



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:59 PM GMT

PDB ID : 4U3M
Title : Crystal structure of Anisomycin bound to the yeast 80S ribosome
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on : 2014-07-22
Resolution : 3.00 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

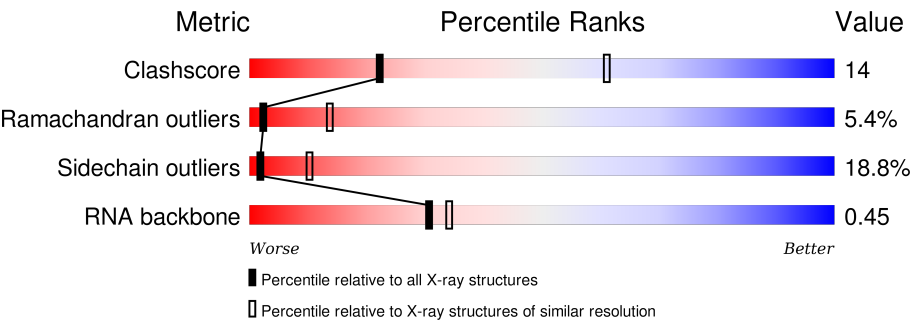
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.00 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	1912 (3.00-3.00)
Ramachandran outliers	100387	1853 (3.00-3.00)
Sidechain outliers	100360	1856 (3.00-3.00)
RNA backbone	2183	1036 (3.40-2.60)

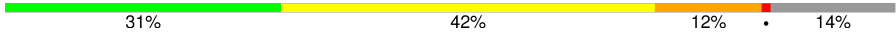



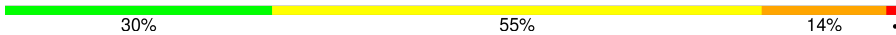

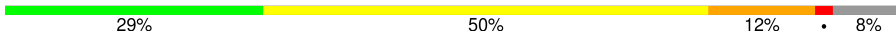

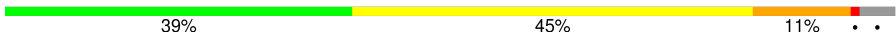

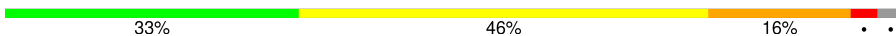

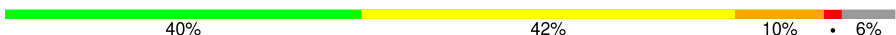







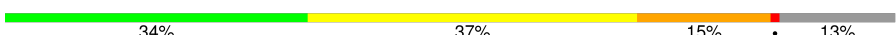




The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey 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>37%41%17%••</div></div>
1	6	1800	<div><div></div><div>38%41%18%•</div></div>
2	S0	251	<div><div></div><div>24%44%12%•18%</div></div>
2	s0	251	<div><div></div><div>62%18%•18%</div></div>
3	S1	254	<div><div></div><div>22%43%17%•16%</div></div>
3	s1	254	<div><div></div><div>69%15%•15%</div></div>




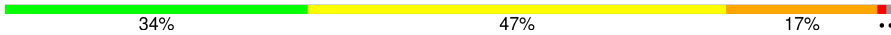

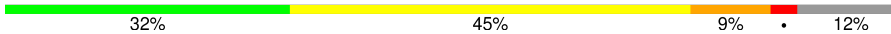

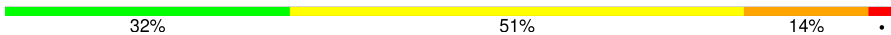

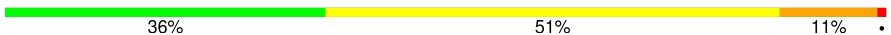



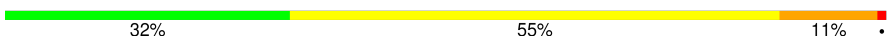









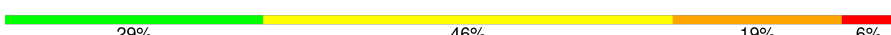

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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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








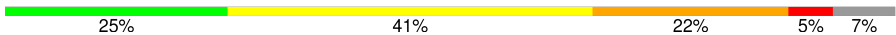
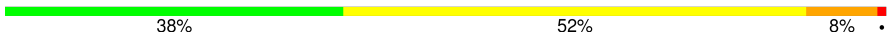



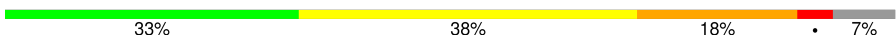
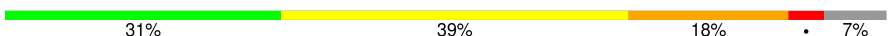











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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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


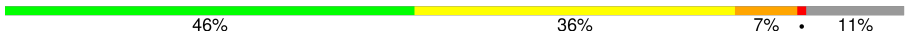



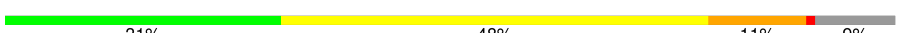





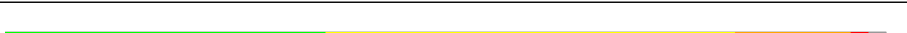













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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253	
40	L3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





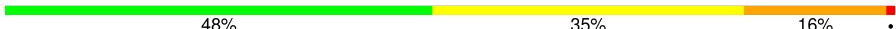

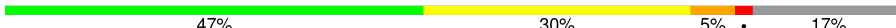



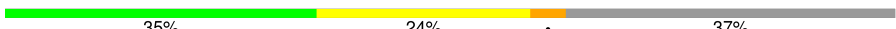

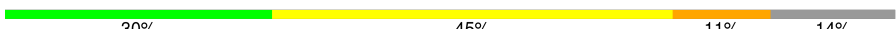



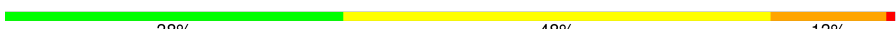





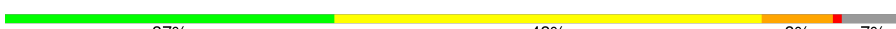


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Mol	Chain	Length	Quality of chain
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6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


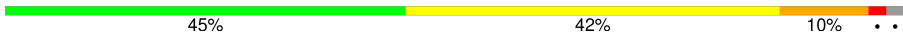









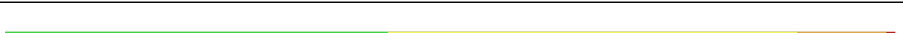








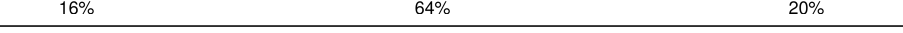




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Mol	Chain	Length	Quality of chain
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	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	3961	-	-	X	-
87	OHX	1	3963	-	-	X	-
87	OHX	1	3975	-	-	X	-
87	OHX	1	4007	-	-	X	-
87	OHX	1	4023	-	-	X	-
87	OHX	1	4032	-	-	X	-
87	OHX	1	4036	-	-	X	-
87	OHX	1	4047	-	-	X	-
87	OHX	1	4048	-	-	X	-
87	OHX	1	4059	-	-	X	-
87	OHX	1	4060	-	-	X	-
87	OHX	1	4061	-	-	X	-
87	OHX	1	4084	-	-	X	-
87	OHX	1	4088	-	-	X	-
87	OHX	1	4144	-	-	X	-
87	OHX	1	4151	-	-	X	-
87	OHX	1	4159	-	-	X	-
87	OHX	1	4161	-	-	X	-
87	OHX	1	4168	-	-	X	-
87	OHX	1	4177	-	-	X	-
87	OHX	1	4186	-	-	X	-
87	OHX	1	4203	-	-	X	-
87	OHX	2	2031	-	-	X	-
87	OHX	2	2044	-	-	X	-
87	OHX	2	2075	-	-	X	-
87	OHX	2	2089	-	-	X	-
87	OHX	2	2090	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
87	OHX	2	2095	-	-	X	-
87	OHX	2	2096	-	-	X	-
87	OHX	2	2099	-	-	X	-
87	OHX	2	2109	-	-	X	-
87	OHX	2	2116	-	-	X	-
87	OHX	2	2132	-	-	X	-
87	OHX	2	2147	-	-	X	-
87	OHX	2	2163	-	-	X	-
87	OHX	5	3947	-	-	X	-
87	OHX	5	3967	-	-	X	-
87	OHX	5	3978	-	-	X	-
87	OHX	5	3983	-	-	X	-
87	OHX	5	4005	-	-	X	-
87	OHX	5	4006	-	-	X	-
87	OHX	5	4016	-	-	X	-
87	OHX	5	4026	-	-	X	-
87	OHX	5	4041	-	-	X	-
87	OHX	5	4061	-	-	X	-
87	OHX	5	4072	-	-	X	-
87	OHX	5	4096	-	-	X	-
87	OHX	5	4101	-	-	X	-
87	OHX	5	4150	-	-	X	-
87	OHX	5	4200	-	-	X	-
87	OHX	5	4206	-	-	X	-
87	OHX	5	4207	-	-	X	-
87	OHX	5	4208	-	-	X	-
87	OHX	5	4211	-	-	X	-
87	OHX	5	4221	-	-	X	-
87	OHX	5	4224	-	-	X	-
87	OHX	5	4231	-	-	X	-
87	OHX	5	4241	-	-	X	-
87	OHX	5	4243	-	-	X	-
87	OHX	5	4245	-	-	X	-
87	OHX	5	4250	-	-	X	-
87	OHX	6	2057	-	-	X	-
87	OHX	6	2118	-	-	X	-
87	OHX	6	2123	-	-	X	-
87	OHX	6	2145	-	-	X	-
87	OHX	6	2169	-	-	X	-
87	OHX	7	217	-	-	X	-
87	OHX	7	224	-	-	X	-
87	OHX	8	214	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
87	OHX	8	221	-	-	X	-
87	OHX	8	222	-	-	X	-
87	OHX	L4	402	-	-	X	-
87	OHX	O1	202	-	-	X	-
87	OHX	O7	104	-	-	X	-
88	ZN	Q2	501	-	-	X	-

2 Entry composition

There are 89 unique types of molecules in this entry. The entry contains 411204 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 rRNA.

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	1795	Total	C	N	O	P	0	0	0
			38238	17095	6758	12590	1795			

- 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-B.

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 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C0	6	GLU	GLN	conflict	UNP P46784
C0	7	ASP	GLU	conflict	UNP P46784
C0	89	ALA	GLY	conflict	UNP P46784
c0	6	GLU	GLN	conflict	UNP P46784
c0	7	ASP	GLU	conflict	UNP P46784
c0	89	ALA	GLY	conflict	UNP P46784

- 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			

- 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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			
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
			680	403	140	137			

- Molecule 36 is a RNA chain called 25s rRNA.

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 5.8s rRNA.

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 rRNA.

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			
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	l3	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	l4	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	l5	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	l6	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	l7	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	l8	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	l9	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	0	0	0
			1053	675	199	177			
50	m4	137	Total	C	N	O	0	0	0
			1059	678	200	179			

- 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			
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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			

- 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			
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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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 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
			1077	687	192	195	3			

- Molecule 84 is a protein called UNKNOWN PROTEIN 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 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	Mg	0	0
			2	2		
86	n8	4	Total	Mg	0	0
			4	4		
86	o1	2	Total	Mg	0	0
			2	2		
86	N5	1	Total	Mg	0	0
			1	1		
86	6	145	Total	Mg	0	0
			145	145		
86	sM	2	Total	Mg	0	0
			2	2		
86	O4	1	Total	Mg	0	0
			1	1		
86	m5	4	Total	Mg	0	0
			4	4		
86	l3	2	Total	Mg	0	0
			2	2		
86	M1	1	Total	Mg	0	0
			1	1		
86	d6	1	Total	Mg	0	0
			1	1		
86	2	124	Total	Mg	0	0
			124	124		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	n0	2	Total 2	Mg 2	0	0
86	L4	1	Total 1	Mg 1	0	0
86	l7	1	Total 1	Mg 1	0	0
86	M5	2	Total 2	Mg 2	0	0
86	c9	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
86	M9	1	Total 1	Mg 1	0	0
86	q0	1	Total 1	Mg 1	0	0
86	SM	1	Total 1	Mg 1	0	0
86	c8	1	Total 1	Mg 1	0	0
86	M0	2	Total 2	Mg 2	0	0
86	c1	2	Total 2	Mg 2	0	0
86	5	507	Total 507	Mg 507	0	0
86	L5	1	Total 1	Mg 1	0	0
86	O7	2	Total 2	Mg 2	0	0
86	Q2	1	Total 1	Mg 1	0	0
86	n9	1	Total 1	Mg 1	0	0
86	1	474	Total 474	Mg 474	0	0

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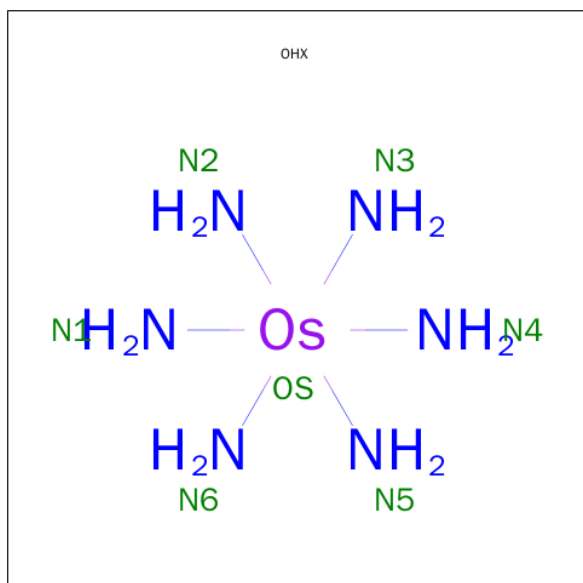
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	n6	2	Total 2	Mg 2	0	0
86	S8	1	Total 1	Mg 1	0	0
86	l2	2	Total 2	Mg 2	0	0
86	d3	2	Total 2	Mg 2	0	0
86	q3	1	Total 1	Mg 1	0	0
86	o3	1	Total 1	Mg 1	0	0
86	M3	3	Total 3	Mg 3	0	0
86	N3	3	Total 3	Mg 3	0	0
86	4	23	Total 23	Mg 23	0	0
86	L2	1	Total 1	Mg 1	0	0
86	m1	1	Total 1	Mg 1	0	0
86	l5	3	Total 3	Mg 3	0	0
86	m7	5	Total 5	Mg 5	0	0
86	M7	5	Total 5	Mg 5	0	0
86	N8	4	Total 4	Mg 4	0	0
86	s1	1	Total 1	Mg 1	0	0
86	m6	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	c7	2	Total 2	Mg 2	0	0
86	7	15	Total 15	Mg 15	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
86	n3	2	Total 2	Mg 2	0	0
86	q1	1	Total 1	Mg 1	0	0
86	L3	2	Total 2	Mg 2	0	0
86	d4	1	Total 1	Mg 1	0	0
86	N6	1	Total 1	Mg 1	0	0
86	8	12	Total 12	Mg 12	0	0
86	14	1	Total 1	Mg 1	0	0
86	M6	1	Total 1	Mg 1	0	0
86	N0	1	Total 1	Mg 1	0	0
86	3	14	Total 14	Mg 14	0	0

- 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 7	N 6	Os 1	0	0

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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		
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		
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		
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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		
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
			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		
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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
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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		
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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
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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	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	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		

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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
			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
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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
			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
			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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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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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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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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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	3	1	Total	N	Os	0	0
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87	3	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
			7	6	1		
87	L4	1	Total	N	Os	0	0
			7	6	1		
87	M0	1	Total	N	Os	0	0
			7	6	1		
87	M5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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87	M7	1	Total	N	Os	0	0
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87	M7	1	Total	N	Os	0	0
			7	6	1		
87	M8	1	Total	N	Os	0	0
			7	6	1		
87	M9	1	Total	N	Os	0	0
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87	N9	1	Total	N	Os	0	0
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87	O1	1	Total	N	Os	0	0
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87	O2	1	Total	N	Os	0	0
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87	O3	1	Total	N	Os	0	0
			7	6	1		
87	O7	1	Total	N	Os	0	0
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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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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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87	6	1	Total 7	N 6	Os 1	0	0
87	6	1	Total 7	N 6	Os 1	0	0
87	s1	1	Total 7	N 6	Os 1	0	0
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87	s4	1	Total 7	N 6	Os 1	0	0
87	s8	1	Total 7	N 6	Os 1	0	0
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87	sR	1	Total 7	N 6	Os 1	0	0
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87	5	1	Total 7	N 6	Os 1	0	0
87	5	1	Total 7	N 6	Os 1	0	0
87	5	1	Total 7	N 6	Os 1	0	0
87	5	1	Total 7	N 6	Os 1	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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			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		
87	5	1	Total	N	Os	0	0
			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		
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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		
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		
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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			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
			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		
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		
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		
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		
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		
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		
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		
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		
87	5	1	Total	N	Os	0	0
			7	6	1		
87	5	1	Total	N	Os	0	0
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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		
87	5	1	Total	N	Os	0	0
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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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			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
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		
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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			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		
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		
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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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		
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
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87	5	1	Total	N	Os	0	0
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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		
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		
87	5	1	Total	N	Os	0	0
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			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		
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		
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	7	1	Total	N	Os	0	0
			7	6	1		
87	7	1	Total	N	Os	0	0
			7	6	1		
87	7	1	Total	N	Os	0	0
			7	6	1		
87	7	1	Total	N	Os	0	0
			7	6	1		

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

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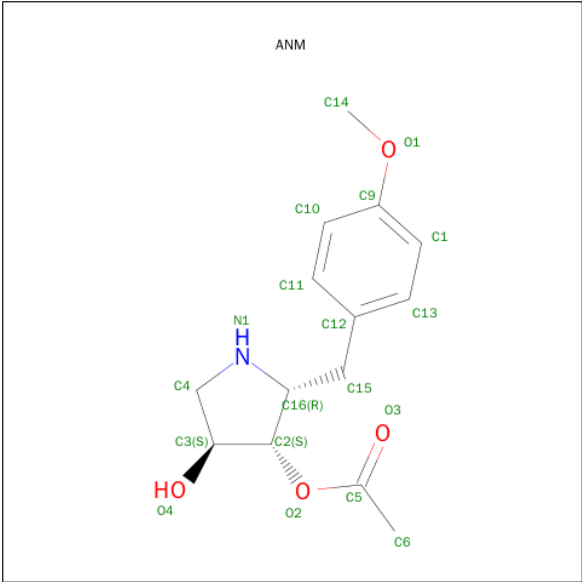
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
87	l5	1	Total	N	Os	0	0
			7	6	1		
87	l5	1	Total	N	Os	0	0
			7	6	1		
87	l5	1	Total	N	Os	0	0
			7	6	1		
87	l9	1	Total	N	Os	0	0
			7	6	1		
87	m0	1	Total	N	Os	0	0
			7	6	1		
87	m0	1	Total	N	Os	0	0
			7	6	1		
87	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	m6	1	Total	N	Os	0	0
			7	6	1		
87	m7	1	Total	N	Os	0	0
			7	6	1		
87	m8	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	o2	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	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 88 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
88	q0	1	Total Zn 1 1	0	0
88	D6	1	Total Zn 1 1	0	0
88	Q2	1	Total Zn 1 1	0	0
88	e1	1	Total Zn 1 1	0	0
88	Q3	1	Total Zn 1 1	0	0
88	D9	1	Total Zn 1 1	0	0
88	E1	1	Total Zn 1 1	0	0
88	Q0	1	Total Zn 1 1	0	0
88	d7	1	Total Zn 1 1	0	0
88	q3	1	Total Zn 1 1	0	0
88	d9	1	Total Zn 1 1	0	0
88	D7	1	Total Zn 1 1	0	0
88	d6	1	Total Zn 1 1	0	0
88	o7	1	Total Zn 1 1	0	0
88	O7	1	Total Zn 1 1	0	0
88	q2	1	Total Zn 1 1	0	0

- Molecule 89 is ANISOMYCIN (three-letter code: ANM) (formula: C₁₄H₁₉NO₄).



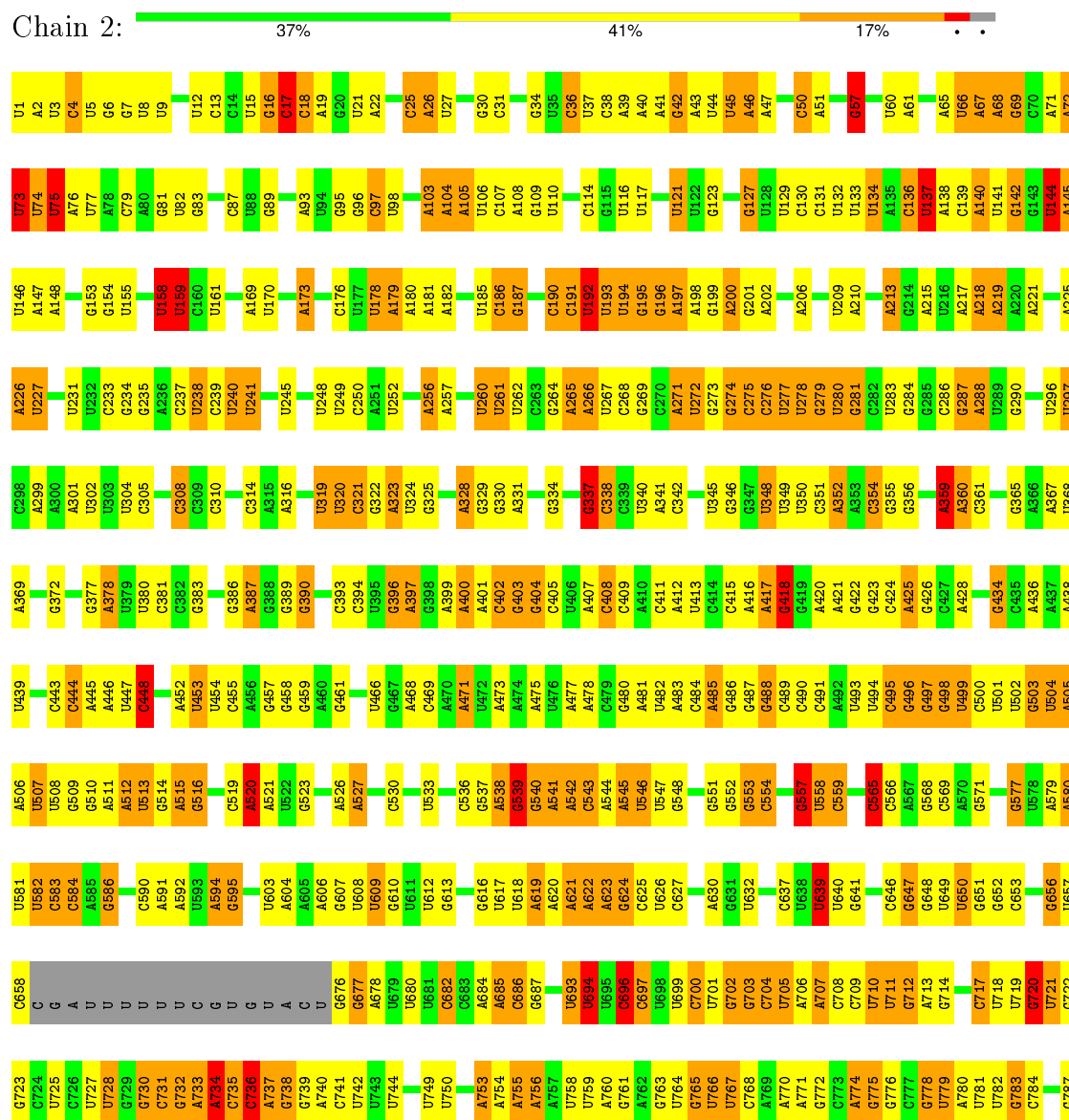
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
89	1	1	Total	C	N	O	0	0
			19	14	1	4		
89	5	1	Total	C	N	O	0	0
			19	14	1	4		

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.

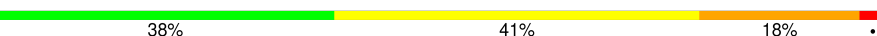
Note EDS failed to run properly.

• Molecule 1: 18S rRNA

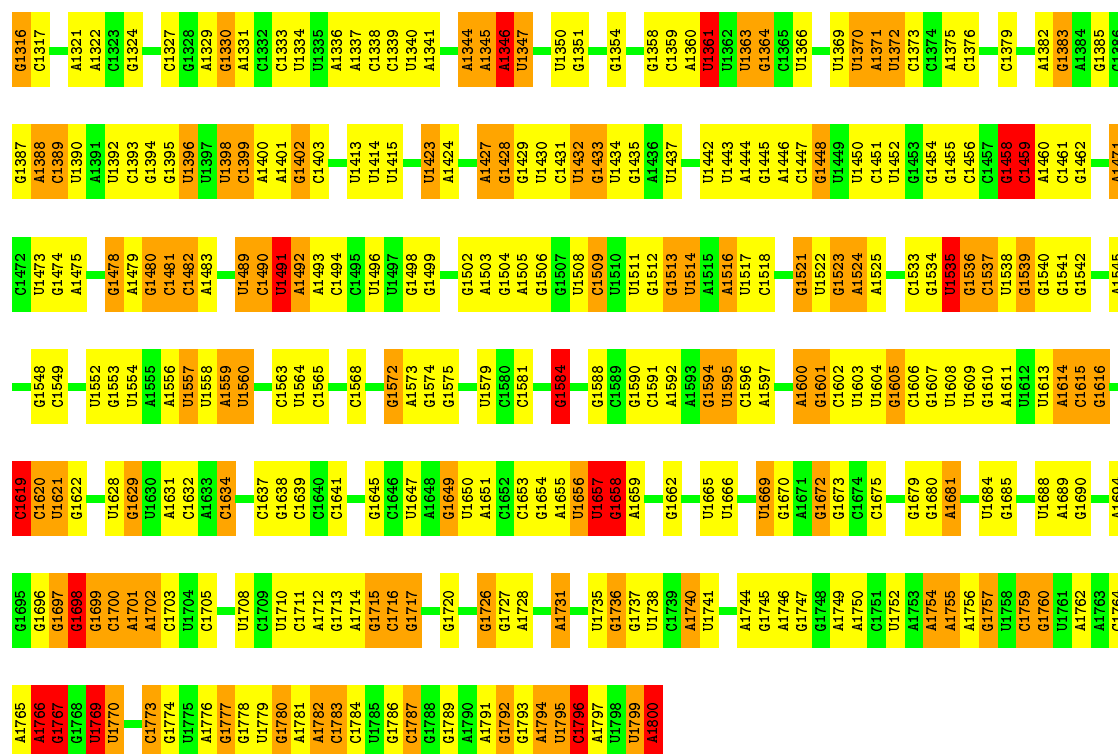


A1746	G1747	G1748	A1749	U1752	A1753	A1756	G1757	U1758	G1759	G1760	U1761	A1762	A1765	A1766	G1767	G1768	U1769	C1773	G1774	U1775	A1776	G1777	G1778	U1779	G1780	A1781	A1782	C1783	G1784	G1788	G1789	G1792	G1793	A1794	U1795	C1796	A1797	U1798	A																					
U1609	G1610	A1611	U1612	G1613	A1614	G1615	G1616	U1617	C1618	G1619	C1620	C1623	G1624	U1625	G1626	U1628	A1629	G1630	A1631	C1632	A1633	C1634	A1635	C1636	C1637	G1642	U1643	C1644	G1645	C1646	U1647	A1648	G1649	U1650	A1651	C1652	G1653	G1654	U1657	G1658	U1659	A1660	U1661	U1665	G1668	U1669	G1670	G1671	G1672	U1673	U1738	U1739	U1742	G1745						
G1680	A1681	U1682	C1683	U1684	G1685	C	U	U	A	G	A	A	A	G	G	G	G	G	C	A	A	U	C	C	C	A	U	C	C	A	G	A	G	C	G1717	G1718	A1719	G1720	G1726	G1727	A1728	C1729	A1730	A1731	A1732	C1733	U1734	U1735	G1736	G1737	U1738	U1739	U1742	G1745						
G1474	A1475	G1476	G1477	G1478	A1479	G1480	C1481	G1482	A1483	G1484	G1485	C1486	A1487	G1488	U1489	C1490	A1491	A1492	A1493	C1494	U1497	G1498	G1499	C1500	C1501	A1502	A1503	G1504	A1505	G1506	U1507	U1508	C1509	U1510	A1515	A1516	U1517	C1518	U1519	U1520	G1521	U1522	A1523	A1524	A1525	U1528	C1529	C1530	G1531	U1532	G1533	G1534	U1535	C1536	G1537	U1538				
A1400	A1401	C1404	G1405	A1406	U1407	G1408	G1409	A1410	A1411	G1412	U1413	U1414	U1415	A1416	A1417	C1420	A1421	U1422	U1423	A1424	C1425	A1426	A1427	G1428	A1429	U1430	A1431	U1432	G1433	G1438	G1445	A1446	C1447	G1448	U1449	A1450	C1451	U1452	G1453	G1454	C1455	A1456	C1457	G1458	C1459	A1460	C1461	G1462	C1463	A1469	C1470	A1471	C1472	U1473						
G1324	A1325	G1330	A1331	C1332	A1337	G1338	C1339	U1340	A1341	A1344	A1345	A1346	U1347	A1348	G1349	U1350	G1351	G1354	C1355	G1358	C1359	U1360	U1361	U1362	U1363	C1364	C1365	U1366	G1367	U1370	A1371	A1375	U1378	C1379	U1380	U1381	A1382	G1385	G1386	G1387	A1388	C1389	U1390	A1391	U1392	U1396	U1397	U1398	C1399											
G1245	C1246	U1250	U1251	C1252	U1253	U1254	G1255	A1256	U1257	U1258	C1259	U1260	G1267	U1268	U1269	G1270	G1271	U1272	G1273	C1274	C1280	G1281	U1282	U1283	U1286	A1287	U1290	G1291	G1294	G1297	A1300	U1301	U1302	U1303	G1304	U1305	G1308	C1309	U1310	U1314	U1315	G1316	C1317	G1318	U1319	U1320	A1321	C1322	C1323											
C1174	U1175	G1176	C1177	G1178	G1179	C1180	U1181	U1182	A1183	A1184	U1185	G1188	A1189	C1190	U1191	A1192	C1193	A1194	C1195	G1196	C1197	G1198	G1199	G1200	G1201	A1202	U1206	U1207	U1214	A1217	G1218	A1219	A1223	A1224	U1225	A1226	A1227	G1228	G1229	U1231	U1232	U1233	G1234	C1235	G1236	G1237	U1238	U1239	U1240	G1241	A1242	A1244								
G1100	G1101	G1102	U1103	U1104	G1107	G1108	G1111	G1114	U1115	A1116	U1117	G1118	U1119	G1120	C1121	A1125	G1126	U1129	G1130	A1131	A1132	U1136	A1137	U1138	G1141	A1142	U1145	G1146	A1147	C1149	G1150	A1151	A1152	A1157	C1158	C1159	A1160	C1161	C1162	A1163	G1164	G1165	A1166	G1167	U1168	G1169	G1172	C1173												
C1021	C1022	A1023	U1024	A1025	A1026	A1027	C1028	U1029	A1030	G1031	G1032	C1033	C1034	A1039	G1040	G1041	G1042	A1043	G1046	G1047	U1052	G1053	U1057	U1058	U1059	U1060	A1061	A1062	C1067	C1068	A1069	C1070	U1071	G1072	G1073	G1074	U1079	U1080	A1081	C1082	G1083	A1084	G1085	A1086	A1087	A1091	A1092	C1096	U1097	U1098	A1099									
G938	A939	A940	A941	G942	C943	A944	A951	A952	G953	G954	U959	U960	U961	C983	A984	U985	A986	A987	U988	U989	C989	A970	A971	G972	A973	U978	A979	G986	G987	A988	G991	A992	A993	G997	G999	A998	G991	C910	U911	U912	G913	G914	A915	U916	U917	U918	A919	C1006	C1010	G1011	U1012	A1013	A929	U851	C852	A833	C934	U935	G936	A1020
G858	A862	U864	A863	U864	A865	G866	G867	G868	G872	U873	C874	A881	C882	C883	A884	U885	U886	A887	U888	U889	C890	A891	A892	U893	U894	G895	U896	C897	A898	G899	A900	G901	G902	C910	U911	U912	G913	G914	A915	U916	U917	U918	A919	C1006	C1010	G1011	U1012	A1013	A929	U851	C852	A833	C934	U935	G936	A1020				
A788	A789	A793	U794	U795	A796	U800	G801	G802	A803	U808	U809	A811	A812	U813	A814	G815	G816	U817	C818	A819	U820	U821	U822	G823	G824	U825	U826	C827	U828	A829	U830	U831	U832	U833	G834	G837	U841	C842	U843	A844	U845	G846	A847	C848	C849	A850	U851	C852	A853	C934	U935	G936	A856	U857						

• Molecule 1: 18S rRNA

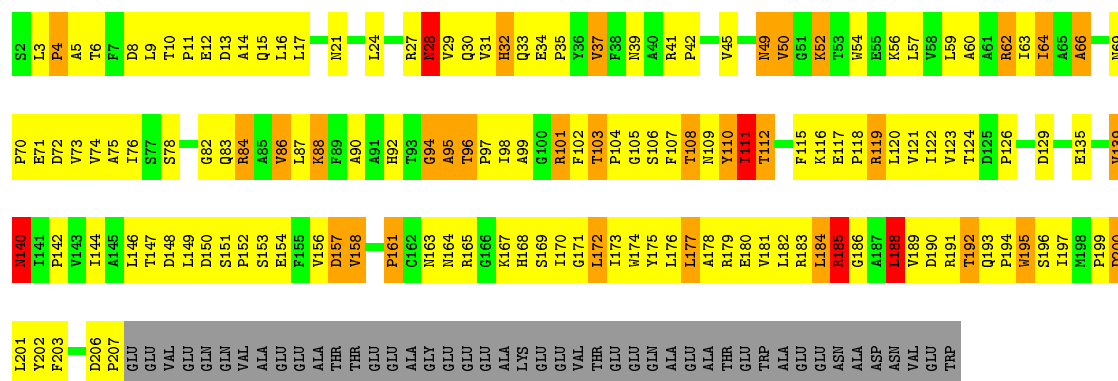
Chain 6:  38% 41% 18%

U1	A2	U3	C4	U5	G6	U9	G10	C14	G17	C18	C25	A26	U27	A28	U29	G30	C31	G34	A39	A40	A41	G42	A43	U44	U45	A46	A47	G53	C54	G57	U58	C59	U60	A61	A65	U66	A67	A68	G69	G70	A71	U72	U73	U74	U75	A76	U77	A78	C79
----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



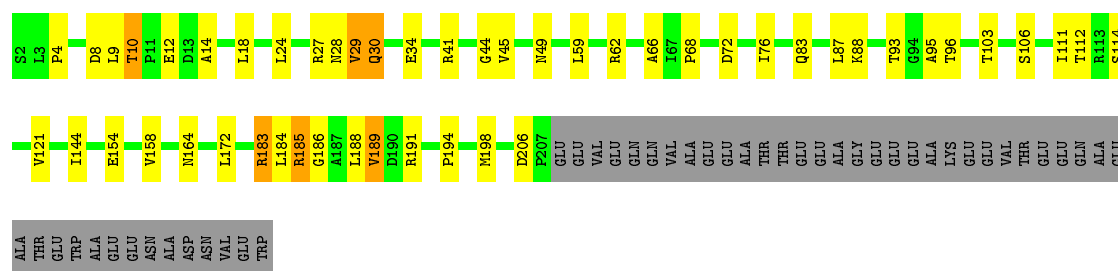
• Molecule 2: 40S ribosomal protein S0-A

Chain S0: 24% 44% 12% 18%

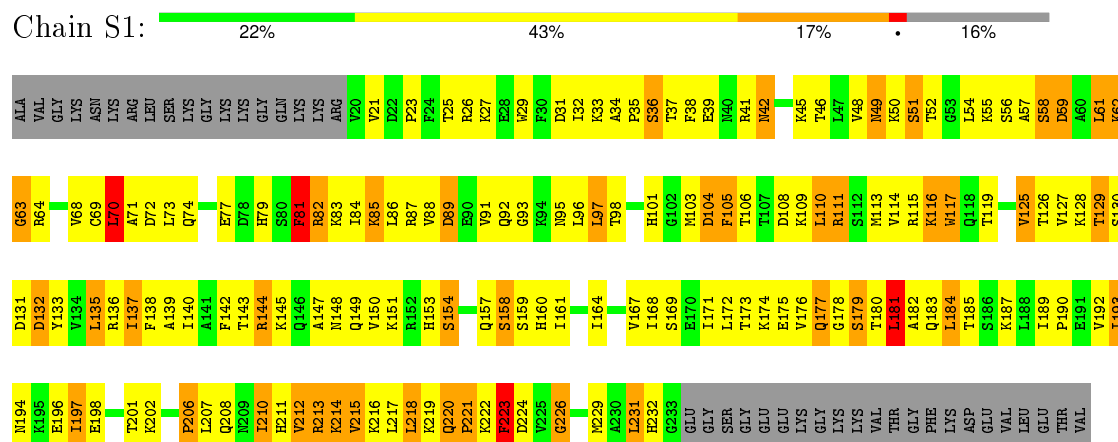


• Molecule 2: 40S ribosomal protein S0-A

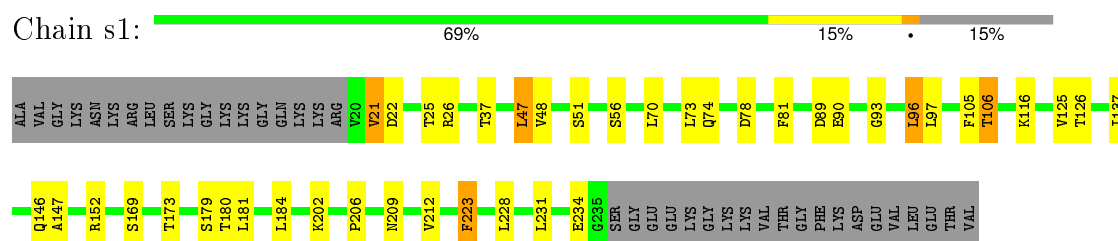
Chain s0: 62% 18% 18%



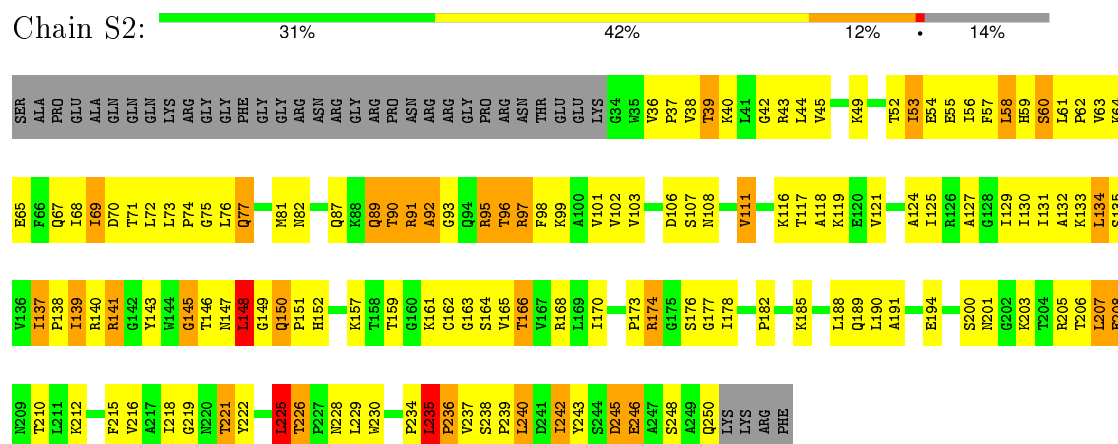
- Molecule 3: 40S ribosomal protein S1-A



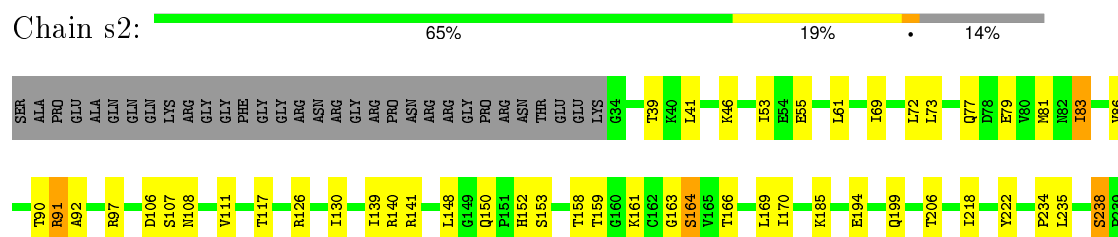
- Molecule 3: 40S ribosomal protein S1-A



- Molecule 4: 40S ribosomal protein S2



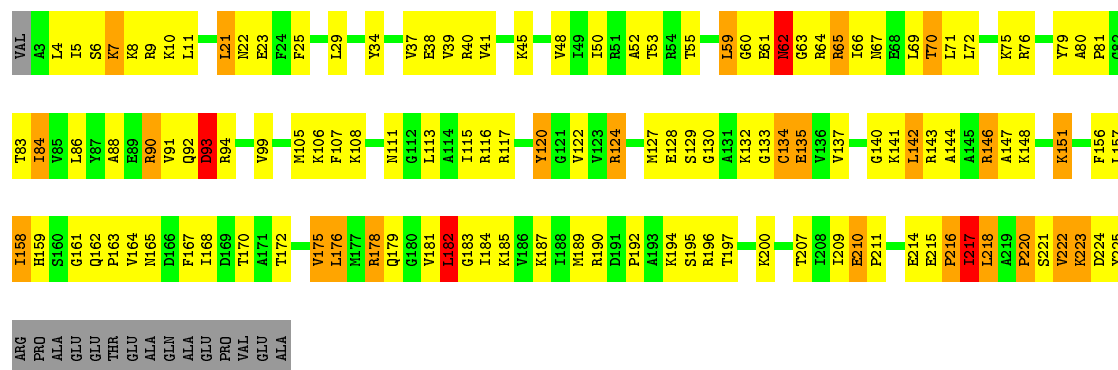
- Molecule 4: 40S ribosomal protein S2





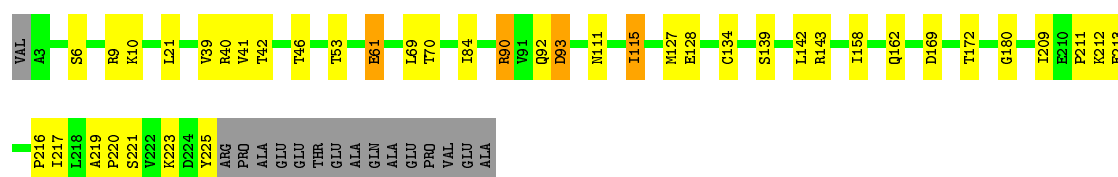
• Molecule 5: 40S ribosomal protein S3

Chain S3: 39% 42% 10% 7%



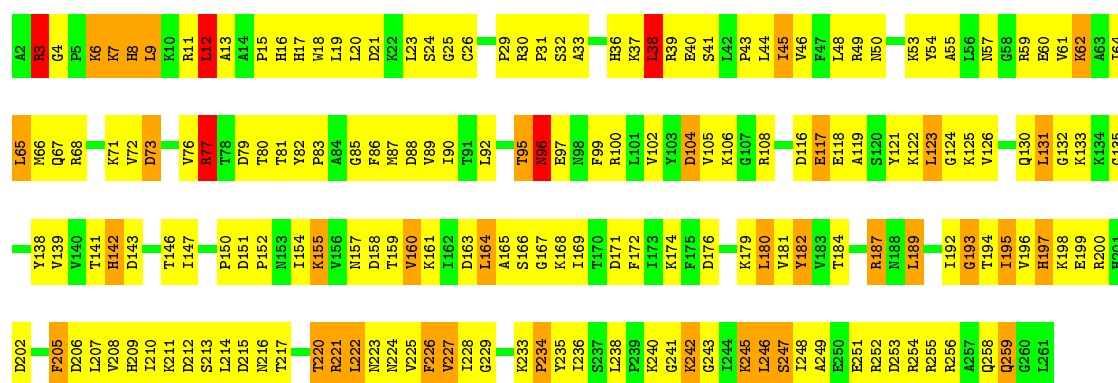
• Molecule 5: 40S ribosomal protein S3

Chain s3: 76% 15% 7%



• Molecule 6: 40S ribosomal protein S4-A

Chain S4: 30% 55% 14%



• Molecule 6: 40S ribosomal protein S4-A

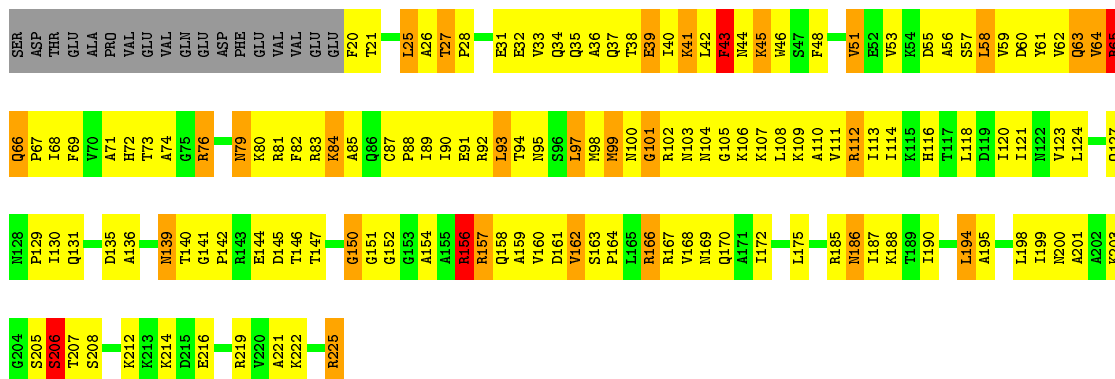
Chain s4: 81% 17%





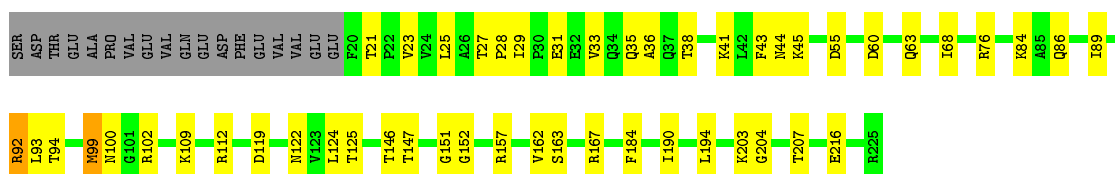
• Molecule 7: 40S ribosomal protein S5

Chain S5: 29% 50% 12% 8%



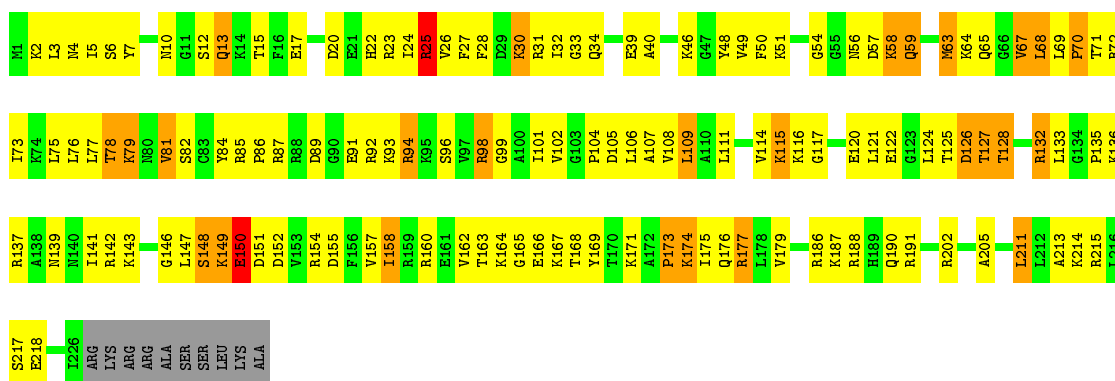
• Molecule 7: 40S ribosomal protein S5

Chain s5: 70% 21% 8%



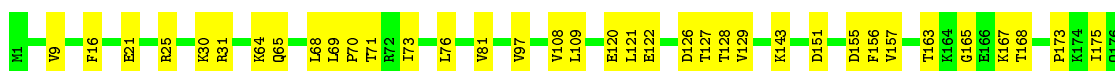
• Molecule 8: 40S ribosomal protein S6-A

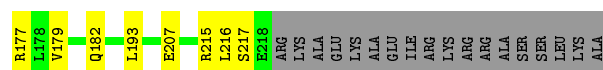
Chain S6: 39% 45% 11%



• Molecule 8: 40S ribosomal protein S6-A

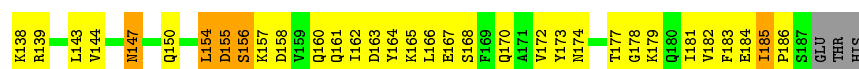
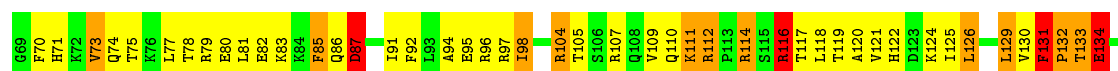
Chain s6: 74% 19% 8%





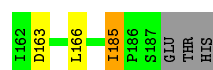
- Molecule 9: 40S ribosomal protein S7-A

Chain S7: 33% 46% 16% . .



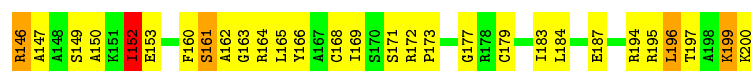
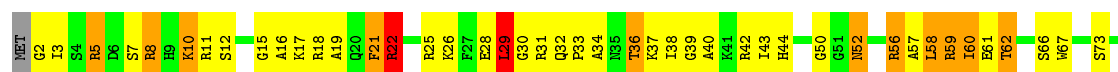
- Molecule 9: 40S ribosomal protein S7-A

Chain s7: 79% 17% . .



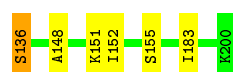
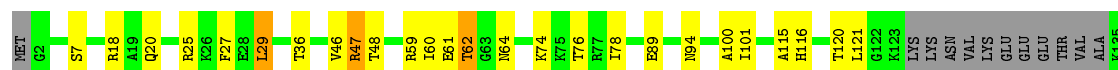
- Molecule 10: 40S ribosomal protein S8-A

Chain S8: 40% 42% 10% 6%




- Molecule 10: 40S ribosomal protein S8-A

Chain s8: 78% 14% 6%



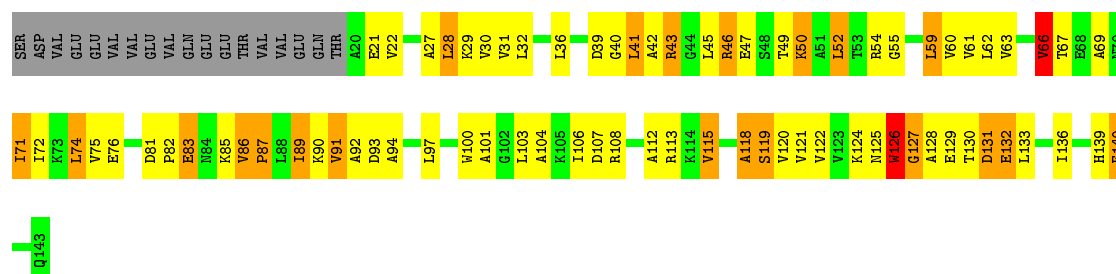
- Molecule 11: 40S ribosomal protein S9-A

Chain c1:  78% 15% 6%



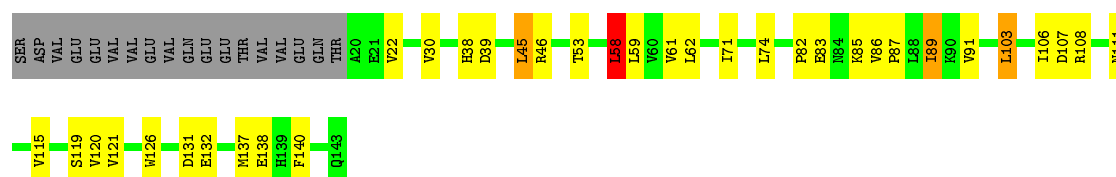
- Molecule 14: 40S ribosomal protein S12

Chain C2:  34% 37% 15% 13%



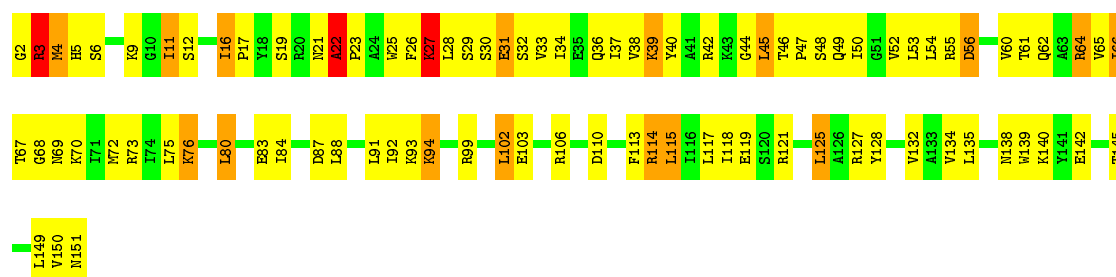
- Molecule 14: 40S ribosomal protein S12

Chain c2:  63% 22% 13%




- Molecule 15: 40S ribosomal protein S13

Chain C3:  39% 48% 11% 2%



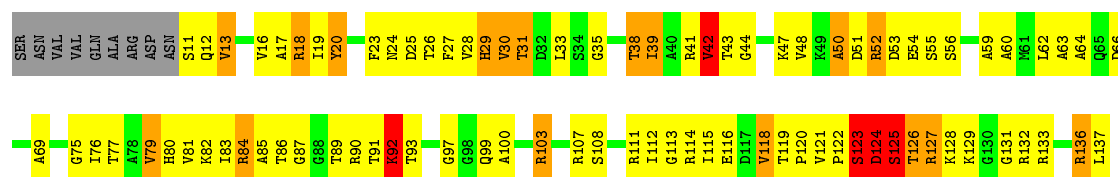
- Molecule 15: 40S ribosomal protein S13

Chain c3:  80% 19% 1%



- Molecule 16: 40S ribosomal protein S14-A

Chain C4:  29% 48% 13% 7%



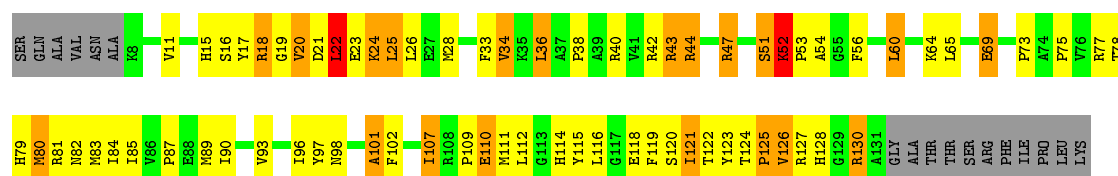
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 77% 15% 6%



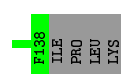
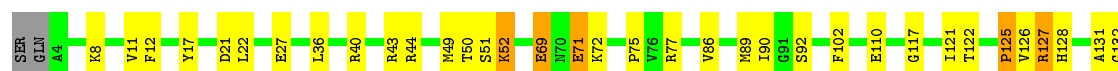
- Molecule 17: 40S ribosomal protein S15

Chain C5: 37% 35% 14% 12%



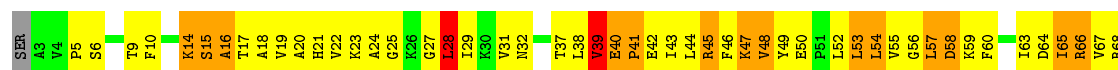
- Molecule 17: 40S ribosomal protein S15

Chain c5: 71% 21% 8%



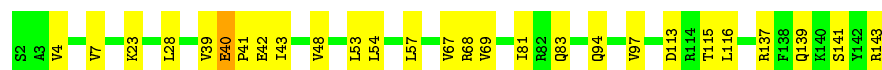
- Molecule 18: 40S ribosomal protein S16-A

Chain C6: 34% 47% 17% 2%

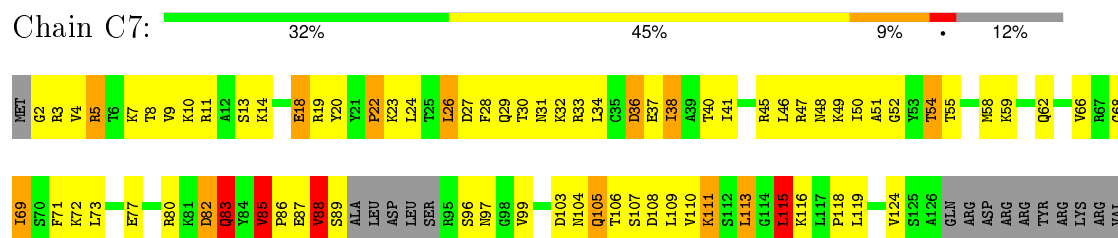


- Molecule 18: 40S ribosomal protein S16-A

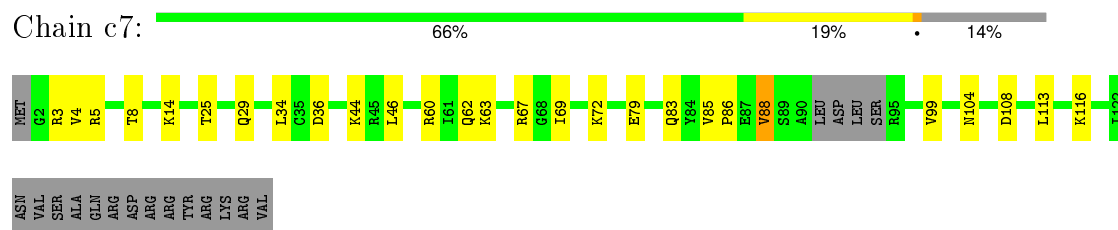
Chain c6: 81% 18% 1%



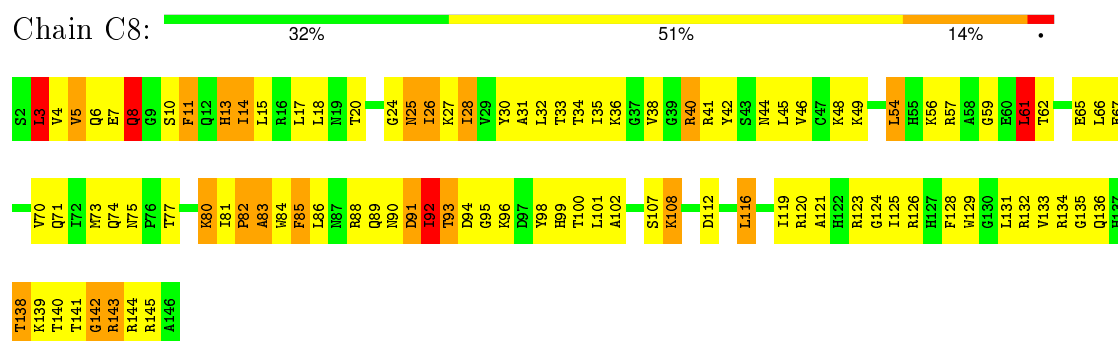
- Molecule 19: 40S ribosomal protein S17-A



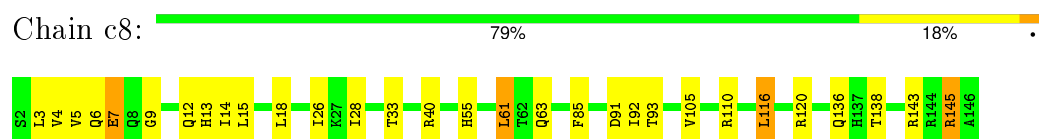
- Molecule 19: 40S ribosomal protein S17-A



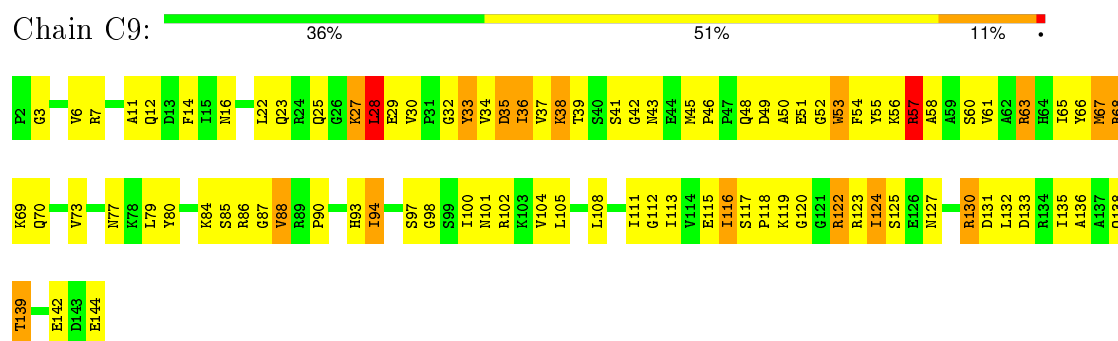
- Molecule 20: 40S ribosomal protein S18-A




- Molecule 20: 40S ribosomal protein S18-A



- Molecule 21: 40S ribosomal protein S19-A



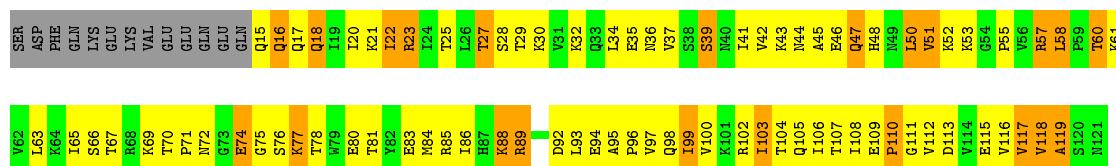
- Molecule 21: 40S ribosomal protein S19-A

Chain c9:  83% 15% •



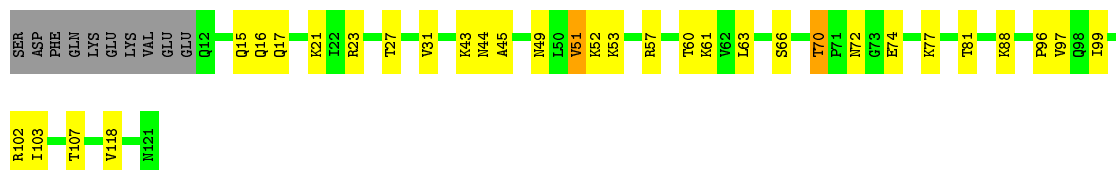
- Molecule 22: 40S ribosomal protein S20

Chain D0:  20% 51% 18% 11%



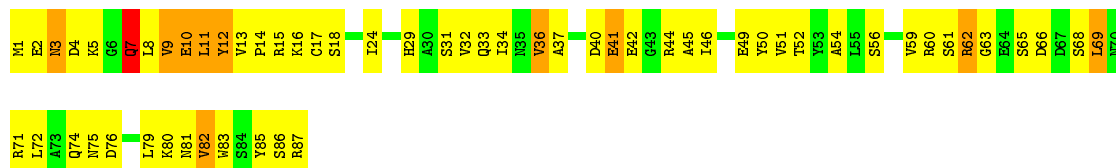
- Molecule 22: 40S ribosomal protein S20

Chain d0:  65% 25% 8%




- Molecule 23: 40S ribosomal protein S21-A

Chain D1:  32% 55% 11%



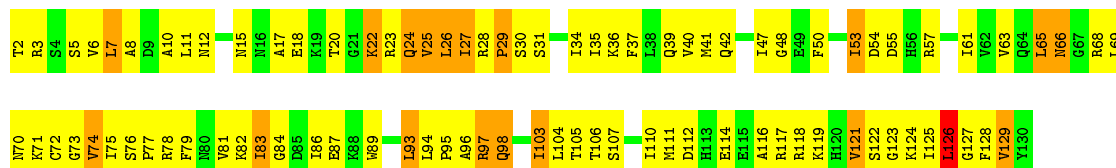
- Molecule 23: 40S ribosomal protein S21-A

Chain d1:  83% 15% •

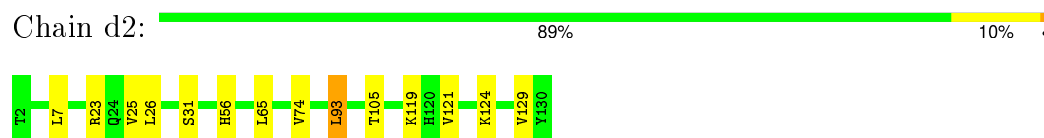


- Molecule 24: 40S ribosomal protein S22-A

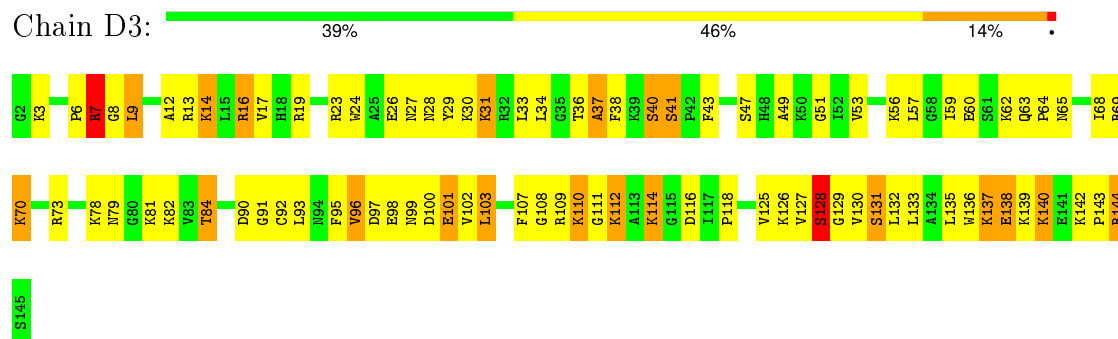
Chain D2:  31% 54% 14%



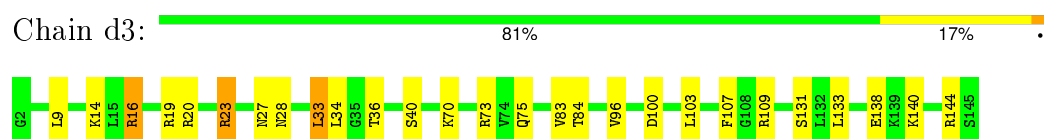
- Molecule 24: 40S ribosomal protein S22-A



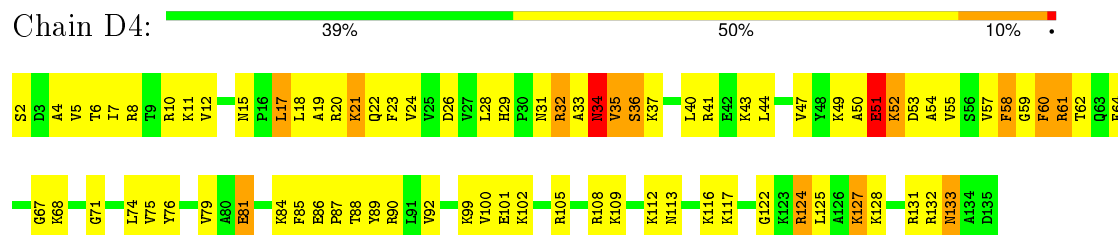
- Molecule 25: 40S ribosomal protein S23-A



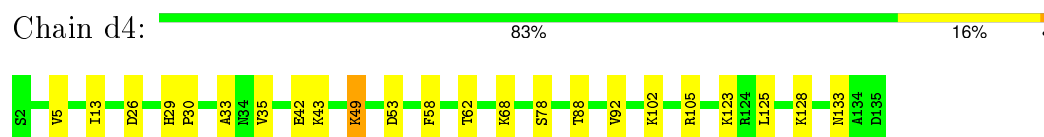
- Molecule 25: 40S ribosomal protein S23-A



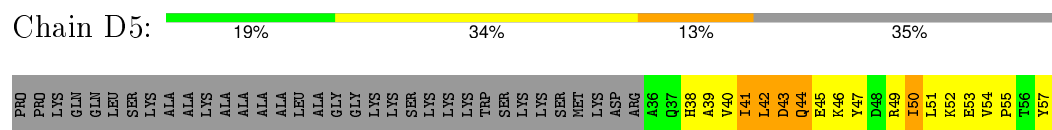
- Molecule 26: 40S ribosomal protein S24-A



- Molecule 26: 40S ribosomal protein S24-A

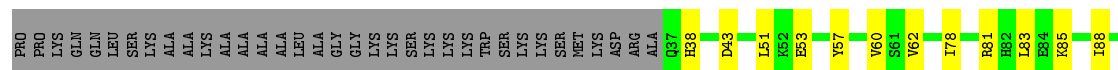


- Molecule 27: 40S ribosomal protein S25-A

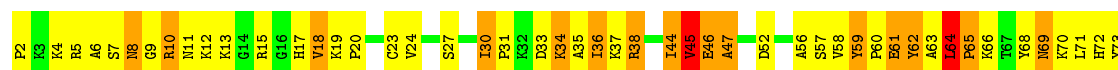




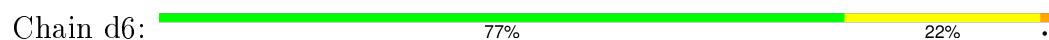
- Molecule 27: 40S ribosomal protein S25-A



- Molecule 28: 40S ribosomal protein S26-B



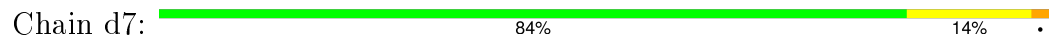
- Molecule 28: 40S ribosomal protein S26-B



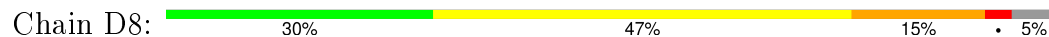
- Molecule 29: 40S ribosomal protein S27-A

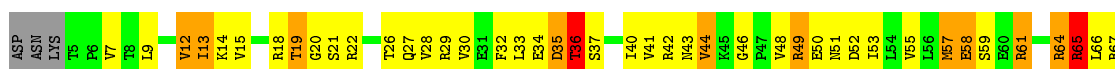


- Molecule 29: 40S ribosomal protein S27-A



- Molecule 30: 40S ribosomal protein S28-A





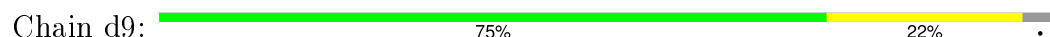
- Molecule 30: 40S ribosomal protein S28-A



- Molecule 31: 40S ribosomal protein S29-A



- Molecule 31: 40S ribosomal protein S29-A



- Molecule 32: 40S ribosomal protein S30-A

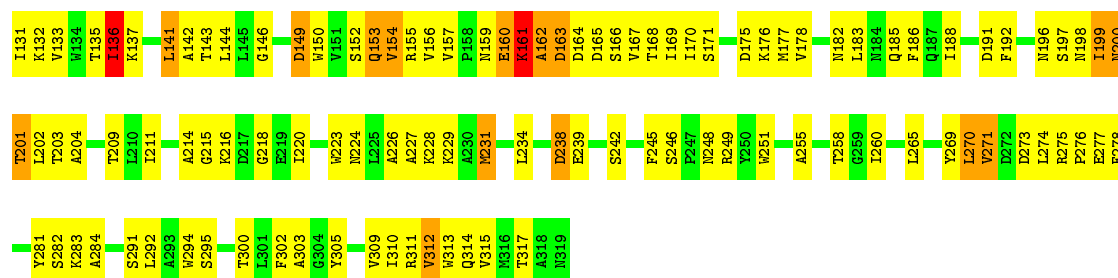


- Molecule 33: Ubiquitin-40S ribosomal protein S31



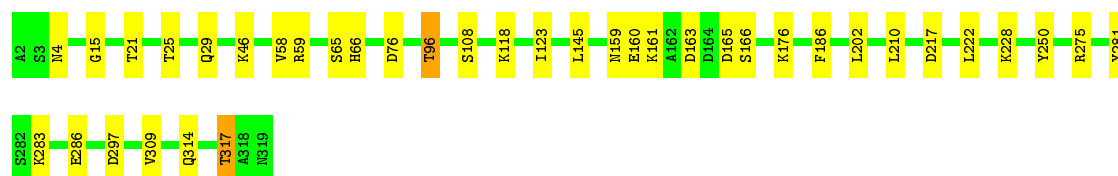
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein





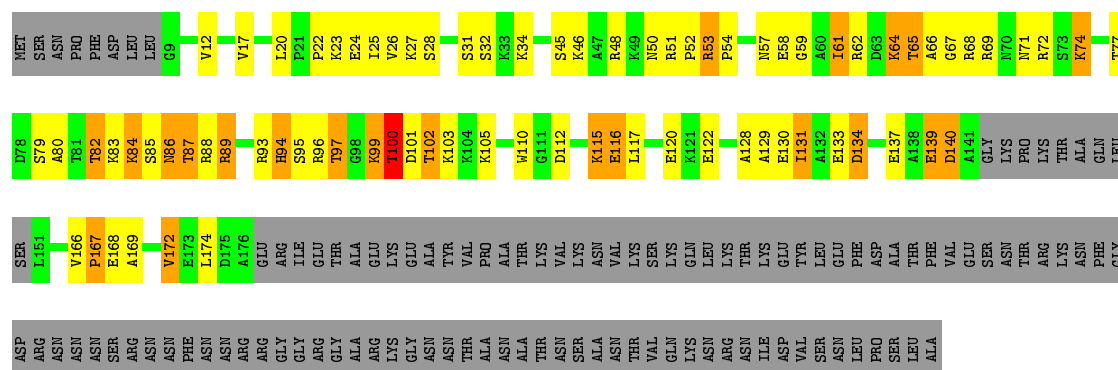
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain sR: 88% 11%



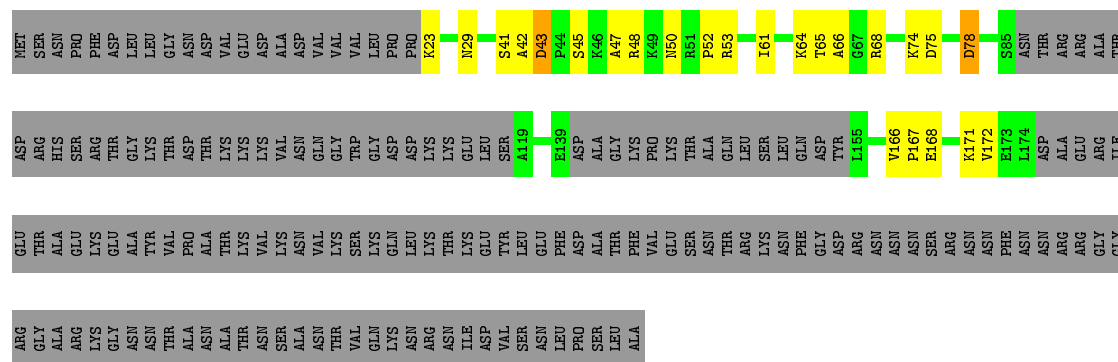
- Molecule 35: Suppressor protein STM1

Chain SM: 29% 21% 8% 42%

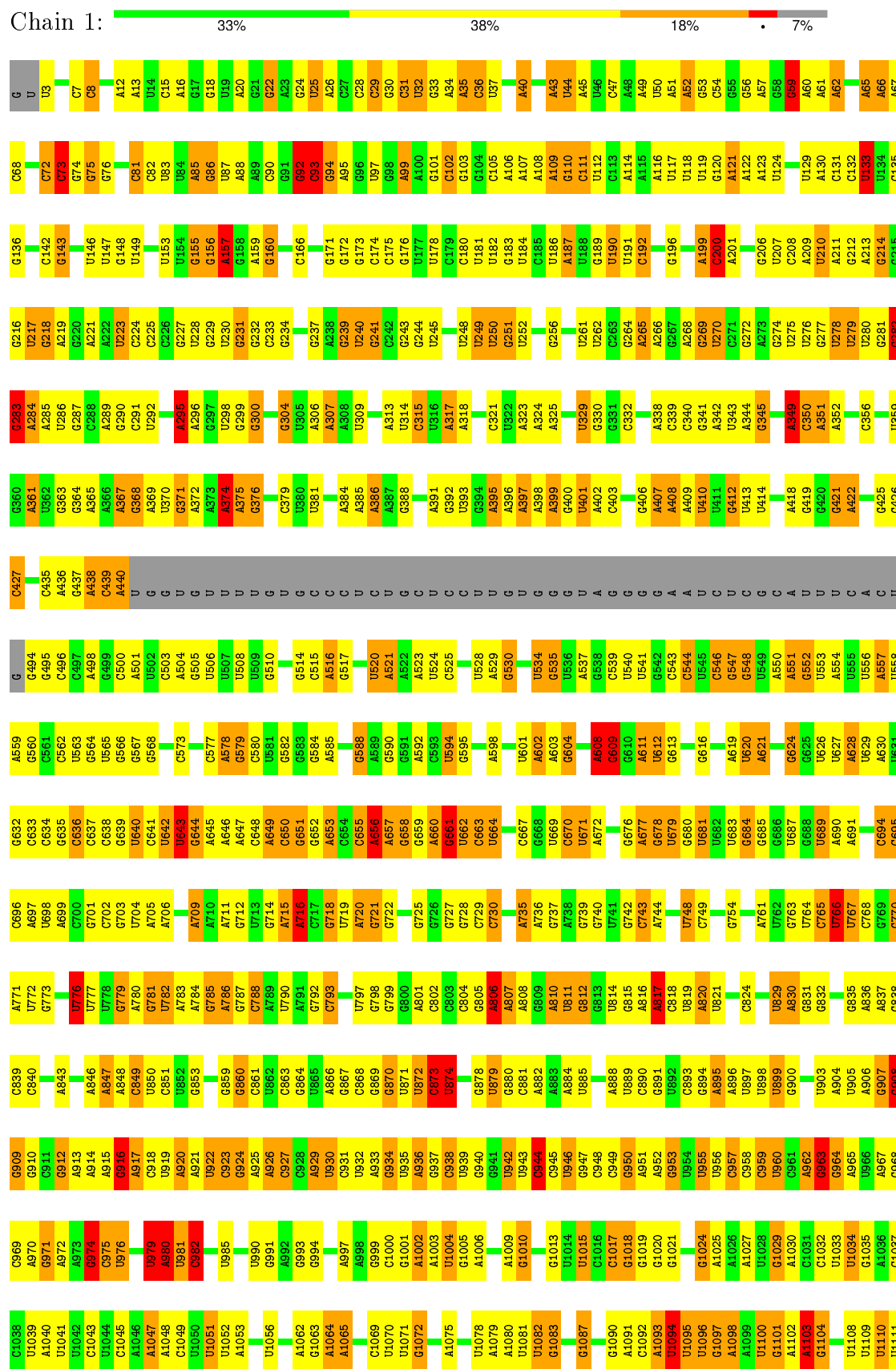


- Molecule 35: Suppressor protein STM1

Chain sM: 29% 8% 62%

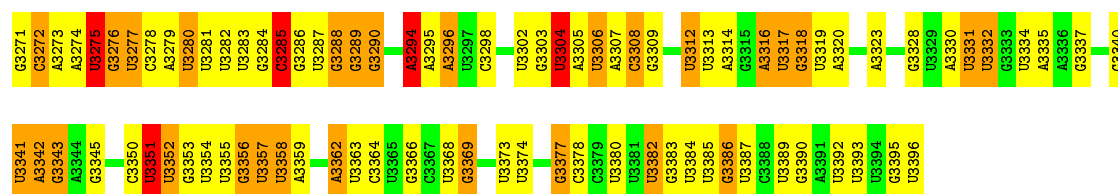


- Molecule 36: 25s rRNA



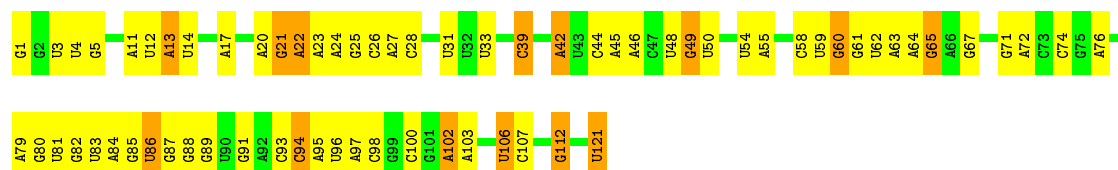


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U3196	G3061	G3062	G2990	C2929	U2859	C2798	A2734		G2592		C2329	U2191
G3197	U3131		A2991	A2930	U2860	A2799	U2735	G2661	A2593	A2523	C2330	C2192
U3198	C3132		U2992	G2931		G2800	A2736	C2664	C2594	A2524	C2331	U2193
G3199	C3133		G2993	U2932	G2863	A2801	A2737	U2665	A2595	G2525	A2332	G2194
G3200	A3134	U3066		A2933		A2802	A2738	U2666		C2526	C2333	
	U3135	C3067	U2996	A2934	U2866	A2803	A2739	C2667	G2598	G2527	U2334	A2198
U3203	G3136	U3068	G2997	U2935		A2804	A2740	A2667	U2599	U2528	U2335	
G3204	C3137	G3069	U2998	G2936		G2805	C2741		G2600	A2529	U2336	G2201
G3205				G2937		U2806	C2742	A2671	A2601	G2530		G2202
U3206	A3141	G3074	C3001	U2938		U2807	A2743	A2672	G2602	C2531	C2339	U2203
C3207	G3075	G3076	C3002	G2939		A2808	U2744	A2673		U2532	U2340	U2204
U3208	C3142		G3003	A2940	G2875	C2809	G2745	C2675	G2606		A2341	U2205
G3209	C3143		C3004	A2941	U2876	C2810	A2746	A2676	G2607	A2536	U2342	U2206
	C3144		A3005	G2942	C2877	A2811	A2747	G2677	G2608	U2537	C2343	A2207
	G3145		A3006	G2943	G2878	C2812	A2748		A2609	U2538	U2344	A2208
C3212	G3146		U3007	U2944	G2879	A2813	G2749		G2610	U2539	A2345	U2209
A3213			A3008	G2945	C2879	G2814			U2611	G2540		G2210
U3214	G3149			A2946	U2880	G2815	U2752		U2612	A2541	A2348	G2211
A3215	A3150			G2947	C2881	A2816	G2753		G2613	U2542	U2349	U2212
G3216				C2948	U2882	A2817	G2754		G2614	U2543	C2350	C2213
A3217	U3153			U2949	U2883	A2818	G2755		G2615	U2544	U2351	A2214
A3218	C3154			G2950	C2884	G2690	C2756		U2616	U2545	U2416	
G3219	U3155			G2951	C2885	A2691	U2757		G2617	C2546	U2417	U2217
G3220	U3156			G2952	C2886	A2692	A2758		U2618		G2353	G2218
	U3157				U2887	A2693			G2619	U2547	C2354	
A3223	G3158			U2953	U2888	C2693	G2761		G2620	A2548	G2355	
G3224	C3159			U2954	C2889	A2694	A2762		A2549	U2550	A2356	A2222
C3225	U3160			G2955	C2890	A2695	U2763		G2621	U2551	A2357	A2223
A3226	C3161			C2956	A2892	A2696	U2764		G2622	U2552	A2358	A2224
C3227	C3162			C2957	C2893	A2697	C2765		G2623	U2553	C2359	A2225
A3228	A3163			C2958	C2894	G2698	C2766		G2624	U2554	C2360	U2226
G3229	C3164			C2959	A2897	G2699	U2767		G2625	U2555	A2361	C2227
G3230	A3165			C2960	G2898	A2702	U2768		A2556	U2556	A2362	C2228
	C3166			U2961	C2899	A2703	U2769		C2557	U2557	C2363	C2229
A3234	A3167			C2962	C2900	A2704	A2770		U2628	U2558	C2364	C2230
	U3168			U2963	G2901	C2709	G2771		U2629	U2559	C2365	C2231
G3238	G3172			U2964	C2902	C2710	U2772		C2630	C2560	C2366	A2232
G3239	A3173			U2965	A2903	C2711	C2773		U2631		G2369	A2233
G3240	U3104			C2966	C2836	U2712	U2774		G2632	C2567	G2370	A2234
G3241	A3174			U2967	A2837	U2713	C2775		U2633	C2568	G2371	C2235
G3242	U3175			G2968	A2838	U2714	U2776		U2634	U2569	A2372	G2236
A3243	G3176			A2969	G2839	G2715	C2777		A2635	U2570	A2373	
A3244	G3177			C2970	C2840	U2716	G2778		A2636	U2571	C2374	G2239
G3245	A3178			A2971	G2841	U2717	G2779		A2637	U2572	C2375	
G3246	U3179			C2972	U2909	U2718	A2780		C2638	C2573	G2376	A2243
G3247	A3180			U2973	A2910	U2719	C2781		U2639	U2574	G2377	A2244
	C3181			G2974	A2911	U2720	U2782		A2640	U2575	C2378	A2245
	G3182			A2975	G2912	C2844	A2783		U2641	U2576	U2379	G2246
U3250	A3183			C2976	C2913	A2845	U2784			U2577	U2380	G2247
	A3184			U2977	G2914	U2846	G2785		C2642	U2578	U2381	C2248
G3253				U2978	U2915	A2847	A2786		C2643	U2579	U2382	C2249
	U3185			U2979	U2916	G2848	G2787		U2644	U2580	U2383	C2250
C3257	A3186			U2980	G2917	U2849	G2788		C2645	U2581	U2384	G2251
U3258	C3187			U2981	G2918	U2850			C2646	U2582	U2385	C2252
U3259	U3121			G2982	G2919	U2851	U2725		A2649	U2583	A2386	A2253
G3260	A3122			C2983	U2920	A2852	A2726		U2650	U2584	A2387	G2254
	A3123					A2853	A2727		G2651	U2585	U2388	U2254
	C3124			C2984		U2854	A2728		U2652	U2586	A2389	U2255
	C3125			C2985		U2855	G2729		U2653	U2587		U2256
	U3126			U2986		U2856	G2730		G2654	U2588		A2257
	U3127			A2987		G2856	U2731					



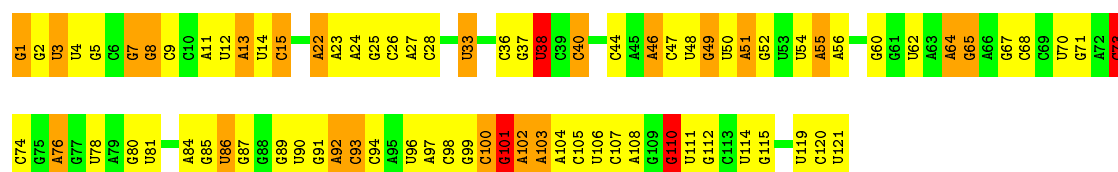
• Molecule 37: 5.8s rRNA

Chain 3: 44% 45% 12%



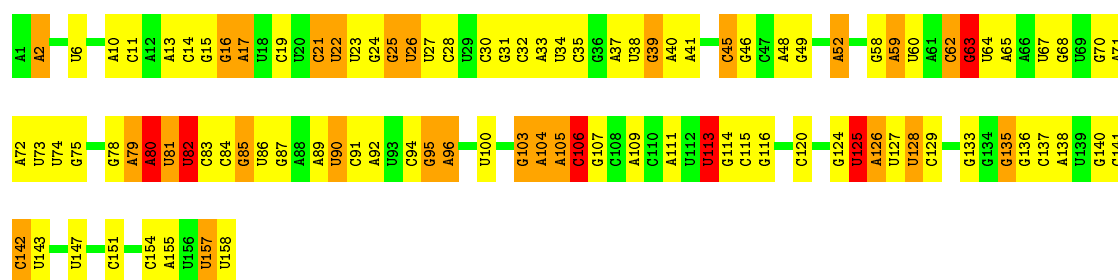
• Molecule 37: 5.8s rRNA

Chain 7: 33% 45% 18%



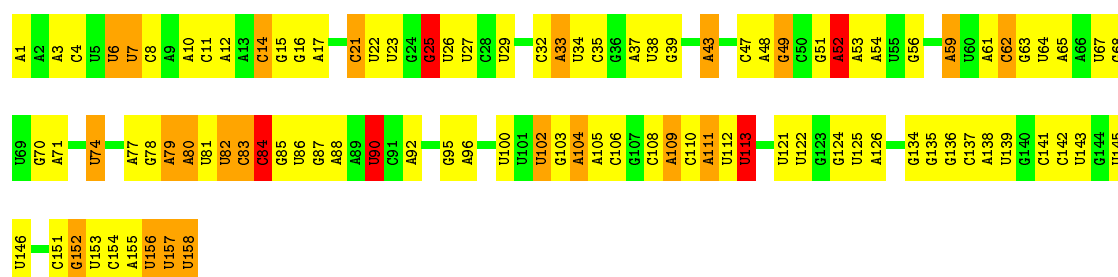
• Molecule 38: 5.8s rRNA

Chain 4: 37% 43% 16%

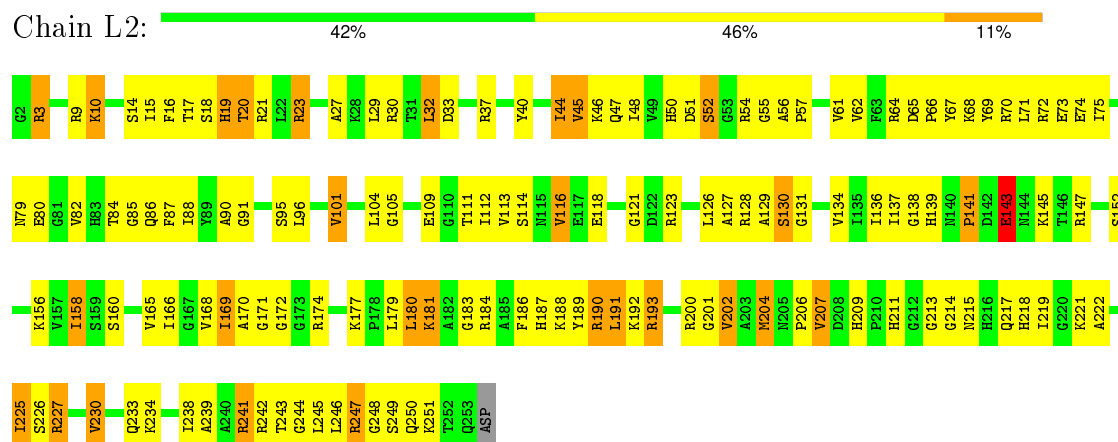


• Molecule 38: 5.8s rRNA

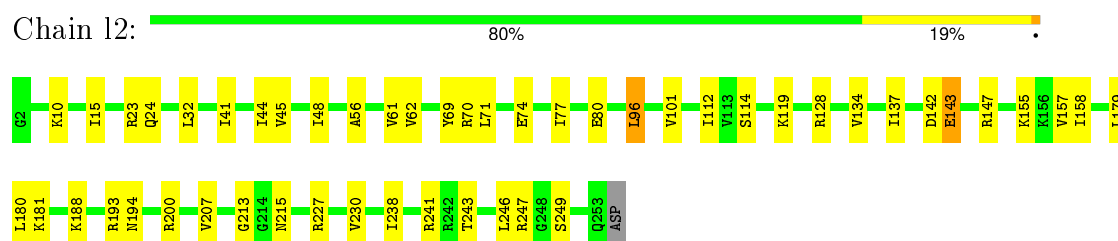
Chain 8: 37% 46% 14%



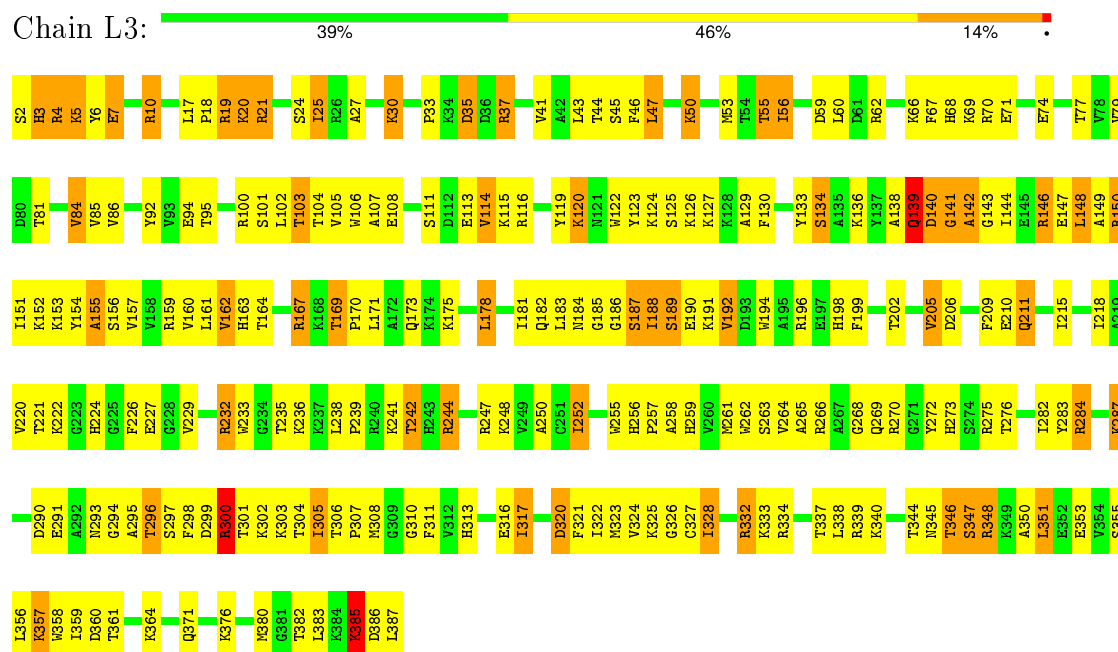
- Molecule 39: 60S ribosomal protein L2-A



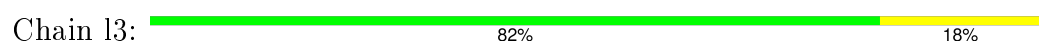
- Molecule 39: 60S ribosomal protein L2-A

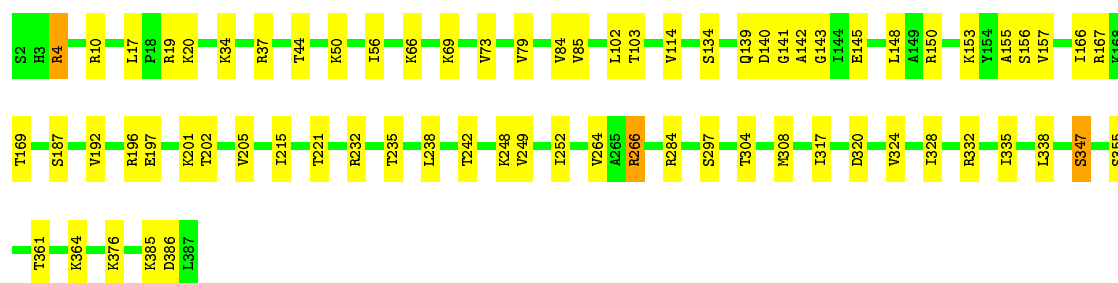


- Molecule 40: 60S ribosomal protein L3

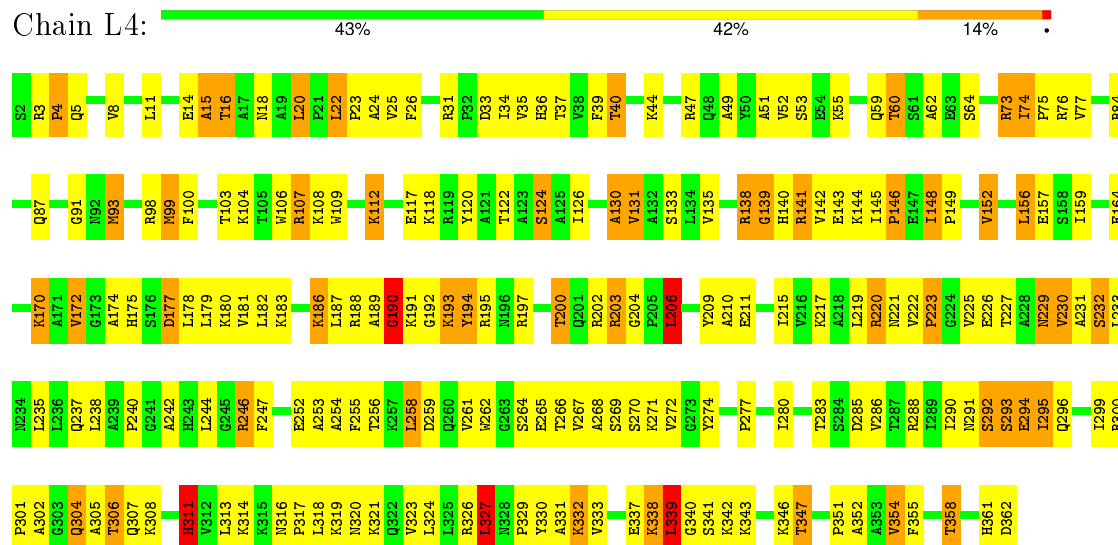


- Molecule 40: 60S ribosomal protein L3

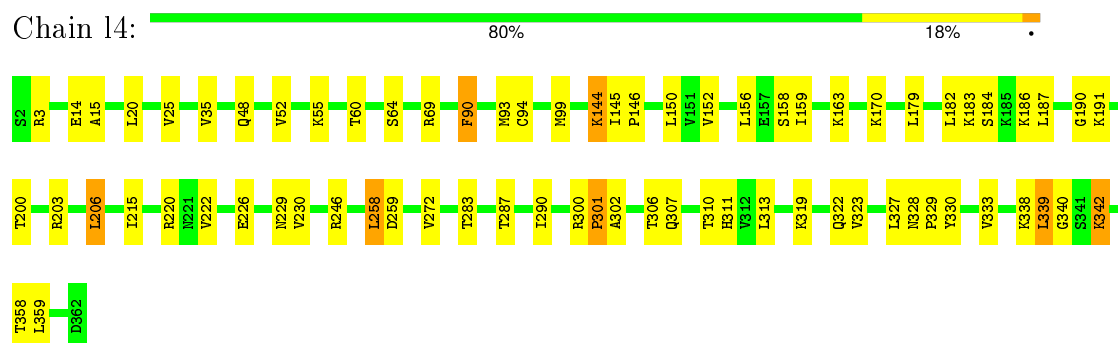




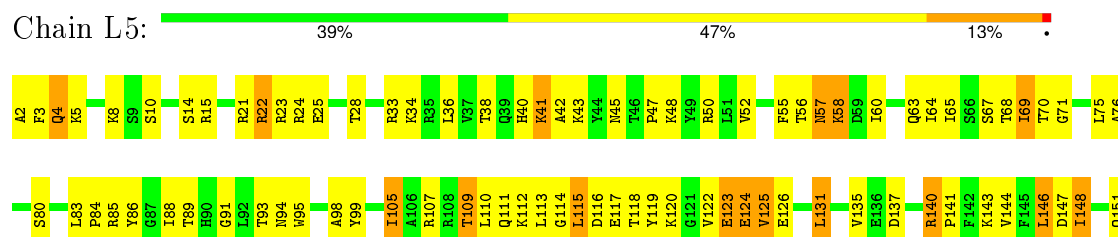
- Molecule 41: 60S ribosomal protein L4-A

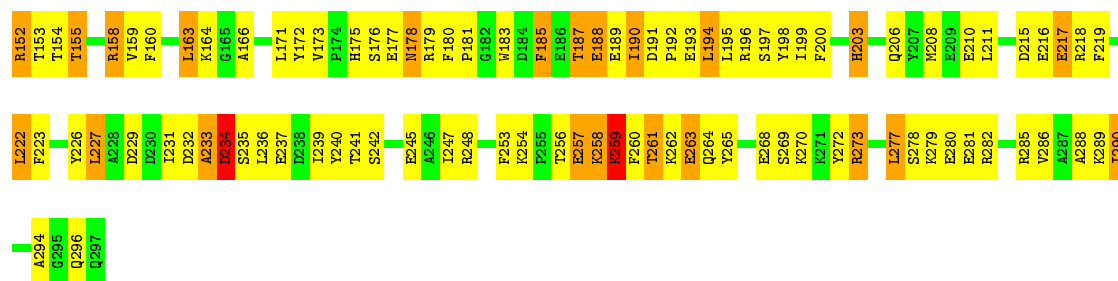


- Molecule 41: 60S ribosomal protein L4-A



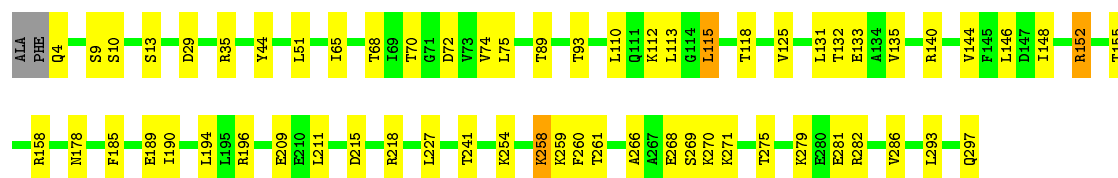
- Molecule 42: 60S ribosomal protein L5





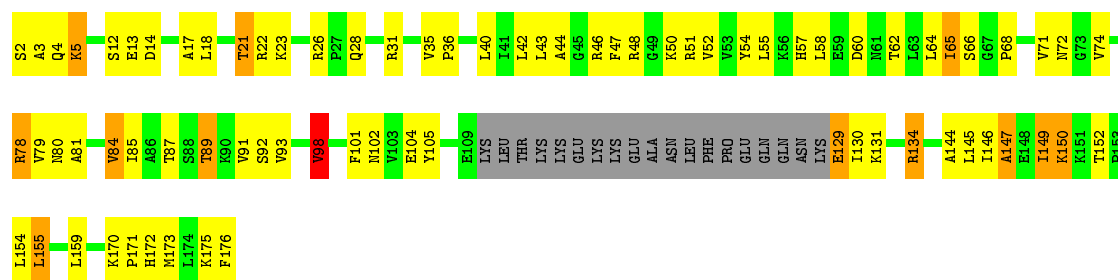
• Molecule 42: 60S ribosomal protein L5

Chain 15: 78% 20% ..



