
41	14	142	VAL
41	14	144	LYS
41	14	145	ILE
41	14	148	ILE
41	14	150	LEU
41	14	153	SER
41	14	154	THR
41	14	172	VAL
41	14	178	LEU
41	14	179	LEU
41	14	183	LYS
41	14	184	SER
41	14	186	LYS
41	14	187	LEU
41	14	191	LYS
41	14	193	LYS
41	14	194	TYR
41	14	197	ARG
41	14	203	ARG
41	14	206	LEU
41	14	217	LYS
41	14	222	VAL
41	14	223	PRO
41	14	230	VAL
41	14	246	ARG
41	14	247	PHE
41	14	256	THR
41	14	258	LEU
41	14	276	LEU
41	14	278	SER
41	14	279	HIS
41	14	280	ILE
41	14	289	ILE
41	14	292	SER
41	14	297	SER
41	14	304	GLN
41	14	306	THR
41	14	307	GLN
41	14	312	VAL
41	14	313	LEU
41	14	318	LEU

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Mol	Chain	Res	Type
41	14	323	VAL
41	14	327	LEU
41	14	328	ASN
41	14	333	VAL
41	14	337	GLU
41	14	338	LYS
41	14	342	LYS
41	14	345	GLU
41	14	351	PRO
41	14	354	VAL
41	14	357	GLU
41	14	359	LEU
42	15	4	GLN
42	15	8	LYS
42	15	9	SER
42	15	10	SER
42	15	24	ARG
42	15	32	GLN
42	15	34	LYS
42	15	35	ARG
42	15	36	LEU
42	15	51	LEU
42	15	66	SER
42	15	69	ILE
42	15	70	THR
42	15	75	LEU
42	15	81	HIS
42	15	82	GLU
42	15	85	ARG
42	15	89	THR
42	15	92	LEU
42	15	110	LEU
42	15	112	LYS
42	15	115	LEU
42	15	116	ASP
42	15	118	THR
42	15	120	LYS
42	15	123	GLU
42	15	129	TYR
42	15	130	GLU
42	15	131	LEU
42	15	132	THR

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Mol	Chain	Res	Type
42	15	133	GLU
42	15	136	GLU
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	152	ARG
42	15	154	THR
42	15	155	THR
42	15	158	ARG
42	15	167	SER
42	15	176	SER
42	15	185	PHE
42	15	187	THR
42	15	189	GLU
42	15	190	ILE
42	15	194	LEU
42	15	211	LEU
42	15	214	ASP
42	15	218	ARG
42	15	220	SER
42	15	227	LEU
42	15	236	LEU
42	15	237	GLU
42	15	239	ILE
42	15	245	GLU
42	15	254	LYS
42	15	256	THR
42	15	258	LYS
42	15	262	LYS
42	15	263	GLU
42	15	268	GLU
42	15	269	SER
42	15	271	LYS
42	15	273	ARG
42	15	276	LYS
42	15	279	LYS
42	15	281	GLU
43	16	4	GLN
43	16	13	GLU
43	16	15	VAL
43	16	20	LYS
43	16	21	THR

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Mol	Chain	Res	Type
43	16	28	GLN
43	16	31	ARG
43	16	36	PRO
43	16	42	LEU
43	16	50	LYS
43	16	51	ARG
43	16	52	VAL
43	16	59	GLU
43	16	65	ILE
43	16	71	VAL
43	16	88	SER
43	16	89	THR
43	16	90	LYS
43	16	93	VAL
43	16	98	VAL
43	16	104	GLU
43	16	108	LYS
43	16	109	GLU
43	16	130	ILE
43	16	137	ASP
43	16	140	VAL
43	16	150	LYS
43	16	155	LEU
43	16	157	GLN
43	16	171	PRO
44	17	22	THR
44	17	24	GLU
44	17	25	GLN
44	17	26	VAL
44	17	39	GLU
44	17	40	LYS
44	17	52	GLN
44	17	60	ARG
44	17	67	ARG
44	17	83	LEU
44	17	89	ILE
44	17	90	LYS
44	17	93	ASN
44	17	97	PRO
44	17	98	LYS
44	17	123	THR
44	17	124	LEU

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Mol	Chain	Res	Type
44	17	127	LEU
44	17	129	LEU
44	17	130	ILE
44	17	142	SER
44	17	147	LEU
44	17	148	VAL
44	17	156	ILE
44	17	157	ASN
44	17	158	LYS
44	17	164	SER
44	17	165	ASP
44	17	173	LEU
44	17	176	TYR
44	17	178	ILE
44	17	179	LEU
44	17	180	SER
44	17	181	ILE
44	17	184	LEU
44	17	196	LYS
44	17	207	LEU
44	17	229	PHE
44	17	232	ARG
44	17	234	GLU
44	17	239	LEU
45	18	26	LEU
45	18	38	GLN
45	18	50	VAL
45	18	64	ILE
45	18	67	ILE
45	18	71	VAL
45	18	74	THR
45	18	77	GLN
45	18	79	GLN
45	18	81	THR
45	18	83	ASP
45	18	85	ASN
45	18	89	GLU
45	18	90	THR
45	18	95	ASN
45	18	96	LYS
45	18	109	LEU
45	18	128	LYS

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Mol	Chain	Res	Type
45	18	132	VAL
45	18	136	LEU
45	18	146	LYS
45	18	150	LEU
45	18	151	VAL
45	18	155	ASN
45	18	156	ASP
45	18	160	ILE
45	18	165	PHE
45	18	169	LEU
45	18	183	LYS
45	18	185	ARG
45	18	194	THR
45	18	197	VAL
45	18	200	LEU
45	18	211	LEU
45	18	217	THR
45	18	224	ASP
45	18	228	GLU
45	18	230	LYS
45	18	232	HIS
45	18	240	ASN
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	5	GLN
46	19	6	THR
46	19	9	GLN
46	19	17	THR
46	19	18	VAL
46	19	31	ARG
46	19	33	THR
46	19	37	ASN
46	19	49	ASN
46	19	52	LEU
46	19	55	VAL
46	19	63	LYS
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	71	VAL
46	19	72	LYS

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Mol	Chain	Res	Type
46	19	73	SER
46	19	79	ILE
46	19	80	THR
46	19	84	LYS
46	19	90	MET
46	19	96	HIS
46	19	107	ASP
46	19	112	ILE
46	19	113	GLU
46	19	115	ARG
46	19	123	ILE
46	19	124	ARG
46	19	125	ASN
46	19	129	ARG
46	19	133	THR
46	19	144	ILE
46	19	146	LEU
46	19	147	SER
46	19	151	VAL
46	19	152	GLU
46	19	157	ASN
46	19	161	LEU
46	19	162	GLN
46	19	163	GLN
46	19	164	ILE
46	19	168	ARG
46	19	172	ILE
46	19	174	LYS
46	19	177	ASP
46	19	182	SER
46	19	183	HIS
46	19	186	PHE
46	19	187	ILE
46	19	188	THR
46	19	191	LEU
47	m0	4	ARG
47	m0	13	LYS
47	m0	22	TYR
47	m0	24	ARG
47	m0	36	LEU
47	m0	39	LYS
47	m0	42	THR

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Mol	Chain	Res	Type
47	m0	46	PHE
47	m0	48	LEU
47	m0	52	LEU
47	m0	57	LEU
47	m0	58	GLU
47	m0	63	GLU
47	m0	71	CYS
47	m0	73	ASN
47	m0	74	LYS
47	m0	83	ASP
47	m0	87	LEU
47	m0	99	ILE
47	m0	103	LEU
47	m0	116	ARG
47	m0	125	LEU
47	m0	130	ASP
47	m0	133	GLN
47	m0	141	LYS
47	m0	142	ASP
47	m0	144	ASN
47	m0	145	LYS
47	m0	152	LEU
47	m0	154	ARG
47	m0	156	ARG
47	m0	163	GLN
47	m0	165	ILE
47	m0	166	ILE
47	m0	167	LEU
47	m0	169	LYS
47	m0	176	LEU
47	m0	180	GLU
47	m0	183	LYS
47	m0	185	ARG
47	m0	192	ASP
47	m0	201	SER
47	m0	203	LYS
47	m0	206	LEU
47	m0	209	ASN
47	m0	210	ILE
47	m0	211	ARG
47	m0	217	PHE
48	m1	6	GLN

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Mol	Chain	Res	Type
48	m1	9	MET
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	16	LYS
48	m1	20	ASN
48	m1	25	GLU
48	m1	26	SER
48	m1	28	ASP
48	m1	30	LEU
48	m1	31	THR
48	m1	35	LYS
48	m1	44	THR
48	m1	46	VAL
48	m1	51	ARG
48	m1	56	THR
48	m1	60	ARG
48	m1	62	ASN
48	m1	72	ARG
48	m1	79	ILE
48	m1	82	ARG
48	m1	85	LYS
48	m1	88	GLU
48	m1	92	ARG
48	m1	93	ASP
48	m1	94	ARG
48	m1	95	ASN
48	m1	99	THR
48	m1	101	ASN
48	m1	106	ILE
48	m1	107	ASP
48	m1	112	LEU
48	m1	115	LYS
48	m1	119	SER
48	m1	128	TYR
48	m1	129	VAL
48	m1	130	VAL
48	m1	133	ARG
48	m1	137	ARG
48	m1	138	VAL
48	m1	140	ARG

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Mol	Chain	Res	Type
48	m1	142	LYS
48	m1	147	THR
48	m1	148	VAL
48	m1	151	SER
48	m1	152	HIS
48	m1	153	LYS
48	m1	155	THR
48	m1	156	LYS
48	m1	158	ASP
48	m1	159	THR
48	m1	165	GLN
48	m1	166	LYS
48	m1	174	LYS
49	m3	10	LEU
49	m3	11	LYS
49	m3	12	ASN
49	m3	13	HIS
49	m3	15	ARG
49	m3	16	LYS
49	m3	23	LYS
49	m3	24	VAL
49	m3	41	THR
49	m3	45	LYS
49	m3	46	ILE
49	m3	52	ASP
49	m3	54	LEU
49	m3	57	VAL
49	m3	58	VAL
49	m3	59	ARG
49	m3	63	VAL
49	m3	67	ARG
49	m3	68	LYS
49	m3	69	VAL
49	m3	73	ARG
49	m3	76	THR
49	m3	80	VAL
49	m3	93	ILE
49	m3	95	ILE
49	m3	97	VAL
49	m3	100	ARG
49	m3	102	GLN
49	m3	113	VAL

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Mol	Chain	Res	Type
49	m3	114	GLN
49	m3	115	ARG
49	m3	116	LEU
49	m3	123	ILE
49	m3	124	ILE
49	m3	125	VAL
49	m3	129	ASN
49	m3	138	VAL
49	m3	144	THR
49	m3	145	PHE
49	m3	149	GLN
49	m3	150	PRO
49	m3	153	ASP
49	m3	164	GLU
49	m3	168	ARG
49	m3	171	ARG
49	m3	174	ARG
49	m3	177	LYS
49	m3	180	ARG
49	m3	184	GLU
49	m3	188	ARG
49	m3	189	GLU
49	m3	194	GLU
50	m4	3	THR
50	m4	5	SER
50	m4	6	ILE
50	m4	8	LYS
50	m4	15	VAL
50	m4	27	GLN
50	m4	32	LEU
50	m4	35	ILE
50	m4	44	VAL
50	m4	45	LEU
50	m4	53	VAL
50	m4	55	ARG
50	m4	60	LEU
50	m4	62	GLN
50	m4	64	VAL
50	m4	67	PRO
50	m4	68	LEU
50	m4	77	ARG
50	m4	80	THR

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Mol	Chain	Res	Type
50	m4	82	SER
50	m4	103	ILE
50	m4	107	GLU
50	m4	108	ARG
50	m4	121	MET
50	m4	126	GLN
50	m4	127	LYS
50	m4	135	LEU
51	m5	5	LYS
51	m5	7	LEU
51	m5	10	LEU
51	m5	12	ARG
51	m5	18	VAL
51	m5	24	ARG
51	m5	31	ARG
51	m5	33	LYS
51	m5	41	ARG
51	m5	43	THR
51	m5	53	TYR
51	m5	54	LYS
51	m5	57	GLN
51	m5	63	ARG
51	m5	71	ARG
51	m5	72	LYS
51	m5	80	THR
51	m5	83	LYS
51	m5	92	LEU
51	m5	96	ARG
51	m5	97	SER
51	m5	98	LEU
51	m5	105	ARG
51	m5	117	ASN
51	m5	121	VAL
51	m5	126	THR
51	m5	128	LYS
51	m5	129	TYR
51	m5	138	GLN
51	m5	152	CYS
51	m5	153	ASP
51	m5	156	HIS
51	m5	159	ARG
51	m5	160	GLU

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Mol	Chain	Res	Type
51	m5	165	THR
51	m5	172	ARG
51	m5	175	ASN
51	m5	178	HIS
51	m5	180	PHE
51	m5	182	ASN
51	m5	184	LYS
51	m5	198	SER
51	m5	201	ARG
52	m6	3	VAL
52	m6	4	GLU
52	m6	7	VAL
52	m6	8	VAL
52	m6	12	LYS
52	m6	15	LEU
52	m6	28	LEU
52	m6	41	LEU
52	m6	43	ILE
52	m6	46	GLU
52	m6	49	ARG
52	m6	52	LEU
52	m6	58	LEU
52	m6	66	LYS
52	m6	67	THR
52	m6	74	ARG
52	m6	77	SER
52	m6	78	ARG
52	m6	82	LYS
52	m6	85	ARG
52	m6	88	VAL
52	m6	91	LYS
52	m6	92	THR
52	m6	102	LEU
52	m6	106	GLU
52	m6	108	ILE
52	m6	116	LYS
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	128	ARG
52	m6	130	LYS
52	m6	140	LYS

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Mol	Chain	Res	Type
52	m6	143	THR
52	m6	144	SER
52	m6	152	VAL
52	m6	170	LYS
52	m6	177	LYS
52	m6	180	SER
52	m6	182	ASN
52	m6	192	LYS
53	m7	3	ARG
53	m7	7	THR
53	m7	9	THR
53	m7	18	ARG
53	m7	21	TYR
53	m7	25	SER
53	m7	32	THR
53	m7	36	ILE
53	m7	46	LYS
53	m7	48	LEU
53	m7	49	GLU
53	m7	51	VAL
53	m7	56	ARG
53	m7	66	SER
53	m7	69	ARG
53	m7	70	THR
53	m7	78	VAL
53	m7	79	THR
53	m7	87	SER
53	m7	89	LYS
53	m7	94	LEU
53	m7	96	GLN
53	m7	103	GLU
53	m7	107	LEU
53	m7	112	LEU
53	m7	113	TYR
53	m7	114	VAL
53	m7	115	SER
53	m7	116	HIS
53	m7	119	VAL
53	m7	120	ASN
53	m7	121	GLN
53	m7	125	GLN
53	m7	126	ARG

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Mol	Chain	Res	Type
53	m7	127	ARG
53	m7	137	ASN
53	m7	138	LYS
53	m7	142	SER
53	m7	147	GLU
53	m7	148	LEU
53	m7	153	LYS
53	m7	155	GLU
54	m8	3	ILE
54	m8	8	LYS
54	m8	12	ARG
54	m8	17	THR
54	m8	22	ASP
54	m8	24	VAL
54	m8	26	LEU
54	m8	28	LEU
54	m8	32	LEU
54	m8	34	THR
54	m8	44	PHE
54	m8	47	VAL
54	m8	49	LEU
54	m8	56	LYS
54	m8	57	ILE
54	m8	62	VAL
54	m8	63	SER
54	m8	64	VAL
54	m8	65	SER
54	m8	69	ARG
54	m8	80	THR
54	m8	82	VAL
54	m8	86	THR
54	m8	93	ILE
54	m8	98	LYS
54	m8	99	THR
54	m8	107	THR
54	m8	114	ILE
54	m8	129	VAL
54	m8	135	GLN
54	m8	138	LEU
54	m8	139	ILE
54	m8	144	ARG
54	m8	150	VAL

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Mol	Chain	Res	Type
54	m8	155	MET
54	m8	165	ILE
54	m8	167	SER
54	m8	168	THR
54	m8	170	ARG
54	m8	171	LYS
54	m8	174	ARG
54	m8	178	ARG
54	m8	179	ARG
54	m8	180	ARG
54	m8	185	LYS
54	m8	186	VAL
55	m9	5	ARG
55	m9	7	GLN
55	m9	9	ARG
55	m9	10	LEU
55	m9	13	SER
55	m9	17	VAL
55	m9	20	ARG
55	m9	31	GLU
55	m9	32	ILE
55	m9	36	ASN
55	m9	41	ILE
55	m9	43	LYS
55	m9	56	THR
55	m9	57	VAL
55	m9	61	SER
55	m9	62	ARG
55	m9	70	LYS
55	m9	71	ARG
55	m9	74	ARG
55	m9	82	LYS
55	m9	88	ARG
55	m9	91	SER
55	m9	99	LEU
55	m9	102	LEU
55	m9	106	LEU
55	m9	108	LYS
55	m9	119	LEU
55	m9	121	HIS
55	m9	127	SER
55	m9	128	LYS

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Mol	Chain	Res	Type
55	m9	134	HIS
55	m9	139	VAL
55	m9	151	ARG
55	m9	153	LYS
55	m9	164	LEU
55	m9	167	ARG
55	m9	171	ASP
55	m9	173	ARG
55	m9	182	ASP
55	m9	186	LYS
56	n0	1	MET
56	n0	3	HIS
56	n0	12	ARG
56	n0	16	THR
56	n0	21	GLU
56	n0	23	LYS
56	n0	34	GLU
56	n0	45	LEU
56	n0	59	VAL
56	n0	61	ILE
56	n0	62	ASN
56	n0	70	THR
56	n0	80	ARG
56	n0	82	ASP
56	n0	87	THR
56	n0	88	HIS
56	n0	89	ASN
56	n0	90	MET
56	n0	92	LYS
56	n0	96	ASP
56	n0	98	SER
56	n0	105	THR
56	n0	107	TYR
56	n0	113	ARG
56	n0	117	ARG
56	n0	129	ILE
56	n0	130	GLU
56	n0	132	THR
56	n0	136	LYS
56	n0	137	ARG
56	n0	141	LYS
56	n0	145	THR

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Mol	Chain	Res	Type
56	n0	148	LEU
56	n0	149	LYS
56	n0	155	ARG
56	n0	156	VAL
56	n0	158	LYS
56	n0	160	THR
56	n0	162	THR
56	n0	164	SER
56	n0	171	PHE
56	n0	172	TYR
57	n1	4	SER
57	n1	9	SER
57	n1	14	MET
57	n1	17	ARG
57	n1	19	PHE
57	n1	27	LEU
57	n1	31	LEU
57	n1	33	VAL
57	n1	35	LYS
57	n1	36	VAL
57	n1	38	ASP
57	n1	48	ILE
57	n1	55	LYS
57	n1	64	VAL
57	n1	69	LYS
57	n1	75	ILE
57	n1	76	ILE
57	n1	83	ARG
57	n1	85	LEU
57	n1	87	LYS
57	n1	96	ILE
57	n1	97	LYS
57	n1	104	GLU
57	n1	106	LEU
57	n1	118	GLU
57	n1	122	GLN
57	n1	126	VAL
57	n1	127	GLN
57	n1	128	LEU
57	n1	132	PRO
57	n1	135	PRO
57	n1	136	ARG

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Mol	Chain	Res	Type
57	n1	139	ARG
57	n1	143	THR
57	n1	154	VAL
57	n1	158	THR
58	n2	15	PHE
58	n2	19	VAL
58	n2	27	VAL
58	n2	28	PHE
58	n2	38	ILE
58	n2	47	VAL
58	n2	50	LEU
58	n2	55	THR
58	n2	58	GLU
58	n2	65	VAL
58	n2	72	SER
58	n2	74	LYS
58	n2	75	TYR
58	n2	91	ASP
58	n2	93	ILE
58	n2	100	THR
58	n2	104	ARG
59	n3	13	ILE
59	n3	19	VAL
59	n3	22	ILE
59	n3	23	MET
59	n3	35	TYR
59	n3	37	ILE
59	n3	42	SER
59	n3	45	ARG
59	n3	46	LEU
59	n3	48	ARG
59	n3	61	THR
59	n3	67	PRO
59	n3	70	ARG
59	n3	72	LYS
59	n3	74	MET
59	n3	78	VAL
59	n3	83	LYS
59	n3	84	SER
59	n3	88	ARG
59	n3	91	VAL
59	n3	92	PHE

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Mol	Chain	Res	Type
59	n3	102	ILE
59	n3	108	GLU
59	n3	115	THR
59	n3	124	ASP
59	n3	128	ARG
60	n4	1	MET
60	n4	3	VAL
60	n4	5	ILE
60	n4	17	ARG
60	n4	19	THR
60	n4	20	LEU
60	n4	39	LEU
60	n4	43	ARG
60	n4	46	PRO
60	n4	49	ILE
60	n4	52	THR
60	n4	54	LEU
60	n4	57	LYS
60	n4	59	HIS
60	n4	61	LYS
60	n4	82	ILE
60	n4	87	LEU
60	n4	89	LEU
60	n4	93	ARG
60	n4	99	GLU
60	n4	100	VAL
60	n4	102	LYS
60	n4	107	GLU
60	n4	109	LEU
60	n4	112	ASN
60	n4	116	LYS
60	n4	123	ARG
60	n4	127	LYS
60	n4	129	LYS
60	n4	133	THR
60	n4	135	SER
61	n5	24	LEU
61	n5	25	LYS
61	n5	27	ARG
61	n5	28	THR
61	n5	31	THR
61	n5	34	LEU

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Mol	Chain	Res	Type
61	n5	39	LYS
61	n5	40	LEU
61	n5	44	PRO
61	n5	45	LYS
61	n5	48	SER
61	n5	53	HIS
61	n5	56	ARG
61	n5	58	ASP
61	n5	59	SER
61	n5	63	ILE
61	n5	67	ILE
61	n5	73	MET
61	n5	81	ILE
61	n5	86	VAL
61	n5	95	ILE
61	n5	102	LEU
61	n5	105	VAL
61	n5	106	ASP
61	n5	108	LEU
61	n5	113	LEU
61	n5	114	VAL
61	n5	115	ARG
61	n5	119	THR
61	n5	125	ARG
61	n5	126	LEU
61	n5	127	THR
61	n5	135	ILE
61	n5	138	ARG
62	n6	3	LYS
62	n6	5	SER
62	n6	8	VAL
62	n6	10	SER
62	n6	12	ARG
62	n6	13	ARG
62	n6	14	LYS
62	n6	17	LYS
62	n6	25	SER
62	n6	28	ARG
62	n6	32	SER
62	n6	37	LYS
62	n6	40	ARG
62	n6	48	LEU

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Mol	Chain	Res	Type
62	n6	50	ILE
62	n6	51	ARG
62	n6	52	ARG
62	n6	55	GLU
62	n6	62	SER
62	n6	66	GLN
62	n6	70	ILE
62	n6	73	VAL
62	n6	74	TYR
62	n6	90	VAL
62	n6	94	SER
62	n6	95	VAL
62	n6	98	ASN
62	n6	102	SER
62	n6	105	VAL
62	n6	111	LEU
62	n6	115	ARG
62	n6	120	GLN
62	n6	122	LYS
62	n6	127	GLU
63	n7	3	LYS
63	n7	14	VAL
63	n7	15	ARG
63	n7	17	ARG
63	n7	24	VAL
63	n7	25	ILE
63	n7	26	VAL
63	n7	30	ASP
63	n7	34	LYS
63	n7	46	ILE
63	n7	47	GLU
63	n7	52	LYS
63	n7	64	LYS
63	n7	66	THR
63	n7	72	ILE
63	n7	73	LYS
63	n7	74	VAL
63	n7	81	LEU
63	n7	94	SER
63	n7	102	GLU
63	n7	132	SER
63	n7	134	LEU

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Mol	Chain	Res	Type
64	n8	4	ARG
64	n8	6	THR
64	n8	7	LYS
64	n8	8	THR
64	n8	10	LYS
64	n8	14	HIS
64	n8	22	ILE
64	n8	32	ARG
64	n8	34	MET
64	n8	42	ARG
64	n8	44	ASN
64	n8	46	ASP
64	n8	58	MET
64	n8	60	TYR
64	n8	65	GLN
64	n8	73	LEU
64	n8	77	LYS
64	n8	78	LEU
64	n8	80	THR
64	n8	82	ILE
64	n8	91	LEU
64	n8	95	SER
64	n8	97	GLU
64	n8	101	VAL
64	n8	102	ILE
64	n8	117	ARG
64	n8	118	ILE
64	n8	120	ASN
64	n8	123	VAL
64	n8	124	ILE
64	n8	128	ARG
64	n8	133	LEU
64	n8	146	GLU
65	n9	3	LYS
65	n9	6	ASN
65	n9	10	HIS
65	n9	13	THR
65	n9	14	ARG
65	n9	15	LYS
65	n9	17	HIS
65	n9	18	ARG
65	n9	19	ASN

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Mol	Chain	Res	Type
65	n9	21	ILE
65	n9	23	LYS
65	n9	28	LYS
65	n9	29	TYR
65	n9	33	LYS
65	n9	35	VAL
65	n9	37	PRO
65	n9	38	LYS
65	n9	40	ARG
65	n9	42	ASN
65	n9	48	HIS
65	n9	52	LYS
65	n9	58	LYS
65	n9	59	LYS
66	o0	7	GLN
66	o0	8	GLU
66	o0	12	GLN
66	o0	14	LEU
66	o0	18	ILE
66	o0	19	LYS
66	o0	20	SER
66	o0	25	LEU
66	o0	29	SER
66	o0	33	SER
66	o0	34	LEU
66	o0	35	ARG
66	o0	40	LYS
66	o0	41	LEU
66	o0	44	ILE
66	o0	48	THR
66	o0	52	ARG
66	o0	54	SER
66	o0	55	GLU
66	o0	56	LEU
66	o0	58	TYR
66	o0	61	MET
66	o0	65	THR
66	o0	86	ARG
66	o0	91	SER
66	o0	92	ILE
66	o0	94	GLU
66	o0	99	ASP

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Mol	Chain	Res	Type
66	o0	101	LEU
66	o0	102	THR
67	o1	16	LEU
67	o1	17	HIS
67	o1	24	SER
67	o1	26	LYS
67	o1	28	ARG
67	o1	31	ARG
67	o1	43	HIS
67	o1	44	MET
67	o1	50	ARG
67	o1	53	PRO
67	o1	55	LEU
67	o1	64	VAL
67	o1	74	ARG
67	o1	76	SER
67	o1	79	ARG
67	o1	81	GLU
67	o1	83	GLU
67	o1	84	ASP
67	o1	90	PHE
67	o1	91	SER
67	o1	94	GLU
67	o1	96	VAL
67	o1	100	SER
67	o1	102	LYS
67	o1	104	LEU
67	o1	106	THR
67	o1	110	GLU
68	o2	4	LEU
68	o2	9	ILE
68	o2	10	VAL
68	o2	11	LYS
68	o2	19	ARG
68	o2	21	HIS
68	o2	24	ARG
68	o2	27	ARG
68	o2	28	VAL
68	o2	30	GLU
68	o2	33	ARG
68	o2	34	LYS
68	o2	40	SER

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Mol	Chain	Res	Type
68	o2	41	VAL
68	o2	44	ARG
68	o2	49	ASN
68	o2	50	ILE
68	o2	51	SER
68	o2	54	LYS
68	o2	61	LYS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	84	THR
68	o2	86	THR
68	o2	87	MET
68	o2	88	HIS
68	o2	91	THR
68	o2	108	ILE
68	o2	126	LEU
68	o2	128	LEU
69	o3	4	SER
69	o3	6	ARG
69	o3	9	VAL
69	o3	14	LEU
69	o3	15	SER
69	o3	19	SER
69	o3	22	VAL
69	o3	31	LYS
69	o3	37	THR
69	o3	42	GLN
69	o3	48	ARG
69	o3	49	ILE
69	o3	53	TYR
69	o3	57	LYS
69	o3	58	GLU
69	o3	60	ARG
69	o3	62	SER
69	o3	63	LYS
69	o3	66	VAL
69	o3	70	LYS
69	o3	72	THR
69	o3	78	SER
69	o3	84	THR
69	o3	86	ARG

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Mol	Chain	Res	Type
69	o3	97	SER
69	o3	98	VAL
69	o3	105	SER
69	o3	107	ILE
70	o4	3	GLN
70	o4	9	ARG
70	o4	11	ASN
70	o4	20	ILE
70	o4	29	ILE
70	o4	30	LEU
70	o4	33	GLN
70	o4	36	LYS
70	o4	37	LYS
70	o4	38	LEU
70	o4	46	ASP
70	o4	57	LEU
70	o4	58	ARG
70	o4	64	THR
70	o4	66	SER
70	o4	68	THR
70	o4	73	SER
70	o4	79	SER
70	o4	80	ARG
70	o4	81	CYS
70	o4	84	CYS
70	o4	86	LYS
70	o4	87	GLU
70	o4	109	THR
70	o4	110	GLU
71	o5	10	ARG
71	o5	15	GLU
71	o5	19	SER
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	31	LEU
71	o5	35	LYS
71	o5	36	LEU
71	o5	37	SER
71	o5	42	PRO
71	o5	45	LYS
71	o5	46	THR

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Mol	Chain	Res	Type
71	o5	47	VAL
71	o5	62	GLN
71	o5	79	ASP
71	o5	81	ARG
71	o5	84	LYS
71	o5	89	ARG
71	o5	94	LYS
71	o5	96	GLU
71	o5	100	VAL
71	o5	101	THR
71	o5	107	LYS
71	o5	115	LYS
71	o5	119	LYS
72	o6	3	VAL
72	o6	9	ILE
72	o6	18	THR
72	o6	21	THR
72	o6	34	SER
72	o6	36	ARG
72	o6	42	SER
72	o6	43	LEU
72	o6	45	ARG
72	o6	47	ILE
72	o6	55	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	62	ARG
72	o6	68	ARG
72	o6	71	LYS
72	o6	74	LYS
72	o6	76	ARG
72	o6	81	THR
72	o6	90	MET
72	o6	93	ILE
72	o6	94	ILE
72	o6	98	ARG
72	o6	100	HIS
73	o7	3	LYS
73	o7	5	THR
73	o7	12	HIS
73	o7	13	ASN

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Mol	Chain	Res	Type
73	o7	16	HIS
73	o7	17	THR
73	o7	19	CYS
73	o7	25	ARG
73	o7	31	LYS
73	o7	36	SER
73	o7	45	ARG
73	o7	56	ARG
73	o7	58	THR
73	o7	64	MET
73	o7	65	ARG
73	o7	66	TYR
73	o7	67	LEU
73	o7	72	ARG
73	o7	74	PHE
73	o7	75	LYS
73	o7	80	THR
73	o7	87	SER
74	o8	6	THR
74	o8	14	LEU
74	o8	17	ARG
74	o8	19	ASP
74	o8	24	THR
74	o8	32	ASN
74	o8	33	LYS
74	o8	38	PHE
74	o8	53	THR
74	o8	61	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	73	LEU
74	o8	77	ARG
74	o8	78	LEU
75	o9	4	GLN
75	o9	5	LYS
75	o9	6	SER
75	o9	9	ILE
75	o9	12	LYS
75	o9	19	GLN
75	o9	21	ARG
75	o9	23	LEU
75	o9	27	ILE

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Mol	Chain	Res	Type
75	o9	34	THR
75	o9	36	ARG
76	q0	81	SER
76	q0	83	LYS
76	q0	89	TYR
76	q0	92	ASP
76	q0	99	CYS
76	q0	109	ASN
76	q0	110	CYS
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	120	GLN
76	q0	122	ARG
76	q0	126	LYS
76	q0	128	LYS
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	14	LYS
77	q1	16	LYS
77	q1	19	LYS
77	q1	21	ARG
77	q1	25	LYS
78	q2	2	VAL
78	q2	7	THR
78	q2	8	ARG
78	q2	10	THR
78	q2	17	CYS
78	q2	19	LYS
78	q2	20	HIS
78	q2	26	THR
78	q2	28	TYR
78	q2	34	SER
78	q2	38	GLN
78	q2	47	GLN
78	q2	54	THR
78	q2	55	LYS
78	q2	61	LYS
78	q2	63	LYS
78	q2	71	ARG

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Mol	Chain	Res	Type
78	q2	72	LEU
78	q2	74	CYS
78	q2	76	LYS
78	q2	78	LYS
78	q2	80	ARG
78	q2	84	THR
78	q2	85	LEU
78	q2	87	ARG
78	q2	93	LEU
78	q2	96	GLU
78	q2	98	LYS
78	q2	99	GLN
78	q2	100	LYS
78	q2	104	LEU
78	q2	105	GLN
79	q3	3	LYS
79	q3	4	ARG
79	q3	6	LYS
79	q3	8	VAL
79	q3	16	VAL
79	q3	17	ARG
79	q3	18	TYR
79	q3	20	SER
79	q3	31	ILE
79	q3	40	SER
79	q3	42	CYS
79	q3	44	LYS
79	q3	46	THR
79	q3	49	ARG
79	q3	58	SER
79	q3	59	CYS
79	q3	60	CYS
79	q3	70	THR
79	q3	71	VAL
79	q3	78	THR
79	q3	81	SER
79	q3	82	THR
83	p0	4	ILE
83	p0	5	ARG
83	p0	7	LYS
83	p0	15	LEU
83	p0	19	LEU

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Mol	Chain	Res	Type
83	p0	24	SER
83	p0	25	LEU
83	p0	28	VAL
83	p0	42	ARG
83	p0	43	LYS
83	p0	48	ARG
83	p0	57	THR
83	p0	63	ILE
83	p0	67	LEU
83	p0	69	ASP
83	p0	70	LEU
83	p0	72	ASP
83	p0	74	GLU
83	p0	76	LEU
83	p0	84	VAL
83	p0	93	LEU
83	p0	101	VAL
83	p0	186	THR
83	p0	192	ASP
83	p0	193	ASN
83	p0	196	VAL