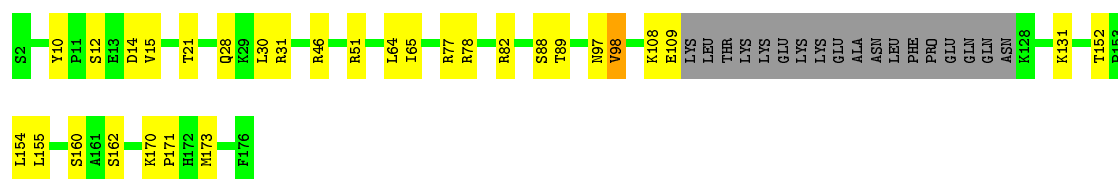
• Molecule 43: 60S ribosomal protein L6-A

Chain L6: 46% 36% 7% 11%



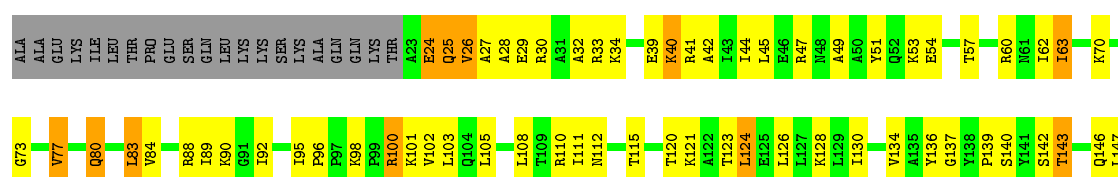
• Molecule 43: 60S ribosomal protein L6-A

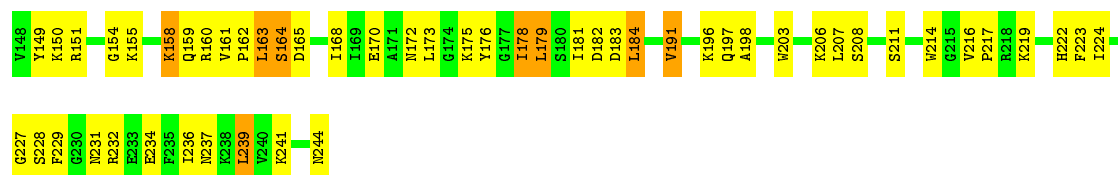
Chain l6: 73% 17% 10%



• Molecule 44: 60S ribosomal protein L7-A

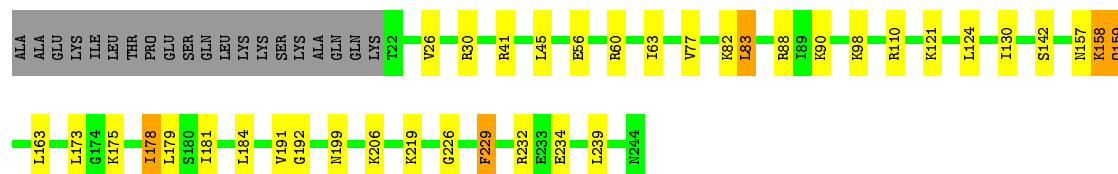
Chain L7: 44% 40% 8% 9%





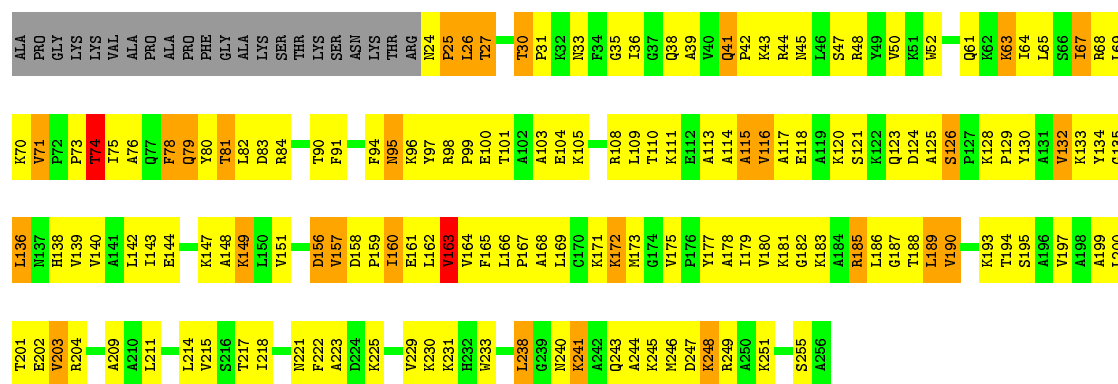
- Molecule 44: 60S ribosomal protein L7-A

Chain 17: 76% 14% 8%



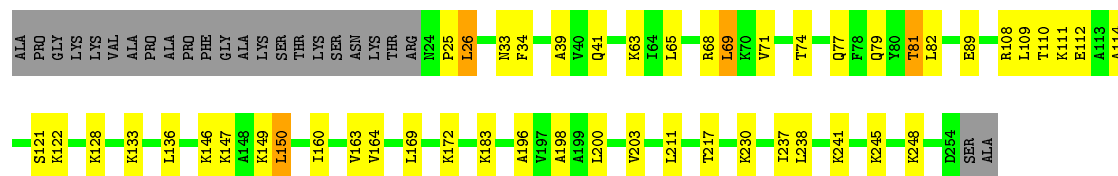
- Molecule 45: 60S ribosomal protein L8-A

Chain L8: 31% 48% 11% 9%



- Molecule 45: 60S ribosomal protein L8-A

Chain l8: 71% 18% 9%



- Molecule 46: 60S ribosomal protein L9-A

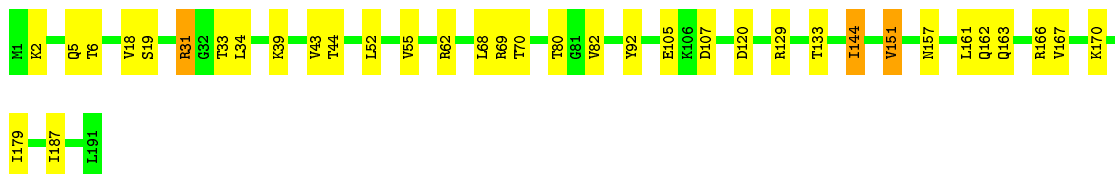
Chain L9: 36% 52% 11%





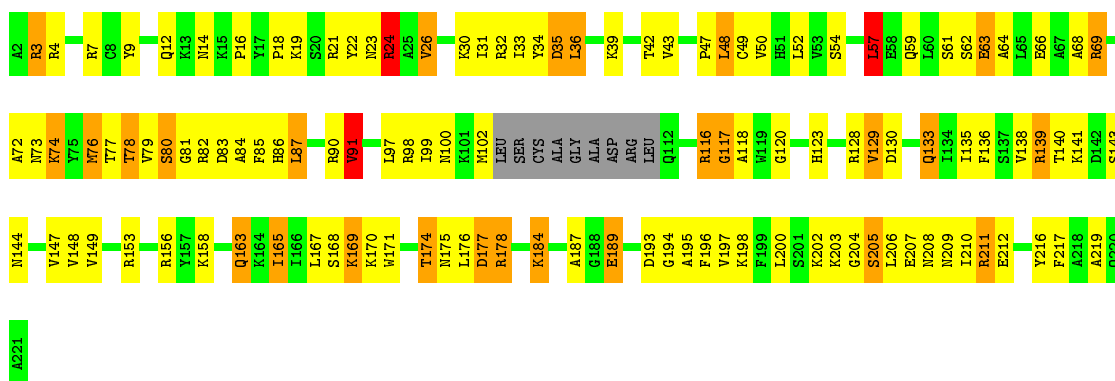
• Molecule 46: 60S ribosomal protein L9-A

Chain I9: 81% 17%



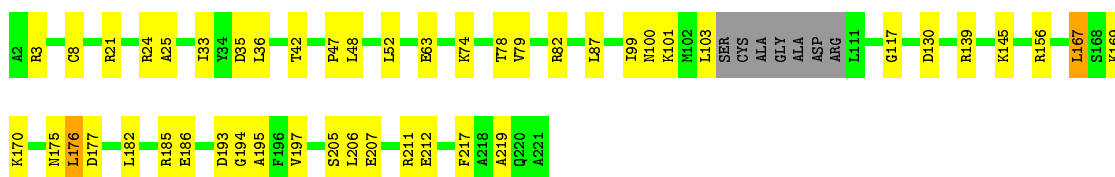
• Molecule 47: 60S ribosomal protein L10

Chain M0: 41% 41% 12%



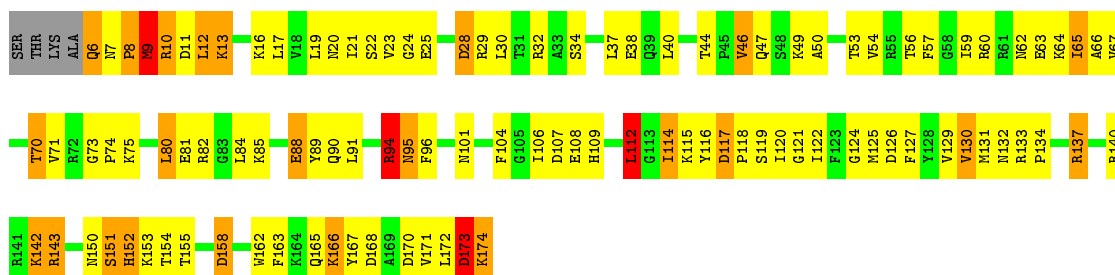
• Molecule 47: 60S ribosomal protein L10

Chain m0: 75% 20%

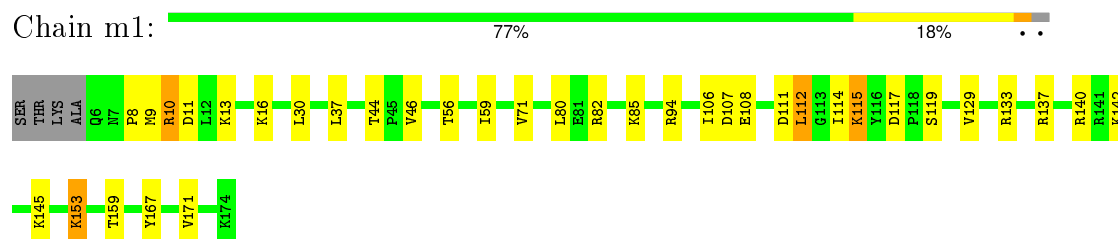


• Molecule 48: 60S ribosomal protein L11-B

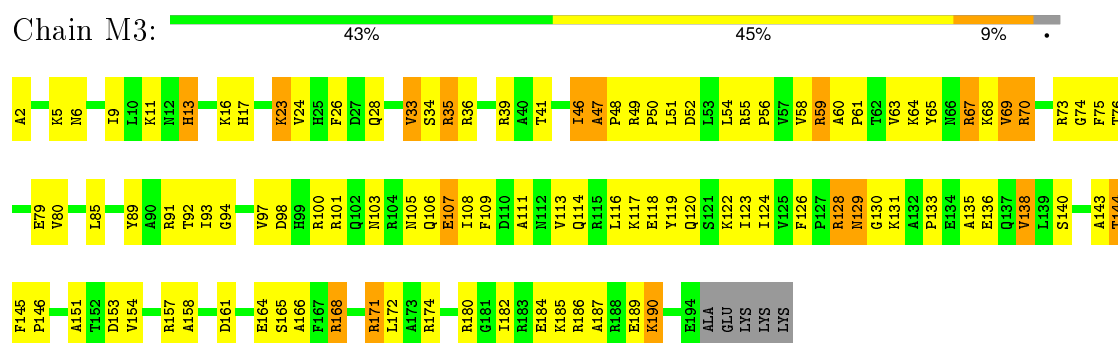
Chain M1: 36% 46% 13%



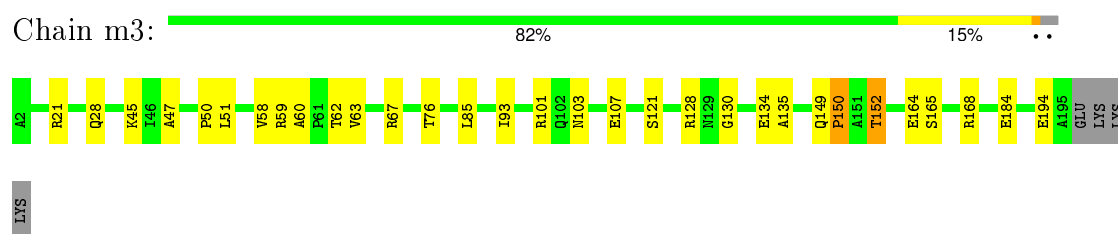
- Molecule 48: 60S ribosomal protein L11-B



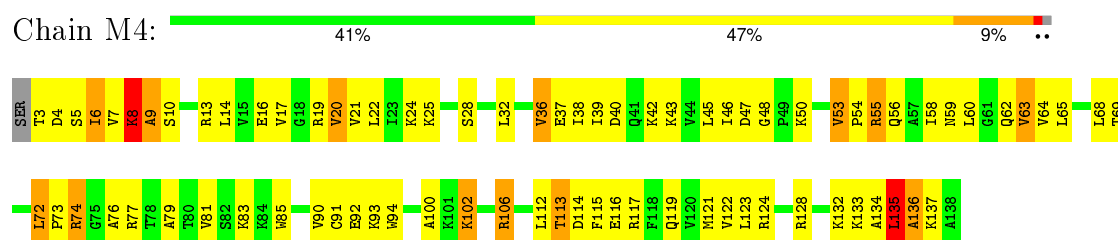
- Molecule 49: 60S ribosomal protein L13-A



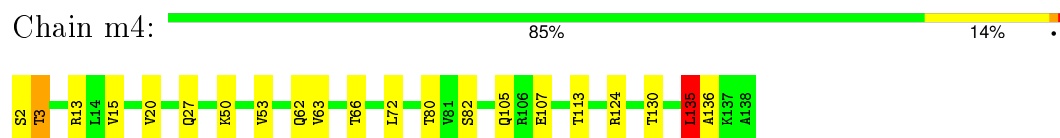
- Molecule 49: 60S ribosomal protein L13-A



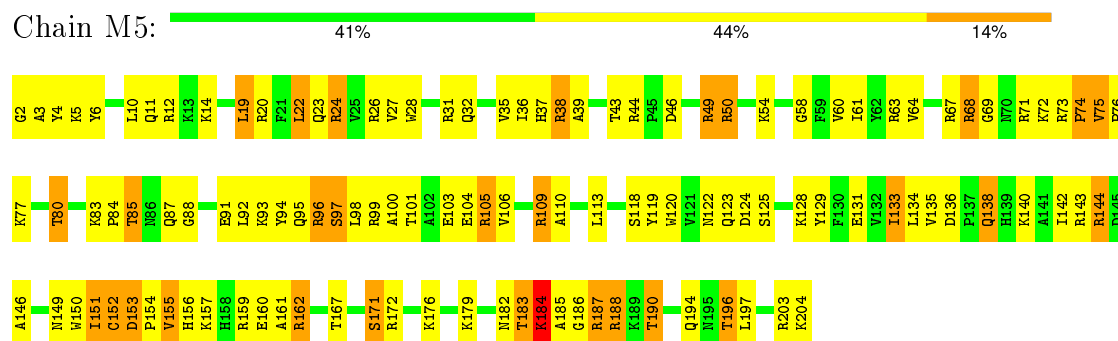
- Molecule 50: 60S ribosomal protein L14-A



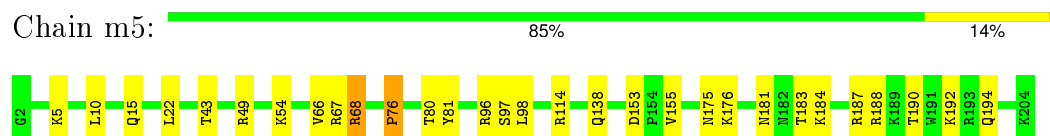
- Molecule 50: 60S ribosomal protein L14-A



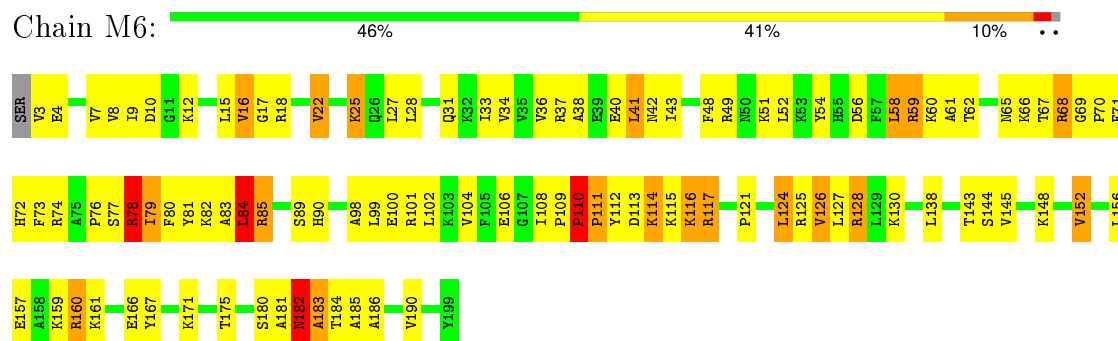
- Molecule 51: 60S ribosomal protein L15-A



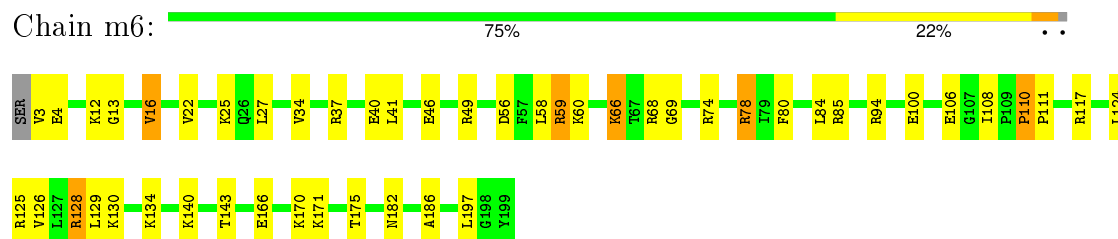
- Molecule 51: 60S ribosomal protein L15-A



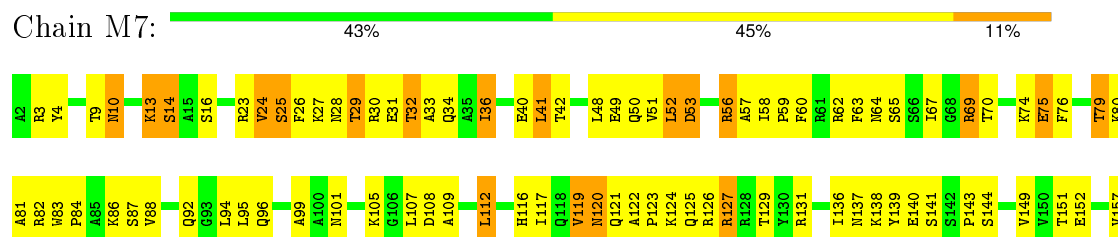
- Molecule 52: 60S ribosomal protein L16-A



- Molecule 52: 60S ribosomal protein L16-A



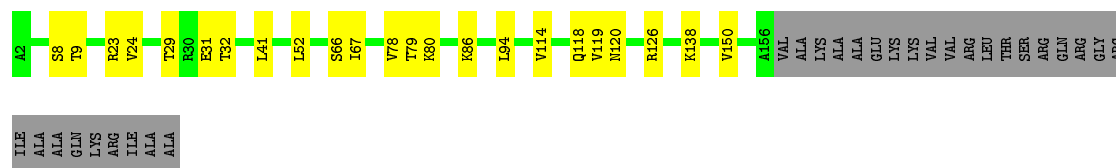
- Molecule 53: 60S ribosomal protein L17-A





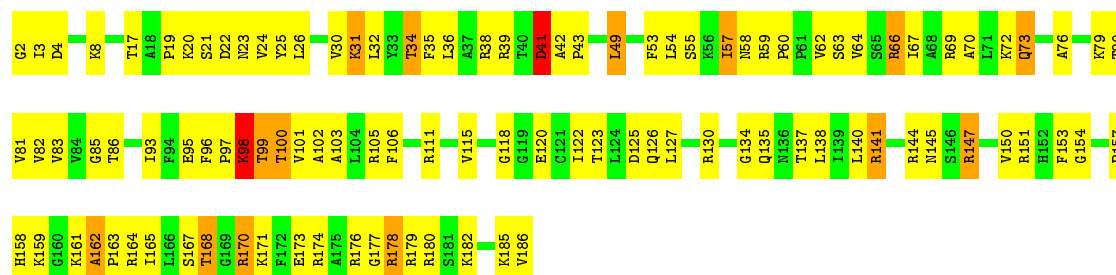
• Molecule 53: 60S ribosomal protein L17-A

Chain m7: 72% 13% 15%



• Molecule 54: 60S ribosomal protein L18-A

Chain M8: 43% 49% 8%



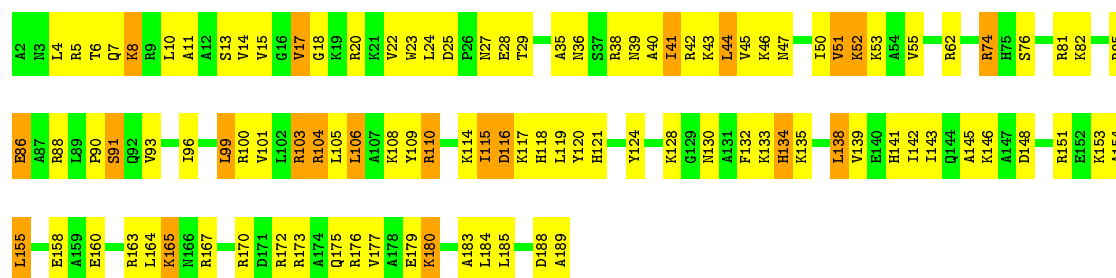
• Molecule 54: 60S ribosomal protein L18-A

Chain m8: 82% 17%



• Molecule 55: 60S ribosomal protein L19-A

Chain M9: 44% 45% 11%



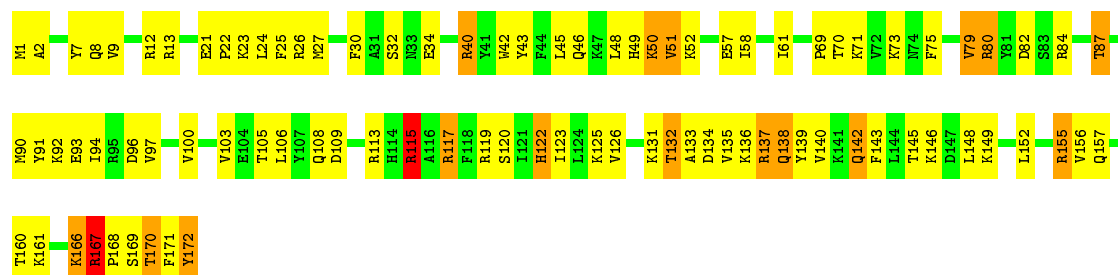
• Molecule 55: 60S ribosomal protein L19-A

Chain m9: 85% 14%



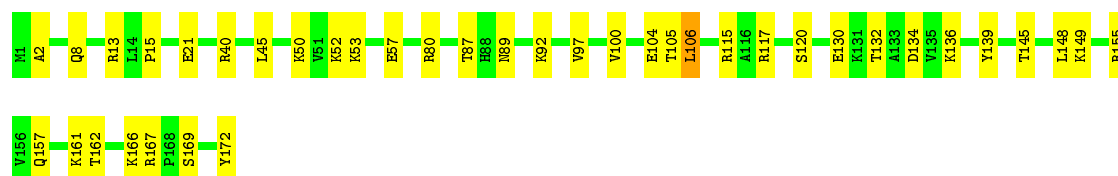
• Molecule 56: 60S ribosomal protein L20-A

Chain N0: 47% 42% 9%



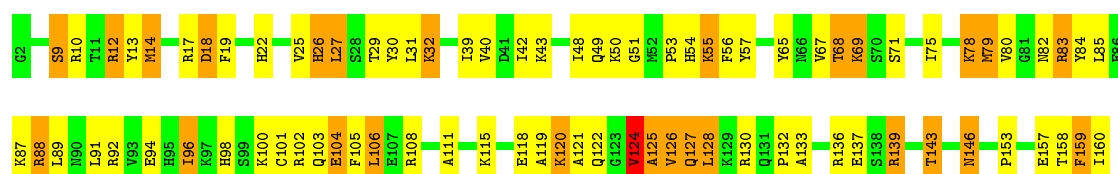
• Molecule 56: 60S ribosomal protein L20-A

Chain n0: 77% 22%



• Molecule 57: 60S ribosomal protein L21-A

Chain N1: 48% 35% 16%



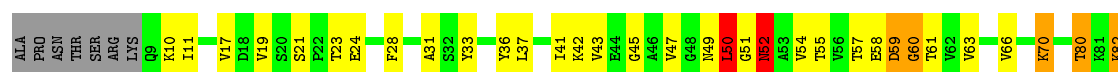
• Molecule 57: 60S ribosomal protein L21-A

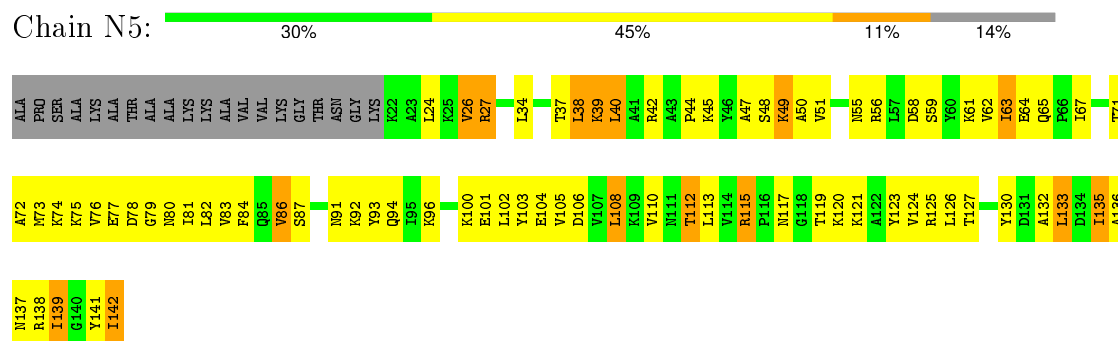
Chain n1: 80% 18%



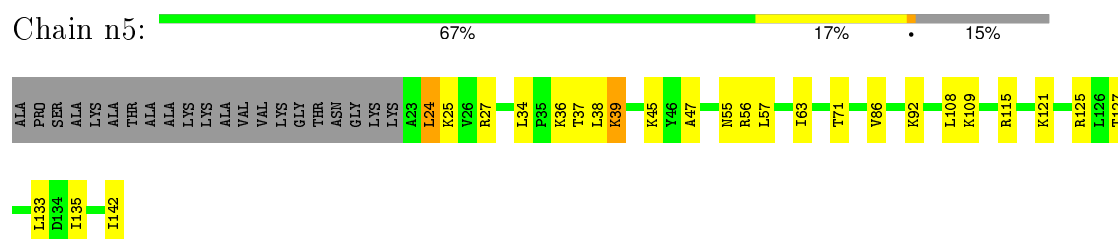
• Molecule 58: 60S ribosomal protein L22-A

Chain N2: 47% 30% 5% 17%

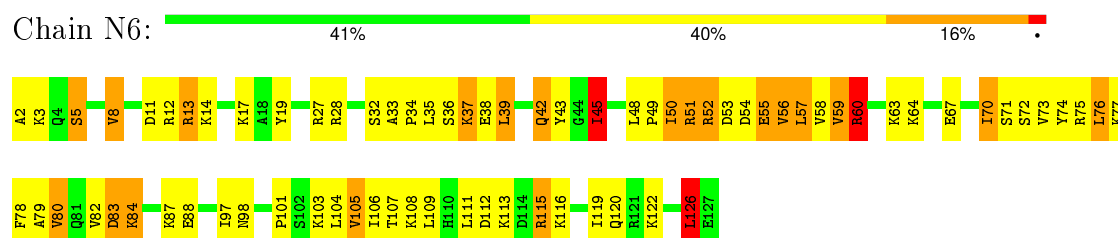




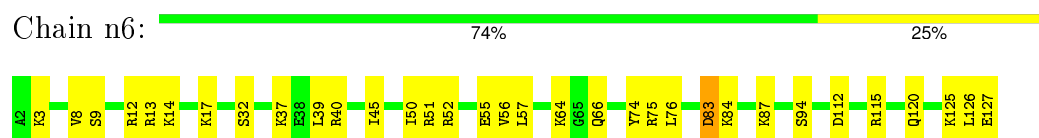
- Molecule 61: 60S ribosomal protein L25



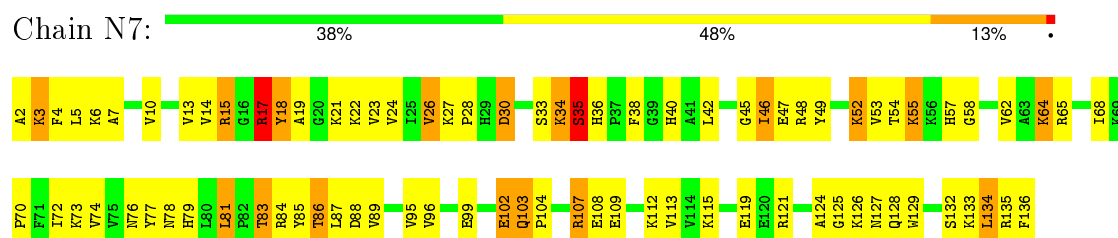
- Molecule 62: 60S ribosomal protein L26-A



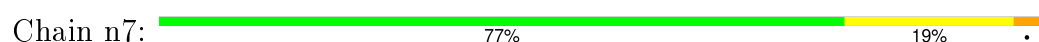
- Molecule 62: 60S ribosomal protein L26-A



- Molecule 63: 60S ribosomal protein L27-A



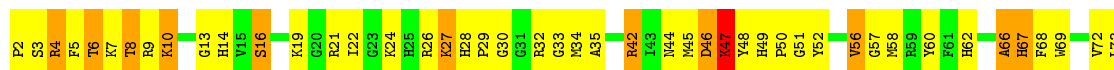
- Molecule 63: 60S ribosomal protein L27-A





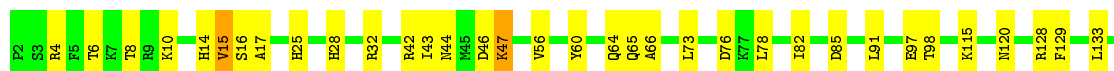
• Molecule 64: 60S ribosomal protein L28

Chain N8: 34% 53% 11%



• Molecule 64: 60S ribosomal protein L28

Chain n8: 76% 22%



• Molecule 65: 60S ribosomal protein L29

Chain N9: 50% 38% 7% 5%



• Molecule 65: 60S ribosomal protein L29

Chain n9: 74% 22%




• Molecule 66: 60S ribosomal protein L30

Chain O0: 37% 48% 8% 7%



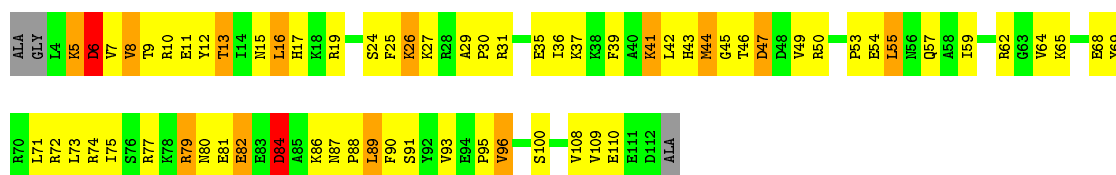
• Molecule 66: 60S ribosomal protein L30

Chain o0:  78% 17% • •




- Molecule 67: 60S ribosomal protein L31-A

Chain O1:  38% 46% 12% • •



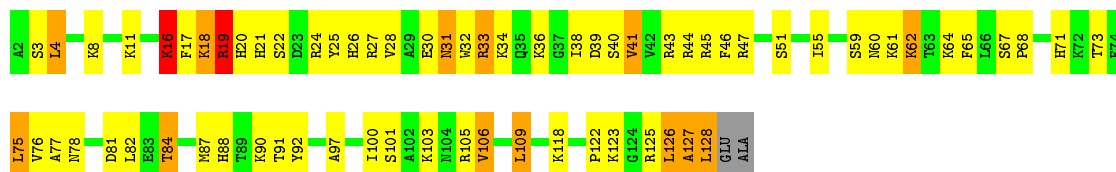
- Molecule 67: 60S ribosomal protein L31-A

Chain o1:  76% 14% 7% •




- Molecule 68: 60S ribosomal protein L32

Chain O2:  45% 42% 10% • •



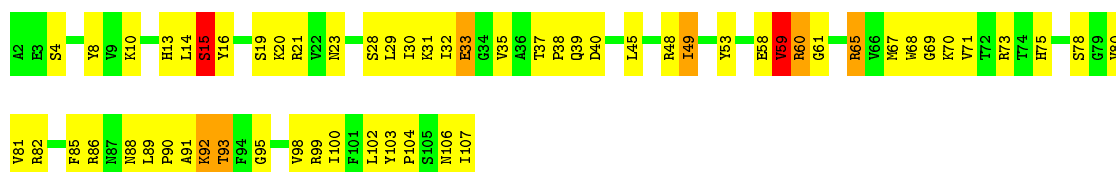
- Molecule 68: 60S ribosomal protein L32

Chain o2:  78% 18% • •




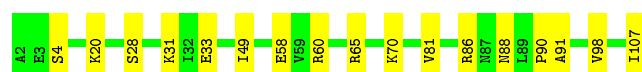
- Molecule 69: 60S ribosomal protein L33-A

Chain O3:  44% 48% 6% •



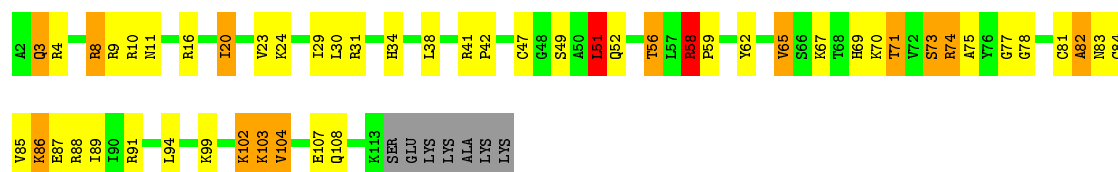
- Molecule 69: 60S ribosomal protein L33-A

Chain o3:  84% 16%




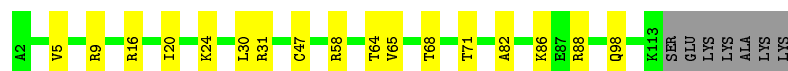
- Molecule 70: 60S ribosomal protein L34-A

Chain O4:  50% 31% 11% 6%



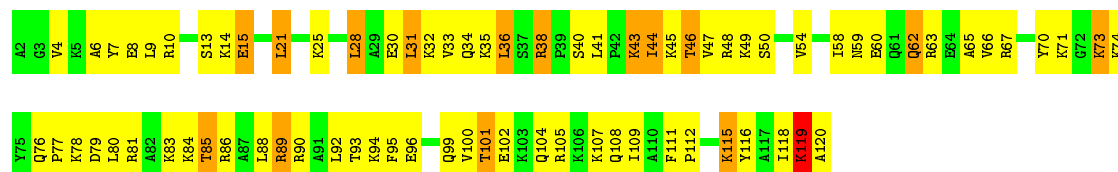
- Molecule 70: 60S ribosomal protein L34-A

Chain o4:  80% 14% 6%




- Molecule 71: 60S ribosomal protein L35-A

Chain O5:  35% 51% 13% 1%



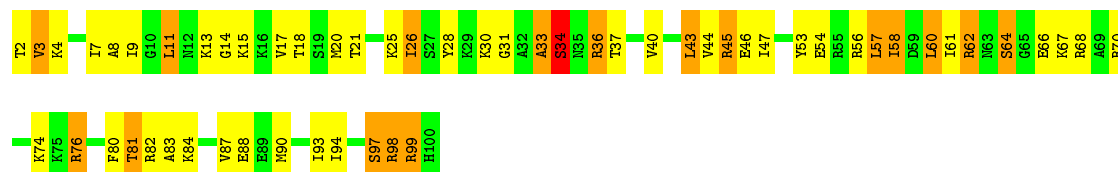
- Molecule 71: 60S ribosomal protein L35-A

Chain o5:  78% 20% 2%



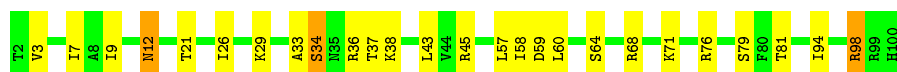
- Molecule 72: 60S ribosomal protein L36-A

Chain O6:  42% 39% 17% 1%



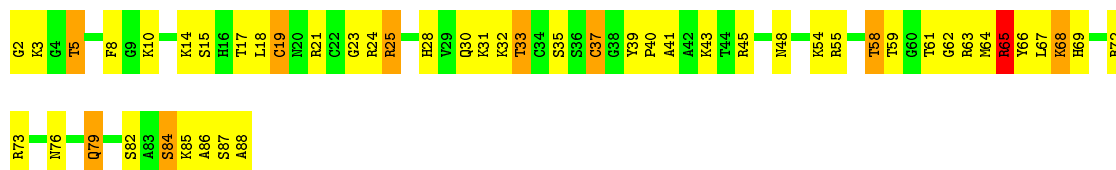
- Molecule 72: 60S ribosomal protein L36-A

Chain o6:  74% 23% .



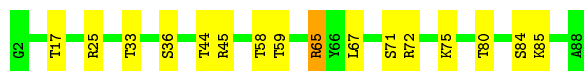
- Molecule 73: 60S ribosomal protein L37-A

Chain O7:  43% 46% 10% .



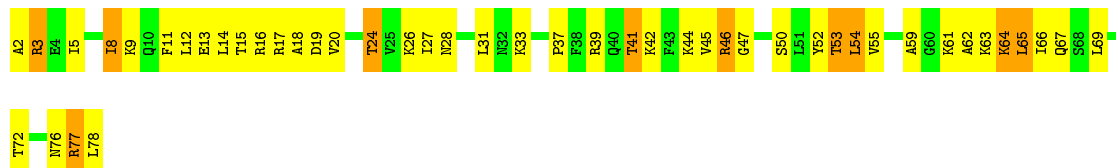
- Molecule 73: 60S ribosomal protein L37-A

Chain o7:  82% 17% .




- Molecule 74: 60S ribosomal protein L38

Chain O8:  39% 48% 13% .




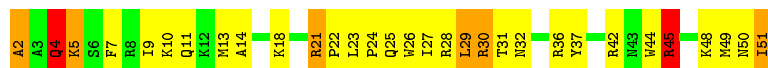
- Molecule 74: 60S ribosomal protein L38

Chain o8:  79% 19% .




- Molecule 75: 60S ribosomal protein L39

Chain O9:  38% 46% 12% .



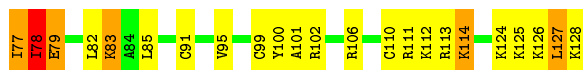
- Molecule 75: 60S ribosomal protein L39

Chain o9:  76% 24% .



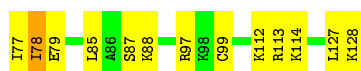
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0: 56% 33% 10% .



- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0: 75% 23% .



- Molecule 77: 60S ribosomal protein L41-A

Chain Q1: 16% 64% 20% .



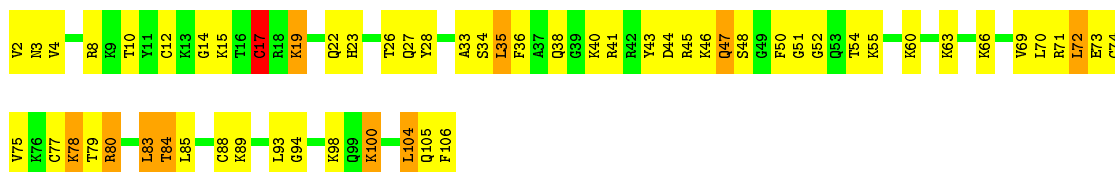
- Molecule 77: 60S ribosomal protein L41-A

Chain q1: 64% 32% .



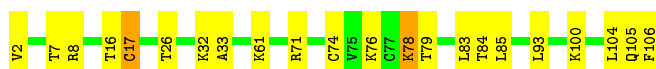
- Molecule 78: 60S ribosomal protein L42-A

Chain Q2: 44% 46% 10% .



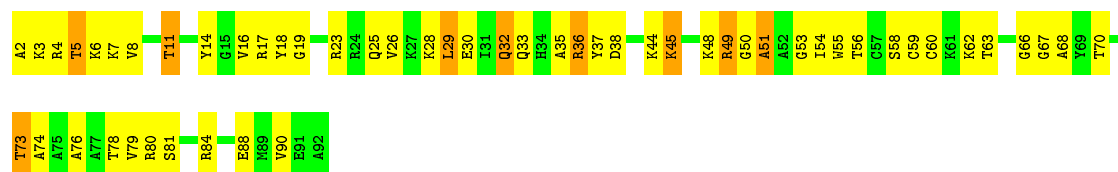
- Molecule 78: 60S ribosomal protein L42-A

Chain q2: 79% 19% .



- Molecule 79: 60S ribosomal protein L43-A

Chain Q3:  41% 49% 10%



- Molecule 79: 60S ribosomal protein L43-A

Chain q3: 86% 14%



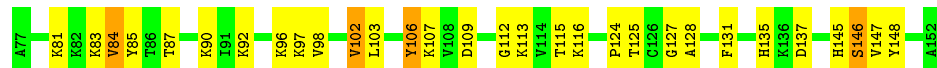
- Molecule 80: 40S ribosomal protein S30-A

Chain e0:  69% 29% 2%



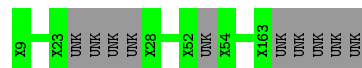
- Molecule 81: Ubiquitin-40S ribosomal protein S31

Chain e1:  61% 34% 5%



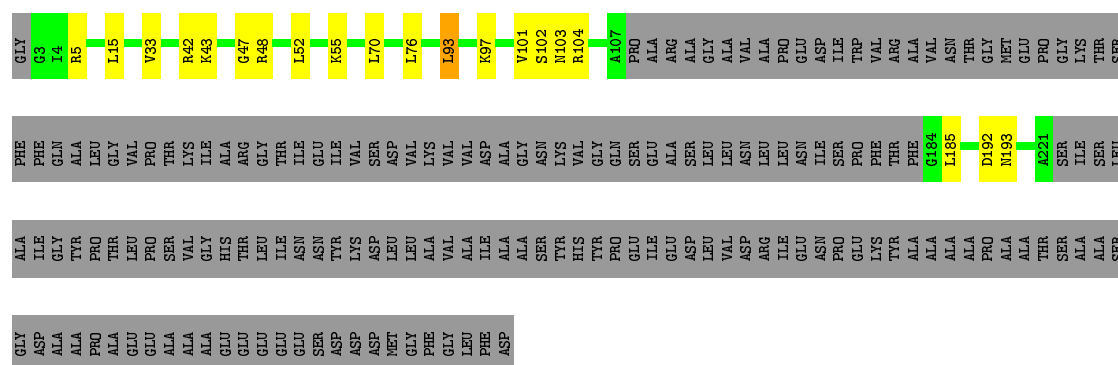
- Molecule 82: UNKNOWN PROTEIN_m2

Chain m2:  94% 6%



- Molecule 83: 60S acidic ribosomal protein P0

Chain p0: 40% 6% 54%



- Molecule 84: UNKNOWN PROTEIN p1

Chain p1:  100%

There are no outlier residues recorded for this chain.

- Molecule 85: UNKNOWN PROTEIN p2

Chain p2:  100%

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	436.68Å 287.99Å 304.76Å 90.00° 99.01° 90.00°	Depositor
Resolution (Å)	99.80 – 3.00	Depositor
% Data completeness (in resolution range)	100.0 (99.80-3.00)	Depositor
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.35 (at 3.01Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.199 , 0.245	Depositor
Wilson B-factor (Å ²)	74.8	Xtriage
Anisotropy	0.176	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Outliers	0 of 1479408 reflections	Xtriage
Total number of atoms	411204	wwPDB-VP
Average B, all atoms (Å ²)	70.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.42% 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: ANM, ZN, OHX, MG

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	0.79	4/41698 (0.0%)	1.35	389/64972 (0.6%)
1	6	0.93	38/42765 (0.1%)	1.43	556/66634 (0.8%)
2	S0	0.48	0/1617	0.67	0/2215
2	s0	0.52	0/1623	0.70	0/2222
3	S1	0.39	0/1735	0.66	3/2335 (0.1%)
3	s1	0.55	0/1748	0.73	3/2352 (0.1%)
4	S2	0.53	0/1665	0.70	1/2263 (0.0%)
4	s2	0.63	0/1665	0.77	0/2263
5	S3	0.52	0/1759	0.67	1/2368 (0.0%)
5	s3	0.48	0/1759	0.61	0/2368
6	S4	0.51	0/2109	0.77	4/2839 (0.1%)
6	s4	0.58	0/2109	0.81	1/2839 (0.0%)
7	S5	0.44	0/1629	0.62	0/2202
7	s5	0.49	0/1629	0.69	1/2202 (0.0%)
8	S6	0.51	0/1823	0.69	0/2439
8	s6	0.61	1/1779 (0.1%)	0.72	0/2379
9	S7	0.45	0/1506	0.66	0/2028
9	s7	0.50	0/1516	0.70	1/2043 (0.0%)
10	S8	0.58	0/1514	0.78	1/2021 (0.0%)
10	s8	0.67	0/1514	0.81	2/2021 (0.1%)
11	S9	0.53	0/1519	0.68	0/2035
11	s9	0.58	0/1519	0.78	1/2035 (0.0%)
12	C0	0.45	0/790	0.74	2/1069 (0.2%)
12	c0	0.40	0/777	0.65	3/1049 (0.3%)
13	C1	0.63	0/1240	0.78	1/1675 (0.1%)
13	c1	0.68	1/1194 (0.1%)	0.78	1/1610 (0.1%)
14	C2	0.39	0/900	0.62	0/1224
14	c2	0.32	0/900	0.59	1/1224 (0.1%)
15	C3	0.52	0/1215	0.69	2/1638 (0.1%)
15	c3	0.62	0/1215	0.77	0/1638
16	C4	0.41	0/901	0.66	0/1217
16	c4	0.56	0/960	0.80	1/1290 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.50	0/998	0.69	0/1341
17	c5	0.53	0/1060	0.72	0/1426
18	C6	0.48	0/1125	0.70	2/1510 (0.1%)
18	c6	0.52	0/1131	0.73	0/1518
19	C7	0.47	0/935	0.67	0/1254
19	c7	0.56	0/914	0.73	0/1224
20	C8	0.48	0/1211	0.67	1/1628 (0.1%)
20	c8	0.52	0/1211	0.71	1/1628 (0.1%)
21	C9	0.46	0/1130	0.66	1/1517 (0.1%)
21	c9	0.52	0/1130	0.69	0/1517
22	D0	0.51	0/865	0.64	0/1169
22	d0	0.54	0/892	0.71	0/1205
23	D1	0.50	0/693	0.67	0/935
23	d1	0.57	0/693	0.76	0/935
24	D2	0.53	0/1038	0.73	1/1395 (0.1%)
24	d2	0.66	0/1038	0.81	1/1395 (0.1%)
25	D3	0.65	0/1139	0.84	2/1518 (0.1%)
25	d3	0.74	0/1139	0.90	3/1518 (0.2%)
26	D4	0.48	0/1087	0.64	1/1449 (0.1%)
26	d4	0.57	0/1087	0.72	0/1449
27	D5	0.39	0/571	0.69	0/768
27	d5	0.45	0/566	0.68	0/761
28	D6	0.48	0/782	0.70	0/1047
28	d6	0.59	0/782	0.70	0/1047
29	D7	0.48	0/620	0.67	0/838
29	d7	0.49	0/620	0.73	0/838
30	D8	0.38	0/499	0.58	0/670
30	d8	0.47	0/499	0.71	0/670
31	D9	0.58	0/452	0.77	1/600 (0.2%)
31	d9	0.61	0/452	0.68	0/600
32	E0	0.49	0/483	0.68	0/643
33	E1	0.49	0/577	0.78	0/770
34	SR	0.42	0/2494	0.65	1/3393 (0.0%)
34	sR	0.41	0/2495	0.56	0/3395
35	SM	0.54	0/1113	0.74	2/1502 (0.1%)
35	sM	0.56	0/683	0.70	1/923 (0.1%)
36	1	1.22	218/75394 (0.3%)	1.73	2216/117545 (1.9%)
36	5	1.28	278/75414 (0.4%)	1.76	2268/117575 (1.9%)
37	3	1.01	2/2883 (0.1%)	1.53	48/4491 (1.1%)
37	7	1.25	7/2883 (0.2%)	1.72	82/4491 (1.8%)
38	4	1.15	2/3746 (0.1%)	1.66	87/5832 (1.5%)
38	8	1.11	6/3746 (0.2%)	1.57	46/5832 (0.8%)
39	L2	0.73	0/1948	0.88	1/2617 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	l2	0.81	1/1946 (0.1%)	0.89	0/2614
40	L3	0.77	0/3146	0.86	2/4228 (0.0%)
40	l3	0.90	1/3146 (0.0%)	0.94	5/4228 (0.1%)
41	L4	0.88	0/2800	0.98	8/3790 (0.2%)
41	l4	0.80	1/2800 (0.0%)	0.95	4/3790 (0.1%)
42	L5	0.59	0/2425	0.70	0/3271
42	l5	0.77	0/2408	0.86	3/3248 (0.1%)
43	L6	0.83	0/1260	0.85	0/1694
43	l6	0.83	0/1269	0.90	3/1705 (0.2%)
44	L7	0.81	1/1821 (0.1%)	0.90	2/2451 (0.1%)
44	l7	0.90	1/1828 (0.1%)	0.95	4/2461 (0.2%)
45	L8	0.61	0/1836	0.72	0/2481
45	l8	0.58	0/1795	0.70	2/2429 (0.1%)
46	L9	0.71	0/1539	0.78	0/2073
46	l9	0.85	0/1539	0.86	1/2073 (0.0%)
47	M0	0.80	0/1741	0.90	4/2335 (0.2%)
47	m0	0.80	1/1758 (0.1%)	0.84	1/2358 (0.0%)
48	M1	0.56	0/1374	0.74	1/1842 (0.1%)
48	m1	0.69	0/1374	0.83	1/1842 (0.1%)
49	M3	0.80	0/1568	0.85	0/2106
49	m3	0.73	0/1573	0.85	1/2113 (0.0%)
50	M4	0.77	0/1068	0.82	1/1438 (0.1%)
50	m4	0.86	0/1074	0.85	1/1446 (0.1%)
51	M5	0.81	1/1757 (0.1%)	0.91	3/2354 (0.1%)
51	m5	0.73	0/1757	0.83	1/2354 (0.0%)
52	M6	0.93	1/1585 (0.1%)	0.94	3/2128 (0.1%)
52	m6	1.11	5/1585 (0.3%)	1.08	10/2128 (0.5%)
53	M7	0.84	0/1443	0.87	0/1944
53	m7	0.95	0/1250	0.90	0/1683
54	M8	0.83	0/1465	0.93	3/1965 (0.2%)
54	m8	0.81	0/1465	0.97	4/1965 (0.2%)
55	M9	0.61	0/1538	0.71	0/2050
55	m9	0.68	0/1538	0.75	1/2050 (0.0%)
56	N0	0.81	0/1481	0.89	3/1990 (0.2%)
56	n0	0.92	0/1481	0.93	3/1990 (0.2%)
57	N1	0.84	1/1300 (0.1%)	0.84	0/1743
57	n1	0.90	2/1300 (0.2%)	0.86	0/1743
58	N2	0.45	0/812	0.64	0/1099
58	n2	0.54	0/794	0.69	0/1076
59	N3	0.75	0/1018	0.87	1/1369 (0.1%)
59	n3	0.89	0/1018	0.93	2/1369 (0.1%)
60	N4	0.62	0/712	0.72	0/958
60	n4	0.75	0/1052	0.82	0/1398

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
61	N5	0.65	0/979	0.78	2/1321 (0.2%)
61	n5	0.69	0/974	0.82	0/1314
62	N6	0.75	0/1004	0.95	2/1341 (0.1%)
62	n6	0.71	0/1004	0.88	0/1341
63	N7	0.56	0/1118	0.69	0/1497
63	n7	0.51	0/1118	0.72	3/1497 (0.2%)
64	N8	0.83	0/1204	0.96	3/1612 (0.2%)
64	n8	0.84	1/1204 (0.1%)	0.95	2/1612 (0.1%)
65	N9	0.81	0/473	0.84	0/629
65	n9	0.88	0/473	0.98	1/629 (0.2%)
66	O0	0.52	0/751	0.69	0/1008
66	o0	0.56	0/775	0.70	0/1040
67	O1	0.67	0/890	0.77	1/1196 (0.1%)
67	o1	0.85	0/897	0.91	0/1205
68	O2	0.91	0/1041	0.95	2/1394 (0.1%)
68	o2	0.93	0/1041	0.98	1/1394 (0.1%)
69	O3	0.98	1/868 (0.1%)	0.88	1/1168 (0.1%)
69	o3	0.94	0/868	0.89	1/1168 (0.1%)
70	O4	0.69	0/890	0.84	2/1189 (0.2%)
70	o4	0.65	0/890	0.82	0/1189
71	O5	0.78	0/978	0.81	1/1301 (0.1%)
71	o5	0.62	0/974	0.73	0/1297
72	O6	0.69	0/778	0.82	0/1034
72	o6	0.63	0/777	0.71	0/1033
73	O7	0.89	1/696 (0.1%)	0.98	1/923 (0.1%)
73	o7	0.77	0/696	0.90	2/923 (0.2%)
74	O8	0.58	0/618	0.67	0/826
74	o8	0.46	0/614	0.65	0/822
75	O9	0.88	1/443 (0.2%)	0.91	1/588 (0.2%)
75	o9	0.74	0/443	0.88	0/588
76	Q0	0.76	0/423	0.88	0/562
76	q0	1.00	1/423 (0.2%)	0.96	0/562
77	Q1	0.67	0/234	0.84	0/300
77	q1	0.90	0/234	1.10	3/300 (1.0%)
78	Q2	0.98	1/860 (0.1%)	0.90	0/1136
78	q2	0.86	1/860 (0.1%)	0.86	0/1136
79	Q3	0.77	0/701	0.85	1/934 (0.1%)
79	q3	0.78	0/701	0.87	1/934 (0.1%)
80	e0	0.59	0/499	0.81	0/665
81	e1	0.42	0/619	0.66	0/822
83	p0	0.49	0/1092	0.63	0/1474
All	All	0.96	580/430074 (0.1%)	1.37	5850/631364 (0.9%)

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
7	s5	0	2
9	S7	0	1
9	s7	0	1
16	C4	0	1
16	c4	0	1
17	c5	0	1
18	c6	0	1
19	C7	0	2
22	d0	0	1
26	d4	0	1
27	D5	0	1
28	D6	0	2
33	E1	0	1
39	L2	0	1
39	l2	0	1
40	L3	0	1
41	L4	0	1
43	l6	0	1
44	l7	0	3
45	L8	0	2
48	m1	0	1
49	M3	0	1
50	M4	0	1
52	M6	0	2
52	m6	0	1
53	m7	0	1
59	n3	0	1
60	n4	0	1
64	N8	0	1
64	n8	0	1
65	N9	0	1
65	n9	0	1
67	O1	0	1
75	o9	0	1
79	q3	0	1
81	e1	0	1
All	All	0	43

All (580) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2872	A	N9-C4	-14.78	1.28	1.37
78	Q2	17	CYS	CB-SG	14.00	2.06	1.82
36	5	1152	G	N9-C4	-11.81	1.28	1.38
78	q2	17	CYS	CB-SG	10.92	2.00	1.82
36	1	2404	A	N9-C4	-10.49	1.31	1.37
36	5	1152	G	N9-C8	10.39	1.45	1.37
36	5	1152	G	C2-N3	-9.69	1.25	1.32
36	5	2358	A	N9-C4	-8.75	1.32	1.37
36	1	3181	C	N3-C4	-8.72	1.27	1.33
36	5	2636	A	C6-N1	-8.66	1.29	1.35
36	5	970	A	N3-C4	-8.33	1.29	1.34
36	5	1103	A	N9-C4	8.25	1.42	1.37
36	1	2333	C	N3-C4	-8.25	1.28	1.33
36	5	2954	U	N1-C2	7.98	1.45	1.38
36	1	970	A	N9-C4	-7.91	1.33	1.37
36	5	2385	G	N9-C4	-7.88	1.31	1.38
36	5	1152	G	N3-C4	-7.86	1.29	1.35
36	1	970	A	N3-C4	-7.82	1.30	1.34
36	5	2954	U	C2-N3	7.82	1.43	1.37
36	5	2386	A	N7-C5	-7.78	1.34	1.39
36	1	1116	G	N7-C5	-7.77	1.34	1.39
36	5	2362	C	N3-C4	-7.75	1.28	1.33
36	5	1113	G	N3-C4	-7.72	1.30	1.35
36	5	3008	A	N9-C4	-7.65	1.33	1.37
36	1	2356	A	N9-C4	-7.63	1.33	1.37
36	5	36	C	C4-C5	-7.62	1.36	1.43
36	1	2762	A	N3-C4	-7.57	1.30	1.34
36	1	1394	A	N9-C4	-7.51	1.33	1.37
36	1	2373	A	N7-C5	-7.48	1.34	1.39
36	5	1159	A	N9-C4	-7.43	1.33	1.37
38	8	80	A	N9-C4	7.41	1.42	1.37
36	5	2934	A	C6-N1	-7.41	1.30	1.35
36	5	2726	C	N3-C4	-7.38	1.28	1.33
36	5	3245	A	C5-C6	-7.38	1.34	1.41
36	5	631	U	C2-N3	-7.37	1.32	1.37
1	6	538	A	N9-C4	7.29	1.42	1.37
36	5	2639	G	N7-C5	-7.28	1.34	1.39
36	5	2903	A	N9-C4	-7.27	1.33	1.37
36	5	650	C	N1-C6	-7.26	1.32	1.37
36	1	895	A	C5-C6	-7.24	1.34	1.41
36	5	2878	G	C6-O6	-7.24	1.17	1.24
36	5	1199	C	N1-C6	-7.20	1.32	1.37
36	5	40	A	N7-C5	-7.20	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2147	A	C5-C6	-7.15	1.34	1.41
1	6	1744	A	N9-C4	-7.15	1.33	1.37
36	1	1103	A	N9-C4	7.11	1.42	1.37
36	5	970	A	N9-C4	-7.09	1.33	1.37
36	1	910	G	N7-C5	-7.09	1.34	1.39
36	1	2811	A	N3-C4	-7.08	1.30	1.34
36	1	1159	A	N3-C4	-7.07	1.30	1.34
36	1	2404	A	N3-C4	-7.07	1.30	1.34
36	5	1304	A	N3-C4	7.06	1.39	1.34
36	5	924	G	C2-N3	-7.06	1.27	1.32
36	5	2191	U	C2-N3	-7.05	1.32	1.37
36	1	2606	G	C6-N1	-7.05	1.34	1.39
36	1	2714	G	N9-C8	7.05	1.42	1.37
36	5	1332	A	N7-C5	-7.04	1.35	1.39
36	5	420	G	C5-C4	-7.03	1.33	1.38
36	5	2948	C	N3-C4	-7.00	1.29	1.33
36	5	810	A	N3-C4	6.99	1.39	1.34
36	1	61	A	N3-C4	-6.96	1.30	1.34
36	5	2808	A	N7-C5	-6.96	1.35	1.39
36	1	907	G	N3-C4	6.94	1.40	1.35
36	1	365	A	N3-C4	-6.93	1.30	1.34
36	5	1847	A	N9-C4	-6.91	1.33	1.37
36	5	2971	A	N7-C5	6.91	1.43	1.39
36	5	636	C	N1-C6	-6.90	1.33	1.37
36	5	420	G	N9-C8	-6.90	1.33	1.37
36	5	2959	C	N1-C6	-6.83	1.33	1.37
36	5	1117	G	C5-C4	-6.82	1.33	1.38
36	1	2401	A	C6-N1	6.79	1.40	1.35
36	1	2714	G	N9-C4	-6.79	1.32	1.38
36	1	1103	A	N3-C4	6.79	1.39	1.34
36	1	2640	A	C6-N1	-6.78	1.30	1.35
1	6	1773	C	C4-N4	6.75	1.40	1.33
36	1	2619	G	C5-C4	-6.73	1.33	1.38
39	12	213	GLY	C-O	6.73	1.34	1.23
36	5	719	U	N1-C2	6.70	1.44	1.38
36	5	2971	A	N9-C4	6.69	1.41	1.37
1	6	1537	C	N1-C6	6.69	1.41	1.37
36	5	642	U	C2-N3	-6.64	1.33	1.37
36	5	2335	G	N3-C4	-6.64	1.30	1.35
36	5	2980	U	C2-O2	-6.63	1.16	1.22
36	1	338	A	N7-C5	-6.63	1.35	1.39
36	5	1152	G	C8-N7	6.62	1.34	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1112	A	N3-C4	-6.62	1.30	1.34
38	8	43	A	N7-C5	-6.61	1.35	1.39
52	m6	66	LYS	CE-NZ	6.59	1.65	1.49
36	5	953	G	C5-C4	-6.53	1.33	1.38
36	5	984	G	N7-C5	-6.52	1.35	1.39
36	5	367	A	N9-C4	-6.51	1.33	1.37
37	3	82	G	C6-N1	-6.49	1.35	1.39
36	1	907	G	N7-C5	-6.48	1.35	1.39
36	5	2804	A	N9-C4	-6.48	1.33	1.37
36	5	2872	A	C5-C6	-6.48	1.35	1.41
36	5	2954	U	C2-O2	6.48	1.28	1.22
1	6	623	A	N9-C4	-6.47	1.33	1.37
36	5	3008	A	N3-C4	-6.47	1.30	1.34
36	1	1133	A	N9-C4	-6.47	1.33	1.37
36	1	2138	A	N7-C5	-6.46	1.35	1.39
1	6	967	A	N9-C4	6.43	1.41	1.37
36	5	1302	A	N3-C4	-6.43	1.30	1.34
36	1	1452	A	N9-C4	-6.43	1.33	1.37
36	5	1103	A	N3-C4	6.42	1.38	1.34
36	1	2355	G	N7-C5	-6.41	1.35	1.39
57	n1	104	GLU	CB-CG	6.41	1.64	1.52
36	1	2657	A	N7-C5	-6.41	1.35	1.39
36	5	1849	C	N1-C6	-6.41	1.33	1.37
1	6	163	G	N9-C4	-6.41	1.32	1.38
1	6	754	A	N9-C4	6.40	1.41	1.37
36	5	953	G	N7-C5	-6.39	1.35	1.39
36	5	2138	A	N7-C5	-6.38	1.35	1.39
52	m6	78	ARG	CZ-NH1	6.36	1.41	1.33
36	5	876	A	N3-C4	-6.35	1.31	1.34
36	5	1149	G	N9-C8	-6.33	1.33	1.37
36	1	1858	A	N7-C5	-6.31	1.35	1.39
36	1	367	A	N3-C4	-6.31	1.31	1.34
36	5	2937	G	N9-C8	-6.31	1.33	1.37
36	5	878	G	N7-C5	-6.29	1.35	1.39
36	5	367	A	N3-C4	-6.28	1.31	1.34
1	6	1537	C	C2-N3	6.24	1.40	1.35
36	5	36	C	N1-C6	-6.24	1.33	1.37
36	5	2803	A	N3-C4	-6.24	1.31	1.34
36	1	1002	A	N9-C4	-6.23	1.34	1.37
1	6	1653	C	N1-C6	-6.23	1.33	1.37
36	5	922	U	N3-C4	-6.22	1.32	1.38
52	m6	80	PHE	CB-CG	-6.22	1.40	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1148	G	N9-C8	-6.21	1.33	1.37
36	5	647	A	N3-C4	-6.21	1.31	1.34
36	5	1902	G	N7-C5	-6.21	1.35	1.39
36	1	106	A	N9-C4	-6.21	1.34	1.37
36	5	859	G	N1-C2	-6.19	1.32	1.37
36	5	2855	U	C4-O4	-6.19	1.18	1.23
36	5	960	U	N1-C2	6.17	1.44	1.38
36	1	895	A	N9-C8	6.16	1.42	1.37
36	5	1148	G	N7-C5	-6.16	1.35	1.39
1	6	1659	A	N9-C4	-6.15	1.34	1.37
36	5	1433	A	N7-C5	-6.15	1.35	1.39
36	1	92	G	C5-C4	-6.14	1.34	1.38
36	5	971	G	C5-C4	-6.13	1.34	1.38
36	1	942	U	C5-C6	-6.12	1.28	1.34
36	5	3362	A	N9-C4	-6.11	1.34	1.37
36	5	2800	G	N7-C5	-6.11	1.35	1.39
36	1	426	G	N1-C2	-6.11	1.32	1.37
36	5	800	G	N9-C8	-6.10	1.33	1.37
36	1	637	C	N1-C6	-6.10	1.33	1.37
36	5	938	C	C4-N4	-6.10	1.28	1.33
36	5	1456	A	N9-C8	-6.10	1.32	1.37
36	5	1304	A	N7-C5	-6.09	1.35	1.39
36	5	1874	A	N9-C4	-6.08	1.34	1.37
36	5	1152	G	C5-C6	-6.07	1.36	1.42
1	6	1800	A	N9-C4	6.07	1.41	1.37
36	1	2419	A	N9-C4	-6.07	1.34	1.37
36	5	1456	A	N7-C5	-6.06	1.35	1.39
36	5	1841	A	N7-C5	-6.06	1.35	1.39
36	5	420	G	N1-C2	-6.05	1.32	1.37
36	1	33	G	N7-C5	-6.05	1.35	1.39
36	5	428	A	N3-C4	-6.05	1.31	1.34
36	5	3218	A	N9-C4	-6.04	1.34	1.37
36	1	1392	G	C5-C4	-6.04	1.34	1.38
36	1	906	A	N7-C5	-6.03	1.35	1.39
37	7	73	C	N1-C6	6.02	1.40	1.37
36	1	1153	A	N7-C5	-6.02	1.35	1.39
36	1	933	A	C6-N1	-6.01	1.31	1.35
36	5	2946	A	C6-N1	-6.00	1.31	1.35
38	8	138	A	N3-C4	-6.00	1.31	1.34
36	5	2830	G	N3-C4	-6.00	1.31	1.35
36	5	3005	A	N7-C5	-6.00	1.35	1.39
1	6	542	A	N7-C5	-5.99	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2743	A	N9-C8	-5.99	1.32	1.37
36	5	1908	A	N3-C4	-5.98	1.31	1.34
36	1	2873	U	C2-N3	-5.97	1.33	1.37
36	1	2398	A	N7-C5	-5.97	1.35	1.39
51	M5	152	CYS	CB-SG	-5.95	1.72	1.81
36	1	1401	A	N7-C5	-5.95	1.35	1.39
36	5	3374	U	C4-O4	-5.95	1.18	1.23
36	5	1177	G	N3-C4	-5.94	1.31	1.35
36	5	2945	G	C5-C4	-5.94	1.34	1.38
36	1	1132	C	N3-C4	-5.94	1.29	1.33
36	5	2280	A	N9-C4	-5.94	1.34	1.37
52	m6	40	GLU	CG-CD	5.94	1.60	1.51
36	1	1138	U	C2-N3	-5.92	1.33	1.37
36	1	1115	G	N7-C5	-5.92	1.35	1.39
36	1	2818	U	C2-O2	-5.92	1.17	1.22
36	5	1126	G	N3-C4	-5.92	1.31	1.35
36	1	799	G	N3-C4	-5.91	1.31	1.35
36	5	2728	G	C2-N3	-5.91	1.28	1.32
1	6	360	A	N9-C4	-5.91	1.34	1.37
36	1	2409	G	C5-C4	-5.90	1.34	1.38
36	1	925	A	N3-C4	-5.90	1.31	1.34
36	5	661	G	N7-C5	-5.89	1.35	1.39
36	5	1901	A	N7-C5	-5.88	1.35	1.39
36	5	2903	A	N3-C4	-5.88	1.31	1.34
36	1	1129	A	C5-C6	-5.87	1.35	1.41
36	1	1835	A	N9-C4	-5.86	1.34	1.37
36	1	2165	G	N7-C5	-5.86	1.35	1.39
36	1	1468	A	N9-C4	-5.86	1.34	1.37
36	5	2872	A	N3-C4	-5.86	1.31	1.34
36	5	523	A	N9-C4	-5.86	1.34	1.37
36	5	2739	A	N3-C4	-5.86	1.31	1.34
36	5	2635	A	C6-N1	-5.85	1.31	1.35
36	5	2908	G	N9-C8	-5.85	1.33	1.37
36	1	969	C	C4-N4	-5.84	1.28	1.33
36	1	2372	A	N9-C4	5.84	1.41	1.37
36	5	1158	A	C5-C6	-5.83	1.35	1.41
36	5	1844	C	N3-C4	-5.83	1.29	1.33
36	1	3216	G	C6-N1	-5.80	1.35	1.39
37	7	94	C	N1-C6	-5.80	1.33	1.37
36	5	2811	A	N9-C4	-5.79	1.34	1.37
36	1	913	A	N9-C4	5.79	1.41	1.37
1	6	986	G	N7-C5	-5.79	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2917	G	N9-C8	-5.79	1.33	1.37
38	8	25	G	N1-C2	-5.79	1.33	1.37
36	1	638	C	N1-C6	-5.78	1.33	1.37
36	1	649	A	C8-N7	-5.78	1.27	1.31
36	1	218	G	N9-C8	-5.77	1.33	1.37
36	1	2917	G	N7-C5	-5.77	1.35	1.39
1	6	1537	C	C5-C6	5.77	1.39	1.34
36	1	1337	A	N9-C4	5.77	1.41	1.37
36	1	1116	G	C5-C4	-5.77	1.34	1.38
36	1	3209	A	C5-C4	5.76	1.42	1.38
36	1	2143	A	N3-C4	-5.75	1.31	1.34
36	5	2860	U	C2-N3	5.75	1.41	1.37
36	1	1103	A	C6-N1	5.75	1.39	1.35
36	1	34	A	N9-C4	-5.75	1.34	1.37
36	1	2800	G	C5-C4	-5.75	1.34	1.38
36	5	2139	A	N3-C4	-5.75	1.31	1.34
36	5	2348	A	N3-C4	-5.75	1.31	1.34
36	5	424	G	N7-C5	-5.74	1.35	1.39
36	1	1507	G	N9-C8	-5.74	1.33	1.37
1	6	437	A	N9-C4	-5.74	1.34	1.37
36	1	644	G	N7-C5	-5.74	1.35	1.39
36	1	407	A	C5-C6	-5.73	1.35	1.41
36	5	1429	G	N9-C8	-5.73	1.33	1.37
75	O9	2	ALA	CA-CB	-5.72	1.40	1.52
36	1	649	A	N9-C4	-5.72	1.34	1.37
36	1	1377	G	N1-C2	-5.71	1.33	1.37
36	5	1195	A	N9-C4	-5.71	1.34	1.37
36	5	1152	G	N1-C2	5.70	1.42	1.37
36	5	3042	U	N3-C4	-5.70	1.33	1.38
36	1	699	A	N3-C4	-5.70	1.31	1.34
36	5	2631	U	C4-O4	-5.69	1.19	1.23
36	1	884	A	N9-C4	-5.69	1.34	1.37
36	5	2808	A	C5-C6	-5.68	1.35	1.41
36	1	2406	C	N1-C6	-5.68	1.33	1.37
36	5	874	U	C4'-C3'	-5.68	1.46	1.52
36	5	2704	A	N9-C4	-5.67	1.34	1.37
36	1	919	U	C4-O4	-5.67	1.19	1.23
36	5	2362	C	C2-N3	-5.67	1.31	1.35
38	4	14	C	N3-C4	-5.66	1.29	1.33
36	5	2942	C	N1-C6	-5.65	1.33	1.37
36	5	3040	A	N9-C4	-5.65	1.34	1.37
37	7	84	A	N7-C5	-5.64	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1416	C	N3-C4	-5.64	1.30	1.33
1	6	1746	A	N7-C5	-5.64	1.35	1.39
36	1	2401	A	N9-C8	5.63	1.42	1.37
36	5	1451	C	N1-C6	-5.63	1.33	1.37
36	1	909	G	N9-C8	-5.63	1.33	1.37
36	1	2121	G	N1-C2	-5.63	1.33	1.37
36	1	2623	G	C8-N7	-5.63	1.27	1.30
36	5	2934	A	N9-C8	-5.63	1.33	1.37
36	5	3275	U	N1-C2	5.62	1.43	1.38
36	1	1429	G	N9-C8	-5.62	1.33	1.37
36	1	1889	G	N9-C8	-5.62	1.33	1.37
38	8	7	U	N1-C6	-5.62	1.32	1.38
36	5	2814	G	C5-C4	-5.62	1.34	1.38
44	L7	234	GLU	CD-OE2	5.61	1.31	1.25
36	5	421	G	C5-C6	-5.61	1.36	1.42
36	1	1660	C	N1-C6	-5.60	1.33	1.37
1	6	437	A	N3-C4	-5.60	1.31	1.34
36	5	875	G	C6-N1	-5.60	1.35	1.39
36	5	1195	A	N3-C4	-5.60	1.31	1.34
36	1	2147	A	C5-C6	-5.60	1.36	1.41
36	5	1147	G	N9-C8	-5.59	1.33	1.37
36	5	3087	A	N7-C5	-5.59	1.35	1.39
1	6	1773	C	C2-N3	5.58	1.40	1.35
36	1	1392	G	N7-C5	-5.58	1.35	1.39
1	6	397	A	N9-C4	-5.58	1.34	1.37
36	1	958	C	C2-O2	-5.58	1.19	1.24
36	1	953	G	N9-C4	-5.58	1.33	1.38
36	5	3047	U	N3-C4	-5.58	1.33	1.38
36	5	3141	A	N7-C5	-5.57	1.35	1.39
1	6	779	U	N1-C2	5.57	1.43	1.38
36	5	2860	U	N3-C4	5.57	1.43	1.38
1	6	103	A	N7-C5	-5.56	1.35	1.39
36	5	2799	A	C6-N1	-5.56	1.31	1.35
36	1	780	A	N3-C4	-5.56	1.31	1.34
36	5	92	G	N1-C2	-5.56	1.33	1.37
36	5	2335	G	C5-C4	-5.56	1.34	1.38
36	1	2362	C	N1-C6	-5.55	1.33	1.37
52	m6	16	VAL	CB-CG2	-5.55	1.41	1.52
69	O3	15	SER	CB-OG	5.55	1.49	1.42
36	5	3084	C	N1-C6	-5.55	1.33	1.37
36	1	1116	G	C5-C6	-5.55	1.36	1.42
36	5	653	A	N7-C5	-5.55	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	887	G	C6-N1	-5.54	1.35	1.39
36	5	2968	G	C8-N7	-5.54	1.27	1.30
36	1	2910	A	N9-C4	-5.54	1.34	1.37
8	s6	21	GLU	CG-CD	5.54	1.60	1.51
36	5	947	G	N1-C2	-5.54	1.33	1.37
36	1	1112	A	N9-C4	-5.53	1.34	1.37
36	5	971	G	N9-C8	-5.53	1.33	1.37
73	O7	19	CYS	CB-SG	-5.53	1.72	1.81
36	1	2409	G	N3-C4	-5.52	1.31	1.35
36	5	1135	A	N9-C8	-5.52	1.33	1.37
36	5	1311	G	C5-C4	-5.52	1.34	1.38
36	5	2411	U	C2-N3	-5.52	1.33	1.37
36	1	2846	U	C2-N3	-5.52	1.33	1.37
36	5	1159	A	N3-C4	-5.51	1.31	1.34
36	1	980	A	N9-C4	5.51	1.41	1.37
36	1	2335	G	C5-C4	-5.51	1.34	1.38
36	1	2396	G	N7-C5	-5.51	1.35	1.39
36	1	936	A	N9-C4	-5.51	1.34	1.37
76	q0	99	CYS	CB-SG	-5.51	1.72	1.81
36	1	678	G	N9-C8	-5.50	1.33	1.37
36	5	2954	U	N3-C4	5.50	1.43	1.38
36	1	52	A	C2-N3	-5.50	1.28	1.33
36	5	1452	A	N9-C4	-5.50	1.34	1.37
36	1	407	A	N7-C5	-5.49	1.35	1.39
36	1	820	A	N3-C4	-5.49	1.31	1.34
36	5	1083	G	N7-C5	-5.49	1.35	1.39
36	1	798	G	N3-C4	-5.49	1.31	1.35
36	5	2910	A	C5-C6	-5.48	1.36	1.41
36	1	1137	C	N1-C6	-5.48	1.33	1.37
36	1	2382	G	N1-C2	-5.47	1.33	1.37
36	5	2703	A	N7-C5	-5.47	1.35	1.39
36	1	3209	A	C6-N1	5.47	1.39	1.35
36	5	2386	A	C5-C6	-5.47	1.36	1.41
36	5	980	A	N7-C5	5.47	1.42	1.39
36	5	3314	A	N3-C4	-5.47	1.31	1.34
36	1	2385	G	N9-C4	-5.46	1.33	1.38
36	5	865	U	N1-C2	-5.46	1.33	1.38
36	1	3112	G	N7-C5	-5.46	1.35	1.39
36	5	2639	G	C8-N7	-5.46	1.27	1.30
36	1	2412	G	N7-C5	-5.46	1.35	1.39
36	5	1477	A	N9-C4	-5.46	1.34	1.37
1	2	1291	G	N3-C4	-5.45	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	658	G	C8-N7	-5.45	1.27	1.30
36	1	36	C	N1-C6	-5.45	1.33	1.37
36	1	296	A	N9-C4	5.45	1.41	1.37
64	n8	15	VAL	CB-CG1	-5.45	1.41	1.52
36	5	1477	A	N3-C4	-5.45	1.31	1.34
36	5	2632	G	C6-N1	-5.45	1.35	1.39
36	1	1318	A	N3-C4	-5.45	1.31	1.34
37	7	85	G	N1-C2	-5.45	1.33	1.37
36	1	651	G	N1-C2	-5.44	1.33	1.37
36	1	2818	U	C2-N3	-5.44	1.33	1.37
36	5	2201	G	N1-C2	-5.44	1.33	1.37
36	1	921	A	C5-C6	-5.44	1.36	1.41
57	n1	104	GLU	CG-CD	5.44	1.60	1.51
36	1	1159	A	C6-N1	-5.43	1.31	1.35
36	5	1295	G	N3-C4	-5.43	1.31	1.35
36	1	2244	A	C6-N1	-5.42	1.31	1.35
36	1	1395	G	C5-C4	-5.42	1.34	1.38
36	1	1390	A	C8-N7	5.42	1.35	1.31
36	1	626	U	C2-N3	-5.42	1.33	1.37
36	1	1492	G	C8-N7	-5.41	1.27	1.30
36	1	361	A	N3-C4	-5.41	1.31	1.34
36	5	2202	C	N1-C6	-5.41	1.33	1.37
1	2	1291	G	N9-C4	-5.41	1.33	1.38
36	5	1902	G	C5-C4	-5.40	1.34	1.38
36	1	2326	A	N9-C4	-5.40	1.34	1.37
36	1	2656	A	N3-C4	-5.40	1.31	1.34
36	5	2389	C	N1-C6	-5.39	1.33	1.37
36	5	3145	C	N1-C6	-5.39	1.33	1.37
36	1	718	G	N9-C8	5.39	1.41	1.37
36	5	519	A	N9-C4	-5.39	1.34	1.37
36	5	2908	G	N7-C5	-5.38	1.36	1.39
36	5	984	G	N9-C8	-5.38	1.34	1.37
36	1	2276	G	N7-C5	-5.38	1.36	1.39
36	5	2214	A	N9-C4	-5.38	1.34	1.37
36	1	677	A	C6-N6	-5.38	1.29	1.33
36	5	2796	G	C6-O6	-5.38	1.19	1.24
36	1	1796	G	C6-N1	-5.37	1.35	1.39
36	1	1905	G	C5-C4	-5.37	1.34	1.38
36	5	877	C	C4-N4	-5.37	1.29	1.33
36	1	2409	G	C6-N1	-5.37	1.35	1.39
36	5	1103	A	C5-C4	5.37	1.42	1.38
36	5	2953	U	C4-O4	5.36	1.27	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	307	A	N3-C4	-5.36	1.31	1.34
36	5	872	U	C4-O4	-5.36	1.19	1.23
36	5	1127	G	C5-C6	-5.36	1.36	1.42
36	5	3197	G	N9-C8	5.35	1.41	1.37
36	5	2296	A	C5-C6	-5.35	1.36	1.41
36	5	2823	G	N7-C5	-5.35	1.36	1.39
36	1	653	A	N7-C5	-5.35	1.36	1.39
36	5	1137	C	N1-C6	-5.35	1.33	1.37
36	5	2823	G	N9-C8	-5.34	1.34	1.37
36	5	875	G	N7-C5	5.33	1.42	1.39
36	5	2636	A	N3-C4	-5.33	1.31	1.34
36	5	706	A	N9-C4	-5.33	1.34	1.37
36	5	2128	C	N1-C6	-5.32	1.33	1.37
36	1	980	A	C5-C4	5.32	1.42	1.38
47	m0	8	CYS	CB-SG	-5.32	1.73	1.81
36	1	1179	A	C6-N1	-5.32	1.31	1.35
36	1	2969	A	N7-C5	-5.32	1.36	1.39
37	7	11	A	N7-C5	-5.32	1.36	1.39
1	6	1792	G	C8-N7	-5.32	1.27	1.30
36	1	969	C	C4-C5	-5.31	1.38	1.43
36	1	1143	A	N9-C4	-5.31	1.34	1.37
36	1	1592	G	N7-C5	-5.31	1.36	1.39
36	1	3182	G	N3-C4	-5.31	1.31	1.35
36	5	2294	U	C2-N3	-5.31	1.34	1.37
36	1	1131	G	N1-C2	-5.30	1.33	1.37
36	1	2365	C	N3-C4	-5.30	1.30	1.33
36	5	981	U	N1-C2	5.30	1.43	1.38
36	1	699	A	N9-C4	-5.30	1.34	1.37
36	1	1547	G	C5-C4	-5.30	1.34	1.38
36	1	1318	A	N9-C4	-5.30	1.34	1.37
36	1	817	A	N9-C4	5.30	1.41	1.37
36	5	2656	A	N3-C4	-5.29	1.31	1.34
36	5	3090	U	C4-O4	-5.29	1.19	1.23
36	1	2614	G	C8-N7	-5.29	1.27	1.30
36	5	2345	A	N7-C5	-5.29	1.36	1.39
40	l3	264	VAL	CB-CG1	-5.29	1.41	1.52
36	5	2358	A	N3-C4	-5.28	1.31	1.34
36	5	2899	C	N3-C4	-5.28	1.30	1.33
36	1	2621	G	N3-C4	-5.28	1.31	1.35
36	5	1159	A	C5-C6	-5.28	1.36	1.41
36	1	1374	G	N7-C5	-5.28	1.36	1.39
36	5	2754	G	N9-C8	-5.28	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	3330	A	C5-C4	-5.28	1.35	1.38
36	1	3142	A	N3-C4	-5.27	1.31	1.34
36	1	365	A	N7-C5	-5.27	1.36	1.39
36	1	2281	A	N9-C4	-5.27	1.34	1.37
38	4	40	A	C5-C6	-5.27	1.36	1.41
1	2	992	A	N9-C4	-5.27	1.34	1.37
36	1	2426	U	C2-O2	-5.27	1.17	1.22
36	1	1306	G	N9-C8	-5.27	1.34	1.37
36	5	2134	G	C8-N7	-5.26	1.27	1.30
1	6	456	A	N3-C4	-5.26	1.31	1.34
36	1	2134	G	N1-C2	-5.25	1.33	1.37
36	1	632	G	N1-C2	-5.25	1.33	1.37
36	5	2375	G	C6-N1	-5.25	1.35	1.39
36	5	1319	G	N7-C5	-5.25	1.36	1.39
1	2	26	A	N9-C4	-5.25	1.34	1.37
36	1	1127	G	C5-C6	-5.25	1.37	1.42
36	5	1851	G	N7-C5	-5.25	1.36	1.39
36	5	2813	A	N7-C5	-5.24	1.36	1.39
36	5	2840	C	N1-C6	-5.23	1.34	1.37
36	5	802	C	N1-C6	-5.23	1.34	1.37
1	6	754	A	N3-C4	5.23	1.38	1.34
36	1	1158	A	N7-C5	-5.23	1.36	1.39
36	5	2375	G	C5-C4	-5.23	1.34	1.38
1	6	1774	G	C6-N1	-5.23	1.35	1.39
36	1	1379	G	C6-N1	-5.22	1.35	1.39
36	5	2376	G	N9-C8	-5.22	1.34	1.37
36	1	1154	A	N7-C5	-5.22	1.36	1.39
36	5	798	G	N9-C4	-5.22	1.33	1.38
36	5	2887	A	N9-C8	-5.22	1.33	1.37
1	6	1131	A	C5-C6	-5.22	1.36	1.41
36	5	2704	A	C5-C6	-5.22	1.36	1.41
36	5	2993	G	C5-C6	-5.22	1.37	1.42
57	N1	157	GLU	CD-OE2	5.21	1.31	1.25
36	5	2796	G	C6-N1	-5.21	1.35	1.39
36	1	343	U	N3-C4	-5.21	1.33	1.38
52	M6	100	GLU	CD-OE2	5.21	1.31	1.25
36	1	1114	U	C2-N3	-5.21	1.34	1.37
36	5	1901	A	C5-C6	-5.21	1.36	1.41
1	6	1655	A	N9-C4	-5.21	1.34	1.37
36	5	2639	G	N9-C8	-5.21	1.34	1.37
36	5	890	C	N1-C6	-5.20	1.34	1.37
36	5	917	A	N3-C4	-5.20	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2359	C	C2-N3	-5.20	1.31	1.35
36	1	913	A	N7-C5	-5.20	1.36	1.39
36	1	1133	A	C5-C4	-5.20	1.35	1.38
36	1	2390	A	C6-N1	-5.20	1.31	1.35
36	5	2919	A	C6-N1	-5.20	1.31	1.35
36	1	361	A	C6-N1	-5.19	1.31	1.35
36	1	321	C	N1-C6	-5.19	1.34	1.37
36	5	831	G	N7-C5	-5.19	1.36	1.39
36	1	321	C	N3-C4	-5.19	1.30	1.33
36	1	2984	C	N3-C4	-5.18	1.30	1.33
36	5	1320	C	N1-C2	-5.18	1.34	1.40
36	1	718	G	N9-C4	-5.18	1.33	1.38
13	c1	128	CYS	CB-SG	-5.18	1.73	1.81
36	5	421	G	N7-C5	-5.18	1.36	1.39
36	1	1330	A	N9-C4	-5.17	1.34	1.37
36	1	3010	U	C2-N3	-5.17	1.34	1.37
36	5	635	G	C5-C4	-5.17	1.34	1.38
37	3	88	G	C6-N1	-5.17	1.35	1.39
36	5	3107	U	C2-N3	-5.17	1.34	1.37
1	6	163	G	N3-C4	-5.17	1.31	1.35
36	5	1170	A	N7-C5	-5.17	1.36	1.39
36	1	1886	A	N9-C4	-5.16	1.34	1.37
36	5	2878	G	C6-N1	-5.16	1.35	1.39
36	5	3187	A	C6-N1	-5.16	1.31	1.35
36	5	1117	G	C6-O6	-5.15	1.19	1.24
36	1	1432	C	C2-O2	-5.15	1.19	1.24
1	6	17	C	N3-C4	-5.15	1.30	1.33
36	1	874	U	C2-N3	-5.15	1.34	1.37
36	5	95	A	C5-C4	-5.14	1.35	1.38
36	5	421	G	N1-C2	-5.14	1.33	1.37
36	5	947	G	C6-N1	-5.14	1.35	1.39
36	5	1148	G	N3-C4	5.14	1.39	1.35
36	5	611	A	N7-C5	-5.13	1.36	1.39
41	14	94	CYS	CB-SG	-5.13	1.73	1.81
38	8	54	A	N9-C4	-5.13	1.34	1.37
36	5	2872	A	N9-C8	5.13	1.41	1.37
36	1	1369	A	N7-C5	-5.12	1.36	1.39
1	6	53	G	C6-N1	-5.12	1.35	1.39
36	5	1112	A	N7-C5	-5.12	1.36	1.39
36	5	962	A	N7-C5	-5.12	1.36	1.39
36	1	1133	A	N3-C4	-5.12	1.31	1.34
37	7	98	C	N1-C6	-5.12	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	424	G	C5-C6	-5.11	1.37	1.42
36	5	365	A	C5-C6	-5.11	1.36	1.41
36	5	2401	A	N9-C8	5.11	1.41	1.37
36	5	2913	C	N3-C4	-5.11	1.30	1.33
36	5	1889	G	N9-C8	-5.11	1.34	1.37
36	1	2150	G	N7-C5	-5.10	1.36	1.39
36	5	887	G	N1-C2	-5.10	1.33	1.37
36	5	1135	A	C5-C4	-5.10	1.35	1.38
36	5	2954	U	C4-O4	5.10	1.27	1.23
36	1	2617	U	C4-C5	5.09	1.48	1.43
36	1	2945	G	C8-N7	-5.08	1.27	1.30
36	5	2930	A	N3-C4	5.08	1.38	1.34
36	1	307	A	N7-C5	-5.08	1.36	1.39
36	1	867	G	N3-C4	-5.08	1.31	1.35
36	5	1161	G	C5-C4	-5.08	1.34	1.38
36	5	2977	G	C6-N1	-5.08	1.35	1.39
44	17	56	GLU	CG-CD	5.08	1.59	1.51
36	5	649	A	C5-C6	-5.08	1.36	1.41
36	5	504	A	N9-C4	-5.08	1.34	1.37
36	1	1313	G	C5-C6	-5.08	1.37	1.42
36	5	1130	A	C5-C4	-5.08	1.35	1.38
36	5	2883	U	C2-O2	-5.08	1.17	1.22
36	5	2892	A	C6-N1	-5.08	1.31	1.35
36	1	2977	G	C5-C4	-5.07	1.34	1.38
36	1	626	U	N1-C2	-5.07	1.33	1.38
36	1	2169	G	C5-C6	5.07	1.47	1.42
36	1	2314	U	C2-O2	5.07	1.26	1.22
36	5	2814	G	N3-C4	-5.07	1.31	1.35
36	1	940	G	N9-C8	-5.07	1.34	1.37
1	6	1672	G	C6-N1	-5.07	1.36	1.39
36	5	2646	C	N1-C6	-5.07	1.34	1.37
36	5	980	A	N3-C4	5.07	1.37	1.34
36	5	2137	U	N1-C6	-5.06	1.33	1.38
36	1	1112	A	C5-C6	-5.06	1.36	1.41
36	1	418	A	C6-N1	-5.05	1.32	1.35
36	1	505	G	N3-C4	-5.05	1.31	1.35
1	6	607	G	N3-C4	-5.05	1.31	1.35
36	5	284	A	N7-C5	-5.05	1.36	1.39
36	5	1832	C	N1-C6	-5.05	1.34	1.37
36	5	2320	A	C6-N1	-5.05	1.32	1.35
1	6	538	A	N3-C4	5.05	1.37	1.34
36	5	1186	G	C6-N1	-5.05	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	815	G	N3-C4	-5.04	1.31	1.35
36	1	350	C	N1-C6	-5.04	1.34	1.37
36	1	2797	C	N1-C2	-5.04	1.35	1.40
36	5	2873	U	N1-C2	-5.04	1.34	1.38
36	1	2968	G	C5-C6	-5.04	1.37	1.42
36	5	1170	A	C8-N7	-5.04	1.28	1.31
36	1	678	G	N7-C5	-5.04	1.36	1.39
36	1	2945	G	N7-C5	-5.04	1.36	1.39
36	1	919	U	C2-N3	-5.03	1.34	1.37
36	5	2288	G	C6-N1	-5.03	1.36	1.39
37	7	94	C	C4-C5	-5.03	1.39	1.43
36	1	979	U	N1-C2	5.03	1.43	1.38
36	5	704	U	N1-C2	-5.03	1.34	1.38
36	5	1896	A	N3-C4	-5.03	1.31	1.34
36	1	659	G	C5-C4	-5.02	1.34	1.38
36	5	980	A	C5-C6	5.02	1.45	1.41
36	5	2945	G	N7-C5	-5.02	1.36	1.39
36	5	2988	C	C2-O2	-5.02	1.20	1.24
36	1	3139	A	N9-C4	-5.02	1.34	1.37
36	5	1207	G	N1-C2	-5.02	1.33	1.37
36	5	2164	A	N7-C5	-5.02	1.36	1.39
1	6	1150	G	N9-C4	-5.02	1.33	1.38
36	1	953	G	C5-C4	-5.01	1.34	1.38
36	5	3366	G	N7-C5	-5.01	1.36	1.39
36	1	2333	C	N1-C6	-5.01	1.34	1.37
36	1	189	G	C6-O6	-5.01	1.19	1.24
36	5	2755	C	N3-C4	-5.01	1.30	1.33
1	6	144	U	N1-C2	5.01	1.43	1.38
36	5	985	U	C2-N3	-5.01	1.34	1.37
36	5	2973	G	N1-C2	-5.00	1.33	1.37
36	1	307	A	N9-C8	-5.00	1.33	1.37
36	1	667	C	N3-C4	-5.00	1.30	1.33
1	6	392	G	C6-N1	-5.00	1.36	1.39