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (122) such sidechains are listed below:

Mol	Chain	Res	Type
2	S0	32	HIS
3	S1	177	GLN
4	S2	228	ASN
5	S3	62	ASN
6	S4	98	ASN
7	S5	103	ASN
10	S8	52	ASN
13	C1	14	GLN
13	C1	37	ASN
13	C1	110	HIS
19	C7	105	GLN
21	C9	70	GLN
22	D0	121	ASN
23	D1	29	HIS
25	D3	79	ASN
27	D5	38	HIS
27	D5	44	GLN

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Mol	Chain	Res	Type
33	E1	123	ASN
35	SM	57	ASN
39	L2	8	GLN
39	L2	209	HIS
39	L2	211	HIS
43	L6	28	GLN
43	L6	167	ASN
44	L7	25	GLN
44	L7	48	ASN
44	L7	64	GLN
44	L7	112	ASN
44	L7	209	ASN
45	L8	145	ASN
46	L9	102	ASN
46	L9	156	GLN
48	M1	150	ASN
49	M3	25	HIS
49	M3	99	HIS
49	M3	103	ASN
49	M3	106	GLN
49	M3	129	ASN
49	M3	149	GLN
51	M5	139	HIS
52	M6	90	HIS
53	M7	34	GLN
54	M8	73	GLN
55	M9	121	HIS
57	N1	122	GLN
59	N3	81	GLN
63	N7	127	ASN
64	N8	74	ASN
68	O2	13	HIS
70	O4	18	ASN
75	O9	11	GLN
78	Q2	47	GLN
3	s1	209	ASN
4	s2	94	GLN
4	s2	228	ASN
5	s3	74	GLN
5	s3	179	GLN
6	s4	36	HIS
6	s4	57	ASN

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Mol	Chain	Res	Type
6	s4	142	HIS
6	s4	157	ASN
6	s4	224	ASN
6	s4	231	GLN
7	s5	44	ASN
9	s7	5	GLN
10	s8	35	ASN
11	s9	110	GLN
11	s9	112	GLN
13	c1	37	ASN
15	c3	5	HIS
15	c3	36	GLN
15	c3	49	GLN
16	c4	12	GLN
16	c4	29	HIS
18	c6	93	HIS
19	c7	62	GLN
20	c8	6	GLN
20	c8	13	HIS
20	c8	90	ASN
21	c9	64	HIS
21	c9	70	GLN
22	d0	44	ASN
23	d1	3	ASN
24	d2	56	HIS
25	d3	75	GLN
26	d4	22	GLN
26	d4	63	GLN
26	d4	113	ASN
28	d6	69	ASN
34	sR	17	ASN
34	sR	159	ASN
35	sM	71	ASN
39	l2	8	GLN
39	l2	144	ASN
39	l2	250	GLN
41	l4	361	HIS
43	l6	4	GLN
44	l7	159	GLN
45	l8	192	GLN
45	l8	240	ASN
51	m5	86	ASN

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Mol	Chain	Res	Type
52	m6	90	HIS
53	m7	121	GLN
54	m8	5	HIS
54	m8	9	GLN
55	m9	66	HIS
57	n1	90	ASN
57	n1	98	HIS
59	n3	33	ASN
62	n6	91	ASN
62	n6	120	GLN
63	n7	57	HIS
64	n8	25	HIS
64	n8	44	ASN
64	n8	49	HIS
65	n9	45	HIS
66	o0	12	GLN
69	o3	106	ASN
73	o7	13	ASN
74	o8	32	ASN
78	q2	47	GLN
83	p0	195	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	613 (35%)	71 (4%)
1	6	1787/1800 (99%)	650 (36%)	64 (3%)
36	1	3145/3396 (92%)	1010 (32%)	106 (3%)
36	5	3145/3396 (92%)	1037 (32%)	115 (3%)
37	3	120/121 (99%)	34 (28%)	2 (1%)
37	7	120/121 (99%)	30 (25%)	3 (2%)
38	4	157/158 (99%)	51 (32%)	7 (4%)
38	8	157/158 (99%)	57 (36%)	3 (1%)
All	All	10378/10950 (94%)	3482 (33%)	371 (3%)

All (3482) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	5	U

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Mol	Chain	Res	Type
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	39	A
1	2	46	A
1	2	47	A
1	2	49	C
1	2	50	C
1	2	57	G
1	2	61	A
1	2	63	G
1	2	66	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	77	U
1	2	78	A
1	2	100	A
1	2	102	U
1	2	103	A
1	2	104	A
1	2	111	U
1	2	114	C
1	2	115	G
1	2	123	G
1	2	124	A
1	2	125	U
1	2	129	U
1	2	130	C
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C
1	2	137	U
1	2	140	A

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Mol	Chain	Res	Type
1	2	141	U
1	2	144	U
1	2	145	A
1	2	146	U
1	2	153	G
1	2	155	U
1	2	158	U
1	2	159	U
1	2	169	A
1	2	170	U
1	2	178	U
1	2	179	A
1	2	182	A
1	2	185	U
1	2	186	C
1	2	188	A
1	2	190	C
1	2	191	C
1	2	192	U
1	2	193	U
1	2	194	U
1	2	195	G
1	2	196	G
1	2	197	A
1	2	198	A
1	2	199	G
1	2	200	A
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	222	A
1	2	228	G
1	2	229	U
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	236	A
1	2	238	U
1	2	239	C
1	2	240	U

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Mol	Chain	Res	Type
1	2	241	U
1	2	242	U
1	2	247	A
1	2	250	C
1	2	257	A
1	2	260	U
1	2	261	U
1	2	265	A
1	2	266	A
1	2	267	U
1	2	269	G
1	2	270	C
1	2	271	A
1	2	272	U
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	301	A
1	2	304	U
1	2	309	C
1	2	312	A
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	322	G
1	2	325	G
1	2	333	A
1	2	337	G
1	2	338	C
1	2	351	C
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C

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Mol	Chain	Res	Type
1	2	364	G
1	2	365	G
1	2	369	A
1	2	370	A
1	2	380	U
1	2	381	C
1	2	390	G
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	404	G
1	2	407	A
1	2	408	C
1	2	415	C
1	2	416	A
1	2	417	A
1	2	418	G
1	2	421	A
1	2	423	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	433	C
1	2	434	G
1	2	435	C
1	2	436	A
1	2	437	A
1	2	438	A
1	2	439	U
1	2	440	U
1	2	441	A
1	2	444	C
1	2	448	C
1	2	452	A
1	2	454	U
1	2	459	G
1	2	470	A
1	2	473	A
1	2	477	A
1	2	484	C

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Mol	Chain	Res	Type
1	2	485	A
1	2	486	G
1	2	487	G
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	501	U
1	2	502	U
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	514	G
1	2	526	A
1	2	532	U
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	548	G
1	2	549	G
1	2	552	G
1	2	554	C
1	2	555	A
1	2	556	A
1	2	557	G
1	2	558	U
1	2	559	C
1	2	563	U

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Mol	Chain	Res	Type
1	2	565	C
1	2	571	G
1	2	572	C
1	2	575	C
1	2	578	U
1	2	579	A
1	2	580	A
1	2	581	U
1	2	582	U
1	2	583	C
1	2	585	A
1	2	594	A
1	2	595	G
1	2	606	A
1	2	610	G
1	2	611	U
1	2	619	A
1	2	620	A
1	2	621	A
1	2	622	A
1	2	623	A
1	2	624	G
1	2	630	A
1	2	633	U
1	2	635	A
1	2	637	C
1	2	638	U
1	2	639	U
1	2	640	U
1	2	643	G
1	2	645	C
1	2	648	G
1	2	650	U
1	2	652	G
1	2	656	G
1	2	657	U
1	2	658	C
1	2	677	G
1	2	679	U
1	2	680	U
1	2	684	A
1	2	686	C

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Mol	Chain	Res	Type
1	2	687	G
1	2	692	C
1	2	694	U
1	2	695	U
1	2	696	C
1	2	697	C
1	2	698	U
1	2	701	U
1	2	702	G
1	2	703	G
1	2	704	C
1	2	705	U
1	2	707	A
1	2	709	C
1	2	710	U
1	2	711	U
1	2	712	G
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G
1	2	721	U
1	2	722	G
1	2	723	G
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	737	A
1	2	738	G
1	2	741	C
1	2	742	U
1	2	743	U
1	2	744	U
1	2	751	G
1	2	753	A

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Mol	Chain	Res	Type
1	2	754	A
1	2	755	A
1	2	756	A
1	2	759	U
1	2	765	G
1	2	766	U
1	2	768	C
1	2	770	A
1	2	774	A
1	2	775	G
1	2	778	G
1	2	779	U
1	2	781	U
1	2	782	U
1	2	783	G
1	2	784	C
1	2	789	A
1	2	791	A
1	2	794	U
1	2	795	U
1	2	803	A
1	2	806	A
1	2	812	A
1	2	814	A
1	2	815	G
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	824	G
1	2	829	A
1	2	830	U
1	2	831	U
1	2	833	U
1	2	837	G
1	2	840	U
1	2	846	G
1	2	854	U
1	2	856	A
1	2	860	U
1	2	863	A

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Mol	Chain	Res	Type
1	2	864	U
1	2	873	U
1	2	876	G
1	2	885	G
1	2	886	U
1	2	892	A
1	2	893	U
1	2	896	U
1	2	898	A
1	2	906	A
1	2	912	U
1	2	913	G
1	2	914	G
1	2	915	A
1	2	916	U
1	2	920	U
1	2	921	U
1	2	931	C
1	2	933	A
1	2	935	U
1	2	942	G
1	2	943	C
1	2	944	A
1	2	947	U
1	2	958	U
1	2	960	U
1	2	964	U
1	2	966	A
1	2	976	G
1	2	983	A
1	2	984	G
1	2	986	G
1	2	988	A
1	2	992	A
1	2	993	A
1	2	997	G
1	2	1000	C
1	2	1001	A
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1007	C

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Mol	Chain	Res	Type
1	2	1016	C
1	2	1019	A
1	2	1020	A
1	2	1021	C
1	2	1024	U
1	2	1025	A
1	2	1026	A
1	2	1028	C
1	2	1029	U
1	2	1032	G
1	2	1039	A
1	2	1040	G
1	2	1043	A
1	2	1052	U
1	2	1053	G
1	2	1054	U
1	2	1056	U
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1062	A
1	2	1072	C
1	2	1074	G
1	2	1076	A
1	2	1078	C
1	2	1079	U
1	2	1080	U
1	2	1081	A
1	2	1082	C
1	2	1083	G
1	2	1085	G
1	2	1092	A
1	2	1093	A
1	2	1094	G
1	2	1096	C
1	2	1097	U
1	2	1098	U
1	2	1100	G
1	2	1101	G
1	2	1111	G
1	2	1138	A

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Mol	Chain	Res	Type
1	2	1140	G
1	2	1143	A
1	2	1146	G
1	2	1149	G
1	2	1151	A
1	2	1155	G
1	2	1158	C
1	2	1159	C
1	2	1160	A
1	2	1161	C
1	2	1167	G
1	2	1168	U
1	2	1175	U
1	2	1182	U
1	2	1185	U
1	2	1189	A
1	2	1194	A
1	2	1196	A
1	2	1199	G
1	2	1200	G
1	2	1201	G
1	2	1202	A
1	2	1205	C
1	2	1207	C
1	2	1212	G
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1229	G
1	2	1235	C
1	2	1244	A
1	2	1245	G
1	2	1247	U
1	2	1250	U
1	2	1251	U
1	2	1258	U
1	2	1259	U
1	2	1261	G
1	2	1267	G
1	2	1274	C
1	2	1276	U

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Mol	Chain	Res	Type
1	2	1286	U
1	2	1288	G
1	2	1306	C
1	2	1314	U
1	2	1315	U
1	2	1316	G
1	2	1320	U
1	2	1321	A
1	2	1336	A
1	2	1337	A
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1344	A
1	2	1345	A
1	2	1346	A
1	2	1348	A
1	2	1354	G
1	2	1355	C
1	2	1360	A
1	2	1362	U
1	2	1363	U
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1378	U
1	2	1386	G
1	2	1390	U
1	2	1391	A
1	2	1393	C
1	2	1398	U
1	2	1399	C
1	2	1400	A
1	2	1407	U
1	2	1412	G
1	2	1413	U
1	2	1415	U
1	2	1418	G
1	2	1425	A
1	2	1427	A
1	2	1428	G
1	2	1432	U

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Mol	Chain	Res	Type
1	2	1443	U
1	2	1445	G
1	2	1446	A
1	2	1448	G
1	2	1454	G
1	2	1456	C
1	2	1457	C
1	2	1459	C
1	2	1461	C
1	2	1469	A
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1475	A
1	2	1481	C
1	2	1482	C
1	2	1485	C
1	2	1486	G
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1496	U
1	2	1501	C
1	2	1503	A
1	2	1505	A
1	2	1506	G
1	2	1515	A
1	2	1516	A
1	2	1517	U
1	2	1520	U
1	2	1523	G
1	2	1524	A
1	2	1530	C
1	2	1532	U
1	2	1533	C
1	2	1534	G
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U

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Mol	Chain	Res	Type
1	2	1542	G
1	2	1551	U
1	2	1552	U
1	2	1556	A
1	2	1557	U
1	2	1559	A
1	2	1560	U
1	2	1569	A
1	2	1571	C
1	2	1574	G
1	2	1583	A
1	2	1584	G
1	2	1590	G
1	2	1597	A
1	2	1600	A
1	2	1601	G
1	2	1612	U
1	2	1614	A
1	2	1616	G
1	2	1624	C
1	2	1625	C
1	2	1631	A
1	2	1635	A
1	2	1637	C
1	2	1638	G
1	2	1648	A
1	2	1653	C
1	2	1655	A
1	2	1657	U
1	2	1658	G
1	2	1660	A
1	2	1664	C
1	2	1666	U
1	2	1672	G
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1720	G
1	2	1724	U
1	2	1729	C
1	2	1731	A
1	2	1735	U

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Mol	Chain	Res	Type
1	2	1740	A
1	2	1741	U
1	2	1755	A
1	2	1757	G
1	2	1758	U
1	2	1760	G
1	2	1762	A
1	2	1764	C
1	2	1766	A
1	2	1769	U
1	2	1770	U
1	2	1772	C
1	2	1777	G
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1790	A
1	2	1791	A
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1796	C
36	1	13	A
36	1	14	U
36	1	16	A
36	1	18	G
36	1	19	U
36	1	24	G
36	1	25	U
36	1	26	A
36	1	30	G
36	1	35	A
36	1	40	A
36	1	43	A
36	1	44	U
36	1	49	A
36	1	59	G
36	1	60	A
36	1	62	A
36	1	65	A
36	1	66	A
36	1	74	G

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Mol	Chain	Res	Type
36	1	75	G
36	1	76	G
36	1	82	C
36	1	83	U
36	1	85	A
36	1	92	G
36	1	93	C
36	1	94	G
36	1	95	A
36	1	99	A
36	1	108	A
36	1	109	A
36	1	110	G
36	1	111	C
36	1	113	C
36	1	114	A
36	1	116	A
36	1	117	U
36	1	118	U
36	1	121	A
36	1	122	A
36	1	123	A
36	1	124	U
36	1	125	C
36	1	133	U
36	1	135	C
36	1	136	G
36	1	147	U
36	1	148	G
36	1	150	A
36	1	154	U
36	1	156	G
36	1	157	A
36	1	161	G
36	1	166	C
36	1	167	U
36	1	169	U
36	1	170	G
36	1	172	G
36	1	184	U
36	1	185	C
36	1	186	U

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Mol	Chain	Res	Type
36	1	187	A
36	1	190	U
36	1	191	U
36	1	197	G
36	1	199	A
36	1	200	C
36	1	207	U
36	1	210	U
36	1	214	G
36	1	216	G
36	1	218	G
36	1	219	A
36	1	220	G
36	1	224	C
36	1	227	G
36	1	236	G
36	1	237	G
36	1	240	U
36	1	241	G
36	1	243	G
36	1	244	G
36	1	245	U
36	1	246	U
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	253	A
36	1	255	A
36	1	261	U
36	1	263	C
36	1	266	A
36	1	269	G
36	1	270	U
36	1	279	U
36	1	280	U
36	1	282	G
36	1	283	G
36	1	286	U
36	1	295	A
36	1	298	U
36	1	301	G

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Mol	Chain	Res	Type
36	1	308	A
36	1	311	C
36	1	316	U
36	1	323	A
36	1	328	U
36	1	329	U
36	1	338	A
36	1	339	C
36	1	340	C
36	1	341	G
36	1	350	C
36	1	352	A
36	1	354	U
36	1	368	G
36	1	373	A
36	1	375	A
36	1	376	G
36	1	387	A
36	1	390	G
36	1	395	A
36	1	396	A
36	1	397	A
36	1	398	A
36	1	399	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	404	G
36	1	409	A
36	1	419	G
36	1	421	G
36	1	422	A
36	1	438	A
36	1	440	A
36	1	495	G
36	1	496	C
36	1	512	U
36	1	519	A
36	1	520	U
36	1	521	A
36	1	534	U
36	1	535	G