All (5850) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-C5	28.07	142.64	128.60
36	5	1152	G	N3-C4-N9	-28.03	109.18	126.00
36	1	2945	G	O5'-P-OP2	-22.30	83.93	110.70
36	5	1152	G	C2-N3-C4	-19.70	102.05	111.90
36	1	1308	A	O5'-P-OP2	-19.57	87.22	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2872	A	C2-N3-C4	-17.41	101.89	110.60
36	5	1152	G	N3-C2-N2	-17.35	107.75	119.90
36	5	2872	A	N3-C4-C5	16.61	138.43	126.80
36	1	2404	A	C2-N3-C4	-16.49	102.36	110.60
36	1	2873	U	N3-C2-O2	-16.24	110.83	122.20
36	5	1152	G	C8-N9-C1'	15.83	147.58	127.00
36	5	2872	A	N3-C4-N9	-15.24	115.21	127.40
36	5	2403	G	O5'-P-OP2	-14.84	92.34	105.70
36	1	1495	U	C5-C6-N1	-14.73	115.34	122.70
36	5	1152	G	C5-N7-C8	-14.69	96.96	104.30
36	1	636	C	O5'-P-OP1	-14.47	92.68	105.70
1	2	553	G	N1-C6-O6	14.45	128.57	119.90
1	6	1773	C	N3-C4-C5	-14.44	116.12	121.90
36	5	343	U	O5'-P-OP1	-14.42	92.72	105.70
36	5	2818	U	O5'-P-OP1	-14.39	92.75	105.70
36	1	2945	G	O5'-P-OP1	14.36	127.93	110.70
36	1	2617	U	C5-C6-N1	-14.16	115.62	122.70
36	5	922	U	N3-C2-O2	-14.07	112.35	122.20
36	1	2714	G	N3-C4-C5	14.01	135.60	128.60
36	5	1152	G	C4-N9-C1'	-14.00	108.30	126.50
1	6	1537	C	C6-N1-C2	-13.66	114.83	120.30
36	1	2871	G	O5'-P-OP2	-13.48	93.57	105.70
36	5	806	A	O5'-P-OP1	-13.30	93.73	105.70
36	1	2714	G	N3-C4-N9	-13.22	118.07	126.00
36	5	1513	G	C8-N9-C4	-13.19	101.12	106.40
36	1	1495	U	C4-C5-C6	13.17	127.60	119.70
36	1	2873	U	C5-C4-O4	13.16	133.79	125.90
36	1	776	U	C4-C5-C6	13.15	127.59	119.70
36	5	1158	A	N1-C6-N6	12.94	126.36	118.60
36	1	406	G	O4'-C1'-N9	12.93	118.54	108.20
1	2	453	U	N3-C2-O2	-12.87	113.19	122.20
36	5	877	C	N3-C4-C5	12.81	127.02	121.90
36	5	2872	A	C5-N7-C8	-12.79	97.50	103.90
36	1	969	C	N3-C4-C5	12.71	126.98	121.90
36	5	1902	G	C5-C6-O6	-12.70	120.98	128.60
36	1	2617	U	N1-C2-N3	12.61	122.46	114.90
36	1	1495	U	N1-C2-N3	12.53	122.42	114.90
36	1	718	G	N3-C4-C5	12.45	134.82	128.60
36	5	1006	A	O5'-P-OP2	-12.44	94.51	105.70
36	5	3245	A	C5-N7-C8	-12.21	97.79	103.90
36	1	86	G	O5'-P-OP2	-12.20	94.72	105.70
36	1	639	G	N1-C6-O6	12.15	127.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1437	C	C6-N1-C2	-12.12	115.45	120.30
36	1	2873	U	N3-C4-O4	-12.09	110.94	119.40
36	5	922	U	N1-C2-N3	12.08	122.15	114.90
36	5	2726	C	C5-C4-N4	12.08	128.66	120.20
36	5	2978	U	N3-C2-O2	-11.99	113.81	122.20
36	1	1400	G	O5'-P-OP2	-11.98	94.92	105.70
36	1	776	U	C5-C6-N1	-11.89	116.75	122.70
36	1	645	A	C6-N1-C2	-11.81	111.51	118.60
36	1	350	C	C6-N1-C2	-11.74	115.60	120.30
36	5	922	U	C5-C6-N1	-11.73	116.84	122.70
36	1	2619	G	O5'-P-OP1	-11.69	95.18	105.70
36	5	1115	G	C8-N9-C4	-11.60	101.76	106.40
36	1	2617	U	C4-C5-C6	11.60	126.66	119.70
36	5	660	A	O5'-P-OP2	-11.56	95.29	105.70
1	2	1291	G	N3-C4-N9	-11.56	119.06	126.00
38	8	80	A	C8-N9-C4	-11.54	101.18	105.80
36	5	3245	A	N1-C6-N6	11.54	125.52	118.60
36	1	895	A	C4-C5-N7	11.52	116.46	110.70
36	5	1127	G	C5-C6-O6	-11.50	121.70	128.60
1	6	144	U	N3-C2-O2	-11.44	114.19	122.20
36	1	2621	G	N3-C2-N2	-11.36	111.95	119.90
36	5	3245	A	C4-C5-N7	11.32	116.36	110.70
36	5	965	A	O5'-P-OP2	-11.26	95.56	105.70
36	5	2385	G	N3-C4-C5	11.26	134.23	128.60
36	1	3209	A	N1-C6-N6	11.24	125.34	118.60
36	1	1160	C	O5'-P-OP1	-11.23	95.59	105.70
36	5	1152	G	N1-C6-O6	11.20	126.62	119.90
36	5	1389	G	C5-C6-O6	-11.17	121.90	128.60
1	6	163	G	N3-C4-N9	-11.14	119.32	126.00
36	1	895	A	C5-N7-C8	-11.12	98.34	103.90
1	2	1200	G	N1-C6-O6	11.12	126.57	119.90
36	1	2953	U	N1-C2-O2	-11.11	115.03	122.80
36	5	2617	U	O5'-P-OP2	-11.11	95.70	105.70
36	5	835	G	O4'-C1'-N9	11.11	117.08	108.20
36	5	2726	C	C6-N1-C2	-11.09	115.86	120.30
36	5	3245	A	C2-N3-C4	-11.07	105.07	110.60
36	5	643	U	O5'-P-OP2	-11.01	95.79	105.70
36	1	2617	U	C2-N3-C4	-10.98	120.41	127.00
36	5	2364	G	N9-C4-C5	10.98	109.79	105.40
36	5	2954	U	C2-N1-C1'	10.96	130.85	117.70
36	1	3278	C	N1-C2-O2	10.92	125.45	118.90
36	5	3005	A	O5'-P-OP2	-10.90	95.89	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2176	U	N3-C2-O2	-10.89	114.58	122.20
36	1	3306	U	N3-C4-O4	-10.86	111.80	119.40
36	5	1152	G	N1-C2-N2	10.85	125.97	116.20
36	5	2935	U	O5'-P-OP2	-10.82	95.96	105.70
36	1	895	A	C2-N3-C4	-10.80	105.20	110.60
36	1	2400	G	N9-C4-C5	-10.80	101.08	105.40
38	4	113	U	N3-C2-O2	-10.74	114.68	122.20
36	5	3144	G	C8-N9-C4	-10.73	102.11	106.40
36	5	2730	G	C5-C6-O6	-10.73	122.16	128.60
36	5	2362	C	O5'-P-OP2	-10.71	96.06	105.70
36	1	368	G	N1-C2-N2	-10.71	106.56	116.20
36	1	2865	U	N3-C4-C5	10.69	121.02	114.60
36	5	2362	C	N3-C4-N4	-10.69	110.52	118.00
36	1	1381	A	O5'-P-OP2	10.68	123.51	110.70
36	5	2383	C	N1-C2-O2	-10.67	112.50	118.90
36	5	2211	U	C4-C5-C6	10.66	126.10	119.70
36	5	2297	U	O5'-P-OP2	-10.65	96.11	105.70
36	1	1316	C	N1-C2-O2	-10.64	112.52	118.90
36	5	3049	A	C8-N9-C4	10.63	110.05	105.80
36	5	2945	G	C5-C6-O6	-10.62	122.22	128.60
36	5	1010	G	O5'-P-OP2	-10.62	96.14	105.70
36	1	2870	C	N3-C4-N4	-10.61	110.57	118.00
36	5	2393	G	O5'-P-OP2	-10.57	96.19	105.70
36	1	3306	U	C5-C4-O4	10.51	132.20	125.90
36	5	922	U	C2-N3-C4	-10.50	120.70	127.00
36	5	640	U	N1-C2-O2	-10.50	115.45	122.80
36	1	2846	U	N3-C2-O2	-10.45	114.89	122.20
36	1	1433	A	O5'-P-OP1	-10.43	96.31	105.70
36	5	612	U	O5'-P-OP1	-10.43	96.31	105.70
36	5	412	G	C8-N9-C4	-10.41	102.23	106.40
36	5	2362	C	N3-C2-O2	-10.38	114.63	121.90
36	1	957	C	O5'-P-OP2	-10.38	96.36	105.70
36	1	2617	U	N3-C2-O2	-10.38	114.94	122.20
36	5	3120	C	C6-N1-C2	-10.34	116.16	120.30
36	5	1055	A	O5'-P-OP2	-10.34	96.39	105.70
36	5	3245	A	C6-C5-N7	-10.34	125.06	132.30
36	1	2846	U	C5-C4-O4	10.33	132.10	125.90
36	1	718	G	N3-C4-N9	-10.30	119.82	126.00
36	5	3303	G	N1-C6-O6	-10.29	113.72	119.90
36	1	716	A	N9-C4-C5	-10.28	101.69	105.80
37	7	101	G	N1-C6-O6	10.28	126.07	119.90
36	5	2948	C	N3-C4-N4	-10.24	110.83	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2385	G	N1-C6-O6	10.20	126.02	119.90
37	3	86	U	C5-C4-O4	-10.19	119.79	125.90
36	1	1116	G	C5-C6-O6	-10.18	122.49	128.60
36	1	2404	A	N3-C4-C5	10.18	133.92	126.80
36	5	406	G	O4'-C1'-N9	10.17	116.34	108.20
36	5	776	U	C5-C6-N1	-10.12	117.64	122.70
36	1	2836	C	C5-C4-N4	10.12	127.28	120.20
36	1	2406	C	C6-N1-C2	10.11	124.34	120.30
36	1	3181	C	C5-C4-N4	10.07	127.25	120.20
36	5	1879	A	O5'-P-OP1	10.06	122.78	110.70
36	5	1830	G	O5'-P-OP2	-10.06	96.65	105.70
1	6	1773	C	N3-C4-N4	10.04	125.03	118.00
36	5	2953	U	N3-C4-O4	10.02	126.42	119.40
36	1	2404	A	C5-C6-N1	-10.00	112.70	117.70
36	5	1116	G	O5'-P-OP1	-10.00	96.70	105.70
36	1	406	G	O5'-P-OP2	-9.99	96.71	105.70
36	1	3181	C	N3-C2-O2	-9.98	114.91	121.90
36	1	776	U	N1-C2-N3	9.98	120.89	114.90
36	5	437	G	N9-C4-C5	9.98	109.39	105.40
36	5	648	C	O5'-P-OP1	-9.97	96.72	105.70
36	1	2714	G	C2-N3-C4	-9.95	106.92	111.90
36	1	1320	C	O5'-P-OP2	-9.94	96.75	105.70
36	1	2986	U	N1-C2-N3	9.94	120.86	114.90
36	1	590	G	C5-C6-O6	-9.90	122.66	128.60
36	5	2362	C	C6-N1-C2	-9.89	116.34	120.30
36	1	2400	G	C6-C5-N7	-9.89	124.47	130.40
36	5	2899	C	N3-C2-O2	-9.89	114.98	121.90
36	1	1136	A	C5-C6-N1	9.88	122.64	117.70
36	5	922	U	N3-C4-O4	-9.88	112.49	119.40
1	6	402	C	O5'-P-OP2	-9.86	96.82	105.70
36	1	2923	U	O5'-P-OP1	-9.86	96.82	105.70
1	2	145	A	C8-N9-C4	-9.85	101.86	105.80
36	1	1132	C	O5'-P-OP1	-9.85	96.83	105.70
36	5	719	U	N1-C2-O2	9.82	129.67	122.80
36	5	2362	C	C5-C4-N4	9.82	127.07	120.20
36	5	189	G	N1-C6-O6	-9.79	114.03	119.90
36	5	2634	U	C2-N3-C4	-9.79	121.13	127.00
36	5	3018	C	O5'-P-OP2	-9.79	96.89	105.70
36	5	1152	G	C4-C5-N7	9.79	114.72	110.80
36	5	2824	G	O5'-P-OP2	-9.79	96.89	105.70
36	1	2617	U	C5-C4-O4	9.78	131.77	125.90
36	1	2873	U	O5'-P-OP2	-9.77	96.91	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1409	G	N1-C6-O6	-9.76	114.05	119.90
1	2	402	C	O5'-P-OP1	-9.76	96.92	105.70
38	8	80	A	N7-C8-N9	9.76	118.68	113.80
36	1	2794	G	O5'-P-OP2	-9.75	96.92	105.70
1	2	553	G	C6-C5-N7	-9.72	124.57	130.40
36	1	650	C	C2-N3-C4	-9.71	115.04	119.90
36	1	3278	C	N3-C2-O2	-9.69	115.12	121.90
36	5	1316	C	N1-C2-O2	-9.67	113.10	118.90
36	1	3214	U	N3-C2-O2	-9.67	115.43	122.20
36	1	2818	U	O5'-P-OP1	-9.65	97.01	105.70
36	5	2371	G	N9-C4-C5	-9.64	101.54	105.40
36	1	680	G	O5'-P-OP2	-9.62	97.05	105.70
36	1	639	G	C5-C6-O6	-9.61	122.83	128.60
36	1	958	C	C2-N3-C4	-9.61	115.10	119.90
36	5	641	C	N1-C2-O2	-9.61	113.14	118.90
36	5	2899	C	C6-N1-C2	-9.60	116.46	120.30
36	1	1136	A	C6-N1-C2	-9.60	112.84	118.60
36	5	1419	A	O5'-P-OP2	-9.60	97.06	105.70
36	1	2404	A	N3-C4-N9	-9.59	119.73	127.40
36	1	2944	U	O5'-P-OP1	-9.59	97.07	105.70
36	1	2816	G	C8-N9-C4	9.58	110.23	106.40
36	5	424	G	C5-C6-O6	-9.58	122.85	128.60
36	1	1405	U	C6-N1-C2	9.57	126.74	121.00
36	1	2176	U	N1-C2-O2	9.56	129.49	122.80
1	6	1133	A	O5'-P-OP1	-9.56	97.10	105.70
36	1	2872	A	N1-C6-N6	-9.55	112.87	118.60
36	5	1117	G	C5-C6-N1	9.55	116.28	111.50
36	1	1328	C	O5'-P-OP1	-9.53	97.12	105.70
1	6	163	G	C2-N3-C4	-9.52	107.14	111.90
36	5	656	A	C8-N9-C4	9.52	109.61	105.80
36	5	2362	C	N1-C2-O2	9.50	124.60	118.90
36	5	2834	G	O5'-P-OP1	-9.50	97.15	105.70
36	1	1419	A	O5'-P-OP2	-9.50	97.15	105.70
36	1	3181	C	C6-N1-C2	-9.50	116.50	120.30
36	1	2373	A	O5'-P-OP1	-9.49	97.16	105.70
36	1	2811	A	N1-C6-N6	-9.48	112.91	118.60
1	6	1634	C	C2-N1-C1'	9.48	129.22	118.80
36	5	437	G	C8-N9-C4	-9.48	102.61	106.40
36	5	2954	U	C6-N1-C1'	-9.47	107.93	121.20
36	1	2870	C	C2-N1-C1'	-9.47	108.39	118.80
36	1	2165	G	O5'-P-OP2	-9.46	97.18	105.70
36	1	2873	U	N1-C2-O2	9.46	129.42	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	650	C	C5-C6-N1	-9.46	116.27	121.00
36	1	2811	A	N9-C4-C5	9.45	109.58	105.80
36	5	875	G	N1-C6-O6	-9.45	114.23	119.90
36	5	2371	G	C8-N9-C4	9.43	110.17	106.40
36	1	709	A	C8-N9-C4	9.43	109.57	105.80
36	5	776	U	C4-C5-C6	9.43	125.36	119.70
36	1	2870	C	C6-N1-C1'	9.42	132.10	120.80
36	5	2308	C	N1-C2-O2	-9.41	113.25	118.90
1	6	163	G	N3-C4-C5	9.41	133.30	128.60
36	5	1902	G	N1-C6-O6	9.40	125.54	119.90
36	5	2726	C	N3-C2-O2	-9.39	115.32	121.90
1	2	639	U	N3-C2-O2	-9.39	115.63	122.20
36	1	2283	G	N1-C6-O6	9.38	125.53	119.90
36	1	2833	A	O5'-P-OP2	-9.38	97.26	105.70
36	1	3306	U	N3-C2-O2	-9.38	115.64	122.20
1	6	973	A	O5'-P-OP2	-9.38	97.26	105.70
1	2	359	A	C8-N9-C4	9.37	109.55	105.80
36	5	39	A	N1-C6-N6	9.37	124.22	118.60
1	2	553	G	C5-C6-O6	-9.36	122.98	128.60
36	1	1389	G	C5-C6-O6	-9.36	122.98	128.60
36	5	3377	G	O5'-P-OP1	-9.36	97.28	105.70
36	1	361	A	N1-C6-N6	-9.35	112.99	118.60
36	1	3181	C	N1-C2-N3	9.34	125.74	119.20
36	1	979	U	N3-C2-O2	-9.33	115.67	122.20
36	5	824	C	C6-N1-C2	-9.33	116.57	120.30
1	2	554	C	N1-C2-O2	9.32	124.49	118.90
36	1	957	C	N1-C2-O2	-9.31	113.31	118.90
36	5	3049	A	N7-C8-N9	-9.30	109.15	113.80
36	5	2385	G	O5'-P-OP1	-9.29	97.34	105.70
36	5	1065	A	O5'-P-OP1	-9.29	97.34	105.70
36	5	1116	G	N3-C4-C5	-9.29	123.96	128.60
36	5	639	G	O5'-P-OP1	9.27	121.82	110.70
1	6	390	G	O5'-P-OP2	-9.27	97.36	105.70
38	4	40	A	N1-C6-N6	9.26	124.15	118.60
36	5	2870	C	N3-C4-N4	-9.24	111.53	118.00
37	3	88	G	N1-C6-O6	-9.24	114.36	119.90
36	1	645	A	N3-C4-C5	-9.23	120.34	126.80
36	1	218	G	O5'-P-OP2	-9.22	97.40	105.70
1	6	308	C	C5-C6-N1	-9.22	116.39	121.00
36	1	2656	A	N1-C6-N6	-9.22	113.07	118.60
1	6	609	U	N3-C4-O4	-9.22	112.95	119.40
36	1	67	A	O5'-P-OP1	-9.21	97.42	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2343	C	N3-C4-C5	9.20	125.58	121.90
36	5	3245	A	N7-C8-N9	9.19	118.40	113.80
36	5	960	U	N3-C2-O2	-9.19	115.77	122.20
36	5	2831	G	C5-C6-N1	9.18	116.09	111.50
36	1	895	A	C6-C5-N7	-9.18	125.87	132.30
36	1	958	C	N3-C4-C5	9.17	125.57	121.90
36	5	2310	U	O5'-P-OP2	-9.15	97.46	105.70
36	1	368	G	N3-C2-N2	9.14	126.30	119.90
36	5	2634	U	N1-C2-N3	9.13	120.38	114.90
36	1	2887	A	O5'-P-OP2	-9.13	97.48	105.70
36	5	3050	U	C5-C4-O4	9.12	131.38	125.90
36	1	1206	G	O5'-P-OP2	-9.11	97.50	105.70
37	7	92	A	N1-C6-N6	9.11	124.07	118.60
36	1	651	G	N3-C4-C5	-9.09	124.06	128.60
36	5	922	U	C5-C4-O4	9.09	131.35	125.90
36	5	2353	G	C5-C6-O6	-9.08	123.15	128.60
1	2	934	C	C2-N1-C1'	9.07	128.78	118.80
36	5	1313	G	O5'-P-OP2	-9.07	97.53	105.70
1	6	1473	U	N3-C2-O2	-9.07	115.85	122.20
36	1	2144	A	C5-C6-N6	-9.05	116.46	123.70
36	1	1405	U	C2-N3-C4	-9.05	121.57	127.00
36	1	1118	C	C6-N1-C2	-9.04	116.68	120.30
36	5	3120	C	N3-C4-C5	-9.04	118.28	121.90
36	5	341	G	C5-C6-O6	-9.04	123.18	128.60
36	5	3154	C	N1-C2-O2	9.04	124.32	118.90
1	2	942	G	N1-C6-O6	-9.03	114.48	119.90
36	1	2417	U	C2-N3-C4	-9.02	121.59	127.00
36	5	3078	U	C2-N1-C1'	9.02	128.52	117.70
36	5	2872	A	C4-C5-N7	9.02	115.21	110.70
36	5	1412	G	C8-N9-C4	-9.01	102.80	106.40
36	1	835	G	O4'-C1'-N9	8.99	115.39	108.20
36	1	2622	C	N1-C2-O2	-8.98	113.51	118.90
36	1	2714	G	C5-N7-C8	-8.97	99.81	104.30
1	2	1560	U	N3-C2-O2	-8.97	115.92	122.20
36	5	2813	A	C8-N9-C4	-8.97	102.21	105.80
36	1	970	A	C5-N7-C8	-8.96	99.42	103.90
36	5	1134	G	O5'-P-OP2	-8.96	97.64	105.70
36	1	2953	U	N1-C2-N3	8.95	120.27	114.90
36	1	2279	A	N9-C4-C5	-8.95	102.22	105.80
36	5	1158	A	C5-C6-N6	-8.94	116.55	123.70
36	5	3214	U	C5-C4-O4	8.93	131.26	125.90
36	1	2870	C	N3-C4-C5	8.93	125.47	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1596	C	N3-C2-O2	-8.92	115.65	121.90
36	1	92	G	C5-C6-N1	8.92	115.96	111.50
36	1	950	G	C4-C5-N7	8.91	114.37	110.80
36	1	2363	A	N1-C6-N6	-8.91	113.25	118.60
36	5	1907	C	O5'-P-OP2	-8.90	97.69	105.70
36	5	1307	G	P-O3'-C3'	8.89	130.37	119.70
36	1	2144	A	O4'-C1'-N9	8.88	115.31	108.20
44	17	232	ARG	NE-CZ-NH1	-8.87	115.87	120.30
42	15	152	ARG	NE-CZ-NH1	8.87	124.73	120.30
36	1	716	A	C8-N9-C4	8.86	109.35	105.80
36	1	1405	U	N3-C4-C5	8.86	119.92	114.60
36	5	639	G	OP1-P-OP2	-8.86	106.31	119.60
36	5	2272	G	O4'-C1'-N9	8.86	115.29	108.20
36	1	3201	C	C6-N1-C2	-8.86	116.76	120.30
36	5	645	A	C6-N1-C2	-8.86	113.29	118.60
36	1	3050	U	N1-C2-O2	8.85	129.00	122.80
36	1	2403	G	O5'-P-OP2	-8.85	97.74	105.70
36	1	3214	U	C5-C4-O4	8.83	131.20	125.90
36	5	2411	U	N3-C4-C5	8.83	119.90	114.60
36	5	1483	G	O4'-C1'-N9	8.83	115.26	108.20
36	5	2836	C	C2-N3-C4	-8.83	115.49	119.90
36	5	1886	A	O5'-P-OP2	-8.82	97.76	105.70
36	1	2400	G	C4-C5-N7	8.82	114.33	110.80
36	1	2883	U	C5-C6-N1	8.82	127.11	122.70
38	4	113	U	C5-C4-O4	8.81	131.19	125.90
36	1	2306	C	C6-N1-C2	-8.81	116.78	120.30
36	5	3136	G	C2-N3-C4	-8.81	107.50	111.90
36	5	1389	G	N1-C6-O6	8.81	125.18	119.90
36	1	2572	C	C2-N1-C1'	8.81	128.49	118.80
36	1	2362	C	N3-C4-C5	-8.80	118.38	121.90
36	5	2726	C	N3-C4-N4	-8.80	111.84	118.00
36	1	672	A	N1-C6-N6	8.79	123.87	118.60
36	1	2884	C	N3-C4-C5	8.78	125.41	121.90
36	1	2996	U	C2-N1-C1'	8.78	128.23	117.70
36	1	2884	C	C6-N1-C2	8.77	123.81	120.30
36	1	895	A	O5'-P-OP1	-8.77	97.81	105.70
36	1	918	C	O5'-P-OP2	-8.77	97.81	105.70
36	1	1389	G	C4-C5-N7	8.76	114.30	110.80
1	6	1537	C	N3-C4-C5	-8.75	118.40	121.90
36	1	344	A	N1-C6-N6	-8.73	113.36	118.60
36	5	1879	A	C4-C5-N7	8.73	115.07	110.70
12	C0	88	PRO	N-CA-CB	8.73	113.78	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2790	A	O5'-P-OP2	-8.73	97.84	105.70
36	5	437	G	N3-C2-N2	-8.73	113.79	119.90
36	5	3178	A	O5'-P-OP1	-8.73	97.85	105.70
36	1	1556	C	C6-N1-C2	-8.72	116.81	120.30
36	1	1116	G	C8-N9-C4	-8.72	102.91	106.40
36	1	922	U	C5-C4-O4	8.71	131.12	125.90
36	5	220	G	O5'-P-OP2	-8.70	97.87	105.70
36	5	2117	A	N1-C6-N6	-8.70	113.38	118.60
36	5	2392	C	C2-N3-C4	-8.70	115.55	119.90
1	6	542	A	O5'-P-OP1	-8.69	97.88	105.70
36	1	369	A	O5'-P-OP2	-8.69	97.88	105.70
36	5	2373	A	O5'-P-OP1	-8.69	97.88	105.70
36	1	2618	G	N1-C6-O6	-8.68	114.69	119.90
36	5	1847	A	O5'-P-OP2	-8.68	97.89	105.70
36	5	1181	U	C5-C6-N1	-8.68	118.36	122.70
1	6	980	G	N1-C6-O6	-8.67	114.69	119.90
36	5	3012	A	C8-N9-C4	8.67	109.27	105.80
36	1	2719	U	N1-C2-O2	-8.67	116.73	122.80
36	5	1879	A	N1-C6-N6	8.66	123.80	118.60
36	5	2730	G	N1-C6-O6	8.66	125.10	119.90
36	1	1127	G	C5-C6-O6	-8.66	123.40	128.60
36	5	425	G	C5-C6-O6	-8.66	123.40	128.60
36	1	1556	C	C2-N1-C1'	8.66	128.32	118.80
36	1	1797	A	O5'-P-OP1	-8.66	97.91	105.70
36	1	979	U	C6-N1-C2	-8.65	115.81	121.00
36	1	2983	C	C5-C6-N1	-8.65	116.68	121.00
36	1	1381	A	O5'-P-OP1	-8.64	97.93	105.70
36	5	642	U	O5'-P-OP2	-8.63	97.93	105.70
36	5	1300	G	C5-C6-O6	-8.63	123.42	128.60
36	5	3214	U	N3-C2-O2	-8.63	116.16	122.20
1	6	609	U	C5-C6-N1	-8.62	118.39	122.70
36	1	608	A	N1-C6-N6	8.61	123.77	118.60
36	5	1496	C	O5'-P-OP1	8.61	121.03	110.70
1	6	139	C	N3-C2-O2	-8.61	115.88	121.90
36	5	2334	U	O5'-P-OP2	-8.61	97.95	105.70
36	5	2372	A	C8-N9-C4	-8.61	102.36	105.80
36	1	770	G	O4'-C1'-N9	8.60	115.08	108.20
36	1	2409	G	N3-C4-C5	-8.59	124.30	128.60
36	1	435	C	C6-N1-C2	8.58	123.73	120.30
38	4	40	A	C5-C6-N6	-8.58	116.84	123.70
36	1	1793	C	C2-N3-C4	-8.58	115.61	119.90
36	1	805	G	C8-N9-C4	8.57	109.83	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	65	A	P-O3'-C3'	8.57	129.98	119.70
38	4	113	U	N1-C2-N3	8.56	120.03	114.90
36	1	2550	U	C5-C4-O4	8.55	131.03	125.90
36	5	887	G	N3-C2-N2	8.55	125.89	119.90
36	5	3026	G	C5-C6-O6	-8.53	123.48	128.60
36	5	2913	C	N1-C2-O2	-8.53	113.78	118.90
36	1	2996	U	C6-N1-C1'	-8.51	109.28	121.20
36	5	1148	G	C5-C6-O6	-8.51	123.49	128.60
36	1	1376	C	C4-C5-C6	8.51	121.65	117.40
36	5	1385	C	N3-C4-C5	8.50	125.30	121.90
36	5	2327	U	C5-C6-N1	-8.50	118.45	122.70
37	7	120	C	C6-N1-C2	8.50	123.70	120.30
68	o2	24	ARG	NE-CZ-NH1	-8.50	116.05	120.30
36	1	1308	A	C8-N9-C4	-8.49	102.40	105.80
1	6	1560	U	N3-C2-O2	-8.49	116.25	122.20
36	5	2980	U	N1-C2-N3	8.49	120.00	114.90
36	1	3362	A	O4'-C1'-N9	8.49	114.99	108.20
36	5	3092	C	N3-C2-O2	-8.47	115.97	121.90
36	1	2983	C	C4-C5-C6	8.47	121.63	117.40
1	6	1796	C	C5-C6-N1	-8.47	116.77	121.00
36	5	635	G	C5-C6-O6	-8.47	123.52	128.60
1	2	1773	C	N3-C4-C5	-8.46	118.51	121.90
36	1	2973	G	N1-C6-O6	8.46	124.98	119.90
36	5	1115	G	P-O3'-C3'	8.46	129.85	119.70
36	1	295	A	O5'-P-OP1	-8.46	98.09	105.70
36	1	2298	U	N3-C4-O4	-8.46	113.48	119.40
1	6	387	A	N1-C6-N6	-8.46	113.53	118.60
36	1	3181	C	N3-C4-N4	-8.45	112.08	118.00
1	6	1596	C	N3-C2-O2	-8.45	115.98	121.90
36	1	1148	G	C8-N9-C4	8.45	109.78	106.40
36	1	3057	U	N3-C2-O2	-8.44	116.29	122.20
36	5	1152	G	C4-C5-C6	-8.44	113.74	118.80
36	1	1432	C	C6-N1-C2	-8.44	116.93	120.30
36	5	3188	G	N1-C6-O6	-8.43	114.84	119.90
36	5	2409	G	O5'-P-OP2	-8.43	98.11	105.70
36	5	2816	G	C5-C6-O6	-8.43	123.55	128.60
36	1	24	G	O5'-P-OP2	-8.42	98.12	105.70
36	1	3270	U	O5'-P-OP1	-8.42	98.12	105.70
1	6	144	U	N1-C2-O2	8.42	128.69	122.80
36	5	2639	G	C6-C5-N7	-8.41	125.35	130.40
36	5	3362	A	C2-N3-C4	-8.41	106.39	110.60
36	5	3206	C	N3-C2-O2	-8.41	116.01	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2298	U	C5-C6-N1	-8.41	118.50	122.70
36	1	3029	A	C8-N9-C4	-8.41	102.44	105.80
36	5	2281	A	O5'-P-OP2	-8.40	98.14	105.70
36	5	3047	U	N1-C2-O2	8.40	128.68	122.80
36	1	3217	C	N1-C2-O2	8.39	123.93	118.90
36	1	1168	U	O5'-P-OP1	8.39	120.77	110.70
36	1	2726	C	N3-C2-O2	-8.39	116.03	121.90
36	5	514	G	C5-C6-O6	-8.38	123.57	128.60
36	5	2411	U	N3-C4-O4	-8.38	113.53	119.40
36	1	2836	C	C4-C5-C6	8.38	121.59	117.40
36	5	2249	G	C8-N9-C4	-8.38	103.05	106.40
36	5	1161	G	C5-C6-N1	8.37	115.69	111.50
1	6	1745	G	C5-C6-O6	-8.37	123.58	128.60
36	5	2296	A	C5-C6-N6	-8.37	117.00	123.70
36	5	2704	A	N1-C6-N6	8.37	123.62	118.60
36	5	1075	A	C8-N9-C4	8.35	109.14	105.80
36	1	716	A	N1-C6-N6	8.35	123.61	118.60
36	5	1115	G	N7-C8-N9	8.35	117.27	113.10
36	1	81	C	N3-C4-C5	8.35	125.24	121.90
36	1	2400	G	N1-C6-O6	8.34	124.90	119.90
36	1	2420	C	O5'-P-OP1	-8.34	98.20	105.70
1	6	453	U	N3-C2-O2	-8.34	116.36	122.20
36	1	2404	A	N1-C2-N3	8.33	133.47	129.30
36	1	907	G	O4'-C1'-N9	8.33	114.86	108.20
36	5	960	U	N1-C2-O2	8.33	128.63	122.80
36	1	970	A	C8-N9-C4	-8.33	102.47	105.80
1	2	554	C	N3-C4-C5	-8.32	118.57	121.90
36	1	2959	C	N1-C2-O2	-8.32	113.91	118.90
36	1	2726	C	N3-C4-N4	-8.32	112.18	118.00
36	1	2850	G	C5-C6-O6	-8.32	123.61	128.60
36	5	3374	U	N3-C4-C5	8.31	119.58	114.60
36	1	1904	C	C6-N1-C2	-8.30	116.98	120.30
36	1	1484	U	P-O3'-C3'	8.29	129.65	119.70
36	1	3362	A	C5-N7-C8	-8.29	99.75	103.90
36	1	1450	G	O5'-P-OP1	-8.29	98.24	105.70
36	1	1429	G	N3-C2-N2	8.28	125.70	119.90
1	6	163	G	C5-N7-C8	-8.29	100.16	104.30
36	5	1113	G	C5-C6-N1	-8.28	107.36	111.50
36	1	1210	U	C5-C6-N1	-8.27	118.56	122.70
36	1	3362	A	N7-C8-N9	8.27	117.94	113.80
36	5	1840	U	N3-C2-O2	-8.27	116.41	122.20
52	m6	94	ARG	NE-CZ-NH1	-8.27	116.16	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	125	U	N1-C2-O2	8.27	128.59	122.80
36	1	1506	A	N1-C6-N6	-8.27	113.64	118.60
36	5	75	G	C5-C6-O6	-8.26	123.64	128.60
36	1	646	A	O5'-P-OP2	-8.26	98.27	105.70
36	5	2398	A	N1-C6-N6	-8.26	113.64	118.60
36	5	2978	U	N1-C2-O2	8.26	128.58	122.80
36	1	942	U	OP1-P-OP2	-8.26	107.21	119.60
1	6	337	G	C6-C5-N7	-8.26	125.44	130.40
36	5	222	A	O5'-P-OP2	-8.26	98.27	105.70
36	1	1306	G	N3-C2-N2	-8.26	114.12	119.90
36	1	2892	A	N1-C6-N6	-8.25	113.65	118.60
36	5	2704	A	O5'-P-OP1	-8.25	98.27	105.70
38	4	103	G	N3-C4-C5	-8.25	124.47	128.60
36	1	2412	G	C8-N9-C4	-8.24	103.10	106.40
10	s8	29	LEU	CA-CB-CG	8.24	134.25	115.30
36	5	1130	A	C2-N3-C4	8.24	114.72	110.60
36	1	1164	G	C5-C6-O6	8.23	133.54	128.60
36	1	2623	G	N9-C4-C5	-8.23	102.11	105.40
36	1	645	A	N1-C2-N3	8.23	133.41	129.30
36	5	971	G	C4-C5-N7	-8.23	107.51	110.80
36	5	1391	C	N1-C2-O2	-8.23	113.96	118.90
36	1	895	A	N1-C6-N6	8.22	123.53	118.60
36	5	1199	C	C4-C5-C6	8.22	121.51	117.40
1	2	75	U	N1-C2-O2	8.22	128.56	122.80
36	1	2975	U	N1-C2-O2	8.22	128.55	122.80
36	1	3055	U	C5-C4-O4	-8.22	120.97	125.90
1	6	609	U	C5-C4-O4	8.22	130.83	125.90
36	5	1926	C	N1-C2-O2	-8.21	113.97	118.90
36	1	1492	G	C5-N7-C8	8.21	108.41	104.30
36	5	946	U	O5'-P-OP2	-8.21	98.31	105.70
36	5	1792	C	O5'-P-OP2	-8.21	98.31	105.70
36	5	2350	C	OP1-P-OP2	-8.21	107.29	119.60
36	1	3209	A	N9-C4-C5	-8.20	102.52	105.80
36	5	2386	A	C8-N9-C4	-8.21	102.52	105.80
36	1	793	C	N1-C2-O2	-8.20	113.98	118.90
36	5	719	U	N3-C2-O2	-8.20	116.46	122.20
36	1	1841	A	O5'-P-OP2	-8.20	98.32	105.70
1	6	1514	U	C5-C4-O4	8.20	130.82	125.90
36	1	1495	U	C2-N3-C4	-8.19	122.08	127.00
36	5	204	A	N1-C6-N6	-8.19	113.68	118.60
36	1	1589	A	O4'-C1'-N9	-8.19	101.65	108.20
36	5	922	U	C4-C5-C6	8.19	124.61	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1552	G	C5-C6-O6	-8.19	123.69	128.60
36	5	3092	C	N1-C2-O2	8.19	123.81	118.90
36	1	369	A	C8-N9-C4	-8.18	102.53	105.80
36	1	2621	G	N1-C6-O6	8.18	124.81	119.90
36	5	2691	A	C8-N9-C4	-8.18	102.53	105.80
36	1	2860	U	C5-C6-N1	8.16	126.78	122.70
36	5	877	C	C4-C5-C6	-8.16	113.32	117.40
36	5	1907	C	N1-C2-O2	-8.16	114.00	118.90
1	6	44	U	N1-C2-O2	-8.16	117.09	122.80
38	8	8	C	C6-N1-C2	-8.15	117.04	120.30
36	1	2550	U	N3-C2-O2	-8.15	116.50	122.20
36	5	2343	C	O5'-P-OP2	-8.15	98.37	105.70
36	1	33	G	O5'-P-OP1	-8.14	98.37	105.70
36	1	2154	U	C5-C4-O4	-8.14	121.02	125.90
36	5	1047	A	N1-C6-N6	8.14	123.48	118.60
36	1	3209	A	C4-C5-N7	8.14	114.77	110.70
36	5	2948	C	OP1-P-OP2	-8.14	107.39	119.60
36	5	3374	U	N3-C4-O4	-8.13	113.71	119.40
1	6	1537	C	C6-N1-C1'	8.13	130.56	120.80
36	5	938	C	N3-C4-C5	8.13	125.15	121.90
36	5	2726	C	N1-C2-N3	8.13	124.89	119.20
36	5	2975	U	N1-C2-O2	8.12	128.49	122.80
36	1	646	A	C8-N9-C4	-8.12	102.55	105.80
36	1	1300	G	C5-C6-O6	-8.12	123.73	128.60
36	5	283	G	C5-C6-O6	-8.12	123.73	128.60
36	5	1859	A	O5'-P-OP2	-8.12	98.39	105.70
36	5	2142	A	C5-C6-N1	8.12	121.76	117.70
36	1	439	C	C2-N1-C1'	8.11	127.72	118.80
36	5	2619	G	C5-C6-O6	-8.11	123.73	128.60
36	5	1513	G	N7-C8-N9	8.11	117.16	113.10
36	5	776	U	N3-C2-O2	-8.11	116.52	122.20
36	5	805	G	C8-N9-C4	8.11	109.64	106.40
36	5	2931	C	C5-C4-N4	-8.10	114.53	120.20
36	1	776	U	C5-C4-O4	8.10	130.76	125.90
36	1	2811	A	C8-N9-C4	-8.10	102.56	105.80
36	5	926	A	C5-C6-N6	-8.10	117.22	123.70
36	5	2948	C	C5-C4-N4	8.10	125.87	120.20
36	1	1377	G	C4-C5-N7	8.09	114.04	110.80
1	6	1773	C	C4-C5-C6	8.09	121.45	117.40
36	5	2234	G	C5-C6-O6	-8.09	123.74	128.60
36	5	2382	G	N1-C6-O6	-8.09	115.04	119.90
37	7	110	G	O5'-P-OP2	-8.09	98.42	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1	U	C2-N1-C1'	8.08	127.40	117.70
36	5	1004	U	N3-C2-O2	-8.08	116.54	122.20
36	1	859	G	C6-C5-N7	-8.08	125.55	130.40
36	1	650	C	N1-C2-O2	-8.07	114.06	118.90
1	2	1600	A	C2-N3-C4	-8.07	106.56	110.60
36	1	2417	U	C5-C6-N1	-8.06	118.67	122.70
36	1	2602	G	C5-C6-O6	8.06	133.44	128.60
36	5	1158	A	C6-C5-N7	-8.06	126.66	132.30
36	1	2836	C	N3-C2-O2	-8.06	116.26	121.90
36	5	2814	G	C4-C5-N7	8.06	114.02	110.80
36	1	2247	G	N1-C6-O6	8.06	124.73	119.90
36	1	2873	U	N1-C2-N3	8.06	119.73	114.90
25	d3	33	LEU	CA-CB-CG	-8.06	96.76	115.30
36	5	424	G	C4-C5-N7	8.06	114.02	110.80
1	6	378	A	N1-C6-N6	8.06	123.43	118.60
1	2	287	G	O4'-C1'-N9	8.05	114.64	108.20
37	3	103	A	N1-C6-N6	8.05	123.43	118.60
36	5	1392	G	C8-N9-C4	8.05	109.62	106.40
36	5	651	G	C8-N9-C4	-8.05	103.18	106.40
36	5	2281	A	C8-N9-C4	8.05	109.02	105.80
36	5	1879	A	C5-N7-C8	-8.04	99.88	103.90
36	1	397	A	N1-C6-N6	-8.04	113.78	118.60
36	1	1405	U	C5-C6-N1	-8.04	118.68	122.70
36	1	1419	A	O5'-P-OP1	8.04	120.34	110.70
1	2	1291	G	N3-C4-C5	8.03	132.61	128.60
36	5	424	G	N9-C4-C5	-8.03	102.19	105.40
36	1	1493	G	O5'-P-OP2	-8.02	98.48	105.70
36	1	2572	C	N1-C2-O2	8.02	123.71	118.90
36	5	530	G	N1-C6-O6	-8.02	115.09	119.90
36	5	341	G	N1-C6-O6	8.02	124.71	119.90
1	2	453	U	N1-C2-O2	8.02	128.41	122.80
36	5	705	A	O5'-P-OP2	-8.02	98.49	105.70
36	1	1495	U	C5-C4-O4	8.01	130.71	125.90
36	1	2856	G	C8-N9-C4	8.01	109.60	106.40
36	5	637	C	N1-C2-O2	-8.01	114.09	118.90
36	5	2142	A	C6-N1-C2	-8.01	113.79	118.60
36	5	2908	G	N9-C4-C5	8.01	108.60	105.40
36	5	2371	G	N3-C2-N2	8.01	125.50	119.90
36	5	1042	U	N3-C4-C5	8.00	119.40	114.60
36	1	1335	C	C5-C4-N4	8.00	125.80	120.20
36	1	2339	C	C6-N1-C2	-8.00	117.10	120.30
41	L4	327	LEU	CA-CB-CG	8.00	133.70	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1773	C	N1-C2-O2	-8.00	114.10	118.90
36	1	716	A	O5'-P-OP1	-7.99	98.51	105.70
36	5	1113	G	C2-N3-C4	-7.99	107.91	111.90
36	1	2355	G	N1-C6-O6	7.99	124.69	119.90
36	5	3093	C	N1-C2-O2	-7.99	114.11	118.90
44	17	229	PHE	CB-CG-CD1	7.99	126.39	120.80
37	7	1	G	N3-C4-N9	7.98	130.79	126.00
1	2	1773	C	C6-N1-C2	-7.97	117.11	120.30
36	5	2296	A	N1-C6-N6	7.97	123.39	118.60
36	1	52	A	C6-N1-C2	7.97	123.38	118.60
36	1	3216	G	N1-C6-O6	-7.97	115.12	119.90
36	1	664	U	C5-C6-N1	-7.96	118.72	122.70
36	5	1161	G	C2-N3-C4	7.96	115.88	111.90
36	5	875	G	C5-C6-N1	7.96	115.48	111.50
36	1	2314	U	O5'-P-OP2	-7.96	98.53	105.70
36	5	889	U	N3-C4-C5	7.96	119.38	114.60
36	5	2873	U	N1-C2-O2	-7.96	117.23	122.80
36	1	2624	G	O5'-P-OP1	-7.96	98.54	105.70
36	5	634	C	N1-C2-O2	-7.96	114.12	118.90
36	5	2834	G	OP1-P-OP2	7.96	131.54	119.60
36	1	2401	A	N1-C6-N6	7.96	123.37	118.60
36	1	2777	G	C5-C6-O6	7.96	133.37	128.60
36	1	2302	G	C5-C6-O6	7.95	133.37	128.60
36	1	2975	U	N3-C2-O2	-7.95	116.64	122.20
36	5	2117	A	N9-C4-C5	7.95	108.98	105.80
36	1	2383	C	N1-C2-O2	-7.94	114.14	118.90
1	2	1455	G	C5-C6-N1	-7.93	107.53	111.50
36	1	1313	G	C5-C6-O6	-7.93	123.84	128.60
36	5	1371	G	N1-C6-O6	-7.93	115.14	119.90
1	2	973	A	O5'-P-OP2	-7.93	98.56	105.70
36	1	3057	U	N3-C4-O4	-7.93	113.85	119.40
1	6	359	A	C4-C5-C6	-7.93	113.03	117.00
36	1	282	G	C8-N9-C4	-7.93	103.23	106.40
38	8	51	G	N3-C2-N2	-7.93	114.35	119.90
36	5	2860	U	N3-C2-O2	7.92	127.74	122.20
36	5	2965	U	N1-C2-O2	-7.92	117.26	122.80
36	5	659	G	C5-C6-N1	7.92	115.46	111.50
36	1	810	A	N1-C6-N6	-7.90	113.86	118.60
36	5	2290	C	C5-C6-N1	-7.90	117.05	121.00
36	1	2877	G	O5'-P-OP2	-7.90	98.59	105.70
36	5	83	U	C2-N1-C1'	7.90	127.18	117.70
36	5	1372	C	C6-N1-C2	7.89	123.46	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2889	C	C2-N3-C4	-7.88	115.96	119.90
38	8	84	C	C6-N1-C2	-7.88	117.15	120.30
36	1	646	A	N1-C2-N3	7.88	133.24	129.30
1	6	297	U	N3-C4-O4	7.88	124.92	119.40
36	5	682	U	C2-N1-C1'	-7.88	108.25	117.70
36	5	2359	C	C6-N1-C2	7.88	123.45	120.30
3	S1	218	LEU	CA-CB-CG	7.88	133.41	115.30
36	5	2364	G	C8-N9-C4	-7.88	103.25	106.40
36	1	636	C	O5'-P-OP2	7.87	120.14	110.70
36	5	2406	C	N1-C2-O2	-7.86	114.18	118.90
36	1	1476	G	N1-C6-O6	-7.86	115.18	119.90
1	6	1036	A	N1-C6-N6	-7.86	113.88	118.60
36	1	2309	A	O5'-P-OP1	-7.86	98.63	105.70
36	1	1424	C	O5'-P-OP1	-7.86	98.63	105.70
36	5	2858	U	N3-C2-O2	-7.86	116.70	122.20
36	5	2954	U	O4'-C1'-N1	7.86	114.49	108.20
36	1	786	A	N1-C6-N6	-7.86	113.89	118.60
38	8	33	A	O5'-P-OP1	-7.85	98.64	105.70
1	6	337	G	C4-N9-C1'	7.84	136.69	126.50
36	5	926	A	N1-C6-N6	7.84	123.30	118.60
36	5	2211	U	N3-C2-O2	-7.84	116.71	122.20
36	5	3154	C	C2-N1-C1'	7.84	127.42	118.80
36	1	2650	U	N1-C2-N3	7.84	119.60	114.90
36	1	640	U	N3-C4-O4	7.83	124.89	119.40
1	6	362	G	N3-C4-C5	-7.83	124.68	128.60
36	1	2617	U	N3-C4-O4	-7.83	113.92	119.40
36	5	1150	A	O5'-P-OP2	-7.83	98.65	105.70
36	5	2366	C	C5-C6-N1	7.83	124.91	121.00
36	5	3120	C	C2-N3-C4	7.83	123.81	119.90
1	6	448	C	C6-N1-C2	-7.82	117.17	120.30
36	5	337	G	C8-N9-C4	-7.82	103.27	106.40
36	1	2623	G	C6-C5-N7	-7.82	125.71	130.40
36	1	2846	U	N3-C4-O4	-7.82	113.93	119.40
36	1	2404	A	C5-N7-C8	-7.81	100.00	103.90
36	1	2918	G	N3-C4-C5	-7.81	124.70	128.60
36	5	2400	G	N1-C6-O6	7.80	124.58	119.90
36	5	590	G	C5-C6-O6	-7.80	123.92	128.60
36	1	375	A	O5'-P-OP2	-7.80	98.68	105.70
36	1	2298	U	N1-C2-N3	7.80	119.58	114.90
36	1	1786	G	O5'-P-OP1	-7.80	98.68	105.70
36	1	1396	C	N3-C4-C5	7.79	125.02	121.90
1	6	941	A	N1-C6-N6	-7.79	113.92	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3214	U	N3-C4-O4	-7.79	113.94	119.40
1	6	1537	C	N1-C2-O2	-7.79	114.23	118.90
36	5	1901	A	C6-C5-N7	-7.79	126.85	132.30
36	1	644	G	C6-C5-N7	-7.79	125.73	130.40
36	1	1113	G	N3-C2-N2	-7.78	114.45	119.90
38	4	140	G	C8-N9-C4	-7.78	103.29	106.40
1	6	957	G	N1-C6-O6	7.78	124.57	119.90
36	1	979	U	O4'-C1'-N1	7.78	114.42	108.20
36	1	1300	G	N1-C6-O6	7.78	124.57	119.90
36	1	3277	U	N3-C2-O2	-7.78	116.76	122.20
36	5	712	G	O5'-P-OP2	-7.78	98.70	105.70
36	1	3053	G	N1-C6-O6	-7.77	115.24	119.90
36	1	2169	G	C4-C5-N7	-7.77	107.69	110.80
36	1	143	G	N1-C6-O6	-7.76	115.25	119.90
36	5	2757	U	N1-C2-N3	7.75	119.55	114.90
36	5	1208	U	C5-C4-O4	7.75	130.55	125.90
36	1	365	A	N1-C6-N6	7.75	123.25	118.60
10	S8	29	LEU	CA-CB-CG	7.74	133.10	115.30
1	6	1796	C	N3-C4-N4	-7.74	112.58	118.00
36	1	120	G	C8-N9-C4	7.73	109.49	106.40
36	1	1476	G	C5-C6-O6	7.73	133.24	128.60
36	5	1329	U	C2-N3-C4	-7.73	122.36	127.00
36	5	656	A	N7-C8-N9	-7.73	109.94	113.80
1	2	453	U	C5-C4-O4	7.72	130.53	125.90
1	2	1039	A	O4'-C1'-N9	7.72	114.37	108.20
36	5	1200	A	C8-N9-C4	-7.71	102.71	105.80
36	5	3013	U	N3-C2-O2	-7.71	116.80	122.20
47	M0	24	ARG	NE-CZ-NH1	7.71	124.16	120.30
36	1	407	A	C4-C5-N7	7.71	114.56	110.70
36	5	1116	G	N9-C4-C5	7.71	108.48	105.40
59	n3	45	ARG	NE-CZ-NH1	-7.70	116.45	120.30
36	1	1429	G	N1-C2-N2	-7.70	109.27	116.20
36	1	609	G	O5'-P-OP2	-7.70	98.77	105.70
36	5	2283	G	O5'-P-OP2	-7.70	98.77	105.70
36	1	2606	G	N3-C2-N2	7.69	125.28	119.90
36	5	1047	A	C5-C6-N6	-7.69	117.55	123.70
36	5	1520	G	C5-C6-O6	-7.69	123.99	128.60
1	6	139	C	C6-N1-C2	-7.68	117.23	120.30
36	1	2942	C	N1-C2-O2	-7.68	114.29	118.90
1	6	60	U	C5-C6-N1	7.68	126.54	122.70
36	5	2808	A	N1-C6-N6	7.68	123.21	118.60
36	5	1128	U	C5-C6-N1	-7.68	118.86	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1158	A	N9-C4-C5	-7.68	102.73	105.80
36	1	968	G	C5-C6-O6	-7.67	124.00	128.60
36	5	2434	U	C5-C4-O4	7.67	130.50	125.90
36	1	2392	C	N1-C2-O2	-7.67	114.30	118.90
36	5	1833	G	N1-C6-O6	-7.67	115.30	119.90
36	1	407	A	N1-C6-N6	7.67	123.20	118.60
36	5	2359	C	N3-C4-C5	7.66	124.97	121.90
36	1	2279	A	N1-C6-N6	7.66	123.20	118.60
36	1	3308	C	C6-N1-C2	7.66	123.36	120.30
36	5	2358	A	C8-N9-C4	7.66	108.86	105.80
36	1	1420	C	C5-C4-N4	7.64	125.55	120.20
36	1	3344	A	N7-C8-N9	7.64	117.62	113.80
1	2	1200	G	C5-C6-O6	-7.64	124.02	128.60
24	d2	93	LEU	CA-CB-CG	7.64	132.87	115.30
36	1	1429	G	N3-C4-N9	7.64	130.58	126.00
36	5	2777	G	C5-C6-O6	7.63	133.18	128.60
36	1	2621	G	N1-C2-N2	7.63	123.07	116.20
1	2	18	C	O5'-P-OP1	-7.63	98.83	105.70
36	5	1921	A	O5'-P-OP2	-7.63	98.83	105.70
36	5	2572	C	N1-C2-O2	7.63	123.48	118.90
36	5	2882	U	N1-C2-O2	-7.63	117.46	122.80
36	5	2949	U	C2-N1-C1'	7.63	126.85	117.70
1	6	101	U	N3-C2-O2	-7.62	116.86	122.20
36	5	2298	U	O5'-P-OP1	-7.62	98.84	105.70
36	1	2798	C	N3-C4-C5	-7.62	118.85	121.90
36	1	2861	U	O5'-P-OP1	-7.62	98.84	105.70
36	5	692	A	O5'-P-OP1	-7.62	98.85	105.70
36	5	2836	C	C4-C5-C6	7.62	121.21	117.40
1	6	610	G	C8-N9-C1'	-7.61	117.10	127.00
1	2	1200	G	N3-C2-N2	-7.61	114.57	119.90
36	1	350	C	N3-C4-C5	-7.61	118.86	121.90
36	5	636	C	C2-N3-C4	-7.61	116.09	119.90
36	1	439	C	N1-C2-O2	7.61	123.47	118.90
1	6	1333	C	C6-N1-C2	7.61	123.34	120.30
36	1	1517	G	O5'-P-OP2	-7.61	98.85	105.70
36	1	964	G	C5-C6-N1	7.60	115.30	111.50
1	6	1361	U	C2-N1-C1'	7.60	126.82	117.70
36	1	2936	A	O5'-P-OP1	-7.60	98.86	105.70
36	5	1430	U	C6-N1-C2	7.59	125.56	121.00
36	5	1481	A	C8-N9-C4	-7.59	102.76	105.80
36	5	2401	A	C2-N3-C4	-7.59	106.80	110.60
36	5	3052	G	C5-C6-O6	7.59	133.16	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	554	C	C2-N1-C1'	7.58	127.14	118.80
38	8	29	U	N3-C2-O2	-7.58	116.89	122.20
36	1	2812	C	C4-C5-C6	7.58	121.19	117.40
36	5	810	A	C2-N3-C4	7.58	114.39	110.60
36	1	1129	A	C5-C6-N6	-7.58	117.64	123.70
36	1	1507	G	N3-C2-N2	-7.57	114.60	119.90
73	O7	65	ARG	NE-CZ-NH1	7.57	124.09	120.30
36	1	2298	U	C2-N3-C4	-7.57	122.46	127.00
1	6	1150	G	N3-C4-C5	7.57	132.38	128.60
1	2	1596	C	N1-C2-O2	7.57	123.44	118.90
37	3	103	A	C5-C6-N6	-7.57	117.65	123.70
36	1	1122	U	N3-C4-C5	7.56	119.14	114.60
36	5	3144	G	N7-C8-N9	7.56	116.88	113.10
36	5	662	U	O5'-P-OP1	-7.56	98.90	105.70
36	5	2728	G	O5'-P-OP2	-7.56	98.90	105.70
1	6	338	C	C5-C6-N1	7.56	124.78	121.00
36	5	1006	A	O5'-P-OP1	7.55	119.77	110.70
36	5	1306	G	N3-C4-N9	7.55	130.53	126.00
36	1	942	U	C2-N3-C4	-7.54	122.47	127.00
36	1	1420	C	C6-N1-C2	-7.54	117.28	120.30
36	1	2414	G	N3-C2-N2	-7.54	114.62	119.90
36	5	982	C	OP2-P-O3'	7.54	121.79	105.20
37	7	87	G	N1-C6-O6	7.54	124.42	119.90
36	1	407	A	C5-C6-N6	-7.54	117.67	123.70
36	1	958	C	N3-C4-N4	-7.54	112.72	118.00
36	1	2705	A	C8-N9-C4	7.54	108.81	105.80
1	2	158	U	N3-C2-O2	-7.53	116.93	122.20
36	1	410	U	N1-C2-O2	-7.53	117.53	122.80
36	1	2369	G	N3-C4-C5	-7.53	124.83	128.60
36	1	2874	G	C5-C6-O6	7.53	133.12	128.60
36	5	2718	U	O5'-P-OP2	-7.53	98.92	105.70
36	1	2295	A	N1-C6-N6	7.53	123.12	118.60
1	6	1145	U	N1-C2-O2	-7.53	117.53	122.80
36	1	2298	U	C5-C4-O4	7.53	130.41	125.90
1	6	1300	A	O5'-P-OP1	-7.53	98.93	105.70
37	7	85	G	O5'-P-OP2	7.53	119.73	110.70
36	1	24	G	C8-N9-C4	7.52	109.41	106.40
1	6	858	G	C4-C5-N7	7.52	113.81	110.80
36	1	386	A	N1-C6-N6	7.52	123.11	118.60
36	1	2142	A	C6-N1-C2	-7.52	114.09	118.60
36	5	2872	A	C5-C6-N1	-7.52	113.94	117.70
36	1	2606	G	N1-C2-N2	-7.51	109.44	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2383	C	C2-N3-C4	-7.51	116.14	119.90
36	5	1872	C	N3-C2-O2	-7.51	116.64	121.90
36	5	3047	U	C5-C6-N1	-7.51	118.94	122.70
36	5	3047	U	N3-C4-O4	-7.51	114.15	119.40
36	1	2397	A	O5'-P-OP2	-7.50	98.95	105.70
1	2	885	G	N1-C6-O6	7.50	124.40	119.90
36	1	2295	A	C5-C6-N6	-7.50	117.70	123.70
36	5	807	A	N7-C8-N9	7.50	117.55	113.80
36	1	709	A	N7-C8-N9	-7.50	110.05	113.80
36	5	2814	G	C5-C6-O6	-7.50	124.10	128.60
36	5	907	G	O5'-P-OP1	-7.50	98.95	105.70
36	5	2145	A	C6-N1-C2	-7.49	114.11	118.60
36	5	1327	C	N3-C4-C5	7.49	124.89	121.90
36	5	2211	U	N1-C2-N3	7.48	119.39	114.90
36	1	3006	A	N1-C6-N6	7.48	123.09	118.60
36	5	2385	G	C5-C6-O6	-7.48	124.11	128.60
36	1	3209	A	C5-N7-C8	-7.47	100.16	103.90
36	1	3279	A	O5'-P-OP1	-7.47	98.97	105.70
36	5	197	G	N1-C6-O6	7.47	124.39	119.90
36	5	1901	A	N1-C6-N6	7.47	123.08	118.60
36	1	2891	U	C5-C4-O4	-7.47	121.42	125.90
36	5	218	G	O5'-P-OP2	-7.47	98.98	105.70
37	3	100	C	N3-C4-C5	-7.47	118.91	121.90
36	1	2856	G	N7-C8-N9	-7.47	109.37	113.10
1	6	421	A	C8-N9-C4	7.46	108.79	105.80
36	5	2739	A	N9-C4-C5	7.46	108.79	105.80
36	5	3050	U	N3-C2-O2	-7.46	116.97	122.20
36	5	2617	U	N1-C2-N3	7.46	119.38	114.90
36	5	2732	G	O5'-P-OP2	-7.46	98.98	105.70
36	1	782	U	N3-C4-O4	-7.46	114.18	119.40
36	5	189	G	C5-C6-O6	7.45	133.07	128.60
36	1	1793	C	N3-C4-C5	7.45	124.88	121.90
36	5	2971	A	C2-N3-C4	7.44	114.32	110.60
36	5	1335	C	N1-C2-O2	-7.44	114.43	118.90
36	5	2817	A	C2-N3-C4	7.44	114.32	110.60
36	5	645	A	N1-C2-N3	7.44	133.02	129.30
36	1	2772	C	P-O3'-C3'	7.44	128.63	119.70
36	1	2831	G	N1-C6-O6	7.44	124.36	119.90
36	1	1416	C	N3-C4-C5	7.43	124.87	121.90
40	l3	4	ARG	NE-CZ-NH1	7.43	124.02	120.30
1	2	1782	A	C8-N9-C4	-7.43	102.83	105.80
36	1	979	U	N1-C2-N3	7.43	119.36	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2836	C	N3-C4-C5	-7.43	118.93	121.90
36	5	2121	G	O5'-P-OP2	-7.43	99.01	105.70
1	2	57	G	O5'-P-OP2	-7.43	99.01	105.70
36	1	2945	G	OP1-P-OP2	-7.43	108.46	119.60
70	O4	51	LEU	CA-CB-CG	7.43	132.39	115.30
36	5	1179	A	O5'-P-OP1	-7.43	99.01	105.70
36	5	87	U	N3-C4-O4	-7.43	114.20	119.40
36	5	92	G	C5-C6-N1	7.42	115.21	111.50
36	5	2639	G	C5-C6-O6	-7.42	124.15	128.60
36	1	2123	G	C8-N9-C4	7.42	109.37	106.40
36	1	867	G	N3-C2-N2	-7.42	114.71	119.90
1	2	1280	C	N3-C4-C5	-7.41	118.94	121.90
38	8	25	G	O5'-P-OP2	-7.41	99.03	105.70
36	5	2838	A	C5-C6-N6	-7.41	117.77	123.70
36	5	3103	A	C5-C6-N1	7.41	121.40	117.70
36	5	1878	G	C4-N9-C1'	7.41	136.13	126.50
36	1	2870	C	C4-C5-C6	-7.40	113.70	117.40
36	5	2938	G	O5'-P-OP1	-7.39	99.05	105.70
1	6	1100	G	N3-C4-C5	-7.39	124.90	128.60
1	6	1082	C	O5'-P-OP2	-7.39	99.05	105.70
36	5	2899	C	N1-C2-N3	7.39	124.37	119.20
36	1	397	A	C5-C6-N1	7.39	121.39	117.70
36	1	3022	G	O4'-C1'-N9	7.39	114.11	108.20
36	5	1367	G	N1-C6-O6	7.38	124.33	119.90
36	5	3144	G	N9-C4-C5	7.38	108.35	105.40
1	2	554	C	C2-N3-C4	7.38	123.59	119.90
36	5	2936	A	O5'-P-OP2	7.38	119.56	110.70
36	5	1904	C	N1-C2-O2	7.38	123.33	118.90
36	5	2932	U	C2-N3-C4	-7.38	122.57	127.00
36	5	1473	G	C8-N9-C4	7.38	109.35	106.40
36	5	2964	G	O5'-P-OP2	-7.38	99.06	105.70
36	5	1003	A	N1-C6-N6	7.37	123.02	118.60
36	1	2773	C	O5'-P-OP2	-7.37	99.07	105.70
1	6	1002	G	O5'-P-OP1	-7.37	99.07	105.70
52	m6	78	ARG	NE-CZ-NH2	-7.37	116.62	120.30
36	1	1157	G	C5-C6-O6	7.37	133.02	128.60
36	1	2701	U	C5-C6-N1	-7.36	119.02	122.70
1	6	1166	A	O5'-P-OP2	-7.36	99.08	105.70
36	1	1112	A	C4-C5-N7	7.36	114.38	110.70
36	1	1138	U	N3-C2-O2	-7.36	117.05	122.20
36	1	1142	G	N3-C4-C5	-7.36	124.92	128.60
36	1	1889	G	N1-C6-O6	7.36	124.31	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2704	A	N9-C4-C5	-7.36	102.86	105.80
36	1	970	A	N7-C8-N9	7.35	117.48	113.80
36	5	3374	U	C6-N1-C2	7.35	125.41	121.00
36	5	3305	A	O5'-P-OP2	-7.35	99.08	105.70
36	5	2848	G	N3-C4-C5	-7.35	124.93	128.60
36	5	83	U	N1-C2-O2	7.35	127.94	122.80
36	5	1846	C	C5-C6-N1	-7.35	117.33	121.00
36	1	43	A	C2-N3-C4	-7.34	106.93	110.60
36	1	372	A	O5'-P-OP2	-7.34	99.09	105.70
36	5	1004	U	N1-C2-O2	7.34	127.94	122.80
1	6	308	C	N3-C4-N4	-7.34	112.86	118.00
1	6	1280	C	N3-C4-C5	-7.34	118.97	121.90
36	5	1117	G	O5'-P-OP1	-7.34	99.10	105.70
1	2	158	U	C2-N1-C1'	7.33	126.50	117.70
1	6	1766	A	O5'-P-OP2	-7.33	99.10	105.70
36	5	2816	G	O5'-P-OP1	-7.33	99.10	105.70
36	1	2146	C	N3-C4-C5	7.33	124.83	121.90
36	5	937	G	O5'-P-OP1	-7.33	99.10	105.70
36	1	2395	G	C5-C6-N1	7.33	115.16	111.50
36	1	1373	A	O5'-P-OP2	-7.33	99.11	105.70
36	1	426	G	N3-C4-C5	-7.32	124.94	128.60
36	5	2343	C	N3-C4-C5	7.32	124.83	121.90
36	5	24	G	O5'-P-OP2	-7.32	99.11	105.70
38	4	103	G	C8-N9-C4	-7.32	103.47	106.40
1	2	553	G	N3-C2-N2	-7.31	114.78	119.90
36	5	941	G	C5-C6-N1	7.31	115.16	111.50
37	7	12	U	C5-C4-O4	-7.31	121.52	125.90
36	5	3120	C	C5-C6-N1	7.31	124.65	121.00
1	2	1291	G	N9-C4-C5	7.30	108.32	105.40
36	1	2871	G	C5-N7-C8	-7.30	100.65	104.30
36	5	820	A	O5'-P-OP1	-7.30	99.13	105.70
36	1	1433	A	C5-C6-N6	-7.30	117.86	123.70
36	1	1198	C	C6-N1-C2	-7.30	117.38	120.30
36	5	348	A	O5'-P-OP1	-7.30	99.13	105.70
36	5	882	A	N1-C2-N3	7.30	132.95	129.30
36	5	861	C	C6-N1-C2	7.29	123.22	120.30
1	6	308	C	C2-N1-C1'	-7.29	110.78	118.80
36	5	941	G	N1-C6-O6	-7.29	115.52	119.90
36	5	881	C	C5-C6-N1	7.29	124.65	121.00
36	1	910	G	C8-N9-C4	-7.29	103.48	106.40
36	1	2390	A	C6-N1-C2	-7.29	114.23	118.60
36	1	2121	G	N1-C6-O6	-7.29	115.53	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	929	A	C8-N9-C4	7.29	108.72	105.80
36	1	2405	C	N3-C4-C5	-7.29	118.98	121.90
36	5	1190	A	C8-N9-C4	-7.28	102.89	105.80
36	5	50	U	O5'-P-OP1	-7.28	99.15	105.70
36	1	2401	A	C4-C5-N7	7.28	114.34	110.70
1	6	1002	G	O5'-P-OP2	7.28	119.43	110.70
36	5	2340	U	N3-C4-O4	-7.28	114.31	119.40
36	1	2356	A	C5-N7-C8	-7.27	100.26	103.90
1	2	934	C	C6-N1-C1'	-7.27	112.08	120.80
1	6	536	C	C6-N1-C2	-7.27	117.39	120.30
36	5	36	C	C5-C6-N1	7.27	124.64	121.00
1	2	75	U	N3-C2-O2	-7.27	117.11	122.20
36	1	2642	A	C6-N1-C2	7.27	122.96	118.60
38	4	100	U	C2-N1-C1'	7.27	126.42	117.70
36	5	417	A	O5'-P-OP2	-7.27	99.16	105.70
36	1	1313	G	C4-C5-N7	7.26	113.71	110.80
36	1	2322	C	OP1-P-OP2	-7.26	108.70	119.60
36	1	2983	C	C5-C4-N4	7.26	125.29	120.20
36	5	3082	C	O5'-P-OP2	-7.26	99.16	105.70
36	1	1308	A	N7-C8-N9	7.26	117.43	113.80
36	1	1510	G	N3-C4-N9	7.26	130.35	126.00
36	1	2643	A	C8-N9-C4	7.26	108.70	105.80
36	5	1170	A	N1-C6-N6	7.26	122.95	118.60
36	5	1125	U	O5'-P-OP2	-7.25	99.17	105.70
36	5	1466	G	O5'-P-OP1	-7.25	99.17	105.70
36	1	515	C	N3-C4-C5	-7.25	119.00	121.90
36	1	2399	A	OP1-P-OP2	-7.25	108.72	119.60
36	5	2191	U	N3-C4-O4	-7.25	114.32	119.40
36	1	1338	C	N1-C2-O2	-7.25	114.55	118.90
36	5	679	U	C5-C4-O4	7.25	130.25	125.90
36	1	1481	A	C5-N7-C8	-7.25	100.28	103.90
36	5	2531	C	C2-N1-C1'	7.25	126.77	118.80
36	1	1127	G	N1-C6-O6	7.24	124.25	119.90
36	1	650	C	C6-N1-C2	7.24	123.20	120.30
37	7	1	G	C4-N9-C1'	7.24	135.91	126.50
37	7	92	A	C8-N9-C4	7.24	108.70	105.80
36	1	395	A	O5'-P-OP2	-7.24	99.18	105.70
36	1	908	G	O4'-C1'-N9	-7.24	102.41	108.20
1	6	1757	G	C8-N9-C4	7.24	109.30	106.40
1	2	582	U	O5'-P-OP2	-7.24	99.19	105.70
1	2	1747	G	N1-C6-O6	7.24	124.24	119.90
36	5	780	A	N1-C6-N6	7.24	122.94	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2632	G	N1-C6-O6	-7.23	115.56	119.90
36	1	808	A	N1-C6-N6	-7.23	114.26	118.60
36	1	1396	C	C6-N1-C2	7.23	123.19	120.30
36	1	3015	G	C5-C6-O6	-7.23	124.26	128.60
36	1	802	C	O5'-P-OP2	7.23	119.37	110.70
36	1	2283	G	C5-C6-O6	-7.23	124.26	128.60
36	5	3041	U	N3-C4-C5	7.23	118.94	114.60
36	5	425	G	C8-N9-C4	7.22	109.29	106.40
36	5	2728	G	N3-C2-N2	-7.22	114.84	119.90
36	1	2642	A	C5-C6-N1	-7.22	114.09	117.70
36	5	1481	A	P-O3'-C3'	7.22	128.37	119.70
36	5	1389	G	C4-C5-N7	7.22	113.69	110.80
36	5	2992	U	N3-C4-C5	7.22	118.93	114.60
15	C3	22	ALA	C-N-CD	-7.22	104.72	120.60
36	1	669	U	C6-N1-C2	7.22	125.33	121.00
36	5	2412	G	N3-C4-C5	-7.22	124.99	128.60
37	7	92	A	C5-C6-N6	-7.22	117.92	123.70
36	1	953	G	N3-C4-C5	7.21	132.21	128.60
36	1	2392	C	C5-C4-N4	-7.21	115.15	120.20
36	1	1136	A	C8-N9-C4	-7.21	102.92	105.80
36	1	2983	C	O4'-C1'-N1	7.21	113.97	108.20
36	1	2875	U	C5-C6-N1	-7.21	119.09	122.70
1	6	634	G	O5'-P-OP2	-7.21	99.21	105.70
36	1	926	A	C5-C6-N6	-7.21	117.94	123.70
36	1	3050	U	N3-C2-O2	-7.21	117.16	122.20
36	5	664	U	N1-C2-N3	7.21	119.22	114.90
36	1	400	G	O5'-P-OP2	-7.21	99.22	105.70
36	5	2830	G	N1-C2-N3	7.21	128.22	123.90
36	5	1301	A	N1-C6-N6	7.20	122.92	118.60
36	5	2843	U	N3-C2-O2	-7.20	117.16	122.20
37	7	101	G	C5-C6-O6	-7.20	124.28	128.60
36	1	1116	G	C6-C5-N7	-7.20	126.08	130.40
36	1	2888	U	C2-N3-C4	-7.20	122.68	127.00
36	5	2872	A	C8-N9-C1'	7.20	140.66	127.70
36	1	1443	G	N7-C8-N9	7.20	116.70	113.10
36	5	860	G	O5'-P-OP2	-7.20	99.22	105.70
1	6	337	G	C4-C5-N7	7.19	113.68	110.80
36	5	437	G	N3-C4-N9	-7.19	121.69	126.00
36	5	1430	U	C5-C6-N1	-7.19	119.11	122.70
1	2	1773	C	N3-C4-N4	7.19	123.03	118.00
36	5	1302	A	C8-N9-C4	-7.19	102.92	105.80
36	5	2598	G	N1-C6-O6	7.19	124.21	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2848	G	C6-C5-N7	-7.19	126.09	130.40
1	6	1747	G	O5'-P-OP2	-7.18	99.23	105.70
36	5	2388	U	C4-C5-C6	7.18	124.01	119.70
36	5	2403	G	O5'-P-OP1	7.18	119.32	110.70
36	5	2341	A	C8-N9-C4	7.18	108.67	105.80
36	1	1365	G	N3-C4-C5	-7.18	125.01	128.60
36	1	1664	G	C5-C6-O6	7.18	132.91	128.60
36	5	964	G	C5-C6-O6	-7.18	124.29	128.60
36	5	2753	G	N3-C2-N2	-7.18	114.88	119.90
36	1	1481	A	C6-C5-N7	-7.18	127.28	132.30
36	1	421	G	N3-C4-N9	7.18	130.31	126.00
36	1	33	G	O5'-P-OP2	-7.17	99.24	105.70
36	5	2421	U	N1-C2-O2	-7.17	117.78	122.80
36	1	808	A	C4-C5-N7	-7.17	107.12	110.70
36	1	2816	G	C5-C6-O6	-7.17	124.30	128.60
36	1	2978	U	O4'-C1'-N1	7.17	113.93	108.20
36	5	3335	A	N1-C6-N6	7.17	122.90	118.60
37	7	7	G	O5'-P-OP1	7.16	119.30	110.70
36	1	2169	G	C6-C5-N7	7.16	134.70	130.40
36	5	1158	A	C4-C5-N7	7.16	114.28	110.70
36	1	365	A	C5-N7-C8	-7.16	100.32	103.90
36	5	2882	U	C5-C4-O4	-7.16	121.61	125.90
36	1	2827	U	C5-C4-O4	7.16	130.19	125.90
36	5	767	U	O4'-C1'-N1	7.16	113.92	108.20
36	5	2636	A	N1-C6-N6	-7.15	114.31	118.60
36	1	365	A	C6-C5-N7	-7.15	127.29	132.30
36	1	2986	U	N1-C2-O2	-7.15	117.80	122.80
36	1	1445	U	N1-C2-O2	-7.15	117.80	122.80
38	4	25	G	C4-C5-N7	-7.15	107.94	110.80
1	6	542	A	N1-C6-N6	7.15	122.89	118.60
36	5	656	A	C5-N7-C8	7.15	107.47	103.90
36	1	646	A	C4-C5-C6	7.15	120.57	117.00
36	5	3343	G	N3-C4-N9	7.15	130.29	126.00
38	4	103	G	N9-C4-C5	7.14	108.26	105.40
36	5	2370	G	N1-C2-N3	7.14	128.19	123.90
36	1	651	G	N3-C4-N9	7.14	130.29	126.00
36	5	947	G	N3-C4-C5	-7.14	125.03	128.60
36	1	946	U	N3-C2-O2	-7.14	117.20	122.20
36	1	2882	U	N3-C4-O4	-7.14	114.40	119.40
1	6	1634	C	N1-C2-O2	7.14	123.18	118.90
36	5	1163	A	N1-C6-N6	-7.14	114.32	118.60
36	1	2249	G	N3-C4-C5	-7.14	125.03	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1113	G	N1-C2-N3	7.14	128.18	123.90
36	1	1150	A	N1-C6-N6	-7.13	114.32	118.60
36	1	2624	G	O5'-P-OP2	7.13	119.26	110.70
36	1	2634	U	N3-C2-O2	-7.13	117.21	122.20
36	5	337	G	N3-C4-C5	-7.13	125.03	128.60
36	5	86	G	N3-C2-N2	7.13	124.89	119.90
36	5	2932	U	N3-C4-C5	7.13	118.88	114.60
36	1	1368	U	N1-C2-N3	7.13	119.18	114.90
36	5	2814	G	C6-C5-N7	-7.13	126.12	130.40
36	5	3143	C	N3-C2-O2	7.13	126.89	121.90
36	5	889	U	C5-C4-O4	-7.12	121.62	125.90
36	1	2814	G	C5-C6-O6	-7.12	124.33	128.60
36	5	1302	A	N9-C4-C5	7.12	108.65	105.80
36	5	2908	G	N3-C2-N2	-7.12	114.91	119.90
36	5	3218	A	N3-C4-N9	-7.12	121.70	127.40
36	1	628	A	N1-C6-N6	7.12	122.87	118.60
36	1	2385	G	N3-C4-C5	7.12	132.16	128.60
36	1	3362	A	C2-N3-C4	-7.12	107.04	110.60
39	L2	3	ARG	NE-CZ-NH1	-7.12	116.74	120.30
36	5	966	U	N3-C2-O2	-7.12	117.22	122.20
36	5	1205	A	O5'-P-OP2	-7.12	99.29	105.70
36	5	2320	A	C2-N3-C4	-7.12	107.04	110.60
36	5	2290	C	C6-N1-C2	7.11	123.14	120.30
36	1	817	A	C6-N1-C2	-7.11	114.33	118.60
36	1	905	U	O5'-P-OP2	-7.11	99.30	105.70
36	1	2726	C	C5-C4-N4	7.11	125.18	120.20
36	5	646	A	O5'-P-OP2	-7.11	99.30	105.70
36	5	2704	A	C5-C6-N6	-7.11	118.01	123.70
1	6	1754	A	N1-C6-N6	-7.11	114.33	118.60
36	5	2953	U	C4-C5-C6	7.11	123.97	119.70
36	5	2978	U	C5-C4-O4	7.11	130.16	125.90
36	5	283	G	C5-N7-C8	-7.11	100.75	104.30
36	1	2278	C	C4-C5-C6	-7.11	113.85	117.40
1	6	387	A	N9-C4-C5	7.10	108.64	105.80
1	6	542	A	C6-C5-N7	-7.10	127.33	132.30
36	5	56	G	N1-C6-O6	-7.10	115.64	119.90
36	1	1513	G	N3-C4-C5	-7.10	125.05	128.60
36	5	716	A	N1-C6-N6	7.10	122.86	118.60
1	2	577	G	C5-N7-C8	-7.10	100.75	104.30
1	2	1568	C	P-O3'-C3'	7.10	128.22	119.70
36	5	893	C	N3-C4-C5	-7.09	119.06	121.90
36	5	2872	A	C4-C5-C6	-7.09	113.45	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	963	G	C5-C6-O6	-7.09	124.34	128.60
36	1	1124	U	C5-C6-N1	7.09	126.25	122.70
36	1	2310	U	O5'-P-OP1	-7.09	99.32	105.70
36	5	1152	G	C8-N9-C4	-7.09	103.56	106.40
36	5	3123	A	C8-N9-C4	7.09	108.64	105.80
36	5	2118	C	N3-C2-O2	-7.09	116.94	121.90
36	5	2393	G	C5-C6-O6	-7.09	124.35	128.60
36	5	1481	A	N7-C8-N9	7.08	117.34	113.80
36	1	1838	G	N1-C6-O6	7.08	124.15	119.90
36	5	2904	U	N3-C2-O2	-7.08	117.24	122.20
1	6	957	G	N3-C2-N2	-7.08	114.94	119.90
36	1	702	C	C2-N3-C4	-7.08	116.36	119.90
36	1	3317	U	O5'-P-OP2	-7.08	99.33	105.70
36	5	2167	A	N9-C4-C5	7.08	108.63	105.80
36	1	2169	G	N1-C6-O6	-7.08	115.66	119.90
1	6	1605	G	N1-C6-O6	-7.08	115.66	119.90
36	5	2928	C	C6-N1-C2	-7.07	117.47	120.30
36	1	427	C	C6-N1-C2	-7.07	117.47	120.30
36	1	3048	A	O5'-P-OP2	-7.07	99.34	105.70
37	7	1	G	N3-C4-C5	-7.07	125.06	128.60
36	1	2817	A	C5-C6-N6	-7.07	118.05	123.70
36	1	324	A	C6-N1-C2	-7.07	114.36	118.60
36	5	3215	A	N1-C6-N6	7.07	122.84	118.60
36	1	277	G	C2-N3-C4	7.06	115.43	111.90
36	1	1122	U	C2-N3-C4	-7.06	122.76	127.00
37	7	51	A	C8-N9-C4	-7.06	102.97	105.80
36	5	75	G	N1-C6-O6	7.06	124.14	119.90
36	1	2154	U	N3-C4-O4	7.06	124.34	119.40
36	5	2964	G	C8-N9-C4	7.06	109.22	106.40
36	1	645	A	N3-C4-N9	7.06	133.05	127.40
36	5	1879	A	C6-C5-N7	-7.06	127.36	132.30
36	5	2357	A	C8-N9-C4	7.06	108.62	105.80
36	5	1901	A	C4-C5-C6	7.06	120.53	117.00
36	5	2900	A	OP2-P-O3'	7.06	120.73	105.20
36	1	2144	A	N1-C6-N6	7.05	122.83	118.60
36	5	1117	G	C2-N3-C4	7.05	115.43	111.90
36	5	1292	C	O5'-P-OP1	-7.05	99.35	105.70
1	2	694	U	C2-N1-C1'	7.05	126.16	117.70
36	1	426	G	N3-C4-N9	7.05	130.23	126.00
36	5	1902	G	O5'-P-OP1	-7.05	99.36	105.70
36	5	2385	G	N3-C4-N9	-7.05	121.77	126.00
36	1	903	U	N3-C4-C5	7.04	118.83	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2817	A	OP1-P-OP2	-7.04	109.04	119.60
36	1	2214	A	O5'-P-OP2	-7.04	99.37	105.70
1	6	371	G	N3-C4-N9	7.04	130.22	126.00
36	5	776	U	N1-C2-N3	7.04	119.12	114.90
36	5	1117	G	N1-C2-N3	-7.04	119.68	123.90
36	1	2130	G	N1-C6-O6	-7.04	115.68	119.90
36	5	2870	C	C6-N1-C1'	7.04	129.24	120.80
36	1	893	C	C6-N1-C2	-7.03	117.49	120.30
36	1	3143	C	N1-C2-O2	-7.03	114.68	118.90
36	5	2287	C	N1-C2-O2	-7.03	114.68	118.90
36	5	3090	U	N3-C4-C5	7.03	118.82	114.60
36	1	2418	G	OP1-P-O3'	7.03	120.67	105.20
36	1	859	G	C8-N9-C1'	-7.03	117.86	127.00
1	2	779	U	O4'-C1'-N1	7.03	113.82	108.20
36	5	1157	G	N1-C6-O6	-7.03	115.68	119.90
36	1	1879	A	O4'-C1'-N9	7.03	113.82	108.20
36	5	1076	C	C5-C4-N4	7.03	125.12	120.20
36	5	1438	U	N1-C2-N3	7.02	119.11	114.90
36	1	894	G	OP1-P-O3'	7.02	120.65	105.20
36	1	895	A	N7-C8-N9	7.02	117.31	113.80
36	1	2621	G	C5-C6-O6	-7.02	124.39	128.60
36	1	670	C	N3-C4-C5	-7.02	119.09	121.90
36	1	2393	G	C5-C6-O6	-7.02	124.39	128.60
1	6	315	A	N9-C4-C5	7.02	108.61	105.80
36	5	2870	C	C2-N1-C1'	-7.02	111.08	118.80
36	1	88	A	C4-C5-C6	7.02	120.51	117.00
36	5	3374	U	C5-C6-N1	-7.02	119.19	122.70
36	5	1483	G	N1-C6-O6	-7.01	115.69	119.90
37	7	73	C	C6-N1-C2	-7.01	117.50	120.30
36	1	111	C	C6-N1-C2	7.01	123.11	120.30
36	1	2585	G	N3-C4-C5	-7.01	125.09	128.60
1	6	308	C	C2-N3-C4	-7.01	116.39	119.90
36	5	40	A	O5'-P-OP1	-7.01	99.39	105.70
36	5	2631	U	C5-C6-N1	-7.01	119.19	122.70
1	2	577	G	N3-C4-C5	7.01	132.10	128.60
36	1	59	G	N1-C6-O6	7.01	124.10	119.90
1	6	1600	A	C2-N3-C4	-7.00	107.10	110.60
36	1	1906	G	C5-C6-O6	-7.00	124.40	128.60
36	5	83	U	N3-C2-O2	-7.00	117.30	122.20
36	5	957	C	N3-C2-O2	-7.00	117.00	121.90
36	5	2735	U	C6-N1-C2	-7.00	116.80	121.00
36	1	2679	A	C2-N3-C4	-7.00	107.10	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1641	C	N3-C4-N4	7.00	122.90	118.00
36	5	92	G	N1-C6-O6	-7.00	115.70	119.90
36	5	2632	G	N1-C6-O6	-7.00	115.70	119.90
36	1	637	C	C2-N3-C4	-7.00	116.40	119.90
36	5	825	U	N3-C4-O4	-7.00	114.50	119.40
36	5	2728	G	N9-C4-C5	7.00	108.20	105.40
36	1	802	C	N3-C2-O2	-6.99	117.00	121.90
36	1	1165	A	O5'-P-OP2	-6.99	99.41	105.70
36	5	1434	G	C5-C6-N1	6.99	115.00	111.50
1	6	158	U	P-O3'-C3'	6.99	128.09	119.70
1	2	1340	U	N3-C2-O2	-6.99	117.31	122.20
36	1	25	U	N3-C4-O4	6.99	124.29	119.40
36	5	2123	G	C5-C6-N1	6.99	115.00	111.50
36	5	2946	A	N1-C6-N6	-6.99	114.41	118.60
36	1	1297	C	O5'-P-OP1	-6.99	99.41	105.70
36	1	2868	U	C5-C4-O4	-6.99	121.71	125.90
36	5	1113	G	N3-C2-N2	-6.99	115.01	119.90
36	5	2838	A	N1-C6-N6	6.99	122.79	118.60
36	1	640	U	N1-C2-O2	-6.99	117.91	122.80
36	5	2392	C	N3-C4-C5	6.99	124.69	121.90
36	1	1920	U	N3-C2-O2	-6.99	117.31	122.20
38	4	40	A	N9-C4-C5	-6.99	103.01	105.80
36	5	646	A	C8-N9-C4	-6.99	103.01	105.80
36	1	2405	C	C4-C5-C6	6.98	120.89	117.40
36	5	1148	G	N1-C6-O6	6.98	124.09	119.90
31	D9	36	LEU	CA-CB-CG	6.98	131.35	115.30
38	4	25	G	N9-C4-C5	6.98	108.19	105.40
36	5	369	A	N7-C8-N9	6.98	117.29	113.80
36	1	681	U	C5-C4-O4	-6.98	121.71	125.90
1	6	956	C	C6-N1-C2	6.98	123.09	120.30
1	2	402	C	O5'-P-OP2	6.97	119.07	110.70
38	4	73	U	C4-C5-C6	-6.97	115.52	119.70
38	4	113	U	C5-C6-N1	-6.97	119.21	122.70
36	5	1437	C	C5-C6-N1	6.97	124.49	121.00
36	5	1680	G	N1-C6-O6	-6.97	115.72	119.90
36	1	97	U	C2-N3-C4	-6.97	122.82	127.00
38	4	115	C	N3-C4-N4	-6.97	113.12	118.00
36	5	2256	A	O5'-P-OP1	-6.97	99.42	105.70
36	5	2416	U	C6-N1-C2	-6.97	116.82	121.00
36	5	1338	C	N3-C4-N4	6.97	122.88	118.00
36	5	412	G	N7-C8-N9	6.97	116.58	113.10
36	5	1104	G	C6-C5-N7	-6.97	126.22	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1466	G	O5'-P-OP2	6.97	119.06	110.70
36	5	1547	G	C5-C6-O6	-6.97	124.42	128.60
36	5	3204	C	O5'-P-OP2	-6.97	99.43	105.70
36	1	2702	A	C8-N9-C4	-6.96	103.01	105.80
1	6	1634	C	C6-N1-C2	-6.96	117.52	120.30
36	5	1148	G	N9-C4-C5	-6.96	102.61	105.40
36	5	1586	G	N3-C4-N9	6.96	130.18	126.00
36	5	631	U	N3-C2-O2	-6.96	117.33	122.20
36	5	1128	U	C5-C4-O4	-6.96	121.72	125.90
36	5	1370	G	N1-C2-N2	-6.96	109.94	116.20
1	6	321	C	O5'-P-OP1	-6.96	99.44	105.70
36	5	2402	A	C6-N1-C2	6.96	122.77	118.60
37	7	87	G	N3-C2-N2	-6.96	115.03	119.90
36	1	521	A	N1-C6-N6	6.96	122.77	118.60
38	4	79	A	C8-N9-C4	-6.96	103.02	105.80
1	6	151	G	O5'-P-OP1	-6.96	99.44	105.70
1	6	1596	C	C6-N1-C2	-6.96	117.52	120.30
36	5	1130	A	N7-C8-N9	-6.96	110.32	113.80
36	5	81	C	N1-C2-O2	6.95	123.07	118.90
36	1	909	G	C4-C5-N7	-6.95	108.02	110.80
1	6	101	U	N1-C2-O2	6.95	127.67	122.80
11	s9	3	ARG	NE-CZ-NH2	6.95	123.77	120.30
36	5	435	C	N3-C4-C5	6.95	124.68	121.90
36	5	2866	U	N1-C2-O2	6.95	127.66	122.80
36	5	2290	C	C2-N3-C4	-6.95	116.43	119.90
1	2	1324	G	N3-C2-N2	-6.95	115.04	119.90
36	1	3275	U	C5-C6-N1	6.94	126.17	122.70
37	7	11	A	N1-C6-N6	6.94	122.77	118.60
36	1	1443	G	C5-N7-C8	-6.94	100.83	104.30
36	5	828	A	N1-C6-N6	-6.94	114.44	118.60
36	1	2177	G	N3-C4-C5	-6.94	125.13	128.60
36	1	2647	A	C6-N1-C2	-6.94	114.44	118.60
36	1	3207	U	C2-N1-C1'	-6.94	109.38	117.70
36	5	86	G	N1-C6-O6	-6.94	115.74	119.90
36	1	3057	U	C5-C4-O4	6.93	130.06	125.90
1	6	901	G	C4-C5-N7	6.93	113.57	110.80
36	5	73	C	C5-C4-N4	-6.93	115.35	120.20
36	5	1858	A	O4'-C1'-N9	6.93	113.75	108.20
36	5	2780	A	O5'-P-OP2	-6.93	99.46	105.70
36	5	2992	U	N1-C2-O2	6.93	127.65	122.80
1	6	17	C	N1-C2-O2	6.93	123.06	118.90
36	5	1152	G	N9-C4-C5	6.93	108.17	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	931	C	C5-C6-N1	-6.93	117.53	121.00
36	5	1403	C	C5-C6-N1	-6.93	117.54	121.00
36	1	2278	C	C5-C6-N1	6.93	124.46	121.00
36	1	3190	C	N3-C4-C5	6.93	124.67	121.90
36	5	1657	C	N1-C2-O2	6.92	123.06	118.90
36	5	2331	C	N3-C4-C5	-6.92	119.13	121.90
36	5	2954	U	N1-C2-O2	6.92	127.65	122.80
36	1	2759	U	N1-C2-O2	6.92	127.65	122.80
36	5	1112	A	C5-C6-N6	-6.92	118.16	123.70
36	5	2953	U	C5-C4-O4	-6.92	121.75	125.90
36	5	1111	U	C5-C4-O4	-6.92	121.75	125.90
36	5	2953	U	N1-C2-O2	-6.92	117.96	122.80
1	2	639	U	N1-C2-O2	6.92	127.64	122.80
36	5	2351	U	N3-C2-O2	-6.92	117.36	122.20
36	1	369	A	C2-N3-C4	6.92	114.06	110.60
36	1	588	G	N1-C6-O6	-6.92	115.75	119.90
36	5	1855	U	C5-C6-N1	-6.92	119.24	122.70
36	5	2231	C	O4'-C1'-N1	6.92	113.73	108.20
36	1	3269	U	N3-C2-O2	-6.91	117.36	122.20
1	6	805	U	C6-N1-C2	-6.91	116.85	121.00
36	1	217	U	OP1-P-O3'	6.91	120.40	105.20
36	1	2728	G	C5-C6-O6	-6.91	124.45	128.60
36	1	3217	C	C2-N1-C1'	6.91	126.40	118.80
36	5	2353	G	N1-C6-O6	6.91	124.05	119.90
36	1	1157	G	N1-C6-O6	-6.91	115.75	119.90
36	5	635	G	N1-C6-O6	6.91	124.05	119.90
36	5	1314	C	N3-C4-C5	6.91	124.66	121.90
1	2	1129	U	N3-C4-C5	6.91	118.74	114.60
36	5	2875	U	C2-N3-C4	-6.91	122.86	127.00
36	1	2816	G	N9-C4-C5	-6.90	102.64	105.40
1	6	10	G	C5-C6-O6	6.90	132.74	128.60
36	1	947	G	N3-C4-C5	-6.90	125.15	128.60
1	6	426	G	C4-N9-C1'	6.90	135.47	126.50
36	5	2611	U	C4-C5-C6	6.90	123.84	119.70
1	2	1486	G	C5-N7-C8	-6.90	100.85	104.30
36	1	3209	A	C6-C5-N7	-6.90	127.47	132.30
1	2	359	A	C4-C5-C6	-6.90	113.55	117.00
36	1	93	C	O5'-P-OP1	-6.90	99.49	105.70
36	1	1349	G	N3-C4-N9	6.90	130.14	126.00
1	6	103	A	P-O3'-C3'	6.90	127.98	119.70
1	2	453	U	C2-N1-C1'	6.89	125.97	117.70
36	1	2811	A	C6-N1-C2	-6.89	114.47	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1208	U	O5'-P-OP1	-6.89	99.50	105.70
36	5	1197	A	N1-C2-N3	6.88	132.74	129.30
36	5	2278	C	C5-C6-N1	6.88	124.44	121.00
36	5	2919	A	N1-C2-N3	6.88	132.74	129.30
1	2	1600	A	N9-C4-C5	-6.88	103.05	105.80
36	1	3344	A	C5-N7-C8	-6.88	100.46	103.90
36	5	2371	G	C2-N3-C4	-6.88	108.46	111.90
36	1	730	C	N3-C4-C5	6.88	124.65	121.90
36	1	921	A	O4'-C1'-N9	-6.88	102.70	108.20
36	1	1404	G	C8-N9-C4	6.88	109.15	106.40
36	1	2138	A	C8-N9-C4	-6.88	103.05	105.80
36	5	1003	A	C8-N9-C4	6.87	108.55	105.80
1	2	1753	A	N1-C6-N6	6.87	122.72	118.60
35	SM	167	PRO	N-CA-CB	6.87	111.54	103.30
36	5	874	U	O5'-P-OP1	-6.87	99.52	105.70
36	5	1838	G	N3-C2-N2	-6.87	115.09	119.90
36	1	1846	C	N1-C2-O2	-6.86	114.78	118.90
36	5	1133	A	C2-N3-C4	6.86	114.03	110.60
36	1	1141	C	N3-C4-C5	-6.86	119.16	121.90
36	1	3207	U	C5-C4-O4	6.86	130.02	125.90
54	M8	178	ARG	NE-CZ-NH1	-6.86	116.87	120.30
36	5	1364	C	N1-C2-O2	-6.86	114.78	118.90
1	6	470	A	N7-C8-N9	6.86	117.23	113.80
36	5	1285	G	O5'-P-OP1	-6.86	99.53	105.70
36	5	406	G	N9-C4-C5	6.86	108.14	105.40
36	1	2631	U	N3-C4-O4	-6.85	114.60	119.40
1	6	453	U	C5-C4-O4	6.85	130.01	125.90
36	5	283	G	N3-C2-N2	-6.85	115.10	119.90
1	2	728	U	C2-N1-C1'	6.85	125.92	117.70
36	5	1116	G	C8-N9-C4	-6.85	103.66	106.40
36	5	2852	C	C5-C6-N1	-6.85	117.58	121.00
1	2	933	A	N1-C6-N6	-6.85	114.49	118.60
36	5	2621	G	N3-C2-N2	-6.85	115.11	119.90
36	1	2401	A	C5-N7-C8	-6.84	100.48	103.90
36	1	1148	G	N9-C4-C5	-6.84	102.66	105.40
1	6	337	G	C8-N9-C1'	-6.84	118.11	127.00
1	6	1150	G	C8-N9-C4	6.84	109.14	106.40
36	5	2626	A	OP1-P-OP2	-6.84	109.34	119.60
37	3	89	G	C5-C6-O6	-6.84	124.50	128.60
36	5	2194	G	O5'-P-OP2	-6.84	99.55	105.70
36	5	3195	U	O4'-C1'-N1	6.84	113.67	108.20
36	1	1820	U	P-O3'-C3'	6.83	127.90	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	52	A	C5-C6-N6	6.83	129.17	123.70
36	1	228	U	N3-C2-O2	-6.83	117.42	122.20
36	1	2634	U	N1-C2-N3	6.83	119.00	114.90
36	1	3302	U	C6-N1-C2	6.83	125.10	121.00
36	5	1064	A	O5'-P-OP2	-6.83	99.55	105.70
36	5	2246	G	O5'-P-OP2	6.83	118.89	110.70
36	5	3218	A	N3-C4-C5	6.83	131.58	126.80
1	2	1796	C	C5-C4-N4	6.83	124.98	120.20
36	5	1152	G	N7-C8-N9	6.83	116.51	113.10
36	5	2531	C	N1-C2-O2	6.83	123.00	118.90
1	6	470	A	C8-N9-C4	-6.82	103.07	105.80
1	6	1269	U	N3-C2-O2	-6.82	117.42	122.20
36	5	776	U	C5-C4-O4	6.82	129.99	125.90
36	5	421	G	C4-C5-N7	6.82	113.53	110.80
36	5	2333	C	N3-C4-C5	6.82	124.63	121.90
36	5	1041	U	O5'-P-OP2	-6.82	99.56	105.70
36	1	2343	C	C2-N3-C4	-6.82	116.49	119.90
36	1	2768	U	O5'-P-OP2	-6.82	99.56	105.70
36	1	422	A	N1-C6-N6	-6.81	114.51	118.60
36	1	2400	G	N3-C4-N9	6.81	130.09	126.00
1	2	794	U	N3-C2-O2	-6.81	117.43	122.20
36	1	969	C	C5-C4-N4	-6.81	115.43	120.20
36	5	1306	G	N9-C4-C5	-6.81	102.67	105.40
36	5	1441	G	C5-C6-N1	6.81	114.91	111.50
36	5	2888	U	O5'-P-OP1	-6.81	99.57	105.70
36	5	1456	A	N1-C6-N6	6.81	122.68	118.60
36	5	2169	G	N1-C6-O6	-6.81	115.82	119.90
36	1	786	A	N9-C4-C5	6.80	108.52	105.80
36	1	1376	C	N3-C4-C5	-6.80	119.18	121.90
36	1	2700	G	C8-N9-C4	-6.80	103.68	106.40
36	5	716	A	N9-C4-C5	-6.80	103.08	105.80
36	5	1376	C	O5'-P-OP1	-6.80	99.58	105.70
36	5	1403	C	C6-N1-C2	6.80	123.02	120.30
36	5	1427	U	N3-C2-O2	-6.80	117.44	122.20
36	5	1045	C	N3-C4-C5	-6.80	119.18	121.90
36	1	2816	G	N1-C6-O6	6.80	123.98	119.90
36	1	1346	G	C5-C6-N1	-6.80	108.10	111.50
36	5	1104	G	N3-C4-C5	-6.80	125.20	128.60
36	1	2693	C	C6-N1-C2	6.80	123.02	120.30
36	1	1335	C	N3-C4-N4	-6.79	113.24	118.00
36	5	947	G	N1-C6-O6	-6.79	115.82	119.90
36	5	3206	C	N1-C2-O2	6.79	122.98	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	611	A	O5'-P-OP2	-6.79	99.59	105.70
36	1	1541	G	C5-C6-O6	-6.79	124.52	128.60
36	5	2375	G	N1-C6-O6	-6.79	115.82	119.90
1	6	1037	C	C6-N1-C2	6.79	123.02	120.30
36	1	228	U	N1-C2-O2	6.79	127.55	122.80
36	1	938	C	N1-C2-O2	-6.79	114.83	118.90
36	1	2177	G	N3-C2-N2	6.79	124.65	119.90
36	5	291	C	N3-C4-N4	-6.79	113.25	118.00
36	5	927	C	O5'-P-OP1	-6.79	99.59	105.70
36	5	2420	C	C6-N1-C2	6.79	123.01	120.30
36	5	2386	A	N7-C8-N9	6.78	117.19	113.80
36	1	2816	G	O4'-C1'-N9	6.78	113.63	108.20
38	4	63	G	C8-N9-C4	-6.78	103.69	106.40
36	5	3335	A	C6-C5-N7	-6.78	127.55	132.30
36	5	2371	G	N1-C2-N2	-6.78	110.10	116.20
36	1	1556	C	N3-C2-O2	-6.78	117.16	121.90
36	1	2983	C	N3-C4-N4	-6.78	113.26	118.00
38	4	94	C	N3-C4-C5	6.78	124.61	121.90
36	5	189	G	N3-C2-N2	6.78	124.64	119.90
36	5	2421	U	N1-C2-N3	6.78	118.97	114.90
1	2	1456	C	N3-C2-O2	-6.77	117.16	121.90
36	1	2719	U	N1-C2-N3	6.77	118.96	114.90
36	1	3107	U	O5'-P-OP2	-6.77	99.60	105.70
36	1	3109	G	O5'-P-OP2	6.77	118.83	110.70
36	5	341	G	C4-C5-N7	6.77	113.51	110.80
36	1	1173	U	C5-C6-N1	-6.77	119.31	122.70
36	1	2146	C	O5'-P-OP2	-6.77	99.61	105.70
36	1	2650	U	C6-N1-C2	-6.77	116.94	121.00
36	5	589	A	N1-C6-N6	6.77	122.66	118.60
36	5	1421	G	O5'-P-OP2	-6.77	99.61	105.70
1	6	453	U	C2-N1-C1'	6.77	125.82	117.70
36	5	1127	G	N1-C6-O6	6.77	123.96	119.90
1	6	858	G	C6-C5-N7	-6.77	126.34	130.40
36	1	1295	G	N1-C6-O6	-6.76	115.84	119.90
36	5	2694	A	C8-N9-C4	-6.76	103.10	105.80
36	1	645	A	C4-C5-C6	6.76	120.38	117.00
36	1	1336	U	N1-C2-N3	6.76	118.95	114.90
36	5	2730	G	N9-C4-C5	-6.76	102.70	105.40
36	1	1901	A	C5-C6-N1	6.75	121.08	117.70
1	6	29	U	N3-C2-O2	-6.75	117.47	122.20
36	5	2145	A	C5-C6-N1	6.75	121.08	117.70
1	2	553	G	C4-C5-C6	6.75	122.85	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2983	C	N1-C2-N3	6.75	123.93	119.20
36	1	3178	A	C8-N9-C4	6.75	108.50	105.80
36	5	41	G	N1-C6-O6	6.75	123.95	119.90
36	5	661	G	C8-N9-C4	-6.75	103.70	106.40
37	3	95	A	N1-C6-N6	6.75	122.65	118.60
36	1	718	G	C5-N7-C8	-6.75	100.93	104.30
36	1	660	A	O5'-P-OP2	-6.75	99.63	105.70
1	6	421	A	N1-C6-N6	6.75	122.65	118.60
36	1	938	C	C5-C4-N4	-6.74	115.48	120.20
36	5	406	G	C8-N9-C4	-6.74	103.70	106.40
36	1	1307	G	N1-C6-O6	-6.74	115.86	119.90
1	6	603	U	N1-C2-O2	-6.74	118.08	122.80
1	6	623	A	O5'-P-OP1	-6.74	99.63	105.70
1	2	728	U	N1-C2-O2	6.74	127.52	122.80
36	5	889	U	C6-N1-C2	6.74	125.04	121.00
36	1	1142	G	C5-C6-O6	-6.74	124.56	128.60
36	1	2593	A	O5'-P-OP2	-6.74	99.64	105.70
36	1	3318	G	N3-C4-C5	-6.74	125.23	128.60
36	5	952	A	N1-C6-N6	6.74	122.64	118.60
36	5	514	G	N1-C6-O6	6.74	123.94	119.90
36	1	689	U	N1-C2-O2	6.73	127.51	122.80
36	5	81	C	N3-C4-N4	-6.73	113.29	118.00
36	1	284	A	C8-N9-C4	-6.73	103.11	105.80
36	1	2836	C	C6-N1-C2	-6.73	117.61	120.30
36	5	384	A	C8-N9-C4	6.73	108.49	105.80
36	5	640	U	N1-C2-N3	6.73	118.94	114.90
36	5	1149	G	C4-C5-N7	-6.73	108.11	110.80
36	5	2992	U	N3-C4-O4	-6.73	114.69	119.40
36	1	3112	G	C5-C6-O6	-6.73	124.56	128.60
36	5	2704	A	C8-N9-C4	6.73	108.49	105.80
37	7	47	C	C2-N3-C4	-6.73	116.53	119.90
36	5	2945	G	C6-N1-C2	-6.73	121.06	125.10
36	1	718	G	C4-C5-C6	-6.73	114.76	118.80
1	6	1133	A	O5'-P-OP2	6.73	118.77	110.70
1	6	1333	C	N3-C4-C5	6.73	124.59	121.90
36	5	1178	G	C5-C6-O6	-6.73	124.56	128.60
36	5	2808	A	C6-C5-N7	-6.73	127.59	132.30
36	5	339	C	C6-N1-C2	-6.73	117.61	120.30
1	2	1761	U	C6-N1-C2	-6.72	116.97	121.00
36	5	2866	U	N3-C2-O2	-6.72	117.49	122.20
36	1	2192	C	O5'-P-OP2	-6.72	99.65	105.70
36	5	2299	A	O5'-P-OP2	-6.72	99.65	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1098	A	C8-N9-C4	-6.72	103.11	105.80
36	1	1367	G	N1-C6-O6	6.72	123.93	119.90
36	5	2719	U	C2-N1-C1'	-6.72	109.63	117.70
36	1	1507	G	C5-C6-O6	-6.72	124.57	128.60
1	6	813	U	N1-C2-O2	6.72	127.50	122.80
36	5	2820	A	C6-N1-C2	-6.72	114.57	118.60
1	2	137	U	N3-C2-O2	-6.72	117.50	122.20
36	1	1127	G	C4-C5-N7	6.71	113.48	110.80
36	1	1661	G	N9-C4-C5	-6.71	102.72	105.40
36	1	2400	G	C5-C6-O6	-6.71	124.58	128.60
37	3	82	G	N1-C6-O6	-6.71	115.88	119.90
36	5	868	C	C6-N1-C2	6.71	122.98	120.30
36	5	1157	G	OP2-P-O3'	6.71	119.96	105.20
36	5	3216	G	C5-C6-O6	-6.71	124.58	128.60
36	1	677	A	O5'-P-OP1	-6.71	99.67	105.70
36	5	2932	U	C5-C6-N1	-6.70	119.35	122.70
37	7	92	A	N9-C4-C5	-6.70	103.12	105.80
36	1	817	A	C4-C5-C6	6.70	120.35	117.00
36	1	903	U	C2-N3-C4	-6.70	122.98	127.00
36	1	2177	G	N3-C4-N9	6.70	130.02	126.00
36	5	2796	G	C8-N9-C4	6.70	109.08	106.40
38	4	103	G	C4-C5-N7	-6.70	108.12	110.80
1	6	308	C	C5-C4-N4	6.70	124.89	120.20
36	5	1513	G	N3-C4-C5	-6.70	125.25	128.60
1	6	158	U	N3-C4-O4	6.70	124.09	119.40
36	5	416	A	C8-N9-C4	-6.70	103.12	105.80
36	5	1190	A	N1-C6-N6	-6.70	114.58	118.60
36	5	2388	U	N3-C4-C5	-6.70	110.58	114.60
36	1	2594	C	C6-N1-C2	6.69	122.98	120.30
36	5	976	U	N3-C2-O2	-6.69	117.51	122.20
36	1	1346	G	O5'-P-OP2	-6.69	99.68	105.70
36	1	2597	U	OP2-P-O3'	6.69	119.92	105.20
36	5	3092	C	O4'-C1'-N1	6.69	113.56	108.20
1	6	6	G	O5'-P-OP2	-6.69	99.68	105.70
36	5	2366	C	C2-N1-C1'	6.69	126.16	118.80
36	1	386	A	C6-C5-N7	-6.69	127.62	132.30
1	6	359	A	C4-N9-C1'	-6.69	114.26	126.30
36	5	716	A	O5'-P-OP1	-6.69	99.68	105.70
36	5	2815	G	C8-N9-C4	6.69	109.08	106.40
36	5	2379	U	C5-C6-N1	-6.69	119.36	122.70
36	1	921	A	N1-C6-N6	6.68	122.61	118.60
36	1	1792	C	C4-C5-C6	6.68	120.74	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1178	G	N1-C6-O6	6.68	123.91	119.90
38	4	73	U	N3-C4-C5	6.68	118.61	114.60
36	5	2814	G	N1-C6-O6	6.68	123.91	119.90
1	2	1455	G	N9-C4-C5	6.68	108.07	105.40
36	5	1326	A	C2-N3-C4	6.68	113.94	110.60
36	5	365	A	N1-C6-N6	6.67	122.61	118.60
36	5	1186	G	N7-C8-N9	6.67	116.44	113.10
36	1	2391	G	N1-C6-O6	-6.67	115.90	119.90
36	1	2897	A	C8-N9-C4	6.67	108.47	105.80
1	6	359	A	C6-N1-C2	6.67	122.60	118.60
1	6	1581	C	C6-N1-C2	6.67	122.97	120.30
36	5	73	C	C6-N1-C2	6.67	122.97	120.30
36	5	2333	C	C6-N1-C2	6.67	122.97	120.30
36	1	1113	G	C5-C6-N1	-6.67	108.17	111.50
36	1	1552	G	C4-C5-N7	6.67	113.47	110.80
36	5	869	G	C5-C6-N1	6.67	114.83	111.50
36	1	1547	G	C8-N9-C4	6.66	109.07	106.40
36	1	1679	A	C8-N9-C4	6.66	108.47	105.80
1	6	416	A	N1-C6-N6	6.66	122.60	118.60
36	5	2856	G	O5'-P-OP1	-6.66	99.70	105.70
36	5	2923	U	O5'-P-OP1	-6.66	99.70	105.70
1	2	1462	G	N1-C6-O6	6.66	123.89	119.90
36	1	2302	G	N1-C6-O6	-6.66	115.91	119.90
36	1	2730	G	N3-C2-N2	-6.66	115.24	119.90
36	5	3275	U	C2-N1-C1'	6.66	125.69	117.70
36	1	37	U	N1-C2-O2	-6.66	118.14	122.80
36	1	3368	U	C2-N1-C1'	-6.66	109.71	117.70
36	5	2950	G	O4'-C1'-N9	6.66	113.53	108.20
36	1	2350	C	C2-N3-C4	-6.66	116.57	119.90
36	5	640	U	N3-C4-O4	6.66	124.06	119.40
36	5	2887	A	C4-C5-C6	6.65	120.33	117.00
36	5	3047	U	N3-C2-O2	-6.65	117.54	122.20
36	1	934	G	C8-N9-C1'	-6.65	118.35	127.00
36	5	2649	A	C5-N7-C8	-6.65	100.58	103.90
36	5	2848	G	C4-N9-C1'	6.65	135.15	126.50
36	5	63	A	N1-C6-N6	6.65	122.59	118.60
51	m5	187	ARG	NE-CZ-NH1	-6.65	116.98	120.30
36	1	2153	U	C6-N1-C2	-6.64	117.01	121.00
36	1	648	C	O5'-P-OP1	-6.64	99.72	105.70
36	1	817	A	O5'-P-OP1	-6.64	99.72	105.70
36	1	2993	G	N3-C4-N9	6.64	129.99	126.00
36	5	611	A	O5'-P-OP1	6.64	118.67	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	659	G	P-O3'-C3'	6.64	127.67	119.70
36	5	2249	G	N3-C4-C5	-6.64	125.28	128.60
36	5	3303	G	C5-C6-O6	6.64	132.59	128.60
36	1	580	C	N1-C2-O2	-6.64	114.92	118.90
36	1	942	U	N3-C4-C5	6.64	118.58	114.60
36	1	2173	U	N1-C2-O2	-6.64	118.15	122.80
36	5	1119	C	C2-N3-C4	-6.64	116.58	119.90
36	5	1338	C	N3-C4-C5	-6.64	119.25	121.90
36	1	73	C	N3-C4-N4	6.64	122.65	118.00
36	1	2760	C	N3-C4-C5	-6.63	119.25	121.90
36	5	2371	G	C4-C5-N7	6.63	113.45	110.80
1	6	390	G	N3-C4-C5	-6.63	125.28	128.60
36	5	2524	A	N9-C1'-C2'	6.63	122.62	114.00
1	2	1773	C	N1-C2-O2	-6.63	114.92	118.90
36	1	584	G	N9-C4-C5	6.62	108.05	105.40
36	1	1515	A	N1-C6-N6	6.62	122.57	118.60
36	5	75	G	N3-C4-N9	6.62	129.97	126.00
36	5	718	G	O4'-C1'-N9	6.62	113.50	108.20
36	5	2988	C	C5-C6-N1	-6.62	117.69	121.00
36	5	3161	C	C6-N1-C2	-6.62	117.65	120.30
36	1	2865	U	C4-C5-C6	-6.62	115.73	119.70
36	5	3006	A	C8-N9-C4	-6.62	103.15	105.80
36	1	944	C	C6-N1-C2	-6.62	117.65	120.30
36	1	1454	A	O5'-P-OP1	-6.62	99.74	105.70
1	6	1669	U	N3-C2-O2	-6.62	117.57	122.20
36	1	1790	G	N1-C6-O6	6.62	123.87	119.90
36	1	2777	G	N9-C4-C5	6.62	108.05	105.40
36	1	927	C	N1-C2-O2	-6.61	114.93	118.90
36	1	1906	G	C6-C5-N7	-6.61	126.43	130.40
36	1	2142	A	O5'-P-OP2	6.61	118.64	110.70
36	1	3045	G	C2-N3-C4	6.61	115.21	111.90
36	1	214	G	N1-C6-O6	6.61	123.87	119.90
47	M0	69	ARG	NE-CZ-NH1	-6.61	116.99	120.30
1	6	421	A	N9-C4-C5	-6.61	103.16	105.80
36	5	1461	A	C8-N9-C4	6.61	108.44	105.80
36	1	2918	G	C6-N1-C2	-6.61	121.13	125.10
36	5	1912	U	N3-C2-O2	6.61	126.83	122.20
36	5	2308	C	N3-C2-O2	6.61	126.53	121.90
36	1	648	C	C2-N1-C1'	6.60	126.06	118.80
1	2	507	U	N1-C2-O2	6.60	127.42	122.80
36	1	2726	C	N1-C2-N3	6.60	123.82	119.20
1	6	305	C	N1-C2-O2	-6.60	114.94	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	282	G	C8-N9-C4	6.60	109.04	106.40
36	5	1367	G	N3-C2-N2	-6.60	115.28	119.90
36	1	270	U	N3-C2-O2	-6.60	117.58	122.20
36	1	2298	U	O4'-C1'-N1	6.60	113.48	108.20
56	N0	115	ARG	NE-CZ-NH2	-6.60	117.00	120.30
37	7	104	A	N1-C6-N6	6.60	122.56	118.60
36	5	2904	U	C5-C6-N1	-6.60	119.40	122.70
36	5	3245	A	C8-N9-C4	-6.60	103.16	105.80
36	1	2306	C	C5-C4-N4	6.59	124.82	120.20
36	1	835	G	C5-C6-O6	-6.59	124.64	128.60
36	1	934	G	C4-N9-C1'	6.59	135.07	126.50
36	1	1838	G	C5-C6-O6	-6.59	124.64	128.60
1	6	913	G	O5'-P-OP1	-6.59	99.77	105.70
36	5	1460	A	O5'-P-OP1	6.59	118.60	110.70
36	5	3217	C	C5-C6-N1	-6.59	117.71	121.00
1	2	794	U	N1-C2-O2	6.58	127.41	122.80
1	6	66	U	P-O3'-C3'	6.58	127.60	119.70
36	1	2401	A	N3-C4-C5	6.58	131.41	126.80
36	5	337	G	N9-C4-C5	6.58	108.03	105.40
36	5	2639	G	N3-C4-N9	6.58	129.95	126.00
1	2	580	A	C8-N9-C4	-6.58	103.17	105.80
36	1	29	C	N3-C4-C5	6.58	124.53	121.90
36	1	2153	U	N1-C2-N3	6.58	118.85	114.90
37	3	88	G	N1-C2-N2	-6.58	110.28	116.20
36	5	2816	G	N1-C6-O6	6.58	123.85	119.90
36	5	1116	G	C4-C5-N7	-6.58	108.17	110.80
36	5	1316	C	N3-C2-O2	6.58	126.50	121.90
36	5	2296	A	C6-C5-N7	-6.58	127.70	132.30
1	6	1535	U	N3-C2-O2	-6.57	117.60	122.20
36	5	810	A	N1-C2-N3	-6.57	126.01	129.30
36	5	833	G	C5-C6-O6	-6.57	124.66	128.60
37	7	96	U	N3-C2-O2	-6.57	117.60	122.20
64	n8	46	ASP	CB-CG-OD1	6.57	124.21	118.30
36	1	1116	G	N1-C6-O6	6.57	123.84	119.90
36	5	283	G	N1-C6-O6	6.57	123.84	119.90
36	1	1116	G	N3-C4-C5	-6.57	125.32	128.60
36	1	1186	G	C8-N9-C4	6.57	109.03	106.40
36	1	2856	G	C4-C5-N7	-6.57	108.17	110.80
47	M0	57	LEU	CA-CB-CG	6.57	130.40	115.30
36	5	2364	G	N3-C4-N9	-6.57	122.06	126.00
36	5	3141	A	C4-C5-C6	6.57	120.28	117.00
36	1	2215	A	C8-N9-C4	6.56	108.43	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3143	C	O5'-P-OP2	-6.56	99.79	105.70
36	5	630	A	C8-N9-C4	6.56	108.42	105.80
75	O9	45	ARG	NE-CZ-NH2	-6.56	117.02	120.30
1	6	1514	U	N3-C4-O4	-6.56	114.81	119.40
36	5	2904	U	N1-C2-N3	6.56	118.84	114.90
36	1	2383	C	C5-C6-N1	-6.56	117.72	121.00
36	1	2411	U	N3-C4-O4	-6.56	114.81	119.40
37	3	84	A	C8-N9-C4	-6.56	103.18	105.80
36	1	637	C	C2-N1-C1'	-6.56	111.59	118.80
36	1	811	U	C5-C6-N1	-6.56	119.42	122.70
1	6	558	U	C2-N1-C1'	6.56	125.57	117.70
36	5	1012	G	C4-N9-C1'	-6.56	117.97	126.50
36	5	2255	A	O5'-P-OP1	-6.56	99.80	105.70
36	5	1438	U	C6-N1-C2	-6.56	117.07	121.00
36	1	637	C	C5-C6-N1	-6.55	117.72	121.00
36	5	3188	G	C4-C5-N7	-6.55	108.18	110.80
36	1	1911	A	O5'-P-OP2	-6.55	99.80	105.70
36	5	1434	G	C5-C6-O6	-6.55	124.67	128.60
36	5	2993	G	C4-C5-N7	6.55	113.42	110.80
36	5	3144	G	N3-C4-C5	-6.55	125.32	128.60
1	2	830	U	N3-C2-O2	-6.55	117.61	122.20
36	1	325	A	C5-C6-N1	6.55	120.97	117.70
1	6	25	C	P-O3'-C3'	6.55	127.56	119.70
1	6	343	C	N1-C2-O2	-6.55	114.97	118.90
36	5	1138	U	C2-N3-C4	-6.55	123.07	127.00
36	5	1186	G	C8-N9-C4	-6.55	103.78	106.40
36	5	1371	G	C5-C6-N1	6.55	114.78	111.50
36	1	282	G	C2'-C3'-O3'	6.55	124.18	113.70
36	1	960	U	OP2-P-O3'	6.55	119.61	105.20
36	1	1362	G	C8-N9-C4	6.55	109.02	106.40
36	5	1931	U	C2-N1-C1'	-6.55	109.84	117.70
36	5	2913	C	N1-C2-N3	6.55	123.78	119.20
36	1	2979	U	C2-N3-C4	-6.55	123.07	127.00
36	5	3076	C	O5'-P-OP1	-6.55	99.81	105.70
36	5	3362	A	C5-N7-C8	-6.55	100.63	103.90
36	1	1901	A	C6-N1-C2	-6.55	114.67	118.60
36	5	2834	G	O5'-P-OP2	-6.55	99.81	105.70
36	1	1346	G	N1-C6-O6	6.54	123.83	119.90
1	6	957	G	C5-C6-N1	-6.54	108.23	111.50
36	1	2821	C	N3-C4-N4	6.54	122.58	118.00
36	5	2808	A	N9-C4-C5	-6.54	103.18	105.80
36	5	877	C	N3-C4-N4	-6.54	113.42	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	q1	9	ARG	NE-CZ-NH1	6.54	123.57	120.30
36	5	2349	U	OP1-P-O3'	6.54	119.59	105.20
36	5	2836	C	C5-C6-N1	-6.54	117.73	121.00
36	1	1103	A	O5'-P-OP2	6.54	118.55	110.70
36	1	2381	G	N1-C6-O6	-6.54	115.98	119.90
36	1	2977	G	C5-C6-N1	6.54	114.77	111.50
36	5	1385	C	C5-C4-N4	-6.54	115.62	120.20
1	6	317	C	C5-C6-N1	-6.54	117.73	121.00
36	1	123	A	C8-N9-C4	-6.54	103.19	105.80
36	1	3112	G	OP1-P-O3'	6.54	119.58	105.20
1	6	1150	G	C2-N3-C4	-6.54	108.63	111.90
1	2	507	U	C2-N1-C1'	6.53	125.54	117.70
36	1	782	U	N3-C4-C5	6.53	118.52	114.60
36	5	2980	U	N1-C2-O2	-6.53	118.23	122.80
36	1	1409	G	C5-C6-O6	6.53	132.52	128.60
36	1	2619	G	N7-C8-N9	-6.53	109.83	113.10
1	6	337	G	N3-C4-N9	6.53	129.92	126.00
36	5	76	G	C8-N9-C4	6.53	109.01	106.40
36	5	2335	G	C6-N1-C2	-6.53	121.18	125.10
36	1	414	U	C6-N1-C2	-6.53	117.08	121.00
36	5	3195	U	P-O3'-C3'	6.53	127.53	119.70
36	5	953	G	C5-C6-O6	-6.53	124.68	128.60
36	5	1322	U	C5-C6-N1	-6.53	119.44	122.70
36	1	1371	G	OP2-P-O3'	6.52	119.55	105.20
36	1	2400	G	C8-N9-C4	6.52	109.01	106.40
36	1	3056	U	N1-C2-O2	-6.52	118.23	122.80
36	5	1884	A	N1-C6-N6	6.52	122.51	118.60
1	2	1745	G	C5-C6-O6	-6.52	124.69	128.60
1	6	335	U	N3-C2-O2	-6.52	117.63	122.20
1	6	362	G	N3-C4-N9	6.52	129.91	126.00
1	6	426	G	N3-C4-C5	-6.52	125.34	128.60
36	5	2873	U	N1-C2-N3	6.52	118.81	114.90
1	2	728	U	N3-C2-O2	-6.52	117.64	122.20
36	1	2238	G	C5-C6-O6	-6.52	124.69	128.60
36	1	52	A	N1-C6-N6	-6.52	114.69	118.60
1	6	1789	G	C5-C6-O6	-6.52	124.69	128.60
36	5	2295	A	C5-C6-N6	-6.52	118.49	123.70
1	6	1796	C	C5-C4-N4	6.51	124.76	120.20
36	5	2877	G	N1-C2-N3	6.51	127.81	123.90
36	5	3107	U	N3-C4-C5	6.51	118.51	114.60
36	1	680	G	OP1-P-OP2	6.51	129.37	119.60
36	1	959	C	O5'-P-OP2	-6.51	99.84	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2695	A	C8-N9-C4	-6.51	103.19	105.80
36	1	1547	G	N7-C8-N9	-6.51	109.84	113.10
1	6	297	U	C5-C4-O4	-6.51	121.99	125.90
1	6	359	A	N1-C2-N3	-6.51	126.04	129.30
36	1	2134	G	N1-C6-O6	-6.51	115.99	119.90
1	6	1000	C	C2-N3-C4	-6.51	116.65	119.90
36	1	221	A	O5'-P-OP2	-6.51	99.84	105.70
36	1	670	C	C4-C5-C6	6.50	120.65	117.40
36	1	1112	A	C5-N7-C8	-6.50	100.65	103.90
36	1	2850	G	N1-C6-O6	6.50	123.80	119.90
36	5	87	U	C5-C4-O4	6.50	129.80	125.90
36	5	971	G	C5-N7-C8	6.50	107.55	104.30
36	1	2944	U	OP1-P-O3'	6.50	119.50	105.20
36	1	2986	U	C6-N1-C2	-6.50	117.10	121.00
36	5	2129	U	C5-C6-N1	6.50	125.95	122.70
36	1	379	C	C6-N1-C2	-6.50	117.70	120.30
36	1	2333	C	N3-C4-N4	-6.50	113.45	118.00
36	1	821	U	C5-C4-O4	6.50	129.80	125.90
36	1	955	U	C2-N3-C4	-6.50	123.10	127.00
35	sM	167	PRO	N-CA-CB	6.50	111.10	103.30
36	5	1606	U	O4'-C1'-N1	6.50	113.40	108.20
36	5	2964	G	C4-N9-C1'	-6.50	118.05	126.50
37	7	94	C	N3-C4-C5	6.50	124.50	121.90
36	1	2983	C	C2-N3-C4	-6.49	116.65	119.90
36	5	2871	G	O5'-P-OP2	-6.49	99.86	105.70
36	1	2389	C	C6-N1-C2	6.49	122.90	120.30
36	5	1104	G	C8-N9-C4	-6.49	103.80	106.40
36	5	2410	U	N3-C2-O2	6.49	126.74	122.20
36	5	2611	U	C5-C6-N1	-6.49	119.46	122.70
36	5	3006	A	N1-C2-N3	6.49	132.54	129.30
36	1	361	A	N9-C4-C5	6.49	108.39	105.80
36	1	1346	G	C2-N3-C4	-6.49	108.66	111.90
36	1	2279	A	C8-N9-C4	6.48	108.39	105.80
1	6	1634	C	C6-N1-C1'	-6.48	113.02	120.80
36	5	2872	A	N1-C6-N6	6.48	122.49	118.60
36	1	859	G	C4-N9-C1'	6.48	134.92	126.50
36	5	1847	A	C2-N3-C4	-6.48	107.36	110.60
1	2	390	G	N3-C2-N2	-6.48	115.36	119.90
36	1	1201	C	N1-C2-O2	-6.48	115.01	118.90
36	1	1379	G	N1-C2-N3	6.48	127.79	123.90
36	1	2522	G	C4-N9-C1'	6.48	134.92	126.50
36	1	1493	G	O4'-C1'-N9	6.47	113.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2763	U	C6-N1-C2	6.47	124.88	121.00
36	1	3318	G	C4-N9-C1'	6.47	134.92	126.50
36	1	3362	A	C6-C5-N7	-6.47	127.77	132.30
1	6	1	U	C6-N1-C1'	-6.47	112.14	121.20
1	6	638	U	N3-C2-O2	-6.47	117.67	122.20
1	2	73	U	O4'-C1'-N1	6.47	113.38	108.20
36	1	1211	U	C5-C4-O4	6.47	129.78	125.90
36	1	2660	G	C5-C6-O6	-6.47	124.72	128.60
36	1	1342	C	N1-C2-O2	-6.47	115.02	118.90
1	2	507	U	N3-C2-O2	-6.47	117.67	122.20
36	1	339	C	N3-C2-O2	-6.47	117.37	121.90
36	1	2129	U	C6-N1-C2	-6.47	117.12	121.00
36	1	3183	A	N1-C6-N6	6.47	122.48	118.60
37	3	86	U	C2-N3-C4	-6.47	123.12	127.00
1	6	542	A	N7-C8-N9	6.47	117.03	113.80
36	5	1200	A	OP1-P-O3'	6.47	119.43	105.20
36	1	2411	U	C2-N1-C1'	-6.46	109.94	117.70
36	5	518	G	C5-C6-O6	-6.46	124.72	128.60
36	5	2188	A	C5-N7-C8	6.46	107.13	103.90
36	1	944	C	C5-C6-N1	6.46	124.23	121.00
36	5	2167	A	N1-C6-N6	-6.46	114.72	118.60
36	1	1443	G	C8-N9-C4	-6.46	103.82	106.40
36	1	2622	C	N3-C4-N4	6.46	122.52	118.00
36	1	3111	U	N3-C4-O4	-6.46	114.88	119.40
37	3	82	G	C5-C6-O6	6.46	132.48	128.60
36	1	1421	G	C8-N9-C4	6.46	108.98	106.40
36	1	1832	C	N3-C2-O2	-6.46	117.38	121.90
36	5	1380	G	C8-N9-C4	6.46	108.98	106.40
1	2	831	U	C5-C6-N1	6.46	125.93	122.70
1	6	609	U	N1-C2-N3	6.46	118.78	114.90
36	5	197	G	C5-C6-O6	-6.46	124.72	128.60
36	5	1307	G	C2'-C3'-O3'	6.46	124.03	113.70
36	5	2813	A	N7-C8-N9	6.46	117.03	113.80
36	1	2654	C	C4-C5-C6	6.46	120.63	117.40
36	5	1152	G	C5-C6-N1	-6.46	108.27	111.50
36	5	1911	A	C2-N3-C4	-6.46	107.37	110.60
36	5	3209	A	O4'-C1'-N9	6.45	113.36	108.20
36	1	695	C	C6-N1-C2	6.45	122.88	120.30
36	1	2827	U	C2-N1-C1'	-6.45	109.96	117.70
36	5	2878	G	C5-C6-N1	6.45	114.73	111.50
36	1	1904	C	C5-C6-N1	6.45	124.23	121.00
36	5	2905	U	C5-C6-N1	-6.45	119.47	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	946	U	C6-N1-C2	-6.45	117.13	121.00
36	1	1319	G	C5-C6-N1	6.45	114.72	111.50
36	5	2278	C	C4-C5-C6	-6.45	114.18	117.40
1	6	1539	G	O4'-C1'-N9	-6.45	103.04	108.20
36	5	1312	C	N3-C4-C5	-6.45	119.32	121.90
38	8	110	C	C6-N1-C2	-6.44	117.72	120.30
1	2	158	U	C6-N1-C2	-6.44	117.14	121.00
36	1	1180	A	N9-C4-C5	6.44	108.38	105.80
36	1	2572	C	C6-N1-C1'	-6.44	113.07	120.80
36	1	2875	U	C2-N1-C1'	-6.44	109.97	117.70
1	6	623	A	N1-C6-N6	6.44	122.47	118.60
36	5	946	U	C5-C4-O4	6.44	129.77	125.90
36	5	2767	U	O5'-P-OP2	-6.44	99.90	105.70
37	7	26	C	O5'-P-OP2	-6.44	99.90	105.70
36	5	1884	A	C2-N3-C4	-6.44	107.38	110.60
36	5	3005	A	C4-C5-C6	6.44	120.22	117.00
1	2	256	A	O5'-P-OP2	-6.44	99.91	105.70
1	2	348	U	O5'-P-OP2	-6.44	99.91	105.70
36	1	396	A	C8-N9-C4	-6.44	103.22	105.80
36	1	907	G	N3-C4-N9	6.44	129.86	126.00
36	5	2142	A	OP1-P-OP2	-6.44	109.94	119.60
36	5	2145	A	N3-C4-C5	-6.43	122.30	126.80
36	1	2362	C	N1-C2-O2	6.43	122.76	118.90
1	6	163	G	N3-C2-N2	-6.43	115.40	119.90
36	5	2941	A	O4'-C1'-N9	-6.43	103.06	108.20
36	1	1303	A	C8-N9-C4	6.43	108.37	105.80
38	4	113	U	C4-C5-C6	6.43	123.56	119.70
36	1	2855	U	N3-C4-O4	-6.43	114.90	119.40
1	6	767	U	N3-C2-O2	-6.43	117.70	122.20
41	14	359	LEU	CA-CB-CG	6.43	130.09	115.30
36	1	281	G	C6-N1-C2	-6.43	121.24	125.10
36	1	1180	A	O4'-C1'-N9	-6.43	103.06	108.20
36	1	2376	G	N7-C8-N9	6.43	116.31	113.10
36	5	3197	G	N3-C2-N2	-6.43	115.40	119.90
36	1	641	C	O4'-C1'-N1	6.43	113.34	108.20
1	2	1600	A	C5-C6-N1	-6.42	114.49	117.70
36	1	1385	C	N1-C2-O2	-6.42	115.05	118.90
36	1	3305	A	O5'-P-OP2	-6.42	99.92	105.70
1	6	54	C	N3-C4-C5	6.42	124.47	121.90
36	1	2827	U	N3-C4-O4	-6.42	114.90	119.40
36	1	2152	A	N1-C6-N6	-6.42	114.75	118.60
36	1	2658	G	C8-N9-C4	6.42	108.97	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2113	A	C8-N9-C4	6.42	108.37	105.80
36	5	3042	U	C2-N3-C4	-6.42	123.15	127.00
36	1	1296	C	C6-N1-C2	-6.42	117.73	120.30
36	1	2862	U	N3-C2-O2	-6.42	117.71	122.20
36	1	2969	A	O5'-P-OP2	-6.42	99.92	105.70
62	N6	60	ARG	NE-CZ-NH1	-6.42	117.09	120.30
36	5	1042	U	N3-C4-O4	-6.42	114.91	119.40
1	2	1126	G	C5-C6-O6	-6.42	124.75	128.60
36	1	2628	A	C8-N9-C4	-6.42	103.23	105.80
36	1	31	C	C2-N3-C4	-6.42	116.69	119.90
36	1	716	A	C4-C5-N7	6.42	113.91	110.70
36	1	1196	C	C6-N1-C2	6.42	122.87	120.30
36	5	2617	U	N1-C2-O2	-6.42	118.31	122.80
37	3	82	G	N1-C2-N2	-6.41	110.43	116.20
1	6	163	G	N7-C8-N9	6.41	116.31	113.10
36	1	1434	G	N7-C8-N9	6.41	116.31	113.10
43	16	173	MET	CB-CG-SD	-6.41	93.17	112.40
36	5	974	G	N3-C4-C5	-6.41	125.39	128.60
36	5	1528	G	N3-C4-C5	-6.41	125.39	128.60
36	1	1142	G	N3-C4-N9	6.41	129.84	126.00
36	1	1204	A	N1-C6-N6	6.41	122.44	118.60
36	1	1822	C	C6-N1-C2	-6.41	117.74	120.30
36	5	934	G	C4-N9-C1'	6.41	134.83	126.50
36	5	2388	U	N3-C4-O4	6.41	123.89	119.40
36	5	2645	G	N3-C4-C5	-6.41	125.40	128.60
1	6	779	U	N1-C2-O2	6.41	127.28	122.80
36	5	341	G	C5-N7-C8	-6.41	101.10	104.30
36	1	2200	U	C6-N1-C2	-6.41	117.16	121.00
36	1	2400	G	C2-N3-C4	-6.41	108.70	111.90
1	6	29	U	C5-C4-O4	6.41	129.74	125.90
1	6	359	A	N3-C4-C5	6.41	131.28	126.80
36	5	413	U	C5-C6-N1	-6.41	119.50	122.70
36	1	931	C	N3-C4-C5	6.40	124.46	121.90
36	1	2872	A	O5'-P-OP2	-6.40	99.94	105.70
36	5	360	G	C5-C6-N1	-6.40	108.30	111.50
37	7	8	G	C8-N9-C4	-6.40	103.84	106.40
36	1	1307	G	P-O3'-C3'	6.40	127.38	119.70
36	5	2572	C	C2-N1-C1'	6.40	125.84	118.80
36	1	669	U	C5-C6-N1	-6.40	119.50	122.70
36	1	2830	G	N3-C2-N2	-6.40	115.42	119.90
36	1	143	G	N3-C4-C5	-6.40	125.40	128.60
12	c0	97	PRO	N-CA-CB	6.40	110.98	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1449	A	N1-C2-N3	6.40	132.50	129.30
36	1	344	A	C5-C6-N6	6.39	128.82	123.70
36	1	913	A	N3-C4-C5	-6.39	122.32	126.80
36	1	3054	U	C5-C6-N1	-6.39	119.50	122.70
1	6	434	G	O5'-P-OP2	-6.39	99.95	105.70
36	5	1404	G	C8-N9-C4	6.39	108.96	106.40
36	5	2948	C	O5'-P-OP1	6.39	118.37	110.70
36	5	3362	A	O4'-C1'-N9	6.39	113.31	108.20
36	5	890	C	O5'-P-OP2	-6.39	99.95	105.70
36	5	927	C	N3-C4-C5	6.39	124.46	121.90
36	5	2799	A	O5'-P-OP2	-6.39	99.95	105.70
37	7	33	U	O5'-P-OP1	-6.39	99.95	105.70
36	1	976	U	O5'-P-OP2	-6.39	99.95	105.70
36	1	2868	U	C2-N3-C4	-6.39	123.17	127.00
36	5	3125	U	O5'-P-OP1	-6.39	99.95	105.70
36	5	374	A	P-O3'-C3'	6.39	127.36	119.70
36	5	395	A	C5-C6-N6	-6.39	118.59	123.70
1	6	337	G	N3-C2-N2	6.38	124.37	119.90
36	5	869	G	C6-N1-C2	-6.38	121.27	125.10
36	5	1112	A	C6-N1-C2	-6.38	114.77	118.60
36	5	3042	U	N1-C2-N3	6.38	118.73	114.90
36	5	2372	A	N9-C4-C5	6.38	108.35	105.80
36	1	1300	G	N9-C4-C5	-6.38	102.85	105.40
1	6	17	C	O5'-P-OP2	-6.38	99.96	105.70
36	1	1870	C	C6-N1-C2	6.38	122.85	120.30
1	6	314	C	C6-N1-C2	-6.38	117.75	120.30
36	1	33	G	C5-C6-O6	-6.38	124.77	128.60
36	5	2314	U	C5-C4-O4	-6.38	122.07	125.90
36	5	2790	A	O5'-P-OP2	-6.38	99.96	105.70
41	14	339	LEU	CA-CB-CG	6.38	129.97	115.30
36	1	1374	G	N3-C2-N2	6.38	124.36	119.90
36	1	3147	G	N1-C6-O6	-6.37	116.08	119.90
36	5	3024	A	C8-N9-C4	-6.37	103.25	105.80
36	1	2944	U	N3-C2-O2	-6.37	117.74	122.20
36	1	3344	A	O4'-C1'-N9	6.37	113.30	108.20
36	5	3306	U	N3-C4-C5	6.37	118.42	114.60
36	5	2281	A	N1-C6-N6	6.37	122.42	118.60
36	5	2351	U	N3-C4-O4	-6.37	114.94	119.40
36	1	1513	G	C5-C6-N1	6.37	114.68	111.50
36	5	1064	A	O4'-C1'-N9	-6.37	103.11	108.20
36	5	2364	G	N1-C6-O6	-6.37	116.08	119.90
36	1	155	G	N3-C4-N9	6.37	129.82	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	584	G	C4-C5-N7	-6.37	108.25	110.80
36	1	2249	G	N1-C6-O6	-6.37	116.08	119.90
36	5	3214	U	N1-C2-O2	6.37	127.26	122.80
36	1	504	A	N1-C6-N6	-6.37	114.78	118.60
36	1	1378	U	OP1-P-O3'	6.37	119.21	105.20
36	5	1376	C	OP1-P-OP2	6.37	129.15	119.60
36	5	1376	C	N3-C4-N4	-6.37	113.55	118.00
36	1	2640	A	N1-C2-N3	6.36	132.48	129.30
1	6	308	C	N1-C2-N3	6.36	123.66	119.20