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Mol	Chain	Res	Type
36	1	541	U
36	1	543	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	549	U
36	1	552	G
36	1	554	A
36	1	557	A
36	1	558	U
36	1	559	A
36	1	560	G
36	1	564	G
36	1	568	G
36	1	578	A
36	1	579	G
36	1	585	A
36	1	592	A
36	1	593	C
36	1	604	G
36	1	609	G
36	1	610	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	630	A
36	1	632	G
36	1	634	C
36	1	636	C
36	1	637	C
36	1	638	C
36	1	642	U
36	1	646	A
36	1	648	C
36	1	649	A
36	1	660	A
36	1	661	G
36	1	662	U
36	1	665	A
36	1	677	A
36	1	681	U

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Mol	Chain	Res	Type
36	1	688	G
36	1	689	U
36	1	691	A
36	1	695	C
36	1	697	A
36	1	703	G
36	1	705	A
36	1	710	A
36	1	712	G
36	1	714	G
36	1	715	A
36	1	716	A
36	1	718	G
36	1	719	U
36	1	720	A
36	1	727	G
36	1	736	A
36	1	737	G
36	1	740	G
36	1	763	G
36	1	764	U
36	1	766	U
36	1	767	U
36	1	776	U
36	1	777	U
36	1	780	A
36	1	781	G
36	1	782	U
36	1	783	A
36	1	785	G
36	1	787	G
36	1	791	A
36	1	803	C
36	1	806	A
36	1	808	A
36	1	809	G
36	1	810	A
36	1	817	A
36	1	823	C
36	1	830	A
36	1	831	G
36	1	842	G

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Mol	Chain	Res	Type
36	1	848	A
36	1	849	C
36	1	861	C
36	1	870	G
36	1	874	U
36	1	879	U
36	1	881	C
36	1	882	A
36	1	883	A
36	1	891	G
36	1	894	G
36	1	895	A
36	1	896	A
36	1	900	G
36	1	901	G
36	1	907	G
36	1	908	G
36	1	909	G
36	1	910	G
36	1	914	A
36	1	915	A
36	1	916	G
36	1	917	A
36	1	919	U
36	1	921	A
36	1	924	G
36	1	929	A
36	1	931	C
36	1	932	U
36	1	937	G
36	1	939	U
36	1	943	U
36	1	944	C
36	1	953	G
36	1	957	C
36	1	959	C
36	1	960	U
36	1	967	A
36	1	979	U
36	1	980	A
36	1	981	U
36	1	982	C

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Mol	Chain	Res	Type
36	1	984	G
36	1	986	U
36	1	993	G
36	1	994	G
36	1	1001	G
36	1	1002	A
36	1	1010	G
36	1	1012	G
36	1	1013	G
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1021	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1030	A
36	1	1037	C
36	1	1047	A
36	1	1049	C
36	1	1051	U
36	1	1052	U
36	1	1064	A
36	1	1065	A
36	1	1071	U
36	1	1072	G
36	1	1078	U
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1086	C
36	1	1088	U
36	1	1089	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1097	G
36	1	1098	A
36	1	1102	A
36	1	1103	A
36	1	1104	G
36	1	1106	G

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Mol	Chain	Res	Type
36	1	1109	U
36	1	1111	U
36	1	1112	A
36	1	1115	G
36	1	1117	G
36	1	1118	C
36	1	1123	U
36	1	1126	G
36	1	1129	A
36	1	1131	G
36	1	1143	A
36	1	1144	U
36	1	1146	C
36	1	1147	G
36	1	1149	G
36	1	1151	U
36	1	1153	A
36	1	1154	A
36	1	1156	C
36	1	1159	A
36	1	1162	U
36	1	1172	G
36	1	1174	G
36	1	1177	G
36	1	1178	G
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1184	A
36	1	1185	C
36	1	1191	U
36	1	1192	C
36	1	1196	C
36	1	1201	C
36	1	1202	A
36	1	1206	G
36	1	1209	G
36	1	1212	A
36	1	1213	G
36	1	1217	A
36	1	1218	U
36	1	1222	G

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Mol	Chain	Res	Type
36	1	1225	A
36	1	1227	C
36	1	1232	C
36	1	1235	U
36	1	1236	G
36	1	1237	G
36	1	1238	C
36	1	1239	C
36	1	1241	U
36	1	1242	G
36	1	1243	G
36	1	1244	A
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1253	U
36	1	1254	C
36	1	1255	C
36	1	1258	U
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1266	G
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1273	A
36	1	1274	A
36	1	1276	U
36	1	1277	C
36	1	1278	A
36	1	1279	C
36	1	1285	G
36	1	1286	A
36	1	1287	A
36	1	1292	C
36	1	1295	G
36	1	1300	G
36	1	1301	A
36	1	1305	U
36	1	1307	G

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Mol	Chain	Res	Type
36	1	1308	A
36	1	1309	U
36	1	1312	C
36	1	1313	G
36	1	1318	A
36	1	1322	U
36	1	1323	G
36	1	1325	U
36	1	1330	A
36	1	1331	U
36	1	1332	A
36	1	1336	U
36	1	1343	A
36	1	1344	G
36	1	1345	G
36	1	1348	U
36	1	1349	G
36	1	1350	A
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1354	G
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1363	A
36	1	1372	C
36	1	1373	A
36	1	1375	G
36	1	1377	G
36	1	1379	G
36	1	1380	G
36	1	1385	C
36	1	1386	A
36	1	1387	G
36	1	1392	G
36	1	1399	A
36	1	1400	G
36	1	1403	C
36	1	1406	A
36	1	1411	C
36	1	1418	A

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Mol	Chain	Res	Type
36	1	1419	A
36	1	1428	A
36	1	1429	G
36	1	1431	G
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1438	U
36	1	1444	G
36	1	1446	A
36	1	1450	G
36	1	1455	U
36	1	1461	A
36	1	1463	U
36	1	1469	C
36	1	1471	U
36	1	1481	A
36	1	1482	A
36	1	1485	G
36	1	1490	A
36	1	1492	G
36	1	1505	C
36	1	1507	G
36	1	1508	C
36	1	1511	U
36	1	1513	G
36	1	1514	G
36	1	1519	G
36	1	1521	G
36	1	1527	C
36	1	1533	U
36	1	1534	A
36	1	1541	G
36	1	1546	A
36	1	1549	U
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1557	A
36	1	1558	A
36	1	1560	G
36	1	1561	G

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Mol	Chain	Res	Type
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1571	A
36	1	1572	U
36	1	1573	G
36	1	1575	A
36	1	1576	G
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1596	C
36	1	1603	A
36	1	1605	A
36	1	1607	U
36	1	1608	C
36	1	1620	U
36	1	1621	A
36	1	1623	G
36	1	1629	U
36	1	1631	C
36	1	1635	G
36	1	1639	C
36	1	1641	U
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1658	G
36	1	1662	G
36	1	1668	G
36	1	1669	C
36	1	1671	C
36	1	1683	A
36	1	1715	A

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Mol	Chain	Res	Type
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1725	C
36	1	1729	A
36	1	1730	G
36	1	1741	A
36	1	1742	U
36	1	1750	A
36	1	1751	G
36	1	1762	C
36	1	1764	U
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1770	G
36	1	1774	C
36	1	1775	G
36	1	1779	C
36	1	1780	G
36	1	1786	G
36	1	1789	G
36	1	1793	C
36	1	1794	G
36	1	1795	U
36	1	1796	G
36	1	1797	A
36	1	1810	A
36	1	1812	G
36	1	1813	A
36	1	1814	A
36	1	1816	A
36	1	1817	G
36	1	1818	U
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1835	A
36	1	1838	G
36	1	1839	A
36	1	1840	U
36	1	1842	A

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Mol	Chain	Res	Type
36	1	1846	C
36	1	1848	G
36	1	1849	C
36	1	1851	G
36	1	1858	A
36	1	1863	G
36	1	1864	A
36	1	1866	C
36	1	1872	C
36	1	1878	G
36	1	1879	A
36	1	1889	G
36	1	1895	A
36	1	1906	G
36	1	1931	U
36	1	1935	G
36	1	1936	A
36	1	1943	C
36	1	1948	G
36	1	1949	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2094	C
36	1	2100	A
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2114	C
36	1	2116	G
36	1	2118	C
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2134	G
36	1	2136	C
36	1	2139	A
36	1	2140	U
36	1	2147	A

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Mol	Chain	Res	Type
36	1	2148	U
36	1	2151	C
36	1	2158	A
36	1	2159	U
36	1	2168	A
36	1	2169	G
36	1	2171	G
36	1	2175	U
36	1	2185	G
36	1	2187	G
36	1	2188	A
36	1	2193	U
36	1	2194	G
36	1	2199	G
36	1	2200	U
36	1	2205	U
36	1	2206	G
36	1	2207	A
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2215	A
36	1	2220	A
36	1	2223	A
36	1	2225	U
36	1	2228	A
36	1	2234	G
36	1	2244	A
36	1	2245	C
36	1	2246	G
36	1	2249	G
36	1	2250	G
36	1	2255	A
36	1	2256	A
36	1	2257	C
36	1	2272	G
36	1	2273	G
36	1	2276	G
36	1	2279	A
36	1	2280	A
36	1	2281	A
36	1	2282	U

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Mol	Chain	Res	Type
36	1	2283	G
36	1	2287	C
36	1	2288	G
36	1	2298	U
36	1	2303	A
36	1	2307	G
36	1	2308	C
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2323	G
36	1	2324	A
36	1	2331	C
36	1	2332	A
36	1	2335	G
36	1	2336	U
36	1	2345	A
36	1	2347	U
36	1	2354	C
36	1	2366	C
36	1	2367	A
36	1	2369	G
36	1	2371	G
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2379	U
36	1	2383	C
36	1	2385	G
36	1	2386	A
36	1	2387	A
36	1	2391	G
36	1	2392	C
36	1	2393	G
36	1	2397	A
36	1	2398	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2404	A

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Mol	Chain	Res	Type
36	1	2405	C
36	1	2406	C
36	1	2410	U
36	1	2411	U
36	1	2413	A
36	1	2414	G
36	1	2418	G
36	1	2419	A
36	1	2421	U
36	1	2424	A
36	1	2425	G
36	1	2428	U
36	1	2435	G
36	1	2437	G
36	1	2443	A
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2508	U
36	1	2511	A
36	1	2513	U
36	1	2514	U
36	1	2515	A
36	1	2522	G
36	1	2523	A
36	1	2524	A
36	1	2529	A
36	1	2532	U
36	1	2533	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2544	U
36	1	2547	A
36	1	2549	G
36	1	2552	C

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Mol	Chain	Res	Type
36	1	2554	A
36	1	2555	G
36	1	2561	A
36	1	2565	U
36	1	2567	C
36	1	2568	C
36	1	2569	A
36	1	2570	U
36	1	2571	U
36	1	2572	C
36	1	2573	G
36	1	2581	U
36	1	2582	C
36	1	2585	G
36	1	2587	U
36	1	2593	A
36	1	2594	C
36	1	2598	G
36	1	2603	G
36	1	2606	G
36	1	2607	G
36	1	2611	U
36	1	2613	U
36	1	2614	G
36	1	2615	G
36	1	2618	G
36	1	2620	G
36	1	2622	C
36	1	2627	C
36	1	2628	A
36	1	2629	U
36	1	2637	A
36	1	2642	A
36	1	2652	U
36	1	2653	C
36	1	2656	A
36	1	2657	A
36	1	2658	G
36	1	2661	G
36	1	2667	A
36	1	2672	G
36	1	2674	A

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Mol	Chain	Res	Type
36	1	2676	A
36	1	2677	G
36	1	2681	U
36	1	2685	C
36	1	2689	A
36	1	2690	G
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2703	A
36	1	2705	A
36	1	2709	C
36	1	2713	U
36	1	2714	G
36	1	2719	U
36	1	2720	G
36	1	2728	G
36	1	2729	U
36	1	2737	C
36	1	2752	U
36	1	2753	G
36	1	2754	G
36	1	2762	A
36	1	2772	C
36	1	2776	C
36	1	2777	G
36	1	2778	G
36	1	2779	A
36	1	2780	A
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2803	A
36	1	2806	U
36	1	2809	C
36	1	2810	C
36	1	2814	G
36	1	2817	A
36	1	2818	U
36	1	2819	A

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Mol	Chain	Res	Type
36	1	2827	U
36	1	2828	G
36	1	2829	U
36	1	2834	G
36	1	2838	A
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2847	A
36	1	2851	A
36	1	2852	C
36	1	2853	A
36	1	2855	U
36	1	2860	U
36	1	2861	U
36	1	2869	U
36	1	2871	G
36	1	2872	A
36	1	2873	U
36	1	2875	U
36	1	2876	C
36	1	2878	G
36	1	2880	U
36	1	2882	U
36	1	2883	U
36	1	2887	A
36	1	2888	U
36	1	2894	C
36	1	2898	G
36	1	2899	C
36	1	2900	A
36	1	2908	G
36	1	2912	G
36	1	2923	U
36	1	2925	C
36	1	2932	U
36	1	2935	U
36	1	2936	A
36	1	2941	A
36	1	2942	C
36	1	2945	G
36	1	2947	G

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Mol	Chain	Res	Type
36	1	2952	G
36	1	2954	U
36	1	2955	U
36	1	2963	C
36	1	2965	U
36	1	2967	A
36	1	2970	C
36	1	2971	A
36	1	2974	U
36	1	2983	C
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3006	A
36	1	3011	A
36	1	3024	A
36	1	3030	G
36	1	3040	A
36	1	3049	A
36	1	3051	U
36	1	3052	G
36	1	3056	U
36	1	3057	U
36	1	3059	G
36	1	3064	U
36	1	3065	G
36	1	3068	U
36	1	3078	U
36	1	3079	U
36	1	3080	G
36	1	3084	C
36	1	3086	A
36	1	3092	C
36	1	3093	C
36	1	3094	A
36	1	3104	U
36	1	3113	A
36	1	3115	C
36	1	3117	C
36	1	3120	C
36	1	3122	A
36	1	3128	G

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Mol	Chain	Res	Type
36	1	3129	A
36	1	3130	A
36	1	3131	U
36	1	3134	A
36	1	3136	G
36	1	3139	A
36	1	3142	A
36	1	3143	C
36	1	3147	G
36	1	3148	U
36	1	3150	A
36	1	3151	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3164	C
36	1	3165	A
36	1	3167	A
36	1	3168	A
36	1	3170	A
36	1	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3178	A
36	1	3180	A
36	1	3181	C
36	1	3187	A
36	1	3194	C
36	1	3196	U
36	1	3197	G
36	1	3198	U
36	1	3202	G
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3225	C
36	1	3228	C
36	1	3229	G

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Mol	Chain	Res	Type
36	1	3234	A
36	1	3235	C
36	1	3236	U
36	1	3242	G
36	1	3244	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3256	G
36	1	3259	U
36	1	3260	G
36	1	3261	C
36	1	3262	U
36	1	3270	U
36	1	3273	A
36	1	3275	U
36	1	3276	G
36	1	3278	C
36	1	3279	A
36	1	3281	U
36	1	3282	U
36	1	3287	U
36	1	3289	G
36	1	3290	G
36	1	3292	A
36	1	3293	U
36	1	3294	A
36	1	3295	A
36	1	3300	U
36	1	3303	G
36	1	3304	U
36	1	3307	A
36	1	3310	A
36	1	3313	U
36	1	3316	A
36	1	3317	U
36	1	3318	G
36	1	3319	U
36	1	3320	A
36	1	3335	A
36	1	3337	G
36	1	3341	U

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Mol	Chain	Res	Type
36	1	3342	A
36	1	3345	G
36	1	3347	A
36	1	3350	C
36	1	3351	U
36	1	3352	U
36	1	3353	G
36	1	3354	U
36	1	3355	U
36	1	3356	G
36	1	3359	A
36	1	3360	C
36	1	3362	A
36	1	3369	G
36	1	3375	A
36	1	3376	A
36	1	3378	C
36	1	3381	U
36	1	3382	U
36	1	3383	G
36	1	3386	G
36	1	3389	U
36	1	3390	G
36	1	3396	U
37	3	5	G
37	3	7	G
37	3	9	C
37	3	11	A
37	3	12	U
37	3	13	A
37	3	14	U
37	3	22	A
37	3	26	C
37	3	27	A
37	3	29	C
37	3	33	U
37	3	41	G
37	3	44	C
37	3	45	A
37	3	51	A
37	3	53	U
37	3	54	U

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Mol	Chain	Res	Type
37	3	65	G
37	3	73	C
37	3	74	C
37	3	76	A
37	3	83	U
37	3	84	A
37	3	91	G
37	3	101	G
37	3	102	A
37	3	104	A
37	3	108	A
37	3	109	G
37	3	112	G
37	3	115	G
37	3	118	A
37	3	121	U
38	4	4	C
38	4	13	A
38	4	14	C
38	4	15	G
38	4	16	G
38	4	22	U
38	4	23	U
38	4	31	G
38	4	32	C
38	4	34	U
38	4	35	C
38	4	39	G
38	4	42	G
38	4	48	A
38	4	52	A
38	4	59	A
38	4	62	C
38	4	63	G
38	4	64	U
38	4	70	G
38	4	75	G
38	4	79	A
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C

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Mol	Chain	Res	Type
38	4	84	C
38	4	86	U
38	4	87	G
38	4	90	U
38	4	93	U
38	4	95	G
38	4	96	A
38	4	97	A
38	4	102	U
38	4	104	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	116	G
38	4	122	U
38	4	125	U
38	4	126	A
38	4	129	C
38	4	134	G
38	4	138	A
38	4	144	G
38	4	148	G
38	4	151	C
38	4	152	G
38	4	158	U
1	6	2	A
1	6	4	C
1	6	17	C
1	6	20	G
1	6	24	U
1	6	25	C
1	6	26	A
1	6	27	U
1	6	32	U
1	6	34	G
1	6	45	U
1	6	46	A
1	6	47	A
1	6	51	A
1	6	52	U
1	6	54	C
1	6	57	G

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Mol	Chain	Res	Type
1	6	65	A
1	6	66	U
1	6	67	A
1	6	68	A
1	6	69	G
1	6	70	C
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	78	A
1	6	80	A
1	6	90	C
1	6	101	U
1	6	103	A
1	6	104	A
1	6	110	U
1	6	114	C
1	6	115	G
1	6	120	U
1	6	126	A
1	6	128	U
1	6	129	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	142	G
1	6	143	G
1	6	144	U
1	6	145	A
1	6	146	U
1	6	148	A
1	6	158	U
1	6	159	U
1	6	166	C
1	6	168	A
1	6	170	U
1	6	171	A
1	6	178	U
1	6	179	A

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Mol	Chain	Res	Type
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	194	U
1	6	195	G
1	6	200	A
1	6	201	G
1	6	212	U
1	6	215	A
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	234	G
1	6	235	G
1	6	237	C
1	6	238	U
1	6	240	U
1	6	241	U
1	6	249	U
1	6	250	C
1	6	260	U
1	6	261	U
1	6	265	A
1	6	266	A
1	6	267	U
1	6	271	A
1	6	272	U
1	6	273	G
1	6	275	C
1	6	276	C
1	6	278	U
1	6	280	U

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Mol	Chain	Res	Type
1	6	281	G
1	6	287	G
1	6	296	U
1	6	299	A
1	6	300	A
1	6	301	A
1	6	302	U
1	6	304	U
1	6	309	C
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C
1	6	322	G
1	6	324	U
1	6	325	G
1	6	331	A
1	6	333	A
1	6	337	G
1	6	338	C
1	6	341	A
1	6	343	C
1	6	344	A
1	6	346	G
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C
1	6	370	A
1	6	380	U
1	6	387	A
1	6	388	G
1	6	397	A
1	6	400	A
1	6	401	A
1	6	402	C
1	6	403	G
1	6	404	G
1	6	411	C
1	6	412	A
1	6	416	A

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Mol	Chain	Res	Type
1	6	417	A
1	6	418	G
1	6	424	C
1	6	425	A
1	6	426	G
1	6	432	G
1	6	434	G
1	6	437	A
1	6	439	U
1	6	440	U
1	6	444	C
1	6	448	C
1	6	454	U
1	6	455	C
1	6	459	G
1	6	465	G
1	6	468	A
1	6	469	C
1	6	470	A
1	6	477	A
1	6	484	C
1	6	486	G
1	6	487	G
1	6	488	G
1	6	489	C
1	6	490	C
1	6	491	C
1	6	492	A
1	6	493	U
1	6	494	U
1	6	495	C
1	6	496	G
1	6	499	U
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	507	U
1	6	508	U
1	6	510	G
1	6	511	A

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Mol	Chain	Res	Type
1	6	512	A
1	6	513	U
1	6	514	G
1	6	515	A
1	6	518	A
1	6	519	C
1	6	520	A
1	6	522	U
1	6	525	A
1	6	527	A
1	6	531	C
1	6	532	U
1	6	533	U
1	6	534	A
1	6	538	A
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	544	A
1	6	545	A
1	6	546	U
1	6	548	G
1	6	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	561	G
1	6	562	G
1	6	565	C
1	6	574	G
1	6	575	C
1	6	579	A
1	6	580	A
1	6	582	U
1	6	583	C
1	6	584	C
1	6	585	A
1	6	594	A
1	6	595	G

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Mol	Chain	Res	Type
1	6	606	A
1	6	609	U
1	6	610	G
1	6	617	U
1	6	619	A
1	6	620	A
1	6	623	A
1	6	624	G
1	6	630	A
1	6	639	U
1	6	648	G
1	6	650	U
1	6	651	G
1	6	652	G
1	6	653	C
1	6	658	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	669	G
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	680	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	685	A
1	6	691	C
1	6	696	C
1	6	697	C
1	6	698	U
1	6	699	U
1	6	702	G
1	6	705	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G

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Mol	Chain	Res	Type
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	724	C
1	6	725	U
1	6	727	U
1	6	729	G
1	6	730	G
1	6	733	A
1	6	734	A
1	6	735	C
1	6	742	U
1	6	745	U
1	6	754	A
1	6	755	A
1	6	756	A
1	6	758	U
1	6	765	G
1	6	774	A
1	6	775	G
1	6	777	C
1	6	778	G
1	6	779	U
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	784	C
1	6	787	G
1	6	789	A
1	6	790	U
1	6	793	A
1	6	794	U
1	6	795	U
1	6	803	A
1	6	808	U
1	6	811	A
1	6	812	A
1	6	814	A
1	6	815	G

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Mol	Chain	Res	Type
1	6	816	G
1	6	821	U
1	6	822	U
1	6	823	G
1	6	825	U
1	6	826	U
1	6	829	A
1	6	830	U
1	6	831	U
1	6	832	U
1	6	834	G
1	6	835	U
1	6	856	A
1	6	857	U
1	6	863	A
1	6	864	U
1	6	872	G
1	6	877	G
1	6	883	C
1	6	898	A
1	6	900	A
1	6	901	G
1	6	906	A
1	6	910	C
1	6	912	U
1	6	913	G
1	6	914	G
1	6	916	U
1	6	922	G
1	6	923	A
1	6	924	A
1	6	933	A
1	6	935	U
1	6	942	G
1	6	944	A
1	6	945	U
1	6	949	C
1	6	954	G
1	6	959	U
1	6	960	U
1	6	966	A
1	6	970	A

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Mol	Chain	Res	Type
1	6	971	A
1	6	976	G
1	6	982	U
1	6	983	A
1	6	985	G
1	6	987	G
1	6	988	A
1	6	992	A
1	6	993	A
1	6	994	G
1	6	996	U
1	6	997	G
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1013	A
1	6	1021	C
1	6	1025	A
1	6	1026	A
1	6	1028	C
1	6	1029	U
1	6	1030	A
1	6	1036	A
1	6	1038	U
1	6	1039	A
1	6	1040	G
1	6	1042	G
1	6	1052	U
1	6	1053	G
1	6	1056	U
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1061	A
1	6	1063	U
1	6	1065	A
1	6	1069	A
1	6	1070	C
1	6	1072	C
1	6	1074	G
1	6	1076	A

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Mol	Chain	Res	Type
1	6	1081	A
1	6	1082	C
1	6	1083	G
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1101	G
1	6	1103	U
1	6	1106	U
1	6	1109	G
1	6	1110	G
1	6	1111	G
1	6	1125	A
1	6	1130	G
1	6	1132	A
1	6	1138	A
1	6	1140	G
1	6	1143	A
1	6	1146	G
1	6	1147	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1162	C
1	6	1164	G
1	6	1166	A
1	6	1167	G
1	6	1172	G
1	6	1173	C
1	6	1175	U
1	6	1178	G
1	6	1183	A
1	6	1186	U
1	6	1191	U
1	6	1192	C
1	6	1193	A
1	6	1194	A
1	6	1196	A
1	6	1199	G

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Mol	Chain	Res	Type
1	6	1200	G
1	6	1202	A
1	6	1203	A
1	6	1207	C
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1228	G
1	6	1229	G
1	6	1236	A
1	6	1237	G
1	6	1239	U
1	6	1240	U
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1249	U
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1259	U
1	6	1266	U
1	6	1267	G
1	6	1275	A
1	6	1284	C
1	6	1286	U
1	6	1298	U
1	6	1304	G
1	6	1307	U
1	6	1312	A
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1318	G
1	6	1321	A
1	6	1334	U
1	6	1336	A

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Mol	Chain	Res	Type
1	6	1337	A
1	6	1338	C
1	6	1341	A
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1347	U
1	6	1354	G
1	6	1355	C
1	6	1359	C
1	6	1360	A
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1370	U
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1374	C
1	6	1380	U
1	6	1382	A
1	6	1384	A
1	6	1385	G
1	6	1389	C
1	6	1390	U
1	6	1396	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1404	C
1	6	1413	U
1	6	1414	U
1	6	1415	U
1	6	1421	A
1	6	1423	U
1	6	1424	A
1	6	1427	A
1	6	1428	G
1	6	1431	C
1	6	1433	G
1	6	1437	U

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Mol	Chain	Res	Type
1	6	1438	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1451	C
1	6	1452	U
1	6	1454	G
1	6	1459	C
1	6	1460	A
1	6	1461	C
1	6	1471	A
1	6	1472	C
1	6	1474	G
1	6	1481	C
1	6	1482	C
1	6	1483	A
1	6	1486	G
1	6	1489	U
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1498	G
1	6	1503	A
1	6	1504	G
1	6	1506	G
1	6	1509	C
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1517	U
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1529	C
1	6	1531	G
1	6	1534	G
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G

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Mol	Chain	Res	Type
1	6	1542	G
1	6	1543	A
1	6	1544	U
1	6	1548	G
1	6	1552	U
1	6	1554	U
1	6	1555	A
1	6	1557	U
1	6	1558	U
1	6	1559	A
1	6	1569	A
1	6	1571	C
1	6	1572	G
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1577	A
1	6	1584	G
1	6	1590	G
1	6	1596	C
1	6	1601	G
1	6	1603	U
1	6	1605	G
1	6	1607	G
1	6	1631	A
1	6	1637	C
1	6	1640	C
1	6	1645	G
1	6	1647	U
1	6	1651	A
1	6	1655	A
1	6	1657	U
1	6	1658	G
1	6	1666	U
1	6	1668	G
1	6	1671	A
1	6	1673	G
1	6	1680	G
1	6	1692	G
1	6	1694	A
1	6	1695	G
1	6	1696	G

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Mol	Chain	Res	Type
1	6	1697	G
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1710	U
1	6	1712	A
1	6	1715	G
1	6	1717	G
1	6	1719	A
1	6	1724	U
1	6	1725	U
1	6	1731	A
1	6	1732	A
1	6	1733	C
1	6	1738	U
1	6	1742	U
1	6	1748	G
1	6	1750	A
1	6	1751	C
1	6	1753	A
1	6	1760	G
1	6	1762	A
1	6	1763	A
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1772	C
1	6	1774	G
1	6	1777	G
1	6	1779	U
1	6	1780	G
1	6	1782	A
1	6	1783	C
1	6	1787	C
1	6	1789	G
1	6	1790	A
1	6	1792	G
1	6	1793	G
1	6	1794	A

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Mol	Chain	Res	Type
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	10	C
36	5	15	C
36	5	16	A
36	5	19	U
36	5	25	U
36	5	26	A
36	5	28	C
36	5	29	C
36	5	32	U
36	5	35	A
36	5	40	A
36	5	43	A
36	5	44	U
36	5	45	A
36	5	47	C
36	5	49	A
36	5	52	A
36	5	57	A
36	5	59	G
36	5	60	A
36	5	62	A
36	5	64	G
36	5	65	A
36	5	66	A
36	5	67	A
36	5	68	C
36	5	69	C
36	5	73	C
36	5	74	G
36	5	76	G
36	5	92	G
36	5	93	C
36	5	94	G
36	5	95	A
36	5	96	G
36	5	97	U
36	5	99	A
36	5	101	G
36	5	109	A

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Mol	Chain	Res	Type
36	5	110	G
36	5	113	C
36	5	116	A
36	5	117	U
36	5	118	U
36	5	119	U
36	5	121	A
36	5	122	A
36	5	123	A
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	142	C
36	5	147	U
36	5	151	A
36	5	152	U
36	5	155	G
36	5	156	G
36	5	157	A
36	5	158	G
36	5	161	G
36	5	165	A
36	5	166	C
36	5	170	G
36	5	171	G
36	5	172	G
36	5	174	C
36	5	181	U
36	5	184	U
36	5	187	A
36	5	188	U
36	5	190	U
36	5	191	U
36	5	200	C
36	5	201	A
36	5	206	G
36	5	210	U
36	5	212	G
36	5	213	A
36	5	218	G
36	5	219	A

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Mol	Chain	Res	Type
36	5	221	A
36	5	231	G
36	5	234	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	241	G
36	5	242	C
36	5	244	G
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	255	A
36	5	258	G
36	5	259	C
36	5	261	U
36	5	267	G
36	5	269	G
36	5	270	U
36	5	272	G
36	5	275	U
36	5	282	G
36	5	283	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	297	G
36	5	299	G
36	5	311	C
36	5	315	C
36	5	323	A
36	5	329	U
36	5	334	A
36	5	338	A
36	5	339	C
36	5	344	A
36	5	347	G
36	5	349	A

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Mol	Chain	Res	Type
36	5	350	C
36	5	351	A
36	5	354	U
36	5	358	G
36	5	359	U
36	5	365	A
36	5	368	G
36	5	370	U
36	5	372	A
36	5	376	G
36	5	381	U
36	5	390	G
36	5	397	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	404	G
36	5	407	A
36	5	415	G
36	5	419	G
36	5	421	G
36	5	422	A
36	5	423	A
36	5	436	A
36	5	437	G
36	5	438	A
36	5	439	C
36	5	441	U
36	5	442	G
36	5	443	G
36	5	492	U
36	5	494	G
36	5	496	C
36	5	501	A
36	5	507	U
36	5	510	G
36	5	516	A
36	5	521	A
36	5	531	G
36	5	535	G

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Mol	Chain	Res	Type
36	5	536	U
36	5	541	U
36	5	542	G
36	5	545	U
36	5	546	C
36	5	547	G
36	5	548	G
36	5	556	U
36	5	557	A
36	5	558	U
36	5	559	A
36	5	560	G
36	5	561	C
36	5	578	A
36	5	579	G
36	5	582	G
36	5	586	C
36	5	587	U
36	5	588	G
36	5	589	A
36	5	592	A
36	5	594	U
36	5	595	G
36	5	596	C
36	5	604	G
36	5	607	A
36	5	609	G
36	5	610	G
36	5	611	A
36	5	618	C
36	5	619	A
36	5	620	U
36	5	621	A
36	5	626	U
36	5	632	G
36	5	634	C
36	5	635	G
36	5	636	C
36	5	646	A
36	5	648	C
36	5	649	A
36	5	660	A

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Mol	Chain	Res	Type
36	5	662	U
36	5	666	A
36	5	677	A
36	5	681	U
36	5	683	U
36	5	685	G
36	5	691	A
36	5	699	A
36	5	705	A
36	5	706	A
36	5	708	G
36	5	712	G
36	5	715	A
36	5	716	A
36	5	726	G
36	5	727	G
36	5	734	C
36	5	736	A
36	5	740	G
36	5	742	G
36	5	743	C
36	5	757	C
36	5	758	C
36	5	763	G
36	5	764	U
36	5	766	U
36	5	767	U
36	5	768	C
36	5	771	A
36	5	774	G
36	5	776	U
36	5	777	U
36	5	781	G
36	5	783	A
36	5	785	G
36	5	786	A
36	5	804	C
36	5	806	A
36	5	807	A
36	5	810	A
36	5	815	G
36	5	817	A

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Mol	Chain	Res	Type
36	5	818	C
36	5	821	U
36	5	830	A
36	5	837	A
36	5	845	G
36	5	846	A
36	5	859	G
36	5	860	G
36	5	861	C
36	5	862	U
36	5	863	C
36	5	865	U
36	5	866	A
36	5	869	G
36	5	874	U
36	5	877	C
36	5	879	U
36	5	881	C
36	5	882	A
36	5	884	A
36	5	887	G
36	5	888	A
36	5	890	C
36	5	895	A
36	5	896	A
36	5	897	U
36	5	901	G
36	5	904	A
36	5	907	G
36	5	908	G
36	5	914	A
36	5	916	G
36	5	917	A
36	5	921	A
36	5	923	C
36	5	924	G
36	5	935	U
36	5	937	G
36	5	938	C
36	5	941	G
36	5	944	C
36	5	947	G