36	5	2758	A	C8-N9-C4	-6.36	103.25	105.80
37	7	100	C	C6-N1-C2	6.36	122.84	120.30
36	1	1604	G	C4-N9-C1'	6.36	134.77	126.50
36	5	1130	A	C5-N7-C8	6.36	107.08	103.90
36	5	2908	G	C4-C5-N7	-6.36	108.26	110.80
37	3	88	G	N3-C2-N2	6.36	124.35	119.90
36	5	2366	C	C6-N1-C2	-6.36	117.76	120.30
37	7	51	A	N7-C8-N9	6.36	116.98	113.80
36	1	102	C	N1-C2-O2	-6.36	115.08	118.90
36	1	1727	G	C8-N9-C4	-6.36	103.86	106.40
36	1	3109	G	C2-N3-C4	6.36	115.08	111.90
36	5	1008	U	C2-N1-C1'	-6.36	110.07	117.70
36	5	2875	U	N1-C2-N3	6.36	118.72	114.90
36	1	808	A	C5-N7-C8	6.36	107.08	103.90
36	1	972	A	N7-C8-N9	-6.36	110.62	113.80
36	1	1132	C	N3-C4-N4	-6.35	113.55	118.00
36	1	2941	A	O4'-C1'-N9	-6.35	103.12	108.20
1	6	543	C	C6-N1-C2	-6.35	117.76	120.30
36	5	3245	A	C5-C6-N6	-6.35	118.62	123.70
1	6	65	A	C2-N3-C4	-6.35	107.42	110.60
37	7	94	C	C5-C4-N4	-6.35	115.75	120.20
36	1	926	A	N1-C6-N6	6.35	122.41	118.60
36	1	1397	C	C6-N1-C2	6.35	122.84	120.30
36	1	2409	G	C4-N9-C1'	6.35	134.75	126.50
1	6	1299	G	N3-C4-C5	-6.35	125.42	128.60
1	2	144	U	N3-C2-O2	-6.35	117.76	122.20
1	2	610	G	C4-N9-C1'	6.35	134.75	126.50
36	1	2371	G	N9-C4-C5	-6.35	102.86	105.40
36	1	2380	U	N3-C4-C5	6.35	118.41	114.60
1	6	453	U	N1-C2-O2	6.35	127.24	122.80
1	6	1361	U	C6-N1-C1'	-6.35	112.31	121.20
36	5	927	C	N1-C2-O2	-6.35	115.09	118.90
36	1	426	G	C8-N9-C1'	-6.34	118.75	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1112	A	C6-C5-N7	-6.34	127.86	132.30
1	2	145	A	N9-C4-C5	6.34	108.34	105.80
1	2	694	U	N1-C2-O2	6.34	127.24	122.80
36	1	3309	G	O5'-P-OP2	-6.34	99.99	105.70
1	6	335	U	C6-N1-C2	-6.34	117.19	121.00
1	6	1649	G	N3-C2-N2	6.34	124.34	119.90
36	5	2329	C	C2-N1-C1'	-6.34	111.82	118.80
1	2	811	A	C8-N9-C4	-6.34	103.26	105.80
1	2	1280	C	N3-C4-N4	6.34	122.44	118.00
36	1	968	G	N3-C4-C5	-6.34	125.43	128.60
36	5	1124	U	C4-C5-C6	-6.34	115.90	119.70
36	1	56	G	C5-C6-N1	6.34	114.67	111.50
36	1	3171	U	N3-C2-O2	6.34	126.64	122.20
36	5	2349	U	N3-C2-O2	-6.34	117.76	122.20
36	5	2426	U	N3-C2-O2	-6.34	117.76	122.20
36	1	87	U	O5'-P-OP1	6.34	118.30	110.70
36	1	788	C	C2-N1-C1'	-6.34	111.83	118.80
1	6	561	G	C8-N9-C4	-6.34	103.86	106.40
36	5	780	A	O5'-P-OP1	-6.34	100.00	105.70
37	7	98	C	O5'-P-OP2	-6.34	100.00	105.70
1	2	1782	A	N9-C4-C5	6.33	108.33	105.80
36	1	414	U	N3-C4-C5	-6.33	110.80	114.60
36	1	2301	U	N3-C2-O2	-6.33	117.77	122.20
36	1	3306	U	N1-C2-N3	6.33	118.70	114.90
36	1	1137	C	C5-C4-N4	-6.33	115.77	120.20
36	1	1138	U	N1-C2-N3	6.33	118.70	114.90
36	1	1303	A	N9-C4-C5	-6.33	103.27	105.80
36	1	1835	A	C5-C6-N6	6.33	128.77	123.70
36	5	1390	A	C8-N9-C4	-6.33	103.27	105.80
36	1	2293	C	C5-C4-N4	-6.33	115.77	120.20
36	1	3055	U	C6-N1-C1'	-6.33	112.34	121.20
36	5	2764	C	N3-C4-C5	6.33	124.43	121.90
36	1	1581	C	N1-C2-O2	6.33	122.70	118.90
36	1	2623	G	N1-C2-N2	-6.33	110.50	116.20
36	5	217	U	OP1-P-O3'	6.33	119.12	105.20
36	5	807	A	C5-N7-C8	-6.33	100.74	103.90
37	7	103	A	C5-C6-N6	-6.33	118.64	123.70
36	1	2791	G	C8-N9-C4	-6.33	103.87	106.40
1	6	610	G	C4-N9-C1'	6.33	134.72	126.50
1	6	1473	U	C5-C4-O4	6.33	129.70	125.90
36	5	942	U	OP1-P-OP2	-6.33	110.11	119.60
1	6	1196	A	O5'-P-OP1	-6.33	100.01	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	1	G	C6-C5-N7	-6.33	126.61	130.40
1	2	1745	G	N3-C4-N9	6.32	129.79	126.00
36	1	999	G	OP2-P-O3'	6.32	119.11	105.20
1	6	609	U	N3-C2-O2	-6.32	117.77	122.20
36	5	2860	U	C5-C4-O4	-6.32	122.11	125.90
36	5	838	G	C5-C6-O6	6.32	132.39	128.60
36	5	1803	C	N3-C4-C5	6.32	124.43	121.90
36	5	3189	G	N1-C2-N3	6.32	127.69	123.90
1	2	1457	C	O5'-P-OP2	-6.32	100.01	105.70
36	5	81	C	N3-C2-O2	-6.32	117.48	121.90
36	1	881	C	N1-C2-O2	6.32	122.69	118.90
36	1	921	A	C5-C6-N6	-6.32	118.64	123.70
36	1	2886	U	C5-C4-O4	-6.32	122.11	125.90
38	8	32	C	N1-C2-O2	-6.32	115.11	118.90
36	1	1390	A	N9-C4-C5	6.32	108.33	105.80
1	6	359	A	C8-N9-C4	6.32	108.33	105.80
36	1	142	C	C6-N1-C2	-6.31	117.77	120.30
1	6	60	U	C2-N1-C1'	6.31	125.28	117.70
36	5	871	U	C5-C4-O4	6.31	129.69	125.90
36	5	2872	A	C4-N9-C1'	-6.31	114.94	126.30
36	1	1116	G	C6-N1-C2	-6.31	121.31	125.10
1	2	1611	A	N1-C2-N3	6.31	132.45	129.30
36	1	2723	U	N1-C2-O2	-6.31	118.38	122.80
36	5	1112	A	N1-C6-N6	6.31	122.39	118.60
36	1	590	G	N1-C6-O6	6.31	123.68	119.90
36	1	2550	U	N3-C4-O4	-6.31	114.98	119.40
1	6	1647	U	N3-C4-C5	-6.31	110.81	114.60
36	5	200	C	OP2-P-O3'	6.31	119.08	105.20
36	5	873	C	P-O3'-C3'	6.31	127.27	119.70
1	2	408	C	O5'-P-OP2	-6.30	100.03	105.70
1	2	577	G	C4-C5-N7	6.30	113.32	110.80
36	1	895	A	N3-C4-C5	6.30	131.21	126.80
36	1	1450	G	C8-N9-C4	6.30	108.92	106.40
38	4	14	C	N3-C4-N4	-6.30	113.59	118.00
36	5	1184	A	N1-C6-N6	-6.30	114.82	118.60
1	2	1462	G	N9-C4-C5	-6.30	102.88	105.40
36	1	295	A	C8-N9-C4	-6.30	103.28	105.80
36	1	709	A	N9-C4-C5	-6.30	103.28	105.80
36	1	1115	G	C8-N9-C1'	-6.30	118.81	127.00
36	1	2983	C	N3-C2-O2	-6.30	117.49	121.90
56	N0	58	ILE	CG1-CB-CG2	-6.30	97.54	111.40
1	6	1782	A	C8-N9-C4	-6.30	103.28	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1446	A	OP1-P-O3'	6.30	119.06	105.20
36	1	779	G	N1-C6-O6	-6.30	116.12	119.90
36	5	1185	C	N3-C4-C5	6.30	124.42	121.90
36	5	2684	C	C4-C5-C6	6.30	120.55	117.40
36	1	1830	G	OP1-P-O3'	6.30	119.06	105.20
1	6	543	C	C5-C6-N1	6.30	124.15	121.00
36	5	1785	U	N1-C2-O2	6.30	127.21	122.80
36	5	424	G	N1-C6-O6	6.30	123.68	119.90
36	5	1605	A	O4'-C1'-N9	6.30	113.24	108.20
36	5	3270	U	O5'-P-OP1	-6.30	100.03	105.70
36	1	893	C	C5-C6-N1	6.29	124.15	121.00
36	1	2763	U	N3-C2-O2	6.29	126.61	122.20
36	5	2996	U	N1-C2-O2	6.29	127.21	122.80
36	5	3351	U	N3-C2-O2	-6.29	117.79	122.20
36	1	645	A	C5-C6-N1	6.29	120.85	117.70
1	6	308	C	C6-N1-C1'	6.29	128.35	120.80
36	5	145	G	N3-C4-N9	-6.29	122.22	126.00
36	5	2772	C	P-O3'-C3'	6.29	127.25	119.70
1	2	925	G	C5-C6-O6	-6.29	124.83	128.60
36	1	1590	G	N1-C6-O6	-6.29	116.12	119.90
36	1	3005	A	C8-N9-C4	-6.29	103.28	105.80
36	5	2904	U	C4-C5-C6	6.29	123.47	119.70
36	5	3006	A	C6-N1-C2	-6.29	114.83	118.60
36	5	3304	U	OP1-P-OP2	6.29	129.04	119.60
36	1	1437	C	C6-N1-C2	-6.29	117.78	120.30
1	6	338	C	C6-N1-C2	-6.29	117.78	120.30
1	6	523	G	C8-N9-C4	6.29	108.92	106.40
36	5	202	G	C8-N9-C4	6.29	108.92	106.40
36	5	704	U	N1-C2-O2	-6.29	118.40	122.80
36	5	2257	C	C6-N1-C2	-6.29	117.78	120.30
1	6	378	A	C5-C6-N6	-6.29	118.67	123.70
36	1	2390	A	N1-C2-N3	6.29	132.44	129.30
36	1	3175	U	N3-C2-O2	-6.29	117.80	122.20
38	4	49	G	N1-C6-O6	6.29	123.67	119.90
1	6	647	G	N3-C4-N9	-6.29	122.23	126.00
36	5	1208	U	N3-C4-O4	-6.29	115.00	119.40
36	5	2273	G	C8-N9-C4	6.29	108.91	106.40
36	5	2818	U	C5-C4-O4	-6.29	122.13	125.90
36	1	1381	A	C6-N1-C2	-6.28	114.83	118.60
36	5	964	G	C8-N9-C4	-6.28	103.89	106.40
36	5	395	A	N1-C6-N6	6.28	122.37	118.60
36	5	3041	U	C4-C5-C6	-6.28	115.93	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	89	G	N3-C4-N9	6.28	129.77	126.00
50	M4	135	LEU	CA-CB-CG	6.28	129.74	115.30
1	6	1600	A	N9-C1'-C2'	6.28	122.16	114.00
36	5	1159	A	C5-N7-C8	-6.28	100.76	103.90
36	5	1159	A	C4-C5-N7	6.28	113.84	110.70
36	1	636	C	C2-N3-C4	-6.28	116.76	119.90
36	5	2709	C	N3-C4-C5	6.28	124.41	121.90
36	1	2977	G	C8-N9-C4	6.28	108.91	106.40
36	5	2897	A	C6-N1-C2	-6.28	114.83	118.60
1	6	387	A	C2-N3-C4	6.27	113.74	110.60
36	5	2985	C	C6-N1-C2	-6.27	117.79	120.30
36	1	1094	U	C5-C6-N1	6.27	125.84	122.70
1	6	815	G	N7-C8-N9	6.27	116.24	113.10
36	5	3192	U	O5'-P-OP1	-6.27	100.06	105.70
1	2	1761	U	C5-C4-O4	6.27	129.66	125.90
36	1	187	A	N1-C6-N6	6.27	122.36	118.60
36	1	1429	G	N3-C4-C5	-6.27	125.47	128.60
1	6	815	G	C8-N9-C4	-6.27	103.89	106.40
1	6	321	C	N3-C2-O2	-6.27	117.51	121.90
36	1	611	A	O5'-P-OP1	6.27	118.22	110.70
36	1	931	C	O5'-P-OP1	-6.27	100.06	105.70
36	1	2892	A	N9-C4-C5	6.27	108.31	105.80
36	1	820	A	C8-N9-C4	-6.26	103.30	105.80
36	1	1520	G	C5-N7-C8	6.26	107.43	104.30
1	6	1656	U	O5'-P-OP1	6.26	118.22	110.70
36	5	1199	C	C5-C6-N1	-6.26	117.87	121.00
36	5	1856	C	C6-N1-C2	-6.26	117.79	120.30
40	13	4	ARG	NE-CZ-NH2	-6.26	117.17	120.30
1	6	795	U	N3-C2-O2	-6.26	117.82	122.20
36	5	424	G	C6-C5-N7	-6.26	126.64	130.40
36	5	2602	G	N9-C4-C5	6.26	107.90	105.40
36	5	2721	A	O5'-P-OP1	-6.26	100.06	105.70
36	5	3195	U	OP1-P-O3'	6.26	118.98	105.20
36	1	2899	C	C2-N3-C4	-6.26	116.77	119.90
36	1	2294	U	N1-C2-O2	-6.26	118.42	122.80
36	1	2177	G	C5-C6-N1	6.26	114.63	111.50
36	5	590	G	C4-C5-N7	6.26	113.30	110.80
36	5	3234	A	C8-N9-C4	6.26	108.30	105.80
36	5	3386	G	O5'-P-OP2	-6.26	100.07	105.70
45	18	108	ARG	NE-CZ-NH1	-6.26	117.17	120.30
36	5	41	G	OP2-P-O3'	6.25	118.96	105.20
36	1	212	G	N3-C4-N9	6.25	129.75	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1741	A	C2-N3-C4	-6.25	107.47	110.60
36	5	1483	G	C4-C5-N7	-6.25	108.30	110.80
36	5	2211	U	N3-C4-C5	-6.25	110.85	114.60
1	6	1641	C	N1-C2-O2	-6.25	115.15	118.90
36	5	2613	U	C5-C4-O4	6.25	129.65	125.90
36	5	2656	A	C8-N9-C4	-6.25	103.30	105.80
43	16	30	LEU	CA-CB-CG	6.25	129.68	115.30
40	L3	35	ASP	CB-CG-OD1	-6.25	112.67	118.30
36	5	2550	U	C5-C4-O4	6.25	129.65	125.90
36	1	1342	C	N3-C4-C5	6.25	124.40	121.90
36	1	2986	U	N3-C4-C5	-6.25	110.85	114.60
36	1	714	G	OP2-P-O3'	6.24	118.93	105.20
36	1	2618	G	C5-C6-N1	6.24	114.62	111.50
36	1	2726	C	C2-N3-C4	-6.24	116.78	119.90
36	5	776	U	C2-N3-C4	-6.24	123.25	127.00
36	5	1878	G	C8-N9-C1'	-6.24	118.89	127.00
36	5	2872	A	C6-N1-C2	6.24	122.34	118.60
36	5	1189	C	N1-C2-O2	-6.24	115.16	118.90
36	5	3107	U	C2-N3-C4	-6.24	123.26	127.00
36	1	2169	G	C5-N7-C8	6.24	107.42	104.30
36	1	3029	A	N7-C8-N9	6.24	116.92	113.80
1	6	1135	U	N3-C2-O2	-6.24	117.83	122.20
7	s5	92	ARG	NE-CZ-NH1	6.24	123.42	120.30
36	1	1180	A	N1-C6-N6	-6.24	114.86	118.60
1	6	619	A	OP2-P-O3'	6.24	118.92	105.20
36	5	513	G	N1-C6-O6	-6.24	116.16	119.90
36	5	2852	C	C6-N1-C2	6.24	122.80	120.30
36	5	2964	G	N7-C8-N9	-6.24	109.98	113.10
36	1	671	U	N3-C4-O4	6.24	123.76	119.40
36	1	2846	U	N1-C2-O2	6.24	127.17	122.80
1	6	558	U	N1-C2-O2	6.24	127.16	122.80
36	5	1203	A	O5'-P-OP1	-6.24	100.09	105.70
42	15	152	ARG	NE-CZ-NH2	-6.24	117.18	120.30
36	5	1546	A	C2-N3-C4	-6.23	107.48	110.60
36	1	879	U	O5'-P-OP2	-6.23	100.09	105.70
36	1	1141	C	N1-C2-O2	-6.23	115.16	118.90
36	5	2141	U	N1-C2-N3	6.23	118.64	114.90
38	8	47	C	N3-C4-N4	-6.23	113.64	118.00
36	1	229	G	O5'-P-OP2	6.23	118.18	110.70
36	1	1849	C	N3-C4-C5	6.23	124.39	121.90
1	6	1632	C	N1-C2-O2	6.23	122.64	118.90
36	5	705	A	O5'-P-OP1	6.23	118.18	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3244	A	O5'-P-OP1	-6.23	100.09	105.70
36	1	1098	A	O5'-P-OP1	-6.23	100.09	105.70
36	5	2639	G	N1-C6-O6	6.23	123.64	119.90
36	5	2806	U	C2-N3-C4	-6.23	123.26	127.00
36	1	1211	U	N3-C4-O4	-6.23	115.04	119.40
36	1	2650	U	N3-C4-C5	-6.23	110.86	114.60
1	6	163	G	C8-N9-C4	-6.23	103.91	106.40
1	6	1120	U	N3-C2-O2	-6.23	117.84	122.20
36	5	651	G	N7-C8-N9	6.23	116.21	113.10
36	5	800	G	C8-N9-C4	6.23	108.89	106.40
36	5	1128	U	C2-N3-C4	-6.23	123.26	127.00
36	1	1420	C	N1-C2-N3	6.23	123.56	119.20
36	1	2309	A	OP1-P-OP2	6.23	128.94	119.60
36	1	2695	A	N9-C4-C5	6.23	108.29	105.80
36	5	369	A	C8-N9-C4	-6.23	103.31	105.80
1	2	142	G	N3-C2-N2	-6.22	115.54	119.90
64	N8	46	ASP	CB-CG-OD2	6.22	123.90	118.30
1	6	362	G	C4-N9-C1'	6.22	134.59	126.50
36	5	2905	U	C2-N3-C4	-6.22	123.27	127.00
36	1	2830	G	C4-C5-N7	-6.22	108.31	110.80
36	1	3214	U	N1-C2-N3	6.22	118.63	114.90
1	6	1305	U	N1-C2-O2	-6.22	118.44	122.80
36	5	414	U	N3-C2-O2	6.22	126.56	122.20
36	5	2724	U	N1-C2-N3	6.22	118.63	114.90
36	1	1296	C	C4-C5-C6	6.22	120.51	117.40
36	1	2381	G	C5-C6-O6	6.22	132.33	128.60
36	1	2888	U	C5-C6-N1	-6.22	119.59	122.70
36	5	1115	G	C4-N9-C1'	6.22	134.58	126.50
36	5	2728	G	O4'-C1'-N9	6.22	113.17	108.20
1	2	1363	U	C2-N1-C1'	6.22	125.16	117.70
36	1	365	A	N7-C8-N9	6.21	116.91	113.80
36	5	817	A	O5'-P-OP1	-6.21	100.11	105.70
36	5	1054	A	C8-N9-C4	6.21	108.29	105.80
36	5	2110	G	C4-C5-N7	6.21	113.29	110.80
36	1	52	A	O5'-P-OP2	-6.21	100.11	105.70
1	6	696	C	O4'-C1'-N1	6.21	113.17	108.20
36	5	989	A	N1-C6-N6	-6.21	114.87	118.60
36	1	52	A	OP1-P-OP2	6.21	128.92	119.60
36	1	721	G	C6-C5-N7	-6.21	126.67	130.40
36	1	797	U	OP2-P-O3'	6.21	118.86	105.20
36	1	953	G	C4-N9-C1'	-6.21	118.43	126.50
36	1	2836	C	N1-C2-N3	6.21	123.55	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1780	G	N3-C2-N2	6.21	124.25	119.90
36	5	3285	C	C2-N1-C1'	6.21	125.63	118.80
36	5	1302	A	O5'-P-OP1	-6.21	100.11	105.70
36	1	329	U	N1-C2-O2	-6.21	118.45	122.80
36	1	2225	U	O5'-P-OP2	-6.21	100.11	105.70
1	2	42	G	N1-C6-O6	-6.21	116.18	119.90
36	1	940	G	O5'-P-OP1	-6.21	100.11	105.70
1	6	1036	A	N9-C4-C5	6.21	108.28	105.80
12	c0	83	PRO	N-CA-CB	6.21	110.75	103.30
36	5	211	A	N1-C6-N6	-6.21	114.88	118.60
36	5	2361	A	C5-C6-N1	6.21	120.80	117.70
1	6	1032	G	C8-N9-C4	6.21	108.88	106.40
36	5	436	A	O5'-P-OP1	6.20	118.14	110.70
36	5	1180	A	O4'-C1'-N9	-6.20	103.24	108.20
36	5	2675	C	O5'-P-OP1	-6.20	100.12	105.70
1	6	305	C	N3-C2-O2	6.20	126.24	121.90
36	1	972	A	C8-N9-C4	6.20	108.28	105.80
38	4	40	A	C6-C5-N7	-6.20	127.96	132.30
36	5	364	G	C4-C5-N7	6.20	113.28	110.80
36	5	600	G	O5'-P-OP2	-6.20	100.12	105.70
36	1	2527	G	N3-C4-N9	-6.20	122.28	126.00
36	1	2995	A	C8-N9-C4	6.20	108.28	105.80
1	6	119	A	C2-N3-C4	-6.20	107.50	110.60
1	6	987	G	C5-C6-O6	-6.20	124.88	128.60
36	1	86	G	O5'-P-OP1	6.20	118.14	110.70
1	6	87	C	C6-N1-C2	-6.20	117.82	120.30
36	5	75	G	N9-C4-C5	-6.20	102.92	105.40
36	5	2355	G	C4-C5-N7	6.20	113.28	110.80
37	7	44	C	N1-C2-O2	-6.20	115.18	118.90
36	5	3115	C	N1-C2-O2	-6.19	115.18	118.90
1	6	466	U	C6-N1-C2	-6.19	117.28	121.00
1	6	1662	G	N1-C6-O6	-6.19	116.18	119.90
36	1	2877	G	N3-C4-C5	-6.19	125.50	128.60
38	4	125	U	N3-C2-O2	-6.19	117.87	122.20
36	5	1840	U	N1-C2-O2	6.19	127.13	122.80
36	5	2211	U	C5-C6-N1	-6.19	119.61	122.70
1	2	831	U	C2-N1-C1'	6.19	125.13	117.70
37	3	42	A	C2-N3-C4	-6.19	107.51	110.60
1	6	1754	A	N9-C4-C5	6.19	108.28	105.80
36	5	869	G	N3-C4-C5	-6.19	125.51	128.60
36	1	1433	A	C5-C6-N1	6.18	120.79	117.70
36	1	1586	G	O5'-P-OP2	-6.18	100.13	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2814	G	N1-C6-O6	6.18	123.61	119.90
36	1	2938	G	N3-C2-N2	-6.18	115.57	119.90
1	6	350	U	N1-C2-O2	-6.18	118.47	122.80
36	5	1156	C	N1-C2-O2	-6.18	115.19	118.90
36	5	1416	C	N3-C2-O2	-6.18	117.57	121.90
36	5	2737	C	C6-N1-C2	-6.18	117.83	120.30
36	1	1836	C	N1-C2-O2	6.18	122.61	118.90
36	1	1866	C	O5'-P-OP1	-6.18	100.14	105.70
36	5	3078	U	C6-N1-C1'	-6.18	112.55	121.20
36	1	1337	A	C2-N3-C4	6.18	113.69	110.60
36	5	631	U	N3-C4-O4	-6.18	115.07	119.40
36	5	1449	A	C2-N3-C4	-6.18	107.51	110.60
52	m6	59	ARG	NE-CZ-NH1	6.18	123.39	120.30
36	1	2759	U	C5-C4-O4	6.18	129.61	125.90
36	5	41	G	C5-N7-C8	-6.18	101.21	104.30
36	5	3309	G	C4-N9-C1'	6.18	134.53	126.50
36	1	922	U	C5-C6-N1	6.18	125.79	122.70
36	1	1201	C	O5'-P-OP1	-6.18	100.14	105.70
36	1	1307	G	OP1-P-O3'	6.18	118.79	105.20
1	6	1190	C	C6-N1-C2	6.18	122.77	120.30
36	5	37	U	N1-C2-N3	6.18	118.61	114.90
36	1	2821	C	C5-C4-N4	-6.17	115.88	120.20
38	4	40	A	N3-C4-N9	6.17	132.34	127.40
36	5	280	U	O5'-P-OP2	-6.17	100.14	105.70
36	5	1376	C	C5-C4-N4	6.17	124.52	120.20
36	5	2144	A	O4'-C1'-N9	6.17	113.14	108.20
36	5	2627	C	N3-C4-N4	-6.17	113.68	118.00
36	1	1269	U	C2-N1-C1'	6.17	125.11	117.70
38	4	13	A	O5'-P-OP1	-6.17	100.14	105.70
36	1	608	A	C5-C6-N6	-6.17	118.76	123.70
36	1	1447	G	C2-N3-C4	6.17	114.99	111.90
36	1	2585	G	N3-C4-N9	6.17	129.70	126.00
36	1	3201	C	N3-C2-O2	-6.17	117.58	121.90
38	4	103	G	N1-C6-O6	-6.17	116.20	119.90
38	4	109	A	C5-N7-C8	-6.17	100.81	103.90
1	6	1097	U	C5-C4-O4	6.17	129.60	125.90
36	5	3245	A	N1-C2-N3	6.17	132.38	129.30
36	5	407	A	N1-C6-N6	6.17	122.30	118.60
36	1	2414	G	C8-N9-C4	-6.17	103.93	106.40
1	6	1634	C	C5-C6-N1	6.17	124.08	121.00
36	1	636	C	OP1-P-O3'	6.17	118.76	105.20
36	1	2281	A	O5'-P-OP2	-6.16	100.15	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	277	G	N3-C4-C5	-6.16	125.52	128.60
36	1	612	U	C2-N3-C4	-6.16	123.30	127.00
38	4	147	U	C2-N1-C1'	6.16	125.09	117.70
1	6	390	G	C4-N9-C1'	6.16	134.51	126.50
36	1	2417	U	N1-C2-O2	-6.16	118.49	122.80
36	5	2735	U	N3-C2-O2	-6.16	117.89	122.20
36	5	2949	U	C5-C6-N1	6.16	125.78	122.70
1	6	313	U	O5'-P-OP1	-6.16	100.16	105.70
36	5	217	U	C5-C6-N1	-6.16	119.62	122.70
36	5	1127	G	N3-C4-N9	6.16	129.70	126.00
36	1	3174	A	C5-N7-C8	-6.16	100.82	103.90
37	3	81	U	C6-N1-C2	6.16	124.69	121.00
36	5	1170	A	N9-C4-C5	-6.16	103.34	105.80
36	5	2975	U	N3-C2-O2	-6.16	117.89	122.20
36	1	196	G	N3-C2-N2	6.16	124.21	119.90
36	5	873	C	O4'-C1'-N1	6.16	113.12	108.20
36	5	1132	C	O5'-P-OP1	-6.16	100.16	105.70
36	1	2434	U	C5-C4-O4	6.15	129.59	125.90
36	5	1002	A	O5'-P-OP2	-6.15	100.16	105.70
36	5	1908	A	C2-N3-C4	6.15	113.68	110.60
36	5	758	C	C2-N1-C1'	-6.15	112.03	118.80
36	1	786	A	C4-C5-N7	-6.15	107.62	110.70
36	1	1661	G	N3-C4-N9	6.15	129.69	126.00
36	5	413	U	C4-C5-C6	6.15	123.39	119.70
36	5	1110	U	N1-C2-O2	6.15	127.11	122.80
36	5	2704	A	C4-C5-N7	6.15	113.78	110.70
36	5	2831	G	N3-C4-C5	-6.15	125.53	128.60
36	5	2985	C	N3-C4-C5	-6.15	119.44	121.90
45	18	69	LEU	CA-CB-CG	6.15	129.45	115.30
36	1	910	G	C5-C6-N1	-6.15	108.42	111.50
36	5	2848	G	N3-C4-N9	6.15	129.69	126.00
56	n0	155	ARG	CG-CD-NE	6.15	124.71	111.80
36	1	2699	G	N1-C6-O6	6.15	123.59	119.90
36	1	3024	A	N1-C6-N6	6.15	122.29	118.60
36	1	3201	C	N3-C4-C5	-6.15	119.44	121.90
37	3	94	C	N1-C2-O2	-6.15	115.21	118.90
36	5	2617	U	N3-C4-O4	6.15	123.70	119.40
36	5	2794	G	C5-C6-O6	-6.15	124.91	128.60
36	5	2961	G	N1-C2-N3	6.15	127.59	123.90
37	7	49	G	O4'-C1'-N9	6.15	113.12	108.20
36	1	24	G	N7-C8-N9	-6.14	110.03	113.10
1	6	75	U	N1-C2-O2	6.14	127.10	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	367	A	C2-N3-C4	-6.14	107.53	110.60
13	c1	5	LEU	CA-CB-CG	6.14	129.43	115.30
36	5	504	A	C8-N9-C4	6.14	108.26	105.80
36	5	1412	G	N7-C8-N9	6.14	116.17	113.10
36	5	2389	C	C2-N3-C4	-6.14	116.83	119.90
36	1	590	G	C4-C5-N7	6.14	113.26	110.80
36	1	859	G	N3-C2-N2	6.14	124.20	119.90
36	1	1397	C	N3-C4-C5	6.14	124.36	121.90
41	L4	141	ARG	NE-CZ-NH1	-6.14	117.23	120.30
1	6	363	G	C8-N9-C4	6.14	108.86	106.40
36	5	46	U	N1-C2-N3	-6.14	111.22	114.90
36	5	421	G	C5-C6-O6	-6.14	124.92	128.60
36	5	2281	A	N9-C4-C5	-6.14	103.34	105.80
37	7	15	C	N3-C4-C5	6.14	124.36	121.90
36	1	2944	U	N1-C2-O2	6.14	127.10	122.80
1	6	106	U	N3-C4-O4	-6.14	115.10	119.40
36	5	838	G	N1-C6-O6	-6.14	116.22	119.90
36	5	1385	C	C6-N1-C2	6.14	122.75	120.30
36	5	2945	G	C5-C6-N1	6.14	114.57	111.50
49	m3	21	ARG	NE-CZ-NH1	-6.14	117.23	120.30
1	2	1654	G	C8-N9-C4	-6.13	103.95	106.40
36	1	2283	G	N3-C2-N2	-6.13	115.61	119.90
36	5	57	A	C8-N9-C4	6.13	108.25	105.80
36	1	689	U	C2-N1-C1'	6.13	125.06	117.70
36	1	2142	A	N3-C4-C5	-6.13	122.51	126.80
1	6	1614	A	O4'-C1'-N9	6.13	113.11	108.20
36	5	1338	C	N1-C2-O2	-6.13	115.22	118.90
36	5	2928	C	C2-N1-C1'	6.13	125.55	118.80
36	1	579	G	N1-C6-O6	-6.13	116.22	119.90
36	5	1725	C	O4'-C1'-N1	6.13	113.10	108.20
36	1	1363	A	N1-C6-N6	-6.13	114.92	118.60
36	1	1481	A	C4-C5-N7	6.13	113.77	110.70
1	6	1058	U	OP1-P-O3'	6.13	118.68	105.20
12	c0	88	PRO	N-CA-CB	6.13	110.65	103.30
36	5	282	G	C5-C6-O6	6.13	132.28	128.60
1	2	1206	U	N3-C4-O4	6.13	123.69	119.40
36	1	210	U	C2-N1-C1'	-6.13	110.35	117.70
36	1	1541	G	N1-C6-O6	6.13	123.58	119.90
36	5	2694	A	C2-N3-C4	6.13	113.66	110.60
36	5	2817	A	N3-C4-C5	-6.13	122.51	126.80
36	1	375	A	O5'-P-OP1	6.12	118.05	110.70
36	1	400	G	C5-C6-O6	-6.12	124.93	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1115	G	C4-N9-C1'	6.12	134.46	126.50
50	m4	135	LEU	CA-CB-CG	6.12	129.39	115.30
36	1	92	G	C5-C6-O6	-6.12	124.93	128.60
38	8	56	G	N1-C6-O6	6.12	123.57	119.90
36	1	408	A	O5'-P-OP2	-6.12	100.19	105.70
36	1	2572	C	N3-C2-O2	-6.12	117.62	121.90
36	1	365	A	C8-N9-C4	-6.12	103.35	105.80
36	5	1552	G	C5-C6-O6	-6.12	124.93	128.60
36	5	1911	A	N1-C2-N3	6.12	132.36	129.30
36	5	3030	G	C5-N7-C8	6.12	107.36	104.30
1	2	1611	A	N7-C8-N9	6.12	116.86	113.80
1	6	544	A	C8-N9-C4	6.12	108.25	105.80
36	5	412	G	N3-C4-C5	-6.12	125.54	128.60
36	5	1389	G	C6-C5-N7	-6.12	126.73	130.40
1	2	1455	G	C4-C5-N7	-6.11	108.36	110.80
36	1	155	G	N3-C4-C5	-6.11	125.54	128.60
36	5	422	A	C8-N9-C4	-6.11	103.36	105.80
36	1	1513	G	C6-N1-C2	-6.11	121.43	125.10
1	6	1774	G	N1-C6-O6	-6.11	116.23	119.90
1	2	553	G	C5-C6-N1	-6.11	108.44	111.50
1	6	402	C	O4'-C1'-N1	6.11	113.09	108.20
36	5	926	A	C4-C5-N7	6.11	113.75	110.70
36	1	694	C	N3-C4-C5	6.11	124.34	121.90
36	1	2734	A	N1-C6-N6	6.11	122.26	118.60
1	6	542	A	P-O3'-C3'	6.11	127.03	119.70
1	6	858	G	C5-N7-C8	-6.11	101.25	104.30
36	5	2932	U	C6-N1-C2	6.11	124.67	121.00
36	1	859	G	C5-C6-N1	-6.11	108.45	111.50
36	5	410	U	N3-C4-C5	-6.11	110.94	114.60
36	5	2353	G	N3-C4-N9	6.11	129.66	126.00
36	5	116	A	O4'-C1'-N9	6.10	113.08	108.20
36	1	709	A	O5'-P-OP2	6.10	118.02	110.70
36	1	970	A	N9-C4-C5	6.10	108.24	105.80
36	1	3214	U	C6-N1-C2	-6.10	117.34	121.00
36	5	1496	C	OP1-P-OP2	-6.10	110.45	119.60
36	5	2117	A	C5-C6-N6	6.10	128.58	123.70
1	2	581	U	C2-N1-C1'	6.10	125.02	117.70
36	1	1420	C	N3-C2-O2	-6.10	117.63	121.90
36	1	701	G	N1-C2-N3	6.10	127.56	123.90
36	5	1104	G	N3-C4-N9	6.10	129.66	126.00
36	5	1138	U	N1-C2-N3	6.10	118.56	114.90
36	5	1147	G	C4-C5-N7	-6.10	108.36	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	o7	45	ARG	NE-CZ-NH2	-6.10	117.25	120.30
36	1	374	A	O4'-C1'-N9	6.10	113.08	108.20
36	1	1307	G	C5-C6-O6	6.10	132.26	128.60
1	2	1733	C	N3-C4-N4	6.09	122.27	118.00
36	1	410	U	N1-C2-N3	6.09	118.56	114.90
36	1	1154	A	C4-C5-C6	6.09	120.05	117.00
36	1	2357	A	N1-C6-N6	6.09	122.26	118.60
1	6	1082	C	C6-N1-C2	-6.09	117.86	120.30
36	5	1680	G	C5-C6-O6	6.09	132.26	128.60
36	5	2234	G	C5-C6-N1	6.09	114.55	111.50
36	5	2733	A	N1-C6-N6	6.09	122.26	118.60
36	1	2856	G	C5-N7-C8	6.09	107.35	104.30
1	6	1509	C	N1-C2-O2	6.09	122.55	118.90
36	5	1878	G	N3-C4-C5	-6.09	125.56	128.60
36	1	1634	G	C8-N9-C4	-6.09	103.97	106.40
36	1	2130	G	C5-C6-O6	6.09	132.25	128.60
36	1	345	G	N3-C4-C5	-6.09	125.56	128.60
36	1	1116	G	N7-C8-N9	6.09	116.14	113.10
36	5	2119	A	C5-C6-N6	-6.09	118.83	123.70
38	8	39	G	C2-N3-C4	6.09	114.94	111.90
36	1	1346	G	N3-C4-C5	6.08	131.64	128.60
36	5	283	G	C4-C5-N7	6.08	113.23	110.80
36	5	437	G	N7-C8-N9	6.08	116.14	113.10
1	2	1783	C	O5'-P-OP2	-6.08	100.22	105.70
36	1	1425	U	N3-C2-O2	-6.08	117.94	122.20
1	6	60	U	N1-C2-O2	6.08	127.06	122.80
41	14	206	LEU	CA-CB-CG	6.08	129.29	115.30
36	1	1490	A	C8-N9-C4	-6.08	103.37	105.80
36	5	941	G	N3-C4-C5	-6.08	125.56	128.60
1	2	1486	G	N7-C8-N9	6.08	116.14	113.10
36	1	1329	U	N1-C1'-C2'	-6.08	105.31	112.00
36	1	2645	G	C4-C5-N7	-6.08	108.37	110.80
36	5	2410	U	N1-C2-O2	-6.08	118.54	122.80
36	1	1124	U	N1-C2-O2	6.08	127.05	122.80
36	5	1200	A	N7-C8-N9	6.08	116.84	113.80
36	5	1242	G	N3-C4-C5	-6.08	125.56	128.60
36	5	1207	G	N1-C6-O6	-6.08	116.25	119.90
36	1	718	G	C4-C5-N7	6.08	113.23	110.80
36	1	1131	G	N9-C4-C5	-6.08	102.97	105.40
1	6	967	A	N3-C4-C5	-6.08	122.55	126.80
36	5	1169	A	OP2-P-O3'	6.08	118.57	105.20
1	2	448	C	C6-N1-C2	-6.07	117.87	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	323	A	O5'-P-OP2	-6.07	100.24	105.70
36	1	817	A	C8-N9-C4	-6.07	103.37	105.80
36	5	952	A	O5'-P-OP2	-6.07	100.23	105.70
36	5	2636	A	O5'-P-OP2	6.07	117.99	110.70
36	1	407	A	C5-N7-C8	-6.07	100.86	103.90
1	6	1794	A	O5'-P-OP1	-6.07	100.24	105.70
36	5	2692	A	N1-C6-N6	-6.07	114.96	118.60
36	5	3062	G	C8-N9-C4	-6.07	103.97	106.40
36	5	3105	U	N1-C2-O2	-6.07	118.55	122.80
36	1	407	A	C6-C5-N7	-6.07	128.05	132.30
36	1	1581	C	N3-C2-O2	-6.07	117.65	121.90
36	1	277	G	N3-C4-C5	-6.07	125.57	128.60
36	1	2631	U	N1-C2-N3	6.07	118.54	114.90
38	4	125	U	C2-N1-C1'	6.07	124.98	117.70
36	1	3344	A	C8-N9-C4	-6.07	103.37	105.80
38	4	32	C	N1-C2-O2	-6.07	115.26	118.90
36	5	146	U	C5-C6-N1	-6.07	119.67	122.70
36	5	826	G	O5'-P-OP2	-6.07	100.24	105.70
36	5	1843	C	C2-N1-C1'	6.07	125.47	118.80
36	5	3183	A	OP1-P-OP2	-6.07	110.50	119.60
36	1	1483	G	N1-C6-O6	-6.06	116.26	119.90
36	1	1898	G	C5-C6-O6	-6.06	124.96	128.60
1	6	538	A	O4'-C1'-N9	6.06	113.05	108.20
36	1	1387	G	C5-C6-O6	6.06	132.24	128.60
1	6	1473	U	C2-N1-C1'	6.06	124.97	117.70
36	5	1400	G	C8-N9-C4	-6.06	103.97	106.40
36	5	2383	C	N3-C4-N4	6.06	122.24	118.00
36	1	908	G	N3-C2-N2	-6.06	115.66	119.90
36	5	2211	U	C5-C4-O4	6.06	129.53	125.90
36	5	200	C	N3-C4-N4	6.06	122.24	118.00
36	5	1370	G	N3-C4-N9	6.06	129.63	126.00
36	5	2315	G	N3-C4-C5	6.06	131.63	128.60
36	1	2333	C	C5-C6-N1	-6.06	117.97	121.00
36	1	2877	G	N1-C2-N2	-6.05	110.75	116.20
37	3	88	G	N3-C4-N9	6.05	129.63	126.00
36	5	865	U	N1-C2-O2	-6.05	118.56	122.80
36	5	1482	A	O5'-P-OP2	-6.05	100.25	105.70
36	1	1507	G	C6-N1-C2	-6.05	121.47	125.10
25	d3	16	ARG	NE-CZ-NH2	-6.05	117.27	120.30
36	5	1145	G	N3-C2-N2	-6.05	115.66	119.90
36	5	1324	U	C5-C6-N1	-6.05	119.67	122.70
1	2	1273	G	O5'-P-OP1	-6.05	100.26	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	608	A	C6-C5-N7	-6.05	128.07	132.30
36	1	2817	A	C5-C6-N1	6.05	120.72	117.70
36	5	885	U	C5-C4-O4	-6.05	122.27	125.90
36	5	2910	A	C5-C6-N1	6.05	120.72	117.70
36	1	2400	G	N1-C2-N2	-6.05	110.76	116.20
36	5	585	A	O5'-P-OP2	-6.05	100.26	105.70
5	S3	182	LEU	CA-CB-CG	6.05	129.21	115.30
36	1	2960	C	N3-C4-C5	6.05	124.32	121.90
36	5	984	G	C4-C5-C6	6.05	122.43	118.80
36	5	2385	G	C8-N9-C4	6.05	108.82	106.40
36	5	2848	G	C4-C5-C6	6.05	122.43	118.80
36	1	88	A	C6-C5-N7	-6.04	128.07	132.30
36	1	2689	A	N1-C6-N6	-6.04	114.97	118.60
1	6	1100	G	C2-N3-C4	6.04	114.92	111.90
36	1	439	C	C6-N1-C1'	-6.04	113.55	120.80
36	1	1483	G	O4'-C1'-N9	6.04	113.03	108.20
36	5	2758	A	N9-C4-C5	6.04	108.22	105.80
36	1	2679	A	N1-C6-N6	6.04	122.22	118.60
36	1	3207	U	C6-N1-C1'	6.04	129.66	121.20
36	5	267	G	C4-C5-N7	6.04	113.22	110.80
36	5	851	C	N1-C2-O2	-6.04	115.28	118.90
36	5	2398	A	C5-N7-C8	6.04	106.92	103.90
36	1	2966	G	C5-C6-O6	-6.04	124.98	128.60
36	1	3109	G	OP1-P-OP2	-6.04	110.54	119.60
36	1	3178	A	C2-N3-C4	-6.04	107.58	110.60
36	5	2341	A	N7-C8-N9	-6.04	110.78	113.80
36	5	2612	U	O5'-P-OP1	-6.04	100.27	105.70
36	1	2871	G	C4-C5-N7	6.04	113.22	110.80
1	6	1000	C	C2-N1-C1'	6.04	125.44	118.80
36	5	2942	C	N3-C4-N4	6.04	122.22	118.00
38	8	29	U	N1-C2-O2	6.04	127.02	122.80
38	8	64	U	N3-C2-O2	-6.03	117.98	122.20
36	1	99	A	C5'-C4'-O4'	6.03	116.34	109.10
36	5	1934	G	O5'-P-OP2	-6.03	100.27	105.70
36	5	2931	C	N1-C2-O2	-6.03	115.28	118.90
36	1	913	A	C6-N1-C2	-6.03	114.98	118.60
36	1	2875	U	C2-N3-C4	-6.03	123.38	127.00
36	5	1181	U	C4-C5-C6	6.03	123.32	119.70
36	1	817	A	N3-C4-C5	-6.03	122.58	126.80
36	1	969	C	C4-C5-C6	-6.03	114.39	117.40
36	1	1492	G	C4-C5-N7	-6.03	108.39	110.80
36	1	2376	G	C5-N7-C8	-6.03	101.29	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	308	C	C4-C5-C6	6.03	120.41	117.40
36	5	853	G	C5-C6-O6	-6.03	124.98	128.60
36	1	829	U	N3-C2-O2	-6.03	117.98	122.20
36	1	2373	A	C8-N9-C4	-6.03	103.39	105.80
36	1	2406	C	C5-C4-N4	-6.03	115.98	120.20
36	5	1838	G	N1-C6-O6	6.03	123.52	119.90
36	5	2298	U	OP1-P-OP2	6.03	128.64	119.60
36	5	2794	G	N3-C4-N9	6.03	129.62	126.00
36	5	3190	C	C6-N1-C2	-6.03	117.89	120.30
36	1	930	U	OP1-P-O3'	6.02	118.45	105.20
36	5	3154	C	C5-C6-N1	6.02	124.01	121.00
1	2	1267	G	C8-N9-C4	-6.02	103.99	106.40
36	1	1335	C	N3-C2-O2	-6.02	117.69	121.90
36	1	2315	G	C5-C6-O6	6.02	132.21	128.60
38	4	80	A	C8-N9-C4	6.02	108.21	105.80
36	5	1112	A	C4-C5-C6	6.02	120.01	117.00
36	1	1122	U	N3-C4-O4	-6.02	115.19	119.40
36	5	1416	C	C2-N3-C4	-6.02	116.89	119.90
36	5	2392	C	N1-C2-O2	-6.02	115.29	118.90
1	6	455	C	N3-C4-N4	6.02	122.21	118.00
36	1	426	G	C4-N9-C1'	6.02	134.32	126.50
36	1	1495	U	N3-C2-O2	-6.02	117.99	122.20
1	6	1099	U	N3-C2-O2	-6.02	117.99	122.20
36	5	2619	G	N1-C6-O6	6.02	123.51	119.90
36	5	2151	C	O5'-P-OP1	-6.02	100.29	105.70
36	5	283	G	N7-C8-N9	6.01	116.11	113.10
36	5	1056	U	OP2-P-O3'	6.01	118.43	105.20
36	5	2870	C	C5-C4-N4	6.01	124.41	120.20
36	1	3006	A	C5-N7-C8	-6.01	100.89	103.90
36	5	2977	G	OP2-P-O3'	6.01	118.43	105.20
36	1	836	A	C6-N1-C2	-6.01	114.99	118.60
36	1	1206	G	O5'-P-OP1	6.01	117.92	110.70
36	1	1389	G	N3-C4-N9	6.01	129.61	126.00
36	1	2144	A	C5-C6-N1	6.01	120.71	117.70
36	1	2836	C	N3-C4-N4	-6.01	113.79	118.00
36	1	3180	A	C2-N3-C4	-6.01	107.59	110.60
36	1	350	C	N3-C2-O2	-6.01	117.69	121.90
38	4	40	A	C4-C5-N7	6.01	113.70	110.70
36	1	1402	C	N3-C4-N4	-6.01	113.79	118.00
36	1	1142	G	C5-C6-N1	6.01	114.50	111.50
36	1	1212	A	O5'-P-OP2	-6.01	100.30	105.70
36	1	1407	A	C8-N9-C4	6.01	108.20	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	428	A	N9-C4-C5	6.01	108.20	105.80
36	5	952	A	C5-C6-N6	-6.01	118.89	123.70
36	5	1907	C	N3-C2-O2	6.01	126.11	121.90
36	5	2726	C	N3-C4-C5	-6.00	119.50	121.90
36	1	960	U	C5-C4-O4	-6.00	122.30	125.90
36	1	2238	G	C4-C5-N7	6.00	113.20	110.80
36	1	2623	G	C4-C5-N7	6.00	113.20	110.80
36	1	2797	C	O5'-P-OP1	-6.00	100.30	105.70
36	5	2186	U	N3-C2-O2	-6.00	118.00	122.20
36	5	2345	A	N1-C6-N6	6.00	122.20	118.60
36	5	2770	G	O5'-P-OP1	-6.00	100.30	105.70
36	5	2877	G	N1-C2-N2	-6.00	110.80	116.20
36	5	2961	G	C8-N9-C4	-6.00	104.00	106.40
36	5	3144	G	N1-C6-O6	-6.00	116.30	119.90
36	1	1168	U	OP1-P-OP2	-6.00	110.60	119.60
1	6	1000	C	C4-C5-C6	6.00	120.40	117.40
36	1	72	C	N1-C2-O2	-6.00	115.30	118.90
36	1	671	U	N1-C2-O2	-6.00	118.60	122.80
36	1	1148	G	N7-C8-N9	-6.00	110.10	113.10
36	1	2182	A	C6-N1-C2	-6.00	115.00	118.60
36	1	2645	G	N3-C2-N2	-6.00	115.70	119.90
36	1	2857	C	C5-C4-N4	-6.00	116.00	120.20
1	2	624	G	C5-C6-O6	6.00	132.20	128.60
36	1	661	G	C4-C5-N7	6.00	113.20	110.80
36	1	948	C	C5-C6-N1	-6.00	118.00	121.00
36	1	1390	A	C8-N9-C4	-6.00	103.40	105.80
36	5	2852	C	C2-N3-C4	-6.00	116.90	119.90
1	2	1129	U	N1-C2-O2	6.00	127.00	122.80
36	1	1496	C	C6-N1-C2	-6.00	117.90	120.30
36	5	1556	C	C6-N1-C2	-6.00	117.90	120.30
36	5	2145	A	C8-N9-C4	-6.00	103.40	105.80
37	7	1	G	C8-N9-C1'	-6.00	119.21	127.00
36	1	2679	A	O4'-C1'-N9	5.99	113.00	108.20
36	5	3050	U	N1-C2-O2	5.99	127.00	122.80
36	1	1101	G	N1-C6-O6	-5.99	116.31	119.90
36	5	358	G	N1-C6-O6	5.99	123.50	119.90
38	8	113	U	C2-N1-C1'	5.99	124.89	117.70
1	2	158	U	P-O3'-C3'	5.99	126.89	119.70
36	5	3180	A	N1-C6-N6	-5.99	115.01	118.60
1	2	402	C	N1-C2-O2	-5.99	115.31	118.90
36	1	116	A	O4'-C1'-N9	5.99	112.99	108.20
36	1	932	U	N1-C2-O2	-5.99	118.61	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	426	G	C8-N9-C1'	-5.99	119.22	127.00
1	2	979	A	N1-C6-N6	-5.99	115.01	118.60
36	1	1165	A	C8-N9-C4	5.99	108.19	105.80
36	1	3217	C	N3-C2-O2	-5.99	117.71	121.90
1	6	1641	C	C5-C4-N4	-5.99	116.01	120.20
36	5	37	U	C6-N1-C2	-5.99	117.41	121.00
36	1	859	G	N3-C4-N9	5.98	129.59	126.00
36	1	2143	A	C5-N7-C8	-5.98	100.91	103.90
36	1	3101	G	C8-N9-C4	5.98	108.79	106.40
1	6	1120	U	C5-C4-O4	5.98	129.49	125.90
36	5	407	A	C6-C5-N7	-5.98	128.11	132.30
36	1	344	A	C6-C5-N7	5.98	136.49	132.30
36	5	419	G	C4-C5-N7	5.98	113.19	110.80
36	5	2650	U	N3-C4-O4	-5.98	115.21	119.40
37	7	101	G	C6-C5-N7	-5.98	126.81	130.40
36	1	1118	C	N1-C2-N3	5.98	123.39	119.20
36	1	1146	C	N3-C2-O2	-5.98	117.71	121.90
36	1	1907	C	C5-C6-N1	5.98	123.99	121.00
36	1	2996	U	N1-C1'-C2'	5.98	121.78	114.00
37	7	97	A	N1-C2-N3	5.98	132.29	129.30
1	6	858	G	O4'-C1'-N9	5.98	112.98	108.20
1	2	1033	C	N3-C2-O2	-5.98	117.72	121.90
36	1	2354	C	N3-C4-C5	-5.98	119.51	121.90
36	5	635	G	N1-C2-N2	5.98	121.58	116.20
36	5	2730	G	C4-C5-N7	5.98	113.19	110.80
36	1	1296	C	N1-C2-N3	5.97	123.38	119.20
38	8	25	G	N3-C4-C5	-5.97	125.61	128.60
59	n3	87	ARG	NE-CZ-NH2	-5.97	117.31	120.30
36	5	50	U	OP1-P-O3'	5.97	118.34	105.20
36	5	83	U	OP1-P-OP2	5.97	128.56	119.60
37	7	86	U	O5'-P-OP1	-5.97	100.33	105.70
1	6	416	A	C2-N3-C4	-5.97	107.61	110.60
1	6	767	U	C6-N1-C2	-5.97	117.42	121.00
36	5	1175	C	O5'-P-OP1	-5.97	100.33	105.70
36	5	2131	A	N9-C1'-C2'	-5.97	105.43	112.00
37	7	90	U	C4-C5-C6	-5.97	116.12	119.70
36	1	2152	A	C4-C5-N7	-5.97	107.72	110.70
36	5	941	G	C6-N1-C2	-5.97	121.52	125.10
1	2	36	C	C6-N1-C2	5.97	122.69	120.30
36	5	1391	C	N3-C2-O2	5.97	126.08	121.90
36	5	1473	G	N7-C8-N9	-5.97	110.12	113.10
36	5	2118	C	N1-C2-O2	5.97	122.48	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1745	G	O5'-P-OP2	-5.97	100.33	105.70
36	1	2641	U	C5-C6-N1	-5.97	119.72	122.70
36	1	2856	G	C2-N3-C4	5.97	114.88	111.90
36	1	2973	G	C5-C6-O6	-5.97	125.02	128.60
36	5	2389	C	N3-C4-C5	5.97	124.29	121.90
36	5	2981	U	C2-N1-C1'	5.97	124.86	117.70
36	1	1130	A	C2-N3-C4	5.96	113.58	110.60
1	2	106	U	C6-N1-C2	-5.96	117.42	121.00
36	1	1362	G	N7-C8-N9	-5.96	110.12	113.10
36	1	1520	G	N7-C8-N9	-5.96	110.12	113.10
1	6	801	G	N3-C4-C5	-5.96	125.62	128.60
36	5	652	G	N1-C6-O6	5.96	123.48	119.90
36	5	2913	C	C6-N1-C2	-5.96	117.92	120.30
36	1	2123	G	N7-C8-N9	-5.96	110.12	113.10
36	1	2403	G	OP1-P-O3'	5.96	118.31	105.20
36	5	2639	G	N9-C4-C5	-5.96	103.02	105.40
36	1	2434	U	C4-C5-C6	5.96	123.28	119.70
36	5	2816	G	C8-N9-C4	5.96	108.78	106.40
79	q3	24	ARG	NE-CZ-NH1	5.96	123.28	120.30
36	1	3217	C	C6-N1-C1'	-5.96	113.65	120.80
36	1	1210	U	C2-N3-C4	-5.96	123.43	127.00
36	1	1227	C	C5-C6-N1	5.96	123.98	121.00
36	5	2292	U	N3-C2-O2	-5.96	118.03	122.20
36	5	2572	C	N3-C2-O2	-5.96	117.73	121.90
36	1	821	U	N3-C2-O2	-5.95	118.03	122.20
36	1	2318	U	N3-C2-O2	-5.95	118.03	122.20
36	5	1152	G	C5-C6-O6	-5.95	125.03	128.60
36	5	1475	A	N1-C2-N3	5.95	132.28	129.30
36	5	2234	G	C8-N9-C4	5.95	108.78	106.40
36	5	2917	G	C8-N9-C1'	-5.95	119.26	127.00
36	1	2819	A	C5-N7-C8	5.95	106.88	103.90
36	5	3330	A	C5-C6-N1	5.95	120.68	117.70
1	2	455	C	C6-N1-C2	5.95	122.68	120.30
1	2	765	G	C5-C6-O6	-5.95	125.03	128.60
36	1	2222	A	N9-C4-C5	5.95	108.18	105.80
36	5	1047	A	C6-C5-N7	-5.95	128.13	132.30
38	8	39	G	N3-C4-C5	-5.95	125.62	128.60
36	1	278	U	N1-C2-N3	5.95	118.47	114.90
36	1	1169	A	OP2-P-O3'	5.95	118.28	105.20
36	5	1792	C	N1-C2-O2	-5.95	115.33	118.90
36	5	1902	G	C6-C5-N7	-5.95	126.83	130.40
1	6	1596	C	C5-C4-N4	5.95	124.36	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2524	A	O4'-C1'-N9	5.95	112.96	108.20
1	6	1657	U	O5'-P-OP2	-5.95	100.35	105.70
36	5	2739	A	N1-C6-N6	-5.95	115.03	118.60
36	5	2919	A	C4-C5-C6	5.95	119.97	117.00
37	7	120	C	C5-C6-N1	-5.95	118.03	121.00
1	6	1614	A	C5-N7-C8	-5.94	100.93	103.90
36	1	1899	G	C8-N9-C4	-5.94	104.02	106.40
16	c4	35	GLY	N-CA-C	5.94	127.95	113.10
36	5	612	U	C2-N3-C4	-5.94	123.44	127.00
36	5	2383	C	C4-C5-C6	5.94	120.37	117.40
36	1	2357	A	C5-C6-N6	-5.94	118.95	123.70
1	6	1032	G	N3-C4-C5	5.94	131.57	128.60
36	1	718	G	C8-N9-C1'	5.94	134.72	127.00
36	1	860	G	C5-C6-O6	-5.94	125.04	128.60
36	1	872	U	O5'-P-OP2	-5.94	100.36	105.70
36	1	985	U	C5-C4-O4	-5.94	122.34	125.90
36	1	1170	A	N9-C4-C5	-5.94	103.42	105.80
36	1	2978	U	N1-C2-N3	5.94	118.46	114.90
1	6	315	A	C8-N9-C4	-5.94	103.42	105.80
36	5	947	G	N1-C2-N2	-5.94	110.86	116.20
36	5	1868	G	C8-N9-C4	5.94	108.78	106.40
36	5	3153	U	N1-C2-O2	5.94	126.96	122.80
36	1	616	G	C5-C6-O6	-5.94	125.04	128.60
36	5	2725	U	O5'-P-OP1	-5.94	100.36	105.70
1	2	73	U	OP1-P-O3'	5.93	118.26	105.20
1	2	582	U	C5-C6-N1	5.93	125.67	122.70
36	1	68	C	C2-N3-C4	-5.93	116.93	119.90
1	6	371	G	N3-C4-C5	-5.93	125.63	128.60
36	5	1506	A	C8-N9-C4	-5.93	103.43	105.80
36	5	2631	U	C2-N3-C4	-5.93	123.44	127.00
36	5	2649	A	N7-C8-N9	5.93	116.77	113.80
1	2	1463	C	C6-N1-C2	5.93	122.67	120.30
36	1	1489	A	N1-C6-N6	5.93	122.16	118.60
61	N5	34	LEU	CA-CB-CG	5.93	128.95	115.30
36	1	32	U	O5'-P-OP2	-5.93	100.36	105.70
36	1	111	C	N3-C4-C5	5.93	124.27	121.90
36	1	1889	G	C5-C6-O6	-5.93	125.04	128.60
36	5	926	A	N9-C4-C5	-5.93	103.43	105.80
36	5	2813	A	C4-C5-C6	5.93	119.97	117.00
36	1	639	G	C8-N9-C4	5.93	108.77	106.40
36	1	3319	U	P-O3'-C3'	5.93	126.81	119.70
1	6	813	U	N3-C2-O2	-5.93	118.05	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	34	A	OP2-P-O3'	5.93	118.25	105.20
36	5	2169	G	C5-C6-N1	5.93	114.47	111.50
36	5	2796	G	N9-C4-C5	-5.93	103.03	105.40
37	7	101	G	C8-N9-C4	5.93	108.77	106.40
36	1	189	G	N1-C6-O6	-5.93	116.34	119.90
36	5	2293	C	C5-C4-N4	-5.93	116.05	120.20
1	2	1490	C	C6-N1-C2	-5.92	117.93	120.30
36	1	2200	U	N3-C4-C5	-5.92	111.05	114.60
36	1	2906	C	C6-N1-C2	-5.92	117.93	120.30
36	1	3362	A	N1-C2-N3	5.92	132.26	129.30
38	4	23	U	O5'-P-OP1	-5.92	100.37	105.70
36	5	2133	U	OP2-P-O3'	5.92	118.23	105.20
36	1	53	G	N3-C4-N9	5.92	129.55	126.00
36	1	1279	C	C6-N1-C2	-5.92	117.93	120.30
1	2	1671	A	O5'-P-OP1	-5.92	100.37	105.70
36	1	2139	A	N1-C6-N6	-5.92	115.05	118.60
36	1	225	C	N3-C4-N4	5.92	122.14	118.00
36	1	2212	C	OP2-P-O3'	5.92	118.22	105.20
36	1	2162	U	N1-C2-O2	5.92	126.94	122.80
36	5	887	G	N1-C6-O6	-5.92	116.35	119.90
36	1	1906	G	N1-C6-O6	5.92	123.45	119.90
36	5	2843	U	C2-N1-C1'	5.92	124.80	117.70
1	2	1023	A	O5'-P-OP2	-5.91	100.38	105.70
36	1	1300	G	N3-C4-N9	5.91	129.55	126.00
36	1	957	C	C2-N3-C4	-5.91	116.94	119.90
36	1	2872	A	C5-C6-N1	5.91	120.66	117.70
37	3	67	G	C8-N9-C4	5.91	108.76	106.40
1	2	1241	G	O4'-C1'-N9	5.91	112.93	108.20
36	1	859	G	C4-C5-C6	5.91	122.34	118.80
36	1	1156	C	N3-C2-O2	-5.91	117.77	121.90
1	6	165	G	C8-N9-C4	-5.91	104.04	106.40
36	5	1914	G	N1-C6-O6	-5.91	116.35	119.90
36	5	2201	G	N1-C6-O6	-5.91	116.36	119.90
36	1	859	G	N1-C2-N2	-5.91	110.89	116.20
1	6	1649	G	N1-C2-N2	-5.91	110.89	116.20
36	5	753	C	O5'-P-OP1	5.91	117.79	110.70
36	1	967	A	N1-C2-N3	5.90	132.25	129.30
36	1	2954	U	C6-N1-C2	5.90	124.54	121.00
36	5	699	A	C2-N3-C4	-5.90	107.65	110.60
36	5	807	A	C8-N9-C4	-5.90	103.44	105.80
36	5	937	G	O4'-C1'-N9	5.90	112.92	108.20
1	2	734	A	P-O3'-C3'	5.90	126.78	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2286	U	N3-C2-O2	-5.90	118.07	122.20
1	6	352	A	O4'-C1'-N9	-5.90	103.48	108.20
36	5	2366	C	C2-N3-C4	5.90	122.85	119.90
36	1	641	C	N3-C4-C5	5.90	124.26	121.90
36	1	663	C	N3-C4-N4	5.90	122.13	118.00
36	1	1330	A	N1-C6-N6	5.90	122.14	118.60
36	1	1420	C	N3-C4-C5	-5.90	119.54	121.90
36	1	2651	G	C6-C5-N7	5.90	133.94	130.40
36	1	2688	U	N1-C2-N3	-5.90	111.36	114.90
36	5	339	C	C6-N1-C1'	5.90	127.88	120.80
36	5	960	U	C2-N3-C4	-5.90	123.46	127.00
36	5	1329	U	N1-C2-N3	5.90	118.44	114.90
36	5	2329	C	N3-C4-N4	-5.90	113.87	118.00
36	5	2385	G	C2-N3-C4	-5.90	108.95	111.90
36	5	2626	A	C4-C5-C6	5.90	119.95	117.00
36	5	2957	G	O5'-P-OP1	-5.90	100.39	105.70
36	5	3242	G	C8-N9-C4	-5.90	104.04	106.40
36	1	59	G	C6-C5-N7	-5.90	126.86	130.40
36	1	2112	U	P-O3'-C3'	5.90	126.78	119.70
36	1	2831	G	C5-C6-O6	-5.90	125.06	128.60
1	6	1127	G	N1-C2-N3	5.90	127.44	123.90
36	5	2849	C	N3-C4-N4	5.90	122.13	118.00
37	7	71	G	C5-C6-O6	-5.90	125.06	128.60
36	5	3334	U	N3-C2-O2	-5.90	118.07	122.20
36	1	2369	G	N3-C4-N9	5.90	129.54	126.00
36	5	344	A	O5'-P-OP1	-5.90	100.39	105.70
36	5	365	A	N9-C4-C5	-5.90	103.44	105.80
36	5	1803	C	C6-N1-C2	5.90	122.66	120.30
38	8	111	A	C2-N3-C4	-5.90	107.65	110.60
36	1	641	C	OP1-P-OP2	5.89	128.44	119.60
36	1	2763	U	C5-C4-O4	-5.89	122.36	125.90
36	5	966	U	O5'-P-OP2	-5.89	100.39	105.70
73	o7	65	ARG	NE-CZ-NH1	5.89	123.25	120.30
36	1	2699	G	C6-C5-N7	-5.89	126.86	130.40
36	1	3172	A	C8-N9-C4	5.89	108.16	105.80
1	6	1	U	N1-C2-O2	5.89	126.92	122.80
36	5	812	G	C5-C6-O6	5.89	132.14	128.60
36	5	1496	C	C6-N1-C2	-5.89	117.94	120.30
36	1	1855	U	N3-C2-O2	-5.89	118.08	122.20
36	1	918	C	OP2-P-O3'	5.89	118.16	105.20
36	1	1103	A	P-O3'-C3'	5.89	126.77	119.70
36	5	1117	G	N7-C8-N9	-5.89	110.16	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2418	G	C2-N3-C4	5.89	114.84	111.90
36	1	640	U	C5-C4-O4	-5.89	122.37	125.90
36	1	1438	U	C4-C5-C6	5.89	123.23	119.70
36	1	1515	A	C2-N3-C4	-5.89	107.66	110.60
1	6	3	U	C6-N1-C2	5.89	124.53	121.00
1	6	18	C	C6-N1-C2	-5.89	117.94	120.30
36	5	644	G	C5-C6-O6	5.89	132.13	128.60
36	5	799	G	O5'-P-OP1	-5.89	100.40	105.70
36	5	2710	C	C4-C5-C6	5.89	120.34	117.40
1	2	110	U	N3-C2-O2	-5.88	118.08	122.20
36	1	2938	G	OP1-P-OP2	5.88	128.43	119.60
36	1	1316	C	N1-C2-N3	5.88	123.32	119.20
1	6	1766	A	C5-C6-N1	-5.88	114.76	117.70
36	5	385	A	C8-N9-C4	5.88	108.15	105.80
36	1	2647	A	N1-C2-N3	5.88	132.24	129.30
36	1	2210	G	O5'-P-OP2	-5.88	100.41	105.70
36	1	2693	C	N3-C4-C5	5.88	124.25	121.90
36	5	1127	G	C4-C5-N7	5.88	113.15	110.80
36	5	1308	A	OP1-P-OP2	-5.88	110.78	119.60
36	5	3220	G	N1-C6-O6	-5.88	116.37	119.90
37	7	96	U	C6-N1-C2	-5.88	117.47	121.00
1	2	89	G	C8-N9-C4	5.88	108.75	106.40
1	2	624	G	N1-C6-O6	-5.88	116.37	119.90
1	6	53	G	N1-C6-O6	-5.88	116.37	119.90
36	5	959	C	O4'-C1'-N1	5.88	112.90	108.20
37	7	104	A	O5'-P-OP2	-5.88	100.41	105.70
36	5	1604	G	N3-C4-N9	5.88	129.53	126.00
36	1	895	A	C5-C6-N1	-5.88	114.76	117.70
36	1	2862	U	C5-C6-N1	-5.88	119.76	122.70
36	5	1379	G	C8-N9-C4	5.88	108.75	106.40
36	1	200	C	C2-N1-C1'	5.87	125.26	118.80
36	1	885	U	C5-C6-N1	-5.87	119.76	122.70
36	5	1866	C	C4-C5-C6	-5.87	114.46	117.40
36	5	2796	G	O5'-P-OP2	-5.87	100.42	105.70
36	5	2936	A	O5'-P-OP1	-5.87	100.41	105.70
36	1	304	G	C6-C5-N7	5.87	133.92	130.40
36	1	1879	A	O5'-P-OP1	5.87	117.75	110.70
36	1	2402	A	O5'-P-OP2	-5.87	100.42	105.70
36	1	3141	A	OP2-P-O3'	5.87	118.12	105.20
36	5	1300	G	N1-C6-O6	5.87	123.42	119.90
1	2	1761	U	P-O3'-C3'	5.87	126.74	119.70
36	5	403	C	OP1-P-OP2	5.87	128.41	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1361	U	N1-C2-O2	5.87	126.91	122.80
36	1	2619	G	C5-N7-C8	5.87	107.23	104.30
36	1	2651	G	C4-C5-N7	-5.87	108.45	110.80
36	5	1496	C	C5-C6-N1	5.87	123.94	121.00
36	1	1834	U	N3-C4-C5	-5.87	111.08	114.60
1	2	349	U	N3-C2-O2	-5.87	118.09	122.20
1	2	447	U	C6-N1-C2	-5.87	117.48	121.00
36	5	1902	G	N3-C2-N2	-5.87	115.79	119.90
36	5	2182	A	N1-C2-N3	5.86	132.23	129.30
36	5	2296	A	C4-C5-N7	5.86	113.63	110.70
36	5	3380	U	C5-C4-O4	5.86	129.42	125.90
1	2	736	C	C5-C6-N1	5.86	123.93	121.00
44	L7	163	LEU	CA-CB-CG	-5.86	101.82	115.30
36	5	835	G	C5-C6-N1	5.86	114.43	111.50
36	5	1115	G	N9-C4-C5	5.86	107.74	105.40
36	1	1116	G	C2-N3-C4	5.86	114.83	111.90
36	5	519	A	N1-C6-N6	5.86	122.11	118.60
36	5	804	C	C4-C5-C6	5.86	120.33	117.40
36	5	970	A	N1-C2-N3	5.86	132.23	129.30
36	5	2831	G	C2-N3-C4	5.86	114.83	111.90
36	1	363	G	C5-C6-O6	-5.86	125.09	128.60
36	1	793	C	N3-C2-O2	5.86	126.00	121.90
36	1	2745	G	O5'-P-OP1	-5.86	100.43	105.70
1	6	1032	G	N9-C4-C5	-5.86	103.06	105.40
36	5	1361	U	C5-C6-N1	5.86	125.63	122.70
36	1	1115	G	C6-C5-N7	-5.86	126.89	130.40
38	4	25	G	N1-C6-O6	-5.86	116.39	119.90
36	5	785	G	C5-C6-N1	5.86	114.43	111.50
36	1	1294	A	C8-N9-C4	-5.85	103.46	105.80
1	6	1560	U	C5-C4-O4	5.85	129.41	125.90
36	5	672	A	N1-C6-N6	5.85	122.11	118.60
36	1	681	U	N3-C4-O4	5.85	123.50	119.40
36	1	1317	A	C2-N3-C4	5.85	113.53	110.60
36	5	747	A	C8-N9-C4	-5.85	103.46	105.80
36	5	2190	U	N1-C2-N3	5.85	118.41	114.90
36	1	88	A	N1-C6-N6	5.85	122.11	118.60
36	5	934	G	C8-N9-C1'	-5.85	119.39	127.00
36	5	1371	G	N3-C4-C5	-5.85	125.67	128.60
36	5	1440	G	C5-C6-O6	5.85	132.11	128.60
36	5	2938	G	C2-N3-C4	5.85	114.83	111.90
36	1	210	U	N1-C2-O2	-5.85	118.70	122.80
36	1	1374	G	N1-C2-N2	-5.85	110.94	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2134	G	C5-C6-N1	5.85	114.42	111.50
36	1	2402	A	C8-N9-C4	-5.85	103.46	105.80
36	1	2958	A	C5-C6-N1	5.85	120.62	117.70
37	3	81	U	C6-N1-C1'	-5.85	113.01	121.20
1	6	879	G	N1-C6-O6	-5.85	116.39	119.90
36	5	503	C	C5-C4-N4	-5.85	116.11	120.20
36	5	3304	U	O5'-P-OP2	-5.85	100.44	105.70
36	5	530	G	O4'-C1'-N9	5.85	112.88	108.20
36	5	1083	G	O5'-P-OP1	-5.85	100.44	105.70
36	5	2753	G	C8-N9-C4	-5.85	104.06	106.40
1	2	1199	G	O5'-P-OP2	-5.84	100.44	105.70
36	1	421	G	C8-N9-C1'	-5.84	119.40	127.00
38	4	25	G	C5-C6-O6	5.84	132.11	128.60
36	5	439	C	C6-N1-C2	-5.84	117.96	120.30
36	5	2335	G	N9-C4-C5	5.84	107.74	105.40
36	5	3142	A	N1-C6-N6	5.84	122.11	118.60
36	1	1596	C	C5-C6-N1	-5.84	118.08	121.00
36	5	3060	C	C5-C4-N4	-5.84	116.11	120.20
36	1	785	G	C2-N3-C4	5.84	114.82	111.90
36	1	906	A	C8-N9-C4	-5.84	103.46	105.80
36	1	1365	G	C8-N9-C4	-5.84	104.06	106.40
36	5	2114	C	OP1-P-OP2	5.84	128.36	119.60
36	1	2369	G	C5-C6-O6	-5.84	125.10	128.60
36	1	2653	C	N3-C2-O2	-5.84	117.81	121.90
36	5	925	A	C6-N1-C2	-5.84	115.10	118.60
36	5	1307	G	OP1-P-O3'	5.84	118.04	105.20
36	5	2364	G	O4'-C1'-N9	5.84	112.87	108.20
1	2	42	G	C8-N9-C4	5.84	108.73	106.40
36	1	2249	G	N3-C4-N9	5.84	129.50	126.00
44	17	163	LEU	CB-CG-CD1	-5.84	101.08	111.00
1	2	610	G	N1-C6-O6	5.83	123.40	119.90
63	n7	134	LEU	CA-CB-CG	5.83	128.72	115.30
1	6	1006	C	N1-C2-O2	-5.83	115.40	118.90
1	6	1698	G	P-O3'-C3'	5.83	126.70	119.70
36	5	924	G	N3-C4-C5	5.83	131.52	128.60
36	5	947	G	N3-C2-N2	5.83	123.98	119.90
36	5	1911	A	N1-C6-N6	5.83	122.10	118.60
1	2	159	U	C2-N1-C1'	-5.83	110.70	117.70
1	2	453	U	N1-C2-N3	5.83	118.40	114.90
1	2	1269	U	C5-C6-N1	5.83	125.62	122.70
36	1	776	U	C2-N3-C4	-5.83	123.50	127.00
36	1	958	C	N1-C2-N3	5.83	123.28	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2912	G	C2-N3-C4	5.83	114.82	111.90
36	5	2650	U	C2-N3-C4	-5.83	123.50	127.00
36	5	2765	C	C6-N1-C2	-5.83	117.97	120.30
36	5	2943	G	C4-C5-N7	5.83	113.13	110.80
36	5	2965	U	N3-C2-O2	5.83	126.28	122.20
36	1	970	A	N1-C2-N3	5.83	132.22	129.30
36	1	1400	G	C8-N9-C1'	-5.83	119.42	127.00
36	1	2618	G	N1-C2-N2	-5.83	110.95	116.20
36	1	2827	U	C6-N1-C1'	5.83	129.36	121.20
1	6	323	A	C8-N9-C4	-5.83	103.47	105.80
36	5	1405	U	C2-N3-C4	-5.83	123.50	127.00
36	5	2231	C	C2-N1-C1'	5.83	125.21	118.80
36	5	2892	A	N1-C6-N6	-5.83	115.10	118.60
36	5	3101	G	C5-C6-O6	5.83	132.10	128.60
1	2	1141	G	N1-C6-O6	-5.83	116.40	119.90
36	1	1197	A	N1-C6-N6	5.83	122.10	118.60
36	1	1445	U	C2-N1-C1'	-5.83	110.71	117.70
36	1	1481	A	N1-C6-N6	5.83	122.10	118.60
36	5	112	U	O4'-C1'-N1	5.83	112.86	108.20
36	5	2980	U	C2-N3-C4	-5.83	123.50	127.00
36	1	612	U	C5-C6-N1	-5.83	119.79	122.70
36	1	716	A	C5-C6-N6	-5.83	119.04	123.70
36	5	1190	A	C5-C6-N6	5.83	128.36	123.70
36	1	54	C	N3-C4-N4	-5.82	113.92	118.00
36	1	1056	U	C5-C6-N1	5.82	125.61	122.70
36	1	3362	A	C4-C5-N7	5.82	113.61	110.70
1	6	596	C	C6-N1-C2	5.82	122.63	120.30
36	5	1483	G	C5-C6-O6	5.82	132.09	128.60
37	7	90	U	N3-C4-C5	5.82	118.09	114.60
36	1	3278	C	C5-C4-N4	5.82	124.28	120.20
1	2	1302	U	N3-C4-O4	5.82	123.47	119.40
36	1	2850	G	C4-C5-N7	5.82	113.13	110.80
1	6	1780	G	C4-C5-N7	5.82	113.13	110.80
36	5	1460	A	O5'-P-OP2	-5.82	100.46	105.70
1	2	933	A	C8-N9-C4	-5.82	103.47	105.80
36	5	1879	A	O5'-P-OP2	-5.82	100.46	105.70
36	1	633	C	N1-C2-O2	-5.82	115.41	118.90
36	1	640	U	N1-C2-N3	5.82	118.39	114.90
36	1	2600	C	N3-C2-O2	-5.82	117.83	121.90
1	6	1340	U	N1-C2-O2	5.82	126.87	122.80
36	5	1507	G	N3-C2-N2	-5.82	115.83	119.90
36	5	2142	A	OP1-P-O3'	5.82	118.00	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	121	U	N3-C2-O2	-5.82	118.13	122.20
1	2	1560	U	C5-C4-O4	5.82	129.39	125.90
36	1	821	U	N3-C4-O4	-5.82	115.33	119.40
36	1	1116	G	C5-N7-C8	-5.82	101.39	104.30
36	1	1440	G	N3-C2-N2	5.82	123.97	119.90
1	6	635	A	OP2-P-O3'	5.82	118.00	105.20
36	5	655	C	C6-N1-C2	-5.82	117.97	120.30
36	5	1461	A	N7-C8-N9	-5.82	110.89	113.80
36	5	1104	G	N7-C8-N9	5.81	116.01	113.10
36	1	36	C	N1-C2-O2	5.81	122.39	118.90
36	1	2799	A	N1-C2-N3	5.81	132.21	129.30
1	6	489	C	C2-N1-C1'	5.81	125.19	118.80
1	6	1022	C	O5'-P-OP1	-5.81	100.47	105.70
36	5	959	C	C4-C5-C6	-5.81	114.49	117.40
36	5	1513	G	N9-C4-C5	5.81	107.72	105.40
36	5	1589	A	C5-C6-N1	5.81	120.61	117.70
36	5	2930	A	O4'-C1'-N9	5.81	112.85	108.20
36	1	131	C	C6-N1-C2	-5.81	117.98	120.30
36	1	639	G	OP1-P-OP2	-5.81	110.89	119.60
36	1	2883	U	C4-C5-C6	-5.81	116.22	119.70
36	5	412	G	N9-C4-C5	5.81	107.72	105.40
36	5	2295	A	N9-C4-C5	-5.81	103.48	105.80
36	5	2351	U	C6-N1-C2	-5.81	117.51	121.00
1	2	1059	U	C2-N1-C1'	5.81	124.67	117.70
36	1	1380	G	C2-N3-C4	-5.81	109.00	111.90
36	1	1552	G	N1-C6-O6	5.81	123.39	119.90
36	1	3344	A	C2-N3-C4	-5.81	107.70	110.60
36	1	1329	U	O4'-C1'-N1	5.80	112.84	108.20
36	1	1876	U	C2-N1-C1'	5.80	124.67	117.70
36	1	2154	U	C2-N1-C1'	5.80	124.67	117.70
1	6	767	U	C5-C4-O4	5.80	129.38	125.90
36	1	2306	C	N3-C2-O2	-5.80	117.84	121.90
36	1	2366	C	O5'-P-OP2	-5.80	100.48	105.70
38	4	140	G	N9-C4-C5	5.80	107.72	105.40
36	5	2524	A	N7-C8-N9	5.80	116.70	113.80
36	5	2944	U	OP2-P-O3'	5.80	117.97	105.20
1	2	1536	G	C4-N9-C1'	5.80	134.04	126.50
36	5	1493	G	O4'-C1'-N9	5.80	112.84	108.20
36	5	2354	C	N1-C2-O2	-5.80	115.42	118.90
36	1	652	G	N3-C4-N9	5.80	129.48	126.00
36	1	897	U	N1-C2-O2	5.80	126.86	122.80
36	5	942	U	O5'-P-OP1	5.80	117.66	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1660	C	C6-N1-C2	-5.80	117.98	120.30
36	5	820	A	C8-N9-C4	-5.80	103.48	105.80
36	5	1076	C	C6-N1-C2	-5.80	117.98	120.30
1	2	1629	G	N1-C2-N2	-5.80	110.98	116.20
36	1	73	C	N3-C4-C5	-5.80	119.58	121.90
36	1	199	A	O4'-C1'-N9	5.80	112.84	108.20
36	1	921	A	N9-C4-C5	-5.80	103.48	105.80
36	1	2363	A	C5-C6-N6	5.80	128.34	123.70
1	6	422	G	C8-N9-C4	-5.80	104.08	106.40
36	5	2684	C	O5'-P-OP2	-5.80	100.48	105.70
36	1	641	C	N1-C2-O2	-5.79	115.42	118.90
37	3	95	A	C6-C5-N7	-5.79	128.24	132.30
36	5	1412	G	C5-N7-C8	-5.79	101.40	104.30
36	5	2425	G	N3-C4-N9	-5.79	122.52	126.00
36	5	2812	C	C6-N1-C2	-5.79	117.98	120.30
1	2	186	C	C2-N1-C1'	5.79	125.17	118.80
1	2	610	G	C8-N9-C1'	-5.79	119.47	127.00
36	1	388	G	N3-C2-N2	-5.79	115.84	119.90
36	1	808	A	N7-C8-N9	-5.79	110.90	113.80
36	5	2724	U	C6-N1-C2	-5.79	117.52	121.00
36	1	632	G	N3-C2-N2	5.79	123.95	119.90
36	1	645	A	C2-N3-C4	5.79	113.50	110.60
36	1	2714	G	C4-C5-N7	5.79	113.12	110.80
36	5	2808	A	C4-C5-N7	5.79	113.60	110.70
37	7	36	C	N1-C2-O2	5.79	122.38	118.90
1	2	396	G	C5-C6-O6	-5.79	125.13	128.60
36	1	1141	C	C4-C5-C6	5.79	120.30	117.40
38	4	32	C	N3-C4-C5	5.79	124.22	121.90
36	5	632	G	C2-N3-C4	5.79	114.79	111.90
36	5	2765	C	C5-C6-N1	5.79	123.89	121.00
36	5	2978	U	N3-C4-O4	-5.79	115.35	119.40
1	2	992	A	N3-C4-C5	5.79	130.85	126.80
1	2	1657	U	O4'-C1'-N1	5.79	112.83	108.20
36	1	1555	U	C5-C6-N1	-5.79	119.81	122.70
36	1	1858	A	C8-N9-C4	-5.79	103.49	105.80
36	1	2417	U	O5'-P-OP2	5.79	117.64	110.70
1	6	351	C	C2-N1-C1'	5.79	125.17	118.80
36	5	1064	A	N1-C6-N6	5.79	122.07	118.60
36	5	1083	G	OP1-P-OP2	5.79	128.28	119.60
36	5	1301	A	N9-C4-C5	-5.79	103.49	105.80
36	5	1770	G	C4-N9-C1'	5.79	134.02	126.50
36	1	1444	G	N9-C4-C5	-5.78	103.09	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2772	C	O4'-C1'-N1	5.78	112.83	108.20
1	6	351	C	C4-C5-C6	5.78	120.29	117.40
36	5	881	C	C2-N3-C4	5.78	122.79	119.90
1	2	42	G	C5-C6-O6	5.78	132.07	128.60
36	1	2602	G	OP2-P-O3'	5.78	117.92	105.20
59	N3	48	ARG	NE-CZ-NH1	5.78	123.19	120.30
36	5	1075	A	N7-C8-N9	-5.78	110.91	113.80
36	1	578	A	O5'-P-OP1	-5.78	100.50	105.70
36	1	2369	G	C2-N3-C4	5.78	114.79	111.90
36	1	3275	U	OP1-P-O3'	5.78	117.92	105.20
1	6	1654	G	C4-C5-N7	5.78	113.11	110.80
1	6	1777	G	O5'-P-OP1	-5.78	100.50	105.70
36	5	2353	G	N3-C4-C5	-5.78	125.71	128.60
36	5	2836	C	O4'-C1'-N1	5.78	112.82	108.20
36	5	2889	C	N3-C4-C5	5.78	124.21	121.90
36	5	3219	G	OP2-P-O3'	5.78	117.92	105.20
1	2	453	U	C6-N1-C2	-5.78	117.53	121.00
36	1	401	U	N1-C2-O2	-5.78	118.75	122.80
36	1	656	A	C4-C5-C6	5.78	119.89	117.00
36	1	1377	G	N3-C2-N2	5.78	123.95	119.90
36	1	909	G	N7-C8-N9	-5.78	110.21	113.10
48	m1	112	LEU	CA-CB-CG	5.78	128.59	115.30
36	1	1131	G	C8-N9-C4	5.78	108.71	106.40
44	L7	239	LEU	CA-CB-CG	5.77	128.58	115.30
1	6	1654	G	C5-C6-O6	-5.77	125.14	128.60
36	5	51	A	OP1-P-OP2	-5.77	110.94	119.60
36	5	1304	A	N1-C6-N6	5.77	122.06	118.60
36	5	2858	U	C2-N1-C1'	5.77	124.63	117.70
36	1	351	A	OP1-P-OP2	5.77	128.26	119.60
1	6	310	C	N3-C4-C5	-5.77	119.59	121.90
1	6	1769	U	C6-N1-C2	5.77	124.46	121.00
36	1	277	G	O4'-C1'-N9	5.77	112.82	108.20
36	5	1177	G	C6-N1-C2	-5.77	121.64	125.10
38	4	113	U	N3-C4-O4	-5.77	115.36	119.40
36	5	946	U	N3-C2-O2	-5.77	118.16	122.20
36	5	1516	C	N1-C2-O2	5.77	122.36	118.90
36	5	2632	G	C5-C6-O6	5.77	132.06	128.60
36	5	2824	G	C6-N1-C2	-5.77	121.64	125.10
36	1	679	U	O5'-P-OP2	-5.77	100.51	105.70
1	6	1389	C	N1-C2-O2	5.77	122.36	118.90
36	5	189	G	N1-C2-N2	-5.77	111.01	116.20
36	5	931	C	C2-N3-C4	-5.77	117.02	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3368	U	N1-C2-O2	-5.77	118.76	122.80
36	1	2932	U	O5'-P-OP2	-5.77	100.51	105.70
36	5	2408	U	C5-C6-N1	-5.77	119.82	122.70
1	2	351	C	N3-C4-C5	5.76	124.21	121.90
36	1	1381	A	C5-C6-N6	-5.76	119.09	123.70
36	1	2380	U	C2-N3-C4	-5.76	123.54	127.00
36	1	2878	G	OP1-P-O3'	5.76	117.88	105.20
36	1	2888	U	C6-N1-C2	5.76	124.46	121.00
36	1	2906	C	N1-C2-N3	5.76	123.23	119.20
1	6	39	A	O4'-C1'-N9	5.76	112.81	108.20
1	6	57	G	O5'-P-OP2	-5.76	100.51	105.70
36	1	1152	G	O4'-C1'-N9	5.76	112.81	108.20
36	5	3013	U	N1-C2-O2	5.76	126.83	122.80
36	5	3275	U	C6-N1-C2	-5.76	117.54	121.00
36	1	1002	A	C4-C5-C6	-5.76	114.12	117.00
1	6	417	A	C4-C5-C6	5.76	119.88	117.00
36	5	2305	G	O4'-C1'-N9	5.76	112.81	108.20
18	C6	53	LEU	CA-CB-CG	-5.76	102.06	115.30
36	1	400	G	N3-C2-N2	-5.76	115.87	119.90
36	1	786	A	C5-C6-N6	5.76	128.31	123.70
37	3	88	G	N3-C4-C5	-5.76	125.72	128.60
1	6	92	A	N9-C4-C5	-5.76	103.50	105.80
36	5	419	G	C5-C6-O6	-5.76	125.14	128.60
36	5	1447	G	C5-C6-O6	-5.76	125.14	128.60
36	5	1866	C	O4'-C1'-N1	-5.76	103.59	108.20
36	5	2324	A	N1-C6-N6	5.76	122.06	118.60
1	2	1291	G	C8-N9-C1'	5.76	134.49	127.00
36	5	937	G	N3-C4-C5	-5.76	125.72	128.60
36	5	2719	U	C6-N1-C1'	5.76	129.26	121.20
36	5	1101	G	N3-C2-N2	5.75	123.93	119.90
36	5	1373	A	O5'-P-OP2	-5.75	100.52	105.70
37	3	85	G	OP2-P-O3'	5.75	117.86	105.20
1	6	10	G	N1-C6-O6	-5.75	116.45	119.90
36	5	2412	G	C8-N9-C4	-5.75	104.10	106.40
36	5	512	U	N3-C2-O2	-5.75	118.17	122.20
36	1	805	G	N9-C4-C5	-5.75	103.10	105.40
36	1	2279	A	C5-C6-N6	-5.75	119.10	123.70
36	1	1400	G	N3-C4-N9	5.75	129.45	126.00
36	1	2818	U	C5-C6-N1	5.75	125.57	122.70
36	5	83	U	C6-N1-C1'	-5.75	113.15	121.20
36	5	933	A	C6-N1-C2	-5.75	115.15	118.60
36	5	3005	A	C8-N9-C4	-5.75	103.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	964	G	OP2-P-O3'	5.75	117.84	105.20
1	2	619	A	N1-C6-N6	-5.74	115.15	118.60
1	6	321	C	C6-N1-C2	-5.74	118.00	120.30
36	5	1064	A	N9-C4-C5	-5.74	103.50	105.80
36	5	2333	C	OP2-P-O3'	5.74	117.84	105.20
77	q1	9	ARG	NE-CZ-NH2	-5.74	117.43	120.30
36	5	2339	C	O4'-C1'-N1	-5.74	103.61	108.20
36	1	2371	G	N3-C4-N9	5.74	129.44	126.00
36	1	2873	U	O4'-C1'-N1	5.74	112.79	108.20
36	1	2912	G	N3-C4-C5	-5.74	125.73	128.60
36	1	3362	A	N1-C6-N6	5.74	122.05	118.60
38	4	17	A	C5-C6-N1	-5.74	114.83	117.70
62	N6	126	LEU	CA-CB-CG	5.74	128.50	115.30
1	6	92	A	C8-N9-C4	5.74	108.10	105.80
1	6	1745	G	C5-C6-N1	5.74	114.37	111.50
36	5	2429	G	C8-N9-C4	-5.74	104.10	106.40
36	5	2394	G	OP1-P-O3'	5.74	117.82	105.20
36	5	3334	U	N1-C2-N3	5.74	118.34	114.90
65	n9	23	LYS	C-N-CD	5.74	140.45	128.40
36	1	1790	G	C5-C6-O6	-5.74	125.16	128.60
1	2	110	U	C6-N1-C2	-5.74	117.56	121.00
36	1	2850	G	C6-C5-N7	-5.74	126.96	130.40
1	6	25	C	C6-N1-C2	-5.74	118.00	120.30
1	6	1432	U	O4'-C1'-N1	5.74	112.79	108.20
36	5	1342	C	C2-N3-C4	-5.74	117.03	119.90
36	5	1526	U	N1-C2-O2	-5.74	118.78	122.80
1	2	390	G	N1-C2-N2	5.73	121.36	116.20
36	1	2281	A	O4'-C1'-N9	5.73	112.79	108.20
36	5	2621	G	N1-C6-O6	5.73	123.34	119.90
36	5	2625	C	OP1-P-O3'	5.73	117.82	105.20
1	2	360	A	C8-N9-C4	5.73	108.09	105.80
36	1	946	U	N1-C2-N3	5.73	118.34	114.90
36	1	1548	C	N1-C2-O2	-5.73	115.46	118.90
36	5	1375	G	C2-N3-C4	5.73	114.77	111.90
36	5	2426	U	N3-C4-O4	-5.73	115.39	119.40
36	5	2637	A	N1-C6-N6	5.73	122.04	118.60
36	5	2639	G	C4-C5-C6	5.73	122.24	118.80
36	5	2915	U	N3-C2-O2	-5.73	118.19	122.20
36	1	1101	G	C5-C6-O6	5.73	132.04	128.60
36	1	1481	A	N7-C8-N9	5.73	116.67	113.80
1	6	1048	G	C8-N9-C4	5.73	108.69	106.40
36	5	901	G	C2-N3-C4	5.73	114.77	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1888	U	C2-N3-C4	-5.73	123.56	127.00
36	5	2988	C	C2-N3-C4	-5.73	117.03	119.90
36	5	3008	A	N1-C2-N3	5.73	132.17	129.30
36	5	3154	C	N3-C2-O2	-5.73	117.89	121.90
36	1	3178	A	N1-C2-N3	5.73	132.16	129.30
36	5	1434	G	C5-N7-C8	-5.73	101.44	104.30
36	5	2400	G	C5-C6-O6	-5.73	125.16	128.60
36	5	3136	G	N1-C2-N3	5.73	127.34	123.90
36	5	3207	U	N1-C2-N3	5.73	118.34	114.90
36	5	3368	U	C2-N1-C1'	-5.73	110.83	117.70
36	5	950	G	N9-C4-C5	-5.73	103.11	105.40
36	5	1368	U	N1-C2-O2	-5.73	118.79	122.80
36	1	500	C	C6-N1-C2	-5.72	118.01	120.30
36	1	1834	U	C4-C5-C6	5.72	123.14	119.70
36	1	2631	U	C5-C4-O4	5.72	129.33	125.90
36	1	2855	U	N3-C4-C5	5.72	118.03	114.60
1	2	1422	A	C8-N9-C4	5.72	108.09	105.80
36	1	1369	A	O5'-P-OP2	5.72	117.57	110.70
36	5	1891	A	C6-N1-C2	-5.72	115.17	118.60
36	5	2253	G	O5'-P-OP2	-5.72	100.55	105.70
6	S4	12	LEU	CA-CB-CG	5.72	128.46	115.30
36	5	2400	G	O5'-P-OP2	-5.72	100.55	105.70
36	1	392	G	C5-C6-O6	-5.72	125.17	128.60
36	1	2714	G	C8-N9-C1'	5.72	134.44	127.00
38	4	41	A	N1-C2-N3	5.72	132.16	129.30
1	6	1629	G	OP2-P-O3'	5.72	117.78	105.20
36	5	1060	U	N3-C4-C5	5.72	118.03	114.60
36	5	1421	G	OP2-P-O3'	5.72	117.78	105.20
36	5	3134	A	O5'-P-OP2	-5.72	100.55	105.70
36	1	847	A	N1-C6-N6	5.72	122.03	118.60
36	1	1405	U	C5-C4-O4	-5.72	122.47	125.90
36	1	2848	G	O5'-P-OP2	-5.72	100.55	105.70
36	5	313	A	C8-N9-C4	-5.72	103.51	105.80
24	D2	126	LEU	CA-CB-CG	5.72	128.45	115.30
36	1	1313	G	N1-C6-O6	5.72	123.33	119.90
36	1	3178	A	N9-C4-C5	-5.72	103.51	105.80
1	6	813	U	C2-N1-C1'	5.72	124.56	117.70
36	5	2386	A	C5-N7-C8	-5.72	101.04	103.90
36	1	1664	G	N1-C6-O6	-5.71	116.47	119.90
37	3	11	A	OP2-P-O3'	5.71	117.77	105.20
36	5	2710	C	C5-C6-N1	-5.71	118.14	121.00
36	5	3060	C	N1-C2-O2	-5.71	115.47	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	350	C	N1-C2-N3	5.71	123.20	119.20
36	1	2404	A	N9-C1'-C2'	-5.71	105.72	112.00
36	1	2551	U	C5-C4-O4	5.71	129.33	125.90
38	4	120	C	N1-C2-O2	-5.71	115.47	118.90
36	5	3225	C	O5'-P-OP1	-5.71	100.56	105.70
36	1	1121	U	N1-C2-N3	5.71	118.33	114.90
36	1	1367	G	C5-C6-O6	-5.71	125.17	128.60
36	1	2434	U	C5-C6-N1	-5.71	119.84	122.70
36	5	3296	A	O5'-P-OP2	-5.71	100.56	105.70
1	2	1462	G	C4-C5-N7	5.71	113.08	110.80
36	1	1789	G	N1-C6-O6	-5.71	116.47	119.90
48	M1	112	LEU	CA-CB-CG	5.71	128.43	115.30
1	6	1581	C	N3-C4-C5	5.71	124.18	121.90
36	1	1319	G	N1-C6-O6	-5.71	116.48	119.90
36	1	1520	G	C2-N3-C4	5.71	114.75	111.90
36	1	3374	U	C5-C4-O4	-5.71	122.48	125.90
1	6	255	U	N1-C2-O2	-5.71	118.81	122.80
36	5	663	C	OP1-P-OP2	-5.71	111.04	119.60
38	8	25	G	O5'-P-OP1	5.71	117.55	110.70
36	1	1307	G	C2'-C3'-O3'	5.70	122.82	113.70
36	1	2300	G	N9-C4-C5	5.70	107.68	105.40
36	5	1844	C	N1-C2-N3	5.70	123.19	119.20
36	5	2411	U	C2-N3-C4	-5.70	123.58	127.00
38	8	39	G	N3-C4-N9	5.70	129.42	126.00
47	M0	69	ARG	NE-CZ-NH2	5.70	123.15	120.30
36	5	1902	G	C6-N1-C2	-5.70	121.68	125.10
36	1	199	A	N7-C8-N9	5.70	116.65	113.80
36	1	1002	A	C8-N9-C4	5.70	108.08	105.80
36	1	1180	A	C4-C5-N7	-5.70	107.85	110.70
36	1	2151	C	N1-C2-O2	-5.70	115.48	118.90
1	6	864	U	O4'-C1'-N1	5.70	112.76	108.20
36	5	1126	G	N9-C4-C5	5.70	107.68	105.40
36	5	1913	A	O5'-P-OP1	-5.70	100.57	105.70
36	5	2724	U	OP1-P-O3'	5.70	117.74	105.20
36	5	2908	G	C8-N9-C4	-5.70	104.12	106.40
1	2	1431	C	C6-N1-C2	5.70	122.58	120.30
36	1	2162	U	N3-C4-C5	5.70	118.02	114.60
1	6	543	C	C4-C5-C6	-5.70	114.55	117.40
36	1	2609	A	N1-C6-N6	-5.70	115.18	118.60
38	4	39	G	N3-C2-N2	5.70	123.89	119.90
41	L4	313	LEU	CA-CB-CG	5.70	128.40	115.30
1	6	1473	U	N1-C2-O2	5.70	126.79	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3062	G	C2-N3-C4	5.70	114.75	111.90
36	1	1517	G	O5'-P-OP1	5.70	117.53	110.70
36	1	2977	G	N7-C8-N9	-5.70	110.25	113.10
36	5	1845	G	C5-C6-N1	5.70	114.35	111.50
36	5	2361	A	P-O3'-C3'	5.70	126.54	119.70
36	1	2654	C	C5-C6-N1	-5.69	118.15	121.00
1	6	778	G	N1-C6-O6	-5.69	116.48	119.90
1	2	830	U	N1-C2-O2	5.69	126.78	122.80
36	1	1118	C	N1-C2-O2	-5.69	115.48	118.90
36	1	2144	A	N3-C4-N9	5.69	131.95	127.40
36	1	2633	U	OP1-P-O3'	5.69	117.72	105.20
36	5	1047	A	C4-C5-N7	5.69	113.55	110.70
36	5	3043	C	N3-C4-C5	5.69	124.18	121.90
37	7	1	G	N7-C8-N9	5.69	115.95	113.10
37	7	73	C	N3-C4-C5	-5.69	119.62	121.90
1	6	558	U	N3-C2-O2	-5.69	118.22	122.20
36	5	359	U	N1-C2-O2	-5.69	118.82	122.80
36	5	927	C	C2-N3-C4	-5.69	117.06	119.90
36	5	1326	A	C5-C6-N1	5.69	120.55	117.70
36	5	3343	G	N3-C2-N2	5.69	123.88	119.90
38	8	100	U	C2-N1-C1'	5.69	124.53	117.70
38	8	111	A	O5'-P-OP2	-5.69	100.58	105.70
36	5	1681	U	N1-C2-O2	-5.69	118.82	122.80
36	1	190	U	C5-C6-N1	-5.69	119.86	122.70
36	1	340	C	C2-N3-C4	-5.69	117.06	119.90
36	1	810	A	OP1-P-OP2	-5.69	111.07	119.60
36	5	1208	U	N3-C2-O2	-5.69	118.22	122.20
36	1	157	A	N1-C6-N6	5.69	122.01	118.60
36	1	1157	G	C4-C5-N7	-5.69	108.53	110.80
36	1	2339	C	OP1-P-O3'	5.69	117.71	105.20
36	1	2405	C	N1-C2-O2	5.69	122.31	118.90
36	5	2794	G	C5-C6-N1	5.69	114.34	111.50
36	1	1157	G	OP2-P-O3'	5.68	117.70	105.20
36	1	2932	U	C2-N1-C1'	-5.68	110.88	117.70
3	s1	47	LEU	CA-CB-CG	5.68	128.37	115.30
36	5	632	G	N3-C4-C5	-5.68	125.76	128.60
36	5	682	U	C6-N1-C1'	5.68	129.16	121.20
36	5	3105	U	C2-N3-C4	-5.68	123.59	127.00
38	8	37	A	O4'-C1'-N9	-5.68	103.65	108.20
36	1	182	U	N3-C4-O4	-5.68	115.42	119.40
36	5	1095	U	N3-C2-O2	-5.68	118.22	122.20
36	5	1127	G	C6-C5-N7	-5.68	126.99	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1892	G	N3-C2-N2	-5.68	115.92	119.90
36	5	2326	A	C8-N9-C4	5.68	108.07	105.80
36	5	3043	C	N3-C4-N4	-5.68	114.02	118.00
37	7	8	G	N3-C4-C5	-5.68	125.76	128.60
38	8	80	A	C4-C5-C6	5.68	119.84	117.00
36	5	36	C	N3-C4-N4	5.68	121.98	118.00
36	5	1127	G	C5-C6-N1	5.68	114.34	111.50
36	5	1433	A	O4'-C1'-N9	-5.68	103.66	108.20
36	5	2682	C	N3-C4-C5	5.68	124.17	121.90
36	5	2748	A	C8-N9-C4	5.68	108.07	105.80
36	5	3101	G	N1-C6-O6	-5.68	116.49	119.90
36	1	59	G	C5-C6-O6	-5.68	125.19	128.60
36	1	3030	G	C8-N9-C4	-5.68	104.13	106.40
36	1	3171	U	C6-N1-C2	5.68	124.41	121.00
36	5	676	G	OP2-P-O3'	5.68	117.70	105.20
36	5	2343	C	C2-N3-C4	-5.68	117.06	119.90
1	2	402	C	C6-N1-C2	5.68	122.57	120.30
36	1	1180	A	C5-N7-C8	5.68	106.74	103.90
36	1	3280	U	O4'-C1'-N1	5.68	112.74	108.20
36	5	2601	A	N1-C6-N6	-5.68	115.19	118.60
36	5	3196	U	C2-N1-C1'	-5.68	110.89	117.70
37	7	40	C	N1-C2-O2	-5.68	115.49	118.90
36	1	957	C	C5-C6-N1	-5.68	118.16	121.00
36	1	2130	G	N3-C4-C5	-5.68	125.76	128.60
38	4	106	C	C6-N1-C2	5.68	122.57	120.30
1	6	1619	C	C6-N1-C2	-5.68	118.03	120.30
36	5	966	U	C6-N1-C2	-5.68	117.59	121.00
36	5	3309	G	C8-N9-C1'	-5.68	119.62	127.00
36	1	1300	G	C6-C5-N7	-5.67	127.00	130.40
38	4	60	U	C2-N3-C4	-5.67	123.60	127.00
36	5	647	A	C5-C6-N1	-5.67	114.86	117.70
36	5	799	G	C5-C6-N1	5.67	114.34	111.50
36	5	2614	G	N1-C2-N2	-5.67	111.09	116.20
36	1	949	C	C4-C5-C6	5.67	120.24	117.40
36	1	2620	G	N1-C6-O6	5.67	123.30	119.90
36	5	2727	A	C6-N1-C2	-5.67	115.20	118.60
36	1	1331	U	O4'-C1'-N1	-5.67	103.66	108.20
36	1	2621	G	N9-C4-C5	5.67	107.67	105.40
36	1	2723	U	C5-C6-N1	-5.67	119.86	122.70
36	5	861	C	C5-C4-N4	-5.67	116.23	120.20
36	5	1528	G	C5-C6-N1	5.67	114.34	111.50
36	5	2117	A	C8-N9-C4	-5.67	103.53	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2608	G	OP2-P-O3'	5.67	117.68	105.20
38	8	6	U	C5-C4-O4	-5.67	122.50	125.90
36	5	2420	C	N3-C2-O2	5.67	125.87	121.90
36	5	2628	A	C6-N1-C2	-5.67	115.20	118.60
36	1	579	G	N3-C2-N2	5.67	123.87	119.90
36	1	920	A	N1-C2-N3	5.67	132.13	129.30
36	1	1304	A	OP1-P-OP2	5.67	128.10	119.60
36	1	2642	A	C8-N9-C4	5.67	108.07	105.80
37	3	12	U	N1-C2-N3	-5.67	111.50	114.90
36	5	1434	G	C2-N3-C4	5.67	114.73	111.90
36	5	1669	C	O5'-P-OP1	-5.67	100.60	105.70
36	5	1910	A	C5-C6-N1	5.67	120.53	117.70
36	5	2860	U	C6-N1-C2	5.67	124.40	121.00
36	5	2914	G	C4-N9-C1'	5.67	133.87	126.50
36	1	72	C	C2-N1-C1'	-5.67	112.57	118.80
36	1	368	G	N9-C4-C5	-5.67	103.13	105.40
36	1	1179	A	OP2-P-O3'	5.67	117.67	105.20
36	1	1590	G	C5-C6-O6	5.67	132.00	128.60
36	1	2407	C	N1-C2-O2	-5.67	115.50	118.90
36	5	1437	C	C2-N1-C1'	5.67	125.03	118.80
36	1	1175	C	C2-N3-C4	-5.66	117.07	119.90
36	1	2856	G	C6-C5-N7	5.66	133.80	130.40
36	5	2122	G	N1-C6-O6	-5.66	116.50	119.90
36	5	2434	U	N1-C2-N3	5.66	118.30	114.90
36	5	3331	U	N1-C2-O2	5.66	126.77	122.80
36	1	2821	C	O5'-P-OP2	5.66	117.49	110.70
36	1	2968	G	N1-C6-O6	5.66	123.30	119.90
1	6	1584	G	OP1-P-O3'	5.66	117.66	105.20
36	5	878	G	OP1-P-O3'	5.66	117.66	105.20
1	2	158	U	C5-C6-N1	5.66	125.53	122.70
36	1	206	G	C2-N3-C4	5.66	114.73	111.90
36	1	636	C	N3-C4-C5	5.66	124.16	121.90
36	1	648	C	C4-C5-C6	5.66	120.23	117.40
1	6	334	G	N1-C6-O6	-5.66	116.50	119.90
36	5	3055	U	C2-N1-C1'	5.66	124.49	117.70
36	5	3059	G	C8-N9-C4	5.66	108.66	106.40
36	1	29	C	C5-C6-N1	-5.66	118.17	121.00
36	1	2295	A	C4-C5-N7	5.66	113.53	110.70
36	1	2606	G	C6-C5-N7	-5.66	127.00	130.40
36	5	38	U	O5'-P-OP2	-5.66	100.61	105.70
36	5	882	A	C6-N1-C2	-5.66	115.20	118.60
36	5	1115	G	OP1-P-O3'	5.66	117.65	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2634	U	N3-C2-O2	-5.66	118.24	122.20
36	5	2815	G	C8-N9-C1'	-5.66	119.64	127.00
36	5	2878	G	N1-C6-O6	-5.66	116.50	119.90
38	8	3	A	C2-N3-C4	5.66	113.43	110.60
36	1	133	U	C5-C4-O4	-5.66	122.51	125.90
36	1	1186	G	N9-C4-C5	-5.66	103.14	105.40
71	O5	36	LEU	CA-CB-CG	5.66	128.31	115.30
36	5	35	A	N1-C6-N6	5.66	121.99	118.60
36	5	745	C	N1-C2-O2	-5.66	115.51	118.90
36	1	608	A	C4-C5-C6	5.66	119.83	117.00
36	1	641	C	C2-N3-C4	-5.66	117.07	119.90
36	1	1129	A	N1-C6-N6	5.66	121.99	118.60
36	1	2620	G	C5-C6-O6	-5.66	125.21	128.60
1	6	120	U	C2-N1-C1'	5.66	124.49	117.70
36	5	1104	G	C4-N9-C1'	5.66	133.85	126.50
36	1	909	G	C8-N9-C4	5.65	108.66	106.40
36	1	2121	G	C5-C6-O6	5.65	131.99	128.60
36	5	646	A	N7-C8-N9	5.65	116.63	113.80
36	5	1193	A	C4-C5-C6	5.65	119.83	117.00
36	5	2644	C	N1-C2-O2	-5.65	115.51	118.90
36	5	3317	U	C5-C4-O4	5.65	129.29	125.90
36	1	304	G	N1-C2-N2	5.65	121.28	116.20
36	1	2817	A	OP1-P-OP2	-5.65	111.12	119.60
1	6	53	G	N3-C4-C5	-5.65	125.77	128.60
36	5	2875	U	C5-C6-N1	-5.65	119.88	122.70
36	5	959	C	C6-N1-C1'	5.65	127.58	120.80
36	5	2147	A	C5-C6-N6	-5.65	119.18	123.70
36	5	2857	C	C2-N3-C4	-5.65	117.08	119.90
37	7	73	C	C5-C6-N1	5.65	123.82	121.00
64	n8	73	LEU	CA-CB-CG	5.65	128.29	115.30
1	2	720	G	P-O3'-C3'	5.65	126.48	119.70
1	2	1432	U	C6-N1-C2	5.65	124.39	121.00
36	1	317	A	O5'-P-OP2	-5.65	100.62	105.70
36	1	1167	U	N1-C2-O2	5.65	126.75	122.80
36	1	1846	C	O5'-P-OP1	-5.65	100.62	105.70
36	1	2135	U	N3-C4-C5	5.65	117.99	114.60
36	5	716	A	C5-C6-N6	-5.65	119.18	123.70
1	2	554	C	C6-N1-C1'	-5.65	114.03	120.80
36	5	2923	U	N1-C2-O2	-5.65	118.85	122.80
36	1	962	A	N1-C2-N3	5.64	132.12	129.30
1	6	1346	A	O4'-C1'-N9	5.64	112.72	108.20
36	5	1199	C	N1-C2-O2	-5.64	115.51	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2201	G	N3-C2-N2	5.64	123.85	119.90
1	2	1642	G	N3-C4-N9	5.64	129.38	126.00
36	1	584	G	N1-C6-O6	-5.64	116.51	119.90
36	5	790	U	C5-C4-O4	5.64	129.28	125.90
36	5	1914	G	C5-C6-O6	5.64	131.99	128.60
36	1	1515	A	C6-C5-N7	-5.64	128.35	132.30
36	1	2918	G	C4-N9-C1'	5.64	133.83	126.50
36	1	3318	G	C8-N9-C4	-5.64	104.14	106.40
6	s4	38	LEU	CA-CB-CG	5.64	128.27	115.30
36	5	1464	G	C8-N9-C4	5.64	108.66	106.40
36	5	3039	C	C6-N1-C2	-5.64	118.04	120.30
36	1	2800	G	C6-N1-C2	-5.64	121.72	125.10
40	l3	266	ARG	NE-CZ-NH2	-5.64	117.48	120.30
1	2	1280	C	C6-N1-C2	-5.64	118.05	120.30
36	1	2129	U	C5-C6-N1	5.64	125.52	122.70
36	5	410	U	OP2-P-O3'	5.64	117.60	105.20
41	l4	340	GLY	N-CA-C	-5.64	99.01	113.10
1	2	720	G	OP1-P-O3'	5.63	117.59	105.20
36	1	3216	G	C5-C6-O6	5.63	131.98	128.60
36	5	73	C	N3-C2-O2	5.63	125.84	121.90
36	5	1462	A	C2-N3-C4	-5.63	107.78	110.60
1	2	619	A	OP2-P-O3'	5.63	117.59	105.20
36	5	1606	U	O5'-P-OP2	-5.63	100.63	105.70
36	5	2375	G	C5-C6-O6	5.63	131.98	128.60
41	L4	139	GLY	N-CA-C	-5.63	99.02	113.10
1	6	1596	C	N3-C4-N4	-5.63	114.06	118.00
36	5	2123	G	C2-N3-C4	5.63	114.72	111.90
38	8	100	U	C5-C6-N1	5.63	125.52	122.70
36	1	1899	G	N7-C8-N9	5.63	115.92	113.10
36	1	2383	C	C4-C5-C6	5.63	120.22	117.40
36	5	1065	A	C8-N9-C4	5.63	108.05	105.80
36	5	1113	G	N3-C4-N9	-5.63	122.62	126.00
36	5	1908	A	N9-C4-C5	5.63	108.05	105.80
1	6	1136	U	C5-C4-O4	-5.63	122.52	125.90
36	5	2222	A	OP2-P-O3'	5.63	117.58	105.20
52	m6	128	ARG	NE-CZ-NH2	-5.63	117.49	120.30
36	1	386	A	C4-C5-C6	5.63	119.81	117.00
38	4	114	G	C8-N9-C4	5.63	108.65	106.40
1	6	350	U	N1-C2-N3	5.63	118.28	114.90
36	1	698	U	OP2-P-O3'	5.62	117.57	105.20
36	1	949	C	C6-N1-C2	-5.62	118.05	120.30
36	1	1336	U	OP1-P-OP2	-5.62	111.16	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	100	A	C2-N3-C4	-5.62	107.79	110.60
36	5	652	G	C6-C5-N7	-5.62	127.03	130.40
36	1	439	C	N3-C2-O2	-5.62	117.96	121.90
36	1	709	A	C5-N7-C8	5.62	106.71	103.90
36	1	1952	G	N3-C4-C5	-5.62	125.79	128.60
36	1	2899	C	C4-C5-C6	5.62	120.21	117.40
41	L4	186	LYS	CD-CE-NZ	5.62	124.63	111.70
36	5	1169	A	N1-C2-N3	5.62	132.11	129.30
36	5	1229	G	C8-N9-C4	5.62	108.65	106.40
36	5	2147	A	C4-C5-N7	5.62	113.51	110.70
36	5	2380	U	N1-C2-O2	-5.62	118.86	122.80
36	1	1793	C	C5-C6-N1	-5.62	118.19	121.00
36	1	2950	G	C8-N9-C4	-5.62	104.15	106.40
36	1	3112	G	N1-C6-O6	5.62	123.27	119.90
9	s7	118	LEU	CA-CB-CG	5.62	128.23	115.30
36	5	1380	G	N9-C4-C5	-5.62	103.15	105.40
36	1	2307	G	O4'-C1'-N9	5.62	112.69	108.20
36	1	3006	A	C2-N3-C4	-5.62	107.79	110.60
36	5	2917	G	C4-N9-C1'	5.62	133.80	126.50
36	1	1115	G	N3-C4-N9	5.62	129.37	126.00
36	5	1003	A	OP1-P-O3'	5.62	117.56	105.20
1	2	1291	G	N3-C2-N2	-5.62	115.97	119.90
36	1	922	U	N3-C4-O4	-5.62	115.47	119.40
36	1	1472	U	C5-C6-N1	-5.62	119.89	122.70
36	1	1661	G	C8-N9-C1'	-5.62	119.70	127.00
36	1	2877	G	N1-C2-N3	5.62	127.27	123.90
38	4	96	A	C2-N3-C4	-5.62	107.79	110.60
36	5	340	C	C5-C6-N1	-5.62	118.19	121.00
36	1	868	C	N1-C2-O2	5.61	122.27	118.90
36	1	1438	U	C5-C6-N1	-5.61	119.89	122.70
36	1	1906	G	C4-C5-N7	5.61	113.05	110.80
38	4	49	G	C5-C6-O6	-5.61	125.23	128.60
38	4	109	A	C4-C5-N7	5.61	113.51	110.70
36	5	1113	G	N1-C6-O6	5.61	123.27	119.90
36	1	1377	G	C5-N7-C8	-5.61	101.49	104.30
1	2	1107	G	N1-C6-O6	5.61	123.27	119.90
21	C9	57	ARG	NE-CZ-NH1	5.61	123.11	120.30
36	1	1464	G	O5'-P-OP2	-5.61	100.65	105.70
36	1	2093	A	C2-N3-C4	5.61	113.41	110.60
36	1	2891	U	C2-N3-C4	-5.61	123.63	127.00
36	1	2953	U	C6-N1-C2	-5.61	117.63	121.00
36	5	2993	G	C5-C6-O6	-5.61	125.23	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3052	G	N3-C4-N9	-5.61	122.63	126.00
36	1	2622	C	N3-C4-C5	-5.61	119.66	121.90
68	O2	19	ARG	NE-CZ-NH1	-5.61	117.50	120.30
20	c8	116	LEU	CA-CB-CG	5.61	128.19	115.30
36	5	283	G	C8-N9-C4	-5.61	104.16	106.40
36	5	681	U	OP2-P-O3'	5.61	117.53	105.20
36	5	1003	A	N9-C4-C5	-5.61	103.56	105.80
36	5	1486	G	C5-C6-N1	5.61	114.30	111.50
42	l5	29	ASP	CB-CG-OD2	5.61	123.34	118.30
36	1	577	C	N3-C4-C5	-5.60	119.66	121.90
36	5	1185	C	OP2-P-O3'	5.60	117.53	105.20
36	1	1370	G	C5-C6-N1	5.60	114.30	111.50
36	5	1419	A	N1-C6-N6	-5.60	115.24	118.60
36	5	2365	C	O5'-P-OP1	-5.60	100.66	105.70
36	1	810	A	N9-C4-C5	5.60	108.04	105.80
36	1	3079	U	O5'-P-OP1	-5.60	100.66	105.70
36	1	3245	A	OP1-P-O3'	5.60	117.52	105.20
36	5	2927	C	C6-N1-C2	-5.60	118.06	120.30
1	2	933	A	N9-C4-C5	5.60	108.04	105.80
36	1	82	C	C5-C6-N1	-5.60	118.20	121.00
36	1	1124	U	N3-C2-O2	-5.60	118.28	122.20
1	6	371	G	C8-N9-C1'	-5.60	119.72	127.00
1	6	1025	A	C8-N9-C4	5.60	108.04	105.80
36	5	186	U	N1-C2-O2	5.60	126.72	122.80
36	5	3101	G	N1-C2-N2	-5.60	111.16	116.20
38	8	8	C	N1-C2-N3	5.60	123.12	119.20
38	8	96	A	C8-N9-C4	5.60	108.04	105.80
36	1	2643	A	N9-C4-C5	-5.60	103.56	105.80
36	5	1292	C	C6-N1-C2	5.60	122.54	120.30
36	1	2281	A	C2-N3-C4	-5.60	107.80	110.60
36	5	984	G	N3-C4-C5	-5.60	125.80	128.60
36	5	1305	U	O5'-P-OP1	-5.60	100.66	105.70
36	5	1872	C	C4-C5-C6	5.60	120.20	117.40
36	5	1942	U	N1-C2-N3	5.60	118.26	114.90
37	7	44	C	C6-N1-C2	5.60	122.54	120.30
36	1	105	C	C2-N3-C4	-5.59	117.10	119.90
36	1	1142	G	C4-N9-C1'	5.59	133.77	126.50
36	5	1155	C	N3-C4-C5	5.59	124.14	121.90
1	2	1600	A	C4-C5-N7	5.59	113.50	110.70
36	1	1853	U	O5'-P-OP1	-5.59	100.67	105.70
36	1	2623	G	N3-C2-N2	5.59	123.81	119.90
1	6	631	G	N1-C6-O6	5.59	123.25	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1016	C	O5'-P-OP1	-5.59	100.67	105.70
36	5	282	G	N1-C6-O6	-5.59	116.55	119.90
36	5	437	G	C4-C5-N7	-5.59	108.56	110.80
36	5	958	C	N1-C2-O2	5.59	122.25	118.90
36	5	2964	G	N9-C1'-C2'	-5.59	105.85	112.00
36	5	3187	A	N1-C6-N6	-5.59	115.25	118.60
37	7	103	A	N1-C6-N6	5.59	121.95	118.60
36	1	399	A	O5'-P-OP1	-5.59	100.67	105.70
36	1	922	U	N1-C2-O2	5.59	126.71	122.80
36	5	637	C	OP2-P-O3'	5.59	117.50	105.20
36	5	663	C	O5'-P-OP1	5.59	117.41	110.70
36	5	2951	G	C2-N3-C4	5.59	114.69	111.90
1	2	15	U	N3-C2-O2	-5.59	118.29	122.20
1	2	1096	C	N1-C2-O2	5.59	122.25	118.90
36	1	1045	C	OP2-P-O3'	5.59	117.49	105.20
36	1	2356	A	C5-C6-N6	-5.59	119.23	123.70
1	6	858	G	C4-N9-C1'	5.59	133.76	126.50
36	5	95	A	N1-C2-N3	-5.59	126.51	129.30
36	5	2901	G	C5-C6-O6	-5.59	125.25	128.60
36	1	793	C	N3-C4-N4	5.59	121.91	118.00
36	1	873	C	N3-C4-N4	-5.59	114.09	118.00
36	1	2560	C	C6-N1-C2	-5.59	118.07	120.30
36	5	964	G	N7-C8-N9	5.59	115.89	113.10
36	1	1312	C	N1-C2-O2	-5.58	115.55	118.90
36	5	2164	A	O5'-P-OP2	-5.58	100.67	105.70
36	1	743	C	C6-N1-C2	5.58	122.53	120.30
36	1	2873	U	C5-C6-N1	-5.58	119.91	122.70
64	N8	115	LYS	C-N-CA	-5.58	110.58	122.30
1	6	310	C	C6-N1-C2	-5.58	118.07	120.30
1	6	1091	A	OP2-P-O3'	5.58	117.49	105.20
36	5	39	A	O5'-P-OP2	-5.58	100.67	105.70
36	5	622	A	N1-C6-N6	5.58	121.95	118.60
36	5	1884	A	C6-C5-N7	-5.58	128.39	132.30
36	1	2633	U	N3-C2-O2	-5.58	118.29	122.20
36	5	330	G	C8-N9-C4	5.58	108.63	106.40
36	5	652	G	O5'-P-OP2	-5.58	100.68	105.70
36	5	969	C	C2-N3-C4	-5.58	117.11	119.90
36	1	639	G	O5'-P-OP1	5.58	117.40	110.70
36	1	923	C	N3-C2-O2	5.58	125.81	121.90
36	1	1152	G	OP1-P-OP2	5.58	127.97	119.60
36	5	530	G	N9-C4-C5	5.58	107.63	105.40
52	M6	110	PRO	C-N-CD	-5.58	108.33	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	43	A	O5'-P-OP1	-5.58	100.68	105.70
36	5	1175	C	N3-C4-C5	5.58	124.13	121.90
36	5	1371	G	C5-N7-C8	5.58	107.09	104.30
36	5	2191	U	N1-C2-O2	5.58	126.70	122.80
37	7	96	U	C2-N1-C1'	5.58	124.39	117.70
36	1	2630	C	N1-C2-O2	-5.58	115.55	118.90
36	5	951	A	C2-N3-C4	-5.58	107.81	110.60
36	5	2983	C	O5'-P-OP1	-5.58	100.68	105.70
36	1	2767	U	OP2-P-O3'	5.58	117.47	105.20
36	1	2920	U	C2-N3-C4	-5.58	123.65	127.00
1	6	297	U	C2-N1-C1'	5.58	124.39	117.70
36	5	417	A	C5-C6-N1	5.58	120.49	117.70
36	5	430	U	N1-C2-O2	-5.58	118.90	122.80
1	2	783	G	N9-C4-C5	-5.57	103.17	105.40
36	1	196	G	C4-C5-N7	5.57	113.03	110.80
36	1	1102	A	C2-N3-C4	-5.57	107.81	110.60
36	1	2137	U	O4'-C1'-N1	5.57	112.66	108.20
54	M8	99	THR	N-CA-C	5.57	126.05	111.00
1	6	1787	C	C6-N1-C2	-5.57	118.07	120.30
36	1	1484	U	C2-N1-C1'	5.57	124.39	117.70
36	1	1841	A	C2-N3-C4	5.57	113.39	110.60
36	1	2411	U	C4-C5-C6	-5.57	116.36	119.70
36	1	3246	G	O5'-P-OP1	-5.57	100.69	105.70
1	6	1595	U	O4'-C1'-N1	5.57	112.66	108.20
36	5	2429	G	N9-C4-C5	5.57	107.63	105.40
1	2	378	A	C5-C6-N6	-5.57	119.24	123.70
1	2	734	A	OP1-P-O3'	5.57	117.46	105.20
36	1	2777	G	C4-C5-N7	-5.57	108.57	110.80
41	L4	99	MET	CG-SD-CE	5.57	109.11	100.20
1	6	163	G	C8-N9-C1'	5.57	134.24	127.00
36	5	385	A	N1-C6-N6	5.57	121.94	118.60
36	5	2920	U	N1-C2-O2	-5.57	118.90	122.80
1	2	17	C	C6-N1-C2	-5.57	118.07	120.30
36	1	283	G	O4'-C1'-N9	-5.57	103.75	108.20
36	5	661	G	OP1-P-O3'	5.57	117.45	105.20
36	5	3277	U	O5'-P-OP1	-5.57	100.69	105.70
36	1	878	G	OP1-P-O3'	5.57	117.45	105.20
36	1	1201	C	N3-C2-O2	5.57	125.80	121.90
36	1	2917	G	N3-C4-N9	5.57	129.34	126.00
41	L4	206	LEU	CA-CB-CG	5.57	128.11	115.30
36	1	2759	U	N3-C2-O2	-5.57	118.30	122.20
36	1	2766	U	N3-C2-O2	-5.57	118.31	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	340	C	C2-N3-C4	-5.57	117.12	119.90
36	5	1935	G	N3-C4-N9	5.57	129.34	126.00
1	2	1782	A	N7-C8-N9	5.56	116.58	113.80
36	1	3081	C	C5-C6-N1	-5.56	118.22	121.00
36	5	1168	U	C4-C5-C6	-5.56	116.36	119.70
36	5	1192	C	C2-N3-C4	-5.56	117.12	119.90
36	5	1337	A	C2-N3-C4	5.56	113.38	110.60
36	5	2843	U	N1-C2-O2	5.56	126.69	122.80
1	2	831	U	C6-N1-C2	-5.56	117.66	121.00
36	1	2249	G	N3-C2-N2	5.56	123.79	119.90
36	1	2816	G	N7-C8-N9	-5.56	110.32	113.10
38	4	32	C	N3-C2-O2	5.56	125.79	121.90
36	5	878	G	C8-N9-C4	-5.56	104.17	106.40
36	5	966	U	C2-N1-C1'	5.56	124.38	117.70
36	5	1375	G	C8-N9-C4	-5.56	104.17	106.40
36	5	2171	G	N1-C6-O6	-5.56	116.56	119.90
36	5	3016	A	O5'-P-OP1	5.56	117.38	110.70
1	2	627	C	C5-C4-N4	-5.56	116.31	120.20
36	1	2953	U	N3-C4-C5	-5.56	111.26	114.60
36	5	297	G	O4'-C1'-N9	5.56	112.65	108.20
36	5	2948	C	N3-C2-O2	-5.56	118.01	121.90
1	2	173	A	N1-C2-N3	5.56	132.08	129.30
36	1	991	G	N1-C6-O6	-5.56	116.56	119.90
36	1	2238	G	N1-C6-O6	5.56	123.23	119.90
36	1	2371	G	OP2-P-O3'	5.56	117.43	105.20
36	1	2551	U	N3-C4-O4	-5.56	115.51	119.40
1	6	314	C	O5'-P-OP1	-5.56	100.70	105.70
36	5	2712	U	N3-C4-C5	-5.56	111.27	114.60
36	5	3392	U	C5-C4-O4	5.56	129.24	125.90
37	7	37	G	C5-C6-O6	-5.56	125.26	128.60
37	7	47	C	C5-C6-N1	-5.56	118.22	121.00
1	2	158	U	N1-C2-O2	5.56	126.69	122.80
1	6	539	G	C8-N9-C4	-5.56	104.18	106.40
1	6	541	A	P-O3'-C3'	-5.56	113.03	119.70
36	5	224	C	OP1-P-O3'	5.56	117.43	105.20
36	5	1049	C	N3-C4-C5	5.56	124.12	121.90
37	7	101	G	N9-C4-C5	-5.56	103.18	105.40
36	1	786	A	C5-N7-C8	5.56	106.68	103.90
36	1	1428	A	C5-N7-C8	-5.56	101.12	103.90
37	3	83	U	C5-C6-N1	-5.56	119.92	122.70
36	5	1151	U	N3-C4-O4	5.56	123.29	119.40
40	l3	102	LEU	CA-CB-CG	5.56	128.08	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	15	C	C6-N1-C2	-5.55	118.08	120.30
36	1	2898	G	O4'-C1'-N9	-5.55	103.76	108.20
36	5	2953	U	N3-C2-O2	5.55	126.09	122.20
36	5	3126	C	N3-C4-C5	5.55	124.12	121.90
36	1	53	G	C5-C6-N1	5.55	114.28	111.50
36	1	2950	G	N7-C8-N9	5.55	115.88	113.10
36	5	1939	G	OP2-P-O3'	5.55	117.42	105.20
36	5	3342	A	N1-C2-N3	5.55	132.08	129.30
1	2	1742	U	O5'-P-OP2	-5.55	100.70	105.70
36	1	1546	A	N1-C2-N3	-5.55	126.52	129.30
36	1	2954	U	OP1-P-OP2	-5.55	111.27	119.60
68	O2	16	LYS	CD-CE-NZ	5.55	124.47	111.70
36	5	2399	A	OP1-P-OP2	-5.55	111.27	119.60
36	5	2694	A	N9-C4-C5	5.55	108.02	105.80
36	1	2628	A	N7-C8-N9	5.55	116.58	113.80
36	1	3050	U	C2-N1-C1'	5.55	124.36	117.70
36	5	1159	A	N3-C4-C5	5.55	130.69	126.80
1	2	1340	U	N3-C4-O4	-5.55	115.52	119.40
36	1	332	C	C5-C6-N1	-5.55	118.23	121.00
1	6	325	G	N1-C6-O6	-5.55	116.57	119.90
36	5	1471	U	N3-C2-O2	-5.55	118.32	122.20
36	1	721	G	C4-C5-N7	5.55	113.02	110.80
36	1	1551	C	N3-C2-O2	-5.55	118.02	121.90
36	1	2173	U	C5-C4-O4	-5.55	122.57	125.90
36	1	2965	U	C5-C6-N1	-5.55	119.93	122.70
36	1	2984	C	C5-C4-N4	5.55	124.08	120.20
1	6	989	U	O5'-P-OP2	-5.55	100.71	105.70
36	5	1378	U	C5-C6-N1	-5.55	119.93	122.70
36	5	3030	G	C4-C5-N7	-5.55	108.58	110.80
36	1	2373	A	C4-C5-C6	5.54	119.77	117.00
36	5	519	A	C8-N9-C4	5.54	108.02	105.80
36	5	1338	C	C4-C5-C6	5.54	120.17	117.40
36	5	2351	U	C5-C4-O4	5.54	129.23	125.90
36	5	2792	A	C8-N9-C4	-5.54	103.58	105.80
36	5	3090	U	C2-N3-C4	-5.54	123.67	127.00
1	2	694	U	C5-C6-N1	5.54	125.47	122.70
1	6	1131	A	C4-C5-N7	5.54	113.47	110.70
36	5	220	G	OP1-P-O3'	5.54	117.40	105.20
36	5	861	C	O5'-P-OP1	5.54	117.35	110.70
36	5	2136	C	C2-N3-C4	-5.54	117.13	119.90
36	5	2382	G	C5-C6-N1	5.54	114.27	111.50
36	5	2644	C	C5-C6-N1	-5.54	118.23	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3206	C	OP1-P-OP2	5.54	127.92	119.60
36	1	284	A	O4'-C1'-N9	5.54	112.63	108.20
36	1	350	C	C5-C6-N1	5.54	123.77	121.00
36	1	2650	U	C5-C4-O4	5.54	129.22	125.90
36	1	3005	A	N9-C4-C5	5.54	108.02	105.80
36	5	1846	C	C6-N1-C2	5.54	122.52	120.30
36	5	3095	U	N3-C2-O2	-5.54	118.32	122.20
36	5	3343	G	N1-C2-N2	-5.54	111.21	116.20
1	6	609	U	C2-N3-C4	-5.54	123.68	127.00
36	5	267	G	N9-C4-C5	-5.54	103.18	105.40
1	2	1486	G	C4-C5-N7	5.54	113.02	110.80
36	1	2165	G	C5-C6-O6	-5.54	125.28	128.60
1	6	542	A	C5-N7-C8	-5.54	101.13	103.90
1	6	1025	A	C2-N3-C4	-5.54	107.83	110.60
1	6	1164	G	C5-C6-O6	-5.54	125.28	128.60
36	5	1510	G	N1-C6-O6	-5.54	116.58	119.90
1	2	1462	G	C5-C6-O6	-5.54	125.28	128.60
36	1	913	A	C8-N9-C4	-5.54	103.58	105.80
1	2	553	G	N7-C8-N9	5.54	115.87	113.10
1	2	1273	G	C8-N9-C4	-5.54	104.19	106.40
36	1	817	A	N1-C2-N3	5.54	132.07	129.30
36	1	3006	A	C6-C5-N7	-5.54	128.42	132.30
37	3	81	U	N3-C4-C5	5.54	117.92	114.60
36	5	1490	A	C6-N1-C2	-5.54	115.28	118.60
36	5	1834	U	N3-C4-C5	-5.54	111.28	114.60
36	5	2397	A	N1-C2-N3	5.54	132.07	129.30
36	5	2917	G	N3-C4-N9	5.54	129.32	126.00
1	2	1340	U	C5-C4-O4	5.53	129.22	125.90
36	1	1112	A	N1-C6-N6	5.53	121.92	118.60
69	O3	67	MET	CG-SD-CE	-5.53	91.35	100.20
36	5	1392	G	N7-C8-N9	-5.53	110.33	113.10
36	5	2329	C	N3-C4-C5	5.53	124.11	121.90
36	1	35	A	O5'-P-OP2	-5.53	100.72	105.70
36	1	2602	G	N1-C6-O6	-5.53	116.58	119.90
36	5	514	G	C4-C5-N7	5.53	113.01	110.80
36	5	1794	G	N3-C4-N9	5.53	129.32	126.00
36	5	2630	C	O5'-P-OP1	-5.53	100.72	105.70
36	5	3001	C	N1-C2-O2	-5.53	115.58	118.90
36	1	950	G	N9-C4-C5	-5.53	103.19	105.40
36	1	1329	U	OP1-P-OP2	5.53	127.89	119.60
36	1	1395	G	C5-C6-N1	5.53	114.27	111.50
36	1	2773	C	OP1-P-OP2	5.53	127.89	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	s1	96	LEU	CA-CB-CG	5.53	128.02	115.30
36	5	894	G	N1-C2-N2	-5.53	111.22	116.20
36	5	2302	G	N1-C6-O6	-5.53	116.58	119.90
1	2	50	C	N3-C4-C5	-5.53	119.69	121.90
36	1	718	G	C4-N9-C1'	-5.53	119.31	126.50
1	2	44	U	N1-C2-O2	-5.53	118.93	122.80
36	1	393	U	O5'-P-OP1	-5.53	100.72	105.70
36	1	694	C	N3-C4-N4	-5.53	114.13	118.00
36	1	909	G	O5'-P-OP1	-5.53	100.72	105.70
36	1	2123	G	N9-C4-C5	-5.53	103.19	105.40
38	4	38	U	N3-C2-O2	-5.53	118.33	122.20
1	6	382	C	C2-N3-C4	-5.53	117.14	119.90
36	5	2843	U	C6-N1-C2	-5.53	117.68	121.00
1	2	359	A	N7-C8-N9	-5.53	111.04	113.80
36	1	1586	G	N3-C4-N9	5.53	129.31	126.00
36	5	365	A	C4-C5-N7	5.53	113.46	110.70
36	5	1149	G	N9-C4-C5	5.53	107.61	105.40
37	7	96	U	OP2-P-O3'	5.52	117.35	105.20
36	1	1097	G	P-O3'-C3'	5.52	126.33	119.70
36	1	1132	C	N3-C2-O2	-5.52	118.03	121.90
36	1	2405	C	N3-C2-O2	-5.52	118.03	121.90
36	5	2234	G	N9-C4-C5	-5.52	103.19	105.40
36	5	2684	C	N1-C2-N3	5.52	123.07	119.20
36	5	3207	U	C6-N1-C2	-5.52	117.69	121.00
36	5	3374	U	C2-N3-C4	-5.52	123.69	127.00
36	1	676	G	C6-C5-N7	-5.52	127.09	130.40
36	1	1116	G	C4-C5-N7	5.52	113.01	110.80
36	1	1481	A	C4-N9-C1'	5.52	136.24	126.30
36	1	2796	G	C8-N9-C4	-5.52	104.19	106.40
1	6	1697	G	N3-C4-N9	5.52	129.31	126.00
36	5	1863	G	C5-C6-N1	5.52	114.26	111.50
36	5	2825	C	OP1-P-OP2	5.52	127.88	119.60
36	5	2882	U	C2-N3-C4	-5.52	123.69	127.00
1	2	50	C	N3-C2-O2	-5.52	118.04	121.90
36	1	1204	A	C8-N9-C4	5.52	108.01	105.80
36	1	1429	G	C5-N7-C8	5.52	107.06	104.30
36	1	1841	A	N3-C4-C5	-5.52	122.94	126.80
36	1	2249	G	N1-C2-N2	-5.52	111.23	116.20
1	6	610	G	N3-C4-N9	5.52	129.31	126.00
36	5	111	C	C6-N1-C2	5.52	122.51	120.30
36	5	915	A	OP1-P-O3'	5.52	117.34	105.20
36	1	1327	C	N1-C2-O2	-5.52	115.59	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	l6	77	ARG	NE-CZ-NH1	5.52	123.06	120.30
1	2	213	A	C8-N9-C4	5.51	108.01	105.80
36	1	969	C	C2-N3-C4	-5.51	117.14	119.90
36	1	1932	A	C5-C6-N6	-5.51	119.29	123.70
1	6	100	A	N1-C6-N6	5.51	121.91	118.60
36	5	1012	G	C8-N9-C1'	5.51	134.17	127.00
36	5	2188	A	N7-C8-N9	-5.51	111.04	113.80
1	6	1059	U	O4'-C1'-N1	5.51	112.61	108.20
1	6	1145	U	N3-C2-O2	5.51	126.06	122.20
1	2	1346	A	O4'-C1'-N9	5.51	112.61	108.20
36	5	1301	A	C5-C6-N6	-5.51	119.29	123.70
36	5	2350	C	O5'-P-OP1	5.51	117.31	110.70
36	1	1133	A	C5-C6-N1	5.51	120.45	117.70
36	1	2365	C	N3-C2-O2	-5.51	118.04	121.90
36	5	1190	A	N9-C4-C5	5.51	108.00	105.80
36	5	1487	G	N3-C4-C5	-5.51	125.84	128.60
36	5	3007	U	C5-C4-O4	-5.51	122.59	125.90
36	1	3143	C	N3-C2-O2	5.51	125.75	121.90
36	5	1373	A	N1-C6-N6	5.51	121.90	118.60
36	5	2806	U	C5-C6-N1	-5.51	119.95	122.70
52	m6	37	ARG	NE-CZ-NH1	5.51	123.05	120.30
52	m6	69	GLY	N-CA-C	-5.51	99.33	113.10
36	5	406	G	C5-N7-C8	-5.50	101.55	104.30
36	1	397	A	C2-N3-C4	5.50	113.35	110.60
36	1	2874	G	C4-C5-N7	-5.50	108.60	110.80
36	1	3057	U	N1-C2-O2	5.50	126.65	122.80
1	6	1600	A	P-O3'-C3'	5.50	126.31	119.70
36	5	407	A	C5-C6-N6	-5.50	119.30	123.70