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Mol	Chain	Res	Type
36	5	955	U
36	5	959	C
36	5	960	U
36	5	965	A
36	5	966	U
36	5	979	U
36	5	980	A
36	5	981	U
36	5	983	A
36	5	990	U
36	5	992	A
36	5	993	G
36	5	994	G
36	5	1001	G
36	5	1002	A
36	5	1006	A
36	5	1007	U
36	5	1009	A
36	5	1010	G
36	5	1014	U
36	5	1015	U
36	5	1016	C
36	5	1017	C
36	5	1018	G
36	5	1021	G
36	5	1023	C
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1028	U
36	5	1029	G
36	5	1033	U
36	5	1035	G
36	5	1040	A
36	5	1047	A
36	5	1049	C
36	5	1052	U
36	5	1060	U
36	5	1064	A
36	5	1065	A
36	5	1071	U
36	5	1072	G

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Mol	Chain	Res	Type
36	5	1078	U
36	5	1081	U
36	5	1082	U
36	5	1085	A
36	5	1088	U
36	5	1093	A
36	5	1095	U
36	5	1096	U
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1109	U
36	5	1112	A
36	5	1117	G
36	5	1118	C
36	5	1131	G
36	5	1141	C
36	5	1143	A
36	5	1144	U
36	5	1150	A
36	5	1151	U
36	5	1152	G
36	5	1153	A
36	5	1154	A
36	5	1155	C
36	5	1156	C
36	5	1159	A
36	5	1161	G
36	5	1165	A
36	5	1168	U
36	5	1175	C
36	5	1177	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1186	G
36	5	1190	A
36	5	1192	C
36	5	1196	C
36	5	1197	A
36	5	1198	C
36	5	1199	C

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Mol	Chain	Res	Type
36	5	1201	C
36	5	1202	A
36	5	1206	G
36	5	1209	G
36	5	1212	A
36	5	1221	A
36	5	1222	G
36	5	1225	A
36	5	1232	C
36	5	1235	U
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1244	A
36	5	1245	A
36	5	1246	G
36	5	1248	C
36	5	1249	G
36	5	1252	A
36	5	1253	U
36	5	1254	C
36	5	1255	C
36	5	1258	U
36	5	1259	A
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1270	A
36	5	1281	G
36	5	1285	G
36	5	1286	A
36	5	1290	A
36	5	1295	G
36	5	1305	U
36	5	1307	G
36	5	1309	U
36	5	1311	G
36	5	1313	G
36	5	1322	U

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Mol	Chain	Res	Type
36	5	1329	U
36	5	1330	A
36	5	1332	A
36	5	1334	U
36	5	1345	G
36	5	1348	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1354	G
36	5	1356	U
36	5	1357	G
36	5	1386	A
36	5	1390	A
36	5	1391	C
36	5	1392	G
36	5	1397	C
36	5	1398	U
36	5	1399	A
36	5	1400	G
36	5	1405	U
36	5	1408	G
36	5	1415	U
36	5	1418	A
36	5	1419	A
36	5	1428	A
36	5	1429	G
36	5	1431	G
36	5	1434	G
36	5	1437	C
36	5	1438	U
36	5	1444	G
36	5	1445	U
36	5	1446	A
36	5	1450	G
36	5	1460	A
36	5	1465	A
36	5	1467	A
36	5	1468	A
36	5	1472	U
36	5	1475	A

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Mol	Chain	Res	Type
36	5	1481	A
36	5	1482	A
36	5	1483	G
36	5	1485	G
36	5	1490	A
36	5	1492	G
36	5	1500	G
36	5	1503	A
36	5	1508	C
36	5	1514	G
36	5	1515	A
36	5	1523	U
36	5	1527	C
36	5	1533	U
36	5	1536	G
36	5	1539	A
36	5	1551	C
36	5	1552	G
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1557	A
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1564	U
36	5	1565	G
36	5	1566	A
36	5	1567	U
36	5	1568	U
36	5	1569	U
36	5	1570	U
36	5	1571	A
36	5	1572	U
36	5	1574	C
36	5	1575	A
36	5	1576	G
36	5	1577	G
36	5	1578	C
36	5	1579	C
36	5	1580	A
36	5	1581	C

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Mol	Chain	Res	Type
36	5	1583	A
36	5	1584	U
36	5	1585	C
36	5	1587	A
36	5	1589	A
36	5	1596	C
36	5	1607	U
36	5	1619	A
36	5	1620	U
36	5	1621	A
36	5	1629	U
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1651	U
36	5	1656	A
36	5	1658	G
36	5	1661	G
36	5	1675	G
36	5	1680	G
36	5	1683	A
36	5	1684	U
36	5	1687	U
36	5	1688	U
36	5	1689	U
36	5	1694	U
36	5	1700	G
36	5	1701	C
36	5	1703	U
36	5	1710	C
36	5	1713	G
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1726	C
36	5	1727	G
36	5	1736	G
36	5	1739	U
36	5	1750	A
36	5	1751	G

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Mol	Chain	Res	Type
36	5	1752	A
36	5	1754	G
36	5	1756	C
36	5	1761	C
36	5	1762	C
36	5	1763	U
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1770	G
36	5	1773	C
36	5	1779	C
36	5	1780	G
36	5	1797	A
36	5	1804	A
36	5	1810	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1820	U
36	5	1821	U
36	5	1823	A
36	5	1834	U
36	5	1839	A
36	5	1841	A
36	5	1842	A
36	5	1845	G
36	5	1846	C
36	5	1849	C
36	5	1851	G
36	5	1876	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1881	A
36	5	1888	U
36	5	1900	A
36	5	1901	A
36	5	1906	G
36	5	1912	U

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Mol	Chain	Res	Type
36	5	1918	C
36	5	1920	U
36	5	1921	A
36	5	1922	A
36	5	1923	C
36	5	1926	C
36	5	1935	G
36	5	1936	A
36	5	1951	C
36	5	2100	A
36	5	2101	C
36	5	2102	U
36	5	2107	A
36	5	2112	U
36	5	2113	A
36	5	2116	G
36	5	2121	G
36	5	2122	G
36	5	2126	A
36	5	2131	A
36	5	2132	C
36	5	2133	U
36	5	2134	G
36	5	2138	A
36	5	2140	U
36	5	2149	A
36	5	2155	G
36	5	2158	A
36	5	2163	C
36	5	2165	G
36	5	2166	A
36	5	2169	G
36	5	2173	U
36	5	2175	U
36	5	2176	U
36	5	2185	G
36	5	2187	G
36	5	2188	A
36	5	2189	U
36	5	2192	C
36	5	2193	U
36	5	2198	A

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Mol	Chain	Res	Type
36	5	2202	C
36	5	2205	U
36	5	2206	G
36	5	2208	A
36	5	2209	U
36	5	2210	G
36	5	2211	U
36	5	2213	A
36	5	2218	G
36	5	2223	A
36	5	2225	U
36	5	2228	A
36	5	2229	A
36	5	2232	A
36	5	2234	G
36	5	2241	U
36	5	2244	A
36	5	2246	G
36	5	2250	G
36	5	2252	A
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2270	A
36	5	2273	G
36	5	2274	U
36	5	2277	C
36	5	2278	C
36	5	2281	A
36	5	2282	U
36	5	2283	G
36	5	2287	C
36	5	2288	G
36	5	2295	A
36	5	2297	U
36	5	2298	U
36	5	2300	G
36	5	2301	U
36	5	2303	A
36	5	2307	G
36	5	2308	C
36	5	2310	U

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Mol	Chain	Res	Type
36	5	2313	A
36	5	2315	G
36	5	2324	A
36	5	2330	C
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2350	C
36	5	2359	C
36	5	2362	C
36	5	2363	A
36	5	2366	C
36	5	2369	G
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2383	C
36	5	2385	G
36	5	2386	A
36	5	2388	U
36	5	2392	C
36	5	2393	G
36	5	2394	G
36	5	2397	A
36	5	2401	A
36	5	2403	G
36	5	2405	C
36	5	2406	C
36	5	2411	U
36	5	2412	G
36	5	2413	A
36	5	2414	G
36	5	2415	C
36	5	2418	G
36	5	2419	A
36	5	2427	U
36	5	2437	G
36	5	2439	A
36	5	2440	G
36	5	2441	A
36	5	2442	G
36	5	2444	C

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Mol	Chain	Res	Type
36	5	2505	U
36	5	2506	U
36	5	2508	U
36	5	2509	U
36	5	2510	U
36	5	2513	U
36	5	2514	U
36	5	2515	A
36	5	2523	A
36	5	2524	A
36	5	2525	G
36	5	2526	C
36	5	2529	A
36	5	2530	G
36	5	2531	C
36	5	2532	U
36	5	2535	A
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2541	U
36	5	2543	U
36	5	2544	U
36	5	2545	C
36	5	2549	G
36	5	2552	C
36	5	2554	A
36	5	2555	G
36	5	2556	C
36	5	2558	U
36	5	2562	A
36	5	2566	C
36	5	2567	C
36	5	2569	A
36	5	2570	U
36	5	2571	U
36	5	2572	C
36	5	2573	G
36	5	2574	G
36	5	2581	U
36	5	2584	G
36	5	2585	G

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Mol	Chain	Res	Type
36	5	2586	G
36	5	2587	U
36	5	2588	U
36	5	2593	A
36	5	2594	C
36	5	2599	U
36	5	2603	G
36	5	2605	G
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2618	G
36	5	2625	C
36	5	2626	A
36	5	2629	U
36	5	2632	G
36	5	2637	A
36	5	2642	A
36	5	2647	A
36	5	2650	U
36	5	2652	U
36	5	2653	C
36	5	2656	A
36	5	2658	G
36	5	2668	U
36	5	2674	A
36	5	2676	A
36	5	2677	G
36	5	2679	A
36	5	2680	A
36	5	2681	U
36	5	2682	C
36	5	2683	U
36	5	2685	C
36	5	2689	A
36	5	2690	G
36	5	2691	A
36	5	2692	A
36	5	2694	A
36	5	2696	A
36	5	2702	A
36	5	2703	A

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Mol	Chain	Res	Type
36	5	2705	A
36	5	2709	C
36	5	2714	G
36	5	2717	U
36	5	2720	G
36	5	2723	U
36	5	2725	U
36	5	2726	C
36	5	2727	A
36	5	2728	G
36	5	2729	U
36	5	2737	C
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2759	U
36	5	2760	C
36	5	2762	A
36	5	2764	C
36	5	2769	A
36	5	2772	C
36	5	2773	C
36	5	2776	C
36	5	2777	G
36	5	2778	G
36	5	2783	U
36	5	2792	A
36	5	2796	G
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2802	A
36	5	2808	A
36	5	2809	C
36	5	2810	C
36	5	2816	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2820	A
36	5	2836	C
36	5	2837	A

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Mol	Chain	Res	Type
36	5	2839	G
36	5	2843	U
36	5	2845	A
36	5	2853	A
36	5	2856	G
36	5	2858	U
36	5	2868	U
36	5	2869	U
36	5	2871	G
36	5	2872	A
36	5	2873	U
36	5	2874	G
36	5	2875	U
36	5	2876	C
36	5	2878	G
36	5	2880	U
36	5	2881	C
36	5	2887	A
36	5	2889	C
36	5	2895	G
36	5	2896	A
36	5	2899	C
36	5	2900	A
36	5	2914	G
36	5	2918	G
36	5	2923	U
36	5	2927	C
36	5	2935	U
36	5	2936	A
36	5	2937	G
36	5	2939	G
36	5	2940	A
36	5	2941	A
36	5	2942	C
36	5	2944	U
36	5	2947	G
36	5	2948	C
36	5	2951	G
36	5	2954	U
36	5	2955	U
36	5	2961	G
36	5	2971	A

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Mol	Chain	Res	Type
36	5	2972	G
36	5	2973	G
36	5	2979	U
36	5	2980	U
36	5	2982	A
36	5	2983	C
36	5	2985	C
36	5	2986	U
36	5	2990	G
36	5	2992	U
36	5	2995	A
36	5	2996	U
36	5	2997	G
36	5	2999	U
36	5	3004	C
36	5	3011	A
36	5	3012	A
36	5	3014	U
36	5	3016	A
36	5	3025	C
36	5	3028	G
36	5	3039	C
36	5	3056	U
36	5	3057	U
36	5	3059	G
36	5	3069	G
36	5	3078	U
36	5	3079	U
36	5	3080	G
36	5	3084	C
36	5	3086	A
36	5	3088	G
36	5	3092	C
36	5	3094	A
36	5	3095	U
36	5	3100	U
36	5	3102	G
36	5	3104	U
36	5	3107	U
36	5	3115	C
36	5	3119	U
36	5	3120	C

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Mol	Chain	Res	Type
36	5	3121	U
36	5	3122	A
36	5	3127	A
36	5	3128	G
36	5	3129	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3147	G
36	5	3148	U
36	5	3150	A
36	5	3152	U
36	5	3153	U
36	5	3154	C
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3162	C
36	5	3164	C
36	5	3165	A
36	5	3168	A
36	5	3170	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3175	U
36	5	3176	G
36	5	3179	U
36	5	3180	A
36	5	3181	C
36	5	3187	A
36	5	3194	C
36	5	3195	U
36	5	3196	U
36	5	3198	U
36	5	3199	G
36	5	3202	G
36	5	3207	U
36	5	3217	C

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Mol	Chain	Res	Type
36	5	3218	A
36	5	3219	G
36	5	3222	U
36	5	3223	A
36	5	3229	G
36	5	3234	A
36	5	3235	C
36	5	3238	G
36	5	3240	C
36	5	3242	G
36	5	3243	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3250	U
36	5	3251	U
36	5	3253	G
36	5	3259	U
36	5	3260	G
36	5	3263	G
36	5	3265	C
36	5	3266	G
36	5	3269	U
36	5	3270	U
36	5	3271	G
36	5	3273	A
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3278	C
36	5	3279	A
36	5	3281	U
36	5	3282	U
36	5	3283	U
36	5	3285	C
36	5	3286	G
36	5	3287	U
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3303	G

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Mol	Chain	Res	Type
36	5	3304	U
36	5	3307	A
36	5	3309	G
36	5	3315	G
36	5	3316	A
36	5	3317	U
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3323	A
36	5	3330	A
36	5	3333	G
36	5	3341	U
36	5	3342	A
36	5	3343	G
36	5	3345	G
36	5	3348	G
36	5	3354	U
36	5	3355	U
36	5	3358	U
36	5	3361	G
36	5	3363	U
36	5	3368	U
36	5	3369	G
36	5	3378	C
36	5	3379	C
36	5	3383	G
36	5	3386	G
36	5	3387	U
36	5	3389	U
36	5	3390	G
36	5	3396	U
37	7	7	G
37	7	8	G
37	7	10	C
37	7	22	A
37	7	25	G
37	7	26	C
37	7	27	A
37	7	30	G
37	7	38	U
37	7	40	C

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Mol	Chain	Res	Type
37	7	41	G
37	7	44	C
37	7	45	A
37	7	50	U
37	7	51	A
37	7	54	U
37	7	57	G
37	7	61	G
37	7	62	U
37	7	65	G
37	7	73	C
37	7	74	C
37	7	91	G
37	7	93	C
37	7	99	G
37	7	102	A
37	7	103	A
37	7	104	A
37	7	112	G
37	7	116	C
38	8	2	A
38	8	12	A
38	8	13	A
38	8	15	G
38	8	21	C
38	8	23	U
38	8	26	U
38	8	31	G
38	8	34	U
38	8	35	C
38	8	39	G
38	8	42	G
38	8	46	G
38	8	50	C
38	8	51	G
38	8	52	A
38	8	53	A
38	8	59	A
38	8	60	U
38	8	62	C
38	8	63	G
38	8	71	A

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Mol	Chain	Res	Type
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C
38	8	84	C
38	8	86	U
38	8	87	G
38	8	91	C
38	8	95	G
38	8	96	A
38	8	97	A
38	8	99	C
38	8	100	U
38	8	103	G
38	8	104	A
38	8	106	C
38	8	107	G
38	8	108	C
38	8	109	A
38	8	111	A
38	8	113	U
38	8	114	G
38	8	122	U
38	8	123	G
38	8	124	G
38	8	125	U
38	8	126	A
38	8	127	U
38	8	135	G
38	8	136	G
38	8	143	U
38	8	155	A
38	8	156	U
38	8	157	U
38	8	158	U

All (371) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	68	A

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Mol	Chain	Res	Type
1	2	73	U
1	2	103	A
1	2	114	C
1	2	130	C
1	2	131	C
1	2	139	C
1	2	158	U
1	2	192	U
1	2	217	A
1	2	218	A
1	2	232	U
1	2	240	U
1	2	260	U
1	2	278	U
1	2	280	U
1	2	313	U
1	2	321	C
1	2	417	A
1	2	423	G
1	2	484	C
1	2	497	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	512	A
1	2	555	A
1	2	558	U
1	2	580	A
1	2	582	U
1	2	685	A
1	2	704	C
1	2	720	G
1	2	721	U
1	2	731	C
1	2	734	A
1	2	738	G
1	2	782	U
1	2	811	A
1	2	829	A
1	2	840	U
1	2	859	A
1	2	913	G

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Mol	Chain	Res	Type
1	2	1051	G
1	2	1058	U
1	2	1108	G
1	2	1157	A
1	2	1158	C
1	2	1226	A
1	2	1228	G
1	2	1244	A
1	2	1250	U
1	2	1314	U
1	2	1339	C
1	2	1344	A
1	2	1370	U
1	2	1474	G
1	2	1481	C
1	2	1489	U
1	2	1491	U
1	2	1568	C
1	2	1573	A
1	2	1600	A
1	2	1615	C
1	2	1657	U
1	2	1757	G
1	2	1761	U
1	2	1768	G
1	2	1769	U
36	1	13	A
36	1	43	A
36	1	59	G
36	1	109	A
36	1	115	A
36	1	169	U
36	1	210	U
36	1	217	U
36	1	239	G
36	1	285	A
36	1	341	G
36	1	374	A
36	1	518	G
36	1	547	G
36	1	619	A
36	1	637	C

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Mol	Chain	Res	Type
36	1	705	A
36	1	719	U
36	1	763	G
36	1	873	C
36	1	896	A
36	1	908	G
36	1	916	G
36	1	979	U
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1081	U
36	1	1094	U
36	1	1096	U
36	1	1097	G
36	1	1103	A
36	1	1116	G
36	1	1154	A
36	1	1253	U
36	1	1268	G
36	1	1273	A
36	1	1307	G
36	1	1317	A
36	1	1329	U
36	1	1352	A
36	1	1355	A
36	1	1481	A
36	1	1484	U
36	1	1507	G
36	1	1514	G
36	1	1554	U
36	1	1556	C
36	1	1562	C
36	1	1589	A
36	1	1607	U
36	1	1656	A
36	1	1716	U
36	1	1815	U
36	1	1816	A
36	1	1820	U
36	1	1849	C
36	1	1930	A

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Mol	Chain	Res	Type
36	1	2101	C
36	1	2111	G
36	1	2112	U
36	1	2209	U
36	1	2227	C
36	1	2314	U
36	1	2372	A
36	1	2374	C
36	1	2403	G
36	1	2404	A
36	1	2418	G
36	1	2513	U
36	1	2522	G
36	1	2523	A
36	1	2537	U
36	1	2541	U
36	1	2554	A
36	1	2570	U
36	1	2586	G
36	1	2593	A
36	1	2677	G
36	1	2702	A
36	1	2752	U
36	1	2772	C
36	1	2817	A
36	1	2818	U
36	1	2842	U
36	1	2860	U
36	1	2872	A
36	1	3048	A
36	1	3055	U
36	1	3057	U
36	1	3065	G
36	1	3078	U
36	1	3093	C
36	1	3154	C
36	1	3217	C
36	1	3218	A
36	1	3228	C
36	1	3246	G
36	1	3259	U
36	1	3269	U

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Mol	Chain	Res	Type
36	1	3275	U
36	1	3318	G
36	1	3350	C
36	1	3351	U
36	1	3353	G
36	1	3375	A
37	3	13	A
37	3	52	G
38	4	22	U
38	4	62	C
38	4	82	U
38	4	83	C
38	4	85	G
38	4	111	A
38	4	125	U
1	6	25	C
1	6	66	U
1	6	103	A
1	6	114	C
1	6	139	C
1	6	158	U
1	6	187	G
1	6	217	A
1	6	240	U
1	6	260	U
1	6	272	U
1	6	321	C
1	6	322	G
1	6	345	U
1	6	400	A
1	6	417	A
1	6	512	A
1	6	542	A
1	6	555	A
1	6	557	G
1	6	558	U
1	6	664	U
1	6	681	U
1	6	697	C
1	6	717	C
1	6	755	A
1	6	815	G

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Mol	Chain	Res	Type
1	6	829	A
1	6	834	G
1	6	1035	G
1	6	1051	G
1	6	1057	U
1	6	1058	U
1	6	1060	U
1	6	1081	A
1	6	1097	U
1	6	1137	A
1	6	1158	C
1	6	1196	A
1	6	1198	G
1	6	1207	C
1	6	1227	A
1	6	1238	A
1	6	1244	A
1	6	1255	G
1	6	1274	C
1	6	1344	A
1	6	1346	A
1	6	1431	C
1	6	1470	C
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1517	U
1	6	1535	U
1	6	1568	C
1	6	1572	G
1	6	1573	A
1	6	1584	G
1	6	1657	U
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1700	C
36	5	43	A
36	5	59	G
36	5	65	A
36	5	67	A
36	5	93	C

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Mol	Chain	Res	Type
36	5	151	A
36	5	183	G
36	5	221	A
36	5	282	G
36	5	350	C
36	5	369	A
36	5	520	U
36	5	557	A
36	5	558	U
36	5	588	G
36	5	714	G
36	5	765	C
36	5	766	U
36	5	816	A
36	5	896	A
36	5	916	G
36	5	925	A
36	5	979	U
36	5	993	G
36	5	1017	C
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1154	A
36	5	1236	G
36	5	1238	C
36	5	1241	U
36	5	1253	U
36	5	1284	C
36	5	1317	A
36	5	1329	U
36	5	1331	U
36	5	1348	U
36	5	1352	A
36	5	1355	A
36	5	1481	A
36	5	1514	G
36	5	1554	U
36	5	1560	G
36	5	1580	A
36	5	1715	A

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Mol	Chain	Res	Type
36	5	1716	U
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1819	U
36	5	1841	A
36	5	1858	A
36	5	1878	G
36	5	1879	A
36	5	2101	C
36	5	2112	U
36	5	2121	G
36	5	2204	C
36	5	2205	U
36	5	2209	U
36	5	2249	G
36	5	2255	A
36	5	2281	A
36	5	2282	U
36	5	2372	A
36	5	2374	C
36	5	2392	C
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2531	C
36	5	2539	C
36	5	2541	U
36	5	2572	C
36	5	2584	G
36	5	2586	G
36	5	2593	A
36	5	2677	G
36	5	2682	C
36	5	2689	A
36	5	2719	U
36	5	2752	U
36	5	2772	C
36	5	2801	A
36	5	2803	A
36	5	2817	A
36	5	2818	U

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Mol	Chain	Res	Type
36	5	2842	U
36	5	2940	A
36	5	2971	A
36	5	3011	A
36	5	3078	U
36	5	3079	U
36	5	3121	U
36	5	3146	G
36	5	3154	C
36	5	3172	A
36	5	3173	G
36	5	3195	U
36	5	3196	U
36	5	3216	G
36	5	3218	A
36	5	3228	C
36	5	3244	A
36	5	3269	U
36	5	3275	U
36	5	3276	G
36	5	3289	G
36	5	3317	U
36	5	3333	G
36	5	3340	G
36	5	3341	U
36	5	3357	U
37	7	49	G
37	7	73	C
37	7	111	U
38	8	45	C
38	8	113	U
38	8	126	A

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 2558 ligands modelled in this entry, 1426 are monoatomic - leaving 1132 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
87	OHX	1	3866	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3996	36	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	2	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
88	GET	2	2181	-	33,36,36	0.48	0	43,55,55	1.76	8 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	236	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	237	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	238	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	239	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	4	240	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2205	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2208	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2209	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2210	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2211	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	217	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	231	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	232	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	233	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	234	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	235	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	D3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	L4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M0	304	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M9	203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	N9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O2	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O7	103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O7	104	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	Q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	c8	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	d4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l3	407	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
87	OHX	l3	408	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l5	306	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l5	307	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m7	205	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	n3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	n9	103	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	o3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	o7	502	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	o9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	q1	102	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	sR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3866	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3876	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3918	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3960	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3996	36	-	0/0/0/0	0/0/0/0
87	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
87	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4002	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4044	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4086	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4128	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4170	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4212	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2065	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	2	2066	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2107	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	2	2108	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2149	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2179	-	-	0/0/0/0	0/0/0/0
87	OHX	2	2180	-	-	0/0/0/0	0/0/0/0
88	GET	2	2181	-	-	0/13/74/74	0/3/3/3
87	OHX	3	215	-	-	0/0/0/0	0/0/0/0
87	OHX	3	216	-	-	0/0/0/0	0/0/0/0
87	OHX	3	217	-	-	0/0/0/0	0/0/0/0
87	OHX	3	218	-	-	0/0/0/0	0/0/0/0
87	OHX	3	219	-	-	0/0/0/0	0/0/0/0
87	OHX	3	220	-	-	0/0/0/0	0/0/0/0
87	OHX	3	221	-	-	0/0/0/0	0/0/0/0
87	OHX	3	222	-	-	0/0/0/0	0/0/0/0
87	OHX	3	223	-	-	0/0/0/0	0/0/0/0
87	OHX	3	224	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	3	225	-	-	0/0/0/0	0/0/0/0
87	OHX	4	224	-	-	0/0/0/0	0/0/0/0
87	OHX	4	225	-	-	0/0/0/0	0/0/0/0
87	OHX	4	226	-	-	0/0/0/0	0/0/0/0
87	OHX	4	227	-	-	0/0/0/0	0/0/0/0
87	OHX	4	228	-	-	0/0/0/0	0/0/0/0
87	OHX	4	229	-	-	0/0/0/0	0/0/0/0
87	OHX	4	230	-	-	0/0/0/0	0/0/0/0
87	OHX	4	231	-	-	0/0/0/0	0/0/0/0
87	OHX	4	232	-	-	0/0/0/0	0/0/0/0
87	OHX	4	233	-	-	0/0/0/0	0/0/0/0
87	OHX	4	234	-	-	0/0/0/0	0/0/0/0
87	OHX	4	235	-	-	0/0/0/0	0/0/0/0
87	OHX	4	236	-	-	0/0/0/0	0/0/0/0
87	OHX	4	237	-	-	0/0/0/0	0/0/0/0
87	OHX	4	238	-	-	0/0/0/0	0/0/0/0
87	OHX	4	239	-	-	0/0/0/0	0/0/0/0
87	OHX	4	240	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3894	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3895	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3896	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3897	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3898	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3899	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3900	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3917	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3959	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4001	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4043	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4085	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4127	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4169	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4211	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2056	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2098	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2140	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2182	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2205	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2206	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2207	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2208	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2209	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2210	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2211	-	-	0/0/0/0	0/0/0/0
87	OHX	7	216	-	-	0/0/0/0	0/0/0/0
87	OHX	7	217	-	-	0/0/0/0	0/0/0/0
87	OHX	7	218	-	-	0/0/0/0	0/0/0/0
87	OHX	7	219	-	-	0/0/0/0	0/0/0/0
87	OHX	7	220	-	-	0/0/0/0	0/0/0/0
87	OHX	7	221	-	-	0/0/0/0	0/0/0/0
87	OHX	7	222	-	-	0/0/0/0	0/0/0/0
87	OHX	7	223	-	-	0/0/0/0	0/0/0/0
87	OHX	7	224	-	-	0/0/0/0	0/0/0/0
87	OHX	7	225	-	-	0/0/0/0	0/0/0/0
87	OHX	7	226	-	-	0/0/0/0	0/0/0/0
87	OHX	8	218	-	-	0/0/0/0	0/0/0/0
87	OHX	8	219	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	8	220	-	-	0/0/0/0	0/0/0/0
87	OHX	8	221	-	-	0/0/0/0	0/0/0/0
87	OHX	8	222	-	-	0/0/0/0	0/0/0/0
87	OHX	8	223	-	-	0/0/0/0	0/0/0/0
87	OHX	8	224	-	-	0/0/0/0	0/0/0/0
87	OHX	8	225	-	-	0/0/0/0	0/0/0/0
87	OHX	8	226	-	-	0/0/0/0	0/0/0/0
87	OHX	8	227	-	-	0/0/0/0	0/0/0/0
87	OHX	8	228	-	-	0/0/0/0	0/0/0/0
87	OHX	8	229	-	-	0/0/0/0	0/0/0/0
87	OHX	8	230	-	-	0/0/0/0	0/0/0/0
87	OHX	8	231	-	-	0/0/0/0	0/0/0/0
87	OHX	8	232	-	-	0/0/0/0	0/0/0/0
87	OHX	8	233	-	-	0/0/0/0	0/0/0/0
87	OHX	8	234	-	-	0/0/0/0	0/0/0/0
87	OHX	8	235	-	-	0/0/0/0	0/0/0/0
87	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
87	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
87	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
87	OHX	D3	202	-	-	0/0/0/0	0/0/0/0
87	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
87	OHX	L3	403	-	-	0/0/0/0	0/0/0/0
87	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
87	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
87	OHX	L4	403	-	-	0/0/0/0	0/0/0/0
87	OHX	M0	304	-	-	0/0/0/0	0/0/0/0
87	OHX	M5	303	-	-	0/0/0/0	0/0/0/0
87	OHX	M6	202	-	-	0/0/0/0	0/0/0/0
87	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
87	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
87	OHX	M9	203	-	-	0/0/0/0	0/0/0/0
87	OHX	N9	102	-	-	0/0/0/0	0/0/0/0
87	OHX	O1	202	-	-	0/0/0/0	0/0/0/0
87	OHX	O2	202	-	-	0/0/0/0	0/0/0/0
87	OHX	O3	202	-	-	0/0/0/0	0/0/0/0
87	OHX	O7	103	-	-	0/0/0/0	0/0/0/0
87	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
87	OHX	Q2	502	-	-	0/0/0/0	0/0/0/0
87	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
87	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
87	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
87	OHX	c5	201	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	c8	202	-	-	0/0/0/0	0/0/0/0
87	OHX	d4	201	-	-	0/0/0/0	0/0/0/0
87	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
87	OHX	l3	407	-	-	0/0/0/0	0/0/0/0
87	OHX	l3	408	-	-	0/0/0/0	0/0/0/0
87	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
87	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
87	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
87	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
87	OHX	l5	306	-	-	0/0/0/0	0/0/0/0
87	OHX	l5	307	-	-	0/0/0/0	0/0/0/0
87	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
87	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
87	OHX	m0	303	-	-	0/0/0/0	0/0/0/0
87	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
87	OHX	m4	202	-	-	0/0/0/0	0/0/0/0
87	OHX	m5	303	-	-	0/0/0/0	0/0/0/0
87	OHX	m7	205	-	-	0/0/0/0	0/0/0/0
87	OHX	m9	201	-	-	0/0/0/0	0/0/0/0
87	OHX	n3	202	-	-	0/0/0/0	0/0/0/0
87	OHX	n9	103	-	-	0/0/0/0	0/0/0/0
87	OHX	o3	203	-	-	0/0/0/0	0/0/0/0
87	OHX	o7	502	-	-	0/0/0/0	0/0/0/0
87	OHX	o9	101	-	-	0/0/0/0	0/0/0/0
87	OHX	q1	102	-	-	0/0/0/0	0/0/0/0
87	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
87	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
87	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
87	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
88	2	2181	GET	C23-C33-N33	-5.88	94.93	110.78
88	2	2181	GET	O11-C42-C32	-5.51	95.57	108.92
88	2	2181	GET	O62-C62-C12	-3.29	100.96	108.92
88	2	2181	GET	O11-C11-C21	-2.97	102.47	107.96
88	2	2181	GET	O23-C23-C13	-2.67	104.17	110.02
88	2	2181	GET	C53-O53-C13	-2.17	108.19	111.11
88	2	2181	GET	C13-O62-C62	-2.07	112.61	118.01
88	2	2181	GET	O51-C11-C21	2.29	115.61	110.47