36	5	413	U	N1-C2-N3	5.50	118.20	114.90
36	5	1064	A	C5-C6-N6	-5.50	119.30	123.70
36	5	1177	G	O4'-C1'-N9	5.50	112.60	108.20
36	5	2682	C	C6-N1-C2	5.50	122.50	120.30
1	6	105	A	N1-C6-N6	5.50	121.90	118.60
36	5	2830	G	C2-N3-C4	-5.50	109.15	111.90
38	8	54	A	C5-N7-C8	-5.50	101.15	103.90
36	5	820	A	N1-C2-N3	5.50	132.05	129.30
1	2	1573	A	P-O3'-C3'	5.50	126.30	119.70
1	2	1746	A	O5'-P-OP1	-5.50	100.75	105.70
36	1	1110	U	N3-C4-C5	5.50	117.90	114.60
36	1	1113	G	N1-C6-O6	5.50	123.20	119.90
36	1	2714	G	N7-C8-N9	5.50	115.85	113.10
36	1	3183	A	OP2-P-O3'	5.50	117.30	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3362	A	N1-C2-N3	5.50	132.05	129.30
18	C6	28	LEU	CA-CB-CG	5.50	127.94	115.30
36	1	1164	G	N1-C6-O6	-5.50	116.60	119.90
36	5	3272	C	N1-C2-O2	-5.50	115.60	118.90
1	6	980	G	C5-C6-O6	5.50	131.90	128.60
36	5	3153	U	N3-C2-O2	-5.50	118.35	122.20
36	1	644	G	C4-C5-C6	5.49	122.10	118.80
36	1	793	C	C5-C4-N4	-5.49	116.35	120.20
36	1	2212	C	C6-N1-C2	5.49	122.50	120.30
36	1	2222	A	N1-C6-N6	-5.49	115.30	118.60
36	1	2812	C	C5-C6-N1	-5.49	118.25	121.00
36	5	637	C	C6-N1-C1'	5.49	127.39	120.80
36	5	652	G	C5-C6-O6	-5.49	125.30	128.60
36	5	2392	C	C5-C6-N1	-5.49	118.25	121.00
36	5	2796	G	C5-C6-O6	-5.49	125.30	128.60
36	5	2796	G	C4-C5-N7	5.49	113.00	110.80
36	5	2945	G	N1-C6-O6	5.49	123.20	119.90
36	5	3143	C	N1-C2-O2	-5.49	115.60	118.90
1	2	608	U	N3-C2-O2	-5.49	118.36	122.20
36	1	153	U	N3-C4-C5	-5.49	111.31	114.60
1	6	1025	A	N1-C6-N6	5.49	121.89	118.60
36	5	1049	C	OP1-P-O3'	5.49	117.28	105.20
36	5	2783	U	O5'-P-OP1	5.49	117.29	110.70
4	S2	225	LEU	CA-CB-CG	5.49	127.93	115.30
36	1	200	C	N3-C2-O2	-5.49	118.06	121.90
36	1	1428	A	C4-C5-N7	5.49	113.44	110.70
36	1	3101	G	C6-C5-N7	5.49	133.69	130.40
36	5	960	U	C5-C6-N1	-5.49	119.95	122.70
36	5	2323	G	C8-N9-C4	-5.49	104.20	106.40
36	5	2724	U	N3-C2-O2	-5.49	118.36	122.20
36	5	3382	U	N3-C2-O2	-5.49	118.36	122.20
37	7	87	G	N1-C2-N2	5.49	121.14	116.20
37	7	97	A	N9-C4-C5	5.49	108.00	105.80
36	1	304	G	N3-C2-N2	-5.49	116.06	119.90
36	1	1940	G	N1-C6-O6	-5.49	116.61	119.90
56	N0	115	ARG	NE-CZ-NH1	5.49	123.04	120.30
70	O4	58	ARG	NE-CZ-NH1	5.49	123.04	120.30
36	5	414	U	N1-C2-O2	-5.49	118.96	122.80
36	5	663	C	C2-N3-C4	-5.49	117.16	119.90
36	5	833	G	C5-C6-N1	5.49	114.24	111.50
36	5	1371	G	C6-N1-C2	-5.49	121.81	125.10
36	5	1435	A	C5-N7-C8	-5.49	101.16	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	986	G	C5-C6-O6	-5.49	125.31	128.60
36	1	916	G	O5'-P-OP2	5.49	117.28	110.70
36	1	3268	A	N1-C6-N6	5.49	121.89	118.60
1	6	353	A	N1-C6-N6	-5.49	115.31	118.60
36	1	278	U	C6-N1-C2	-5.49	117.71	121.00
36	1	811	U	N3-C2-O2	-5.49	118.36	122.20
36	1	1100	U	C2-N3-C4	-5.49	123.71	127.00
36	5	1203	A	N1-C2-N3	-5.49	126.56	129.30
36	5	1301	A	N3-C4-N9	5.49	131.79	127.40
36	5	1898	G	O4'-C1'-N9	5.49	112.59	108.20
36	5	2805	G	C5-C6-O6	-5.49	125.31	128.60
37	7	85	G	OP1-P-OP2	-5.49	111.37	119.60
36	1	43	A	N3-C4-N9	-5.48	123.01	127.40
36	1	101	G	O4'-C1'-N9	5.48	112.59	108.20
37	3	96	U	C5-C6-N1	-5.48	119.96	122.70
36	5	641	C	C6-N1-C2	-5.48	118.11	120.30
36	5	1405	U	C5-C6-N1	-5.48	119.96	122.70
36	5	1408	G	N3-C2-N2	-5.48	116.06	119.90
1	2	901	G	C4-N9-C1'	5.48	133.63	126.50
36	1	1296	C	N3-C4-C5	-5.48	119.71	121.90
36	1	2749	G	N1-C6-O6	5.48	123.19	119.90
1	6	371	G	C4-N9-C1'	5.48	133.63	126.50
1	6	1522	U	O4'-C1'-N1	5.48	112.58	108.20
36	5	1372	C	C5-C6-N1	-5.48	118.26	121.00
52	m6	94	ARG	NE-CZ-NH2	5.48	123.04	120.30
36	1	647	A	C8-N9-C4	5.48	107.99	105.80
36	1	1481	A	P-O3'-C3'	5.48	126.28	119.70
36	1	2656	A	C5-C6-N6	5.48	128.08	123.70
36	1	2868	U	C6-N1-C1'	-5.48	113.53	121.20
1	6	314	C	C2-N1-C1'	5.48	124.83	118.80
1	6	1048	G	N9-C4-C5	-5.48	103.21	105.40
36	5	417	A	C6-N1-C2	-5.48	115.31	118.60
36	5	1400	G	N3-C4-C5	-5.48	125.86	128.60
36	5	3048	A	C6-N1-C2	-5.48	115.31	118.60
37	7	11	A	C6-C5-N7	-5.48	128.46	132.30
1	2	159	U	N3-C2-O2	5.48	126.04	122.20
38	4	82	U	N1-C2-O2	-5.48	118.97	122.80
36	5	876	A	N1-C2-N3	5.48	132.04	129.30
1	2	50	C	N1-C2-O2	5.48	122.19	118.90
1	2	1585	U	O5'-P-OP2	-5.48	100.77	105.70
36	1	690	A	OP1-P-O3'	5.48	117.25	105.20
36	1	2687	G	N1-C6-O6	-5.48	116.61	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3275	U	C6-N1-C2	-5.48	117.71	121.00
38	4	64	U	N1-C2-N3	5.48	118.19	114.90
1	6	1662	G	C5-C6-N1	5.48	114.24	111.50
36	5	192	C	C2-N1-C1'	5.48	124.83	118.80
36	5	2345	A	C6-C5-N7	-5.48	128.47	132.30
38	8	6	U	C2-N3-C4	-5.48	123.71	127.00
1	6	34	G	N1-C6-O6	-5.48	116.61	119.90
36	5	3185	U	C5-C6-N1	-5.48	119.96	122.70
1	2	520	A	N1-C6-N6	5.47	121.88	118.60
36	1	2874	G	N1-C2-N3	5.47	127.18	123.90
38	4	28	C	OP2-P-O3'	5.47	117.24	105.20
1	6	351	C	N3-C4-N4	5.47	121.83	118.00
1	6	1654	G	N1-C6-O6	5.47	123.19	119.90
1	2	1758	U	N3-C2-O2	-5.47	118.37	122.20
36	1	765	C	N1-C2-O2	5.47	122.18	118.90
36	1	2178	A	N1-C6-N6	-5.47	115.32	118.60
36	1	2417	U	N1-C2-N3	5.47	118.18	114.90
36	1	2751	G	C5-C6-O6	-5.47	125.32	128.60
36	1	2802	A	OP2-P-O3'	5.47	117.24	105.20
36	1	2888	U	N3-C4-C5	5.47	117.88	114.60
1	6	1757	G	N7-C8-N9	-5.47	110.36	113.10
36	5	531	G	O5'-P-OP1	-5.47	100.77	105.70
36	5	662	U	C5-C4-O4	5.47	129.18	125.90
36	5	1869	C	C6-N1-C2	5.47	122.49	120.30
36	5	3198	U	N3-C4-O4	5.47	123.23	119.40
36	1	50	U	N1-C2-N3	5.47	118.18	114.90
1	6	92	A	C6-N1-C2	5.47	121.88	118.60
1	6	1114	G	O4'-C1'-N9	5.47	112.58	108.20
36	5	959	C	C2-N1-C1'	-5.47	112.78	118.80
36	5	2968	G	N3-C4-N9	5.47	129.28	126.00
36	1	577	C	C4-C5-C6	5.47	120.14	117.40
36	1	584	G	C5-C6-O6	5.47	131.88	128.60
36	1	1420	C	C6-N1-C1'	5.47	127.36	120.80
36	1	2965	U	C2-N3-C4	-5.47	123.72	127.00
36	1	3206	C	N3-C4-C5	5.47	124.09	121.90
36	1	3385	U	C6-N1-C2	5.47	124.28	121.00
38	4	73	U	N1-C2-O2	5.47	126.63	122.80
36	5	2188	A	C4-C5-N7	-5.47	107.97	110.70
36	5	2872	A	N7-C8-N9	5.47	116.53	113.80
1	2	1749	A	N1-C6-N6	5.47	121.88	118.60
36	5	584	G	C4-C5-N7	-5.47	108.61	110.80
36	5	947	G	N3-C4-N9	5.47	129.28	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	554	C	N3-C2-O2	-5.46	118.07	121.90
36	1	105	C	C5-C4-N4	-5.46	116.38	120.20
36	1	909	G	O5'-P-OP2	5.46	117.26	110.70
1	6	477	A	N1-C6-N6	5.46	121.88	118.60
36	5	829	U	O5'-P-OP2	5.46	117.26	110.70
36	5	960	U	N3-C4-O4	-5.46	115.58	119.40
36	5	1052	U	C4-C5-C6	-5.46	116.42	119.70
36	5	2187	G	N9-C4-C5	-5.46	103.21	105.40
1	2	418	G	O5'-P-OP2	5.46	117.25	110.70
36	1	2800	G	N7-C8-N9	-5.46	110.37	113.10
1	6	805	U	N3-C2-O2	-5.46	118.38	122.20
36	5	2772	C	OP2-P-O3'	5.46	117.22	105.20
36	1	2777	G	N1-C6-O6	-5.46	116.62	119.90
38	8	4	C	N3-C2-O2	-5.46	118.08	121.90
1	6	18	C	C5-C6-N1	5.46	123.73	121.00
1	6	1100	G	C5-C6-N1	5.46	114.23	111.50
36	1	903	U	N3-C4-O4	-5.46	115.58	119.40
36	1	1389	G	C6-C5-N7	-5.46	127.12	130.40
36	1	2366	C	O5'-P-OP1	5.46	117.25	110.70
38	4	30	C	O5'-P-OP1	-5.46	100.79	105.70
36	5	3003	G	C5-C6-N1	5.46	114.23	111.50
36	5	3215	A	N9-C4-C5	-5.46	103.62	105.80
1	2	1615	C	N3-C2-O2	-5.46	118.08	121.90
36	1	200	C	N1-C2-O2	5.46	122.17	118.90
36	1	873	C	C5-C4-N4	5.46	124.02	120.20
36	1	918	C	N1-C2-N3	5.46	123.02	119.20
36	1	1157	G	C8-N9-C4	-5.46	104.22	106.40
36	1	2606	G	N3-C4-N9	5.46	129.27	126.00
36	1	3133	C	N3-C4-C5	-5.46	119.72	121.90
1	6	539	G	N7-C8-N9	5.46	115.83	113.10
36	5	1671	C	O5'-P-OP1	-5.46	100.79	105.70
36	5	2996	U	N1-C2-N3	-5.46	111.63	114.90
36	1	2597	U	N3-C4-C5	-5.46	111.33	114.60
36	5	644	G	C4-C5-N7	-5.46	108.62	110.80
36	1	2865	U	N3-C4-O4	-5.45	115.58	119.40
38	4	16	G	C8-N9-C4	5.45	108.58	106.40
1	6	351	C	N3-C4-C5	-5.45	119.72	121.90
36	5	3013	U	C2-N1-C1'	5.45	124.24	117.70
1	6	542	A	C4-C5-N7	5.45	113.43	110.70
36	5	406	G	N7-C8-N9	5.45	115.83	113.10
36	5	942	U	N3-C4-O4	5.45	123.22	119.40
36	5	2311	G	C8-N9-C4	5.45	108.58	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	m8	66	ARG	NE-CZ-NH2	-5.45	117.57	120.30
1	2	1668	G	N3-C4-N9	-5.45	122.73	126.00
36	1	1405	U	C2-N1-C1'	-5.45	111.16	117.70
36	1	2910	A	N3-C4-C5	5.45	130.62	126.80
1	6	1174	C	C6-N1-C2	-5.45	118.12	120.30
36	5	2301	U	O5'-P-OP1	-5.45	100.79	105.70
36	5	2417	U	OP2-P-O3'	5.45	117.19	105.20
36	5	3173	G	O5'-P-OP2	-5.45	100.79	105.70
1	2	1633	A	N3-C4-C5	-5.45	122.99	126.80
36	1	1158	A	C6-N1-C2	-5.45	115.33	118.60
36	1	2899	C	N1-C2-N3	5.45	123.01	119.20
36	5	631	U	N1-C2-N3	5.45	118.17	114.90
36	5	1116	G	OP2-P-O3'	5.45	117.19	105.20
36	5	3146	G	N1-C2-N2	-5.45	111.30	116.20
36	1	2827	U	C5-C6-N1	-5.45	119.98	122.70
36	5	1848	G	C5-C6-N1	5.45	114.22	111.50
36	1	73	C	O4'-C1'-N1	-5.45	103.84	108.20
36	1	1951	C	C2-N1-C1'	5.45	124.79	118.80
36	1	3003	G	N1-C6-O6	-5.45	116.63	119.90
36	5	1888	U	C5-C6-N1	-5.45	119.98	122.70
36	5	2425	G	N3-C2-N2	-5.45	116.09	119.90
36	5	2613	U	N3-C4-C5	-5.45	111.33	114.60
36	5	2653	C	C6-N1-C2	-5.45	118.12	120.30
36	5	2961	G	C5-C6-O6	5.45	131.87	128.60
1	2	1059	U	C5-C6-N1	5.44	125.42	122.70
38	4	109	A	N7-C8-N9	5.44	116.52	113.80
36	5	2287	C	O5'-P-OP2	-5.44	100.80	105.70
36	1	1100	U	C5-C6-N1	-5.44	119.98	122.70
36	1	2603	G	C4-C5-N7	5.44	112.98	110.80
36	5	1838	G	OP1-P-O3'	5.44	117.17	105.20
36	5	2899	C	C5-C4-N4	5.44	124.01	120.20
36	5	3200	G	N1-C6-O6	5.44	123.17	119.90
36	1	292	U	N1-C2-N3	5.44	118.16	114.90
36	1	969	C	N1-C2-O2	-5.44	115.64	118.90
36	5	83	U	C5-C4-O4	-5.44	122.64	125.90
36	5	818	C	N1-C2-N3	5.44	123.01	119.20
36	1	349	A	OP2-P-O3'	5.44	117.17	105.20
36	5	1326	A	N3-C4-C5	-5.44	122.99	126.80
36	1	1596	C	C6-N1-C2	5.44	122.47	120.30
1	6	378	A	C6-C5-N7	-5.44	128.49	132.30
1	6	1020	A	N3-C4-C5	-5.44	122.99	126.80
36	5	434	U	N3-C4-C5	5.44	117.86	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	901	G	O4'-C1'-N9	5.44	112.55	108.20
36	1	3078	U	N3-C4-O4	5.44	123.20	119.40
36	5	404	G	O5'-P-OP2	-5.44	100.81	105.70
36	5	587	U	N3-C4-C5	5.44	117.86	114.60
36	5	3026	G	N1-C6-O6	5.44	123.16	119.90
37	7	46	A	OP2-P-O3'	5.44	117.16	105.20
37	3	81	U	N1-C2-O2	5.43	126.60	122.80
36	5	878	G	C6-C5-N7	-5.43	127.14	130.40
36	5	2602	G	C5-C6-O6	5.43	131.86	128.60
36	5	3111	U	N3-C4-O4	-5.43	115.60	119.40
36	1	2800	G	O5'-P-OP1	5.43	117.22	110.70
36	5	512	U	N1-C2-O2	5.43	126.60	122.80
36	5	970	A	C6-N1-C2	-5.43	115.34	118.60
36	5	1390	A	N1-C6-N6	-5.43	115.34	118.60
36	5	1934	G	OP1-P-OP2	5.43	127.75	119.60
1	6	1058	U	P-O3'-C3'	5.43	126.22	119.70
36	5	1130	A	O5'-P-OP2	-5.43	100.81	105.70
36	5	2645	G	N1-C6-O6	-5.43	116.64	119.90
1	2	337	G	C6-C5-N7	-5.43	127.14	130.40
1	2	1084	A	N1-C6-N6	5.43	121.86	118.60
1	2	1189	A	C8-N9-C4	5.43	107.97	105.80
36	1	3133	C	C5-C6-N1	5.43	123.72	121.00
1	6	1145	U	N3-C4-O4	5.43	123.20	119.40
38	8	23	U	N1-C2-N3	5.43	118.16	114.90
1	6	1340	U	N3-C2-O2	-5.43	118.40	122.20
36	5	1178	G	C8-N9-C4	-5.43	104.23	106.40
36	5	1882	G	N1-C6-O6	-5.43	116.64	119.90
1	2	1749	A	C2-N3-C4	-5.43	107.89	110.60
36	1	29	C	C6-N1-C2	5.43	122.47	120.30
36	1	659	G	OP2-P-O3'	5.43	117.14	105.20
36	1	2731	U	N1-C2-O2	-5.43	119.00	122.80
36	1	3368	U	C6-N1-C1'	5.43	128.80	121.20
1	6	1513	G	C8-N9-C4	-5.43	104.23	106.40
36	5	661	G	N7-C8-N9	5.43	115.81	113.10
36	5	701	G	C4-C5-N7	-5.43	108.63	110.80
36	5	2302	G	C5-C6-O6	5.43	131.86	128.60
36	5	3032	A	OP1-P-O3'	5.43	117.14	105.20
1	2	1652	C	C5-C6-N1	5.42	123.71	121.00
15	C3	22	ALA	C-N-CA	5.42	144.78	122.00
36	1	969	C	N3-C2-O2	5.42	125.70	121.90
36	5	2186	U	C5-C4-O4	5.42	129.15	125.90
1	2	621	A	O4'-C1'-N9	-5.42	103.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1051	U	N1-C2-O2	-5.42	119.00	122.80
37	3	39	C	N1-C2-O2	5.42	122.15	118.90
36	5	1149	G	O4'-C1'-N9	5.42	112.54	108.20
36	1	1861	G	C8-N9-C4	-5.42	104.23	106.40
36	1	2134	G	C2-N3-C4	5.42	114.61	111.90
36	5	1730	G	C8-N9-C4	5.42	108.57	106.40
36	5	2281	A	C5-C6-N6	-5.42	119.36	123.70
36	1	1338	C	N3-C2-O2	5.42	125.69	121.90
36	1	2376	G	C5-C6-O6	-5.42	125.35	128.60
36	1	2606	G	C8-N9-C1'	-5.42	119.95	127.00
36	1	2692	A	C8-N9-C4	-5.42	103.63	105.80
1	6	1423	U	C5-C6-N1	-5.42	119.99	122.70
36	5	1305	U	O4'-C1'-N1	-5.42	103.86	108.20
36	5	2389	C	C5-C6-N1	-5.42	118.29	121.00
36	1	1175	C	N3-C4-C5	5.42	124.07	121.90
36	1	3368	U	N1-C2-O2	-5.42	119.01	122.80
1	6	630	A	C2-N3-C4	-5.42	107.89	110.60
36	5	2958	A	O4'-C1'-N9	5.42	112.53	108.20
36	5	3048	A	C5-C6-N6	-5.42	119.37	123.70
36	5	3312	U	N3-C2-O2	5.42	125.99	122.20
1	2	50	C	C5-C4-N4	5.42	123.99	120.20
1	2	551	G	C5-N7-C8	-5.42	101.59	104.30
36	1	3214	U	N3-C4-O4	-5.42	115.61	119.40
36	5	969	C	N3-C4-C5	5.42	124.07	121.90
36	5	1499	C	N1-C2-O2	-5.42	115.65	118.90
36	5	3041	U	N1-C2-N3	-5.42	111.65	114.90
36	1	779	G	C5-C6-O6	5.42	131.85	128.60
36	1	2762	A	N7-C8-N9	-5.42	111.09	113.80
36	5	780	A	C6-C5-N7	-5.42	128.51	132.30
36	5	1759	C	N1-C2-O2	5.42	122.15	118.90
36	5	1926	C	N3-C2-O2	5.42	125.69	121.90
56	n0	106	LEU	CA-CB-CG	5.42	127.75	115.30
36	1	1386	A	C6-N1-C2	-5.41	115.35	118.60
36	1	2785	A	C8-N9-C4	5.41	107.97	105.80
36	1	3055	U	C2-N1-C1'	5.41	124.20	117.70
1	6	1666	U	N1-C2-O2	-5.41	119.01	122.80
36	5	3337	G	C5-C6-O6	5.41	131.85	128.60
36	1	946	U	O5'-P-OP2	-5.41	100.83	105.70
1	6	564	G	C8-N9-C4	-5.41	104.23	106.40
1	6	988	A	C8-N9-C4	-5.41	103.64	105.80
1	6	1767	G	O5'-P-OP1	-5.41	100.83	105.70
36	5	2191	U	N3-C4-C5	5.41	117.85	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2371	G	C5-C6-N1	-5.41	108.79	111.50
1	2	545	A	OP1-P-O3'	5.41	117.11	105.20
1	2	1409	G	N1-C6-O6	5.41	123.15	119.90
36	1	1847	A	OP1-P-OP2	5.41	127.72	119.60
36	1	3054	U	C2-N3-C4	-5.41	123.75	127.00
38	4	28	C	N3-C4-C5	5.41	124.06	121.90
1	6	901	G	C5-N7-C8	-5.41	101.59	104.30
36	5	1449	A	C4-C5-C6	5.41	119.70	117.00
36	5	1522	U	O5'-P-OP2	-5.41	100.83	105.70
36	5	1833	G	C5-C6-O6	5.41	131.85	128.60
36	5	2190	U	C6-N1-C2	-5.41	117.75	121.00
36	5	2631	U	N3-C4-C5	5.41	117.85	114.60
36	5	2738	A	N1-C6-N6	-5.41	115.35	118.60
6	S4	3	ARG	NE-CZ-NH1	-5.41	117.60	120.30
36	1	187	A	C6-C5-N7	-5.41	128.51	132.30
36	1	1551	C	OP1-P-O3'	5.41	117.10	105.20
36	1	2350	C	N1-C2-N3	5.41	122.99	119.20
36	1	2359	C	C5-C4-N4	-5.41	116.41	120.20
36	1	2651	G	N3-C2-N2	-5.41	116.11	119.90
36	1	3101	G	N7-C8-N9	-5.41	110.40	113.10
64	N8	116	GLY	N-CA-C	5.41	126.62	113.10
1	6	106	U	OP2-P-O3'	5.41	117.10	105.20
36	5	1450	G	C2-N3-C4	5.41	114.60	111.90
36	5	2117	A	C4-C5-N7	-5.41	108.00	110.70
36	1	1492	G	N7-C8-N9	-5.41	110.40	113.10
36	5	660	A	N7-C8-N9	-5.41	111.10	113.80
36	5	2278	C	C6-N1-C2	-5.41	118.14	120.30
1	2	583	C	C6-N1-C2	-5.41	118.14	120.30
36	1	1137	C	N3-C4-N4	5.41	121.78	118.00
36	1	1851	G	C8-N9-C4	-5.41	104.24	106.40
36	1	2206	G	C5-C6-O6	-5.41	125.36	128.60
36	1	2604	U	N1-C2-O2	5.41	126.58	122.80
38	4	13	A	N7-C8-N9	5.41	116.50	113.80
1	6	90	C	N3-C2-O2	-5.41	118.12	121.90
1	6	455	C	N1-C2-O2	-5.41	115.66	118.90
36	5	716	A	C4-C5-N7	5.41	113.40	110.70
36	5	2167	A	C8-N9-C4	-5.41	103.64	105.80
36	5	2392	C	C5-C4-N4	-5.41	116.42	120.20
54	M8	41	ASP	CB-CG-OD1	5.40	123.16	118.30
36	5	885	U	O5'-P-OP2	-5.40	100.84	105.70
36	5	3057	U	C5-C4-O4	-5.40	122.66	125.90
1	2	1796	C	N3-C2-O2	-5.40	118.12	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2624	G	N1-C6-O6	5.40	123.14	119.90
38	4	19	C	N1-C2-O2	-5.40	115.66	118.90
1	6	1634	C	N3-C2-O2	-5.40	118.12	121.90
36	5	925	A	N3-C4-N9	5.40	131.72	127.40
36	5	2178	A	C8-N9-C4	5.40	107.96	105.80
38	8	14	C	O5'-P-OP2	-5.40	100.84	105.70
1	2	1219	A	O5'-P-OP1	-5.40	100.84	105.70
36	1	37	U	N3-C4-O4	5.40	123.18	119.40
36	1	369	A	N9-C4-C5	5.40	107.96	105.80
36	1	530	G	N1-C6-O6	-5.40	116.66	119.90
36	1	421	G	C4-N9-C1'	5.40	133.52	126.50
14	c2	58	LEU	CA-CB-CG	5.40	127.72	115.30
36	1	1370	G	N3-C2-N2	5.40	123.68	119.90
36	1	1951	C	N1-C2-O2	5.40	122.14	118.90
36	5	801	A	C8-N9-C4	-5.40	103.64	105.80
36	5	1450	G	N1-C2-N2	5.40	121.06	116.20
36	5	3030	G	N7-C8-N9	-5.40	110.40	113.10
36	5	3197	G	C2-N3-C4	-5.40	109.20	111.90
38	8	47	C	N3-C2-O2	-5.40	118.12	121.90
1	2	359	A	C4-N9-C1'	-5.40	116.59	126.30
36	1	655	C	OP2-P-O3'	5.40	117.07	105.20
36	1	971	G	N1-C6-O6	-5.40	116.66	119.90
38	4	79	A	P-O3'-C3'	5.40	126.18	119.70
1	6	75	U	O4'-C1'-N1	5.40	112.52	108.20
36	5	817	A	C8-N9-C4	-5.40	103.64	105.80
36	5	2870	C	O4'-C1'-N1	5.40	112.52	108.20
36	1	2198	A	C8-N9-C4	5.39	107.96	105.80
38	4	45	C	O5'-P-OP2	-5.39	100.84	105.70
36	1	2240	G	N9-C4-C5	-5.39	103.24	105.40
36	1	2362	C	C2-N3-C4	5.39	122.60	119.90
36	1	3040	A	OP2-P-O3'	5.39	117.06	105.20
36	5	372	A	N9-C4-C5	-5.39	103.64	105.80
36	5	2931	C	C2-N3-C4	-5.39	117.20	119.90
36	1	368	G	N1-C2-N3	5.39	127.13	123.90
36	1	400	G	N1-C6-O6	5.39	123.13	119.90
36	1	2372	A	C6-N1-C2	-5.39	115.36	118.60
36	1	650	C	N3-C4-C5	5.39	124.06	121.90
36	1	2828	G	C8-N9-C4	-5.39	104.25	106.40
36	5	2188	A	N1-C6-N6	-5.39	115.37	118.60
36	5	3154	C	C6-N1-C1'	-5.39	114.33	120.80
1	2	1596	C	C2-N1-C1'	5.39	124.73	118.80
36	1	2391	G	C5-C6-O6	5.39	131.83	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2377	G	C4-C5-N7	-5.39	108.64	110.80
1	2	577	G	N3-C4-N9	-5.39	122.77	126.00
1	2	934	C	N3-C4-N4	5.39	121.77	118.00
36	1	419	G	N1-C2-N2	-5.39	111.35	116.20
36	1	2206	G	N1-C6-O6	5.39	123.13	119.90
36	5	1327	C	N1-C2-O2	5.39	122.13	118.90
36	5	3041	U	N3-C2-O2	5.39	125.97	122.20
36	1	498	A	N1-C6-N6	-5.38	115.37	118.60
36	1	1500	G	OP2-P-O3'	5.38	117.05	105.20
36	1	1669	C	N3-C2-O2	5.38	125.67	121.90
36	5	1408	G	N9-C4-C5	5.38	107.55	105.40
36	5	2602	G	C8-N9-C4	-5.38	104.25	106.40
36	1	3122	A	O5'-P-OP1	-5.38	100.86	105.70
36	5	579	G	C5-C6-N1	5.38	114.19	111.50
36	5	1586	G	C5-C6-O6	-5.38	125.37	128.60
36	5	2239	G	N3-C2-N2	5.38	123.67	119.90
36	5	2379	U	C2-N3-C4	-5.38	123.77	127.00
38	8	80	A	N3-C4-C5	-5.38	123.03	126.80
36	5	2882	U	N3-C2-O2	5.38	125.97	122.20
36	1	919	U	N3-C2-O2	-5.38	118.44	122.20
36	1	1940	G	N3-C2-N2	5.38	123.67	119.90
36	1	2541	U	P-O3'-C3'	5.38	126.15	119.70
38	4	13	A	C8-N9-C4	-5.38	103.65	105.80
1	6	1100	G	C6-N1-C2	-5.38	121.87	125.10
1	2	73	U	N3-C2-O2	-5.38	118.44	122.20
36	1	639	G	N9-C1'-C2'	-5.38	106.09	112.00
36	1	2656	A	N9-C4-C5	5.38	107.95	105.80
36	1	2865	U	C6-N1-C2	5.38	124.23	121.00
36	1	50	U	C4-C5-C6	5.38	122.92	119.70
36	1	106	A	C2-N3-C4	-5.38	107.91	110.60
1	2	345	U	OP1-P-O3'	5.37	117.02	105.20
1	2	1745	G	N3-C4-C5	-5.37	125.91	128.60
36	1	3034	C	N1-C2-O2	5.37	122.12	118.90
36	5	2757	U	C4-C5-C6	5.37	122.92	119.70
1	2	1117	U	C2-N1-C1'	5.37	124.15	117.70
1	2	1320	U	N3-C2-O2	-5.37	118.44	122.20
1	2	1782	A	N1-C2-N3	5.37	131.99	129.30
36	1	279	U	O5'-P-OP1	-5.37	100.86	105.70
36	1	384	A	C8-N9-C4	5.37	107.95	105.80
36	1	644	G	N1-C2-N2	-5.37	111.36	116.20
36	1	1404	G	C5-C6-O6	5.37	131.82	128.60
36	5	2380	U	N1-C2-N3	5.37	118.12	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2988	C	N1-C2-N3	5.37	122.96	119.20
36	1	506	U	OP2-P-O3'	5.37	117.01	105.20
36	1	1200	A	O4'-C1'-N9	5.37	112.50	108.20
36	5	421	G	C8-N9-C4	-5.37	104.25	106.40
36	5	640	U	C5-C4-O4	-5.37	122.68	125.90
36	5	3093	C	C2-N3-C4	-5.37	117.22	119.90
1	2	1780	G	N3-C4-C5	5.37	131.28	128.60
36	1	1082	U	C2-N1-C1'	5.37	124.14	117.70
36	5	2323	G	O5'-P-OP2	5.37	117.14	110.70
36	5	2362	C	C5-C6-N1	5.37	123.68	121.00
54	m8	92	ARG	NE-CZ-NH2	-5.37	117.62	120.30
36	1	2757	U	OP1-P-OP2	-5.37	111.55	119.60
36	5	587	U	C6-N1-C2	5.37	124.22	121.00
36	5	833	G	C6-N1-C2	-5.37	121.88	125.10
36	5	1403	C	C2-N3-C4	-5.37	117.22	119.90
1	2	1174	C	N1-C2-O2	5.37	122.12	118.90
36	1	664	U	C2-N3-C4	-5.37	123.78	127.00
36	1	2870	C	C5-C4-N4	5.37	123.96	120.20
36	5	204	A	N9-C4-C5	5.37	107.95	105.80
37	7	40	C	C6-N1-C2	5.37	122.45	120.30
1	2	1202	A	C8-N9-C4	-5.36	103.66	105.80
36	1	28	C	N1-C2-O2	5.36	122.12	118.90
36	1	1136	A	C5-C6-N6	-5.36	119.41	123.70
36	1	1298	C	O5'-P-OP1	-5.36	100.87	105.70
36	1	2349	U	N1-C2-N3	5.36	118.12	114.90
36	1	2378	C	N3-C4-N4	5.36	121.75	118.00
1	6	359	A	C8-N9-C1'	5.36	137.35	127.70
36	5	868	C	C5-C6-N1	-5.36	118.32	121.00
36	5	1589	A	C5-C6-N6	-5.36	119.41	123.70
36	5	2712	U	C5-C4-O4	5.36	129.12	125.90
36	5	2725	U	N3-C4-C5	5.36	117.82	114.60
36	5	3058	U	C2-N1-C1'	5.36	124.14	117.70
1	6	871	G	C6-C5-N7	-5.36	127.18	130.40
36	5	428	A	N1-C6-N6	-5.36	115.38	118.60
36	1	2614	G	O5'-P-OP1	-5.36	100.88	105.70
38	4	109	A	C5-C6-N6	-5.36	119.41	123.70
1	6	1498	G	N3-C4-C5	-5.36	125.92	128.60
36	5	1302	A	O5'-P-OP2	5.36	117.13	110.70
1	2	925	G	N1-C6-O6	5.36	123.11	119.90
1	2	1274	C	N3-C4-N4	-5.36	114.25	118.00
36	1	2789	U	N3-C4-C5	-5.36	111.39	114.60
36	5	1117	G	C4-C5-C6	-5.36	115.58	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1455	G	N3-C2-N2	-5.36	116.15	119.90
36	1	1294	A	O4'-C1'-N9	5.36	112.49	108.20
36	5	363	G	N1-C6-O6	5.36	123.11	119.90
36	5	637	C	C2-N3-C4	-5.36	117.22	119.90
36	5	2531	C	C6-N1-C1'	-5.36	114.37	120.80
36	5	3197	G	N3-C4-N9	-5.36	122.78	126.00
1	6	935	U	N3-C4-O4	5.36	123.15	119.40
36	5	2434	U	N3-C4-O4	-5.36	115.65	119.40
36	5	3006	A	N7-C8-N9	5.36	116.48	113.80
36	5	3176	G	C4-N9-C1'	5.36	133.46	126.50
36	5	3209	A	C8-N9-C4	-5.36	103.66	105.80
37	7	38	U	C2-N1-C1'	5.36	124.13	117.70
36	1	435	C	C5-C6-N1	-5.35	118.32	121.00
36	5	76	G	N7-C8-N9	-5.35	110.42	113.10
36	5	520	U	N1-C2-O2	-5.35	119.05	122.80
36	5	2361	A	C5-C6-N6	-5.35	119.42	123.70
1	2	571	G	N1-C6-O6	-5.35	116.69	119.90
36	5	39	A	C5-C6-N6	-5.35	119.42	123.70
36	5	326	U	C5-C4-O4	-5.35	122.69	125.90
36	5	1097	G	N9-C4-C5	-5.35	103.26	105.40
36	5	1101	G	N9-C4-C5	-5.35	103.26	105.40
36	5	3103	A	C6-N1-C2	-5.35	115.39	118.60
36	5	2959	C	OP2-P-O3'	5.35	116.97	105.20
1	2	765	G	O4'-C1'-N9	-5.35	103.92	108.20
36	1	300	G	O5'-P-OP1	-5.35	100.89	105.70
36	1	1510	G	C6-C5-N7	-5.35	127.19	130.40
36	1	2249	G	C3'-C2'-C1'	-5.35	97.22	101.50
36	1	3019	U	N3-C2-O2	-5.35	118.45	122.20
36	5	1052	U	C5-C6-N1	5.35	125.37	122.70
36	5	2735	U	C5-C4-O4	5.35	129.11	125.90
36	1	93	C	C6-N1-C2	-5.35	118.16	120.30
36	1	2866	U	C2-N3-C4	-5.35	123.79	127.00
1	6	631	G	C5-C6-O6	-5.35	125.39	128.60
1	6	1503	A	O4'-C1'-N9	5.35	112.48	108.20
36	5	3188	G	C5-C6-O6	5.35	131.81	128.60
36	1	588	G	C8-N9-C4	-5.35	104.26	106.40
1	6	523	G	C5-C6-N1	5.35	114.17	111.50
1	6	1329	A	N1-C6-N6	5.35	121.81	118.60
36	5	1491	A	OP2-P-O3'	5.35	116.96	105.20
1	2	320	U	C5-C4-O4	-5.34	122.69	125.90
1	2	1600	A	N1-C6-N6	5.34	121.81	118.60
36	1	637	C	N3-C4-N4	-5.34	114.26	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1100	U	N3-C4-C5	5.34	117.81	114.60
36	1	1437	C	O5'-P-OP2	5.34	117.11	110.70
36	1	2554	A	P-O3'-C3'	5.34	126.11	119.70
1	6	581	U	C2-N1-C1'	-5.34	111.29	117.70
1	6	864	U	C2-N1-C1'	5.34	124.11	117.70
1	6	990	C	C6-N1-C2	-5.34	118.16	120.30
36	5	104	G	C2-N3-C4	-5.34	109.23	111.90
36	5	1488	G	OP1-P-O3'	5.34	116.96	105.20
36	1	75	G	N3-C4-C5	-5.34	125.93	128.60
36	1	578	A	O5'-P-OP2	5.34	117.11	110.70
36	1	652	G	N1-C2-N2	-5.34	111.39	116.20
36	1	806	A	C6-N1-C2	-5.34	115.39	118.60
36	1	919	U	N3-C4-C5	5.34	117.81	114.60
36	5	424	G	N3-C4-N9	5.34	129.21	126.00
36	5	2107	A	OP1-P-O3'	5.34	116.95	105.20
38	8	26	U	N3-C2-O2	-5.34	118.46	122.20
36	1	748	U	C5-C4-O4	-5.34	122.69	125.90
36	1	2286	U	C5-C4-O4	5.34	129.10	125.90
36	1	2404	A	O4'-C1'-N9	5.34	112.47	108.20
36	5	1190	A	N7-C8-N9	5.34	116.47	113.80
1	2	192	U	C2-N1-C1'	5.34	124.11	117.70
36	1	421	G	N9-C4-C5	-5.34	103.26	105.40
36	1	2950	G	O4'-C1'-N9	5.34	112.47	108.20
36	5	35	A	N9-C4-C5	-5.34	103.66	105.80
36	5	2904	U	C2-N3-C4	-5.34	123.80	127.00
1	2	1370	U	P-O3'-C3'	5.34	126.11	119.70
36	1	2142	A	C8-N9-C4	-5.34	103.67	105.80
36	1	2996	U	C5-C4-O4	-5.34	122.70	125.90
36	5	2942	C	C5-C4-N4	-5.34	116.46	120.20
52	m6	125	ARG	NE-CZ-NH2	5.34	122.97	120.30
36	1	24	G	O5'-P-OP1	5.34	117.10	110.70
36	1	56	G	C5-C6-O6	-5.34	125.40	128.60
36	1	2144	A	C6-N1-C2	-5.34	115.40	118.60
36	1	2537	U	P-O3'-C3'	5.34	126.10	119.70
36	5	1331	U	O4'-C1'-N1	-5.34	103.93	108.20
36	5	2147	A	N1-C6-N6	5.34	121.80	118.60
36	5	2602	G	O5'-P-OP2	-5.34	100.90	105.70
36	5	3042	U	C5-C6-N1	-5.34	120.03	122.70
37	7	51	A	C5-N7-C8	-5.34	101.23	103.90
1	2	1196	A	P-O3'-C3'	5.33	126.10	119.70
36	1	295	A	N7-C8-N9	5.33	116.47	113.80
36	1	419	G	N3-C2-N2	5.33	123.63	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2354	C	C6-N1-C2	-5.33	118.17	120.30
1	6	431	C	C5-C4-N4	5.33	123.94	120.20
36	5	1365	G	C8-N9-C1'	-5.33	120.06	127.00
36	1	573	C	N3-C2-O2	-5.33	118.17	121.90
36	1	2200	U	C2-N1-C1'	5.33	124.10	117.70
36	5	215	G	C8-N9-C4	-5.33	104.27	106.40
36	5	942	U	C4-C5-C6	5.33	122.90	119.70
36	5	1321	G	C6-C5-N7	-5.33	127.20	130.40
36	5	1441	G	N1-C6-O6	-5.33	116.70	119.90
36	5	2870	C	N3-C4-C5	5.33	124.03	121.90
36	5	2931	C	N3-C2-O2	5.33	125.63	121.90
36	5	2968	G	N1-C6-O6	-5.33	116.70	119.90
36	1	3209	A	C5-C6-N6	-5.33	119.43	123.70
36	5	3185	U	C2-N3-C4	-5.33	123.80	127.00
1	2	1454	G	N3-C2-N2	5.33	123.63	119.90
36	1	1041	U	C5-C6-N1	-5.33	120.04	122.70
36	1	2827	U	N1-C2-N3	5.33	118.10	114.90
36	1	2871	G	OP1-P-OP2	5.33	127.59	119.60
1	6	25	C	OP2-P-O3'	5.33	116.92	105.20
1	6	1022	C	N3-C4-C5	5.33	124.03	121.90
36	5	668	G	N1-C6-O6	-5.33	116.70	119.90
36	5	1525	G	O5'-P-OP2	-5.33	100.91	105.70
36	5	2693	C	OP1-P-O3'	5.33	116.92	105.20
36	5	3374	U	OP1-P-O3'	5.33	116.92	105.20
36	1	802	C	N1-C2-O2	5.33	122.09	118.90
36	1	1009	A	O5'-P-OP1	5.33	117.09	110.70
36	1	1910	A	N1-C2-N3	-5.33	126.64	129.30
36	1	2877	G	C5-C6-O6	5.33	131.79	128.60
36	5	434	U	O5'-P-OP1	5.33	117.09	110.70
36	5	1395	G	OP2-P-O3'	5.33	116.92	105.20
36	5	2359	C	C5-C6-N1	-5.33	118.34	121.00
36	5	3144	G	OP1-P-OP2	-5.33	111.61	119.60
36	1	43	A	N3-C4-C5	5.32	130.53	126.80
36	1	913	A	N3-C4-N9	5.32	131.66	127.40
36	5	506	U	OP2-P-O3'	5.32	116.91	105.20
36	5	2849	C	N1-C2-O2	-5.32	115.71	118.90
36	1	142	C	C5-C6-N1	5.32	123.66	121.00
36	1	2314	U	C5-C4-O4	-5.32	122.71	125.90
36	5	210	U	N3-C4-O4	-5.32	115.67	119.40
36	5	3105	U	N1-C2-N3	5.32	118.09	114.90
36	1	709	A	N3-C4-N9	5.32	131.66	127.40
1	6	362	G	C8-N9-C1'	-5.32	120.08	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	978	A	C2-N3-C4	5.32	113.26	110.60
1	6	1736	G	C5-C6-N1	-5.32	108.84	111.50
36	5	1045	C	O5'-P-OP2	5.32	117.08	110.70
36	5	1316	C	C5-C4-N4	-5.32	116.48	120.20
36	5	2763	U	N3-C2-O2	5.32	125.92	122.20
36	1	2614	G	OP1-P-OP2	5.32	127.58	119.60
36	5	1513	G	C2-N3-C4	5.32	114.56	111.90
36	5	2174	G	N1-C6-O6	5.32	123.09	119.90
36	5	2940	A	N1-C2-N3	5.32	131.96	129.30
36	1	1456	A	C8-N9-C4	5.32	107.93	105.80
36	1	1510	G	N3-C2-N2	5.32	123.62	119.90
36	1	2760	C	N1-C2-N3	5.32	122.92	119.20
36	1	2871	G	C4-C5-C6	-5.32	115.61	118.80
1	6	1783	C	N1-C2-O2	5.32	122.09	118.90
36	5	659	G	OP2-P-O3'	5.32	116.90	105.20
36	5	665	A	N1-C6-N6	5.32	121.79	118.60
36	5	974	G	C8-N9-C4	-5.32	104.27	106.40
36	5	2371	G	C6-C5-N7	-5.32	127.21	130.40
36	5	2799	A	P-O3'-C3'	5.32	126.08	119.70
36	5	3146	G	N3-C2-N2	5.32	123.62	119.90
20	C8	3	LEU	CA-CB-CG	5.32	127.53	115.30
36	1	422	A	C5-C6-N1	5.32	120.36	117.70
1	6	1675	C	C5-C4-N4	-5.32	116.48	120.20
36	5	304	G	N1-C6-O6	-5.32	116.71	119.90
36	5	349	A	OP2-P-O3'	5.32	116.89	105.20
36	5	1722	U	N3-C2-O2	5.32	125.92	122.20
36	5	86	G	N1-C2-N2	-5.31	111.42	116.20
36	5	1101	G	C8-N9-C4	5.31	108.53	106.40
36	5	1226	G	N9-C4-C5	-5.31	103.27	105.40
36	5	679	U	N3-C4-O4	-5.31	115.68	119.40
36	5	1127	G	N9-C4-C5	-5.31	103.28	105.40
12	C0	63	TYR	N-CA-C	5.31	125.34	111.00
36	1	643	U	C2-N3-C4	5.31	130.19	127.00
36	1	2188	A	N9-C1'-C2'	-5.31	106.16	112.00
36	1	2364	G	C5-C6-O6	-5.31	125.41	128.60
36	5	1327	C	N3-C4-N4	-5.31	114.28	118.00
36	5	1924	U	OP2-P-O3'	5.31	116.88	105.20
36	5	2105	G	N9-C4-C5	-5.31	103.28	105.40
1	2	1273	G	N3-C4-C5	-5.31	125.94	128.60
36	1	3150	A	C2-N3-C4	-5.31	107.94	110.60
1	6	637	C	O5'-P-OP2	-5.31	100.92	105.70
36	5	936	A	C5-C6-N1	5.31	120.36	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1117	G	C5-C6-O6	-5.31	125.41	128.60
36	1	908	G	C8-N9-C1'	-5.31	120.10	127.00
36	1	1129	A	C5-C6-N1	5.31	120.35	117.70
36	1	1886	A	O5'-P-OP2	-5.31	100.92	105.70
36	1	2917	G	N3-C4-C5	-5.31	125.95	128.60
1	6	144	U	C2-N1-C1'	5.31	124.07	117.70
1	6	638	U	N1-C2-O2	5.31	126.52	122.80
36	5	1118	C	O5'-P-OP1	-5.31	100.92	105.70
36	5	3137	C	N3-C4-N4	-5.31	114.28	118.00
36	5	3220	G	C5-C6-O6	5.31	131.78	128.60
1	2	1761	U	N3-C4-C5	-5.31	111.42	114.60
36	1	8	C	C6-N1-C2	5.31	122.42	120.30
36	1	124	U	N1-C2-O2	5.31	126.51	122.80
36	1	2247	G	N3-C2-N2	-5.31	116.19	119.90
36	5	1830	G	C2-N3-C4	-5.31	109.25	111.90
36	5	1866	C	C5-C6-N1	5.31	123.65	121.00
1	2	323	A	C8-N9-C4	-5.30	103.68	105.80
1	6	1200	G	O5'-P-OP2	-5.30	100.93	105.70
1	6	1773	C	N3-C2-O2	5.30	125.61	121.90
36	5	589	A	O4'-C1'-N9	-5.30	103.96	108.20
36	5	637	C	N1-C2-N3	5.30	122.91	119.20
36	5	2513	U	P-O3'-C3'	5.30	126.07	119.70
63	n7	65	ARG	NE-CZ-NH1	5.30	122.95	120.30
36	1	1421	G	O5'-P-OP2	-5.30	100.93	105.70
36	1	2643	A	N1-C6-N6	5.30	121.78	118.60
36	5	971	G	N7-C8-N9	-5.30	110.45	113.10
36	5	1160	C	C2-N1-C1'	-5.30	112.97	118.80
1	2	580	A	N9-C4-C5	5.30	107.92	105.80
36	1	52	A	N1-C2-N3	-5.30	126.65	129.30
36	1	82	C	C6-N1-C2	5.30	122.42	120.30
36	1	406	G	N1-C6-O6	-5.30	116.72	119.90
36	1	754	G	OP2-P-O3'	5.30	116.86	105.20
1	6	622	A	N1-C6-N6	-5.30	115.42	118.60
1	6	876	G	N1-C6-O6	5.30	123.08	119.90
1	6	1361	U	N1-C2-O2	5.30	126.51	122.80
36	5	112	U	N1-C1'-C2'	-5.30	106.17	112.00
36	5	1861	G	C8-N9-C4	-5.30	104.28	106.40
1	2	286	C	C6-N1-C2	-5.30	118.18	120.30
36	1	47	C	OP1-P-OP2	-5.30	111.65	119.60
36	1	798	G	N3-C2-N2	-5.30	116.19	119.90
36	1	1269	U	N1-C2-O2	5.30	126.51	122.80
36	1	1332	A	C8-N9-C4	-5.30	103.68	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1745	G	C6-N1-C2	-5.30	121.92	125.10
36	5	612	U	C5-C6-N1	-5.30	120.05	122.70
36	5	2388	U	C5-C6-N1	-5.30	120.05	122.70
36	5	2935	U	C5-C4-O4	-5.30	122.72	125.90
36	5	3050	U	N3-C4-O4	-5.30	115.69	119.40
36	5	787	G	N1-C6-O6	5.30	123.08	119.90
36	1	270	U	N1-C2-O2	5.30	126.51	122.80
36	1	2355	G	C6-C5-N7	-5.30	127.22	130.40
36	1	2914	G	OP1-P-OP2	5.30	127.54	119.60
1	6	626	U	OP1-P-O3'	5.30	116.85	105.20
36	5	370	U	N3-C2-O2	-5.30	118.49	122.20
36	5	2353	G	C6-C5-N7	-5.30	127.22	130.40
36	5	3149	G	O5'-P-OP1	5.30	117.06	110.70
36	1	765	C	N3-C2-O2	-5.29	118.19	121.90
36	1	2249	G	C5-C6-N1	5.29	114.15	111.50
36	1	3184	A	C8-N9-C4	5.29	107.92	105.80
36	1	3195	U	P-O3'-C3'	5.29	126.06	119.70
1	6	1480	G	C8-N9-C4	-5.29	104.28	106.40
36	1	155	G	N3-C2-N2	5.29	123.61	119.90
36	1	1295	G	C5-C6-O6	5.29	131.78	128.60
36	1	2606	G	C5-C6-O6	5.29	131.78	128.60
1	6	53	G	N1-C2-N2	-5.29	111.44	116.20
36	5	1378	U	N3-C4-C5	5.29	117.78	114.60
36	5	3275	U	O4'-C1'-N1	5.29	112.44	108.20
63	n7	65	ARG	NE-CZ-NH2	-5.29	117.65	120.30
1	2	1798	U	C2-N1-C1'	5.29	124.05	117.70
36	1	2613	U	OP1-P-OP2	5.29	127.54	119.60
36	1	3318	G	N3-C4-N9	5.29	129.18	126.00
36	5	372	A	N1-C6-N6	5.29	121.78	118.60
36	5	832	G	N3-C4-C5	-5.29	125.95	128.60
36	5	934	G	N3-C4-N9	5.29	129.18	126.00
36	5	1116	G	N3-C2-N2	-5.29	116.20	119.90
36	5	1136	A	C6-N1-C2	-5.29	115.43	118.60
37	7	89	G	C8-N9-C4	5.29	108.52	106.40
36	5	664	U	N3-C2-O2	-5.29	118.50	122.20
1	2	937	C	O5'-P-OP1	-5.29	100.94	105.70
36	1	974	G	N3-C4-N9	5.29	129.17	126.00
36	1	1585	C	C6-N1-C2	5.29	122.42	120.30
36	1	2650	U	C4-C5-C6	5.29	122.87	119.70
36	1	2714	G	O5'-P-OP1	-5.29	100.94	105.70
36	1	3178	A	C4-C5-C6	5.29	119.64	117.00
36	1	3184	A	N9-C4-C5	-5.29	103.68	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3302	U	C5-C6-N1	-5.29	120.06	122.70
1	6	44	U	N3-C2-O2	5.29	125.90	122.20
1	6	1523	G	C5-C6-O6	5.29	131.77	128.60
36	5	1870	C	OP1-P-OP2	-5.29	111.67	119.60
36	5	2920	U	OP1-P-OP2	5.29	127.53	119.60
77	q1	15	ARG	NE-CZ-NH1	-5.29	117.66	120.30
36	1	1196	C	C5-C6-N1	-5.29	118.36	121.00
36	1	1201	C	O5'-P-OP2	5.29	117.04	110.70
36	1	2550	U	N1-C2-N3	5.29	118.07	114.90
36	1	2830	G	N9-C4-C5	5.29	107.52	105.40
1	6	389	G	N3-C4-C5	-5.29	125.96	128.60
1	6	1180	C	C6-N1-C2	-5.29	118.19	120.30
36	5	2754	G	C5-C6-O6	5.29	131.77	128.60
36	5	3013	U	C6-N1-C2	-5.29	117.83	121.00
1	2	961	U	C6-N1-C2	-5.29	117.83	121.00
36	1	953	G	N3-C4-N9	-5.29	122.83	126.00
36	1	2149	A	O5'-P-OP2	5.29	117.04	110.70
36	1	2150	G	C6-C5-N7	-5.29	127.23	130.40
36	1	2349	U	C6-N1-C2	-5.29	117.83	121.00
36	1	3212	C	C6-N1-C2	5.29	122.41	120.30
38	4	135	G	N9-C4-C5	5.29	107.51	105.40
36	5	924	G	N3-C4-N9	-5.29	122.83	126.00
36	5	1368	U	N1-C2-N3	5.29	118.07	114.90
36	5	1532	C	C6-N1-C2	5.29	122.41	120.30
36	5	1847	A	OP1-P-OP2	5.29	127.53	119.60
36	5	2208	A	O4'-C1'-N9	5.29	112.43	108.20
36	1	1345	G	OP2-P-O3'	5.28	116.82	105.20
37	3	86	U	C6-N1-C1'	-5.28	113.80	121.20
1	6	390	G	C8-N9-C4	-5.28	104.29	106.40
1	6	1731	A	N1-C6-N6	-5.28	115.43	118.60
36	5	1007	U	C5-C6-N1	-5.28	120.06	122.70
36	5	2408	U	N3-C4-O4	-5.28	115.70	119.40
36	1	1177	G	N3-C2-N2	-5.28	116.20	119.90
36	1	2245	C	OP2-P-O3'	5.28	116.82	105.20
36	1	2889	C	N3-C2-O2	-5.28	118.20	121.90
36	1	2978	U	C2-N3-C4	-5.28	123.83	127.00
36	5	747	A	N9-C4-C5	5.28	107.91	105.80
36	5	1192	C	C5-C4-N4	-5.28	116.50	120.20
36	5	2655	U	N1-C2-O2	-5.28	119.10	122.80
36	1	2861	U	O5'-P-OP2	5.28	117.04	110.70
1	6	1113	A	N1-C2-N3	5.28	131.94	129.30
36	5	676	G	N1-C6-O6	-5.28	116.73	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2753	G	N1-C2-N2	5.28	120.95	116.20
36	5	2777	G	N1-C6-O6	-5.28	116.73	119.90
36	5	2795	U	C5-C6-N1	-5.28	120.06	122.70
37	7	120	C	N3-C4-C5	5.28	124.01	121.90
1	2	1796	C	C4-C5-C6	5.28	120.04	117.40
36	1	701	G	OP2-P-O3'	5.28	116.81	105.20
36	1	2634	U	C2-N3-C4	-5.28	123.83	127.00
36	5	208	C	C6-N1-C2	-5.28	118.19	120.30
36	5	960	U	N3-C4-C5	5.28	117.77	114.60
36	5	1307	G	N1-C2-N3	-5.28	120.73	123.90
36	5	1894	U	N1-C2-O2	-5.28	119.11	122.80
36	1	1374	G	C6-N1-C2	-5.28	121.93	125.10
36	1	2297	U	O5'-P-OP2	-5.28	100.95	105.70
1	6	542	A	C4-N9-C1'	5.28	135.80	126.30
1	6	542	A	O4'-C1'-N9	5.28	112.42	108.20
1	6	1458	G	C4-N9-C1'	5.28	133.36	126.50
36	1	66	A	O5'-P-OP2	5.28	117.03	110.70
36	5	417	A	N1-C6-N6	-5.28	115.44	118.60
36	5	952	A	N9-C4-C5	-5.28	103.69	105.80
36	5	2201	G	C5-C6-O6	5.28	131.76	128.60
36	5	427	C	N3-C4-C5	5.27	124.01	121.90
36	1	2192	C	C4-C5-C6	5.27	120.04	117.40
36	1	2339	C	C2-N1-C1'	5.27	124.60	118.80
36	5	1161	G	C6-C5-N7	5.27	133.56	130.40
36	5	1330	A	N1-C6-N6	5.27	121.76	118.60
36	5	2728	G	N1-C2-N2	5.27	120.94	116.20
36	5	2777	G	C4-C5-N7	-5.27	108.69	110.80
40	13	4	ARG	CG-CD-NE	5.27	122.87	111.80
36	1	812	G	N9-C4-C5	5.27	107.51	105.40
36	1	143	G	C5-C6-N1	5.27	114.14	111.50
36	1	3206	C	OP1-P-OP2	5.27	127.50	119.60
36	1	3326	G	C8-N9-C4	5.27	108.51	106.40
1	2	145	A	N7-C8-N9	5.27	116.43	113.80
1	2	471	A	C8-N9-C4	5.27	107.91	105.80
1	2	864	U	N3-C2-O2	-5.27	118.51	122.20
36	1	1837	U	N3-C2-O2	5.27	125.89	122.20
36	5	1528	G	C6-N1-C2	-5.27	121.94	125.10
36	5	2375	G	O4'-C1'-N9	5.27	112.41	108.20
1	2	829	A	P-O3'-C3'	5.27	126.02	119.70
36	1	870	G	O5'-P-OP2	-5.27	100.96	105.70
36	1	934	G	C2-N3-C4	5.27	114.53	111.90
36	1	124	U	N3-C2-O2	-5.26	118.52	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	521	A	C5-C6-N6	-5.26	119.49	123.70
36	1	1434	G	C8-N9-C4	-5.26	104.29	106.40
36	1	1503	A	N3-C4-C5	5.26	130.49	126.80
36	5	905	U	O5'-P-OP2	-5.26	100.96	105.70
36	5	1193	A	C8-N9-C4	-5.26	103.69	105.80
36	5	1506	A	N7-C8-N9	5.26	116.43	113.80
36	5	2816	G	O4'-C1'-N9	5.26	112.41	108.20
1	2	73	U	P-O3'-C3'	5.26	126.02	119.70
1	2	403	G	OP1-P-O3'	5.26	116.78	105.20
36	5	425	G	N9-C4-C5	-5.26	103.30	105.40
36	5	2206	G	C5-C6-O6	-5.26	125.44	128.60
3	S1	181	LEU	CA-CB-CG	5.26	127.40	115.30
36	1	232	G	N1-C2-N2	-5.26	111.47	116.20
36	1	936	A	OP2-P-O3'	5.26	116.78	105.20
36	1	1168	U	N3-C2-O2	-5.26	118.52	122.20
1	6	120	U	N3-C2-O2	-5.26	118.52	122.20
1	6	767	U	N1-C2-N3	5.26	118.06	114.90
36	5	1371	G	C4-C5-N7	-5.26	108.69	110.80
36	5	1628	C	C6-N1-C2	-5.26	118.20	120.30
36	5	2931	C	N3-C4-C5	5.26	124.00	121.90
38	8	109	A	C5-C6-N1	5.26	120.33	117.70
36	1	1170	A	N1-C2-N3	-5.26	126.67	129.30
36	1	1918	C	C6-N1-C2	-5.26	118.20	120.30
36	1	3174	A	C2-N3-C4	-5.26	107.97	110.60
37	3	12	U	C5-C4-O4	-5.26	122.74	125.90
36	5	1390	A	N9-C4-C5	5.26	107.90	105.80
36	5	2142	A	C2-N3-C4	5.26	113.23	110.60
36	5	2191	U	N3-C2-O2	-5.26	118.52	122.20
36	5	2386	A	C2-N3-C4	-5.26	107.97	110.60
36	5	2403	G	C2-N3-C4	5.26	114.53	111.90
36	5	2618	G	C5-C6-O6	-5.26	125.44	128.60
36	1	345	G	C5-C6-N1	5.26	114.13	111.50
36	5	1586	G	C6-C5-N7	-5.26	127.25	130.40
56	n0	155	ARG	NE-CZ-NH2	5.26	122.93	120.30
36	1	932	U	N1-C2-N3	5.26	118.05	114.90
36	1	2936	A	O5'-P-OP2	5.26	117.01	110.70
36	5	725	G	C8-N9-C1'	-5.26	120.17	127.00
36	5	3078	U	C5-C6-N1	5.26	125.33	122.70
36	1	2818	U	C5'-C4'-O4'	-5.25	102.79	109.10
36	5	1110	U	N3-C4-O4	-5.25	115.72	119.40
1	2	1145	U	N3-C4-O4	5.25	123.08	119.40
36	1	232	G	N3-C4-N9	5.25	129.15	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	832	G	C5-C6-O6	5.25	131.75	128.60
36	1	2918	G	C8-N9-C4	-5.25	104.30	106.40
1	6	1299	G	C8-N9-C4	-5.25	104.30	106.40
36	5	1314	C	C2-N3-C4	-5.25	117.27	119.90
36	1	916	G	P-O3'-C3'	5.25	126.00	119.70
36	1	1433	A	C8-N9-C4	-5.25	103.70	105.80
36	1	2634	U	OP2-P-O3'	5.25	116.75	105.20
36	5	12	A	N1-C6-N6	5.25	121.75	118.60
36	5	1348	U	C6-N1-C2	-5.25	117.85	121.00
36	5	1420	C	OP2-P-O3'	5.25	116.75	105.20
36	5	1480	G	O4'-C1'-N9	5.25	112.40	108.20
36	5	1501	U	C5-C6-N1	5.25	125.33	122.70
36	5	2661	G	N3-C4-C5	-5.25	125.97	128.60
36	5	3042	U	N3-C4-O4	-5.25	115.72	119.40
36	1	515	C	C6-N1-C2	-5.25	118.20	120.30
36	1	2986	U	C4-C5-C6	5.25	122.85	119.70
38	4	32	C	C5-C4-N4	-5.25	116.53	120.20
37	3	94	C	C5-C6-N1	-5.25	118.38	121.00
36	5	994	G	O5'-P-OP2	-5.25	100.98	105.70
36	5	1457	U	C5-C6-N1	5.25	125.33	122.70
36	5	2119	A	C6-N1-C2	-5.25	115.45	118.60
36	5	2234	G	C6-N1-C2	-5.25	121.95	125.10
36	5	2954	U	N3-C4-O4	5.25	123.07	119.40
36	1	371	G	C4-C5-N7	5.25	112.90	110.80
36	1	893	C	C2-N3-C4	5.25	122.52	119.90
36	1	950	G	C5-N7-C8	-5.25	101.68	104.30
36	1	1149	G	N9-C4-C5	5.25	107.50	105.40
1	6	96	G	OP2-P-O3'	5.25	116.74	105.20
1	6	387	A	C4-C5-N7	-5.25	108.08	110.70
1	6	1139	A	N1-C6-N6	-5.25	115.45	118.60
36	5	2145	A	N7-C8-N9	5.25	116.42	113.80
38	8	54	A	C2-N3-C4	-5.25	107.98	110.60
36	1	964	G	C2-N3-C4	5.25	114.52	111.90
36	1	2828	G	O5'-P-OP2	5.25	116.99	110.70
36	1	3209	A	C2-N3-C4	-5.25	107.98	110.60
36	5	101	G	O4'-C1'-N9	5.25	112.40	108.20
36	5	2600	C	O5'-P-OP2	5.25	116.99	110.70
1	2	934	C	C5-C6-N1	5.24	123.62	121.00
36	1	1522	U	C5-C4-O4	-5.24	122.75	125.90
36	1	1589	A	C8-N9-C4	5.24	107.90	105.80
36	1	2634	U	C5-C6-N1	-5.24	120.08	122.70
36	1	3178	A	N1-C6-N6	5.24	121.75	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	998	A	OP2-P-O3'	5.24	116.73	105.20
36	5	2130	G	N1-C6-O6	-5.24	116.75	119.90
36	5	2133	U	C2-N3-C4	-5.24	123.85	127.00
36	5	3078	U	N3-C2-O2	-5.24	118.53	122.20
36	1	2241	U	O5'-P-OP1	-5.24	100.98	105.70
36	1	2423	U	C2-N1-C1'	5.24	123.99	117.70
36	5	2634	U	N3-C4-C5	5.24	117.75	114.60
1	2	457	G	N3-C4-C5	-5.24	125.98	128.60
36	1	2130	G	C5-N7-C8	5.24	106.92	104.30
36	1	2170	U	N1-C2-N3	5.24	118.04	114.90
36	1	2705	A	N9-C4-C5	-5.24	103.70	105.80
36	1	2817	A	C6-N1-C2	-5.24	115.46	118.60
36	5	2416	U	OP1-P-OP2	-5.24	111.74	119.60
36	5	2811	A	C2-N3-C4	-5.24	107.98	110.60
1	2	1600	A	N3-C4-C5	5.24	130.47	126.80
1	6	60	U	C5-C4-O4	-5.24	122.76	125.90
1	6	571	G	N3-C4-N9	-5.24	122.86	126.00
1	6	1473	U	C6-N1-C2	-5.24	117.86	121.00
36	1	176	G	N3-C4-N9	5.24	129.14	126.00
54	m8	151	ARG	NE-CZ-NH1	-5.24	117.68	120.30
36	1	817	A	N9-C1'-C2'	5.24	120.81	114.00
36	1	970	A	C6-N1-C2	-5.24	115.46	118.60
36	1	1227	C	C6-N1-C2	-5.24	118.20	120.30
36	1	1835	A	C5-C6-N1	-5.24	115.08	117.70
37	3	60	G	N9-C4-C5	5.24	107.49	105.40
36	5	1884	A	OP2-P-O3'	5.24	116.72	105.20
36	5	1909	A	C5-C6-N1	5.24	120.32	117.70
36	1	3362	A	C8-N9-C4	-5.23	103.71	105.80
36	5	1912	U	N1-C2-O2	-5.23	119.14	122.80
36	1	436	A	O5'-P-OP2	5.23	116.98	110.70
36	1	806	A	O5'-P-OP1	-5.23	100.99	105.70
36	1	1528	G	C2-N3-C4	-5.23	109.28	111.90
36	1	1733	G	N3-C4-C5	-5.23	125.98	128.60
36	1	2720	G	O5'-P-OP2	-5.23	100.99	105.70
1	6	57	G	N3-C4-C5	-5.23	125.98	128.60
1	6	748	U	N1-C2-O2	5.23	126.46	122.80
36	5	1511	U	C5-C6-N1	-5.23	120.08	122.70
36	1	680	G	O5'-P-OP1	-5.23	100.99	105.70
36	1	2752	U	C5-C6-N1	-5.23	120.08	122.70
36	5	972	A	OP2-P-O3'	5.23	116.71	105.20
36	5	1042	U	C6-N1-C2	5.23	124.14	121.00
36	1	909	G	C5-N7-C8	5.23	106.91	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3195	U	N3-C2-O2	-5.23	118.54	122.20
36	1	3318	G	C6-C5-N7	-5.23	127.26	130.40
1	6	1025	A	N9-C4-C5	-5.23	103.71	105.80
36	5	435	C	C2-N3-C4	-5.23	117.29	119.90
36	5	815	G	N3-C4-C5	-5.23	125.99	128.60
36	5	2398	A	C4-C5-N7	-5.23	108.09	110.70
36	5	3013	U	O5'-P-OP2	-5.23	101.00	105.70
36	5	3217	C	C6-N1-C2	5.23	122.39	120.30
36	1	835	G	C4-C5-N7	5.23	112.89	110.80
36	1	3373	U	C5-C6-N1	-5.23	120.09	122.70
36	5	636	C	N3-C4-C5	5.23	123.99	121.90
36	5	688	G	N3-C2-N2	-5.23	116.24	119.90
36	5	2296	A	N3-C4-N9	5.23	131.58	127.40
1	6	416	A	C6-C5-N7	-5.22	128.64	132.30
36	5	708	G	C4-C5-N7	5.22	112.89	110.80
36	5	880	G	C4-N9-C1'	-5.22	119.71	126.50
1	2	75	U	C2-N1-C1'	5.22	123.97	117.70
36	1	283	G	C5-C6-O6	-5.22	125.47	128.60
36	1	2242	A	O4'-C1'-N9	-5.22	104.02	108.20
36	1	2522	G	N3-C4-C5	-5.22	125.99	128.60
36	5	73	C	N1-C2-O2	-5.22	115.77	118.90
36	5	197	G	C6-C5-N7	-5.22	127.27	130.40
36	5	1794	G	N1-C2-N2	-5.22	111.50	116.20
36	5	1899	G	N3-C2-N2	5.22	123.56	119.90
36	5	2386	A	C6-C5-N7	-5.22	128.64	132.30
36	5	2584	G	OP2-P-O3'	5.22	116.69	105.20
36	1	99	A	O5'-P-OP2	-5.22	101.00	105.70
37	7	120	C	C2-N3-C4	-5.22	117.29	119.90
36	1	646	A	N9-C4-C5	5.22	107.89	105.80
36	1	1367	G	C6-C5-N7	-5.22	127.27	130.40
36	1	1450	G	N9-C4-C5	-5.22	103.31	105.40
36	1	1660	C	N3-C4-C5	-5.22	119.81	121.90
36	5	383	G	C8-N9-C4	5.22	108.49	106.40
36	5	414	U	N3-C4-O4	5.22	123.05	119.40
36	5	658	G	C5-C6-O6	-5.22	125.47	128.60
36	5	801	A	N9-C4-C5	5.22	107.89	105.80
36	5	1496	C	N1-C2-O2	5.22	122.03	118.90
36	5	2344	U	O5'-P-OP1	5.22	116.96	110.70
36	5	2728	G	C4-C5-N7	-5.22	108.71	110.80
47	m0	167	LEU	CA-CB-CG	5.22	127.31	115.30
1	2	1726	G	OP2-P-O3'	5.22	116.68	105.20
1	2	334	G	N3-C4-C5	5.22	131.21	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1768	G	N9-C4-C5	5.22	107.49	105.40
36	1	1551	C	N1-C2-O2	5.22	122.03	118.90
36	1	1931	U	C6-N1-C2	5.22	124.13	121.00
36	1	2689	A	O4'-C1'-N9	5.22	112.37	108.20
36	5	2134	G	N3-C4-N9	5.22	129.13	126.00
36	5	2231	C	C6-N1-C2	-5.22	118.21	120.30
36	5	2296	A	N9-C4-C5	-5.22	103.71	105.80
36	1	1394	A	OP2-P-O3'	5.21	116.67	105.20
36	1	1661	G	C8-N9-C4	5.21	108.49	106.40
36	1	2899	C	P-O3'-C3'	5.21	125.96	119.70
37	3	88	G	C5-C6-N1	5.21	114.11	111.50
1	6	871	G	C4-C5-N7	5.21	112.89	110.80
1	6	901	G	C5-C6-O6	-5.21	125.47	128.60
36	5	427	C	C2-N3-C4	-5.21	117.29	119.90
36	5	1680	G	C4-C5-N7	-5.21	108.71	110.80
36	5	2434	U	C5-C6-N1	-5.21	120.09	122.70
36	5	2848	G	C8-N9-C1'	-5.21	120.22	127.00
36	5	3154	C	C6-N1-C2	-5.21	118.21	120.30
36	1	968	G	N3-C4-N9	5.21	129.13	126.00
1	6	75	U	N3-C2-O2	-5.21	118.55	122.20
36	1	2279	A	C4-C5-N7	5.21	113.31	110.70
36	1	2356	A	C4-C5-N7	5.21	113.31	110.70
36	1	2916	U	OP1-P-O3'	5.21	116.67	105.20
38	4	59	A	O5'-P-OP1	-5.21	101.01	105.70
36	5	907	G	N3-C4-N9	5.21	129.13	126.00
36	5	2935	U	C2-N1-C1'	5.21	123.95	117.70
1	2	1267	G	N3-C4-C5	-5.21	126.00	128.60
36	1	2979	U	N3-C4-C5	5.21	117.73	114.60
38	4	17	A	O5'-P-OP2	5.21	116.95	110.70
36	5	2426	U	N1-C2-O2	5.21	126.45	122.80
36	5	3328	G	N1-C6-O6	-5.21	116.77	119.90
36	5	3328	G	O5'-P-OP2	-5.21	101.01	105.70
36	1	406	G	C2-N3-C4	5.21	114.50	111.90
36	1	2150	G	C4-C5-C6	5.21	121.92	118.80
36	1	2151	C	N3-C2-O2	5.21	125.55	121.90
38	4	40	A	C8-N9-C1'	-5.21	118.32	127.70
1	6	1796	C	C2-N3-C4	-5.21	117.30	119.90
1	2	1174	C	N3-C2-O2	-5.21	118.26	121.90
35	SM	134	ASP	CB-CG-OD2	5.21	122.99	118.30
36	1	97	U	C5-C6-N1	-5.21	120.10	122.70
36	1	406	G	N3-C4-C5	-5.21	126.00	128.60
36	1	798	G	O5'-P-OP2	-5.21	101.02	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	907	G	N3-C4-C5	-5.21	126.00	128.60
36	1	1605	A	C8-N9-C4	5.21	107.88	105.80
36	1	2731	U	N3-C4-C5	-5.21	111.48	114.60
1	6	754	A	C5-C6-N6	-5.21	119.53	123.70
36	5	45	A	O5'-P-OP2	-5.21	101.02	105.70
36	5	95	A	C5-C6-N1	5.21	120.30	117.70
36	1	1194	G	C5-N7-C8	5.21	106.90	104.30
1	2	348	U	OP2-P-O3'	5.20	116.65	105.20
1	2	970	A	C5-C6-N6	-5.20	119.54	123.70
36	1	635	G	C5-C6-O6	-5.20	125.48	128.60
36	1	639	G	N9-C4-C5	-5.20	103.32	105.40
1	2	1768	G	C4-C5-N7	-5.20	108.72	110.80
36	1	903	U	C5-C6-N1	-5.20	120.10	122.70
36	1	963	G	C6-N1-C2	-5.20	121.98	125.10
36	1	1300	G	C8-N9-C1'	-5.20	120.24	127.00
36	1	3295	A	C8-N9-C4	-5.20	103.72	105.80
1	6	536	C	N3-C4-C5	-5.20	119.82	121.90
36	5	660	A	C8-N9-C4	5.20	107.88	105.80
36	5	2164	A	C8-N9-C4	-5.20	103.72	105.80
36	5	2728	G	N3-C4-N9	-5.20	122.88	126.00
36	5	3278	C	N1-C2-O2	-5.20	115.78	118.90
37	7	13	A	C5-C6-N1	5.20	120.30	117.70
1	2	1125	A	O5'-P-OP1	-5.20	101.02	105.70
1	2	1564	U	N1-C2-O2	-5.20	119.16	122.80
36	1	642	U	C5-C6-N1	-5.20	120.10	122.70
36	1	935	U	OP2-P-O3'	5.20	116.64	105.20
36	1	1183	C	C6-N1-C2	5.20	122.38	120.30
36	1	2216	G	N9-C4-C5	5.20	107.48	105.40
36	1	3273	A	C4-C5-C6	5.20	119.60	117.00
36	5	197	G	C8-N9-C1'	-5.20	120.24	127.00
36	5	3130	A	C4-C5-N7	-5.20	108.10	110.70
1	2	606	A	O4'-C1'-N9	5.20	112.36	108.20
36	1	421	G	C4-C5-N7	5.20	112.88	110.80
36	1	3273	A	N1-C2-N3	5.20	131.90	129.30
37	3	103	A	OP2-P-O3'	5.20	116.63	105.20
1	2	942	G	C5-C6-O6	5.20	131.72	128.60
36	1	57	A	OP2-P-O3'	5.20	116.63	105.20
36	1	807	A	N1-C2-N3	5.20	131.90	129.30
36	1	939	U	N1-C2-O2	-5.20	119.16	122.80
36	1	1450	G	C5-C6-O6	-5.20	125.48	128.60
36	5	1411	C	OP2-P-O3'	5.20	116.63	105.20
36	5	2385	G	C4-C5-N7	5.20	112.88	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	878	G	C4-C5-N7	-5.19	108.72	110.80
1	6	1082	C	OP1-P-OP2	5.19	127.39	119.60
36	5	640	U	OP1-P-OP2	-5.19	111.81	119.60
1	2	137	U	N1-C2-O2	5.19	126.43	122.80
36	1	1310	G	N1-C6-O6	-5.19	116.78	119.90
36	1	2314	U	C6-N1-C2	5.19	124.11	121.00
36	1	2585	G	C2-N3-C4	5.19	114.50	111.90
52	M6	84	LEU	CB-CG-CD2	-5.19	102.17	111.00
36	5	708	G	C5-C6-O6	-5.19	125.48	128.60
36	5	964	G	C4-C5-N7	5.19	112.88	110.80
36	5	992	A	C8-N9-C4	5.19	107.88	105.80
36	5	1304	A	C2-N3-C4	5.19	113.20	110.60
36	5	1392	G	N9-C4-C5	-5.19	103.32	105.40
1	2	378	A	N1-C6-N6	5.19	121.71	118.60
36	1	44	U	N3-C4-O4	-5.19	115.77	119.40
36	1	590	G	OP2-P-O3'	5.19	116.62	105.20
36	1	1425	U	N1-C2-N3	5.19	118.01	114.90
36	1	2242	A	C4-C5-C6	5.19	119.60	117.00
36	1	2802	A	N9-C4-C5	5.19	107.88	105.80
36	1	3008	A	OP1-P-OP2	-5.19	111.81	119.60
1	6	547	U	OP2-P-O3'	5.19	116.62	105.20
36	5	1379	G	N9-C4-C5	-5.19	103.32	105.40
36	5	2883	U	O5'-P-OP1	5.19	116.93	110.70
1	2	41	A	C8-N9-C4	5.19	107.88	105.80
1	2	610	G	N3-C2-N2	-5.19	116.27	119.90
1	2	1104	U	O5'-P-OP2	-5.19	101.03	105.70
36	1	608	A	N3-C4-N9	5.19	131.55	127.40
1	6	18	C	N3-C4-C5	-5.19	119.82	121.90
36	5	341	G	OP1-P-O3'	5.19	116.62	105.20
36	5	1047	A	C5-N7-C8	-5.19	101.31	103.90
1	2	310	C	N3-C4-C5	-5.19	119.83	121.90
1	2	1241	G	C4-C5-N7	5.19	112.88	110.80
36	1	206	G	N1-C6-O6	-5.19	116.79	119.90
36	1	899	U	N3-C2-O2	-5.19	118.57	122.20
36	1	1929	G	C8-N9-C4	5.19	108.47	106.40
36	1	2748	A	N1-C6-N6	5.19	121.71	118.60
1	6	392	G	N1-C6-O6	-5.19	116.79	119.90
1	6	1478	G	C6-C5-N7	-5.19	127.29	130.40
1	6	1513	G	C5-C6-O6	5.19	131.71	128.60
1	6	1773	C	C6-N1-C2	-5.19	118.22	120.30
36	5	146	U	N3-C4-O4	-5.19	115.77	119.40
36	5	1409	G	N3-C4-C5	-5.19	126.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2757	U	C6-N1-C2	-5.19	117.89	121.00
36	1	1604	G	C8-N9-C4	-5.19	104.33	106.40
36	5	2828	G	C4-C5-N7	5.19	112.87	110.80
1	2	571	G	C4-C5-N7	-5.18	108.73	110.80
1	2	1324	G	N3-C4-N9	-5.18	122.89	126.00
36	1	1526	U	N3-C2-O2	-5.18	118.57	122.20
36	1	2113	A	C4-C5-C6	-5.18	114.41	117.00
36	1	2838	A	O5'-P-OP1	5.18	116.92	110.70
36	5	588	G	C2-N3-C4	5.18	114.49	111.90
36	5	932	U	N3-C4-O4	5.18	123.03	119.40
38	8	12	A	C5-N7-C8	-5.18	101.31	103.90
38	8	52	A	N9-C4-C5	5.18	107.87	105.80
46	19	151	VAL	CB-CA-C	-5.18	101.55	111.40
1	2	1117	U	N3-C2-O2	-5.18	118.57	122.20
36	1	2551	U	N3-C2-O2	-5.18	118.57	122.20
1	6	389	G	N1-C6-O6	-5.18	116.79	119.90
36	5	796	U	OP2-P-O3'	5.18	116.60	105.20
36	5	2650	U	N1-C2-N3	5.18	118.01	114.90
36	1	22	G	N3-C2-N2	-5.18	116.27	119.90
36	1	913	A	C5-C6-N6	-5.18	119.56	123.70
36	1	1000	C	O4'-C1'-N1	5.18	112.34	108.20
36	5	641	C	C2-N3-C4	-5.18	117.31	119.90
36	5	1897	G	N1-C6-O6	5.18	123.01	119.90
36	5	2930	A	N1-C6-N6	-5.18	115.49	118.60
36	1	344	A	C8-N9-C4	5.18	107.87	105.80
36	1	1170	A	N1-C6-N6	5.18	121.71	118.60
36	1	1518	U	C5-C6-N1	-5.18	120.11	122.70
36	1	2177	G	N1-C2-N2	-5.18	111.54	116.20
36	1	2372	A	C2-N3-C4	5.18	113.19	110.60
51	M5	22	LEU	CA-CB-CG	5.18	127.22	115.30
36	5	2618	G	C6-N1-C2	-5.18	121.99	125.10
36	5	2836	C	C2-N1-C1'	5.18	124.50	118.80
37	7	11	A	C4-C5-N7	5.18	113.29	110.70
36	1	1388	U	C5-C4-O4	-5.18	122.79	125.90
38	4	23	U	N3-C2-O2	5.18	125.83	122.20
1	6	524	U	N3-C2-O2	-5.18	118.58	122.20
36	5	758	C	C6-N1-C1'	5.18	127.01	120.80
36	5	2281	A	N7-C8-N9	-5.18	111.21	113.80
36	5	3308	C	N1-C2-O2	-5.18	115.79	118.90
36	1	912	G	N3-C2-N2	-5.18	116.28	119.90
36	1	1437	C	O5'-P-OP1	-5.18	101.04	105.70
36	1	1660	C	N3-C4-N4	5.18	121.62	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2329	C	O5'-P-OP2	-5.18	101.04	105.70
1	6	1071	U	OP1-P-O3'	5.18	116.59	105.20
1	6	1631	A	C8-N9-C4	5.18	107.87	105.80
36	5	641	C	O4'-C1'-N1	5.18	112.34	108.20
36	5	644	G	C5-C6-N1	-5.18	108.91	111.50
36	5	1681	U	C2-N1-C1'	-5.18	111.49	117.70
36	5	2772	C	N1-C2-O2	-5.18	115.79	118.90
36	5	2831	G	C6-N1-C2	-5.18	121.99	125.10
1	2	1536	G	C8-N9-C1'	-5.17	120.27	127.00
1	6	622	A	N9-C4-C5	5.17	107.87	105.80
1	6	1136	U	N3-C4-O4	5.17	123.02	119.40
36	5	868	C	C2-N1-C1'	-5.17	113.11	118.80
36	5	1193	A	C4-N9-C1'	5.17	135.61	126.30
36	5	3052	G	C6-C5-N7	5.17	133.50	130.40
1	6	1003	A	C8-N9-C4	5.17	107.87	105.80
1	6	1048	G	C4-C5-N7	5.17	112.87	110.80
10	s8	47	ARG	NE-CZ-NH2	-5.17	117.71	120.30
36	1	1082	U	C6-N1-C2	-5.17	117.90	121.00
3	s1	106	THR	N-CA-CB	5.17	120.12	110.30
36	5	45	A	C5-C6-N1	5.17	120.28	117.70
36	5	2943	G	O5'-P-OP2	-5.17	101.05	105.70
36	5	3067	C	C6-N1-C2	5.17	122.37	120.30
36	5	3172	A	N1-C2-N3	5.17	131.89	129.30
1	2	647	G	N3-C4-N9	-5.17	122.90	126.00
1	6	339	C	OP2-P-O3'	5.17	116.57	105.20
1	6	1653	C	C6-N1-C2	-5.17	118.23	120.30
36	5	1373	A	C5-C6-N6	-5.17	119.56	123.70
36	5	2273	G	N7-C8-N9	-5.17	110.52	113.10
36	1	1898	G	O4'-C1'-N9	5.17	112.33	108.20
36	1	2278	C	N3-C4-C5	5.17	123.97	121.90
36	1	2960	C	C2-N3-C4	-5.17	117.32	119.90
1	6	1764	C	N3-C4-C5	5.17	123.97	121.90
1	2	1057	U	O4'-C1'-N1	5.17	112.33	108.20
1	2	1291	G	C6-C5-N7	5.17	133.50	130.40
36	1	296	A	C8-N9-C4	-5.17	103.73	105.80
36	1	635	G	C5-C6-N1	5.17	114.08	111.50
36	1	636	C	C5-C4-N4	-5.17	116.58	120.20
36	1	2409	G	C6-N1-C2	-5.17	122.00	125.10
36	1	2917	G	C8-N9-C1'	-5.17	120.28	127.00
1	6	1114	G	N3-C4-N9	5.17	129.10	126.00
1	6	1135	U	N1-C2-N3	5.17	118.00	114.90
36	5	2310	U	N3-C2-O2	-5.17	118.58	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	281	G	N1-C2-N3	5.17	127.00	123.90
36	1	2629	U	O5'-P-OP2	-5.17	101.05	105.70
38	4	96	A	C8-N9-C4	5.17	107.87	105.80
36	5	1833	G	C6-C5-N7	5.17	133.50	130.40
36	1	657	A	C5-N7-C8	5.16	106.48	103.90
36	1	982	C	N1-C2-O2	-5.16	115.80	118.90
36	1	1444	G	N1-C6-O6	5.16	123.00	119.90
36	1	1541	G	N9-C4-C5	-5.16	103.33	105.40
36	1	2240	G	OP2-P-O3'	5.16	116.56	105.20
36	1	2720	G	N1-C6-O6	5.16	123.00	119.90
36	1	2829	U	N3-C2-O2	-5.16	118.58	122.20
1	6	1602	C	N3-C2-O2	-5.16	118.29	121.90
36	5	339	C	N3-C4-N4	-5.16	114.39	118.00
36	5	1365	G	N3-C4-N9	5.16	129.10	126.00
36	5	1381	A	C2-N3-C4	-5.16	108.02	110.60
36	5	2358	A	N3-C4-C5	5.16	130.41	126.80
36	5	2395	G	C2-N3-C4	5.16	114.48	111.90
36	5	2526	C	N1-C2-O2	5.16	122.00	118.90
36	1	365	A	C4-C5-N7	5.16	113.28	110.70
1	2	1200	G	C6-C5-N7	-5.16	127.30	130.40
36	1	1197	A	C5-C6-N6	-5.16	119.57	123.70
1	6	1653	C	C4-C5-C6	5.16	119.98	117.40
36	5	73	C	N3-C4-N4	5.16	121.61	118.00
1	2	380	U	C4-C5-C6	5.16	122.80	119.70
36	1	1405	U	N3-C2-O2	5.16	125.81	122.20
36	1	1507	G	N1-C6-O6	5.16	123.00	119.90
1	6	1097	U	P-O3'-C3'	5.16	125.89	119.70
1	6	1746	A	C8-N9-C4	-5.16	103.74	105.80
36	5	107	A	C2-N3-C4	5.16	113.18	110.60
36	5	813	G	N3-C4-C5	-5.16	126.02	128.60
36	5	934	G	C5-C6-O6	-5.16	125.50	128.60
36	5	3079	U	C5-C4-O4	5.16	129.00	125.90
52	m6	84	LEU	CB-CG-CD1	-5.16	102.23	111.00
36	1	1409	G	C6-C5-N7	5.16	133.49	130.40
36	5	668	G	C5-C6-N1	5.16	114.08	111.50
36	5	1370	G	N3-C4-C5	-5.16	126.02	128.60
1	2	1389	C	C2-N1-C1'	5.16	124.47	118.80
36	1	231	G	N1-C6-O6	-5.16	116.81	119.90
36	1	372	A	N9-C4-C5	-5.16	103.74	105.80
36	1	644	G	C8-N9-C4	-5.16	104.34	106.40
1	6	1560	U	O5'-P-OP1	-5.16	101.06	105.70
1	6	1658	G	C4-C5-N7	-5.16	108.74	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2639	G	C6-N1-C2	-5.16	122.01	125.10
36	5	2641	U	O5'-P-OP2	-5.16	101.06	105.70
36	5	2754	G	C8-N9-C4	5.16	108.46	106.40
1	2	1258	U	N3-C2-O2	-5.15	118.59	122.20
36	1	510	G	N9-C4-C5	5.15	107.46	105.40
1	6	1423	U	N1-C2-O2	-5.15	119.19	122.80
36	5	1437	C	N1-C2-N3	5.15	122.81	119.20
36	5	2524	A	C8-N9-C4	-5.15	103.74	105.80
1	2	565	C	N3-C4-C5	5.15	123.96	121.90
1	2	885	G	C5-C6-O6	-5.15	125.51	128.60
25	D3	111	GLY	N-CA-C	-5.15	100.22	113.10
36	1	200	C	C6-N1-C1'	-5.15	114.62	120.80
36	1	709	A	C5-C6-N6	-5.15	119.58	123.70
36	1	929	A	OP1-P-O3'	5.15	116.54	105.20
36	1	1909	A	C2-N3-C4	-5.15	108.02	110.60
36	1	2295	A	C6-C5-N7	-5.15	128.69	132.30
36	1	3174	A	C4-C5-N7	5.15	113.28	110.70
1	6	94	U	OP1-P-OP2	-5.15	111.87	119.60
1	6	108	A	C6-N1-C2	-5.15	115.51	118.60
36	5	2426	U	C5-C4-O4	5.15	128.99	125.90
1	2	568	G	OP1-P-O3'	5.15	116.53	105.20
1	2	1176	G	N1-C6-O6	5.15	122.99	119.90
1	6	647	G	N3-C4-C5	5.15	131.18	128.60
36	5	283	G	O4'-C1'-N9	-5.15	104.08	108.20
36	5	1154	A	C5-C6-N1	5.15	120.28	117.70
44	17	83	LEU	CA-CB-CG	5.15	127.15	115.30
1	2	1642	G	N3-C4-C5	-5.15	126.03	128.60
1	2	1747	G	C2-N3-C4	-5.15	109.33	111.90
1	6	1740	A	N1-C6-N6	-5.15	115.51	118.60
36	5	648	C	OP1-P-OP2	5.15	127.32	119.60
36	5	940	G	C2-N3-C4	5.15	114.47	111.90
36	5	2258	U	C5-C6-N1	5.15	125.27	122.70
36	5	2816	G	OP1-P-O3'	5.15	116.52	105.20
36	5	3373	U	N3-C2-O2	-5.15	118.60	122.20
36	1	2795	U	O5'-P-OP1	-5.15	101.07	105.70
36	1	2918	G	C4-C5-C6	5.15	121.89	118.80
36	1	3000	A	C8-N9-C4	5.15	107.86	105.80
36	1	3091	A	N1-C6-N6	5.15	121.69	118.60
1	6	1094	G	N1-C6-O6	-5.15	116.81	119.90
36	5	720	A	N7-C8-N9	5.15	116.37	113.80
36	5	2234	G	C4-C5-N7	5.15	112.86	110.80
36	5	3343	G	N9-C4-C5	-5.15	103.34	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	590	G	C8-N9-C4	5.14	108.46	106.40
36	1	808	A	C6-N1-C2	-5.14	115.51	118.60
36	1	1509	A	C2-N3-C4	-5.14	108.03	110.60
36	1	1795	U	C2-N3-C4	-5.14	123.91	127.00
36	1	2306	C	N3-C4-N4	-5.14	114.40	118.00
36	1	2877	G	C5-N7-C8	5.14	106.87	104.30
37	3	33	U	N3-C2-O2	-5.14	118.60	122.20
1	6	536	C	C5-C6-N1	5.14	123.57	121.00
36	5	1306	G	C8-N9-C1'	-5.14	120.31	127.00
36	5	1830	G	C5-C6-N1	-5.14	108.93	111.50
36	5	1848	G	C4-C5-N7	5.14	112.86	110.80
36	5	2341	A	O5'-P-OP2	-5.14	101.07	105.70
1	2	1206	U	C5-C4-O4	-5.14	122.81	125.90
36	1	199	A	C8-N9-C4	-5.14	103.74	105.80
36	1	640	U	C6-N1-C2	-5.14	117.91	121.00
36	1	1117	G	C5-C6-O6	-5.14	125.51	128.60
36	1	1170	A	C8-N9-C4	5.14	107.86	105.80
36	1	1510	G	N3-C4-C5	-5.14	126.03	128.60
36	1	2642	A	N1-C2-N3	-5.14	126.73	129.30
36	1	2818	U	OP2-P-O3'	5.14	116.51	105.20
38	4	109	A	N1-C6-N6	5.14	121.69	118.60
1	6	1614	A	C2-N3-C4	-5.14	108.03	110.60
36	5	400	G	C8-N9-C4	-5.14	104.34	106.40
36	5	665	A	OP2-P-O3'	5.14	116.51	105.20
36	5	1435	A	C5-C6-N6	-5.14	119.58	123.70
36	5	3142	A	O5'-P-OP1	-5.14	101.07	105.70
36	5	3188	G	C5-N7-C8	5.14	106.87	104.30
36	1	1130	A	N1-C2-N3	-5.14	126.73	129.30
36	1	811	U	C4-C5-C6	5.14	122.78	119.70
36	1	1909	A	C8-N9-C4	5.14	107.86	105.80
36	1	2114	C	O5'-P-OP2	-5.14	101.07	105.70
1	6	1099	U	C5-C4-O4	5.14	128.98	125.90
1	6	1796	C	C4-C5-C6	5.14	119.97	117.40
36	5	170	G	C4-N9-C1'	5.14	133.18	126.50
36	5	186	U	N3-C2-O2	-5.14	118.60	122.20
36	5	197	G	C4-N9-C1'	5.14	133.18	126.50
36	5	1884	A	N1-C2-N3	5.14	131.87	129.30
37	7	3	U	C5-C6-N1	-5.14	120.13	122.70
36	1	2366	C	C5-C6-N1	5.14	123.57	121.00
36	1	2821	C	OP1-P-OP2	-5.14	111.89	119.60
1	6	678	A	C8-N9-C4	-5.14	103.75	105.80
1	6	1100	G	N3-C4-N9	5.14	129.08	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1339	C	C6-N1-C2	-5.14	118.25	120.30
36	5	2397	A	C6-N1-C2	-5.14	115.52	118.60
37	7	40	C	C5-C6-N1	-5.14	118.43	121.00
36	1	843	A	C2-N3-C4	-5.14	108.03	110.60
36	1	1838	G	N3-C2-N2	-5.14	116.30	119.90
36	1	2372	A	N3-C4-C5	-5.14	123.20	126.80
36	5	506	U	C5-C6-N1	-5.14	120.13	122.70
36	5	1846	C	OP2-P-O3'	5.14	116.50	105.20
36	5	1860	G	C2-N3-C4	5.14	114.47	111.90
36	5	2357	A	N9-C4-C5	-5.14	103.75	105.80
36	5	2651	G	OP2-P-O3'	5.14	116.50	105.20
36	5	2794	G	O5'-P-OP1	5.14	116.86	110.70
6	S4	189	LEU	CA-CB-CG	5.13	127.11	115.30
36	1	2423	U	C5-C4-O4	-5.13	122.82	125.90
1	6	1779	U	N3-C2-O2	-5.13	118.61	122.20
36	5	264	G	N1-C6-O6	5.13	122.98	119.90
36	5	671	U	N1-C2-O2	-5.13	119.21	122.80
36	5	2290	C	C5-C4-N4	-5.13	116.61	120.20
36	1	282	G	P-O3'-C3'	5.13	125.86	119.70
36	1	3344	A	C6-C5-N7	-5.13	128.71	132.30
40	L3	248	LYS	CD-CE-NZ	-5.13	99.89	111.70
36	5	1159	A	C2-N3-C4	-5.13	108.03	110.60
1	2	1559	A	O4'-C1'-N9	5.13	112.31	108.20
1	2	1611	A	O4'-C1'-N9	5.13	112.31	108.20
36	1	332	C	C2-N3-C4	-5.13	117.33	119.90
36	1	957	C	N3-C2-O2	5.13	125.49	121.90
36	1	1837	U	N1-C2-O2	-5.13	119.21	122.80
36	1	2198	A	N7-C8-N9	-5.13	111.23	113.80
36	1	2600	C	N1-C2-O2	5.13	121.98	118.90
61	N5	113	LEU	CB-CG-CD2	-5.13	102.28	111.00
1	6	768	C	C6-N1-C2	5.13	122.35	120.30
36	5	831	G	C5-C6-O6	-5.13	125.52	128.60
36	5	1180	A	N1-C6-N6	-5.13	115.52	118.60
37	7	70	U	OP2-P-O3'	5.13	116.49	105.20
36	1	1444	G	C8-N9-C4	5.13	108.45	106.40
36	5	56	G	C5-C6-N1	5.13	114.06	111.50
36	5	3144	G	C2-N3-C4	5.13	114.47	111.90
36	1	1389	G	C5-C6-N1	5.13	114.06	111.50
36	1	1481	A	C8-N9-C1'	-5.13	118.47	127.70
36	1	1741	A	C5-N7-C8	-5.13	101.33	103.90
36	1	2874	G	C5-C6-N1	-5.13	108.94	111.50
37	3	80	G	N3-C4-C5	-5.13	126.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1846	C	C2-N3-C4	-5.13	117.34	119.90
36	5	2579	G	C8-N9-C4	-5.13	104.35	106.40
1	2	1116	A	N1-C6-N6	5.13	121.68	118.60
13	C1	88	ARG	NE-CZ-NH1	5.13	122.86	120.30
36	1	811	U	N1-C2-N3	5.13	117.98	114.90
36	1	1294	A	C2-N3-C4	5.13	113.16	110.60
36	1	2884	C	C4-C5-C6	-5.13	114.84	117.40
36	1	2989	U	N3-C2-O2	-5.13	118.61	122.20
36	1	3174	A	C6-C5-N7	-5.13	128.71	132.30
79	Q3	29	LEU	CA-CB-CG	-5.13	103.51	115.30
1	6	584	C	C2-N1-C1'	5.13	124.44	118.80
1	6	1782	A	OP2-P-O3'	5.13	116.48	105.20
36	5	717	C	OP2-P-O3'	5.13	116.48	105.20
38	8	33	A	N1-C6-N6	5.13	121.68	118.60
1	2	586	G	N1-C6-O6	-5.12	116.83	119.90
38	4	6	U	C5-C4-O4	-5.12	122.83	125.90
1	6	1004	U	N1-C2-O2	-5.12	119.21	122.80
36	5	2627	C	C2-N3-C4	-5.12	117.34	119.90
6	S4	38	LEU	CA-CB-CG	5.12	127.08	115.30
37	3	83	U	C2-N3-C4	-5.12	123.92	127.00
1	6	125	U	C6-N1-C2	5.12	124.07	121.00
36	5	424	G	OP1-P-OP2	5.12	127.29	119.60
36	5	683	U	O5'-P-OP2	-5.12	101.09	105.70
36	5	1236	G	C5-C6-O6	-5.12	125.53	128.60
36	5	1496	C	C2-N1-C1'	5.12	124.44	118.80
36	5	1673	G	N3-C4-C5	-5.12	126.04	128.60
36	5	2814	G	N9-C4-C5	-5.12	103.35	105.40
1	2	499	U	OP1-P-O3'	5.12	116.47	105.20
36	1	2171	G	C2-N3-C4	5.12	114.46	111.90
1	6	435	C	N3-C4-C5	-5.12	119.85	121.90
36	5	38	U	C6-N1-C2	5.12	124.07	121.00
36	5	46	U	N1-C2-O2	5.12	126.39	122.80
36	5	649	A	C5-N7-C8	-5.12	101.34	103.90
36	5	1166	G	C2-N3-C4	-5.12	109.34	111.90
36	5	3025	C	N3-C2-O2	-5.12	118.31	121.90
1	2	580	A	N3-C4-C5	-5.12	123.22	126.80
36	1	2618	G	N3-C2-N2	5.12	123.48	119.90
36	1	2977	G	C2-N3-C4	5.12	114.46	111.90
36	5	2908	G	N1-C2-N2	5.12	120.81	116.20
26	D4	74	LEU	CA-CB-CG	5.12	127.07	115.30
36	1	975	C	OP1-P-OP2	5.12	127.28	119.60
36	1	997	A	C8-N9-C4	-5.12	103.75	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1507	G	N3-C4-C5	-5.12	126.04	128.60
36	1	1685	C	N1-C2-O2	5.12	121.97	118.90
1	6	1614	A	C4-C5-N7	5.12	113.26	110.70
36	5	3012	A	N9-C4-C5	-5.12	103.75	105.80
54	m8	178	ARG	NE-CZ-NH1	5.12	122.86	120.30
36	1	916	G	O5'-P-OP1	-5.12	101.09	105.70
36	5	1445	U	C5-C4-O4	-5.12	122.83	125.90
36	5	2775	U	C5-C4-O4	5.12	128.97	125.90
36	5	3115	C	C6-N1-C1'	5.12	126.94	120.80
36	1	820	A	N7-C8-N9	5.12	116.36	113.80
36	1	866	A	C8-N9-C4	5.12	107.85	105.80
36	1	919	U	N1-C2-O2	5.12	126.38	122.80
36	1	1528	G	OP1-P-OP2	5.12	127.27	119.60
36	1	2302	G	N3-C2-N2	5.12	123.48	119.90
36	1	2345	A	N3-C4-N9	5.12	131.49	127.40
36	1	2641	U	C6-N1-C2	5.12	124.07	121.00
36	1	3214	U	OP2-P-O3'	5.12	116.46	105.20
37	3	42	A	C8-N9-C4	5.12	107.85	105.80
36	5	2403	G	C5-C6-N1	5.12	114.06	111.50
36	1	1004	U	N1-C2-O2	5.11	126.38	122.80
36	1	1154	A	N1-C2-N3	5.11	131.86	129.30
36	1	2115	G	C6-C5-N7	-5.11	127.33	130.40
36	1	3005	A	OP1-P-OP2	5.11	127.27	119.60
36	1	3098	G	N3-C2-N2	5.11	123.48	119.90
37	3	86	U	N3-C4-O4	5.11	122.98	119.40
1	6	1032	G	N1-C6-O6	5.11	122.97	119.90
36	5	578	A	O5'-P-OP2	5.11	116.84	110.70
36	5	1476	G	N3-C4-C5	5.11	131.16	128.60
36	5	2379	U	N1-C2-N3	5.11	117.97	114.90
36	5	3004	C	OP2-P-O3'	5.11	116.45	105.20
1	2	110	U	C2-N1-C1'	5.11	123.83	117.70
36	1	2637	A	O5'-P-OP1	-5.11	101.10	105.70
36	5	805	G	OP2-P-O3'	5.11	116.45	105.20
36	5	2343	C	C6-N1-C2	5.11	122.34	120.30
36	5	2820	A	C8-N9-C4	-5.11	103.75	105.80
38	8	74	U	C5-C4-O4	-5.11	122.83	125.90
1	2	1654	G	C6-N1-C2	-5.11	122.03	125.10
1	2	1762	A	C2-N3-C4	-5.11	108.04	110.60
1	2	1778	G	N1-C6-O6	-5.11	116.83	119.90
36	1	3277	U	N1-C2-N3	5.11	117.97	114.90
1	6	66	U	OP1-P-O3'	5.11	116.44	105.20
36	5	1316	C	N3-C4-N4	5.11	121.58	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2186	U	N1-C2-O2	5.11	126.38	122.80
36	5	3298	C	C2-N3-C4	-5.11	117.34	119.90
36	5	2335	G	N3-C4-C5	-5.11	126.05	128.60
36	5	2820	A	C5-C6-N6	-5.11	119.61	123.70
1	2	87	C	O5'-P-OP1	-5.11	101.10	105.70
36	1	2700	G	N7-C8-N9	5.11	115.65	113.10
1	6	1037	C	N3-C4-C5	5.11	123.94	121.90
36	5	909	G	OP1-P-OP2	-5.11	111.94	119.60
36	5	1907	C	C5-C6-N1	5.11	123.55	121.00
1	2	1361	U	C2-N1-C1'	5.11	123.83	117.70
36	1	2306	C	C5-C6-N1	5.11	123.55	121.00
1	6	393	C	O4'-C1'-N1	5.11	112.28	108.20
1	6	1759	C	C6-N1-C2	5.11	122.34	120.30
36	5	950	G	C5-C6-O6	-5.11	125.54	128.60
36	5	961	C	C4-C5-C6	5.11	119.95	117.40
36	5	1456	A	C8-N9-C4	5.11	107.84	105.80
36	1	2872	A	C6-N1-C2	-5.10	115.54	118.60
1	6	92	A	N1-C6-N6	5.10	121.66	118.60
36	5	1112	A	N3-C4-N9	5.10	131.48	127.40
1	2	378	A	OP2-P-O3'	5.10	116.43	105.20
1	2	968	U	C5-C6-N1	-5.10	120.15	122.70
36	1	399	A	OP2-P-O3'	5.10	116.43	105.20
36	1	1112	A	C5-C6-N6	-5.10	119.62	123.70
36	1	2758	A	C2-N3-C4	5.10	113.15	110.60
36	1	2995	A	N1-C6-N6	5.10	121.66	118.60
1	6	98	U	C5-C4-O4	5.10	128.96	125.90
1	6	1127	G	C6-N1-C2	-5.10	122.04	125.10
36	5	834	U	N1-C2-O2	-5.10	119.23	122.80
36	5	1042	U	C4-C5-C6	-5.10	116.64	119.70
36	5	2871	G	N1-C6-O6	-5.10	116.84	119.90
36	5	3176	G	N3-C4-C5	-5.10	126.05	128.60
36	5	3268	A	O5'-P-OP2	-5.10	101.11	105.70
1	2	409	C	C6-N1-C2	-5.10	118.26	120.30
36	1	651	G	C2-N3-C4	5.10	114.45	111.90
36	1	1083	G	N3-C4-C5	-5.10	126.05	128.60
36	1	1546	A	C6-N1-C2	5.10	121.66	118.60
1	6	401	A	N1-C6-N6	5.10	121.66	118.60
36	5	804	C	N3-C4-C5	-5.10	119.86	121.90
36	5	925	A	C5-C6-N6	-5.10	119.62	123.70
36	5	2914	G	C8-N9-C1'	-5.10	120.37	127.00
1	2	1455	G	C8-N9-C4	-5.10	104.36	106.40
36	1	2710	C	N1-C2-O2	-5.10	115.84	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2371	G	N3-C4-C5	5.10	131.15	128.60
36	1	32	U	C2-N3-C4	-5.10	123.94	127.00
36	1	2877	G	C4-C5-N7	-5.10	108.76	110.80
36	1	3373	U	C6-N1-C2	5.10	124.06	121.00
1	6	1662	G	O5'-P-OP2	-5.10	101.11	105.70
36	5	2345	A	C5-C6-N6	-5.10	119.62	123.70
36	5	2661	G	OP1-P-O3'	5.10	116.41	105.20
69	o3	65	ARG	NE-CZ-NH1	-5.10	117.75	120.30
36	5	215	G	N3-C4-C5	-5.10	126.05	128.60
36	5	1901	A	C4-N9-C1'	5.10	135.47	126.30
36	5	2179	C	C6-N1-C2	5.10	122.34	120.30
36	1	1129	A	C4-C5-N7	5.09	113.25	110.70
36	1	2215	A	N9-C4-C5	-5.09	103.76	105.80
36	1	2409	G	C2-N3-C4	5.09	114.45	111.90
36	1	2760	C	C4-C5-C6	5.09	119.95	117.40
36	1	2763	U	N3-C4-O4	5.09	122.97	119.40
36	1	2899	C	N3-C2-O2	-5.09	118.33	121.90
1	6	351	C	OP1-P-O3'	5.09	116.41	105.20
1	6	1594	G	N3-C4-N9	5.09	129.06	126.00
36	5	1437	C	O5'-P-OP2	5.09	116.81	110.70
36	5	3049	A	N9-C4-C5	-5.09	103.76	105.80
36	5	3094	A	C8-N9-C4	5.09	107.84	105.80
36	5	3197	G	C8-N9-C4	-5.09	104.36	106.40
1	2	934	C	C5-C4-N4	-5.09	116.64	120.20
36	1	1183	C	N3-C4-C5	5.09	123.94	121.90
36	1	2408	U	N3-C2-O2	-5.09	118.64	122.20
1	2	1556	A	OP1-P-O3'	5.09	116.40	105.20
36	1	99	A	O4'-C1'-N9	5.09	112.27	108.20
36	1	1114	U	N1-C2-O2	5.09	126.36	122.80
36	1	1121	U	C2-N3-C4	-5.09	123.94	127.00
36	1	1716	U	P-O3'-C3'	5.09	125.81	119.70
36	5	1139	G	C6-N1-C2	-5.09	122.05	125.10
36	5	2140	U	N1-C2-N3	5.09	117.95	114.90
1	2	1494	C	C6-N1-C2	-5.09	118.26	120.30
36	1	635	G	C4-C5-N7	5.09	112.84	110.80
36	5	788	C	OP2-P-O3'	5.09	116.40	105.20
36	5	1331	U	N3-C4-C5	5.09	117.65	114.60
36	5	1866	C	OP2-P-O3'	5.09	116.40	105.20
36	5	2290	C	N3-C4-C5	5.09	123.94	121.90
36	5	3217	C	C2-N1-C1'	-5.09	113.20	118.80
36	5	3323	A	N1-C6-N6	-5.09	115.55	118.60
1	2	992	A	N3-C4-N9	-5.09	123.33	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	186	U	OP1-P-OP2	-5.09	111.97	119.60
36	1	965	A	OP1-P-O3'	5.09	116.39	105.20
36	1	1389	G	N1-C6-O6	5.09	122.95	119.90
36	1	2300	G	N3-C4-N9	-5.09	122.95	126.00
36	5	1112	A	C4-N9-C1'	5.09	135.46	126.30
37	7	26	C	C4-C5-C6	5.09	119.94	117.40
1	2	767	U	N3-C2-O2	-5.09	118.64	122.20
36	1	1419	A	C5'-C4'-O4'	5.09	115.20	109.10
36	1	2385	G	O5'-P-OP1	-5.09	101.12	105.70
36	1	2406	C	N3-C4-C5	5.09	123.94	121.90
67	O1	62	ARG	NE-CZ-NH1	-5.09	117.76	120.30
1	6	597	G	O5'-P-OP2	-5.09	101.12	105.70
1	6	764	U	C5-C6-N1	-5.09	120.16	122.70
36	5	912	G	N1-C6-O6	-5.09	116.85	119.90
36	5	1154	A	C2-N3-C4	5.09	113.14	110.60
36	5	1716	U	P-O3'-C3'	5.09	125.80	119.70
36	5	1854	C	C2-N3-C4	5.09	122.44	119.90
36	5	2733	A	O5'-P-OP2	-5.09	101.12	105.70
36	5	2863	G	N3-C2-N2	5.09	123.46	119.90
36	5	3121	U	OP1-P-O3'	5.09	116.39	105.20
36	1	709	A	N1-C6-N6	5.08	121.65	118.60
36	1	807	A	N1-C6-N6	5.08	121.65	118.60
36	1	814	U	O5'-P-OP2	5.08	116.80	110.70
36	1	2216	G	C4-C5-N7	-5.08	108.77	110.80
1	6	419	G	O5'-P-OP1	-5.08	101.12	105.70
36	5	1300	G	N3-C4-N9	5.08	129.05	126.00
36	5	2383	C	N3-C4-C5	-5.08	119.87	121.90
1	2	872	G	N3-C4-N9	-5.08	122.95	126.00
36	1	143	G	C2-N3-C4	5.08	114.44	111.90
36	1	1158	A	C5-C6-N6	-5.08	119.63	123.70
36	5	425	G	N1-C6-O6	5.08	122.95	119.90
36	5	2395	G	C5-C6-O6	-5.08	125.55	128.60
36	5	3161	C	C5-C6-N1	5.08	123.54	121.00
36	1	711	A	N1-C6-N6	-5.08	115.55	118.60
36	1	1132	C	C5-C4-N4	5.08	123.76	120.20
36	5	31	C	N3-C4-C5	5.08	123.93	121.90
36	5	191	U	C2-N1-C1'	-5.08	111.60	117.70
36	5	1331	U	N3-C2-O2	5.08	125.76	122.20
36	5	1374	G	N3-C2-N2	5.08	123.46	119.90
36	5	1380	G	C5-C6-O6	-5.08	125.55	128.60
36	5	2654	C	N1-C2-O2	-5.08	115.85	118.90
36	5	2719	U	N1-C2-O2	-5.08	119.24	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1036	A	OP2-P-O3'	5.08	116.38	105.20
36	5	677	A	C2-N3-C4	-5.08	108.06	110.60
36	5	800	G	N3-C4-N9	5.08	129.05	126.00
36	5	2139	A	C5-C6-N1	-5.08	115.16	117.70
1	2	557	G	C5-C6-O6	5.08	131.65	128.60
1	2	1096	C	O5'-P-OP1	5.08	116.79	110.70
1	2	1668	G	N9-C4-C5	5.08	107.43	105.40
36	1	1898	G	N1-C6-O6	5.08	122.95	119.90
36	1	2846	U	N1-C2-N3	5.08	117.95	114.90
38	4	63	G	N7-C8-N9	5.08	115.64	113.10
1	6	1113	A	C2-N3-C4	-5.08	108.06	110.60
1	6	1778	G	N1-C6-O6	-5.08	116.85	119.90
1	6	1796	C	N3-C2-O2	-5.08	118.34	121.90
36	5	133	U	C2-N1-C1'	5.08	123.79	117.70
36	5	1134	G	C4-C5-N7	5.08	112.83	110.80
36	5	2957	G	O5'-P-OP2	5.08	116.80	110.70
36	1	315	C	N1-C2-O2	5.08	121.95	118.90
36	1	2886	U	N3-C4-O4	5.08	122.95	119.40
1	2	1560	U	N1-C2-O2	5.08	126.35	122.80
1	6	1459	C	O5'-P-OP2	-5.08	101.13	105.70
36	5	39	A	C6-C5-N7	-5.08	128.75	132.30
36	5	1304	A	N7-C8-N9	5.08	116.34	113.80
36	5	2145	A	C2-N3-C4	5.08	113.14	110.60
36	5	2425	G	C2-N3-C4	-5.08	109.36	111.90
36	5	2694	A	N3-C4-C5	-5.08	123.25	126.80
55	m9	100	ARG	NE-CZ-NH1	-5.08	117.76	120.30
1	2	539	G	N3-C4-N9	-5.07	122.96	126.00
36	1	210	U	C6-N1-C1'	5.07	128.30	121.20
36	1	2130	G	N3-C2-N2	5.07	123.45	119.90
1	2	1235	C	N1-C2-N3	5.07	122.75	119.20
36	1	1124	U	C4-C5-C6	-5.07	116.66	119.70
36	1	2776	C	N3-C4-C5	5.07	123.93	121.90
36	1	3268	A	O4'-C1'-N9	-5.07	104.14	108.20
1	6	1491	U	P-O3'-C3'	5.07	125.79	119.70
36	5	2105	G	C4-C5-N7	5.07	112.83	110.80
37	7	64	A	N1-C6-N6	-5.07	115.56	118.60
1	2	297	U	N3-C2-O2	-5.07	118.65	122.20
1	2	1578	U	N1-C2-O2	5.07	126.35	122.80
1	2	1654	G	N3-C4-C5	-5.07	126.06	128.60
36	1	283	G	C4-C5-N7	5.07	112.83	110.80
36	1	921	A	C8-N9-C4	5.07	107.83	105.80
36	1	1715	A	O4'-C1'-N9	-5.07	104.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2805	G	N9-C4-C5	-5.07	103.37	105.40
36	1	2874	G	N9-C4-C5	5.07	107.43	105.40
36	5	2613	U	OP1-P-O3'	5.07	116.35	105.20
36	1	2240	G	C5-C6-O6	-5.07	125.56	128.60
36	1	2930	A	O4'-C1'-N9	5.07	112.25	108.20
36	5	661	G	P-O3'-C3'	5.07	125.78	119.70
1	2	328	A	OP1-P-OP2	5.07	127.20	119.60
1	2	1633	A	N9-C4-C5	5.07	107.83	105.80
36	1	1421	G	N7-C8-N9	-5.07	110.57	113.10
36	1	3311	C	C6-N1-C2	5.07	122.33	120.30
38	4	15	G	C5-C6-O6	-5.07	125.56	128.60
1	6	1044	U	C5-C4-O4	5.07	128.94	125.90
36	5	1187	C	N3-C4-C5	5.07	123.93	121.90
36	5	1236	G	C4-C5-N7	5.07	112.83	110.80
36	5	1604	G	C4-N9-C1'	5.07	133.09	126.50
36	5	2388	U	N1-C2-O2	-5.07	119.25	122.80
36	5	2553	U	N1-C2-N3	5.07	117.94	114.90
1	2	1611	A	C5-N7-C8	-5.07	101.37	103.90
36	1	53	G	C8-N9-C4	5.07	108.43	106.40
36	1	227	G	C5-C6-O6	-5.07	125.56	128.60
36	1	949	C	C2-N3-C4	-5.07	117.37	119.90
36	1	2292	U	C2-N3-C4	-5.07	123.96	127.00
36	1	2522	G	N7-C8-N9	5.07	115.63	113.10
36	1	3214	U	O4'-C1'-N1	5.07	112.25	108.20
36	5	909	G	N1-C6-O6	-5.07	116.86	119.90
36	5	1041	U	C5-C6-N1	-5.07	120.17	122.70
36	5	1837	U	OP2-P-O3'	5.07	116.35	105.20
36	5	2128	C	C2-N3-C4	-5.07	117.37	119.90
36	1	1379	G	N1-C6-O6	-5.06	116.86	119.90
36	1	2705	A	O4'-C1'-N9	-5.06	104.15	108.20
1	6	1657	U	O5'-P-OP1	5.06	116.78	110.70
36	5	3123	A	N7-C8-N9	-5.06	111.27	113.80
37	7	37	G	N1-C6-O6	5.06	122.94	119.90
36	1	1013	G	N1-C6-O6	5.06	122.94	119.90
36	1	2364	G	O4'-C1'-N9	5.06	112.25	108.20
36	1	2652	U	C6-N1-C2	-5.06	117.96	121.00
36	1	2832	C	OP2-P-O3'	5.06	116.34	105.20
36	1	3119	U	N3-C2-O2	-5.06	118.66	122.20
36	1	3361	G	N3-C4-N9	5.06	129.04	126.00
37	3	96	U	OP2-P-O3'	5.06	116.33	105.20
1	6	583	C	C6-N1-C2	-5.06	118.28	120.30
1	6	1774	G	N3-C2-N2	5.06	123.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	SR	161	LYS	N-CA-C	5.06	124.67	111.00
36	1	494	G	N3-C4-N9	5.06	129.04	126.00
36	1	802	C	OP1-P-OP2	-5.06	112.01	119.60
36	1	1138	U	C2-N3-C4	-5.06	123.96	127.00
36	1	2138	A	C6-N1-C2	-5.06	115.56	118.60
36	1	2879	C	N3-C4-C5	-5.06	119.88	121.90
38	4	16	G	O4'-C1'-N9	5.06	112.25	108.20
52	M6	78	ARG	NE-CZ-NH2	-5.06	117.77	120.30
1	6	1004	U	OP1-P-O3'	5.06	116.33	105.20
36	5	25	U	N1-C2-N3	5.06	117.94	114.90
36	5	267	G	C5-C6-O6	-5.06	125.56	128.60
36	5	920	A	OP1-P-OP2	-5.06	112.01	119.60
36	5	2261	G	C8-N9-C4	5.06	108.42	106.40
1	2	696	C	C6-N1-C2	-5.06	118.28	120.30
1	2	1194	A	N1-C6-N6	5.06	121.64	118.60
36	1	1446	A	OP1-P-O3'	5.06	116.33	105.20
36	1	1712	G	C6-C5-N7	-5.06	127.36	130.40
36	1	2286	U	C5-C6-N1	-5.06	120.17	122.70
36	1	2775	U	C4-C5-C6	5.06	122.73	119.70
36	1	3091	A	O5'-P-OP2	-5.06	101.15	105.70
1	6	417	A	C3'-C2'-C1'	5.06	105.55	101.50
1	6	1269	U	C6-N1-C2	-5.06	117.96	121.00
36	5	400	G	N1-C6-O6	-5.06	116.86	119.90
36	5	1504	A	C2-N3-C4	-5.06	108.07	110.60
36	5	1843	C	C6-N1-C1'	-5.06	114.73	120.80
36	5	1847	A	N3-C4-C5	5.06	130.34	126.80
1	2	1490	C	C2-N1-C1'	5.06	124.36	118.80
37	3	39	C	O5'-P-OP2	-5.06	101.15	105.70
38	4	116	G	C8-N9-C1'	-5.06	120.42	127.00
1	6	337	G	N7-C8-N9	5.06	115.63	113.10
36	5	927	C	C5-C4-N4	-5.06	116.66	120.20
36	5	997	A	N1-C2-N3	5.06	131.83	129.30
36	5	1547	G	C4-C5-N7	5.06	112.82	110.80
36	1	1505	C	N3-C4-C5	5.06	123.92	121.90
38	4	142	C	C6-N1-C2	-5.06	118.28	120.30
51	M5	153	ASP	CB-CG-OD1	-5.06	113.75	118.30
1	6	1754	A	C5-C6-N6	5.06	127.75	123.70
36	5	2741	C	N3-C4-N4	-5.06	114.46	118.00
1	2	354	C	C6-N1-C2	-5.05	118.28	120.30
1	2	1536	G	N3-C4-N9	5.05	129.03	126.00
36	1	1332	A	N7-C8-N9	5.05	116.33	113.80
36	1	2156	C	C5-C6-N1	-5.05	118.47	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	147	A	N9-C4-C5	-5.05	103.78	105.80
1	6	477	A	N9-C4-C5	-5.05	103.78	105.80
1	6	535	A	N1-C6-N6	5.05	121.63	118.60
25	d3	23	ARG	CG-CD-NE	5.05	122.41	111.80
1	2	586	G	N1-C2-N2	-5.05	111.65	116.20
1	6	147	A	N1-C6-N6	5.05	121.63	118.60
1	6	1726	G	OP2-P-O3'	5.05	116.32	105.20
36	5	503	C	C6-N1-C2	5.05	122.32	120.30
36	5	2383	C	N3-C2-O2	5.05	125.44	121.90
1	2	1747	G	C5-C6-N1	-5.05	108.97	111.50
36	1	62	A	O5'-P-OP1	5.05	116.76	110.70
36	1	579	G	OP2-P-O3'	5.05	116.31	105.20
36	1	1300	G	C8-N9-C4	5.05	108.42	106.40
36	1	1428	A	C8-N9-C4	-5.05	103.78	105.80
36	1	3034	C	N3-C2-O2	-5.05	118.36	121.90
36	1	3133	C	C6-N1-C2	-5.05	118.28	120.30
1	6	1746	A	O5'-P-OP1	-5.05	101.15	105.70
36	5	679	U	N1-C2-N3	5.05	117.93	114.90
36	5	715	A	C5-C6-N1	5.05	120.23	117.70
36	5	903	U	N3-C4-C5	5.05	117.63	114.60
36	5	974	G	C5-C6-N1	5.05	114.03	111.50
36	5	1370	G	N1-C2-N3	5.05	126.93	123.90
36	5	2937	G	O5'-P-OP1	-5.05	101.15	105.70
1	2	586	G	N3-C4-C5	-5.05	126.08	128.60
36	1	2169	G	OP2-P-O3'	5.05	116.31	105.20
36	1	2176	U	C5-C4-O4	5.05	128.93	125.90
36	1	2572	C	C6-N1-C2	-5.05	118.28	120.30
36	1	2799	A	C6-N1-C2	-5.05	115.57	118.60
37	3	21	G	C5-C6-O6	-5.05	125.57	128.60
1	6	381	C	N3-C2-O2	-5.05	118.36	121.90
1	6	1285	U	C6-N1-C2	-5.05	117.97	121.00
36	5	985	U	C6-N1-C2	5.05	124.03	121.00
36	5	1051	U	C2-N3-C4	-5.05	123.97	127.00
36	5	2119	A	N1-C6-N6	5.05	121.63	118.60
36	5	2684	C	C6-N1-C2	-5.05	118.28	120.30
36	5	3012	A	N7-C8-N9	-5.05	111.28	113.80
36	1	192	C	O5'-P-OP1	-5.05	101.16	105.70
36	1	1932	A	N1-C6-N6	5.05	121.63	118.60
36	1	2249	G	N9-C1'-C2'	-5.05	106.45	112.00
36	5	707	U	N3-C2-O2	-5.05	118.67	122.20
36	5	3294	A	C8-N9-C4	-5.05	103.78	105.80
1	2	396	G	N9-C1'-C2'	-5.05	106.45	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	516	A	OP2-P-O3'	5.05	116.30	105.20
36	1	650	C	OP2-P-O3'	5.05	116.30	105.20
36	1	2603	G	C5-N7-C8	-5.05	101.78	104.30
38	4	115	C	N3-C4-C5	5.05	123.92	121.90
1	6	25	C	N1-C2-O2	-5.05	115.87	118.90
36	5	984	G	C8-N9-C4	-5.05	104.38	106.40
36	5	985	U	N3-C4-O4	-5.05	115.87	119.40
36	5	2155	G	C8-N9-C4	5.05	108.42	106.40
36	5	2285	C	C6-N1-C2	-5.05	118.28	120.30
36	5	2393	G	C5-N7-C8	-5.05	101.78	104.30
36	5	3382	U	C2-N1-C1'	5.05	123.76	117.70
36	1	2975	U	N3-C4-C5	5.04	117.63	114.60
1	6	59	C	C6-N1-C2	5.04	122.32	120.30
1	2	186	C	C5-C6-N1	5.04	123.52	121.00
1	2	1611	A	C6-C5-N7	-5.04	128.77	132.30
36	1	66	A	O5'-P-OP1	-5.04	101.16	105.70
36	1	412	G	O5'-P-OP2	-5.04	101.16	105.70
1	6	477	A	C5-C6-N6	-5.04	119.67	123.70
1	6	967	A	C5-N7-C8	5.04	106.42	103.90
36	5	911	C	C5-C6-N1	-5.04	118.48	121.00
36	5	2295	A	C5-C6-N1	5.04	120.22	117.70
36	5	2586	G	O5'-P-OP2	-5.04	101.16	105.70
36	5	2884	C	OP1-P-O3'	5.04	116.29	105.20
36	5	3058	U	C6-N1-C1'	-5.04	114.14	121.20
1	2	1096	C	C2-N1-C1'	5.04	124.34	118.80
36	1	579	G	C5-C6-O6	5.04	131.62	128.60
36	1	689	U	C6-N1-C1'	-5.04	114.14	121.20
36	1	1380	G	O5'-P-OP1	5.04	116.75	110.70
36	1	1456	A	OP1-P-O3'	5.04	116.29	105.20
36	1	2112	U	OP2-P-O3'	5.04	116.29	105.20
38	4	27	U	OP1-P-OP2	-5.04	112.04	119.60
36	5	530	G	C8-N9-C1'	5.04	133.55	127.00
36	5	1496	C	O5'-P-OP2	-5.04	101.16	105.70
36	5	2887	A	O5'-P-OP1	-5.04	101.16	105.70
36	5	2946	A	C5-C6-N6	5.04	127.73	123.70
36	5	3052	G	N1-C6-O6	-5.04	116.88	119.90
36	1	885	U	C4-C5-C6	5.04	122.72	119.70
37	3	100	C	C5-C6-N1	5.04	123.52	121.00
37	7	67	G	N3-C2-N2	-5.04	116.37	119.90
1	2	345	U	N3-C2-O2	-5.04	118.67	122.20
36	1	873	C	C6-N1-C1'	5.04	126.85	120.80
36	1	952	A	C8-N9-C4	-5.04	103.78	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1053	A	C8-N9-C4	5.04	107.81	105.80
36	1	1458	U	C5-C6-N1	-5.04	120.18	122.70
1	6	1769	U	C5-C4-O4	-5.04	122.88	125.90
36	1	869	G	N3-C4-C5	-5.04	126.08	128.60
36	1	1468	A	OP1-P-OP2	5.04	127.16	119.60
36	5	1309	U	C2-N1-C1'	-5.04	111.66	117.70
36	5	2704	A	OP2-P-O3'	5.04	116.28	105.20
36	5	2745	G	O4'-C1'-N9	5.04	112.23	108.20
36	5	2887	A	N3-C4-C5	-5.04	123.27	126.80
1	2	694	U	N3-C2-O2	-5.04	118.68	122.20
36	1	1441	G	O5'-P-OP2	-5.04	101.17	105.70
36	1	1556	C	N1-C2-O2	5.04	121.92	118.90
36	1	2879	C	O5'-P-OP2	5.04	116.74	110.70
36	5	2281	A	C6-N1-C2	-5.04	115.58	118.60
36	5	2623	G	C5-C6-O6	-5.04	125.58	128.60
36	5	2757	U	N3-C2-O2	-5.04	118.67	122.20
36	5	3303	G	O5'-P-OP2	-5.04	101.17	105.70
1	2	1324	G	N9-C4-C5	5.03	107.41	105.40
36	1	1361	U	C5-C4-O4	-5.03	122.88	125.90
1	6	402	C	N3-C4-C5	5.03	123.91	121.90
36	5	1324	U	C2-N3-C4	-5.03	123.98	127.00
36	5	2389	C	C6-N1-C2	5.03	122.31	120.30
36	5	2419	A	C8-N9-C4	-5.03	103.79	105.80
36	5	2716	U	N1-C2-N3	5.03	117.92	114.90
37	7	78	U	O5'-P-OP2	-5.03	101.17	105.70
1	2	1456	C	N1-C2-O2	5.03	121.92	118.90
36	1	2192	C	C5-C6-N1	-5.03	118.48	121.00
36	1	2773	C	C5-C4-N4	-5.03	116.68	120.20
1	6	416	A	C4-C5-N7	5.03	113.22	110.70
36	5	1110	U	N3-C4-C5	5.03	117.62	114.60
36	5	1168	U	N3-C4-C5	5.03	117.62	114.60
36	1	1316	C	C2-N3-C4	-5.03	117.39	119.90
36	1	2412	G	N7-C8-N9	5.03	115.61	113.10
37	3	81	U	C5-C6-N1	-5.03	120.19	122.70
36	5	617	G	C4-C5-N7	5.03	112.81	110.80
36	5	1199	C	N3-C4-C5	-5.03	119.89	121.90
36	5	1440	G	N1-C6-O6	-5.03	116.88	119.90
36	5	2996	U	C6-N1-C2	5.03	124.02	121.00
38	8	90	U	C6-N1-C2	5.03	124.02	121.00
36	1	1682	U	N3-C2-O2	5.03	125.72	122.20
36	1	2665	U	C2-N1-C1'	5.03	123.73	117.70
1	6	1781	A	C5-C6-N1	-5.03	115.19	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	16	G	N3-C4-C5	-5.03	126.09	128.60
1	2	609	U	C5-C4-O4	-5.03	122.88	125.90
25	D3	7	ARG	NE-CZ-NH1	5.03	122.81	120.30
36	1	1146	C	O5'-P-OP2	-5.03	101.17	105.70
36	1	1383	G	OP2-P-O3'	5.03	116.26	105.20
36	1	1889	G	C8-N9-C4	5.03	108.41	106.40
1	6	1602	C	N1-C2-O2	5.03	121.92	118.90
36	5	2406	C	C2-N1-C1'	-5.03	113.27	118.80
36	5	2763	U	C5-C4-O4	-5.03	122.88	125.90
36	5	3052	G	C4-N9-C1'	-5.03	119.96	126.50
1	2	402	C	N3-C2-O2	5.03	125.42	121.90
36	1	218	G	C4-C5-N7	-5.03	108.79	110.80
36	1	1318	A	C5-N7-C8	-5.03	101.39	103.90
36	1	1556	C	C6-N1-C1'	-5.03	114.77	120.80
36	1	1646	G	O4'-C1'-N9	5.03	112.22	108.20
36	1	2714	G	C4-C5-C6	-5.03	115.78	118.80
36	5	1157	G	C5-C6-O6	5.03	131.62	128.60
36	5	1379	G	N1-C2-N2	-5.03	111.68	116.20
36	5	2928	C	C4-C5-C6	5.03	119.91	117.40
36	5	2978	U	O4'-C1'-N1	5.03	112.22	108.20
36	1	664	U	C5-C4-O4	-5.02	122.89	125.90
1	6	1032	G	C5-C6-O6	-5.02	125.59	128.60
36	5	1662	G	C5-C6-N1	-5.02	108.99	111.50
36	1	212	G	C8-N9-C1'	-5.02	120.47	127.00
36	1	953	G	C8-N9-C1'	5.02	133.53	127.00
36	1	1114	U	N1-C2-N3	-5.02	111.89	114.90
36	1	2363	A	C6-C5-N7	5.02	135.82	132.30
36	1	3015	G	N1-C6-O6	5.02	122.91	119.90
1	6	365	G	N3-C4-C5	-5.02	126.09	128.60
1	6	518	A	N1-C6-N6	-5.02	115.59	118.60
36	5	3285	C	N1-C2-O2	5.02	121.91	118.90
36	1	410	U	OP1-P-OP2	-5.02	112.07	119.60
36	1	663	C	C5-C4-N4	-5.02	116.69	120.20
36	1	2786	G	N3-C4-C5	-5.02	126.09	128.60
1	6	1382	A	N1-C6-N6	5.02	121.61	118.60
36	5	2333	C	C5-C4-N4	-5.02	116.69	120.20
36	1	908	G	C4-N9-C1'	5.02	133.03	126.50
36	1	1920	U	C4-C5-C6	5.02	122.71	119.70
36	1	2306	C	N1-C2-O2	5.02	121.91	118.90
36	1	2831	G	C6-C5-N7	-5.02	127.39	130.40
38	4	72	A	OP2-P-O3'	5.02	116.24	105.20
1	6	805	U	N1-C2-N3	5.02	117.91	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1604	G	N3-C4-C5	-5.02	126.09	128.60
36	5	2136	C	OP2-P-O3'	5.02	116.24	105.20
37	7	102	A	C2-N3-C4	-5.02	108.09	110.60
38	8	92	A	N1-C6-N6	5.02	121.61	118.60
36	1	1180	A	C5-C6-N6	5.02	127.71	123.70
1	6	1327	C	N3-C2-O2	-5.02	118.39	121.90
36	5	215	G	N1-C2-N3	5.02	126.91	123.90
36	5	805	G	N9-C4-C5	-5.02	103.39	105.40
36	5	1669	C	C4-C5-C6	-5.02	114.89	117.40
36	5	1844	C	C6-N1-C2	-5.02	118.29	120.30
36	5	2607	G	C8-N9-C4	-5.02	104.39	106.40
36	5	3036	G	N1-C2-N3	5.02	126.91	123.90
1	2	1043	A	O5'-P-OP2	-5.01	101.19	105.70
36	1	233	C	C6-N1-C2	5.01	122.31	120.30
36	1	718	G	C2-N3-C4	-5.01	109.39	111.90
36	1	1294	A	N9-C4-C5	5.01	107.81	105.80
36	1	2829	U	C5-C6-N1	-5.01	120.19	122.70
36	1	3269	U	C5-C4-O4	5.01	128.91	125.90
36	5	1101	G	N3-C4-N9	5.01	129.01	126.00
36	5	2176	U	N1-C2-N3	5.01	117.91	114.90
36	5	2400	G	C6-C5-N7	-5.01	127.39	130.40
36	5	2797	C	C2-N3-C4	-5.01	117.39	119.90
36	5	2852	C	O5'-P-OP1	5.01	116.72	110.70
37	7	105	C	OP2-P-O3'	5.01	116.23	105.20
52	m6	125	ARG	NE-CZ-NH1	-5.01	117.79	120.30
1	2	1420	C	N3-C4-N4	5.01	121.51	118.00
36	1	352	A	C5-N7-C8	-5.01	101.39	103.90
36	1	1496	C	C2-N1-C1'	5.01	124.31	118.80
1	6	257	A	N1-C6-N6	5.01	121.61	118.60
36	1	534	U	O5'-P-OP2	-5.01	101.19	105.70
36	1	916	G	C5-C6-O6	5.01	131.61	128.60
36	1	2305	G	N1-C6-O6	5.01	122.91	119.90
36	1	3197	G	N1-C6-O6	5.01	122.91	119.90
51	M5	162	ARG	NE-CZ-NH1	5.01	122.81	120.30
1	6	371	G	C6-C5-N7	-5.01	127.39	130.40
1	6	414	C	N3-C2-O2	-5.01	118.39	121.90
36	5	2813	A	N9-C4-C5	5.01	107.81	105.80
3	S1	70	LEU	CA-CB-CG	5.01	126.82	115.30
36	1	196	G	N9-C4-C5	-5.01	103.40	105.40
36	1	506	U	C5-C6-N1	-5.01	120.19	122.70
36	1	1142	G	C6-N1-C2	-5.01	122.09	125.10
36	1	2620	G	OP1-P-O3'	5.01	116.22	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	33	U	N1-C2-O2	5.01	126.31	122.80
1	6	1549	C	C4-C5-C6	5.01	119.91	117.40
1	6	1675	C	N3-C4-N4	5.01	121.51	118.00
36	5	785	G	C2-N3-C4	5.01	114.41	111.90
36	5	2841	G	OP1-P-OP2	5.01	127.12	119.60
36	5	2889	C	C5-C6-N1	-5.01	118.50	121.00
36	5	2949	U	C6-N1-C2	-5.01	117.99	121.00
36	1	735	A	C8-N9-C4	5.01	107.80	105.80
36	1	1094	U	N1-C2-O2	5.01	126.31	122.80
36	1	1129	A	C6-C5-N7	-5.01	128.79	132.30
36	5	901	G	N3-C4-C5	-5.01	126.10	128.60
1	2	499	U	P-O3'-C3'	5.01	125.71	119.70
1	2	1761	U	N1-C2-N3	5.01	117.90	114.90
36	1	806	A	C5-C6-N6	-5.01	119.69	123.70
36	1	3302	U	N3-C4-C5	5.01	117.60	114.60
38	4	65	A	C2-N3-C4	-5.01	108.10	110.60
36	5	2694	A	O5'-P-OP2	-5.01	101.19	105.70
41	L4	190	GLY	N-CA-C	5.00	125.61	113.10
1	6	6	G	C4-C5-C6	5.00	121.80	118.80
1	6	364	G	C5-C6-N1	5.00	114.00	111.50
36	5	218	G	N1-C6-O6	-5.00	116.90	119.90
36	5	340	C	N3-C4-C5	5.00	123.90	121.90
36	5	875	G	N3-C4-C5	-5.00	126.10	128.60
1	2	107	C	N3-C4-N4	-5.00	114.50	118.00
36	1	660	A	N1-C2-N3	-5.00	126.80	129.30
36	1	802	C	C6-N1-C2	-5.00	118.30	120.30
36	1	807	A	C2-N3-C4	-5.00	108.10	110.60
36	1	1716	U	N1-C2-O2	5.00	126.30	122.80
36	1	1878	G	O5'-P-OP1	-5.00	101.20	105.70
36	1	2354	C	C4-C5-C6	5.00	119.90	117.40
36	1	2953	U	C4-C5-C6	5.00	122.70	119.70
36	1	3006	A	C4-C5-N7	5.00	113.20	110.70
38	4	74	U	O5'-P-OP1	-5.00	101.20	105.70
1	6	1291	G	C8-N9-C4	-5.00	104.40	106.40
1	6	1572	G	C4-N9-C1'	5.00	133.00	126.50
36	5	2399	A	C5-C6-N6	-5.00	119.70	123.70
36	5	2617	U	N3-C4-C5	-5.00	111.60	114.60
1	2	1305	U	C5-C4-O4	5.00	128.90	125.90
1	2	1600	A	P-O3'-C3'	5.00	125.70	119.70
36	1	766	U	O5'-P-OP1	-5.00	101.20	105.70
36	1	1116	G	OP2-P-O3'	5.00	116.20	105.20
36	1	1528	G	O5'-P-OP1	-5.00	101.20	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2627	C	C2-N3-C4	-5.00	117.40	119.90
36	5	58	G	N1-C6-O6	5.00	122.90	119.90
36	5	1226	G	C8-N9-C4	5.00	108.40	106.40
36	5	1929	G	OP1-P-OP2	-5.00	112.10	119.60
36	5	2315	G	C8-N9-C4	5.00	108.40	106.40
36	5	2324	A	C5-C6-N6	-5.00	119.70	123.70
36	5	2330	C	C5-C6-N1	-5.00	118.50	121.00