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

524 monomers are involved in 835 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	3866	OHX	1	0
87	1	3867	OHX	1	0
87	1	3868	OHX	2	0
87	1	3870	OHX	2	0
87	1	3871	OHX	4	0
87	1	3874	OHX	2	0
87	1	3875	OHX	1	0
87	1	3876	OHX	2	0
87	1	3877	OHX	2	0
87	1	3878	OHX	2	0
87	1	3879	OHX	2	0
87	1	3881	OHX	1	0
87	1	3882	OHX	1	0
87	1	3883	OHX	2	0
87	1	3884	OHX	1	0
87	1	3885	OHX	2	0
87	1	3887	OHX	2	0
87	1	3889	OHX	1	0
87	1	3890	OHX	1	0
87	1	3891	OHX	1	0
87	1	3892	OHX	1	0
87	1	3894	OHX	1	0
87	1	3895	OHX	1	0
87	1	3897	OHX	1	0
87	1	3900	OHX	1	0
87	1	3901	OHX	1	0
87	1	3902	OHX	2	0
87	1	3905	OHX	2	0
87	1	3907	OHX	1	0
87	1	3910	OHX	1	0
87	1	3911	OHX	2	0
87	1	3912	OHX	1	0
87	1	3913	OHX	2	0
87	1	3916	OHX	2	0
87	1	3917	OHX	1	0
87	1	3921	OHX	1	0
87	1	3926	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	3927	OHX	1	0
87	1	3928	OHX	2	0
87	1	3932	OHX	1	0
87	1	3934	OHX	3	0
87	1	3935	OHX	2	0
87	1	3936	OHX	1	0
87	1	3937	OHX	1	0
87	1	3938	OHX	1	0
87	1	3940	OHX	1	0
87	1	3941	OHX	1	0
87	1	3944	OHX	1	0
87	1	3945	OHX	1	0
87	1	3952	OHX	1	0
87	1	3958	OHX	1	0
87	1	3959	OHX	5	0
87	1	3960	OHX	1	0
87	1	3963	OHX	1	0
87	1	3964	OHX	1	0
87	1	3965	OHX	4	0
87	1	3966	OHX	2	0
87	1	3968	OHX	1	0
87	1	3969	OHX	2	0
87	1	3971	OHX	1	0
87	1	3972	OHX	6	0
87	1	3973	OHX	1	0
87	1	3975	OHX	2	0
87	1	3976	OHX	7	0
87	1	3977	OHX	1	0
87	1	3979	OHX	1	0
87	1	3981	OHX	2	0
87	1	3982	OHX	1	0
87	1	3983	OHX	1	0
87	1	3984	OHX	2	0
87	1	3986	OHX	1	0
87	1	3988	OHX	1	0
87	1	3993	OHX	6	0
87	1	3996	OHX	3	0
87	1	3997	OHX	1	0
87	1	3998	OHX	1	0
87	1	3999	OHX	1	0
87	1	4000	OHX	1	0
87	1	4001	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4003	OHX	5	0
87	1	4005	OHX	1	0
87	1	4006	OHX	3	0
87	1	4007	OHX	1	0
87	1	4008	OHX	1	0
87	1	4010	OHX	1	0
87	1	4013	OHX	1	0
87	1	4023	OHX	2	1
87	1	4024	OHX	2	0
87	1	4025	OHX	1	0
87	1	4030	OHX	1	0
87	1	4032	OHX	5	0
87	1	4033	OHX	2	0
87	1	4034	OHX	1	0
87	1	4035	OHX	1	0
87	1	4037	OHX	3	0
87	1	4038	OHX	1	0
87	1	4039	OHX	2	0
87	1	4041	OHX	1	0
87	1	4042	OHX	1	0
87	1	4043	OHX	3	0
87	1	4044	OHX	7	0
87	1	4045	OHX	1	0
87	1	4046	OHX	1	0
87	1	4051	OHX	1	0
87	1	4054	OHX	1	0
87	1	4055	OHX	3	0
87	1	4056	OHX	2	0
87	1	4061	OHX	1	0
87	1	4062	OHX	1	0
87	1	4063	OHX	1	0
87	1	4064	OHX	1	0
87	1	4065	OHX	1	0
87	1	4069	OHX	1	0
87	1	4072	OHX	1	0
87	1	4078	OHX	1	0
87	1	4079	OHX	2	0
87	1	4083	OHX	1	0
87	1	4086	OHX	2	0
87	1	4088	OHX	1	0
87	1	4091	OHX	1	0
87	1	4092	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4093	OHX	1	0
87	1	4094	OHX	1	0
87	1	4095	OHX	1	0
87	1	4097	OHX	2	0
87	1	4101	OHX	1	0
87	1	4105	OHX	1	0
87	1	4107	OHX	1	0
87	1	4108	OHX	1	0
87	1	4110	OHX	1	0
87	1	4123	OHX	2	0
87	1	4130	OHX	1	0
87	1	4131	OHX	2	0
87	1	4133	OHX	1	0
87	1	4134	OHX	1	0
87	1	4137	OHX	3	0
87	1	4139	OHX	3	0
87	1	4144	OHX	1	0
87	1	4147	OHX	1	0
87	1	4148	OHX	1	0
87	1	4149	OHX	1	0
87	1	4151	OHX	1	0
87	1	4152	OHX	1	0
87	1	4153	OHX	1	0
87	1	4154	OHX	7	0
87	1	4155	OHX	6	0
87	1	4158	OHX	1	0
87	1	4160	OHX	1	0
87	1	4162	OHX	1	0
87	1	4163	OHX	2	0
87	1	4165	OHX	1	0
87	1	4166	OHX	1	0
87	1	4167	OHX	1	0
87	1	4170	OHX	1	0
87	1	4171	OHX	8	0
87	1	4173	OHX	1	0
87	1	4178	OHX	2	0
87	1	4179	OHX	1	0
87	1	4180	OHX	6	0
87	1	4182	OHX	1	0
87	1	4183	OHX	3	0
87	1	4184	OHX	2	0
87	1	4194	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4195	OHX	1	0
87	1	4198	OHX	7	0
87	1	4199	OHX	1	0
87	1	4202	OHX	1	0
87	1	4207	OHX	1	0
87	1	4209	OHX	1	0
87	1	4210	OHX	1	0
87	2	2024	OHX	1	0
87	2	2025	OHX	2	0
87	2	2026	OHX	1	0
87	2	2028	OHX	1	0
87	2	2029	OHX	2	0
87	2	2031	OHX	9	0
87	2	2032	OHX	2	0
87	2	2034	OHX	2	0
87	2	2035	OHX	2	0
87	2	2036	OHX	3	0
87	2	2037	OHX	1	0
87	2	2038	OHX	2	0
87	2	2039	OHX	2	0
87	2	2040	OHX	1	0
87	2	2042	OHX	1	0
87	2	2044	OHX	5	0
87	2	2046	OHX	1	0
87	2	2048	OHX	1	0
87	2	2049	OHX	1	0
87	2	2051	OHX	1	0
87	2	2053	OHX	2	0
87	2	2054	OHX	1	0
87	2	2056	OHX	1	0
87	2	2060	OHX	2	0
87	2	2061	OHX	1	0
87	2	2065	OHX	1	0
87	2	2069	OHX	1	0
87	2	2070	OHX	3	0
87	2	2076	OHX	1	0
87	2	2077	OHX	1	0
87	2	2078	OHX	1	0
87	2	2084	OHX	1	0
87	2	2090	OHX	4	0
87	2	2092	OHX	2	0
87	2	2093	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	2	2095	OHX	4	0
87	2	2096	OHX	1	0
87	2	2097	OHX	2	0
87	2	2099	OHX	5	0
87	2	2100	OHX	1	0
87	2	2101	OHX	1	0
87	2	2103	OHX	1	0
87	2	2105	OHX	1	0
87	2	2108	OHX	1	0
87	2	2109	OHX	1	0
87	2	2110	OHX	1	0
87	2	2111	OHX	4	0
87	2	2116	OHX	2	0
87	2	2117	OHX	1	0
87	2	2121	OHX	1	0
87	2	2125	OHX	2	0
87	2	2128	OHX	1	0
87	2	2130	OHX	1	0
87	2	2131	OHX	6	0
87	2	2132	OHX	1	0
87	2	2133	OHX	1	0
87	2	2136	OHX	1	0
87	2	2138	OHX	1	0
87	2	2141	OHX	1	0
87	2	2143	OHX	2	0
87	2	2145	OHX	1	0
87	2	2146	OHX	6	0
87	2	2148	OHX	1	0
87	2	2150	OHX	1	0
87	2	2152	OHX	1	0
87	2	2154	OHX	1	0
87	2	2155	OHX	1	0
87	2	2157	OHX	1	0
87	2	2159	OHX	1	0
87	2	2160	OHX	1	0
87	2	2164	OHX	1	0
87	2	2171	OHX	2	0
87	2	2173	OHX	1	0
87	2	2175	OHX	2	0
87	2	2176	OHX	1	0
87	2	2179	OHX	1	0
88	2	2181	GET	9	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	3	219	OHX	1	0
87	3	220	OHX	1	0
87	3	222	OHX	3	0
87	4	224	OHX	2	0
87	4	225	OHX	1	0
87	4	227	OHX	1	0
87	4	228	OHX	1	0
87	4	229	OHX	1	0
87	4	231	OHX	1	0
87	4	234	OHX	3	0
87	5	3894	OHX	2	0
87	5	3895	OHX	1	0
87	5	3899	OHX	2	0
87	5	3900	OHX	2	0
87	5	3901	OHX	2	0
87	5	3902	OHX	2	0
87	5	3903	OHX	2	0
87	5	3904	OHX	2	0
87	5	3906	OHX	1	0
87	5	3907	OHX	1	0
87	5	3908	OHX	1	0
87	5	3911	OHX	3	0
87	5	3912	OHX	2	0
87	5	3915	OHX	1	0
87	5	3918	OHX	2	0
87	5	3919	OHX	1	0
87	5	3920	OHX	3	0
87	5	3921	OHX	2	0
87	5	3923	OHX	1	0
87	5	3928	OHX	2	0
87	5	3930	OHX	1	0
87	5	3932	OHX	1	0
87	5	3935	OHX	1	0
87	5	3936	OHX	1	0
87	5	3937	OHX	6	0
87	5	3943	OHX	1	0
87	5	3944	OHX	1	0
87	5	3948	OHX	1	0
87	5	3949	OHX	2	0
87	5	3950	OHX	2	0
87	5	3952	OHX	3	0
87	5	3953	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	3955	OHX	1	0
87	5	3957	OHX	2	0
87	5	3958	OHX	3	0
87	5	3959	OHX	2	0
87	5	3961	OHX	1	0
87	5	3967	OHX	1	0
87	5	3968	OHX	3	0
87	5	3969	OHX	1	0
87	5	3973	OHX	5	0
87	5	3975	OHX	1	0
87	5	3977	OHX	1	0
87	5	3978	OHX	1	0
87	5	3979	OHX	1	0
87	5	3980	OHX	2	0
87	5	3981	OHX	2	0
87	5	3985	OHX	3	0
87	5	3986	OHX	1	0
87	5	3987	OHX	1	0
87	5	3991	OHX	1	0
87	5	3992	OHX	1	0
87	5	3994	OHX	2	0
87	5	3996	OHX	2	0
87	5	3997	OHX	3	0
87	5	3998	OHX	1	0
87	5	4001	OHX	1	0
87	5	4002	OHX	1	0
87	5	4003	OHX	1	0
87	5	4006	OHX	6	0
87	5	4007	OHX	1	0
87	5	4008	OHX	1	0
87	5	4009	OHX	1	0
87	5	4013	OHX	1	0
87	5	4014	OHX	1	0
87	5	4015	OHX	1	0
87	5	4016	OHX	8	0
87	5	4018	OHX	1	0
87	5	4019	OHX	1	0
87	5	4021	OHX	1	0
87	5	4023	OHX	1	0
87	5	4024	OHX	1	0
87	5	4027	OHX	1	0
87	5	4028	OHX	6	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4029	OHX	2	0
87	5	4034	OHX	1	0
87	5	4039	OHX	2	0
87	5	4041	OHX	1	0
87	5	4044	OHX	1	0
87	5	4046	OHX	2	0
87	5	4049	OHX	1	0
87	5	4050	OHX	6	0
87	5	4059	OHX	1	0
87	5	4060	OHX	2	0
87	5	4061	OHX	7	0
87	5	4062	OHX	1	0
87	5	4063	OHX	1	0
87	5	4067	OHX	1	0
87	5	4074	OHX	2	0
87	5	4075	OHX	6	0
87	5	4080	OHX	1	0
87	5	4081	OHX	1	0
87	5	4083	OHX	1	0
87	5	4084	OHX	2	0
87	5	4085	OHX	1	0
87	5	4086	OHX	4	0
87	5	4087	OHX	3	0
87	5	4091	OHX	1	0
87	5	4092	OHX	2	0
87	5	4094	OHX	1	0
87	5	4096	OHX	2	0
87	5	4097	OHX	4	0
87	5	4100	OHX	2	0
87	5	4101	OHX	1	0
87	5	4102	OHX	1	0
87	5	4103	OHX	1	0
87	5	4104	OHX	1	0
87	5	4106	OHX	2	0
87	5	4113	OHX	2	0
87	5	4114	OHX	2	0
87	5	4115	OHX	1	0
87	5	4117	OHX	1	0
87	5	4119	OHX	1	0
87	5	4120	OHX	1	0
87	5	4121	OHX	1	0
87	5	4125	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4126	OHX	1	0
87	5	4128	OHX	1	0
87	5	4136	OHX	1	0
87	5	4138	OHX	6	0
87	5	4139	OHX	3	0
87	5	4142	OHX	1	0
87	5	4144	OHX	1	0
87	5	4146	OHX	1	0
87	5	4152	OHX	1	0
87	5	4154	OHX	2	0
87	5	4157	OHX	1	0
87	5	4158	OHX	1	0
87	5	4163	OHX	1	0
87	5	4167	OHX	3	0
87	5	4168	OHX	1	0
87	5	4172	OHX	1	0
87	5	4174	OHX	1	0
87	5	4175	OHX	1	0
87	5	4179	OHX	1	0
87	5	4180	OHX	1	0
87	5	4182	OHX	2	0
87	5	4184	OHX	2	0
87	5	4186	OHX	2	0
87	5	4187	OHX	2	0
87	5	4188	OHX	1	0
87	5	4189	OHX	1	0
87	5	4192	OHX	2	0
87	5	4193	OHX	7	0
87	5	4194	OHX	6	0
87	5	4195	OHX	6	0
87	5	4196	OHX	1	0
87	5	4205	OHX	2	0
87	5	4208	OHX	1	0
87	5	4211	OHX	8	0
87	5	4212	OHX	1	0
87	5	4217	OHX	1	0
87	5	4224	OHX	3	0
87	5	4225	OHX	1	0
87	5	4226	OHX	1	0
87	5	4227	OHX	1	0
87	5	4228	OHX	6	0
87	5	4232	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4233	OHX	1	0
87	5	4237	OHX	4	0
87	5	4242	OHX	1	0
87	5	4243	OHX	1	0
87	5	4245	OHX	1	0
87	6	2050	OHX	1	0
87	6	2051	OHX	3	0
87	6	2053	OHX	1	0
87	6	2054	OHX	1	0
87	6	2057	OHX	2	0
87	6	2058	OHX	1	0
87	6	2059	OHX	2	0
87	6	2060	OHX	1	0
87	6	2062	OHX	2	0
87	6	2064	OHX	6	0
87	6	2066	OHX	1	0
87	6	2068	OHX	1	0
87	6	2070	OHX	1	0
87	6	2071	OHX	3	0
87	6	2072	OHX	1	0
87	6	2073	OHX	1	0
87	6	2075	OHX	1	0
87	6	2076	OHX	1	0
87	6	2078	OHX	1	0
87	6	2082	OHX	1	0
87	6	2083	OHX	1	0
87	6	2089	OHX	1	0
87	6	2091	OHX	1	0
87	6	2092	OHX	1	0
87	6	2094	OHX	1	0
87	6	2095	OHX	1	0
87	6	2096	OHX	2	0
87	6	2098	OHX	1	0
87	6	2100	OHX	1	0
87	6	2101	OHX	3	0
87	6	2102	OHX	1	0
87	6	2103	OHX	1	0
87	6	2104	OHX	2	0
87	6	2105	OHX	1	0
87	6	2106	OHX	1	0
87	6	2107	OHX	2	0
87	6	2108	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	6	2110	OHX	1	0
87	6	2111	OHX	1	0
87	6	2114	OHX	1	0
87	6	2116	OHX	1	0
87	6	2119	OHX	2	0
87	6	2125	OHX	8	0
87	6	2126	OHX	1	0
87	6	2127	OHX	1	0
87	6	2130	OHX	6	0
87	6	2131	OHX	1	0
87	6	2132	OHX	2	0
87	6	2134	OHX	1	0
87	6	2135	OHX	5	0
87	6	2140	OHX	1	0
87	6	2142	OHX	1	0
87	6	2146	OHX	1	0
87	6	2147	OHX	1	0
87	6	2148	OHX	1	0
87	6	2149	OHX	1	0
87	6	2150	OHX	1	0
87	6	2151	OHX	1	0
87	6	2152	OHX	6	0
87	6	2155	OHX	5	0
87	6	2156	OHX	1	0
87	6	2159	OHX	1	0
87	6	2160	OHX	1	0
87	6	2164	OHX	3	0
87	6	2165	OHX	1	0
87	6	2167	OHX	1	0
87	6	2171	OHX	1	0
87	6	2172	OHX	1	0
87	6	2177	OHX	8	0
87	6	2179	OHX	1	0
87	6	2180	OHX	1	0
87	6	2181	OHX	1	0
87	6	2183	OHX	1	0
87	6	2184	OHX	2	0
87	6	2186	OHX	1	0
87	6	2187	OHX	1	0
87	6	2189	OHX	5	0
87	6	2191	OHX	1	0
87	6	2195	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	6	2196	OHX	1	0
87	6	2199	OHX	3	0
87	6	2200	OHX	1	0
87	6	2201	OHX	3	0
87	6	2209	OHX	1	0
87	7	219	OHX	3	0
87	7	221	OHX	1	0
87	8	218	OHX	2	0
87	8	220	OHX	6	0
87	8	224	OHX	1	0
87	8	225	OHX	1	0
87	8	227	OHX	1	0
87	8	229	OHX	6	0
87	8	234	OHX	2	0
87	C3	201	OHX	1	0
87	C5	201	OHX	5	0
87	L3	405	OHX	1	0
87	M5	303	OHX	2	0
87	M7	206	OHX	1	0
87	M9	202	OHX	2	0
87	O1	202	OHX	6	0
87	O3	202	OHX	1	0
87	O7	103	OHX	3	0
87	Q2	502	OHX	3	0
87	S8	302	OHX	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

EDS failed to run properly - this section will therefore be empty.

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

EDS failed to run properly - this section will therefore be empty.

6.3 Carbohydrates [i](#)

EDS failed to run properly - this section will therefore be empty.

6.4 Ligands [i](#)

EDS failed to run properly - this section will therefore be empty.

6.5 Other polymers [i](#)

EDS failed to run properly - this section will therefore be empty.