There are no chirality outliers.

All (43) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	124	ASP	Peptide
19	C7	22	PRO	Peptide
19	C7	85	VAL	Peptide
27	D5	94	LYS	Peptide
28	D6	34	LYS	Peptide
28	D6	97	PRO	Peptide
33	E1	137	ASP	Peptide
39	L2	19	HIS	Peptide
40	L3	346	THR	Peptide
41	L4	190	GLY	Peptide
45	L8	124	ASP	Peptide
45	L8	74	THR	Peptide
49	M3	135	ALA	Peptide
50	M4	112	LEU	Peptide
52	M6	110	PRO	Peptide
52	M6	111	PRO	Peptide
64	N8	30	GLY	Peptide
65	N9	20	GLY	Peptide
67	O1	5	LYS	Peptide
9	S7	131	PHE	Peptide
16	c4	124	ASP	Peptide
17	c5	52	LYS	Peptide
18	c6	41	PRO	Peptide
22	d0	70	THR	Peptide
26	d4	29	HIS	Peptide
81	e1	146	SER	Peptide
39	l2	143	GLU	Peptide
43	l6	51	ARG	Peptide
44	l7	157	ASN	Peptide
44	l7	192	GLY	Peptide

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Mol	Chain	Res	Type	Group
44	l7	226	GLY	Peptide
48	m1	153	LYS	Peptide
52	m6	110	PRO	Peptide
53	m7	66	SER	Peptide
59	n3	41	GLY	Peptide
60	n4	78	ALA	Peptide
64	n8	66	ALA	Peptide
65	n9	19	ASN	Peptide
75	o9	50	ASN	Peptide
79	q3	41	PHE	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
9	s7	130	VAL	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	18757	844	0
1	6	38238	0	19240	808	0
2	S0	1577	0	1567	156	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	163	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	131	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	110	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	163	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	159	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	139	0
8	s6	1755	0	1845	0	0
9	S7	1481	0	1572	114	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	113	0
10	s8	1489	0	1525	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	S9	1494	0	1573	128	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	50	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	79	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	58	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	92	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	101	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	89	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	99	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	74	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	119	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	83	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	86	0
22	d0	882	0	939	0	0
23	D1	684	0	672	57	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	78	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	82	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	84	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	48	0
27	d5	558	0	598	0	0
28	D6	769	0	814	99	0
28	d6	769	0	814	0	0
29	D7	610	0	631	34	0
29	d7	610	0	632	0	0
30	D8	497	0	535	45	0
30	d8	497	0	535	0	0
31	D9	442	0	428	31	0
31	d9	442	0	428	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	E0	475	0	525	39	0
33	E1	566	0	602	56	0
34	SR	2441	0	2397	178	0
34	sR	2442	0	2392	0	1
35	SM	1104	0	996	88	0
35	sM	680	0	607	0	0
36	1	67355	0	33846	1138	1
36	5	67376	0	33854	1158	0
37	3	2579	0	1304	49	0
37	7	2579	0	1303	45	0
38	4	3353	0	1695	64	0
38	8	3353	0	1695	67	0
39	L2	1914	0	1981	137	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	232	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	201	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	191	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	72	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	112	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1875	143	0
45	l8	1763	0	1817	0	0
46	L9	1518	0	1587	100	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1736	128	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	91	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	118	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	73	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	135	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	98	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	102	0
53	m7	1227	0	1236	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	M8	1441	0	1543	104	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	108	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	84	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	100	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	27	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	67	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	28	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	63	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	76	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	77	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	96	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	34	0
65	n9	462	0	491	0	0
66	O0	743	0	797	55	0
66	o0	767	0	816	0	0
67	O1	876	0	912	56	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	67	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	51	0
69	o3	850	0	880	0	0
70	O4	880	0	945	56	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	75	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	59	0
72	o6	770	0	846	0	0
73	O7	681	0	683	42	0
73	o7	681	0	683	0	0
74	O8	612	0	682	40	0
74	o8	608	0	671	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
75	O9	436	0	475	44	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	18	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	28	0
77	q1	233	0	284	0	0
78	Q2	847	0	916	57	0
78	q2	847	0	915	0	0
79	Q3	694	0	734	54	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	e1	608	0	655	0	0
82	m2	750	0	175	0	0
83	p0	1077	0	1041	0	0
84	p1	235	0	51	0	0
85	p2	230	0	54	0	0
86	1	474	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	507	0	0	0	0
86	6	145	0	0	0	0
86	7	15	0	0	0	0
86	8	12	0	0	0	0
86	D3	1	0	0	0	0
86	L2	1	0	0	0	0
86	L3	2	0	0	0	0
86	L4	1	0	0	0	0
86	L5	1	0	0	0	0
86	L7	2	0	0	0	0
86	L8	1	0	0	0	0
86	M0	2	0	0	0	0
86	M1	1	0	0	0	0
86	M3	3	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	3	0	0	0	0
86	N5	1	0	0	0	0
86	N6	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	N8	4	0	0	0	0
86	O1	1	0	0	0	0
86	O4	1	0	0	0	0
86	O7	2	0	0	0	0
86	Q2	1	0	0	0	0
86	S2	2	0	0	0	0
86	S8	1	0	0	0	0
86	SM	1	0	0	0	0
86	c1	2	0	0	0	0
86	c7	2	0	0	0	0
86	c8	1	0	0	0	0
86	c9	1	0	0	0	0
86	d3	2	0	0	0	0
86	d4	1	0	0	0	0
86	d6	1	0	0	0	0
86	l2	2	0	0	0	0
86	l3	2	0	0	0	0
86	l4	1	0	0	0	0
86	l5	3	0	0	0	0
86	l7	1	0	0	0	0
86	m1	1	0	0	0	0
86	m5	4	0	0	0	0
86	m6	1	0	0	0	0
86	m7	5	0	0	0	0
86	n0	2	0	0	0	0
86	n3	2	0	0	0	0
86	n6	2	0	0	0	0
86	n8	4	0	0	0	0
86	n9	1	0	0	0	0
86	o1	2	0	0	0	0
86	o3	1	0	0	0	0
86	o4	1	0	0	0	0
86	q0	1	0	0	0	0
86	q1	1	0	0	0	0
86	q3	1	0	0	0	0
86	s1	1	0	0	0	0
86	s8	2	0	0	0	0
86	sM	2	0	0	0	0
87	1	2450	0	0	243	0
87	2	1113	0	0	125	0
87	3	84	0	0	4	0
87	4	105	0	0	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	5	2499	0	0	244	0
87	6	1120	0	0	107	0
87	7	77	0	0	9	0
87	8	98	0	0	21	0
87	C3	7	0	0	0	0
87	C5	7	0	0	3	0
87	C8	7	0	0	0	0
87	D9	7	0	0	0	0
87	L3	14	0	0	1	0
87	L4	7	0	0	4	0
87	M0	7	0	0	0	0
87	M5	7	0	0	1	0
87	M6	7	0	0	0	0
87	M7	14	0	0	2	0
87	M8	7	0	0	0	0
87	M9	7	0	0	1	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	7	0	0	6	0
87	Q2	7	0	0	1	0
87	S8	7	0	0	0	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	21	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	m6	7	0	0	0	0
87	m7	7	0	0	0	0
87	m8	7	0	0	0	0
87	n3	7	0	0	0	0
87	n9	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	o2	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	q2	7	0	0	0	0
87	s1	14	0	0	0	0
87	s4	7	0	0	0	0
87	s8	7	0	0	0	0
87	sR	7	0	0	0	0
88	D6	1	0	0	0	0
88	D7	1	0	0	0	0
88	D9	1	0	0	0	0
88	E1	1	0	0	0	0
88	O7	1	0	0	0	0
88	Q0	1	0	0	0	0
88	Q2	1	0	0	2	0
88	Q3	1	0	0	0	0
88	d6	1	0	0	0	0
88	d7	1	0	0	0	0
88	d9	1	0	0	0	0
88	e1	1	0	0	0	0
88	o7	1	0	0	0	0
88	q0	1	0	0	0	0
88	q2	1	0	0	0	0
88	q3	1	0	0	0	0
89	1	19	0	19	0	0
89	5	19	0	19	0	0
All	All	411204	0	297319	9494	1

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 14.

All (9494) 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)
78:Q2:17:CYS:CB	78:Q2:17:CYS:SG	2.06	1.44
78:Q2:17:CYS:CB	88:Q2:501:ZN:ZN	1.06	1.30
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.09	1.21
78:Q2:17:CYS:SG	88:Q2:501:ZN:ZN	1.35	1.16
36:5:2273:G:O6	87:5:4206:OHX:N5	1.88	1.06
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.29	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:296:THR:HG22	40:L3:298:PHE:H	4.56	1.04
36:1:1639:C:OP2	70:O4:74:ARG:NH2	1.91	1.04
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.22	1.02
1:2:142:G:H22	1:2:173:A:H2	1.07	1.00
51:M5:188:ARG:NH2	36:5:31:C:OP2	122.01	0.99
36:5:3274:A:H3'	36:5:3275:U:H5''	1.41	0.99
70:O4:74:ARG:NH2	36:5:1639:C:OP2	201.02	0.98
1:2:1339:C:O2'	1:2:1341:A:N7	1.95	0.98
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.47	0.97
36:1:3182:G:OP1	52:M6:160:ARG:NH2	1.99	0.96
1:6:1588:G:H1	1:6:1608:U:H3	1.14	0.95
1:6:1011:G:OP2	87:6:2118:OHX:N3	1.98	0.95
1:6:755:A:HO2'	1:6:756:A:H8	1.07	0.95
36:5:2836:C:H5	36:5:2852:C:H42	1.07	0.94
51:M5:110:ALA:HB1	51:M5:113:LEU:HD23	1.50	0.94
36:1:1898:G:OP2	87:1:3935:OHX:N4	2.01	0.93
42:L5:270:LYS:HG3	42:L5:273:ARG:HB2	4.29	0.93
10:S8:8:ARG:HH21	10:S8:22:ARG:HH11	8.03	0.93
65:N9:50:THR:HG22	36:5:1073:U:H1'	205.64	0.93
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	1.52	0.92
64:N8:21:ARG:NH2	36:5:640:U:OP1	182.48	0.92
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.02	0.92
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	2.17	0.92
1:2:1291:G:H22	1:2:1324:G:H22	1.17	0.92
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.78	0.91
47:M0:3:ARG:NH2	36:5:2854:U:OP2	291.18	0.91
46:L9:22:SER:OG	46:L9:23:ARG:N	2.04	0.90
34:SR:102:ARG:NH2	1:6:1341:A:O2'	458.28	0.89
11:S9:126:ARG:NH1	1:6:475:A:OP2	424.83	0.89
64:N8:27:LYS:NZ	36:5:801:A:OP1	154.60	0.89
73:O7:87:SER:O	87:O7:104:OHX:N3	2.05	0.89
36:5:1565:G:N1	36:5:1574:C:N3	2.21	0.89
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	2.24	0.89
1:2:320:U:H3'	1:2:321:C:H5''	1.53	0.89
36:1:1233:G:H22	36:1:1255:C:H42	1.15	0.88
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.53	0.88
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.06	0.88
41:L4:197:ARG:NH1	36:5:1381:A:OP1	109.44	0.88
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.09	0.88
42:L5:22:ARG:NH2	42:L5:28:THR:OG1	2.08	0.87
50:M4:128:ARG:NH2	36:5:3214:U:OP2	281.35	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:14:ARG:HH22	65:N9:18:ARG:HH11	2.31	0.87
1:2:1291:G:H5'	4:S2:119:LYS:HE3	1.53	0.87
36:1:2206:G:H1	36:1:2237:C:H42	1.21	0.87
36:5:2818:U:H6	36:5:2818:U:H5'	1.40	0.87
48:M1:94:ARG:O	48:M1:96:PHE:N	2.07	0.87
36:5:437:G:H22	36:5:622:A:H61	1.20	0.87
40:L3:139:GLN:O	40:L3:141:GLY:N	2.08	0.87
4:S2:58:LEU:HD11	4:S2:236:PRO:HG2	2.54	0.87
1:6:301:A:OP2	87:6:2090:OHX:N1	2.07	0.86
79:Q3:73:THR:HG22	79:Q3:76:ALA:H	1.40	0.86
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.08	0.86
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.08	0.86
42:L5:152:ARG:HG3	42:L5:152:ARG:HH11	1.84	0.86
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.38	0.86
41:L4:329:PRO:O	41:L4:331:ALA:N	3.33	0.86
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.57	0.86
36:1:2208:A:N1	87:1:4047:OHX:N2	2.24	0.86
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.07	0.86
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.56	0.86
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	4.68	0.86
36:1:3344:A:H2	36:1:3361:G:H21	1.17	0.86
72:O6:28:TYR:O	87:5:4197:OHX:N2	104.26	0.86
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.39	0.86
36:1:837:A:OP1	79:Q3:5:THR:OG1	1.93	0.86
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.63	0.85
1:2:1202:A:OP1	87:2:2111:OHX:N1	2.08	0.85
1:2:569:C:H41	25:D3:69:ARG:HH12	1.21	0.85
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.39	0.85
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.77	0.85
18:C6:114:ARG:H	18:C6:116:LEU:HD13	1.41	0.85
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	1.59	0.85
39:L2:209:HIS:HD2	39:L2:211:HIS:H	1.22	0.85
3:S1:119:THR:HB	3:S1:143:THR:HG23	1.58	0.85
1:2:1010:C:OP2	87:2:2132:OHX:N6	2.09	0.85
1:6:647:G:H1	1:6:687:G:H22	1.24	0.85
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.42	0.85
1:2:1550:A:OP2	17:C5:42:ARG:NH2	2.09	0.85
1:2:1291:G:N2	1:2:1324:G:H22	1.75	0.85
50:M4:132:LYS:HD3	36:5:3230:G:H4'	287.86	0.85
18:C6:82:ARG:HH22	18:C6:114:ARG:HB2	1.41	0.84
55:M9:101:VAL:O	55:M9:104:ARG:NH1	2.09	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:13:A:OP2	87:1:4208:OHX:N5	2.10	0.84
37:3:49:G:N7	42:L5:58:LYS:HG3	1.92	0.84
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.71	0.84
36:1:2940:A:N7	40:L3:2:SER:N	2.26	0.84
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.10	0.84
50:M4:113:THR:HG22	50:M4:116:GLU:H	1.44	0.84
36:5:2258:U:OP2	87:5:3953:OHX:N4	2.11	0.84
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.59	0.84
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.59	0.84
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.00	0.84
1:6:822:U:H2'	1:6:823:G:H5''	1.60	0.84
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.43	0.83
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.52	0.83
36:5:343:U:OP2	87:5:3929:OHX:N3	2.11	0.83
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	2.14	0.83
1:2:1034:C:HO2'	24:D2:2:THR:N	1.77	0.83
25:D3:64:PRO:O	87:6:2157:OHX:N2	361.46	0.83
1:6:1665:U:O4	87:6:2121:OHX:N6	2.11	0.83
67:O1:46:THR:OG1	67:O1:47:ASP:N	3.54	0.83
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	3.94	0.83
13:C1:88:ARG:HB3	13:C1:88:ARG:HH11	1.43	0.83
34:SR:113:VAL:HG13	34:SR:114:ASP:H	1.44	0.83
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.82	0.83
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.43	0.83
1:6:1385:G:N7	87:6:2119:OHX:N6	2.26	0.83
47:M0:175:ASN:OD1	47:M0:176:LEU:N	5.01	0.83
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.12	0.83
1:6:1696:G:O2'	1:6:1698:G:N7	2.12	0.82
77:Q1:6:ARG:NH2	1:6:1112:G:OP1	316.17	0.82
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.11	0.82
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.60	0.82
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.38	0.82
1:2:9:U:O4	87:2:2156:OHX:N6	2.12	0.82
70:O4:3:GLN:HB3	70:O4:30:LEU:HD12	1.61	0.82
36:5:3194:C:O2	36:5:3197:G:N2	2.13	0.82
36:1:2310:U:OP1	87:1:4143:OHX:N2	2.12	0.82
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.59	0.82
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.35	0.82
52:M6:110:PRO:O	52:M6:112:TYR:N	3.25	0.82
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.62	0.82
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:991:G:OP2	87:6:2169:OHX:N2	2.12	0.82
78:Q2:41:ARG:NH1	36:5:284:A:OP2	157.34	0.82
36:1:1171:G:O6	87:1:3961:OHX:N2	2.13	0.82
44:L7:110:ARG:NH2	36:5:1364:C:OP1	223.33	0.82
44:L7:217:PRO:O	87:5:4007:OHX:N3	259.70	0.81
1:2:895:G:H1	1:2:917:U:H3	1.27	0.81
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.62	0.81
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	1.87	0.81
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.74	0.81
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.12	0.81
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.60	0.81
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.12	0.81
47:M0:99:ILE:HG13	47:M0:123:HIS:HB2	4.85	0.81
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.14	0.81
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.63	0.81
1:2:1073:G:H2'	1:2:1074:G:H5''	1.61	0.81
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.13	0.81
74:O8:46:ARG:NH2	36:5:1613:A:OP2	131.71	0.81
1:2:93:A:H1'	6:S4:3:ARG:HB3	1.61	0.81
36:1:2818:U:H6	36:1:2818:U:H5'	1.46	0.81
36:1:3134:A:OP1	87:1:3905:OHX:N4	2.14	0.81
66:O0:63:SER:HG	66:O0:65:THR:HG1	1.27	0.81
1:2:301:A:OP2	87:2:2064:OHX:N2	2.14	0.81
39:L2:116:VAL:HG13	39:L2:126:LEU:HB2	1.63	0.81
57:N1:127:GLN:HG3	36:5:1095:U:H3	263.26	0.81
49:M3:73:ARG:NH1	36:5:110:G:OP2	75.75	0.81
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.26	0.81
53:M7:138:LYS:HG3	53:M7:140:GLU:HG3	3.10	0.81
77:Q1:9:ARG:HG3	77:Q1:9:ARG:HH11	2.69	0.80
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.79	0.80
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.63	0.80
79:Q3:73:THR:HB	79:Q3:76:ALA:H	3.61	0.80
36:1:300:G:O6	87:1:4155:OHX:N1	2.14	0.80
67:O1:10:ARG:HH12	67:O1:44:MET:HG2	5.77	0.80
62:N6:38:GLU:HG2	62:N6:39:LEU:HD23	1.64	0.80
1:2:190:C:N4	1:2:196:G:O6	2.13	0.80
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.14	0.80
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.14	0.80
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.14	0.80
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.69	0.80
17:C5:43:ARG:NH2	1:6:1552:U:OP2	404.34	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:230:C:N3	1:6:235:G:N2	2.30	0.80
57:N1:139:ARG:HG2	57:N1:139:ARG:HH21	4.43	0.80
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.64	0.80
36:1:917:A:OP2	87:1:4148:OHX:N2	2.14	0.80
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.45	0.80
1:2:583:C:OP1	87:2:2026:OHX:N3	2.13	0.80
16:C4:50:ALA:O	16:C4:52:ARG:N	2.32	0.80
41:L4:217:LYS:HD3	41:L4:220:ARG:HH21	1.45	0.80
7:S5:185:ARG:NH1	1:6:1471:A:OP1	334.25	0.80
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.89	0.79
10:S8:50:GLY:HA2	1:6:397:A:O3'	315.66	0.79
1:2:1595:U:H3	1:2:1600:A:H2	1.30	0.79
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.64	0.79
1:2:1585:U:H3	1:2:1611:A:H2	1.27	0.79
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.13	0.79
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.94	0.79
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.85	0.79
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.67	0.79
39:L2:206:PRO:HG3	39:L2:213:GLY:HA2	3.80	0.79
9:S7:131:PHE:O	9:S7:133:THR:N	2.16	0.79
36:1:2255:A:H5'	36:1:2261:G:H22	1.47	0.79
1:2:732:G:O6	87:2:2130:OHX:N5	2.15	0.79
39:L2:193:ARG:NH2	36:5:2181:C:OP1	198.11	0.79
36:5:2439:A:H61	36:5:2508:U:H3	1.30	0.79
53:M7:25:SER:O	53:M7:29:THR:HG23	1.88	0.79
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.80	0.79
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.15	0.79
1:6:25:C:O2	87:6:2105:OHX:N5	2.14	0.79
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.13	0.79
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.16	0.79
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.63	0.79
36:1:2356:A:H61	36:1:2983:C:H5	1.27	0.79
41:L4:152:VAL:HG23	41:L4:172:VAL:HG21	1.65	0.79
62:N6:71:SER:HB3	62:N6:83:ASP:HB2	1.65	0.79
8:S6:70:PRO:O	8:S6:98:ARG:NH1	2.15	0.79
73:O7:43:LYS:NZ	36:5:55:G:OP1	115.25	0.79
36:5:2537:U:O2'	36:5:2538:U:O4'	2.01	0.78
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.61	0.78
65:N9:14:ARG:NH2	65:N9:18:ARG:HH11	2.85	0.78
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.65	0.78
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	1.97	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.16	0.78
52:M6:181:ALA:O	52:M6:183:ALA:N	2.16	0.78
3:S1:157:GLN:O	3:S1:159:SER:N	2.15	0.78
6:S4:181:VAL:HG11	6:S4:225:VAL:HG13	2.26	0.78
36:1:2120:A:OP2	87:1:4012:OHX:N2	2.16	0.78
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	2.94	0.78
1:2:471:A:OP2	87:2:2076:OHX:N4	2.16	0.78
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.48	0.78
10:S8:89:GLU:OE1	10:S8:92:ARG:NH2	2.15	0.78
1:6:471:A:OP2	87:6:2100:OHX:N5	2.16	0.78
8:S6:163:THR:HA	8:S6:168:THR:HG22	3.21	0.78
1:2:1588:G:H1	1:2:1608:U:H3	1.28	0.78
45:L8:130:TYR:HD1	45:L8:202:GLU:HB3	1.48	0.78
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.47	0.78
19:C7:5:ARG:NH1	1:6:1402:G:OP2	409.57	0.78
40:L3:37:ARG:HG2	40:L3:187:SER:H	1.48	0.78
36:1:1196:C:O2	87:3:218:OHX:N2	2.17	0.78
36:1:1222:G:O2'	36:1:1285:G:N1	2.13	0.78
36:5:2255:A:H5'	36:5:2261:G:H22	1.47	0.78
1:6:990:C:OP2	87:6:2118:OHX:N2	2.17	0.78
35:SM:31:SER:OG	36:5:2667:A:OP1	289.19	0.78
50:M4:19:ARG:HA	50:M4:69:THR:HG22	3.15	0.78
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.65	0.77
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG2	1.66	0.77
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.17	0.77
36:5:2211:U:H5	36:5:2234:G:O6	1.66	0.77
36:1:1581:C:H2'	36:1:1582:C:H5''	1.64	0.77
1:6:895:G:H1	1:6:917:U:H3	1.32	0.77
62:N6:52:ARG:O	62:N6:54:ASP:N	2.18	0.77
16:C4:111:ARG:NH1	28:D6:57:SER:O	4.80	0.77
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.17	0.77
36:1:1740:U:H1'	36:1:1741:A:H2	1.48	0.77
36:1:1565:G:N2	36:1:1574:C:O2	2.18	0.77
55:M9:148:ASP:OD2	55:M9:151:ARG:NH2	2.16	0.77
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	2.87	0.77
1:2:7:G:O6	4:S2:205:ARG:NH2	2.18	0.77
7:S5:57:SER:O	7:S5:59:VAL:N	2.17	0.77
73:O7:88:ALA:O	87:O7:104:OHX:N1	2.17	0.77
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	4.00	0.77
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.20	0.77
36:1:807:A:H61	36:1:934:G:H22	1.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:565:C:O2	87:2:2039:OHX:N5	2.17	0.77
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.59	0.77
18:C6:58:ASP:O	18:C6:60:PHE:N	2.16	0.77
36:1:368:G:OP1	87:1:3887:OHX:N1	2.17	0.77
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.65	0.77
1:2:1203:A:OP2	87:2:2111:OHX:N5	2.17	0.77
45:L8:129:PRO:HB3	36:5:121:A:C2	102.09	0.77
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.67	0.77
36:5:2975:U:OP1	87:5:4095:OHX:N3	2.16	0.77
36:1:3166:C:H42	36:1:3284:G:H1	1.32	0.77
60:N4:4:GLU:HG2	60:N4:30:ARG:HD2	1.64	0.77
42:L5:269:SER:OG	37:7:1:G:N3	316.58	0.77
36:1:1556:C:H2'	36:1:2169:G:H1	1.50	0.77
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.22	0.77
1:6:1041:G:OP1	87:6:2173:OHX:N4	2.18	0.77
38:8:16:G:O6	87:8:213:OHX:N6	2.18	0.77
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	2.25	0.77
1:6:759:U:OP1	87:6:2176:OHX:N2	2.17	0.77
20:C8:13:HIS:CD2	20:C8:13:HIS:H	2.73	0.77
1:2:1291:G:H22	1:2:1324:G:N2	1.83	0.76
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.65	0.76
36:1:1556:C:H2'	36:1:2169:G:N1	2.00	0.76
36:1:3346:U:H3	36:1:3359:A:H61	1.30	0.76
6:S4:108:ARG:NH2	1:6:789:A:OP1	391.98	0.76
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.17	0.76
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.17	0.76
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.62	0.76
1:6:1685:G:H1	1:6:1716:C:H42	1.32	0.76
47:M0:77:THR:HG22	47:M0:82:ARG:HA	2.67	0.76
1:2:1542:G:N2	1:2:1569:A:OP2	2.18	0.76
47:M0:171:TRP:O	47:M0:174:THR:HB	1.84	0.76
1:2:1508:U:O4	87:2:2031:OHX:N5	2.18	0.76
5:S3:175:VAL:HG13	5:S3:182:LEU:HD13	1.67	0.76
19:C7:8:THR:HG21	1:6:1330:G:H21	419.76	0.76
30:D8:32:PHE:O	30:D8:34:GLU:N	4.06	0.76
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	3.41	0.76
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.70	0.76
36:5:1734:G:O6	87:5:3974:OHX:N5	2.18	0.76
36:1:1951:C:H42	36:1:2095:G:H1	1.34	0.76
4:S2:243:TYR:HB3	4:S2:246:GLU:HG3	1.67	0.76
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3358:U:H2'	36:1:3359:A:O4'	1.86	0.76
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.11	0.76
38:4:62:C:O2	87:4:230:OHX:N5	2.18	0.76
1:2:820:U:H2'	1:2:821:U:H4'	1.66	0.76
36:1:562:C:H2'	36:1:563:U:C6	2.21	0.76
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.67	0.76
36:5:1235:U:H4'	36:5:1236:G:H5'	1.66	0.76
36:1:2836:C:H5	36:1:2852:C:H42	1.33	0.76
36:5:863:C:OP1	87:5:3921:OHX:N3	2.19	0.76
41:L4:143:GLU:O	87:L4:402:OHX:N2	2.19	0.76
39:L2:209:HIS:CD2	39:L2:211:HIS:H	2.03	0.76
45:L8:81:THR:OG1	45:L8:82:LEU:N	2.86	0.76
36:1:658:G:OP1	87:1:4049:OHX:N4	2.19	0.76
1:6:75:U:O2'	1:6:76:A:O4'	2.04	0.76
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.86	0.75
16:C4:11:SER:OG	16:C4:12:GLN:N	4.61	0.75
1:6:176:C:OP1	87:6:2093:OHX:N6	2.19	0.75
69:O3:75:HIS:HB3	69:O3:80:VAL:HG12	1.67	0.75
36:1:863:C:OP1	87:1:3886:OHX:N5	2.19	0.75
12:C0:77:ARG:HH21	12:C0:86:ILE:H	1.32	0.75
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	3.07	0.75
87:2:2031:OHX:N6	87:2:2147:OHX:N5	2.34	0.75
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.85	0.75
87:5:3947:OHX:N5	87:5:4241:OHX:N6	2.33	0.75
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.68	0.75
69:O3:59:VAL:HG23	69:O3:60:ARG:H	2.03	0.75
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.19	0.75
3:S1:61:LEU:HG	3:S1:64:ARG:HH21	1.52	0.75
12:C0:7:ASP:HB3	12:C0:37:THR:HG21	1.68	0.75
36:1:2714:G:H5''	36:1:2714:G:H8	1.49	0.75
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.17	0.75
36:1:2123:G:N7	87:1:4204:OHX:N2	2.33	0.75
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.67	0.75
20:C8:120:ARG:HD3	35:SM:61:ILE:HG21	4.28	0.75
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.20	0.75
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.86	0.75
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.52	0.75
56:N0:9:VAL:HG22	56:N0:61:ILE:HD13	1.69	0.75
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.66	0.75
36:1:1495:U:H5	36:1:1835:A:N1	1.85	0.75
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.22	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:16:ALA:O	65:N9:20:GLY:HA3	4.05	0.75
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	1.52	0.75
1:2:702:G:O6	1:2:736:C:N4	2.20	0.75
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.81	0.75
43:L6:78:ARG:NH1	36:5:3272:C:OP2	247.91	0.75
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.84	0.75
5:S3:142:LEU:H	5:S3:142:LEU:HD22	3.31	0.75
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.77	0.75
4:S2:168:ARG:NE	1:6:1098:U:OP2	384.99	0.75
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.67	0.75
53:M7:62:ARG:O	87:M7:206:OHX:N1	2.20	0.75
36:5:272:G:OP2	87:5:4080:OHX:N6	2.19	0.75
38:4:70:G:O6	87:O7:104:OHX:N4	2.20	0.75
7:S5:64:VAL:HG22	7:S5:89:ILE:HD11	2.88	0.75
1:6:653:C:N4	1:6:677:G:O6	2.19	0.75
40:L3:211:GLN:NE2	40:L3:283:TYR:O	2.20	0.75
3:S1:181:LEU:O	3:S1:185:THR:N	2.14	0.74
36:5:1541:G:OP2	87:5:4100:OHX:N4	2.20	0.74
1:2:850:A:H5'	55:M9:165:LYS:HG2	1.68	0.74
36:5:3343:G:H21	36:5:3362:A:H2	1.35	0.74
1:6:1280:C:H2'	1:6:1281:G:H8	1.52	0.74
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.68	0.74
36:5:658:G:OP1	87:5:4098:OHX:N5	2.20	0.74
36:5:1877:U:H5''	36:5:1878:G:H5'	1.68	0.74
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	2.52	0.74
32:E0:55:ARG:HB3	32:E0:58:PRO:HG3	1.67	0.74
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.83	0.74
36:5:2211:U:O4	87:5:3967:OHX:N4	2.19	0.74
36:1:1878:G:OP1	87:1:3931:OHX:N4	2.21	0.74
36:5:2620:G:O6	87:5:4250:OHX:N4	2.21	0.74
1:2:1745:G:O6	87:2:2086:OHX:N6	2.20	0.74
4:S2:121:VAL:HG11	35:SM:117:LEU:HB2	1.68	0.74
1:6:1010:C:OP2	87:6:2169:OHX:N3	2.20	0.74
1:2:542:A:H8	1:2:543:C:H5'	1.52	0.74
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.52	0.74
1:6:915:A:OP1	87:6:2068:OHX:N6	2.21	0.74
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.22	0.74
36:1:2714:G:H5''	36:1:2714:G:C8	2.22	0.74
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.36	0.74
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.70	0.74
44:L7:40:LYS:HE2	44:L7:170:GLU:OE1	5.49	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1230:G:H1	36:1:1279:C:H42	1.35	0.74
1:2:1533:C:H4'	1:2:1539:G:N1	2.02	0.74
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.90	0.74
36:1:1286:A:O2'	36:1:1287:A:OP2	2.06	0.74
36:1:1276:U:OP1	87:1:4089:OHX:N4	2.20	0.74
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.19	0.74
13:C1:96:LYS:NZ	1:6:374:U:OP1	347.85	0.74
87:2:2031:OHX:N4	87:2:2147:OHX:N2	2.36	0.74
36:5:1806:A:OP2	87:5:4030:OHX:N5	2.21	0.74
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	2.45	0.74
28:D6:58:VAL:HG22	28:D6:59:TYR:H	3.95	0.74
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.99	0.74
1:6:868:G:H1	1:6:960:U:H3	1.35	0.74
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.69	0.74
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.68	0.74
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.21	0.74
36:5:2248:C:OP2	87:5:3983:OHX:N6	2.20	0.73
1:2:740:A:H2'	1:2:741:C:H5''	1.69	0.73
1:6:1595:U:H3	1:6:1600:A:H2	1.35	0.73
87:2:2031:OHX:N4	87:2:2147:OHX:N1	2.36	0.73
1:2:104:A:OP2	1:2:308:C:N4	2.21	0.73
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.23	0.73
13:C1:2:SER:HB2	13:C1:81:HIS:ND1	2.03	0.73
44:L7:158:LYS:HD2	44:L7:159:GLN:H	3.72	0.73
1:6:1081:A:H1'	1:6:1082:C:H5	1.52	0.73
1:6:1754:A:H4'	1:6:1755:A:O5'	1.86	0.73
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.76	0.73
87:1:3876:OHX:N5	38:4:2:A:OP2	2.22	0.73
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.21	0.73
1:6:1726:G:N7	87:6:2145:OHX:N5	2.35	0.73
36:1:3343:G:H21	36:1:3362:A:H2	1.34	0.73
41:L4:193:LYS:NZ	38:8:21:C:OP1	108.82	0.73
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.79	0.73
2:S0:184:LEU:O	2:S0:186:GLY:N	2.21	0.73
41:L4:144:LYS:HG2	41:L4:145:ILE:H	4.94	0.73
9:S7:150:GLN:HB3	9:S7:181:ILE:HD12	1.70	0.73
36:1:2947:G:H4'	36:1:2947:G:OP2	1.89	0.73
11:S9:157:ASP:OD1	11:S9:158:PHE:N	3.91	0.73
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	1.97	0.73
34:SR:227:ALA:HB1	34:SR:229:LYS:HD2	1.71	0.73
22:D0:89:ARG:NH2	1:6:1383:G:OP1	446.76	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.77	0.73
40:L3:296:THR:HG22	40:L3:298:PHE:N	5.24	0.73
11:S9:149:ARG:HH11	11:S9:149:ARG:HG3	4.45	0.73
8:S6:73:ILE:HD11	8:S6:75:LEU:HD21	2.81	0.73
1:2:1726:G:N7	87:2:2099:OHX:N4	2.36	0.73
48:M1:60:ARG:NH1	78:Q2:105:GLN:HA	4.61	0.73
1:2:814:A:OP1	55:M9:170:ARG:NH2	2.22	0.73
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	3.11	0.73
69:O3:60:ARG:HD2	36:5:3275:U:C4	214.64	0.73
36:1:2233:A:OP2	87:1:4047:OHX:N5	2.22	0.73
41:L4:338:LYS:O	41:L4:340:GLY:N	2.21	0.73
64:N8:6:THR:HG23	64:N8:8:THR:HG23	1.94	0.73
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.68	0.73
36:5:2996:U:OP1	36:5:2996:U:H4'	1.89	0.73
39:L2:204:MET:HG2	36:5:914:A:C2	195.77	0.73
8:S6:176:GLN:HG2	1:6:169:A:H5'	329.11	0.73
15:C3:67:THR:O	15:C3:69:ASN:N	2.22	0.73
1:2:639:U:OP1	9:S7:117:THR:OG1	2.07	0.73
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.38	0.73
87:5:3947:OHX:N2	87:5:4241:OHX:N4	2.38	0.72
36:1:1596:C:H2'	36:1:1597:C:C6	2.24	0.72
5:S3:38:GLU:OE1	5:S3:40:ARG:NE	2.20	0.72
36:1:2528:G:N7	87:1:4188:OHX:N3	2.37	0.72
36:1:1567:U:O2	36:1:1571:A:N6	2.21	0.72
25:D3:102:VAL:HG12	25:D3:127:VAL:HG12	1.71	0.72
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.88	0.72
36:5:1940:G:H21	36:5:3362:A:H8	1.37	0.72
22:D0:71:PRO:O	22:D0:72:ASN:ND2	6.08	0.72
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.22	0.72
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.23	0.72
8:S6:87:ARG:NH2	1:6:161:U:OP2	315.57	0.72
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	4.65	0.72
29:D7:61:THR:HG23	29:D7:62:ILE:H	2.23	0.72
49:M3:50:PRO:O	49:M3:52:ASP:N	3.32	0.72
36:1:562:C:H2'	36:1:563:U:H6	1.50	0.72
36:5:2103:U:H2'	36:5:2104:A:H8	1.54	0.72
1:2:1796:C:H5	28:D6:6:ALA:H	1.37	0.72
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.09	0.72
36:5:2264:U:OP2	87:5:3961:OHX:N4	2.21	0.72
47:M0:208:ASN:HA	47:M0:211:ARG:HD2	2.48	0.72
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	3.96	0.72
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.71	0.72
16:C4:35:GLY:HA3	1:6:919:A:H4'	268.75	0.72
46:L9:62:ARG:NH2	36:5:3115:C:OP1	330.92	0.72
36:1:3087:A:OP1	87:1:4186:OHX:N5	2.22	0.72
5:S3:141:LYS:NZ	5:S3:179:GLN:OE1	4.18	0.72
33:E1:135:HIS:HB2	33:E1:138:ARG:HB3	1.69	0.72
36:5:2311:G:OP2	87:5:4206:OHX:N1	2.23	0.72
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.22	0.72
20:C8:88:ARG:NH2	20:C8:91:ASP:OD2	2.20	0.72
87:5:3947:OHX:N1	87:5:4241:OHX:N3	2.36	0.72
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.35	0.72
87:7:217:OHX:N3	87:7:224:OHX:N6	2.38	0.72
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.22	0.72
21:C9:52:GLY:O	21:C9:54:PHE:N	2.20	0.72
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	1.88	0.72
71:O5:67:ARG:HG3	71:O5:80:LEU:HD22	1.71	0.72
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	5.48	0.72
37:3:39:C:N3	48:M1:70:THR:HG23	2.04	0.72
36:5:1764:U:H3'	36:5:1765:U:H5''	1.71	0.72
7:S5:35:GLN:O	7:S5:37:GLN:N	4.04	0.72
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.22	0.72
66:O0:9:SER:OG	66:O0:10:ILE:N	2.28	0.72
36:1:1815:U:O2'	36:1:1816:A:OP2	2.06	0.72
36:1:770:G:N7	87:1:4099:OHX:N6	2.38	0.72
4:S2:53:ILE:HG23	4:S2:72:LEU:HD23	1.72	0.72
78:Q2:45:ARG:NH2	36:5:283:G:OP2	147.38	0.72
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.72	0.72
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.71	0.72
87:1:4203:OHX:N6	87:O1:202:OHX:N5	2.38	0.72
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.23	0.72
38:4:52:A:H62	75:O9:27:ILE:HD13	1.54	0.72
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.22	0.72
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.53	0.72
46:L9:17:THR:HG21	50:M4:3:THR:HB	1.70	0.72
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.55	0.72
36:1:2924:U:O4	87:1:4021:OHX:N1	2.23	0.72
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.21	0.72
1:2:991:G:OP2	87:2:2132:OHX:N1	2.22	0.71
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	3.26	0.71
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.59	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:5:3947:OHX:N5	87:5:4241:OHX:N3	2.38	0.71
40:L3:211:GLN:HE21	40:L3:284:ARG:HA	1.54	0.71
3:S1:51:SER:HA	3:S1:57:ALA:H	1.54	0.71
62:N6:3:LYS:NZ	62:N6:8:VAL:O	4.35	0.71
38:8:79:A:H2'	38:8:80:A:O4'	1.90	0.71
33:E1:119:ARG:NH2	33:E1:120:GLU:O	9.42	0.71
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HG2	2.65	0.71
9:S7:162:ILE:HA	9:S7:165:LYS:HG3	1.72	0.71
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.88	0.71
41:L4:118:LYS:NZ	36:5:681:U:O4	108.65	0.71
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.71	0.71
11:S9:168:ARG:HD2	11:S9:174:ARG:HD2	5.54	0.71
56:N0:82:ASP:OD1	56:N0:87:THR:HB	1.90	0.71
1:2:142:G:N2	1:2:173:A:H2	1.84	0.71
70:O4:8:ARG:HH11	70:O4:8:ARG:HG2	1.53	0.71
5:S3:210:GLU:OE2	19:C7:19:ARG:NH1	3.69	0.71
62:N6:73:VAL:HA	62:N6:80:VAL:HG12	5.80	0.71
1:6:1150:G:O6	87:6:2112:OHX:N5	2.22	0.71
36:5:3276:G:OP2	36:5:3276:G:H2'	1.90	0.71
36:1:3066:U:O4	87:1:4139:OHX:N5	2.24	0.71
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.56	0.71
36:1:776:U:H5	36:1:2719:U:O2	1.71	0.71
87:2:2031:OHX:N6	87:2:2147:OHX:N2	2.38	0.71
40:L3:171:LEU:O	87:L3:403:OHX:N6	2.23	0.71
36:1:1043:C:O3'	47:M0:90:ARG:NH1	2.23	0.71
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	5.25	0.71
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.23	0.71
1:6:383:G:N7	87:6:2147:OHX:N5	2.37	0.71
47:M0:174:THR:OG1	47:M0:175:ASN:N	4.05	0.71
87:5:3947:OHX:N1	87:5:4241:OHX:N4	2.37	0.71
72:O6:33:ALA:O	72:O6:34:SER:HB3	1.89	0.71
36:1:2794:G:N7	87:1:3938:OHX:N2	2.38	0.71
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.23	0.71
6:S4:85:GLY:N	6:S4:88:ASP:OD2	2.58	0.71
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	1.76	0.71
3:S1:35:PRO:HD3	3:S1:98:THR:HG23	1.73	0.71
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.72	0.71
36:5:1345:G:N7	87:5:4072:OHX:N5	2.38	0.71
31:D9:19:ARG:NH2	1:6:1597:A:OP1	407.89	0.71
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.24	0.71
36:5:1530:U:OP1	87:5:3996:OHX:N1	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.24	0.71
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.56	0.71
36:1:2960:C:OP1	87:1:4005:OHX:N4	2.24	0.71
28:D6:87:ARG:HB3	28:D6:91:ASP:HB2	1.73	0.71
56:N0:23:LYS:O	56:N0:24:LEU:HB2	1.90	0.71
40:L3:346:THR:O	40:L3:348:ARG:N	2.22	0.71
18:C6:109:PHE:O	18:C6:113:ASP:N	2.88	0.71
37:7:86:U:O2	87:7:218:OHX:N4	2.24	0.71
64:N8:77:LYS:O	64:N8:79:TRP:N	2.58	0.71
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	2.23	0.71
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.73	0.71
35:SM:48:ARG:NH1	36:5:1017:C:H5"	336.88	0.71
36:5:1556:C:H2'	36:5:2169:G:H1	1.55	0.71
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.23	0.71
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	2.42	0.71
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.24	0.71
4:S2:90:THR:O	4:S2:92:ALA:N	2.34	0.71
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	1.73	0.71
36:5:3274:A:H3'	36:5:3275:U:C5'	2.20	0.71
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.73	0.71
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.56	0.71
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.71	0.71
1:6:25:C:OP2	1:6:25:C:H4'	1.90	0.71
15:C3:65:VAL:O	15:C3:67:THR:N	3.84	0.71
33:E1:121:CYS:HB3	33:E1:132:LEU:HD21	4.36	0.71
1:2:452:A:OP2	87:2:2038:OHX:N5	2.24	0.71
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.37	0.71
42:L5:261:THR:HG23	42:L5:264:GLN:HG3	1.72	0.71
32:E0:43:ARG:HH12	1:6:590:C:H5"	418.04	0.71
66:O0:100:ILE:HG13	66:O0:101:LEU:HD22	6.56	0.71
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	282.05	0.71
1:2:237:C:H5"	1:2:238:U:H5'	1.73	0.71
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.55	0.70
3:S1:62:LYS:O	3:S1:64:ARG:N	2.23	0.70
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	1.56	0.70
58:N2:59:ASP:O	58:N2:61:THR:N	2.24	0.70
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.76	0.70
1:6:542:A:C8	1:6:543:C:H2'	2.26	0.70
62:N6:57:LEU:HD23	62:N6:67:GLU:HG2	4.01	0.70
46:L9:91:ARG:NH1	46:L9:141:LYS:O	2.17	0.70
40:L3:239:PRO:O	40:L3:242:THR:HG23	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1414:G:O6	87:5:4154:OHX:N1	2.23	0.70
36:5:2233:A:OP2	87:5:3967:OHX:N5	2.23	0.70
47:M0:193:ASP:O	47:M0:195:ALA:N	4.16	0.70
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.25	0.70
1:2:25:C:O2	87:2:2084:OHX:N1	2.24	0.70
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.35	0.70
44:L7:158:LYS:HD2	44:L7:159:GLN:N	4.39	0.70
33:E1:146:SER:HB3	1:6:1234:A:H4'	435.10	0.70
42:L5:285:ARG:NH1	37:7:62:U:O3'	341.46	0.70
1:2:1488:G:H3'	1:2:1515:A:H61	1.56	0.70
18:C6:143:ARG:HH22	35:SM:84:LYS:HE2	1.56	0.70
41:L4:288:ARG:O	41:L4:291:ASN:N	3.17	0.70
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.98	0.70
36:1:1349:G:O2'	36:1:1350:A:O4'	2.09	0.70
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.24	0.70
4:S2:230:TRP:CE2	24:D2:68:ARG:HD2	3.56	0.70
36:5:1815:U:O2'	36:5:1816:A:OP2	2.09	0.70
1:2:420:A:OP1	8:S6:96:SER:OG	2.07	0.70
50:M4:50:LYS:HD3	50:M4:85:TRP:CD1	2.27	0.70
37:7:3:U:H2'	37:7:4:U:H6	1.55	0.70
36:1:1233:G:H22	36:1:1255:C:N4	1.88	0.70
41:L4:181:VAL:O	41:L4:182:LEU:HB2	1.90	0.70
87:2:2031:OHX:N3	87:2:2147:OHX:N1	2.39	0.70
36:5:1878:G:OP1	87:5:3962:OHX:N5	2.24	0.70
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.17	0.70
36:5:2187:G:OP2	87:5:3977:OHX:N4	2.25	0.70
1:6:1202:A:OP1	87:6:2128:OHX:N2	2.24	0.70
36:5:174:C:H42	36:5:244:G:H1	1.39	0.70
36:1:1615:C:OP1	87:1:4184:OHX:N3	2.25	0.70
26:D4:124:ARG:HH11	26:D4:124:ARG:HB3	1.56	0.70
45:L8:78:PHE:O	45:L8:80:TYR:N	2.24	0.70
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.23	0.70
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	2.81	0.70
62:N6:87:LYS:HG3	62:N6:97:ILE:HD11	2.80	0.70
6:S4:117:GLU:O	6:S4:119:ALA:N	3.04	0.70
21:C9:84:LYS:NZ	1:6:1563:C:OP1	379.28	0.70
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.74	0.70
24:D2:55:ASP:O	24:D2:57:ARG:N	2.50	0.70
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.57	0.70
36:1:2754:G:OP2	87:1:4010:OHX:N6	2.25	0.70
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:62:THR:HG21	52:M6:68:ARG:HG3	1.74	0.70
36:1:1349:G:H22	36:1:1355:A:H61	1.39	0.70
48:M1:166:LYS:O	48:M1:168:ASP:N	3.50	0.70
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.52	0.70
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	2.02	0.70
36:5:2236:G:OP1	87:5:4256:OHX:N3	2.24	0.70
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.25	0.70
11:S9:36:LEU:HD11	11:S9:105:LEU:HD21	3.77	0.69
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.24	0.69
67:O1:84:ASP:O	67:O1:86:LYS:N	4.15	0.69
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.73	0.69
30:D8:36:THR:OG1	30:D8:37:SER:N	2.23	0.69
49:M3:58:VAL:HG13	36:5:75:G:H5''	88.43	0.69
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.37	0.69
40:L3:71:GLU:OE1	40:L3:357:LYS:NZ	2.24	0.69
36:5:92:G:H5'	36:5:93:C:H5''	1.72	0.69
22:D0:27:THR:HB	22:D0:88:LYS:HG2	1.95	0.69
24:D2:24:GLN:NE2	29:D7:5:GLN:H	1.90	0.69
71:O5:14:LYS:NZ	71:O5:62:GLN:OE1	7.19	0.69
36:1:3148:U:O4	87:1:4113:OHX:N2	2.25	0.69
62:N6:120:GLN:HE22	62:N6:126:LEU:HA	10.20	0.69
36:1:1466:G:O6	87:1:3882:OHX:N4	2.25	0.69
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	6.24	0.69
49:M3:73:ARG:NH2	36:5:77:A:N7	80.38	0.69
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.73	0.69
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.73	0.69
29:D7:37:CYS:O	29:D7:39:GLY:N	2.24	0.69
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.23	0.69
45:L8:161:GLU:OE1	51:M5:26:ARG:NH1	2.67	0.69
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.26	0.69
36:1:1744:G:O6	87:1:4098:OHX:N2	2.26	0.69
87:5:3947:OHX:N2	87:5:4241:OHX:N6	2.39	0.69
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.29	0.69
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.72	0.69
36:1:3122:A:N1	46:L9:70:THR:HG21	2.08	0.69
36:5:2841:G:OP2	87:5:4145:OHX:N1	2.24	0.69
63:N7:10:VAL:HG23	63:N7:86:THR:HA	1.74	0.69
36:5:1875:G:H2'	36:5:1876:U:H5''	1.73	0.69
1:2:1680:G:O6	87:2:2110:OHX:N5	2.25	0.69
36:5:437:G:H22	36:5:622:A:N6	1.90	0.69
16:C4:16:VAL:HG13	16:C4:33:LEU:HA	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.26	0.69
6:S4:108:ARG:NH1	1:6:788:A:OP2	398.04	0.69
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.17	0.69
37:3:4:U:H2'	37:3:5:G:C8	2.26	0.69
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.97	0.69
18:C6:43:ILE:H	18:C6:43:ILE:HD13	2.97	0.69
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.75	0.69
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	3.01	0.69
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.83	0.69
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.27	0.69
1:2:1620:C:OP2	87:2:2167:OHX:N6	2.26	0.69
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.90	0.69
36:1:439:C:H3'	36:1:440:A:C8	2.28	0.69
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.25	0.69
5:S3:223:LYS:HB2	34:SR:191:ASP:HB2	3.53	0.69
1:2:732:G:O2'	1:2:733:A:O4'	2.11	0.69
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.74	0.69
28:D6:30:ILE:HD11	28:D6:35:ALA:HA	1.73	0.69
33:E1:97:LYS:NZ	1:6:1253:U:O4	440.24	0.69
75:O9:44:TRP:CZ3	75:O9:45:ARG:HG3	2.28	0.69
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	3.95	0.69
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.74	0.69
36:1:266:A:OP1	51:M5:5:LYS:NZ	2.25	0.69
65:N9:2:ALA:HB2	36:5:2818:U:H5"	211.89	0.69
48:M1:137:ARG:NH1	37:7:28:C:OP1	301.65	0.69
36:5:299:G:N7	87:5:4197:OHX:N1	2.40	0.69
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	1.97	0.69
47:M0:73:ASN:O	47:M0:77:THR:HG23	1.91	0.69
3:S1:62:LYS:HD2	3:S1:91:VAL:HG11	1.74	0.69
6:S4:163:ASP:O	6:S4:165:ALA:N	2.25	0.69
87:7:217:OHX:N3	87:7:224:OHX:N5	2.41	0.69
87:7:217:OHX:N1	87:7:224:OHX:N2	2.41	0.69
36:1:742:G:N7	87:1:3978:OHX:N1	2.41	0.69
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.58	0.69
1:6:833:U:O4	87:6:2098:OHX:N2	2.26	0.69
36:5:783:A:OP2	87:5:4201:OHX:N6	2.25	0.69
36:1:1634:G:N7	63:N7:17:ARG:NH2	2.41	0.69
25:D3:27:ASN:OD1	25:D3:31:LYS:NZ	2.25	0.69
45:L8:90:THR:HA	45:L8:214:LEU:HD21	2.30	0.69
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	1.74	0.69
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:56:THR:O	42:L5:58:LYS:N	2.21	0.69
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.87	0.69
44:L7:88:ARG:HD2	44:L7:90:LYS:O	1.92	0.69
87:2:2031:OHX:N3	87:2:2147:OHX:N5	2.41	0.69
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.98	0.69
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	1.80	0.69
44:L7:150:LYS:HG2	44:L7:151:ARG:HG2	1.73	0.69
36:5:2818:U:C6	36:5:2818:U:H5'	2.27	0.69
13:C1:71:LEU:HD22	13:C1:88:ARG:HH21	1.58	0.69
87:1:4203:OHX:N2	87:O1:202:OHX:N5	2.41	0.69
24:D2:119:LYS:HB3	24:D2:121:VAL:HG23	3.27	0.69
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.58	0.69
53:M7:31:GLU:HG3	53:M7:60:PHE:HA	3.26	0.69
16:C4:23:PHE:HE2	16:C4:91:THR:HG21	1.58	0.69
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.23	0.69
36:5:201:A:OP2	87:5:3992:OHX:N1	2.26	0.69
36:1:718:G:C2	36:1:721:G:H1'	2.27	0.69
1:2:770:A:OP2	87:2:2139:OHX:N6	2.25	0.68
1:6:140:A:N6	1:6:281:G:OP1	2.25	0.68
54:M8:81:VAL:HG13	54:M8:101:VAL:HG13	1.76	0.68
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.67	0.68
1:2:900:A:OP1	16:C4:43:THR:OG1	2.08	0.68
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.74	0.68
32:E0:15:LYS:NZ	1:6:585:A:OP1	387.30	0.68
6:S4:19:LEU:HD11	6:S4:108:ARG:HD2	1.75	0.68
1:2:1533:C:OP2	27:D5:77:ARG:NH2	2.25	0.68
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	4.33	0.68
9:S7:74:GLN:HA	9:S7:77:LEU:HB2	1.75	0.68
36:5:2977:G:OP1	87:5:4160:OHX:N4	2.26	0.68
7:S5:163:SER:HB2	30:D8:48:VAL:HG13	4.89	0.68
36:1:3318:G:H2'	36:1:3318:G:OP2	1.91	0.68
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.75	0.68
41:L4:283:THR:HG21	41:L4:288:ARG:HH12	8.39	0.68
45:L8:95:ASN:OD1	45:L8:98:ARG:NH2	2.25	0.68
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.83	0.68
7:S5:95:ASN:OD1	7:S5:107:LYS:NZ	3.10	0.68
46:L9:188:THR:HG22	46:L9:189:GLU:H	4.75	0.68
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.75	0.68
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	1.89	0.68
2:S0:144:ILE:HG23	2:S0:158:VAL:HG13	3.20	0.68
79:Q3:6:LYS:HG2	79:Q3:7:LYS:HG3	5.38	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.25	0.68
36:5:1155:C:O2'	36:5:1197:A:N1	2.26	0.68
30:D8:27:GLN:HE22	30:D8:64:ARG:HH11	5.59	0.68
36:5:1688:U:H2'	36:5:1689:U:C6	2.29	0.68
15:C3:94:LYS:HE3	1:6:952:A:H5''	299.60	0.68
41:L4:60:THR:HG23	36:5:364:G:OP1	128.67	0.68
51:M5:125:SER:HB3	36:5:2433:U:H1'	161.62	0.68
1:6:1159:C:N3	87:6:2135:OHX:N5	2.42	0.68
38:4:79:A:O3'	38:4:80:A:H4'	1.94	0.68
16:C4:38:THR:HG21	1:6:895:G:H21	264.41	0.68
11:S9:8:TYR:O	87:6:2176:OHX:N4	384.73	0.68
87:5:3996:OHX:N4	38:8:112:U:O2	2.26	0.68
87:2:2036:OHX:N2	10:S8:17:LYS:O	2.26	0.68
1:2:1720:G:O6	87:2:2082:OHX:N5	2.26	0.68
19:C7:66:VAL:HB	19:C7:69:ILE:HD11	1.75	0.68
47:M0:19:LYS:HE3	47:M0:26:VAL:HG22	3.92	0.68
36:5:155:G:H5''	36:5:156:G:C8	2.29	0.68
4:S2:60:SER:OG	23:D1:15:ARG:NH2	3.00	0.68
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.75	0.68
42:L5:68:THR:HG22	42:L5:71:GLY:H	2.27	0.68
36:1:2107:A:H2	36:1:3344:A:H8	1.42	0.68
1:6:1698:G:O2'	1:6:1699:G:O5'	2.10	0.68
36:5:2103:U:H2'	36:5:2104:A:C8	2.28	0.68
36:1:3049:A:OP2	87:1:4186:OHX:N1	2.27	0.68
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.70	0.68
28:D6:10:ARG:NH1	28:D6:36:ILE:H	1.92	0.68
30:D8:19:THR:HG21	30:D8:65:ARG:HA	1.75	0.68
79:Q3:32:GLN:HG2	79:Q3:70:THR:HB	1.76	0.68
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	5.89	0.68
1:2:1535:U:O2'	1:2:1536:G:N3	2.27	0.68
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.57	0.68
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.57	0.68
37:7:3:U:H2'	37:7:4:U:C6	2.29	0.68
1:6:831:U:O2'	1:6:832:U:H5'	1.94	0.68
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.76	0.68
36:5:1781:C:H2'	36:5:1782:U:C6	2.29	0.68
2:S0:185:ARG:H	23:D1:45:ALA:H	2.97	0.68
10:S8:76:THR:HG23	10:S8:108:PRO:HG2	2.22	0.68
73:O7:55:ARG:NH1	36:5:353:G:O6	112.68	0.68
46:L9:84:LYS:HE2	46:L9:191:LEU:HD13	1.74	0.68
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.36	0.68
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	2.28	0.68
1:2:1606:C:H2'	1:2:1607:G:C8	2.29	0.68
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.59	0.68
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	1.76	0.68
36:1:410:U:O4	87:1:4060:OHX:N5	2.27	0.68
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.76	0.68
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.29	0.68
36:1:530:G:N7	87:1:3924:OHX:N6	2.42	0.68
36:5:2101:C:O2'	36:5:2102:U:OP1	2.12	0.68
36:5:410:U:O4	87:5:4109:OHX:N1	2.27	0.68
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.22	0.67
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.67	0.67
34:SR:160:GLU:O	34:SR:162:ALA:N	2.22	0.67
1:2:218:A:O2'	1:2:219:A:OP1	2.11	0.67
43:L6:129:GLU:OE2	43:L6:130:ILE:N	2.26	0.67
33:E1:134:ASN:H	1:6:1251:U:H4'	443.38	0.67
21:C9:119:LYS:NZ	1:6:1369:U:OP1	442.43	0.67
1:6:1767:G:OP1	1:6:1770:U:H4'	1.93	0.67
1:2:359:A:C2	25:D3:38:PHE:HB3	2.30	0.67
1:6:1339:C:O2'	1:6:1341:A:N7	2.27	0.67
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.58	0.67
10:S8:36:THR:HB	10:S8:57:ALA:O	1.97	0.67
36:1:1230:G:N2	36:1:1279:C:N3	2.39	0.67
52:M6:68:ARG:NH1	36:5:2988:C:OP1	218.09	0.67
34:SR:52:GLN:HG2	34:SR:53:LYS:H	2.43	0.67
1:2:1727:G:H21	10:S8:32:GLN:HE22	1.41	0.67
39:L2:69:TYR:OH	36:5:2557:A:OP1	192.34	0.67
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	1.88	0.67
1:6:1398:U:H3'	1:6:1399:C:H4'	1.76	0.67
36:1:2107:A:H2	36:1:3344:A:C8	2.12	0.67
1:6:1280:C:H2'	1:6:1281:G:C8	2.28	0.67
1:6:69:G:O6	1:6:82:U:N3	2.20	0.67
2:S0:50:VAL:H	19:C7:109:LEU:HD21	2.28	0.67
48:M1:143:ARG:NH2	37:7:5:G:OP1	292.27	0.67
36:1:2860:U:H6	36:1:2860:U:H5'	1.58	0.67
6:S4:86:PHE:HE2	6:S4:102:VAL:HG23	1.96	0.67
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.31	0.67
1:6:1595:U:N3	1:6:1600:A:H2	1.91	0.67
41:L4:291:ASN:O	41:L4:293:SER:N	2.27	0.67
56:N0:108:GLN:NE2	36:5:1322:U:O2	293.56	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:73:U:H4'	1:2:74:U:OP1	1.93	0.67
17:C5:69:GLU:OE1	87:C5:201:OHX:N4	2.28	0.67
36:5:2568:C:N4	36:5:2574:G:O6	2.26	0.67
1:2:297:U:OP1	6:S4:37:LYS:NZ	2.26	0.67
36:5:1487:G:H1	36:5:1855:U:H3	1.38	0.67
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.99	0.67
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.76	0.67
1:2:800:U:H2'	1:2:801:G:H8	1.59	0.67
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.27	0.67
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.87	0.67
36:1:1103:A:OP2	36:1:1103:A:H4'	1.93	0.67
1:2:959:U:C6	15:C3:61:THR:HB	2.30	0.67
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.30	0.67
1:6:1081:A:H1'	1:6:1082:C:C5	2.29	0.67
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.35	0.67
31:D9:21:CYS:HB3	31:D9:25:SER:H	1.60	0.67
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.27	0.67
51:M5:38:ARG:NH2	38:8:143:U:OP1	108.77	0.67
36:5:3153:U:H4'	36:5:3154:C:H5'	1.76	0.67
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.77	0.67
11:S9:163:PRO:O	11:S9:165:GLY:N	2.27	0.67
1:6:1239:U:O4	87:6:2094:OHX:N1	2.27	0.67
1:2:61:A:H8	1:2:269:G:HO2'	1.41	0.67
16:C4:122:PRO:C	16:C4:124:ASP:H	2.31	0.67
12:C0:5:LYS:NZ	14:C2:39:ASP:OD2	6.85	0.67
36:5:129:U:H2'	36:5:130:A:C8	2.30	0.67
34:SR:70:ASP:OD2	34:SR:155:ARG:NH2	2.26	0.67
53:M7:23:ARG:HH21	53:M7:125:GLN:HB3	1.60	0.67
1:2:1382:A:H5''	22:D0:60:THR:HG22	1.75	0.67
36:1:2767:U:OP2	87:1:4137:OHX:N2	2.28	0.67
36:5:2440:G:H2'	36:5:2441:A:C8	2.30	0.67
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.30	0.67
1:2:734:A:H5''	1:2:735:C:OP1	1.95	0.67
39:L2:193:ARG:NH1	36:5:2174:G:OP2	191.29	0.67
62:N6:71:SER:OG	62:N6:83:ASP:N	3.65	0.67
36:1:367:A:OP1	87:1:3887:OHX:N2	2.27	0.67
10:S8:81:VAL:H	10:S8:102:VAL:HG12	1.60	0.67
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.27	0.67
36:5:742:G:N7	87:5:4008:OHX:N4	2.43	0.67
18:C6:57:LEU:H	18:C6:57:LEU:HD12	3.74	0.67
36:5:1387:G:OP1	87:5:4208:OHX:N3	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.41	0.67
10:S8:187:GLU:OE2	13:C1:30:ARG:NH1	2.28	0.67
4:S2:228:ASN:HB3	4:S2:229:LEU:HD12	5.09	0.67
36:5:2837:A:H8	36:5:2837:A:OP2	1.77	0.67
17:C5:44:ARG:NH2	17:C5:82:ASN:O	3.21	0.67
70:O4:41:ARG:HA	70:O4:56:THR:HG22	4.06	0.67
56:N0:71:LYS:NZ	36:5:563:U:OP1	341.95	0.66
37:3:4:U:H2'	37:3:5:G:H8	1.60	0.66
53:M7:64:ASN:O	53:M7:80:LYS:NZ	2.51	0.66
16:C4:92:LYS:NZ	28:D6:69:ASN:OD1	2.27	0.66
36:1:2510:U:O2'	36:1:2511:A:H5''	1.95	0.66
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.60	0.66
6:S4:246:LEU:HB2	6:S4:251:GLU:HG2	1.78	0.66
7:S5:150:GLY:O	7:S5:152:GLY:N	2.28	0.66
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.95	0.66
1:6:1564:U:H2'	1:6:1565:C:C6	2.30	0.66
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.76	0.66
37:3:13:A:H5''	37:3:13:A:H8	1.59	0.66
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.94	0.66
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.77	0.66
56:N0:73:LYS:NZ	56:N0:97:VAL:O	3.18	0.66
33:E1:98:VAL:HG12	33:E1:99:LYS:H	3.50	0.66
14:C2:89:ILE:HD13	14:C2:90:LYS:H	1.60	0.66
45:L8:69:LEU:HG	51:M5:24:ARG:HH21	3.48	0.66
40:L3:361:THR:HG22	40:L3:371:GLN:HB3	2.40	0.66
15:C3:91:LEU:HD12	15:C3:125:LEU:HD12	2.78	0.66
66:O0:42:ILE:HD11	66:O0:67:VAL:HG22	1.77	0.66
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.26	0.66
1:6:826:U:O4	87:6:2063:OHX:N3	2.29	0.66
4:S2:206:THR:HG21	1:6:14:C:OP2	376.77	0.66
36:5:1025:A:H3'	36:5:1026:A:H4'	1.78	0.66
50:M4:72:LEU:HD23	50:M4:73:PRO:HD2	1.77	0.66
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.59	0.66
7:S5:63:GLN:H	7:S5:89:ILE:HG23	1.61	0.66
62:N6:50:ILE:HD13	62:N6:51:ARG:H	2.73	0.66
3:S1:137:ILE:HD11	3:S1:172:LEU:HD22	1.78	0.66
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.76	0.66
57:N1:101:CYS:HB3	36:5:990:U:H1'	251.88	0.66
1:6:1765:A:OP1	87:6:2124:OHX:N2	2.28	0.66
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.75	0.66
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.78	0.66
14:C2:119:SER:OG	1:6:1228:G:OP1	465.08	0.66
1:2:1169:G:N1	1:2:1575:G:OP2	2.28	0.66
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	2.73	0.66
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.77	0.66
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.63	0.66
36:1:662:U:OP1	64:N8:8:THR:HG21	1.96	0.66
36:5:2568:C:O2'	36:5:2569:A:O5'	2.09	0.66
37:3:112:G:OP2	87:3:221:OHX:N1	2.28	0.66
36:5:3103:A:OP2	87:5:4166:OHX:N4	2.29	0.66
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.89	0.66
41:L4:269:SER:O	41:L4:271:LYS:N	2.25	0.66
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.01	0.66
58:N2:19:VAL:O	58:N2:23:THR:OG1	2.30	0.66
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	5.07	0.66
57:N1:126:VAL:HG23	57:N1:127:GLN:H	1.59	0.66
49:M3:91:ARG:HH12	49:M3:97:VAL:HB	1.61	0.66
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.09	0.66
1:6:1350:U:H2'	1:6:1351:G:C8	2.31	0.66
71:O5:83:LYS:HA	38:8:38:U:H5	65.75	0.66
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.86	0.66
44:L7:25:GLN:H	44:L7:28:ALA:HB3	1.61	0.66
36:1:2404:A:H2	36:1:2872:A:H62	1.42	0.66
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.33	0.66
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.09	0.66
36:1:2852:C:N3	47:M0:158:LYS:NZ	2.44	0.66
3:S1:61:LEU:O	3:S1:62:LYS:NZ	2.24	0.66
1:6:1081:A:O2'	1:6:1082:C:O5'	2.13	0.66
29:D7:59:CYS:HB2	29:D7:61:THR:HG22	3.89	0.66
36:1:3050:U:OP2	87:1:4186:OHX:N2	2.29	0.66
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.77	0.66
28:D6:44:ILE:H	28:D6:44:ILE:HD12	1.60	0.66
1:6:982:U:OP1	87:6:2073:OHX:N2	2.29	0.66
12:C0:88:PRO:O	12:C0:90:THR:N	2.28	0.66
36:5:2284:C:O2	87:5:4187:OHX:N1	2.29	0.66
1:2:1358:G:H2'	1:2:1359:C:C6	2.31	0.66
36:5:776:U:H5	36:5:2719:U:O2	1.79	0.66
36:5:1564:U:H2'	36:5:1565:G:C8	2.31	0.66
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	1.66	0.66
36:5:1556:C:H2'	36:5:2169:G:N1	2.11	0.66
1:2:1675:C:H1'	10:S8:32:GLN:NE2	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:679:U:O4	87:1:3976:OHX:N1	2.29	0.66
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	5.67	0.66
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.23	0.66
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	1.77	0.66
32:E0:59:GLY:O	32:E0:61:SER:N	3.11	0.66
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.40	0.66
36:1:2234:G:O6	87:1:4047:OHX:N1	2.29	0.66
36:5:437:G:N2	36:5:622:A:H61	1.94	0.66
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.78	0.66
1:6:833:U:O4	87:6:2098:OHX:N5	2.29	0.66
20:C8:41:ARG:HD3	1:6:1565:C:OP1	369.55	0.66
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.28	0.66
36:1:695:C:OP1	41:L4:271:LYS:NZ	2.28	0.66
51:M5:84:PRO:HA	51:M5:87:GLN:HG3	1.77	0.66
1:6:86:A:OP2	87:6:2187:OHX:N1	2.29	0.66
36:1:1952:G:H3'	36:1:1953:G:H5''	1.78	0.66
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	4.72	0.66
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	2.23	0.66
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.28	0.66
36:5:1790:G:O6	87:5:4205:OHX:N4	2.28	0.66
1:2:559:C:N4	1:2:586:G:O6	2.17	0.66
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.36	0.65
62:N6:5:SER:HB3	62:N6:8:VAL:HG13	3.34	0.65
62:N6:63:LYS:HE3	62:N6:97:ILE:HD13	1.77	0.65
1:2:1040:G:H5'	2:S0:32:HIS:HD2	1.62	0.65
56:N0:52:LYS:NZ	37:7:100:C:O5'	280.33	0.65
10:S8:115:ALA:O	10:S8:117:TYR:N	4.01	0.65
36:5:3377:G:O6	87:5:4094:OHX:N2	2.29	0.65
10:S8:37:LYS:NZ	10:S8:95:THR:OG1	3.37	0.65
87:5:4026:OHX:N3	87:5:4224:OHX:N1	2.45	0.65
1:6:1268:G:H1'	1:6:1448:G:H5''	1.78	0.65
13:C1:29:LYS:O	13:C1:31:THR:N	2.29	0.65
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.26	0.65
1:2:399:A:H4'	6:S4:3:ARG:HG2	1.76	0.65
3:S1:36:SER:HB3	3:S1:231:LEU:HD13	1.78	0.65
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	4.22	0.65
36:1:2611:U:H2'	36:1:2612:U:C6	2.32	0.65
74:O8:24:THR:HB	74:O8:76:ASN:HB3	1.79	0.65
57:N1:120:LYS:C	57:N1:122:GLN:H	2.31	0.65
8:S6:155:ASP:OD2	8:S6:155:ASP:N	2.74	0.65
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.56	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:105:ARG:NH2	36:5:1412:G:OP1	146.94	0.65
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	1.78	0.65
36:5:171:G:H1	36:5:247:C:N4	1.95	0.65
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.79	0.65
36:5:252:U:H4'	36:5:253:A:H5'	1.78	0.65
36:5:2128:C:OP1	87:5:4096:OHX:N3	2.30	0.65
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.30	0.65
57:N1:124:VAL:HG12	57:N1:125:ALA:H	1.77	0.65
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.96	0.65
1:2:843:U:H2'	1:2:844:A:C8	2.31	0.65
36:1:595:G:N1	36:1:609:G:H5''	2.11	0.65
1:6:1166:A:H2'	1:6:1167:G:O4'	1.95	0.65
72:O6:60:LEU:HD11	72:O6:68:ARG:HE	1.62	0.65
57:N1:130:ARG:HD3	36:5:1098:A:OP2	255.47	0.65
51:M5:182:ASN:HB2	51:M5:183:THR:HG22	1.78	0.65
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.79	0.65
1:2:647:G:N2	1:2:687:G:H22	1.94	0.65
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.77	0.65
28:D6:87:ARG:NH2	28:D6:91:ASP:O	3.26	0.65
56:N0:12:ARG:HG3	56:N0:13:ARG:O	2.49	0.65
36:5:3035:A:OP2	87:5:4057:OHX:N5	2.29	0.65
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.78	0.65
1:6:213:A:OP2	87:6:2148:OHX:N1	2.29	0.65
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.77	0.65
36:5:1152:G:OP2	36:5:1152:G:H8	1.80	0.65
15:C3:114:ARG:HD3	15:C3:117:LEU:HD12	2.04	0.65
4:S2:45:VAL:HG21	4:S2:68:ILE:HG12	1.79	0.65
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.29	0.65
87:1:4203:OHX:N4	87:O1:202:OHX:N1	2.45	0.65
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.62	0.65
16:C4:91:THR:O	16:C4:93:THR:N	2.29	0.65
37:3:13:A:H5''	37:3:13:A:C8	2.31	0.65
1:6:1350:U:H2'	1:6:1351:G:H8	1.62	0.65
87:5:4026:OHX:N5	87:5:4224:OHX:N2	2.45	0.65
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.78	0.65
1:2:625:C:H2'	1:2:626:U:C6	2.32	0.65
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.66	0.65
36:5:25:U:O4	87:5:3911:OHX:N5	2.29	0.65
36:1:7:C:H5''	45:L8:193:LYS:HB3	1.77	0.65
5:S3:117:ARG:HE	35:SM:122:GLU:HB3	1.62	0.65
8:S6:102:VAL:HG13	8:S6:106:LEU:HD12	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:470:A:H8	1:6:470:A:H5''	1.61	0.65
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	2.04	0.65
79:Q3:36:ARG:HH22	36:5:1725:C:H5''	228.34	0.65
43:L6:2:SER:OG	43:L6:5:LYS:NZ	2.30	0.65
4:S2:148:LEU:HD13	4:S2:149:GLY:H	1.61	0.65
87:1:4084:OHX:N1	72:O6:28:TYR:O	2.30	0.65
43:L6:60:ASP:OD1	43:L6:62:THR:OG1	2.14	0.65
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.79	0.65
87:1:4203:OHX:N4	87:O1:202:OHX:N3	2.45	0.65
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	3.09	0.65
72:O6:60:LEU:HD11	72:O6:68:ARG:NE	2.12	0.65
36:1:1509:A:H2'	36:1:1510:G:C8	2.32	0.65
41:L4:33:ASP:O	41:L4:37:THR:HG23	1.97	0.65
61:N5:48:SER:OG	38:8:136:G:OP1	84.63	0.65
36:1:1238:C:N4	36:1:1245:A:OP2	2.30	0.65
17:C5:51:SER:OG	17:C5:52:LYS:N	4.80	0.65
47:M0:81:GLY:O	47:M0:83:ASP:N	3.53	0.65
1:2:823:G:H2'	1:2:824:G:H8	1.61	0.65
1:6:513:U:H2'	1:6:514:G:C8	2.31	0.65
1:6:647:G:H22	1:6:687:G:N2	1.94	0.65
1:2:1542:G:N2	1:2:1568:C:H1'	2.11	0.65
87:7:217:OHX:N4	87:7:224:OHX:N2	2.44	0.65
41:L4:292:SER:OG	41:L4:293:SER:N	2.29	0.65
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	2.12	0.65
13:C1:5:LEU:O	13:C1:7:VAL:N	2.25	0.65
64:N8:94:ALA:HB1	64:N8:121:VAL:HA	1.79	0.65
66:O0:25:LEU:HD22	66:O0:90:VAL:HG22	1.78	0.65
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	4.74	0.64
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.78	0.64
1:2:1029:U:O4	87:2:2170:OHX:N3	2.29	0.64
1:2:134:U:OP1	1:2:136:C:N4	2.30	0.64
20:C8:11:PHE:HD2	20:C8:59:GLY:HA3	1.62	0.64
1:6:1000:C:N4	1:6:1003:A:OP2	2.24	0.64
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	1.77	0.64
36:1:73:C:N3	49:M3:59:ARG:NH1	2.45	0.64
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.78	0.64
1:2:1370:U:O4	87:2:2121:OHX:N1	2.29	0.64
36:1:1724:U:H1'	36:1:1725:C:C6	2.32	0.64
1:2:539:G:OP2	1:2:539:G:H8	1.81	0.64
87:7:217:OHX:N4	87:7:224:OHX:N6	2.45	0.64
3:S1:26:ARG:NH1	3:S1:49:ASN:OD1	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:829:A:O2'	1:2:830:U:OP2	2.14	0.64
36:1:2404:A:C2	36:1:2872:A:N6	2.64	0.64
36:5:2533:G:N2	36:5:2546:C:O2	2.24	0.64
1:2:833:U:H5'	1:2:834:G:H5''	1.79	0.64
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.30	0.64
36:1:1352:A:H4'	36:1:1353:U:OP1	1.97	0.64
36:5:955:U:H2'	36:5:956:U:C6	2.31	0.64
52:M6:16:VAL:HG23	52:M6:42:ASN:O	2.57	0.64
1:2:539:G:N2	1:2:540:G:O6	2.25	0.64
87:7:217:OHX:N1	87:7:224:OHX:N5	2.46	0.64
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.62	0.64
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.15	0.64
8:S6:13:GLN:OE1	1:6:151:G:N2	311.70	0.64
38:4:16:G:O6	87:4:224:OHX:N3	2.30	0.64
57:N1:54:HIS:CE1	57:N1:55:LYS:HD3	2.33	0.64
3:S1:154:SER:OG	3:S1:154:SER:O	2.14	0.64
36:5:1915:A:H2'	36:5:1916:U:C6	2.31	0.64
34:SR:123:ILE:HD11	34:SR:156:VAL:HG22	4.89	0.64
36:1:3060:C:OP1	87:1:4042:OHX:N4	2.29	0.64
73:O7:88:ALA:O	87:O7:104:OHX:N4	2.30	0.64
1:2:1572:G:H1'	7:S5:185:ARG:HH12	1.62	0.64
66:O0:13:LYS:NZ	66:O0:99:ASP:OD2	2.28	0.64
41:L4:299:ILE:HG23	54:M8:39:ARG:HB3	1.80	0.64
1:2:959:U:H6	15:C3:61:THR:HB	1.62	0.64
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.79	0.64
13:C1:4:GLU:HG3	13:C1:5:LEU:HG	1.78	0.64
70:O4:9:ARG:HG3	70:O4:34:HIS:CE1	5.09	0.64
1:6:697:C:OP2	87:6:2071:OHX:N5	2.30	0.64
36:5:1614:C:H2'	36:5:1615:C:H6	1.62	0.64
33:E1:127:GLY:O	33:E1:129:GLY:N	2.30	0.64
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	3.06	0.64
18:C6:82:ARG:NH1	18:C6:114:ARG:O	3.00	0.64
34:SR:199:ILE:HA	34:SR:215:GLY:HA3	1.80	0.64
40:L3:53:MET:HE1	40:L3:327:CYS:HB3	2.10	0.64
26:D4:124:ARG:NH2	1:6:151:G:O6	320.18	0.64
1:2:1483:A:H2'	1:2:1484:G:C8	2.33	0.64
1:6:212:U:OP2	87:6:2123:OHX:N1	2.31	0.64
61:N5:48:SER:OG	61:N5:49:LYS:N	4.24	0.64
36:1:1924:U:OP1	77:Q1:25:LYS:NZ	2.29	0.64
1:2:755:A:H2'	1:2:756:A:C8	2.33	0.64
64:N8:42:ARG:NH2	36:5:2799:A:N3	193.88	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:279:LYS:NZ	37:7:110:G:OP2	325.91	0.64
6:S4:33:ALA:O	1:6:121:U:O2'	353.69	0.64
36:1:1409:G:N7	87:1:4070:OHX:N3	2.45	0.64
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.79	0.64
13:C1:21:ASN:N	13:C1:21:ASN:OD1	3.20	0.64
1:2:919:A:H5'	16:C4:18:ARG:HH12	1.62	0.64
1:2:542:A:N1	32:E0:28:LYS:NZ	2.43	0.64
1:2:705:U:H2'	1:2:706:A:C8	2.33	0.64
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	2.37	0.64
33:E1:136:LYS:O	33:E1:138:ARG:HB2	1.97	0.64
87:1:4203:OHX:N2	87:O1:202:OHX:N1	2.45	0.64
36:5:2572:C:O2'	36:5:2573:G:OP2	2.15	0.64
77:Q1:23:ARG:O	87:5:4006:OHX:N2	264.88	0.64
68:O2:91:THR:HG22	68:O2:92:TYR:CD2	2.33	0.64
49:M3:166:ALA:N	64:N8:135:GLU:OE1	2.72	0.64
63:N7:15:ARG:NH2	70:O4:83:ASN:OD1	2.30	0.64
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.62	0.64
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.33	0.64
52:M6:10:ASP:OD2	52:M6:37:ARG:NH2	2.57	0.64
1:6:938:G:N7	87:6:2103:OHX:N3	2.45	0.64
1:6:1450:U:OP2	87:6:2126:OHX:N4	2.31	0.64
64:N8:28:HIS:CD2	64:N8:32:ARG:HG2	2.33	0.64
1:6:823:G:H2'	1:6:824:G:O4'	1.97	0.64
36:5:3195:U:H1'	36:5:3196:U:OP1	1.97	0.64
24:D2:76:SER:OG	24:D2:77:PRO:HD3	1.97	0.64
66:O0:99:ASP:O	66:O0:101:LEU:N	2.95	0.64
42:L5:105:ILE:O	42:L5:109:THR:HG23	1.98	0.64
6:S4:100:ARG:HH21	6:S4:122:LYS:HA	2.46	0.64
87:1:4203:OHX:N6	87:O1:202:OHX:N3	2.45	0.64
47:M0:12:GLN:HE21	47:M0:128:ARG:NH1	1.96	0.64
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.80	0.64
1:2:808:U:H2'	1:2:809:A:C8	2.32	0.64
48:M1:8:PRO:CG	48:M1:9:MET:H	2.89	0.64
64:N8:82:ILE:HG22	64:N8:87:ARG:HG3	3.23	0.64
36:1:2896:A:OP1	76:Q0:102:ARG:NE	2.28	0.64
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.78	0.64
1:6:1679:G:O6	87:6:2188:OHX:N3	2.31	0.64
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.31	0.64
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.31	0.64
36:1:1231:A:OP2	87:1:4089:OHX:N6	2.31	0.64
10:S8:76:THR:HG21	10:S8:105:ASP:O	5.07	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:60:LEU:HD13	72:O6:64:SER:HB3	1.80	0.64
1:2:866:G:OP1	15:C3:2:GLY:HA3	1.98	0.64
62:N6:55:GLU:HB2	62:N6:108:LYS:HB3	4.10	0.64
1:2:199:G:HO2'	1:2:200:A:H8	1.45	0.64
1:2:1240:U:OP2	87:2:2145:OHX:N1	2.30	0.64
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.57	0.64
36:5:629:U:H2'	36:5:630:A:C8	2.33	0.64
36:1:92:G:OP2	36:1:93:C:H5''	1.98	0.64
36:5:1819:U:O4	87:5:4056:OHX:N5	2.31	0.64
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	2.19	0.64
36:5:1934:G:O6	87:5:3920:OHX:N2	2.30	0.64
87:6:2118:OHX:N6	87:6:2169:OHX:N5	2.46	0.64
47:M0:66:GLU:CD	47:M0:69:ARG:HH21	2.02	0.64
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.59	0.64
1:2:803:A:H1'	9:S7:104:ARG:HH11	1.63	0.64
1:2:530:C:O2	26:D4:61:ARG:NH2	2.31	0.64
34:SR:144:LEU:HD21	34:SR:186:PHE:HB3	4.37	0.64
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.35	0.64
46:L9:136:PHE:CE1	46:L9:144:ILE:HG12	4.98	0.64
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.80	0.64
1:6:488:G:H21	1:6:499:U:H3	1.46	0.64
53:M7:178:ALA:O	53:M7:182:ILE:HB	1.98	0.64
1:2:1274:C:H5	35:SM:96:ARG:H	1.44	0.64
1:2:701:U:H3	1:2:737:A:H61	1.46	0.64
6:S4:181:VAL:HG22	6:S4:227:VAL:HA	2.54	0.64
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.13	0.64
9:S7:143:LEU:HB2	9:S7:147:ASN:O	2.96	0.64
1:2:1359:C:OP1	21:C9:130:ARG:NH1	2.31	0.64
49:M3:59:ARG:NH1	36:5:73:C:N3	95.47	0.64
70:O4:81:CYS:O	70:O4:83:ASN:N	2.31	0.64
45:L8:33:ASN:O	45:L8:33:ASN:ND2	4.21	0.64
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.79	0.64
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.30	0.64
32:E0:18:THR:HG21	1:6:584:C:H1'	389.89	0.64
36:1:2818:U:C6	36:1:2818:U:H5'	2.30	0.63
36:1:1573:G:N2	36:1:1574:C:O2'	2.31	0.63
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.81	0.63
70:O4:8:ARG:HG2	70:O4:8:ARG:NH1	2.10	0.63
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	5.02	0.63
3:S1:104:ASP:HA	3:S1:214:LYS:HE2	1.81	0.63
10:S8:110:ARG:HH22	10:S8:160:PHE:HB3	2.68	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	2.21	0.63
37:3:60:G:OP2	87:3:226:OHX:N3	2.31	0.63
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	6.51	0.63
36:5:835:G:O2'	36:5:857:G:N2	2.28	0.63
41:L4:232:SER:OG	41:L4:233:LEU:N	2.31	0.63
47:M0:63:GLU:HB2	36:5:2853:A:H5'	297.75	0.63
41:L4:144:LYS:CG	41:L4:145:ILE:H	4.42	0.63
53:M7:69:ARG:HG2	53:M7:79:THR:HG23	4.62	0.63
44:L7:159:GLN:O	44:L7:160:ARG:HB3	1.98	0.63
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.31	0.63
26:D4:10:ARG:HD2	26:D4:26:ASP:HB2	1.78	0.63
58:N2:49:ASN:O	58:N2:51:GLY:N	2.27	0.63
36:1:1349:G:H22	36:1:1355:A:N6	1.95	0.63
46:L9:70:THR:HG21	36:5:3122:A:N1	324.96	0.63
36:5:2123:G:N7	87:5:4106:OHX:N1	2.46	0.63
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	1.99	0.63
1:6:1524:A:H2'	1:6:1525:A:C8	2.33	0.63
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.63	0.63
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	1.80	0.63
38:4:63:G:O2'	71:O5:49:LYS:HE2	1.99	0.63
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.33	0.63
36:1:2371:G:O6	87:1:3875:OHX:N3	2.32	0.63
34:SR:16:HIS:CE1	34:SR:37:SER:HB2	2.34	0.63
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.10	0.63
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.28	0.63
55:M9:104:ARG:HH11	55:M9:104:ARG:HB3	1.62	0.63
1:6:1539:G:H5'	1:6:1539:G:C8	2.33	0.63
17:C5:126:VAL:HG22	17:C5:127:ARG:H	3.12	0.63
51:M5:184:LYS:H	51:M5:186:GLY:H	1.49	0.63
34:SR:14:GLU:HG2	34:SR:309:VAL:HG13	4.13	0.63
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.78	0.63
1:2:1067:C:H2'	1:2:1068:C:H6	1.63	0.63
1:2:66:U:C5	8:S6:173:PRO:HG3	2.33	0.63
21:C9:39:THR:HA	21:C9:100:ILE:HD12	1.80	0.63
40:L3:320:ASP:N	40:L3:320:ASP:OD2	2.31	0.63
36:5:3279:A:H2'	36:5:3280:U:H5'	1.81	0.63
11:S9:108:ARG:HH21	11:S9:145:SER:HB3	2.77	0.63
1:2:1101:G:H5''	24:D2:76:SER:HB3	1.81	0.63
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.88	0.63
36:1:1564:U:H2'	36:1:1565:G:C8	2.33	0.63
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:67:ILE:HD11	36:5:1447:G:H3'	165.44	0.63
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.31	0.63
75:O9:2:ALA:N	36:5:1493:G:O6	122.93	0.63
20:C8:8:GLN:O	20:C8:10:SER:N	3.87	0.63
36:5:1696:A:OP2	87:5:4193:OHX:N6	2.31	0.63
1:2:1281:G:H2'	1:2:1282:U:H6	1.64	0.63
34:SR:153:GLN:HB3	34:SR:202:LEU:HD23	1.79	0.63
36:1:1554:U:HO2'	36:1:1582:C:H5	1.44	0.63
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.03	0.63
42:L5:68:THR:HG22	42:L5:70:THR:H	1.63	0.63
36:1:3298:C:OP1	53:M7:74:LYS:NZ	2.30	0.63
50:M4:17:VAL:HG22	50:M4:36:VAL:O	1.99	0.63
36:1:1798:A:H2'	36:1:1799:A:C8	2.33	0.63
15:C3:27:LYS:HE2	15:C3:27:LYS:H	1.62	0.63
36:1:2689:A:H2'	36:1:2689:A:N3	2.14	0.63
43:L6:80:ASN:HB2	36:5:3272:C:O2	248.60	0.63
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.82	0.63
3:S1:129:THR:OG1	3:S1:131:ASP:O	3.13	0.63
2:S0:56:LYS:HE3	2:S0:158:VAL:HG23	4.11	0.63
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.80	0.63
42:L5:68:THR:HG22	42:L5:71:GLY:N	2.93	0.63
12:C0:55:VAL:HB	12:C0:68:LEU:HD12	3.82	0.63
1:6:1579:U:OP1	87:6:2181:OHX:N4	2.32	0.63
36:5:1716:U:H6	36:5:1716:U:H5'	1.64	0.63
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.80	0.63
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	2.41	0.63
49:M3:129:ASN:OD1	49:M3:130:GLY:N	5.26	0.63
34:SR:33:LEU:HB3	34:SR:45:TRP:HB2	1.80	0.63
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.32	0.63
36:1:924:G:OP1	87:1:4148:OHX:N5	2.31	0.63
1:2:1595:U:N3	1:2:1600:A:H2	1.95	0.63
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.27	0.63
1:6:67:A:O2'	1:6:69:G:OP1	2.03	0.63
42:L5:279:LYS:HD3	42:L5:282:ARG:NH2	4.36	0.63
1:6:486:G:O6	1:6:488:G:N2	2.31	0.63
54:M8:161:LYS:O	54:M8:162:ALA:HB3	1.98	0.63
36:5:1308:A:C8	36:5:1308:A:OP2	2.51	0.63
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	1.81	0.63
1:6:1160:A:H2'	1:6:1161:C:C6	2.33	0.63
6:S4:171:ASP:OD1	6:S4:172:PHE:N	2.31	0.63
1:6:1699:G:H22	1:6:1702:A:H5''	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2356:A:N6	36:1:2983:C:H5	1.96	0.63
36:1:2128:C:OP1	87:1:3960:OHX:N4	2.31	0.63
36:5:1952:G:H1	36:5:2094:C:H42	1.46	0.63
18:C6:21:HIS:HB2	18:C6:66:ARG:HB3	3.21	0.63
1:6:1697:G:H8	1:6:1705:C:N3	1.96	0.63
40:L3:344:THR:O	40:L3:344:THR:OG1	2.17	0.63
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.64	0.63
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.27	0.63
1:2:513:U:H2'	1:2:514:G:C8	2.32	0.63
57:N1:108:ARG:HD2	57:N1:130:ARG:HD3	1.80	0.63
9:S7:119:THR:HG23	1:6:639:U:OP2	369.82	0.63
9:S7:55:LYS:HE2	9:S7:87:ASP:HA	2.43	0.63
1:2:771:A:OP1	11:S9:9:SER:OG	2.12	0.63
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.34	0.63
1:2:1181:U:O4	87:2:2119:OHX:N6	2.32	0.63
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.98	0.63
23:D1:1:MET:HG2	23:D1:9:VAL:HG12	6.14	0.62
67:O1:44:MET:O	67:O1:46:THR:HG22	4.24	0.62
36:5:3195:U:O2'	36:5:3196:U:H5'	1.99	0.62
3:S1:32:ILE:HG13	3:S1:96:LEU:HD21	1.81	0.62
33:E1:119:ARG:HH11	33:E1:139:LEU:HD21	1.64	0.62
1:2:780:A:H8	26:D4:8:ARG:HB3	1.64	0.62
36:5:1781:C:H2'	36:5:1782:U:H6	1.62	0.62
1:2:623:A:OP1	87:2:2158:OHX:N4	2.32	0.62
87:6:2118:OHX:N6	87:6:2169:OHX:N3	2.47	0.62
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	9.79	0.62
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.80	0.62
87:5:4026:OHX:N6	87:5:4224:OHX:N2	2.47	0.62
1:2:1564:U:H2'	1:2:1565:C:C6	2.33	0.62
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	2.36	0.62
49:M3:9:ILE:HG23	64:N8:34:MET:HE3	2.42	0.62
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	2.78	0.62
38:4:107:G:OP2	87:4:234:OHX:N2	2.31	0.62
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.81	0.62
13:C1:33:ARG:HH22	13:C1:51:GLY:C	4.01	0.62
36:5:3074:G:OP1	87:5:4126:OHX:N4	2.32	0.62
64:N8:85:ASP:N	64:N8:85:ASP:OD1	2.67	0.62
25:D3:23:ARG:HH11	25:D3:23:ARG:HG3	1.63	0.62
1:2:4:C:O2'	11:S9:17:ARG:NH1	2.32	0.62
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.30	0.62
36:5:23:A:OP1	87:5:3911:OHX:N4	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:8:LYS:NZ	36:5:1473:G:OP2	124.76	0.62
51:M5:23:GLN:NE2	51:M5:122:ASN:OD1	2.28	0.62
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.63	0.62
1:2:656:G:O2'	1:2:657:U:O4'	2.17	0.62
1:6:138:A:N6	1:6:266:A:H61	1.96	0.62
1:2:1062:A:OP2	87:2:2166:OHX:N4	2.33	0.62
12:C0:52:LYS:HE3	1:6:1220:C:H5'	443.78	0.62
1:2:1450:U:OP2	87:2:2062:OHX:N5	2.32	0.62
42:L5:270:LYS:HB3	37:7:1:G:O2'	322.94	0.62
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.29	0.62
55:M9:88:ARG:NH1	36:5:2103:U:OP1	213.73	0.62
49:M3:171:ARG:HD3	36:5:770:G:OP1	145.67	0.62
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.80	0.62
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	1.82	0.62
15:C3:127:ARG:HH11	15:C3:127:ARG:HG2	1.63	0.62
36:5:936:A:H5'	36:5:937:G:OP1	1.99	0.62
12:C0:87:VAL:O	12:C0:89:ALA:N	5.11	0.62
71:O5:34:GLN:HB3	71:O5:38:ARG:HH22	3.26	0.62
1:6:1681:A:H2	1:6:1720:G:H21	1.47	0.62
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	3.14	0.62
42:L5:268:GLU:O	42:L5:270:LYS:N	3.81	0.62
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.82	0.62
5:S3:168:ILE:HG22	5:S3:189:MET:HB2	1.80	0.62
10:S8:56:ARG:HH22	1:6:332:U:P	288.02	0.62
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.33	0.62
1:2:1657:U:H4'	1:2:1658:G:O5'	1.98	0.62
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.14	0.62
13:C1:22:ASN:HB3	13:C1:25:VAL:HG23	2.91	0.62
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.97	0.62
36:5:982:C:H42	36:5:1101:G:H1	1.45	0.62
36:5:2530:G:H2'	36:5:2531:C:H5'	1.81	0.62
36:5:2249:G:OP1	87:5:4206:OHX:N6	2.31	0.62
37:3:1:G:N2	42:L5:269:SER:OG	2.28	0.62
40:L3:5:LYS:HE3	36:5:2878:G:OP1	244.97	0.62
36:1:2818:U:C5'	36:1:2818:U:H6	2.13	0.62
20:C8:40:ARG:NH1	1:6:1539:G:O4'	353.88	0.62
9:S7:50:ASP:HB3	9:S7:56:LYS:HG2	1.82	0.62
13:C1:18:HIS:O	87:6:2123:OHX:N3	294.36	0.62
24:D2:78:ARG:HD2	24:D2:126:LEU:HB3	1.80	0.62
1:2:1490:C:H4'	1:2:1491:U:OP1	1.99	0.62
29:D7:74:SER:O	29:D7:77:THR:OG1	3.51	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1117:G:OP1	65:N9:4:SER:HB2	1.99	0.62
6:S4:192:ILE:HD13	6:S4:238:LEU:HD22	1.82	0.62
60:N4:25:ASP:OD2	60:N4:26:SER:N	4.56	0.62
1:6:489:C:O2'	1:6:490:C:O4'	2.18	0.62
36:1:1235:U:H4'	36:1:1236:G:H5'	1.82	0.62
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.32	0.62
42:L5:58:LYS:HD2	42:L5:93:THR:HG21	1.81	0.62
4:S2:38:VAL:N	4:S2:65:GLU:OE1	2.96	0.62
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.67	0.62
17:C5:121:ILE:HD13	17:C5:123:TYR:H	2.58	0.62
55:M9:5:ARG:NH2	36:5:1471:U:OP1	120.66	0.62
64:N8:16:SER:HA	36:5:942:U:N3	169.93	0.62
1:2:1291:G:H1	1:2:1324:G:H1	1.46	0.62
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	4.01	0.62
36:1:2278:C:OP1	87:1:3960:OHX:N3	2.32	0.62
34:SR:11:GLY:HA3	34:SR:54:PHE:HB2	1.82	0.62
36:1:2101:C:O2'	36:1:2102:U:O5'	2.17	0.62
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	1.92	0.62
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.37	0.62
1:2:1776:A:H2'	1:2:1777:G:C8	2.35	0.62
36:1:3103:A:OP2	87:1:4172:OHX:N1	2.32	0.62
1:2:1761:U:O2'	1:2:1762:A:OP2	2.17	0.62
36:1:979:U:H1'	36:1:980:A:C8	2.34	0.62
1:2:1410:A:H5''	18:C6:118:ILE:HD13	1.81	0.62
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.32	0.62
13:C1:138:ASN:O	13:C1:138:ASN:ND2	2.25	0.62
40:L3:94:GLU:HB3	52:M6:152:VAL:HG21	1.82	0.62
1:2:651:G:N7	87:2:2104:OHX:N6	2.47	0.62
56:N0:148:LEU:HD12	56:N0:149:LYS:H	1.65	0.62
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.80	0.62
36:5:2836:C:H5	36:5:2852:C:N4	1.89	0.62
1:6:218:A:H2'	1:6:219:A:H5''	1.82	0.62
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.00	0.62
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	4.04	0.62
55:M9:44:LEU:HA	55:M9:47:ASN:HB3	4.93	0.62
1:6:729:G:O2'	1:6:730:G:O5'	2.18	0.62
1:6:453:U:O4	87:6:2059:OHX:N4	2.32	0.62
1:6:1769:U:OP2	87:6:2142:OHX:N2	2.33	0.62
36:1:2218:G:H2'	36:1:2219:A:H8	1.64	0.62
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.00	0.62
39:L2:130:SER:HB3	39:L2:174:ARG:HH21	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:1:3961:OHX:N6	44:L7:217:PRO:O	2.32	0.62
2:S0:21:ASN:HB3	2:S0:24:LEU:HD13	1.82	0.62
36:5:385:A:H2'	36:5:386:A:C8	2.35	0.62
40:L3:221:THR:HG22	40:L3:272:TYR:N	2.66	0.62
34:SR:13:LEU:HD12	34:SR:310:ILE:HB	1.80	0.62
51:M5:44:ARG:NH2	36:5:269:G:OP1	124.61	0.62
6:S4:146:THR:HG21	1:6:123:G:H21	341.34	0.62
8:S6:148:SER:O	8:S6:150:GLU:N	2.31	0.62
21:C9:32:GLY:H	21:C9:34:VAL:HG12	1.64	0.62
1:6:987:G:O6	87:6:2117:OHX:N4	2.33	0.62
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.81	0.62
21:C9:97:SER:O	21:C9:101:ASN:ND2	2.33	0.62
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	2.08	0.62
36:1:2662:G:H2'	36:1:2663:G:H8	1.65	0.61
20:C8:91:ASP:O	20:C8:93:THR:N	2.33	0.61
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.63	0.61
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.64	0.61
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	2.05	0.61
2:S0:56:LYS:NZ	23:D1:66:ASP:OD1	2.31	0.61
36:1:873:C:OP2	36:1:874:U:O2'	2.16	0.61
9:S7:80:GLU:OE2	9:S7:83:LYS:NZ	2.26	0.61
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	2.00	0.61
36:1:603:A:H2'	36:1:604:G:O4'	2.00	0.61
42:L5:24:ARG:NH2	37:7:13:A:N3	293.28	0.61
78:Q2:38:GLN:NE2	78:Q2:38:GLN:O	2.87	0.61
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.00	0.61
36:5:2439:A:N6	36:5:2508:U:H3	1.98	0.61
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.30	0.61
16:C4:13:VAL:HG13	16:C4:77:THR:H	1.65	0.61
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	3.44	0.61
38:8:79:A:H3'	38:8:80:A:C8	2.35	0.61
1:6:151:G:H1	1:6:163:G:H1	1.48	0.61
19:C7:104:ASN:O	19:C7:106:THR:N	3.79	0.61
49:M3:128:ARG:NH1	71:O5:109:ILE:O	3.70	0.61
13:C1:128:CYS:O	13:C1:129:ARG:HB3	4.47	0.61
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.96	0.61
36:5:3241:G:H2'	36:5:3245:A:C8	2.36	0.61
1:2:45:U:O2'	1:2:46:A:H2'	1.99	0.61
69:O3:48:ARG:HH11	69:O3:48:ARG:HG2	1.66	0.61
1:6:542:A:H2'	1:6:542:A:OP1	2.00	0.61
56:N0:90:MET:HG2	36:5:1213:G:H4'	319.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:68:ARG:HH12	36:5:2988:C:P	215.99	0.61
87:5:4026:OHX:N5	87:5:4224:OHX:N1	2.48	0.61
1:6:1680:G:O6	87:6:2188:OHX:N1	2.32	0.61
1:2:348:U:O4	87:2:2128:OHX:N5	2.33	0.61
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.32	0.61
1:6:1670:G:N7	87:6:2189:OHX:N4	2.49	0.61
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.83	0.61
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	1.84	0.61
36:1:831:G:O6	87:1:3892:OHX:N4	2.33	0.61
2:S0:29:VAL:O	2:S0:30:GLN:HB3	4.16	0.61
1:2:1207:C:H42	1:2:1456:C:H5	1.48	0.61
1:2:187:G:OP2	10:S8:142:LYS:NZ	2.33	0.61
6:S4:100:ARG:NH2	6:S4:122:LYS:HA	2.51	0.61
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.92	0.61
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	5.06	0.61
1:6:488:G:N2	1:6:499:U:H3	1.99	0.61
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.56	0.61
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.64	0.61
1:2:855:A:C2	1:2:857:U:H1'	2.35	0.61
36:5:731:U:H2'	36:5:732:C:H6	1.64	0.61
1:6:649:U:H2'	1:6:650:U:H5	1.66	0.61
36:1:2157:G:O6	39:L2:152:SER:HB3	2.00	0.61
32:E0:28:LYS:HE2	1:6:542:A:H61	430.96	0.61
53:M7:138:LYS:HD2	53:M7:140:GLU:CD	2.19	0.61
1:2:1642:G:O6	87:2:2023:OHX:N6	2.34	0.61
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.34	0.61
40:L3:53:MET:HE3	36:5:3048:A:H5''	233.15	0.61
16:C4:125:SER:OG	16:C4:126:THR:N	3.35	0.61
1:2:1228:G:H1	14:C2:67:THR:HB	1.65	0.61
54:M8:58:ASN:HB3	54:M8:144:ARG:CZ	3.05	0.61
1:2:108:A:H2'	1:2:109:G:C8	2.35	0.61
46:L9:129:ARG:O	46:L9:132:VAL:HG13	3.16	0.61
10:S8:18:ARG:NH1	1:6:105:A:OP1	305.70	0.61
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.81	0.61
60:N4:38:SER:O	60:N4:42:GLN:HG3	2.01	0.61
36:1:3152:U:O2'	36:1:3153:U:H5'	2.01	0.61
1:2:1459:C:OP2	20:C8:138:THR:OG1	2.14	0.61
36:1:1285:G:O2'	36:1:1286:A:OP2	2.14	0.61
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.32	0.61
36:1:1278:A:O2'	36:1:1279:C:O5'	2.18	0.61
10:S8:62:THR:HA	10:S8:76:THR:O	2.60	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1508:U:O4	87:6:2052:OHX:N4	2.32	0.61
62:N6:45:ILE:HD11	62:N6:122:LYS:HD3	1.81	0.61
36:5:22:G:H1'	38:8:104:A:N3	2.15	0.61
36:1:1808:G:O6	87:1:3985:OHX:N3	2.34	0.61
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.00	0.61
19:C7:4:VAL:HG13	1:6:1402:G:H5'	402.62	0.61
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.01	0.61
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	2.14	0.61
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	3.13	0.61
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.81	0.61
1:2:116:U:H2'	1:2:117:U:C6	2.35	0.61
24:D2:83:ILE:HG12	24:D2:117:ARG:HH12	1.66	0.61
10:S8:161:SER:OG	36:5:3353:G:OP1	233.26	0.61
1:6:848:C:H2'	1:6:849:C:H6	1.66	0.61
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.86	0.61
23:D1:3:ASN:ND2	23:D1:7:GLN:O	4.72	0.61
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.07	0.61
47:M0:35:ASP:OD1	47:M0:86:HIS:NE2	2.44	0.61
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.01	0.61
63:N7:65:ARG:HH11	63:N7:65:ARG:HG3	2.57	0.61
41:L4:93:MET:HB2	36:5:658:G:N2	145.63	0.61
1:2:1472:C:H4'	1:2:1473:U:H5'	1.82	0.61
51:M5:190:THR:O	51:M5:194:GLN:HG2	3.72	0.61
36:5:1724:U:H1'	36:5:1725:C:C6	2.35	0.61
70:O4:103:LYS:O	70:O4:107:GLU:HB2	2.05	0.61
19:C7:26:LEU:HD13	19:C7:59:LYS:HG3	1.82	0.61
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.65	0.61
8:S6:4:ASN:HA	8:S6:15:THR:HG22	2.02	0.61
46:L9:22:SER:HG	46:L9:23:ARG:H	1.45	0.61
36:5:314:U:O4	87:5:4199:OHX:N5	2.34	0.61
36:5:283:G:OP2	36:5:285:A:O2'	2.18	0.61
44:L7:217:PRO:HA	87:5:4007:OHX:N5	262.99	0.61
1:6:1685:G:H1	1:6:1716:C:N4	1.97	0.61
22:D0:28:SER:OG	22:D0:29:THR:N	2.33	0.61
36:1:309:U:OP1	72:O6:84:LYS:NZ	2.18	0.61
48:M1:12:LEU:HD12	48:M1:131:MET:HE3	1.83	0.61
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	2.97	0.61
1:2:755:A:H2'	1:2:756:A:H8	1.66	0.61
1:6:417:A:H4'	1:6:418:G:O5'	2.00	0.61
36:1:1790:G:O6	87:1:4173:OHX:N4	2.33	0.61
47:M0:153:ARG:HG3	47:M0:165:ILE:HD12	4.79	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:54:GLU:OE2	67:O1:54:GLU:N	2.34	0.61
36:1:3278:C:H2'	36:1:3278:C:O2	2.01	0.61
10:S8:2:GLY:N	1:6:393:C:OP2	292.30	0.61
65:N9:14:ARG:HH22	65:N9:18:ARG:NH1	3.11	0.61
87:5:3978:OHX:N3	87:5:4250:OHX:N5	2.49	0.61
9:S7:28:GLU:HG3	9:S7:35:LYS:HG3	1.83	0.61
2:S0:154:GLU:HA	23:D1:63:GLY:HA2	1.83	0.61
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.83	0.61
1:6:770:A:OP2	87:6:2136:OHX:N3	2.34	0.61
22:D0:46:GLU:HB2	22:D0:52:LYS:NZ	2.16	0.61
36:5:3165:A:H61	36:5:3285:C:N4	1.99	0.61
52:M6:3:VAL:HG13	52:M6:4:GLU:H	1.66	0.61
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.81	0.60
36:1:1362:G:H4'	44:L7:159:GLN:O	2.01	0.60
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	5.70	0.60
1:6:500:C:O2'	1:6:501:U:O4'	2.18	0.60
5:S3:156:PHE:CE2	5:S3:158:ILE:HG22	2.36	0.60
14:C2:124:LYS:O	14:C2:126:TRP:N	2.31	0.60
36:5:1438:U:H2'	36:5:1439:U:C6	2.36	0.60
36:1:3376:A:OP2	87:1:3910:OHX:N5	2.34	0.60
33:E1:82:LYS:O	33:E1:84:VAL:N	5.01	0.60
87:8:214:OHX:N2	87:8:221:OHX:N1	2.48	0.60
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.01	0.60
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.91	0.60
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.83	0.60
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.83	0.60
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.82	0.60
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.62	0.60
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.81	0.60
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.33	0.60
10:S8:138:ASN:HA	10:S8:141:ARG:HD3	5.57	0.60
1:2:703:G:H2'	1:2:704:C:H5'	1.83	0.60
26:D4:2:SER:N	26:D4:32:ARG:HD3	4.91	0.60
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.14	0.60
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.31	0.60
1:2:66:U:H5	8:S6:173:PRO:HG3	1.66	0.60
40:L3:153:LYS:HG2	40:L3:154:TYR:CE2	3.93	0.60
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	2.35	0.60
9:S7:134:GLU:OE1	15:C3:19:SER:OG	2.16	0.60
34:SR:209:THR:HB	34:SR:226:ALA:HB2	2.93	0.60
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:192:PRO:O	5:S3:195:SER:OG	4.59	0.60
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.31	0.60
67:O1:79:ARG:H	67:O1:79:ARG:HE	1.48	0.60
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	1.82	0.60
20:C8:41:ARG:NH2	21:C9:36:ILE:O	3.16	0.60
87:5:4026:OHX:N6	87:5:4224:OHX:N4	2.49	0.60
42:L5:148:ILE:HG23	42:L5:151:GLN:HB2	1.84	0.60
74:O8:12:LEU:HB3	74:O8:16:ARG:HH12	1.67	0.60
73:O7:76:ASN:O	73:O7:79:GLN:HG3	3.70	0.60
36:1:1374:G:O6	64:N8:10:LYS:NZ	2.31	0.60
36:1:2185:G:O2'	36:1:2314:U:OP2	2.18	0.60
28:D6:79:ILE:HA	28:D6:84:VAL:HG11	1.82	0.60
34:SR:22:SER:HB2	34:SR:70:ASP:HA	1.84	0.60
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.82	0.60
36:1:1507:G:N7	53:M7:129:THR:HG22	2.17	0.60
3:S1:144:ARG:NH2	3:S1:207:LEU:O	2.34	0.60
36:1:1789:G:N7	87:1:4173:OHX:N2	2.49	0.60
1:6:595:G:H2'	1:6:596:C:C6	2.36	0.60
9:S7:46:ILE:HD11	9:S7:60:ILE:HG12	1.83	0.60
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.74	0.60
1:2:81:G:OP2	87:2:2141:OHX:N5	2.34	0.60
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.34	0.60
36:5:1194:G:OP1	87:5:4019:OHX:N6	2.35	0.60
54:M8:165:ILE:HG23	54:M8:167:SER:H	5.66	0.60
69:O3:13:HIS:O	69:O3:95:GLY:N	2.27	0.60
36:1:1569:U:H5'	36:1:1570:U:H5''	1.82	0.60
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.67	0.60
1:2:649:U:O2'	1:2:650:U:O5'	2.17	0.60
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	1.83	0.60
36:1:2734:A:OP1	87:1:4010:OHX:N3	2.35	0.60
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.35	0.60
1:2:749:U:H3	1:2:800:U:H3	1.50	0.60
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.51	0.60
42:L5:279:LYS:HE3	42:L5:282:ARG:HH12	1.64	0.60
36:1:541:U:O4	87:1:4198:OHX:N2	2.35	0.60
36:5:1070:U:O4	87:5:4118:OHX:N6	2.34	0.60
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.23	0.60
63:N7:115:LYS:O	63:N7:119:GLU:HB2	3.17	0.60
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.03	0.60
1:2:1316:G:HO2'	1:2:1401:A:HO2'	1.49	0.60
36:1:249:U:H1'	36:1:250:U:O2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:829:A:OP1	1:6:829:A:H4'	2.01	0.60
57:N1:68:THR:HG22	57:N1:71:SER:H	2.00	0.60
24:D2:47:ILE:HG22	24:D2:65:LEU:HD12	1.82	0.60
7:S5:112:ARG:NH1	18:C6:43:ILE:HD11	2.17	0.60
10:S8:172:ARG:NH1	1:6:330:G:OP2	281.14	0.60
36:5:419:G:N7	87:5:3909:OHX:N3	2.49	0.60
36:1:851:C:OP1	79:Q3:3:LYS:NZ	2.29	0.60
36:5:529:A:H2'	36:5:530:G:O4'	2.02	0.60
87:1:3972:OHX:N1	38:4:31:G:OP2	2.34	0.60
13:C1:40:LEU:HD22	1:6:246:G:C2	327.48	0.60
74:O8:27:ILE:HD13	74:O8:41:THR:HB	2.32	0.60
36:5:2765:C:H2'	36:5:2766:U:H6	1.65	0.60
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.36	0.60
8:S6:164:LYS:HB3	8:S6:167:LYS:HB3	1.83	0.60
40:L3:306:THR:OG1	40:L3:316:GLU:O	2.18	0.60
36:1:371:G:O6	87:1:4185:OHX:N4	2.35	0.60
41:L4:98:ARG:HD2	41:L4:99:MET:O	2.01	0.60
70:O4:82:ALA:O	70:O4:86:LYS:N	2.62	0.60
1:2:136:C:H4'	1:2:137:U:OP1	2.00	0.60
36:5:1614:C:H2'	36:5:1615:C:C6	2.37	0.60
10:S8:195:ARG:O	10:S8:199:LYS:HB2	2.02	0.60
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.83	0.60
17:C5:77:ARG:NH1	1:6:1241:G:OP1	383.79	0.60
1:6:800:U:H2'	1:6:801:G:H8	1.67	0.60
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	5.20	0.60
39:L2:70:ARG:CZ	39:L2:72:ARG:HE	4.94	0.60
2:S0:83:GLN:HG2	2:S0:99:ALA:HB1	1.84	0.60
36:1:356:C:OP2	87:1:4146:OHX:N1	2.35	0.60
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	1.82	0.60
36:1:2338:C:OP1	40:L3:236:LYS:HE2	2.02	0.60
8:S6:32:ILE:HD11	8:S6:54:GLY:HA2	1.84	0.60
60:N4:63:ILE:O	60:N4:65:GLU:N	3.07	0.60
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	1.82	0.60
37:3:26:C:H5''	42:L5:56:THR:HB	1.83	0.60
7:S5:162:VAL:HG22	7:S5:167:ARG:HG2	4.45	0.60
52:M6:68:ARG:NH1	36:5:2988:C:P	216.84	0.60
13:C1:5:LEU:HD22	13:C1:5:LEU:H	3.83	0.60
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.83	0.60
1:2:377:G:O6	87:2:2078:OHX:N5	2.34	0.60
48:M1:54:VAL:HG13	48:M1:59:ILE:HD11	4.80	0.60
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.28	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:112:THR:HG22	2:S0:115:PHE:HB2	2.76	0.60
73:O7:2:GLY:N	36:5:2138:A:HO2'	174.03	0.60
1:2:95:G:H4'	6:S4:8:HIS:CD2	2.37	0.60
42:L5:8:LYS:NZ	37:7:15:C:O3'	312.75	0.60
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.32	0.60
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.35	0.60
36:5:94:G:H2'	36:5:95:A:C8	2.37	0.60
1:2:706:A:N1	1:2:734:A:N6	2.50	0.60
36:1:776:U:C5	36:1:2719:U:O2	2.54	0.60
1:2:868:G:H1	1:2:960:U:H3	1.48	0.60
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.34	0.60
36:5:252:U:H4'	36:5:253:A:C5'	2.32	0.60
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.92	0.60
36:1:1306:G:O2'	36:1:1307:G:H5'	2.02	0.60
1:2:1449:U:H2'	1:2:1450:U:C6	2.36	0.60
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.59	0.60
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.83	0.60
1:2:260:U:H3'	1:2:261:U:H5''	1.83	0.60
5:S3:64:ARG:HH22	5:S3:65:ARG:HD3	10.31	0.60
36:5:1020:G:H2'	36:5:1021:G:O4'	2.02	0.60
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.02	0.60
87:6:2118:OHX:N4	87:6:2169:OHX:N3	2.50	0.60
36:1:2107:A:C2	36:1:3344:A:H8	2.20	0.60
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.83	0.60
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.18	0.60
9:S7:35:LYS:O	9:S7:37:GLU:N	2.29	0.60
6:S4:155:LYS:HG3	6:S4:174:LYS:HZ1	1.66	0.60
41:L4:317:PRO:HB3	41:L4:324:LEU:HA	2.41	0.60
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	2.05	0.60
42:L5:63:GLN:HB3	42:L5:65:ILE:HD11	3.00	0.60
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	2.67	0.60
36:1:1159:A:H5'	44:L7:92:ILE:HG22	1.84	0.60
36:5:191:U:H2'	36:5:192:C:C6	2.37	0.60
36:5:3066:U:O4	87:5:4112:OHX:N4	2.35	0.60
11:S9:85:VAL:HG12	11:S9:99:LEU:HD11	1.84	0.60
46:L9:168:ARG:HD2	36:5:2894:C:OP1	306.67	0.60
36:5:690:A:H4'	36:5:691:A:OP1	2.01	0.60
39:L2:204:MET:HE3	39:L2:209:HIS:HB2	1.84	0.59
44:L7:110:ARG:CZ	54:M8:3:ILE:HD12	4.78	0.59
6:S4:104:ASP:HB3	6:S4:106:LYS:H	2.03	0.59
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	4.27	0.59
22:D0:63:LEU:HB2	22:D0:84:MET:HB3	2.44	0.59
2:S0:193:GLN:O	2:S0:195:TRP:N	2.35	0.59
6:S4:242:LYS:N	6:S4:242:LYS:HE3	2.17	0.59
51:M5:103:GLU:OE1	51:M5:118:SER:OG	2.13	0.59
36:1:3281:U:H2'	36:1:3282:U:C6	2.37	0.59
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.37	0.59
1:2:676:G:O6	1:2:677:G:N2	2.35	0.59
26:D4:54:ALA:HB2	26:D4:79:VAL:HG22	1.84	0.59
1:2:1114:G:O2'	1:2:1130:G:O6	2.16	0.59
36:5:734:C:H2'	36:5:735:A:O4'	2.02	0.59
67:O1:43:HIS:O	67:O1:44:MET:HE2	6.04	0.59
36:5:1152:G:OP2	36:5:1152:G:C8	2.55	0.59
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.02	0.59
49:M3:93:ILE:HG22	49:M3:94:GLY:H	4.52	0.59
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.67	0.59
36:1:1094:U:O2'	36:1:1095:U:O5'	2.19	0.59
20:C8:25:ASN:N	20:C8:25:ASN:OD1	2.32	0.59
36:1:239:G:O2'	36:1:240:U:OP1	2.20	0.59
36:1:3138:U:OP2	40:L3:30:LYS:HE3	2.01	0.59
36:5:2962:U:OP1	87:5:3983:OHX:N4	2.35	0.59
61:N5:38:LEU:O	61:N5:39:LYS:HB2	4.44	0.59
41:L4:140:HIS:H	41:L4:180:LYS:HE2	1.67	0.59
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.34	0.59
59:N3:82:ALA:HB3	59:N3:98:ASN:HD21	1.66	0.59
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.15	0.59
36:5:3047:U:O2'	36:5:3048:A:H5'	2.02	0.59
3:S1:85:LYS:HB3	3:S1:101:HIS:HB3	1.84	0.59
26:D4:122:GLY:O	26:D4:125:LEU:N	2.41	0.59
46:L9:70:THR:HB	36:5:3112:G:O2'	330.07	0.59
1:2:1518:C:OP1	87:2:2121:OHX:N5	2.36	0.59
46:L9:48:VAL:HG11	46:L9:52:LEU:HD13	1.84	0.59
38:8:157:U:H2'	38:8:158:U:H6	1.65	0.59
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	3.07	0.59
1:2:1345:A:H2'	1:2:1348:A:H62	1.67	0.59
22:D0:105:GLN:HG3	22:D0:106:ILE:H	1.67	0.59
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.35	0.59
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.35	0.59
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.36	0.59
52:M6:183:ALA:C	52:M6:185:ALA:H	2.04	0.59
28:D6:87:ARG:NH1	1:6:1796:C:OP1	345.60	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.02	0.59
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.37	0.59
26:D4:29:HIS:O	26:D4:31:ASN:N	3.75	0.59
36:1:1308:A:C8	36:1:1308:A:OP2	2.55	0.59
9:S7:49:ILE:O	9:S7:57:ALA:N	2.28	0.59
36:5:3159:C:H2'	36:5:3160:U:C6	2.38	0.59
54:M8:170:ARG:O	54:M8:171:LYS:HB2	3.84	0.59
1:2:1681:A:H2'	1:2:1682:U:H5'	1.84	0.59
48:M1:132:ASN:HA	48:M1:154:THR:HG21	2.02	0.59
44:L7:196:LYS:HE2	36:5:1100:U:OP2	246.14	0.59
1:2:415:C:O2	1:2:418:G:N1	2.20	0.59
39:L2:128:ARG:NH1	36:5:2177:G:OP2	198.40	0.59
1:6:1130:G:OP2	87:6:2110:OHX:N1	2.36	0.59
50:M4:121:MET:HG3	36:5:3214:U:C4	283.07	0.59
34:SR:112:SER:OG	34:SR:153:GLN:NE2	2.35	0.59
19:C7:31:ASN:H	19:C7:31:ASN:HD22	4.51	0.59
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.36	0.59
2:S0:179:ARG:O	2:S0:183:ARG:HD3	3.91	0.59
36:5:1595:U:C2	36:5:1596:C:C5	2.90	0.59
1:6:220:A:H3'	1:6:832:U:H1'	1.83	0.59
46:L9:188:THR:OG1	46:L9:188:THR:O	2.20	0.59
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	2.65	0.59
36:5:510:G:O6	87:5:4029:OHX:N2	2.36	0.59
68:O2:101:SER:O	68:O2:105:ARG:HG3	2.02	0.59
43:L6:23:LYS:HE3	36:5:611:A:O4'	234.48	0.59
55:M9:175:GLN:O	55:M9:179:GLU:N	2.32	0.59
75:O9:26:TRP:HA	75:O9:29:LEU:HD22	3.17	0.59
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	2.46	0.59
28:D6:60:PRO:O	28:D6:62:TYR:N	2.34	0.59
36:5:2957:G:H8	36:5:2957:G:H5'	1.66	0.59
36:5:132:C:H2'	36:5:133:U:H5''	1.84	0.59
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.35	0.59
1:2:197:A:N6	10:S8:138:ASN:OD1	2.33	0.59
36:5:1555:U:H5'	36:5:1556:C:OP2	2.02	0.59
1:6:219:A:H2'	1:6:831:U:O2	2.03	0.59
27:D5:58:ARG:HB3	27:D5:103:ARG:NH1	6.51	0.59
51:M5:172:ARG:HH11	36:5:30:G:P	107.69	0.59
44:L7:143:THR:HG21	44:L7:237:ASN:HB3	1.85	0.59
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.03	0.59
7:S5:225:ARG:HH22	30:D8:57:MET:HB2	4.73	0.59
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.35	0.59
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.84	0.59
26:D4:86:GLU:OE1	26:D4:90:ARG:NH1	3.38	0.59
36:5:3358:U:H2'	36:5:3359:A:H8	1.67	0.59
36:1:3078:U:H4'	36:1:3079:U:O5'	2.02	0.59
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.13	0.59
1:2:1600:A:H4'	1:2:1601:G:OP1	2.00	0.59
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.02	0.59
4:S2:159:THR:HG21	1:6:1097:U:O3'	384.17	0.59
36:1:2946:A:H5''	36:1:2947:G:H5'	1.85	0.59
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.66	0.59
24:D2:26:LEU:HD13	24:D2:27:ILE:H	5.63	0.59
36:1:2218:G:H2'	36:1:2219:A:C8	2.38	0.59
66:O0:53:LYS:HE3	36:5:2552:C:H5	242.25	0.59
47:M0:7:ARG:NH1	36:5:2828:G:OP2	270.73	0.59
49:M3:68:LYS:HE2	36:5:699:A:OP1	97.10	0.59
1:6:913:G:H3'	1:6:914:G:H5'	1.84	0.59
1:6:193:U:C2	1:6:195:G:H1'	2.37	0.59
7:S5:51:VAL:HG11	7:S5:130:ILE:HG22	4.91	0.59
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.38	0.59
34:SR:22:SER:OG	34:SR:70:ASP:OD1	2.20	0.59
1:2:702:G:HO2'	1:2:703:G:H8	1.51	0.59
8:S6:70:PRO:HD2	8:S6:71:THR:HG23	1.85	0.59
1:2:324:U:OP1	13:C1:133:LYS:NZ	2.32	0.59
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.44	0.59
36:5:3279:A:C2'	36:5:3280:U:H5'	2.32	0.59
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.85	0.59
1:2:1061:A:H2'	1:2:1062:A:H5'	1.85	0.59
1:2:1459:C:P	20:C8:126:ARG:HH22	2.26	0.59
42:L5:148:ILE:HG12	42:L5:159:VAL:HG21	1.84	0.59
6:S4:21:ASP:OD2	6:S4:24:SER:OG	2.67	0.59
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.37	0.59
11:S9:37:LYS:HB2	32:E0:33:ARG:H	1.68	0.59
36:5:900:G:H1'	36:5:1589:A:N6	2.18	0.59
1:2:1592:A:H2'	1:2:1593:A:H8	1.67	0.59
36:1:3107:U:OP1	76:Q0:114:LYS:NZ	2.25	0.59
36:1:160:G:O6	87:1:4200:OHX:N6	2.36	0.59
20:C8:83:ALA:HA	20:C8:86:LEU:HD22	1.83	0.59
44:L7:80:GLN:HG3	57:N1:136:ARG:H	1.67	0.59
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.03	0.59
15:C3:113:PHE:HD1	15:C3:114:ARG:NH1	3.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.07	0.59
32:E0:56:MET:HE3	1:6:556:A:H5"	417.99	0.59
27:D5:74:SER:OG	1:6:1534:G:OP2	345.42	0.59
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	2.64	0.59
36:5:2169:G:O6	87:5:3959:OHX:N5	2.36	0.59
3:S1:70:LEU:HA	3:S1:73:LEU:HG	1.85	0.59
46:L9:49:ASN:OD1	46:L9:51:GLN:N	2.57	0.59
18:C6:67:VAL:HG21	18:C6:85:ILE:HD11	2.92	0.59
63:N7:38:PHE:O	63:N7:40:HIS:ND1	2.32	0.59
36:1:2563:G:H5"	45:L8:27:THR:HG23	1.83	0.59
36:5:2697:A:H2'	36:5:2698:G:C8	2.38	0.59
45:L8:195:SER:O	45:L8:197:VAL:N	2.36	0.59
36:5:850:U:H2'	36:5:851:C:C6	2.37	0.59
1:2:280:U:O2'	1:2:281:G:OP2	2.19	0.59
11:S9:149:ARG:HD2	1:6:765:G:N7	429.28	0.59
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.18	0.59
3:S1:157:GLN:O	3:S1:161:ILE:HD12	5.43	0.59
3:S1:164:ILE:O	3:S1:168:ILE:HG13	3.10	0.59
36:5:1877:U:OP2	87:5:3962:OHX:N1	2.36	0.59
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.33	0.59
33:E1:144:CYS:O	33:E1:146:SER:N	2.36	0.59
87:8:214:OHX:N2	87:8:221:OHX:N4	2.50	0.59
36:5:1246:G:O2'	36:5:1264:G:OP2	2.20	0.59
10:S8:136:SER:HB3	10:S8:139:ALA:HB3	1.83	0.59
16:C4:19:ILE:HB	16:C4:83:ILE:HD12	1.83	0.59
28:D6:73:TYR:CZ	28:D6:82:ARG:HD2	2.38	0.58
25:D3:62:LYS:HD2	25:D3:118:PRO:HB3	1.84	0.58
39:L2:209:HIS:HD2	39:L2:211:HIS:N	1.98	0.58
24:D2:15:ASN:ND2	24:D2:72:CYS:O	4.83	0.58
6:S4:222:LEU:O	6:S4:224:ASN:N	2.36	0.58
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CE1	6.14	0.58
1:6:140:A:OP2	1:6:140:A:H4'	2.02	0.58
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	1.99	0.58
50:M4:37:GLU:HG3	50:M4:74:ARG:HG3	3.83	0.58
5:S3:29:LEU:HD21	5:S3:69:LEU:HD21	3.71	0.58
5:S3:64:ARG:HG2	5:S3:65:ARG:H	3.84	0.58
49:M3:93:ILE:HG22	49:M3:94:GLY:N	3.96	0.58
36:1:1093:A:N3	36:1:1096:U:N3	2.51	0.58
69:O3:19:SER:HB3	36:5:1330:A:OP1	233.82	0.58
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	1.85	0.58
36:5:600:G:N2	36:5:603:A:OP2	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:2:ALA:N	64:N8:33:GLY:O	4.66	0.58
54:M8:82:VAL:HG13	54:M8:102:ALA:HB3	3.24	0.58
36:1:1413:G:N7	87:1:4126:OHX:N4	2.50	0.58
7:S5:93:LEU:HD23	7:S5:172:ILE:HG23	2.94	0.58
1:2:284:G:N7	8:S6:188:ARG:NH1	2.51	0.58
36:1:107:A:OP1	49:M3:39:ARG:NH1	2.35	0.58
48:M1:137:ARG:HG2	37:7:28:C:H5''	308.69	0.58
17:C5:18:ARG:HH21	17:C5:38:PRO:HG3	2.14	0.58
67:O1:41:LYS:O	67:O1:45:GLY:HA2	3.10	0.58
87:2:2161:OHX:N5	11:S9:8:TYR:O	2.35	0.58
44:L7:25:GLN:NE2	44:L7:25:GLN:O	2.35	0.58
37:3:60:G:H2'	37:3:61:G:C8	2.39	0.58
36:1:1492:G:N7	75:O9:2:ALA:HB2	2.18	0.58
1:2:1756:A:O5'	1:2:1756:A:H8	1.85	0.58
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.85	0.58
55:M9:105:LEU:HD12	55:M9:135:LYS:HD2	1.84	0.58
22:D0:36:ASN:HA	22:D0:39:SER:HB3	4.95	0.58
36:1:149:U:OP2	51:M5:49:ARG:NH2	2.36	0.58
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.03	0.58
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.39	0.58
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.68	0.58
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.40	0.58
1:6:162:A:H2'	1:6:163:G:C8	2.38	0.58
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.96	0.58
14:C2:97:LEU:HD11	14:C2:121:VAL:HG23	1.84	0.58
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.34	0.58
7:S5:225:ARG:CZ	30:D8:58:GLU:HB2	5.33	0.58
1:2:1769:U:OP2	87:2:2146:OHX:N1	2.36	0.58
36:1:2366:C:H5'	40:L3:259:HIS:CE1	2.38	0.58
50:M4:106:ARG:HD3	36:5:3209:A:C5	295.00	0.58
45:L8:75:ILE:HG22	45:L8:76:ALA:H	1.69	0.58
42:L5:265:TYR:HE1	37:7:121:U:H5''	317.35	0.58
36:5:2407:C:H2'	36:5:2408:U:H6	1.68	0.58
12:C0:56:LYS:N	12:C0:67:THR:O	2.95	0.58
58:N2:36:TYR:CD2	58:N2:83:TYR:HB2	3.10	0.58
87:5:3983:OHX:N4	87:5:4206:OHX:N3	2.51	0.58
35:SM:65:THR:OG1	35:SM:66:ALA:N	3.83	0.58
38:8:77:A:H2'	38:8:78:G:O4'	2.03	0.58
19:C7:23:LYS:H	34:SR:216:LYS:HE2	1.68	0.58
1:6:485:A:N6	1:6:486:G:N3	2.50	0.58
1:2:1282:U:OP1	87:2:2115:OHX:N5	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1760:G:C2'	1:2:1761:U:H5'	2.33	0.58
1:6:1039:A:O2'	1:6:1040:G:O5'	2.17	0.58
51:M5:71:ARG:NH2	36:5:32:U:O3'	140.19	0.58
36:1:2973:G:N7	87:1:4102:OHX:N2	2.50	0.58
18:C6:97:VAL:HG12	18:C6:98:ASP:H	2.09	0.58
47:M0:194:GLY:HA3	36:5:1010:G:N3	336.18	0.58
9:S7:73:VAL:O	9:S7:75:THR:N	2.77	0.58
26:D4:112:LYS:NZ	1:6:57:G:OP1	345.84	0.58
36:1:1636:U:H5''	63:N7:73:LYS:NZ	2.18	0.58
49:M3:180:ARG:HD2	72:O6:11:LEU:HD21	1.85	0.58
6:S4:96:ASN:N	6:S4:96:ASN:OD1	2.35	0.58
36:1:1233:G:N2	36:1:1255:C:H42	1.96	0.58
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.85	0.58
36:1:3344:A:H2	36:1:3361:G:N2	1.97	0.58
34:SR:200:ASN:H	34:SR:215:GLY:HA2	1.68	0.58
6:S4:105:VAL:HG22	6:S4:243:GLY:HA2	1.85	0.58
53:M7:62:ARG:NH1	36:5:412:G:OP1	160.00	0.58
20:C8:57:ARG:NH1	1:6:1534:G:OP2	344.08	0.58
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.18	0.58
36:5:1064:A:H4'	36:5:1065:A:O5'	2.02	0.58
1:2:1783:C:H2'	1:2:1784:C:H6	1.69	0.58
2:S0:195:TRP:CZ2	2:S0:197:ILE:HD12	4.42	0.58
48:M1:34:SER:HA	48:M1:67:VAL:HG21	1.85	0.58
2:S0:112:THR:O	2:S0:115:PHE:HB2	2.04	0.58
3:S1:171:ILE:HA	3:S1:174:LYS:HE3	1.84	0.58
1:2:1385:G:N7	87:2:2133:OHX:N3	2.51	0.58
24:D2:82:LYS:O	24:D2:84:GLY:N	2.30	0.58
2:S0:78:SER:OG	2:S0:129:ASP:OD1	4.16	0.58
42:L5:126:GLU:HA	42:L5:196:ARG:HD2	1.86	0.58
36:5:3295:A:H2'	36:5:3296:A:C8	2.38	0.58
36:5:619:A:OP2	36:5:619:A:H8	1.87	0.58
36:1:2662:G:H2'	36:1:2663:G:C8	2.38	0.58
36:1:2115:G:O2'	55:M9:82:LYS:HE2	2.03	0.58
9:S7:114:ARG:NH2	1:6:637:C:O2	351.86	0.58
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.03	0.58
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	3.38	0.58
36:5:2927:C:H2'	36:5:2928:C:C6	2.39	0.58
15:C3:83:GLU:HG3	15:C3:84:ILE:HG23	3.79	0.58
38:8:83:C:H4'	38:8:85:G:N3	2.18	0.58
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.84	0.58
36:1:829:U:H3	36:1:895:A:H62	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:108:LYS:HG2	5:S3:113:LEU:HD12	1.84	0.58
21:C9:115:GLU:OE2	21:C9:125:SER:HA	2.03	0.58
42:L5:4:GLN:OE1	42:L5:4:GLN:N	2.33	0.58
50:M4:124:ARG:NH2	36:5:3212:C:OP2	290.71	0.58
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.38	0.58
10:S8:26:LYS:O	10:S8:29:LEU:HB3	2.04	0.58
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	4.77	0.58
10:S8:39:GLY:N	10:S8:60:ILE:O	2.26	0.58
4:S2:147:ASN:O	23:D1:4:ASP:N	2.36	0.58
1:2:833:U:OP2	87:2:2142:OHX:N4	2.37	0.58
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.68	0.58
14:C2:42:ALA:HB2	14:C2:124:LYS:HD2	2.27	0.58
87:1:4007:OHX:N3	87:1:4177:OHX:N3	2.51	0.58
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	1.85	0.58
36:5:2717:U:OP1	87:5:4074:OHX:N3	2.37	0.58
1:2:404:G:H2'	1:2:405:C:C6	2.38	0.58
36:1:2574:G:H2'	36:1:2575:G:H8	1.67	0.58
6:S4:212:ASP:OD2	6:S4:216:ASN:HB2	2.03	0.58
46:L9:36:LYS:HB3	46:L9:78:MET:HE1	2.89	0.58
10:S8:8:ARG:HH21	10:S8:22:ARG:NH1	8.16	0.58
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	1.86	0.58
36:5:438:A:H2'	36:5:494:G:H21	1.68	0.58
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.20	0.58
36:1:2310:U:OP1	87:1:4143:OHX:N1	2.37	0.58
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.02	0.58
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.84	0.58
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.85	0.58
46:L9:117:PHE:O	46:L9:120:ASP:HB2	2.03	0.58
1:6:1637:C:OP2	87:6:2112:OHX:N4	2.37	0.58
40:L3:345:ASN:OD1	40:L3:346:THR:N	2.49	0.58
74:O8:44:LYS:HG2	74:O8:53:THR:HB	2.03	0.58
36:5:3242:G:H5'	36:5:3245:A:H8	1.69	0.58
1:6:848:C:H2'	1:6:849:C:C6	2.38	0.58
1:6:1688:U:H2'	1:6:1689:A:C8	2.39	0.58
36:5:1317:A:OP1	87:5:4104:OHX:N1	2.37	0.58
36:5:1081:U:O2'	36:5:1082:U:O5'	2.21	0.58
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.34	0.58
1:2:478:A:OP1	32:E0:37:ARG:NH1	2.37	0.58
1:6:727:U:H2'	1:6:728:U:H6	1.69	0.58
53:M7:36:ILE:HD11	53:M7:95:LEU:HD11	1.84	0.58
36:1:12:A:OP1	87:1:4208:OHX:N6	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2836:C:H5	36:1:2852:C:N4	2.02	0.58
41:L4:146:PRO:O	87:L4:402:OHX:N3	3.58	0.58
36:1:410:U:O4	87:1:4060:OHX:N2	2.37	0.58
11:S9:159:ALA:HB3	11:S9:162:SER:HB3	4.24	0.58
41:L4:269:SER:C	41:L4:271:LYS:H	2.07	0.58
18:C6:39:VAL:HG12	18:C6:45:ARG:HD3	1.85	0.58
3:S1:105:PHE:HB2	3:S1:214:LYS:HZ1	1.69	0.58
36:1:873:C:H5'	36:1:874:U:O5'	2.04	0.58
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.03	0.58
36:1:2970:C:HO2'	36:1:2971:A:H2	1.52	0.58
42:L5:85:ARG:HD3	42:L5:86:TYR:CE2	2.39	0.58
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.65	0.58
40:L3:44:THR:HG23	40:L3:184:ASN:HB2	2.75	0.58
54:M8:70:ALA:O	54:M8:73:GLN:HB2	2.04	0.58
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.35	0.58
1:2:987:G:C2	39:L2:249:SER:HB2	2.38	0.58
36:1:1887:A:OP1	87:1:4091:OHX:N3	2.37	0.58
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	1.85	0.58
1:6:1282:U:OP1	87:6:2135:OHX:N4	2.37	0.58
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.84	0.58
51:M5:11:GLN:HG2	51:M5:44:ARG:HH21	1.69	0.58
42:L5:176:SER:OG	36:5:2747:A:OP1	244.81	0.58
5:S3:59:LEU:HA	5:S3:66:ILE:HG13	1.85	0.58
13:C1:95:PRO:O	13:C1:98:ASN:N	2.37	0.58
12:C0:32:HIS:ND1	12:C0:34:GLU:O	6.71	0.58
36:5:1750:A:H4'	36:5:1751:G:H5'	1.85	0.58
4:S2:77:GLN:NE2	4:S2:106:ASP:O	2.37	0.58
1:6:187:G:O5'	1:6:187:G:H8	1.87	0.58
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	3.94	0.58
11:S9:108:ARG:NH1	11:S9:110:GLN:OE1	2.71	0.57
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.39	0.57
19:C7:10:LYS:NZ	1:6:1401:A:O3'	408.01	0.57
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.37	0.57
57:N1:48:ILE:HG13	57:N1:94:GLU:HG2	2.51	0.57
16:C4:89:THR:O	16:C4:128:LYS:NZ	2.52	0.57
1:2:71:A:H2'	1:2:72:A:O4'	2.04	0.57
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.84	0.57
2:S0:27:ARG:C	2:S0:29:VAL:H	2.08	0.57
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.03	0.57
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.29	0.57
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:139:ASN:OD1	8:S6:142:ARG:NH1	2.37	0.57
30:D8:22:ARG:HD2	1:6:1619:C:C2	344.10	0.57
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.86	0.57
39:L2:200:ARG:NH1	36:5:2146:C:OP1	213.14	0.57
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.38	0.57
1:2:158:U:O2'	1:2:159:U:H3'	2.04	0.57
36:1:3159:C:H2'	36:1:3160:U:C6	2.39	0.57
36:1:2592:G:H4'	36:1:2594:C:C2	2.39	0.57
8:S6:33:GLY:HA2	8:S6:51:LYS:HE2	1.85	0.57
40:L3:247:ARG:HD3	36:5:1888:U:OP1	210.66	0.57
87:6:2118:OHX:N2	87:6:2169:OHX:N5	2.52	0.57
47:M0:61:SER:OG	47:M0:63:GLU:HG2	2.04	0.57
1:2:1450:U:H2'	1:2:1451:C:C6	2.40	0.57
17:C5:122:THR:CG2	1:6:1558:U:H3	367.37	0.57
8:S6:158:ILE:HD12	60:N4:85:ALA:HB2	5.23	0.57
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.68	0.57
29:D7:49:HIS:CD2	1:6:958:U:H5'	343.60	0.57
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.84	0.57
1:2:480:G:H22	1:2:509:G:H1'	1.69	0.57
72:O6:4:LYS:HD2	72:O6:13:LYS:O	2.04	0.57
36:1:847:A:H2'	36:1:848:A:C8	2.39	0.57
19:C7:51:ALA:HA	19:C7:54:THR:HG23	1.87	0.57
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.31	0.57
36:1:2683:U:H2'	36:1:2684:C:C6	2.39	0.57
26:D4:105:ARG:HB2	1:6:443:C:OP2	373.02	0.57
70:O4:52:GLN:HG2	36:5:1639:C:H5'	197.65	0.57
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.86	0.57
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	3.01	0.57
36:1:863:C:H2'	36:1:864:G:O4'	2.04	0.57
3:S1:34:ALA:N	3:S1:41:ARG:O	2.32	0.57
1:2:856:A:H1'	9:S7:64:VAL:HG11	1.86	0.57
34:SR:197:SER:HB2	34:SR:216:LYS:HB3	2.50	0.57
17:C5:65:LEU:O	87:C5:201:OHX:N1	2.37	0.57
36:5:253:A:HO2'	36:5:254:A:H8	1.48	0.57
51:M5:68:ARG:HA	51:M5:98:LEU:HD21	1.87	0.57
50:M4:134:ALA:O	50:M4:136:ALA:N	2.35	0.57
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.38	0.57
57:N1:17:ARG:O	57:N1:18:ASP:HB2	2.05	0.57
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.87	0.57
36:1:330:G:OP2	87:1:4046:OHX:N2	2.36	0.57
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:626:U:H2'	1:6:627:C:H6	1.67	0.57
36:1:304:G:N3	36:1:304:G:H5'	2.20	0.57
36:1:1015:U:O2'	36:1:1017:C:OP2	2.21	0.57
87:5:3983:OHX:N6	87:5:4206:OHX:N3	2.52	0.57
67:O1:10:ARG:HH12	67:O1:44:MET:CG	5.32	0.57
1:2:1588:G:OP1	87:2:2117:OHX:N3	2.37	0.57
1:6:73:U:H2'	1:6:74:U:C6	2.40	0.57
36:5:1586:G:OP1	87:5:3996:OHX:N3	2.37	0.57
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.46	0.57
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.86	0.57
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.35	0.57
42:L5:148:ILE:HG13	42:L5:159:VAL:HG11	3.59	0.57
36:1:1723:A:N1	36:1:1788:C:O2'	2.34	0.57
38:8:68:G:O6	87:8:223:OHX:N6	2.37	0.57
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.98	0.57
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.37	0.57
39:L2:3:ARG:HB3	39:L2:207:VAL:O	2.55	0.57
16:C4:107:ARG:HB2	16:C4:107:ARG:HH21	2.65	0.57
36:5:1560:G:H2'	36:5:1561:G:C8	2.39	0.57
57:N1:111:ALA:HB1	57:N1:115:LYS:HE3	4.25	0.57
36:5:1772:U:H5''	36:5:1773:C:H5'	1.86	0.57
42:L5:270:LYS:HD3	37:7:2:G:H4'	321.18	0.57
19:C7:27:ASP:OD2	19:C7:30:THR:HG22	2.04	0.57
20:C8:145:ARG:HB2	35:SM:68:ARG:NH2	2.18	0.57
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	2.75	0.57
1:6:66:U:H4'	1:6:67:A:OP1	2.04	0.57
1:6:1238:A:OP2	87:6:2094:OHX:N1	2.38	0.57
1:2:918:U:H2'	1:2:919:A:H8	1.70	0.57
1:2:1683:C:O2'	1:2:1684:U:O5'	2.23	0.57
36:5:1276:U:OP2	87:5:4012:OHX:N1	2.37	0.57
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	2.96	0.57
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	1.87	0.57
26:D4:43:LYS:O	26:D4:47:VAL:HG13	5.78	0.57
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.05	0.57
1:2:1119:G:O6	87:2:2149:OHX:N1	2.38	0.57
1:2:491:C:H42	1:2:496:G:H1	1.50	0.57
57:N1:79:MET:HB3	57:N1:84:TYR:CE2	2.39	0.57
36:5:3192:U:O4	87:5:4151:OHX:N6	2.38	0.57
36:5:1027:A:O2'	36:5:1029:G:N7	2.32	0.57
8:S6:67:VAL:CG2	8:S6:99:GLY:HA2	2.52	0.57
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:251:GLU:O	6:S4:255:ARG:HG2	3.51	0.57
87:8:214:OHX:N6	87:8:221:OHX:N3	2.52	0.57
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	2.79	0.57
41:L4:138:ARG:HG3	41:L4:244:LEU:O	2.05	0.57
51:M5:149:ASN:O	51:M5:152:CYS:HB2	2.04	0.57
42:L5:289:LYS:HD3	47:M0:206:LEU:HD23	1.87	0.57
36:5:601:U:H2'	36:5:602:A:C8	2.39	0.57
6:S4:180:LEU:N	6:S4:229:GLY:O	2.71	0.57
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	1.87	0.57
36:1:1310:G:O6	87:1:4031:OHX:N1	2.38	0.57
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	3.22	0.57
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.09	0.57
5:S3:94:ARG:NH1	35:SM:137:GLU:O	10.52	0.57
15:C3:47:PRO:HG2	15:C3:72:MET:HG3	5.00	0.57
1:6:1491:U:H4'	1:6:1492:A:H5''	1.85	0.57
87:5:3983:OHX:N6	87:5:4206:OHX:N5	2.53	0.57
26:D4:60:PHE:O	1:6:523:G:H5'	413.65	0.57
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.67	0.57
34:SR:201:THR:CB	34:SR:242:SER:HA	2.35	0.57
34:SR:96:THR:HG23	34:SR:98:GLU:H	3.87	0.57
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.85	0.57
36:5:1540:U:OP1	87:5:4100:OHX:N2	2.38	0.57
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.85	0.57
48:M1:53:THR:HG23	48:M1:60:ARG:HA	1.85	0.57
1:6:837:G:H2'	1:6:838:G:C8	2.39	0.57
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	1.99	0.57
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.75	0.57
36:1:3317:U:H4'	36:1:3318:G:O5'	2.05	0.57
33:E1:108:VAL:HG12	33:E1:114:VAL:HG22	3.67	0.57
1:2:4:C:OP2	4:S2:200:SER:OG	2.22	0.57
1:2:1459:C:N4	20:C8:139:LYS:HG3	2.20	0.57
1:2:972:G:O2'	36:1:847:A:N1	2.35	0.57
78:Q2:54:THR:O	78:Q2:55:LYS:HG2	2.60	0.57
72:O6:97:SER:OG	72:O6:98:ARG:N	2.38	0.57
36:1:735:A:H2'	36:1:736:A:C8	2.39	0.57
51:M5:58:GLY:HA3	51:M5:142:ILE:HD13	1.94	0.57
11:S9:3:ARG:NH1	1:6:40:A:OP1	374.86	0.57
13:C1:94:ILE:HD12	25:D3:16:ARG:HD2	1.87	0.57
1:2:1672:G:H2'	1:2:1673:G:C8	2.39	0.57
8:S6:87:ARG:NH1	1:6:159:U:O2'	321.51	0.57
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:189:GLU:O	46:L9:191:LEU:N	2.37	0.57
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.19	0.57
1:2:823:G:H2'	1:2:824:G:C8	2.38	0.57
15:C3:55:ARG:NH1	15:C3:56:ASP:OD1	3.86	0.57
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.40	0.57
45:L8:63:LYS:O	45:L8:67:ILE:HG12	3.20	0.57
36:1:3094:A:H2'	36:1:3095:U:C6	2.40	0.57
8:S6:94:ARG:NH2	1:6:406:U:O3'	291.39	0.57
49:M3:23:LYS:HE3	51:M5:196:THR:HG21	5.68	0.57
36:1:2766:U:O4	87:1:4041:OHX:N2	2.38	0.57
36:1:3340:G:O6	87:1:4056:OHX:N4	2.37	0.57
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.05	0.57
50:M4:39:ILE:HD12	50:M4:43:LYS:HB3	1.85	0.57
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	6.10	0.57
36:1:781:G:OP1	54:M8:151:ARG:NH1	2.38	0.57
36:1:3259:U:H6	36:1:3259:U:H5'	1.70	0.57
68:O2:31:ASN:N	68:O2:31:ASN:OD1	2.37	0.57
36:1:2209:U:O2'	36:1:2210:G:OP1	2.22	0.57
15:C3:39:LYS:HA	15:C3:42:ARG:HB3	1.85	0.57
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.34	0.57
56:N0:23:LYS:O	57:N1:146:ASN:ND2	2.21	0.57
40:L3:211:GLN:NE2	40:L3:284:ARG:HA	2.19	0.57
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.64	0.57
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	1.87	0.57
1:2:1727:G:N2	10:S8:32:GLN:HE22	2.02	0.57
71:O5:89:ARG:HD3	38:8:38:U:C4	67.72	0.57
36:1:2611:U:H2'	36:1:2612:U:H6	1.70	0.57
70:O4:104:VAL:O	70:O4:108:GLN:HG3	2.05	0.57
36:5:1249:G:H2'	36:5:1250:G:H8	1.70	0.57
1:6:1230:A:H8	1:6:1258:U:C4	2.22	0.57
4:S2:152:HIS:CG	4:S2:174:ARG:HG3	2.40	0.57
36:5:1817:G:OP1	87:5:4188:OHX:N1	2.38	0.57
1:2:591:A:H2'	1:2:592:A:C8	2.40	0.57
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.87	0.57
78:Q2:100:LYS:H	78:Q2:100:LYS:HD3	1.70	0.57
6:S4:176:ASP:OD2	6:S4:176:ASP:N	3.05	0.57
36:1:438:A:OP1	68:O2:118:LYS:NZ	2.37	0.57
87:5:3983:OHX:N2	87:5:4206:OHX:N1	2.53	0.57
17:C5:18:ARG:HG3	20:C8:92:ILE:HA	1.87	0.57
45:L8:108:ARG:HG3	45:L8:111:LYS:NZ	7.96	0.57
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1795:U:O2	28:D6:10:ARG:HD2	2.04	0.57
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.05	0.57
36:5:2546:C:H2'	36:5:2547:A:C8	2.40	0.57
36:5:2546:C:H2'	36:5:2547:A:H8	1.70	0.57
53:M7:178:ALA:HA	53:M7:181:ARG:HD2	1.87	0.57
54:M8:147:ARG:HB3	54:M8:150:VAL:HG13	2.25	0.57
36:5:1716:U:H5'	36:5:1716:U:C6	2.39	0.57
20:C8:143:ARG:NH2	1:6:1462:G:N7	339.67	0.57
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	2.27	0.57
36:5:231:G:O6	87:5:4140:OHX:N4	2.38	0.57
42:L5:183:TRP:CH2	42:L5:188:GLU:HA	2.40	0.57
16:C4:82:LYS:HG3	16:C4:118:VAL:HG11	4.82	0.57
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	1.87	0.57
36:1:2236:G:OP1	87:1:4122:OHX:N6	2.38	0.57
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.35	0.57
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	4.13	0.57
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.21	0.57
36:1:612:U:OP1	43:L6:21:THR:HB	2.04	0.57
1:6:656:G:N2	1:6:675:U:O2	2.37	0.57
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.99	0.57
63:N7:22:LYS:NZ	63:N7:132:SER:O	2.34	0.57
36:1:59:G:H2'	38:4:33:A:O2'	2.05	0.57
36:1:2108:C:H1'	36:1:3344:A:C8	2.39	0.56
40:L3:2:SER:OG	36:5:2943:G:OP2	238.84	0.56
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.37	0.56
6:S4:19:LEU:HD22	1:6:788:A:H2'	390.55	0.56
40:L3:53:MET:HE2	40:L3:77:THR:HG22	1.87	0.56
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.86	0.56
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.54	0.56
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.64	0.56
1:6:914:G:H8	1:6:914:G:OP2	1.88	0.56
87:1:4007:OHX:N6	87:1:4177:OHX:N5	2.53	0.56
36:5:2882:U:H2'	36:5:2883:U:C6	2.39	0.56
28:D6:12:LYS:HB2	28:D6:33:ASP:OD2	2.04	0.56
34:SR:133:VAL:HG12	34:SR:141:LEU:HD12	2.18	0.56
40:L3:380:MET:HE3	36:5:3369:G:C6	225.69	0.56
36:5:2425:G:H2'	36:5:2426:U:O4'	2.05	0.56
69:O3:60:ARG:HD2	36:5:3275:U:C5	215.69	0.56
10:S8:8:ARG:NH2	10:S8:22:ARG:HE	7.09	0.56
2:S0:28:ASN:ND2	2:S0:28:ASN:O	2.39	0.56
66:O0:24:THR:HG23	66:O0:91:SER:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	2.92	0.56
1:2:79:C:H1'	8:S6:174:LYS:HD2	1.85	0.56
46:L9:86:TYR:CZ	46:L9:151:VAL:HG22	2.79	0.56
36:1:2552:C:OP1	70:O4:102:LYS:NZ	2.37	0.56
2:S0:200:ASP:HB2	19:C7:85:VAL:HG22	1.87	0.56
1:6:190:C:O2'	1:6:191:C:O5'	2.24	0.56
36:5:2407:C:H2'	36:5:2408:U:C6	2.41	0.56
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.75	0.56
1:2:872:G:O6	87:2:2127:OHX:N3	2.38	0.56
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.38	0.56
1:6:9:U:O4	87:6:2144:OHX:N3	2.38	0.56
36:5:621:A:H2'	36:5:622:A:C8	2.40	0.56
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.05	0.56
1:6:820:U:O2'	1:6:821:U:H5''	2.05	0.56
87:2:2039:OHX:N1	25:D3:64:PRO:O	2.39	0.56
1:2:1600:A:O2'	1:2:1602:C:N4	2.37	0.56
36:1:3166:C:N3	36:1:3284:G:N2	2.40	0.56
87:2:2044:OHX:N1	87:2:2099:OHX:N3	2.54	0.56
34:SR:162:ALA:O	34:SR:163:ASP:HB3	2.04	0.56
1:2:780:A:C8	26:D4:8:ARG:HB3	2.41	0.56
24:D2:23:ARG:HD2	24:D2:65:LEU:O	2.05	0.56
87:5:4026:OHX:N3	87:5:4224:OHX:N4	2.53	0.56
74:O8:16:ARG:O	74:O8:18:ALA:N	3.90	0.56
87:1:4007:OHX:N6	87:1:4177:OHX:N1	2.53	0.56
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.73	0.56
34:SR:9:LEU:HG	34:SR:10:ARG:N	2.20	0.56
36:1:2617:U:H5	36:1:2621:G:OP2	1.88	0.56
1:2:1765:A:OP1	87:2:2092:OHX:N3	2.38	0.56
56:N0:131:LYS:O	56:N0:134:ASP:HB2	2.87	0.56
40:L3:7:GLU:HG2	36:5:2915:U:C5	257.63	0.56
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.05	0.56
41:L4:326:ARG:O	44:L7:41:ARG:NH2	3.19	0.56
36:1:1846:C:OP1	36:1:1849:C:N4	2.38	0.56
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	2.90	0.56
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.40	0.56
36:1:1688:U:H2'	36:1:1689:U:C6	2.40	0.56
51:M5:151:ILE:HD11	51:M5:159:ARG:HD2	1.87	0.56
40:L3:102:LEU:HD21	40:L3:150:ARG:HD3	1.87	0.56
43:L6:172:HIS:CD2	43:L6:173:MET:HG2	2.40	0.56
36:1:1620:U:H2'	36:1:1621:A:C8	2.40	0.56
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1388:A:H4'	1:6:1389:C:O5'	2.06	0.56
36:5:300:G:O6	87:5:4199:OHX:N2	2.39	0.56
44:L7:130:ILE:O	44:L7:134:VAL:HG22	2.05	0.56
36:5:3343:G:N2	36:5:3362:A:H2	2.03	0.56
1:2:741:C:O2	9:S7:107:ARG:NH1	2.37	0.56
48:M1:60:ARG:NH1	78:Q2:104:LEU:O	3.04	0.56
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	3.36	0.56
3:S1:135:LEU:HA	3:S1:217:LEU:O	2.06	0.56
43:L6:65:ILE:HG12	43:L6:66:SER:N	2.21	0.56
57:N1:105:PHE:CE2	36:5:1062:A:H4'	245.04	0.56
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.87	0.56
55:M9:8:LYS:HD2	55:M9:22:VAL:CG2	2.35	0.56
48:M1:37:LEU:HD12	48:M1:67:VAL:HG23	1.85	0.56
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.32	0.56
16:C4:84:ARG:HB3	16:C4:118:VAL:HG23	3.15	0.56
45:L8:113:ALA:O	45:L8:115:ALA:N	3.61	0.56
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	2.57	0.56
27:D5:50:ILE:HD12	27:D5:83:LEU:HD11	1.88	0.56
87:6:2118:OHX:N2	87:6:2169:OHX:N1	2.53	0.56
36:5:438:A:H2'	36:5:494:G:N2	2.21	0.56
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.20	0.56
16:C4:31:THR:HA	16:C4:38:THR:HA	2.52	0.56
1:2:1600:A:HO2'	1:2:1602:C:N4	2.04	0.56
36:1:3346:U:H3	36:1:3359:A:N6	2.00	0.56
87:6:2057:OHX:N2	87:6:2145:OHX:N4	2.54	0.56
64:N8:3:SER:O	64:N8:6:THR:HB	2.61	0.56
38:8:80:A:H2'	38:8:82:U:C5	2.41	0.56
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.87	0.56
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.40	0.56
54:M8:147:ARG:NH2	36:5:670:C:OP1	163.29	0.56
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	1.87	0.56
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.45	0.56
1:6:550:A:OP2	87:6:2047:OHX:N2	2.39	0.56
36:1:2533:G:H3'	36:1:2534:G:H8	1.71	0.56
53:M7:4:TYR:CE1	53:M7:16:SER:HB2	2.72	0.56
1:2:1015:U:H5''	1:2:1016:C:OP2	2.06	0.56
1:6:1058:U:H4'	1:6:1059:U:OP1	2.03	0.56
2:S0:126:PRO:HG2	2:S0:152:PRO:HD2	1.87	0.56
1:6:1071:U:H2'	1:6:1072:C:C6	2.39	0.56
36:1:1243:G:N2	36:1:1244:A:N7	2.54	0.56
44:L7:163:LEU:O	44:L7:165:ASP:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:528:U:H2'	36:1:529:A:C8	2.41	0.56
11:S9:90:LYS:HB3	11:S9:95:TYR:CD2	2.40	0.56
1:2:264:G:N7	87:2:2034:OHX:N1	2.54	0.56
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.88	0.56
21:C9:86:ARG:NH1	21:C9:90:PRO:O	2.38	0.56
1:2:730:G:H21	1:2:731:C:H5'	1.70	0.56
36:1:1555:U:O2'	36:1:2169:G:N2	2.39	0.56
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.01	0.56
20:C8:28:ILE:O	20:C8:32:LEU:HG	2.06	0.56
63:N7:13:VAL:HG12	63:N7:19:ALA:HA	2.30	0.56
36:1:341:G:N7	41:L4:195:ARG:NH2	2.54	0.56
47:M0:81:GLY:C	47:M0:83:ASP:H	2.99	0.56
36:1:979:U:O2'	36:1:980:A:N7	2.28	0.56
34:SR:224:ASN:HD21	34:SR:226:ALA:HB3	4.24	0.56
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	1.87	0.56
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.41	0.56
87:1:3975:OHX:N3	87:1:4161:OHX:N1	2.53	0.56
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.40	0.56
63:N7:35:SER:OG	63:N7:36:HIS:N	2.39	0.56
59:N3:38:ALA:HB3	59:N3:59:MET:HB2	2.11	0.56
1:6:1458:G:H5''	1:6:1459:C:OP2	2.06	0.56
68:O2:19:ARG:HD2	68:O2:28:VAL:HG13	2.11	0.56
48:M1:73:GLY:O	48:M1:75:LYS:N	2.39	0.56
36:1:1908:A:O5'	36:1:1908:A:H8	1.88	0.56
1:6:539:G:OP2	1:6:539:G:H8	1.89	0.56
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.06	0.56
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.70	0.56
36:5:1094:U:O2'	36:5:1095:U:H3'	2.06	0.56
36:1:2255:A:H5'	36:1:2261:G:N2	2.20	0.56
36:5:1235:U:C4'	36:5:1236:G:H5'	2.35	0.56
48:M1:60:ARG:O	48:M1:63:GLU:HB3	3.49	0.56
35:SM:64:LYS:O	35:SM:66:ALA:N	2.82	0.56
36:5:2960:C:OP1	87:5:3977:OHX:N5	2.39	0.56
6:S4:246:LEU:HD21	6:S4:254:ARG:NH1	2.21	0.56
32:E0:61:SER:OG	32:E0:61:SER:O	2.21	0.56
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.86	0.56
36:5:1064:A:N6	36:5:1096:U:H3	2.03	0.56
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.06	0.56
36:1:3074:G:OP1	87:1:4042:OHX:N1	2.39	0.56
87:8:214:OHX:N5	87:8:221:OHX:N3	2.54	0.56
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:55:ARG:NH1	15:C3:56:ASP:OD2	2.38	0.56
1:2:1006:C:O2	87:2:2146:OHX:N2	2.39	0.56
79:Q3:56:THR:HG22	79:Q3:63:THR:OG1	2.06	0.56
45:L8:94:PHE:HB3	45:L8:189:LEU:HD13	1.87	0.56
1:2:1041:G:H2'	1:2:1042:G:C8	2.41	0.56
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.50	0.56
27:D5:78:ILE:HD12	27:D5:81:ARG:HH12	3.91	0.56
36:1:1321:G:O3'	56:N0:117:ARG:NH2	2.39	0.56
1:6:1645:G:OP2	87:6:2182:OHX:N3	2.38	0.56
69:O3:59:VAL:C	69:O3:61:GLY:H	2.09	0.56
1:2:1290:U:H2'	1:2:1291:G:C8	2.40	0.56
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	2.25	0.56
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.88	0.56
41:L4:217:LYS:HD3	41:L4:220:ARG:NH2	2.23	0.56
3:S1:175:GLU:HG3	3:S1:193:ILE:HG12	1.88	0.56
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.88	0.56
18:C6:141:SER:O	18:C6:143:ARG:N	2.38	0.56
63:N7:17:ARG:C	63:N7:19:ALA:H	2.09	0.56
1:2:355:G:OP2	87:2:2036:OHX:N4	2.39	0.56
29:D7:28:PRO:HB3	1:6:959:U:H5''	352.19	0.56
43:L6:40:LEU:HB3	43:L6:84:VAL:HG13	3.45	0.56
1:2:1657:U:C2	87:2:2089:OHX:N1	2.74	0.56
1:2:918:U:H2'	1:2:919:A:C8	2.41	0.56
15:C3:127:ARG:NH2	1:6:629:U:OP1	308.97	0.56
47:M0:156:ARG:HG2	47:M0:163:GLN:HG2	2.15	0.56
19:C7:82:ASP:O	19:C7:83:GLN:NE2	2.37	0.56
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.05	0.56
53:M7:52:LEU:HD13	53:M7:88:VAL:HG11	1.88	0.56
36:1:2686:A:OP2	87:1:3903:OHX:N2	2.38	0.56
1:2:1665:U:O4	87:2:2137:OHX:N4	2.38	0.56
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.40	0.56
27:D5:43:ASP:O	27:D5:45:GLU:N	2.39	0.56
36:1:272:G:OP2	87:1:4034:OHX:N3	2.39	0.56
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.41	0.56
36:1:148:G:OP2	51:M5:4:TYR:OH	2.21	0.56
16:C4:99:GLN:NE2	28:D6:45:VAL:O	5.76	0.56
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	1.87	0.56
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.20	0.56
9:S7:154:LEU:HD11	9:S7:183:PHE:HD1	1.71	0.56
36:5:421:G:OP1	87:5:4024:OHX:N2	2.39	0.56
36:5:304:G:N3	36:5:304:G:H5'	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3010:U:O4	87:1:3905:OHX:N2	2.39	0.56
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.43	0.56
7:S5:33:VAL:HG13	7:S5:37:GLN:OE1	2.11	0.56
1:6:1163:A:N3	1:6:1613:U:O2'	2.28	0.56
36:5:2897:A:H2'	36:5:2899:C:H5''	1.88	0.56
1:6:830:U:H2'	1:6:831:U:H5'	1.87	0.56
1:2:75:U:N3	1:2:76:A:N3	2.54	0.56
10:S8:197:THR:HA	10:S8:200:LYS:HD2	1.88	0.56
21:C9:97:SER:OG	1:6:1504:G:OP1	395.00	0.56
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.06	0.56
87:8:214:OHX:N6	87:8:221:OHX:N4	2.54	0.56
36:5:541:U:H2'	36:5:542:G:C8	2.40	0.56
36:5:2971:A:H3'	36:5:2971:A:N3	2.20	0.56
20:C8:36:LYS:NZ	1:6:1568:C:OP1	335.42	0.56
1:6:1395:G:O6	87:6:2086:OHX:N3	2.39	0.56
1:6:1122:G:O6	87:6:2160:OHX:N6	2.39	0.56
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	2.99	0.56
20:C8:120:ARG:HD2	35:SM:58:GLU:OE1	3.53	0.56
38:4:52:A:N6	75:O9:27:ILE:HD13	2.20	0.56
1:2:800:U:H2'	1:2:801:G:C8	2.41	0.56
57:N1:14:MET:HE2	57:N1:55:LYS:HB2	1.87	0.56
36:1:1064:A:H4'	36:1:1065:A:O5'	2.05	0.56
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.49	0.56
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	2.96	0.56
36:5:1717:U:H2'	36:5:1718:G:C8	2.41	0.56
36:1:1166:G:N7	87:1:3868:OHX:N4	2.54	0.56
36:5:59:G:H2'	38:8:33:A:O2'	2.06	0.56
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	1.88	0.56
1:2:541:A:O2'	1:2:542:A:H4'	2.06	0.55
41:L4:141:ARG:NH1	41:L4:180:LYS:HD3	2.55	0.55
1:2:896:U:H1'	16:C4:38:THR:HG21	1.88	0.55
66:O0:40:LYS:HB3	66:O0:101:LEU:HD21	1.87	0.55
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.71	0.55
6:S4:121:TYR:HA	6:S4:164:LEU:HG	1.89	0.55
1:2:1132:A:OP1	25:D3:30:LYS:HE2	2.06	0.55
1:2:1460:A:OP2	35:SM:68:ARG:HD3	2.06	0.55
1:6:1255:G:H4'	1:6:1256:A:OP1	2.05	0.55
1:6:1198:G:OP1	1:6:1199:G:H1'	2.06	0.55
1:2:72:A:C2	1:2:73:U:N3	2.74	0.55
1:2:843:U:H2'	1:2:844:A:H8	1.71	0.55
36:5:1096:U:H4'	36:5:1097:G:O5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1370:U:O4	87:2:2121:OHX:N5	2.40	0.55
1:6:485:A:H61	1:6:502:U:H3	1.54	0.55
1:2:1067:C:H2'	1:2:1068:C:C6	2.41	0.55
56:N0:131:LYS:HG3	56:N0:134:ASP:OD2	2.06	0.55
87:1:3975:OHX:N3	87:1:4161:OHX:N4	2.54	0.55
36:5:59:G:H4'	36:5:60:A:H4'	1.86	0.55
46:L9:44:THR:HG22	36:5:3186:A:C2	327.61	0.55
63:N7:23:VAL:HA	63:N7:45:GLY:HA2	1.88	0.55
36:5:1078:U:O4	87:5:4004:OHX:N5	2.39	0.55
41:L4:265:GLU:HG2	41:L4:266:THR:HG23	1.87	0.55
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	3.06	0.55
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	2.28	0.55
3:S1:151:LYS:NZ	1:6:1066:C:OP1	337.83	0.55
1:2:16:G:H2'	1:2:17:C:C6	2.40	0.55
34:SR:115:ILE:HG12	34:SR:119:ALA:HA	2.54	0.55
38:4:133:G:H4'	61:N5:55:ASN:ND2	2.21	0.55
8:S6:87:ARG:N	8:S6:91:GLU:OE1	2.32	0.55
38:8:78:G:H2'	38:8:79:A:O4'	2.06	0.55
36:5:174:C:N4	36:5:244:G:H1	2.04	0.55
28:D6:7:SER:O	28:D6:9:GLY:N	2.99	0.55
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.83	0.55
36:5:3128:G:OP2	87:5:4166:OHX:N3	2.39	0.55
55:M9:116:ASP:OD1	55:M9:118:HIS:N	2.38	0.55
36:1:979:U:O3'	36:1:980:A:C8	2.58	0.55
36:5:2765:C:H2'	36:5:2766:U:C6	2.42	0.55
36:5:191:U:H2'	36:5:192:C:H6	1.71	0.55
53:M7:33:ALA:O	53:M7:36:ILE:HG22	2.06	0.55
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	3.08	0.55
43:L6:46:ARG:HG3	43:L6:46:ARG:HH11	2.07	0.55
8:S6:39:GLU:HB2	8:S6:46:LYS:HG3	2.74	0.55
36:1:900:G:H1'	36:1:1589:A:N6	2.21	0.55
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.39	0.55
39:L2:112:ILE:HD12	79:Q3:79:VAL:HG22	1.88	0.55
36:1:1078:U:O4	87:1:3969:OHX:N2	2.39	0.55
1:6:846:G:H2'	1:6:847:A:C8	2.40	0.55
1:2:1428:G:H5'	1:2:1428:G:H8	1.71	0.55
1:6:946:U:H2'	1:6:947:U:C6	2.42	0.55
54:M8:23:ASN:OD1	54:M8:25:TYR:N	2.39	0.55
1:6:291:G:H2'	1:6:292:U:C6	2.41	0.55
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.07	0.55
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.46	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:569:C:N4	25:D3:69:ARG:HH12	1.99	0.55
18:C6:50:GLU:OE1	18:C6:114:ARG:NH1	2.39	0.55
18:C6:83:GLN:HE22	18:C6:119:ALA:HA	1.71	0.55
13:C1:88:ARG:CB	13:C1:88:ARG:HH11	2.18	0.55
49:M3:76:THR:HG22	49:M3:101:ARG:HB3	1.88	0.55
3:S1:130:SER:HG	3:S1:180:THR:HG22	6.11	0.55
3:S1:61:LEU:HB2	3:S1:64:ARG:HE	1.71	0.55
41:L4:283:THR:HG22	41:L4:285:ASP:N	2.21	0.55
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.41	0.55
62:N6:112:ASP:HB2	62:N6:115:ARG:H	1.71	0.55
9:S7:59:ALA:HA	9:S7:91:ILE:HG22	1.88	0.55
36:1:208:C:C2'	36:1:209:A:H5'	2.35	0.55
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	2.41	0.55
51:M5:140:LYS:O	51:M5:144:ARG:HG3	2.06	0.55
38:8:62:C:O2	87:8:218:OHX:N1	2.40	0.55
36:1:2264:U:OP2	87:1:3989:OHX:N5	2.39	0.55
45:L8:143:ILE:HG23	45:L8:175:VAL:HG21	2.69	0.55
21:C9:25:GLN:HG2	21:C9:27:LYS:HG2	4.93	0.55
36:1:2927:C:H2'	36:1:2928:C:C6	2.42	0.55
36:1:2112:U:O2	87:1:3962:OHX:N1	2.40	0.55
36:1:3116:G:N2	36:1:3116:G:OP1	2.36	0.55
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.89	0.55
36:1:1230:G:H2'	36:1:1231:A:H8	1.71	0.55
87:1:4036:OHX:N6	87:1:4048:OHX:N3	2.54	0.55
30:D8:65:ARG:HH22	30:D8:67:ARG:HE	6.30	0.55
43:L6:130:ILE:HG12	36:5:3269:U:C5	249.26	0.55
65:N9:26:THR:OG1	36:5:1065:A:N1	216.24	0.55
40:L3:323:MET:HE1	40:L3:356:LEU:HD11	3.64	0.55
13:C1:7:VAL:O	13:C1:9:SER:N	2.95	0.55
64:N8:147:LEU:HD12	72:O6:7:ILE:HD11	5.45	0.55
23:D1:3:ASN:ND2	23:D1:7:GLN:HG2	5.68	0.55
45:L8:26:LEU:H	45:L8:26:LEU:HD12	1.72	0.55
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.41	0.55
36:1:3233:C:H2'	36:1:3234:A:C8	2.42	0.55
41:L4:51:ALA:HB3	38:8:27:U:H4'	109.90	0.55
1:2:1160:A:H2'	1:2:1161:C:C6	2.41	0.55
16:C4:28:VAL:HG11	16:C4:64:ALA:HB2	4.36	0.55
1:2:717:C:H42	1:2:720:G:H22	1.53	0.55
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.49	0.55
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.22	0.55
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:40:ASP:OD1	23:D1:44:ARG:NE	2.34	0.55
36:1:1809:A:OP1	63:N7:65:ARG:NH2	2.39	0.55
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	3.41	0.55
87:1:4036:OHX:N4	87:1:4048:OHX:N1	2.54	0.55
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.47	0.55
36:1:1103:A:H1'	36:1:1104:G:OP1	2.07	0.55
1:2:959:U:H5'	29:D7:28:PRO:HB3	1.88	0.55
12:C0:21:VAL:HG12	12:C0:66:TYR:HB2	4.31	0.55
54:M8:170:ARG:HA	54:M8:174:ARG:HD2	2.67	0.55
11:S9:37:LYS:HE2	1:6:594:A:OP2	413.30	0.55
36:1:3106:A:H2'	36:1:3107:U:O4'	2.06	0.55
13:C1:109:VAL:HG22	13:C1:139:VAL:HG23	1.88	0.55
19:C7:52:GLY:HA3	1:6:1389:C:O2'	423.96	0.55
26:D4:7:ILE:HG21	26:D4:44:LEU:HD11	2.66	0.55
36:5:1066:G:OP1	87:5:4235:OHX:N2	2.38	0.55
62:N6:79:ALA:HB1	62:N6:98:ASN:HB3	1.87	0.55
36:1:1712:G:N2	36:1:1731:A:OP2	2.36	0.55
55:M9:86:GLU:OE2	55:M9:91:SER:OG	2.22	0.55
1:6:1370:U:H4'	1:6:1371:A:H4'	1.89	0.55
68:O2:33:ARG:NH2	36:5:1407:A:O3'	161.81	0.55
64:N8:131:SER:HB3	64:N8:134:ALA:HB2	1.88	0.55
5:S3:93:ASP:N	5:S3:93:ASP:OD1	3.75	0.55
1:6:665:U:N3	1:6:668:C:N3	2.55	0.55
87:5:4005:OHX:N2	87:5:4200:OHX:N1	2.54	0.55
53:M7:40:GLU:HG2	53:M7:42:THR:HG22	1.88	0.55
6:S4:49:ARG:HG2	6:S4:50:ASN:OD1	4.19	0.55
36:1:2208:A:N1	87:1:4047:OHX:N4	2.55	0.55
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.06	0.55
77:Q1:2:ARG:HD2	1:6:1773:C:OP2	311.04	0.55
39:L2:192:LYS:HB3	39:L2:193:ARG:CZ	2.36	0.55
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.88	0.55
6:S4:118:GLU:HA	6:S4:121:TYR:CE1	3.28	0.55
9:S7:122:HIS:ND1	9:S7:179:LYS:HE3	2.75	0.55
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.08	0.55
35:SM:84:LYS:H	35:SM:84:LYS:HD2	1.71	0.55
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.81	0.55
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.38	0.55
1:2:1165:G:C6	1:2:1166:A:C6	2.95	0.55
36:5:3280:U:O2'	36:5:3281:U:H5''	2.06	0.55
1:2:1486:G:H1'	1:2:1592:A:O2'	2.07	0.55
36:1:2533:G:H3'	36:1:2534:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.07	0.55
36:1:1110:U:H2'	36:1:1111:U:C6	2.41	0.55
36:5:980:A:H2'	36:5:981:U:N1	2.22	0.55
22:D0:18:GLN:O	22:D0:96:PRO:HB3	3.85	0.55
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.39	0.55
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.22	0.55
62:N6:28:ARG:HB2	62:N6:75:ARG:HH21	2.40	0.55
25:D3:13:ARG:O	25:D3:17:VAL:HG12	5.66	0.55
36:1:1821:U:C4	70:O4:67:LYS:HD2	2.42	0.55
35:SM:85:SER:O	35:SM:87:THR:N	2.40	0.55
64:N8:76:ASP:HB2	64:N8:115:LYS:O	5.51	0.55
1:2:422:G:N7	87:2:2108:OHX:N5	2.55	0.55
1:2:992:A:OP1	87:2:2035:OHX:N2	2.40	0.55
36:1:544:C:H1'	36:1:548:G:H22	1.71	0.55
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	2.21	0.55
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.41	0.55
39:L2:79:ASN:HD21	39:L2:114:SER:HB3	2.46	0.55
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.07	0.55
1:6:163:G:H8	1:6:163:G:O5'	1.89	0.55
28:D6:10:ARG:NE	1:6:1797:A:OP2	331.40	0.55
36:1:1507:G:H5'	36:1:1507:G:N3	2.21	0.55
36:5:507:U:H2'	36:5:508:U:C6	2.42	0.55
8:S6:136:LYS:HG3	8:S6:173:PRO:HB3	2.38	0.55
87:8:214:OHX:N5	87:8:221:OHX:N1	2.55	0.55
36:5:2444:C:H42	36:5:2503:G:H1	1.54	0.55
29:D7:49:HIS:HD2	1:6:958:U:H5'	342.92	0.55
51:M5:49:ARG:HH21	36:5:115:A:P	100.06	0.55
11:S9:123:HIS:HD2	32:E0:37:ARG:CZ	2.20	0.55
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.11	0.55
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.70	0.55
36:1:661:G:N7	64:N8:19:LYS:HE3	2.21	0.55
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	2.50	0.55
36:1:1498:A:H2'	36:1:1499:C:C6	2.41	0.55
55:M9:27:ASN:O	87:M9:202:OHX:N6	2.40	0.55
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.88	0.55
1:2:793:A:H5''	1:2:794:U:C6	2.42	0.55
38:4:125:U:H2'	38:4:125:U:O2	2.06	0.55
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.72	0.55
36:1:2295:A:H5'	59:N3:61:THR:HG21	1.88	0.55
41:L4:219:LEU:HD22	41:L4:225:VAL:HG11	2.32	0.55
78:Q2:41:ARG:HH21	36:5:2785:A:H4'	163.29	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:3:ARG:HG2	1:6:399:A:H4'	320.93	0.55
55:M9:170:ARG:HH12	1:6:814:A:H2'	320.40	0.55
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.42	0.55
1:6:151:G:H22	1:6:163:G:N2	2.04	0.55
42:L5:68:THR:HB	42:L5:71:GLY:O	2.06	0.55
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.86	0.55
64:N8:115:LYS:HG3	36:5:715:A:C8	149.17	0.55
13:C1:84:ILE:HG23	13:C1:111:VAL:HG11	1.87	0.55
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	4.31	0.55
67:O1:12:TYR:O	67:O1:73:LEU:N	2.98	0.55
36:5:2436:U:H3	36:5:2511:A:H62	1.54	0.55
1:6:352:A:OP2	1:6:352:A:H8	1.90	0.55
38:8:145:U:H2'	38:8:146:U:O4'	2.07	0.55
2:S0:37:VAL:HG22	2:S0:149:LEU:HD13	3.96	0.55
36:1:3362:A:H2'	36:1:3363:U:O4'	2.07	0.55
40:L3:3:HIS:O	40:L3:5:LYS:N	2.40	0.55
22:D0:72:ASN:OD1	22:D0:72:ASN:N	2.40	0.55
87:1:4036:OHX:N4	87:1:4048:OHX:N3	2.54	0.55
1:2:1487:A:H2'	1:2:1488:G:C8	2.41	0.55
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.19	0.55
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.72	0.55
1:2:1040:G:H5'	2:S0:32:HIS:CD2	2.42	0.55
37:3:60:G:H2'	37:3:61:G:H8	1.71	0.55
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	6.85	0.55
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.27	0.55
49:M3:168:ARG:CZ	49:M3:172:LEU:HD21	3.07	0.55
56:N0:109:ASP:OD1	56:N0:113:ARG:NH1	2.40	0.55
1:6:1799:U:H4'	1:6:1800:A:H2'	1.88	0.55
68:O2:27:ARG:HB3	36:5:655:C:OP1	162.52	0.55
3:S1:128:LYS:HE3	3:S1:132:ASP:OD1	2.07	0.55
43:L6:102:ASN:OD1	43:L6:104:GLU:N	2.40	0.55
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.22	0.55
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	2.31	0.55
71:O5:21:LEU:HD22	71:O5:25:LYS:HE3	2.31	0.55
36:1:1752:A:OP2	87:1:4051:OHX:N5	2.40	0.55
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.07	0.55
42:L5:22:ARG:HA	42:L5:25:GLU:HG3	3.18	0.55
36:5:622:A:H2'	36:5:623:U:O4'	2.06	0.55
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	3.74	0.55
11:S9:64:GLU:HG3	11:S9:69:ARG:NH2	4.09	0.55
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	1.89	0.55
1:2:1410:A:H2'	1:2:1411:A:O4'	2.06	0.55
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	1.89	0.55
36:1:2162:U:OP1	39:L2:234:LYS:NZ	2.40	0.55
9:S7:66:SER:O	9:S7:68:ALA:N	2.58	0.55
37:3:45:A:H5'	42:L5:154:THR:HG21	1.89	0.55
64:N8:117:ARG:NH2	36:5:718:G:OP1	160.00	0.55
36:5:2771:U:H2'	36:5:2772:C:C6	2.42	0.55
1:6:546:U:H2'	1:6:547:U:C6	2.42	0.55
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.40	0.55
49:M3:85:LEU:HD22	49:M3:120:GLN:OE1	2.07	0.55
1:2:365:G:N7	87:2:2106:OHX:N5	2.54	0.55
53:M7:34:GLN:NE2	36:5:413:U:H5''	156.87	0.55
41:L4:319:LYS:O	41:L4:320:ASN:HB3	3.93	0.55
1:2:142:G:O6	8:S6:177:ARG:NH1	2.39	0.54
77:Q1:1:MET:SD	77:Q1:9:ARG:NH1	2.81	0.54
53:M7:53:ASP:O	87:M7:206:OHX:N6	27.66	0.54
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.90	0.54
87:2:2044:OHX:N1	87:2:2099:OHX:N5	2.56	0.54
36:5:2207:A:H62	36:5:2236:G:H1	1.54	0.54
87:5:4006:OHX:N4	87:5:4096:OHX:N2	2.54	0.54
71:O5:45:LYS:O	71:O5:49:LYS:HG2	2.75	0.54
36:5:3165:A:H61	36:5:3285:C:H42	1.53	0.54
36:5:3165:A:N6	36:5:3285:C:H42	2.05	0.54
14:C2:126:TRP:O	14:C2:128:ALA:N	2.38	0.54
36:1:1674:G:OP2	87:1:3951:OHX:N2	2.40	0.54
1:6:424:C:O2'	1:6:426:G:OP1	2.25	0.54
1:2:1017:U:H2'	1:2:1018:U:C6	2.42	0.54
13:C1:59:PRO:HG2	13:C1:60:PHE:CE2	2.43	0.54
36:5:2579:G:O6	87:5:4037:OHX:N3	2.40	0.54
67:O1:25:PHE:HB3	67:O1:65:LYS:HG3	4.60	0.54
26:D4:89:TYR:O	26:D4:92:VAL:HB	2.07	0.54
36:1:2572:C:O2'	36:1:2573:G:O4'	2.21	0.54
47:M0:177:ASP:N	47:M0:177:ASP:OD1	2.39	0.54
9:S7:44:LYS:NZ	9:S7:95:GLU:HG2	2.21	0.54
11:S9:41:GLU:OE2	11:S9:126:ARG:NH2	3.23	0.54
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.85	0.54
36:1:514:G:N3	41:L4:341:SER:OG	2.41	0.54
62:N6:82:VAL:O	62:N6:84:LYS:N	2.75	0.54
2:S0:183:ARG:NH2	2:S0:192:THR:O	2.40	0.54
63:N7:27:LYS:HD2	63:N7:28:PRO:HD2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:29:GLN:NE2	12:C0:31:LYS:O	5.18	0.54
61:N5:55:ASN:ND2	61:N5:56:ARG:O	6.93	0.54
59:N3:45:ARG:HB3	59:N3:48:ARG:HB2	1.90	0.54
52:M6:65:ASN:HB3	52:M6:68:ARG:HD3	2.04	0.54
44:L7:151:ARG:NH2	36:5:1334:U:O2'	241.49	0.54
38:4:78:G:H2'	38:4:79:A:C8	2.42	0.54
70:O4:56:THR:HA	70:O4:62:TYR:OH	2.08	0.54
10:S8:147:ALA:C	10:S8:149:SER:H	2.61	0.54
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	1.90	0.54
5:S3:25:PHE:HE1	5:S3:69:LEU:HD22	1.72	0.54
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.91	0.54
74:O8:77:ARG:O	74:O8:78:LEU:HB2	2.06	0.54
37:3:27:A:P	42:L5:57:ASN:H	2.30	0.54
47:M0:21:ARG:NH1	47:M0:22:TYR:OH	2.88	0.54
18:C6:6:SER:HA	18:C6:23:LYS:HA	2.52	0.54
36:5:3132:C:H2'	36:5:3133:C:C6	2.42	0.54
8:S6:135:PRO:HB2	8:S6:141:ILE:HG12	1.88	0.54
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.42	0.54
53:M7:24:VAL:HG12	53:M7:86:LYS:HD2	4.86	0.54
36:5:1464:G:N2	36:5:1466:G:H3'	2.22	0.54
1:6:271:A:H5'	1:6:272:U:OP2	2.06	0.54
36:5:1409:G:O6	87:5:4169:OHX:N6	2.40	0.54
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.26	0.54
36:1:624:G:OP2	87:1:4136:OHX:N3	2.40	0.54
39:L2:131:GLY:H	39:L2:169:ILE:HG22	1.71	0.54
25:D3:91:GLY:O	25:D3:93:LEU:N	2.33	0.54
43:L6:58:LEU:HD12	43:L6:78:ARG:HD3	1.90	0.54
34:SR:126:SER:OG	34:SR:127:ARG:N	2.38	0.54
5:S3:140:GLY:HA3	5:S3:182:LEU:HD22	4.97	0.54
4:S2:90:THR:C	4:S2:92:ALA:H	2.10	0.54
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.88	0.54
17:C5:122:THR:HG22	1:6:1558:U:H3	367.79	0.54
1:2:1002:G:N1	1:2:1761:U:OP1	2.37	0.54
22:D0:105:GLN:HG3	22:D0:106:ILE:N	2.22	0.54
11:S9:176:ASN:ND2	1:6:511:A:OP2	466.52	0.54
36:5:1027:A:N7	36:5:1029:G:C2	2.76	0.54
20:C8:18:LEU:HD21	20:C8:70:VAL:HG13	1.89	0.54
36:1:772:U:H2'	36:1:773:G:C8	2.42	0.54
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.41	0.54
36:1:1845:G:H8	36:1:1845:G:H5''	1.72	0.54
23:D1:81:ASN:N	23:D1:81:ASN:OD1	3.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.22	0.54
1:2:545:A:H4'	1:2:546:U:OP1	2.07	0.54
75:O9:10:LYS:HD3	36:5:1833:G:OP1	105.51	0.54
36:1:929:A:H2'	36:1:930:U:C6	2.43	0.54
1:2:274:G:H3'	1:2:275:C:C6	2.41	0.54
46:L9:31:ARG:O	46:L9:149:ASN:ND2	2.41	0.54
36:5:1881:A:OP2	87:5:4036:OHX:N6	2.40	0.54
11:S9:110:GLN:HA	11:S9:129:ILE:HD11	1.89	0.54
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.42	0.54
56:N0:137:ARG:HD3	36:5:1213:G:OP1	325.70	0.54
36:5:1151:U:H3'	36:5:1152:G:C8	2.42	0.54
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.43	0.54
40:L3:106:TRP:CH2	40:L3:161:LEU:HD13	2.77	0.54
36:1:1947:G:H1	36:1:2101:C:H42	1.56	0.54
36:5:419:G:O3'	36:5:420:G:OP2	2.24	0.54
1:2:140:A:N6	1:2:281:G:OP1	2.38	0.54
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.22	0.54
36:5:3203:U:H2'	36:5:3204:C:C6	2.43	0.54
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.41	0.54
1:2:481:A:H61	1:2:505:A:H62	1.54	0.54
36:1:1918:C:OP2	87:1:4017:OHX:N2	2.40	0.54
35:SM:99:LYS:O	35:SM:100:THR:HB	2.06	0.54
36:1:3335:A:H2'	36:1:3336:A:C8	2.43	0.54
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.41	0.54
1:6:542:A:H1'	1:6:543:C:OP1	2.08	0.54
28:D6:37:LYS:HA	28:D6:71:LEU:O	2.07	0.54
34:SR:115:ILE:HG13	34:SR:121:MET:O	2.84	0.54
1:6:1600:A:H4'	1:6:1601:G:OP1	2.07	0.54
58:N2:43:VAL:O	58:N2:45:GLY:N	2.94	0.54
33:E1:143:LYS:O	33:E1:145:HIS:N	2.41	0.54
1:6:151:G:N2	1:6:163:G:N2	2.56	0.54
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.40	0.54
43:L6:176:PHE:HA	50:M4:114:ASP:HB2	2.74	0.54
13:C1:19:ILE:HD13	87:6:2123:OHX:N3	295.35	0.54
3:S1:113:MET:HE3	3:S1:142:PHE:HE2	5.15	0.54
48:M1:6:GLN:O	48:M1:7:ASN:ND2	2.39	0.54
1:2:79:C:H4'	8:S6:173:PRO:O	2.08	0.54
44:L7:80:GLN:OE1	57:N1:136:ARG:HB2	2.88	0.54
87:1:4007:OHX:N3	87:1:4177:OHX:N5	2.56	0.54
1:6:407:A:H2'	1:6:408:C:C6	2.42	0.54
37:3:45:A:H2'	37:3:46:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1670:G:N7	87:2:2123:OHX:N5	2.55	0.54
1:2:1297:G:N2	1:2:1300:A:OP2	2.37	0.54
42:L5:45:ASN:O	42:L5:47:PRO:HD3	2.39	0.54
36:5:1840:U:OP2	87:5:4045:OHX:N4	2.41	0.54
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.41	0.54
17:C5:20:VAL:HG21	17:C5:36:LEU:HD13	1.88	0.54
15:C3:94:LYS:HE2	1:6:953:G:P	301.94	0.54
36:1:1213:G:O2'	56:N0:90:MET:HG3	2.08	0.54
22:D0:34:LEU:HD11	22:D0:89:ARG:HD2	1.89	0.54
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.07	0.54
1:6:217:A:C8	1:6:218:A:C8	2.96	0.54
36:5:1093:A:H4'	36:5:1093:A:OP1	2.07	0.54
38:4:137:C:OP2	87:4:234:OHX:N5	2.40	0.54
42:L5:164:LYS:HG2	42:L5:180:PHE:CZ	2.43	0.54
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	4.95	0.54
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.89	0.54
3:S1:116:LYS:HE2	1:6:1799:U:OP2	328.90	0.54
8:S6:202:ARG:NH2	1:6:127:G:N7	330.46	0.54
36:1:1119:C:OP2	87:1:3957:OHX:N1	2.41	0.54
1:6:1657:U:H4'	1:6:1658:G:OP2	2.07	0.54
1:2:67:A:C2	1:2:69:G:H1'	2.42	0.54
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.27	0.54
29:D7:19:HIS:HB3	29:D7:22:LYS:HD2	3.03	0.54
1:6:1431:C:H1'	1:6:1437:U:O4	2.08	0.54
1:2:594:A:H4'	1:2:595:G:H5'	1.88	0.54
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.90	0.54
1:2:1057:U:H1'	1:2:1058:U:H2'	1.90	0.54
12:C0:12:HIS:CE1	12:C0:49:LEU:HD21	2.43	0.54
32:E0:13:LYS:HG2	32:E0:17:GLN:OE1	4.63	0.54
20:C8:134:ARG:NH1	1:6:1559:A:N1	364.37	0.54
40:L3:122:TRP:CE2	40:L3:127:LYS:HE3	2.43	0.54
4:S2:69:ILE:HD11	4:S2:133:LYS:HD3	1.88	0.54
54:M8:69:ARG:HG3	54:M8:69:ARG:HH11	2.03	0.54
31:D9:6:VAL:O	31:D9:8:PHE:N	4.26	0.54
50:M4:40:ASP:HA	56:N0:143:PHE:CE1	3.02	0.54
36:1:2939:G:OP2	40:L3:3:HIS:HD2	1.91	0.54
6:S4:206:ASP:HB2	6:S4:222:LEU:HD12	1.90	0.54
36:5:2255:A:H5'	36:5:2261:G:N2	2.21	0.54
36:5:1015:U:O3'	36:5:1016:C:H2'	2.08	0.54
77:Q1:16:LYS:NZ	1:6:1749:A:O3'	287.26	0.54
51:M5:183:THR:OG1	51:M5:183:THR:O	2.53	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:199:G:O2'	1:2:200:A:H8	1.91	0.54
36:5:3242:G:H5'	36:5:3245:A:C8	2.42	0.54
2:S0:110:TYR:CE1	2:S0:111:ILE:HD12	5.05	0.54
40:L3:126:LYS:NZ	36:5:3294:A:OP 2	188.87	0.54
40:L3:347:SER:HB3	40:L3:350:ALA:H	1.99	0.54
10:S8:79:ALA:HB3	10:S8:103:GLN:HB3	1.88	0.54
61:N5:136:ALA:HB1	61:N5:141:TYR:CE1	2.43	0.54
67:O1:26:LYS:HE2	36:5:1456:A:N7	167.09	0.54
1:2:453:U:H3'	1:2:453:U:O2	2.08	0.54
19:C7:36:ASP:OD2	19:C7:36:ASP:N	2.62	0.54
37:7:106:U:H2'	37:7:107:C:O4'	2.07	0.54
36:5:92:G:H5"	36:5:94:G:N7	2.23	0.54
1:6:538:A:H2	1:6:540:G:H22	1.55	0.54
25:D3:127:VAL:O	25:D3:129:GLY:N	2.40	0.54
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.55	0.54
1:2:702:G:O2'	1:2:703:G:H8	1.91	0.54
8:S6:63:MET:HG3	8:S6:99:GLY:O	2.07	0.54
36:1:2115:G:H22	36:1:2120:A:H1'	1.73	0.54
66:O0:17:VAL:HG11	66:O0:92:ILE:HD12	1.89	0.54
36:5:3364:C:OP1	87:5:3947:OHX:N1	2.41	0.54
44:L7:158:LYS:CD	44:L7:159:GLN:H	2.84	0.54
1:6:158:U:O2'	1:6:159:U:H3'	2.07	0.54
35:SM:65:THR:O	35:SM:65:THR:OG1	2.21	0.54
40:L3:221:THR:HB	40:L3:273:HIS:H	1.72	0.54
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.26	0.54
31:D9:36:LEU:O	31:D9:38:ILE:HG12	2.08	0.54
1:6:219:A:N6	1:6:843:U:C2	2.75	0.54
51:M5:186:GLY:O	51:M5:190:THR:HG23	2.50	0.54
48:M1:152:HIS:HB2	37:7:56:A:H4'	327.70	0.54
64:N8:84:GLU:O	64:N8:87:ARG:HB2	3.02	0.54
41:L4:99:MET:HE3	41:L4:103:THR:H	1.73	0.54
36:5:3358:U:H2'	36:5:3359:A:C8	2.43	0.54
1:2:1592:A:H2'	1:2:1593:A:C8	2.42	0.54
36:5:1466:G:O6	87:5:3917:OHX:N5	2.40	0.54
36:1:2699:G:OP2	87:1:3911:OHX:N1	2.40	0.54
6:S4:130:GLN:HB2	6:S4:138:TYR:CZ	2.43	0.54
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.29	0.54
45:L8:133:LYS:HB2	45:L8:199:ALA:O	2.90	0.54
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.88	0.54
71:O5:70:TYR:O	71:O5:73:LYS:HG2	2.08	0.54
36:1:117:U:O4	45:L8:147:LYS:HD3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2097:U:H2'	36:1:2098:C:C6	2.42	0.54
18:C6:123:ARG:HG3	18:C6:124:PRO:HD2	1.89	0.54
36:1:425:G:O6	87:1:3878:OHX:N6	2.41	0.54
1:6:1650:U:H2'	1:6:1651:A:C8	2.43	0.54
60:N4:9:SER:HA	60:N4:52:THR:HG22	1.90	0.54
36:5:1313:G:O6	87:5:4170:OHX:N6	2.41	0.54
1:6:209:U:H2'	1:6:210:A:H8	1.71	0.54
11:S9:133:HIS:NE2	1:6:513:U:OP1	447.92	0.54
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.26	0.54
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.08	0.54
3:S1:175:GLU:HG2	3:S1:193:ILE:HD13	3.54	0.54
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	2.88	0.54
9:S7:138:LYS:HD3	9:S7:150:GLN:OE1	5.75	0.54
37:3:17:A:OP1	42:L5:2:ALA:N	2.41	0.54
36:5:247:C:N3	36:5:248:U:H1'	2.22	0.54
61:N5:51:VAL:HG21	71:O5:62:GLN:HB3	2.12	0.54
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.42	0.54
36:5:3241:G:H2'	36:5:3245:A:H8	1.69	0.54
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.42	0.54
41:L4:157:GLU:HB3	41:L4:211:GLU:O	2.08	0.54
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	2.09	0.54
1:2:260:U:H3'	1:2:261:U:C5'	2.37	0.54
1:6:1039:A:O2'	1:6:1040:G:P	2.66	0.54
28:D6:15:ARG:HD2	28:D6:18:VAL:HG12	1.89	0.54
1:2:1041:G:OP1	87:2:2150:OHX:N5	2.41	0.54
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.23	0.54
36:5:200:C:H5'	36:5:221:A:C2	2.42	0.54
25:D3:13:ARG:O	25:D3:17:VAL:HG23	2.08	0.54
19:C7:2:GLY:N	1:6:1312:A:OP1	392.18	0.54
36:1:3084:C:O2'	36:1:3332:U:OP1	2.16	0.54
39:L2:181:LYS:HE2	39:L2:184:ARG:HH21	1.73	0.54
36:5:255:A:H2'	36:5:256:G:H8	1.73	0.54
54:M8:66:ARG:NH2	36:5:744:A:OP1	167.74	0.54
61:N5:103:TYR:HB3	61:N5:135:ILE:HD11	3.07	0.54
2:S0:140:ASN:HD21	23:D1:29:HIS:HA	2.30	0.54
7:S5:48:PHE:O	7:S5:65:ARG:NH1	5.17	0.54
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.24	0.54
42:L5:152:ARG:NH1	42:L5:152:ARG:HG3	2.33	0.54
36:1:155:G:H5''	36:1:156:G:C8	2.43	0.54
4:S2:111:VAL:HG13	4:S2:191:ALA:HB2	1.90	0.54
6:S4:159:THR:OG1	6:S4:160:VAL:N	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.90	0.54
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.37	0.54
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.08	0.54
36:5:1596:C:H2'	36:5:1597:C:C6	2.43	0.54
15:C3:3:ARG:NH1	1:6:955:A:OP1	328.32	0.54
17:C5:78:THR:OG1	17:C5:79:HIS:N	2.88	0.54
2:S0:168:HIS:HB3	2:S0:203:PHE:CE2	2.68	0.54
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.90	0.54
1:6:1776:A:H2'	1:6:1777:G:C8	2.43	0.54
46:L9:174:LYS:NZ	36:5:3026:G:OP1	344.52	0.54
36:1:3279:A:N6	36:1:3280:U:O4	2.41	0.54
9:S7:78:THR:O	9:S7:82:GLU:HB2	2.08	0.54
36:1:3028:G:H2'	36:1:3029:A:C8	2.43	0.54
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.90	0.54
36:5:3096:C:H2'	36:5:3097:C:H6	1.72	0.54
36:5:2610:G:O6	87:5:4181:OHX:N3	2.41	0.54
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	2.20	0.54
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.73	0.54
4:S2:140:ARG:HD2	23:D1:10:GLU:OE1	5.43	0.53
1:2:513:U:H1'	11:S9:131:GLN:HE21	1.73	0.53
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.08	0.53
62:N6:39:LEU:HD21	62:N6:107:THR:O	2.30	0.53
8:S6:58:LYS:O	8:S6:59:GLN:HB2	2.08	0.53
3:S1:157:GLN:H	3:S1:160:HIS:HB2	1.73	0.53
59:N3:48:ARG:HH22	36:5:3043:C:P	250.89	0.53
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.97	0.53
51:M5:43:THR:OG1	51:M5:131:GLU:OE2	3.26	0.53
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.24	0.53
10:S8:150:ALA:O	10:S8:152:ILE:HG13	2.08	0.53
7:S5:101:GLY:HA3	1:6:1167:G:OP1	357.66	0.53
57:N1:103:GLN:HG3	57:N1:104:GLU:N	2.22	0.53
1:2:1760:G:H2'	1:2:1761:U:H5'	1.89	0.53
49:M3:64:LYS:HD3	49:M3:65:TYR:CE1	3.04	0.53
9:S7:154:LEU:HD12	9:S7:184:GLU:O	2.08	0.53
59:N3:32:ARG:HB3	59:N3:64:LYS:HB3	1.89	0.53
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.45	0.53
1:6:320:U:H3'	1:6:321:C:H2'	1.89	0.53
46:L9:22:SER:HG	46:L9:23:ARG:N	2.03	0.53
72:O6:25:LYS:HB3	36:5:156:G:OP2	88.96	0.53
36:1:2273:G:O2'	36:1:2274:U:OP2	2.26	0.53
1:2:190:C:O2'	1:2:191:C:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2897:A:H2'	36:5:2899:C:C5'	2.38	0.53
36:5:247:C:C4	36:5:248:U:H1'	2.43	0.53
1:6:152:U:C2	1:6:163:G:N2	2.76	0.53
14:C2:119:SER:OG	14:C2:120:VAL:N	2.41	0.53
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.08	0.53
49:M3:128:ARG:O	49:M3:130:GLY:N	2.40	0.53
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.80	0.53
12:C0:32:HIS:CG	12:C0:33:GLU:H	3.32	0.53
1:2:707:A:O2'	1:2:731:C:N4	2.40	0.53
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.41	0.53
36:1:1752:A:OP2	87:1:4051:OHX:N3	2.41	0.53
1:6:1590:G:H2'	1:6:1591:C:H6	1.73	0.53
18:C6:64:ASP:C	18:C6:65:ILE:HG12	2.28	0.53
14:C2:55:GLY:N	35:SM:172:VAL:O	2.33	0.53
87:5:4061:OHX:N3	87:5:4207:OHX:N6	2.56	0.53
36:5:1262:G:H5''	36:5:1263:A:OP2	2.08	0.53
31:D9:45:GLU:OE1	1:6:1433:G:N2	411.73	0.53
36:5:920:A:OP1	36:5:922:U:H5	1.91	0.53
6:S4:195:ILE:O	6:S4:196:VAL:HG23	3.96	0.53
60:N4:32:GLN:OE1	60:N4:33:ASN:ND2	2.83	0.53
36:1:2402:A:OP2	87:1:4092:OHX:N6	2.41	0.53
1:6:1672:G:H2'	1:6:1673:G:C8	2.43	0.53
37:3:22:A:H2'	37:3:23:A:C8	2.43	0.53
36:5:1573:G:C5	36:5:1574:C:H1'	2.43	0.53
36:1:3354:U:OP1	36:1:3356:G:H5'	2.09	0.53
1:6:578:U:O2	87:6:2152:OHX:N3	2.41	0.53
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.11	0.53
36:1:1170:A:OP2	87:1:3961:OHX:N5	2.41	0.53
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.28	0.53
71:O5:115:LYS:HB2	71:O5:115:LYS:NZ	2.24	0.53
48:M1:166:LYS:C	48:M1:168:ASP:H	2.67	0.53
62:N6:120:GLN:HE22	62:N6:126:LEU:CA	9.41	0.53
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.74	0.53
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.71	0.53
6:S4:182:TYR:CE1	6:S4:192:ILE:HD11	3.52	0.53
21:C9:63:ARG:O	21:C9:67:MET:HE3	2.08	0.53
36:1:180:C:H2'	36:1:181:U:H6	1.72	0.53
36:1:2427:U:H2'	36:1:2428:U:C6	2.42	0.53
61:N5:80:ASN:HD21	61:N5:126:LEU:HB2	1.74	0.53
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	3.32	0.53
51:M5:154:PRO:HB3	51:M5:157:LYS:HE3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:813:U:H2'	1:6:813:U:O2	2.08	0.53
1:2:1238:A:H2'	1:2:1239:U:O4'	2.07	0.53
64:N8:132:LYS:O	64:N8:136:GLU:HG3	3.19	0.53
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.70	0.53
36:1:2775:U:H2'	36:1:2776:C:H6	1.73	0.53
36:1:655:C:H2'	36:1:656:A:C8	2.44	0.53
36:5:2836:C:C5	36:5:2852:C:N4	2.72	0.53
36:5:93:C:OP2	36:5:2764:C:O2'	2.24	0.53
36:5:801:A:O2'	87:5:4034:OHX:N1	2.42	0.53
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.90	0.53
7:S5:43:PHE:N	7:S5:46:TRP:O	2.68	0.53
4:S2:137:ILE:HD12	4:S2:219:GLY:HA2	1.90	0.53
36:5:2209:U:H4'	36:5:2210:G:OP1	2.08	0.53
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.07	0.53
36:1:1362:G:H2'	36:1:1363:A:C8	2.43	0.53
36:1:770:G:OP1	49:M3:171:ARG:HD3	2.08	0.53
6:S4:36:HIS:CD2	6:S4:85:GLY:HA3	2.55	0.53
3:S1:135:LEU:HD23	3:S1:216:LYS:O	8.60	0.53
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.86	0.53
1:2:61:A:H8	1:2:269:G:O2'	1.91	0.53
1:2:1459:C:OP2	20:C8:126:ARG:NH2	2.40	0.53
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.41	0.53
21:C9:63:ARG:HH12	1:6:1481:C:P	406.41	0.53
36:5:1070:U:C4	36:5:1071:U:C4	2.97	0.53
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.89	0.53
1:2:1477:G:H2'	1:2:1478:G:C8	2.43	0.53
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.20	0.53
36:5:325:A:H5''	36:5:326:U:OP2	2.08	0.53
45:L8:101:THR:OG1	45:L8:104:GLU:HG3	5.14	0.53
11:S9:49:LEU:HD12	11:S9:101:VAL:HG13	4.46	0.53
36:1:1405:U:OP2	68:O2:59:SER:OG	2.26	0.53
36:5:2584:G:H5'	36:5:2585:G:OP2	2.09	0.53
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.91	0.53
36:1:567:G:O6	87:1:4006:OHX:N1	2.42	0.53
14:C2:29:LYS:HE2	14:C2:100:TRP:CD1	2.43	0.53
1:6:1031:U:H4'	1:6:1032:G:OP2	2.09	0.53
57:N1:127:GLN:HG3	36:5:1095:U:N3	262.55	0.53
62:N6:50:ILE:HD13	62:N6:51:ARG:N	3.18	0.53
68:O2:126:LEU:O	68:O2:128:LEU:N	2.41	0.53
87:2:2044:OHX:N4	87:2:2099:OHX:N6	2.57	0.53
16:C4:35:GLY:HA3	1:6:919:A:C4'	268.54	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:130:ARG:HH21	35:SM:66:ALA:HA	3.58	0.53
1:2:25:C:H4'	1:2:25:C:OP2	2.08	0.53
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	7.38	0.53
34:SR:238:ASP:OD1	34:SR:238:ASP:N	2.40	0.53
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.42	0.53
36:1:1507:G:C8	53:M7:129:THR:HG22	2.44	0.53
44:L7:223:PHE:HA	44:L7:227:GLY:HA2	4.58	0.53
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.90	0.53
1:2:213:A:OP2	87:2:2116:OHX:N2	2.42	0.53
45:L8:187:GLY:HA2	45:L8:195:SER:HB2	2.30	0.53
36:5:1329:U:H4'	36:5:1330:A:OP1	2.07	0.53
36:1:3090:U:OP1	40:L3:270:ARG:NH2	2.38	0.53
11:S9:92:LYS:HE3	11:S9:92:LYS:HA	1.90	0.53
36:5:2970:C:H4'	36:5:2971:A:N1	2.23	0.53
87:5:4061:OHX:N5	87:5:4207:OHX:N6	2.57	0.53
61:N5:82:LEU:HD12	61:N5:126:LEU:HD21	1.90	0.53
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.09	0.53
36:1:289:A:H5'	51:M5:95:GLN:O	2.08	0.53
2:S0:105:GLY:N	2:S0:135:GLU:OE2	2.36	0.53
59:N3:10:LYS:HG2	59:N3:11:PHE:O	2.08	0.53
45:L8:241:LYS:HB2	36:5:2586:G:N7	185.03	0.53
36:5:2213:A:H2'	36:5:2214:A:C8	2.43	0.53
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.44	0.53
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.08	0.53
8:S6:20:ASP:O	8:S6:23:ARG:N	2.73	0.53
54:M8:154:GLY:O	54:M8:159:LYS:NZ	2.24	0.53
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.08	0.53
1:2:912:U:H4'	1:2:913:G:O5'	2.09	0.53
11:S9:133:HIS:O	11:S9:134:ILE:HD13	2.09	0.53
25:D3:69:ARG:NH2	1:6:568:G:N7	365.59	0.53
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.80	0.53
49:M3:76:THR:HG23	49:M3:101:ARG:NH1	2.23	0.53
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.41	0.53
28:D6:5:ARG:NH1	1:6:1795:U:H3'	338.97	0.53
37:3:3:U:H2'	37:3:4:U:C6	2.44	0.53
44:L7:147:LEU:HA	44:L7:244:ASN:ND2	2.24	0.53
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.68	0.53
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.41	0.53
38:4:85:G:O6	62:N6:112:ASP:HB3	2.07	0.53
15:C3:55:ARG:HD2	15:C3:56:ASP:OD1	4.71	0.53
50:M4:106:ARG:HD3	36:5:3209:A:C4	294.50	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1039:A:HO2'	1:6:1040:G:P	2.32	0.53
51:M5:73:ARG:NH1	51:M5:88:GLY:O	2.41	0.53
8:S6:114:VAL:HG12	8:S6:115:LYS:HG2	3.75	0.53
64:N8:4:ARG:NH2	36:5:1427:U:OP2	135.19	0.53
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.89	0.53
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.44	0.53
39:L2:243:THR:OG1	36:5:2244:A:H5''	228.76	0.53
1:2:1142:A:H5''	28:D6:2:PRO:HB3	1.90	0.53
36:1:1733:G:OP2	87:1:3919:OHX:N6	2.41	0.53
36:5:595:G:N1	36:5:609:G:H5''	2.23	0.53
36:5:696:C:HO2'	36:5:697:A:H8	1.56	0.53
42:L5:22:ARG:HH21	42:L5:28:THR:HG1	1.52	0.53
4:S2:234:PRO:O	4:S2:235:LEU:HB2	2.09	0.53
47:M0:87:LEU:HA	47:M0:138:VAL:HG22	1.91	0.53
1:6:1533:C:H4'	1:6:1539:G:N1	2.23	0.53
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.33	0.53
16:C4:112:ILE:O	28:D6:57:SER:HA	2.60	0.53
34:SR:108:SER:OG	34:SR:109:ASP:N	2.42	0.53
36:1:2094:C:H2'	36:1:2095:G:H8	1.73	0.53
44:L7:159:GLN:HA	36:5:1362:G:O2'	218.36	0.53
20:C8:131:LEU:HA	20:C8:145:ARG:HH12	1.74	0.53
70:O4:29:ILE:HD11	70:O4:31:ARG:HH21	1.73	0.53
43:L6:40:LEU:HD11	43:L6:54:TYR:HB2	2.44	0.53
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.14	0.53
59:N3:120:LYS:HD3	59:N3:121:GLU:HG3	1.90	0.53
1:2:1490:C:H1'	1:2:1491:U:O4'	2.09	0.53
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.22	0.53
36:1:3085:G:OP2	87:1:3890:OHX:N2	2.42	0.53
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	5.98	0.53
1:2:851:U:H2'	1:2:852:C:C6	2.44	0.53
34:SR:25:THR:HA	34:SR:73:LEU:HD12	3.53	0.53
1:6:1628:U:H2'	1:6:1629:G:C8	2.42	0.53
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.72	0.53
25:D3:137:LYS:O	25:D3:139:LYS:N	4.71	0.53
63:N7:87:LEU:HB2	63:N7:127:ASN:ND2	2.24	0.53
11:S9:78:ARG:HH12	11:S9:82:ARG:NH2	2.07	0.53
36:1:2744:U:OP1	87:1:4080:OHX:N1	2.42	0.53
1:6:922:G:H2'	1:6:923:A:H8	1.73	0.53
1:6:720:G:N2	1:6:720:G:OP2	2.32	0.53
22:D0:43:LYS:O	22:D0:45:ALA:N	2.42	0.53
36:5:1454:A:OP1	87:5:4203:OHX:N6	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:35:LEU:O	78:Q2:36:PHE:HB2	2.09	0.53
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.91	0.53
1:6:564:G:O6	87:6:2152:OHX:N5	2.42	0.53
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.09	0.53
36:1:2897:A:H2'	36:1:2899:C:C5'	2.38	0.53
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.49	0.53
16:C4:123:SER:O	16:C4:124:ASP:HB2	4.65	0.53
51:M5:183:THR:HG22	51:M5:187:ARG:HB2	3.69	0.53
20:C8:11:PHE:CD2	20:C8:59:GLY:HA3	2.40	0.53
1:2:1283:U:OP1	87:2:2115:OHX:N2	2.41	0.53
9:S7:86:GLN:O	9:S7:87:ASP:HB2	2.09	0.53
12:C0:48:SER:O	12:C0:52:LYS:HG2	2.08	0.53
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	3.46	0.53
1:6:197:A:H2'	1:6:198:A:C8	2.44	0.53
38:8:67:U:O4	87:8:223:OHX:N3	2.41	0.53
49:M3:80:VAL:HG12	49:M3:85:LEU:O	2.21	0.53
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.44	0.53
36:1:1856:C:H2'	36:1:1857:C:H6	1.73	0.53
39:L2:230:VAL:HG21	36:5:2424:A:N1	184.07	0.53
67:O1:108:VAL:HG12	67:O1:110:GLU:OE1	2.78	0.53
36:5:1176:C:H2'	36:5:1177:G:N2	2.24	0.53
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	1.91	0.53
13:C1:27:THR:HG22	13:C1:28:SER:H	4.75	0.53
2:S0:75:ALA:HB1	2:S0:86:VAL:HG12	1.91	0.53
51:M5:69:GLY:O	36:5:290:G:H4'	145.81	0.53
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	1.91	0.53
36:5:1479:U:C3'	36:5:1480:G:H5'	2.39	0.53
49:M3:108:ILE:O	49:M3:111:ALA:HB3	2.08	0.53
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.44	0.53
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	4.79	0.53
15:C3:73:ARG:HD3	1:6:859:A:C5	331.76	0.53
40:L3:296:THR:HG21	40:L3:357:LYS:O	3.76	0.53
36:1:3010:U:OP2	87:1:4206:OHX:N5	2.41	0.53
1:6:235:G:H2'	1:6:236:A:C8	2.44	0.53
62:N6:52:ARG:NH1	38:8:71:A:O2'	35.13	0.53
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.08	0.53
34:SR:228:LYS:O	34:SR:229:LYS:HG3	2.09	0.53
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	2.71	0.53
63:N7:17:ARG:O	63:N7:19:ALA:N	2.41	0.53
16:C4:90:ARG:HA	16:C4:128:LYS:NZ	2.24	0.53
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:196:LEU:O	10:S8:200:LYS:HG3	2.09	0.53
36:5:3289:G:H2'	36:5:3290:G:C8	2.44	0.53
69:O3:13:HIS:HE2	69:O3:28:SER:HG	2.12	0.53
48:M1:23:VAL:HG12	48:M1:25:GLU:H	2.74	0.53
36:1:3159:C:H2'	36:1:3160:U:H6	1.73	0.53
36:5:566:G:N7	87:5:4138:OHX:N5	2.56	0.53
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG23	1.91	0.53
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.24	0.53
1:2:1470:C:OP1	1:2:1540:G:O2'	2.26	0.53
40:L3:173:GLN:NE2	40:L3:175:LYS:O	2.41	0.53
36:1:1853:U:OP2	87:1:4037:OHX:N3	2.42	0.53
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.24	0.53
5:S3:71:LEU:HB3	12:C0:20:VAL:HG11	1.91	0.53
1:6:1014:G:H2'	1:6:1015:U:O4'	2.09	0.53
11:S9:151:ASP:OD1	11:S9:151:ASP:N	2.53	0.53
40:L3:143:GLY:O	40:L3:147:GLU:HG2	2.09	0.53
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.44	0.53
50:M4:47:ASP:CG	50:M4:55:ARG:HB2	2.69	0.53
64:N8:21:ARG:NH1	36:5:1369:A:OP1	183.97	0.53
1:2:1207:C:N4	1:2:1456:C:H5	2.07	0.53
25:D3:96:VAL:HG23	25:D3:97:ASP:N	2.18	0.53
17:C5:20:VAL:HG12	17:C5:24:LYS:HD2	1.90	0.53
2:S0:184:LEU:C	2:S0:186:GLY:H	2.13	0.53
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.09	0.53
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.62	0.53
36:5:2180:G:H2'	36:5:2181:C:C6	2.43	0.53
36:1:1213:G:OP1	56:N0:139:TYR:OH	2.23	0.53
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.91	0.53
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.19	0.53
15:C3:16:ILE:HD12	1:6:959:U:H4'	346.86	0.53
12:C0:16:PHE:O	12:C0:88:PRO:HA	2.08	0.53
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.24	0.53
71:O5:34:GLN:HB3	71:O5:38:ARG:NH2	3.46	0.53
62:N6:112:ASP:HB2	62:N6:115:ARG:HB2	2.38	0.53
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.90	0.53
1:6:780:A:H5''	1:6:781:U:H5'	1.90	0.53
45:L8:221:ASN:HA	45:L8:225:LYS:HE3	2.49	0.53
43:L6:50:LYS:HE3	43:L6:72:ASN:HB2	1.91	0.53
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	1.90	0.53
1:2:1381:U:H1'	1:2:1516:A:N6	2.24	0.53
27:D5:85:LYS:HG3	27:D5:86:GLU:H	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:71:LYS:O	6:S4:90:ILE:HA	2.91	0.53
46:L9:38:LEU:HD13	46:L9:71:VAL:HG22	2.27	0.53
12:C0:51:SER:OG	1:6:1219:A:N3	432.63	0.53
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.41	0.52
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.91	0.52
47:M0:174:THR:CG2	47:M0:176:LEU:H	2.22	0.52
49:M3:74:GLY:HA3	49:M3:98:ASP:HB2	2.35	0.52
62:N6:35:LEU:HD13	62:N6:39:LEU:HB3	2.64	0.52
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.37	0.52
28:D6:6:ALA:H	1:6:1796:C:H5	345.67	0.52
2:S0:179:ARG:HD3	2:S0:183:ARG:CZ	2.86	0.52
22:D0:102:ARG:HG3	22:D0:103:ILE:N	4.60	0.52
78:Q2:71:ARG:HE	78:Q2:80:ARG:HH21	1.57	0.52
40:L3:169:THR:HG21	40:L3:171:LEU:HD12	1.90	0.52
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.09	0.52
45:L8:160:ILE:HD12	45:L8:164:VAL:HG13	5.80	0.52
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.09	0.52
36:5:129:U:O4	87:5:3937:OHX:N4	2.42	0.52
17:C5:56:PHE:HE1	17:C5:89:MET:HE1	3.11	0.52
3:S1:103:MET:HG2	3:S1:104:ASP:N	2.23	0.52
48:M1:133:ARG:HD2	48:M1:153:LYS:H	4.98	0.52
24:D2:78:ARG:CD	24:D2:126:LEU:HB3	2.39	0.52
1:2:1783:C:H2'	1:2:1784:C:C6	2.43	0.52
27:D5:43:ASP:O	27:D5:46:LYS:N	2.24	0.52
27:D5:43:ASP:O	27:D5:44:GLN:HB3	3.59	0.52
9:S7:154:LEU:HB2	9:S7:185:ILE:HG23	1.91	0.52
40:L3:252:ILE:HD12	40:L3:264:VAL:HG21	4.58	0.52
36:1:2248:C:OP2	87:1:3885:OHX:N3	2.41	0.52
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	1.91	0.52
61:N5:76:VAL:HG22	61:N5:81:ILE:O	2.08	0.52
36:5:1352:A:H1'	36:5:1353:U:H5'	1.91	0.52
55:M9:24:LEU:HD22	55:M9:50:ILE:HG12	5.49	0.52
1:2:1321:A:H61	2:S0:108:THR:HG21	1.74	0.52
10:S8:100:ALA:HB3	10:S8:169:ILE:HG12	3.18	0.52
36:5:2843:U:H2'	36:5:2843:U:O2	2.09	0.52
38:4:103:G:O6	87:4:226:OHX:N4	2.42	0.52
54:M8:134:GLY:O	54:M8:137:THR:OG1	2.66	0.52
66:O0:45:ALA:O	66:O0:48:THR:OG1	4.50	0.52
1:6:368:U:O2'	1:6:603:U:O2'	2.19	0.52
36:1:25:U:O4	87:1:3873:OHX:N4	2.42	0.52
36:5:308:A:H5'	36:5:2223:A:O2'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	2.09	0.52
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.24	0.52
36:1:109:A:H4'	36:1:110:G:OP1	2.08	0.52
24:D2:2:THR:N	1:6:1034:C:HO2'	338.72	0.52
56:N0:50:LYS:O	56:N0:51:VAL:HG23	4.34	0.52
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.09	0.52
40:L3:53:MET:HE3	36:5:3048:A:C5'	232.96	0.52
9:S7:122:HIS:CE1	9:S7:177:THR:HB	2.84	0.52
47:M0:193:ASP:OD2	47:M0:198:LYS:NZ	3.91	0.52
12:C0:15:LEU:HG	12:C0:68:LEU:HD22	1.92	0.52
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.57	0.52
1:2:1274:C:C5	35:SM:96:ARG:HG2	2.45	0.52
54:M8:161:LYS:O	54:M8:162:ALA:CB	2.57	0.52
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	2.93	0.52
36:5:541:U:O4	87:5:4018:OHX:N3	2.41	0.52
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.09	0.52
36:5:1796:G:H5''	36:5:1797:A:OP1	2.09	0.52
64:N8:22:ILE:HD12	36:5:1114:U:H5''	192.04	0.52
1:6:404:G:H2'	1:6:405:C:C6	2.44	0.52
24:D2:17:ALA:HB2	24:D2:25:VAL:HG13	1.92	0.52
73:O7:28:HIS:ND1	73:O7:31:LYS:HB2	2.25	0.52
36:5:3228:C:H4'	36:5:3229:G:O5'	2.08	0.52
6:S4:16:HIS:O	6:S4:18:TRP:N	2.43	0.52
36:5:644:G:H2'	36:5:2372:A:N7	2.24	0.52
40:L3:66:LYS:HD3	40:L3:67:PHE:CD2	5.37	0.52
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.18	0.52
56:N0:93:GLU:OE1	56:N0:135:VAL:HG13	2.44	0.52
87:1:3920:OHX:N5	51:M5:204:LYS:O	2.42	0.52
32:E0:46:ASN:OD1	32:E0:47:VAL:N	2.42	0.52
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.16	0.52
40:L3:140:ASP:OD1	40:L3:142:ALA:N	2.32	0.52
31:D9:14:TYR:OH	1:6:1553:G:O2'	403.87	0.52
3:S1:58:SER:HA	3:S1:62:LYS:HD3	1.92	0.52
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.73	0.52
36:5:1875:G:C2'	36:5:1876:U:H5''	2.40	0.52
8:S6:160:ARG:NH2	1:6:66:U:O2'	344.16	0.52
36:1:2557:A:H5'	63:N7:135:ARG:HH11	1.75	0.52
3:S1:69:CYS:SG	16:C4:114:ARG:NH1	2.78	0.52
36:5:1025:A:H5'	36:5:1026:A:OP2	2.08	0.52
40:L3:356:LEU:HD13	40:L3:359:ILE:HD11	1.90	0.52
70:O4:102:LYS:HD2	70:O4:103:LYS:HE3	5.81	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:90:LYS:HG3	11:S9:95:TYR:CE2	2.44	0.52
62:N6:60:ARG:NH1	36:5:200:C:OP1	87.00	0.52
1:6:209:U:H2'	1:6:210:A:C8	2.44	0.52
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.42	0.52
70:O4:65:VAL:HG12	70:O4:70:LYS:HE2	1.92	0.52
44:L7:83:LEU:HD22	44:L7:84:VAL:N	2.25	0.52
16:C4:66:ASP:O	16:C4:69:ALA:N	3.25	0.52
36:5:3316:A:H5''	36:5:3318:G:N2	2.24	0.52
1:6:521:A:H2'	1:6:522:U:O4'	2.10	0.52
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.10	0.52
1:6:1175:U:H2'	1:6:1176:G:C8	2.45	0.52
36:1:2553:U:H4'	36:1:2554:A:OP2	2.09	0.52
79:Q3:84:ARG:O	79:Q3:88:GLU:HG2	2.10	0.52
34:SR:234:LEU:H	34:SR:234:LEU:HD12	2.72	0.52
36:5:1536:G:N7	87:5:3927:OHX:N2	2.57	0.52
1:6:1140:G:OP2	87:6:2069:OHX:N1	2.43	0.52
1:2:514:G:O2'	1:2:515:A:H5'	2.09	0.52
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.24	0.52
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.12	0.52
87:2:2090:OHX:N3	87:2:2132:OHX:N6	2.57	0.52
4:S2:38:VAL:HG13	4:S2:39:THR:HG23	1.92	0.52
10:S8:50:GLY:O	10:S8:52:ASN:ND2	2.42	0.52
1:6:470:A:OP2	87:6:2100:OHX:N1	2.42	0.52
19:C7:5:ARG:HB2	19:C7:10:LYS:HE2	1.89	0.52
2:S0:179:ARG:HH11	2:S0:183:ARG:NH1	2.07	0.52
12:C0:29:GLN:HB2	12:C0:39:ASN:HB2	1.90	0.52
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.21	0.52
8:S6:84:TYR:OH	8:S6:91:GLU:HG2	2.70	0.52
20:C8:145:ARG:HD3	35:SM:68:ARG:NH1	3.12	0.52
1:2:778:G:H1	26:D4:10:ARG:NH1	2.08	0.52
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.92	0.52
10:S8:147:ALA:HA	10:S8:150:ALA:HB2	2.90	0.52
55:M9:18:GLY:HA3	36:5:1874:A:H5''	136.63	0.52
87:2:2089:OHX:N6	77:Q1:25:LYS:O	2.42	0.52
42:L5:233:ALA:O	42:L5:235:SER:N	2.43	0.52
21:C9:33:TYR:HD1	21:C9:34:VAL:H	2.37	0.52
51:M5:49:ARG:NH1	36:5:149:U:OP2	101.51	0.52
36:1:2574:G:H2'	36:1:2575:G:C8	2.44	0.52
36:5:549:U:H2'	36:5:550:A:C8	2.45	0.52
61:N5:47:ALA:HB3	71:O5:77:PRO:HG3	1.91	0.52
42:L5:99:TYR:CD2	42:L5:199:ILE:HG12	2.94	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.79	0.52
52:M6:72:HIS:O	52:M6:74:ARG:NH1	2.43	0.52
34:SR:302:PHE:HA	34:SR:312:VAL:HG13	1.91	0.52
1:6:180:A:H2'	1:6:181:A:O4'	2.10	0.52
40:L3:113:GLU:CD	40:L3:167:ARG:HD3	2.30	0.52
1:2:1070:C:H4'	29:D7:17:ARG:HD3	1.91	0.52
36:1:534:U:O2	56:N0:146:LYS:HA	2.08	0.52
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	2.23	0.52
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.38	0.52
2:S0:52:LYS:HD3	23:D1:82:VAL:HA	1.91	0.52
7:S5:61:TYR:HE2	7:S5:164:PRO:HG2	3.52	0.52
87:5:4016:OHX:N4	87:5:4208:OHX:N1	2.58	0.52
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.70	0.52
36:1:595:G:H1	36:1:609:G:H5''	1.74	0.52
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.90	0.52
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.10	0.52
26:D4:52:LYS:O	26:D4:54:ALA:N	2.60	0.52
63:N7:73:LYS:NZ	36:5:1637:A:OP2	211.84	0.52
13:C1:109:VAL:CG2	13:C1:139:VAL:HG23	2.38	0.52
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.50	0.52
40:L3:227:GLU:HG3	40:L3:270:ARG:HB3	4.63	0.52
36:1:2534:G:H2'	36:1:2535:A:H8	1.75	0.52
87:1:3975:OHX:N6	87:1:4161:OHX:N4	2.57	0.52
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.69	0.52
71:O5:70:TYR:CE1	71:O5:77:PRO:HD3	2.53	0.52
26:D4:21:LYS:HB2	26:D4:75:VAL:HG13	1.92	0.52
36:1:938:C:OP2	64:N8:26:ARG:NH1	2.43	0.52
55:M9:35:ALA:O	55:M9:36:ASN:ND2	6.01	0.52
36:1:3185:U:C6	52:M6:126:VAL:HG21	2.45	0.52
36:5:1355:A:H1'	36:5:1356:U:OP2	2.09	0.52
36:5:374:A:N3	36:5:376:G:H5''	2.24	0.52
36:1:342:A:N1	36:1:349:A:O2'	2.36	0.52
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	4.13	0.52
1:6:1428:G:H8	1:6:1428:G:H5'	1.75	0.52
36:1:1191:U:C2	52:M6:48:PHE:CE1	2.98	0.52
50:M4:119:GLN:O	50:M4:123:LEU:HD12	2.71	0.52
36:1:385:A:H2'	36:1:386:A:C8	2.44	0.52
44:L7:108:LEU:HD21	44:L7:115:THR:HG23	2.26	0.52
36:5:90:C:H2'	36:5:91:G:H5'	1.92	0.52
67:O1:41:LYS:HA	67:O1:46:THR:HG23	3.91	0.52
34:SR:70:ASP:OD2	34:SR:112:SER:HA	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1699:G:N2	1:6:1701:A:H5''	2.25	0.52
77:Q1:4:LYS:O	77:Q1:7:LYS:HB3	2.82	0.52
62:N6:50:ILE:HD12	62:N6:70:ILE:HD13	1.91	0.52
7:S5:100:ASN:O	7:S5:102:ARG:N	2.42	0.52
7:S5:97:LEU:O	7:S5:99:MET:N	3.20	0.52
40:L3:53:MET:HE1	40:L3:327:CYS:CB	2.54	0.52
36:1:3066:U:H2'	36:1:3067:C:C6	2.44	0.52
36:1:92:G:H5'	36:1:93:C:O5'	2.10	0.52
36:1:1492:G:N7	75:O9:2:ALA:CB	2.73	0.52
6:S4:21:ASP:HB2	1:6:773:C:OP1	389.01	0.52
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.58	0.52
2:S0:140:ASN:HB3	23:D1:31:SER:O	2.10	0.52
46:L9:163:GLN:O	46:L9:166:ARG:HD3	2.10	0.52
36:1:2443:A:N3	36:1:2444:C:H5''	2.25	0.52
49:M3:24:VAL:HG21	49:M3:26:PHE:CE2	2.44	0.52
1:2:1623:C:H2'	1:2:1624:C:C6	2.45	0.52
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.50	0.52
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.65	0.52
16:C4:12:GLN:HB3	16:C4:77:THR:OG1	2.10	0.52
87:2:2044:OHX:N4	87:2:2099:OHX:N3	2.57	0.52
39:L2:20:THR:HG22	39:L2:23:ARG:CZ	7.01	0.52
1:2:1487:A:H2'	1:2:1488:G:H8	1.74	0.52
41:L4:283:THR:HG21	41:L4:288:ARG:NH1	7.58	0.52
58:N2:23:THR:HA	58:N2:28:PHE:HB3	1.92	0.52
24:D2:10:ALA:CB	24:D2:27:ILE:HD12	2.40	0.52
64:N8:94:ALA:HB1	64:N8:122:PRO:HD2	1.90	0.52
36:5:629:U:H2'	36:5:630:A:H8	1.74	0.52
38:4:85:G:C8	38:4:85:G:H3'	2.45	0.52
1:2:226:A:H2'	1:2:227:U:H5'	1.90	0.52
1:2:1317:C:H2'	1:2:1318:G:O4'	2.10	0.52
6:S4:158:ASP:N	6:S4:158:ASP:OD1	2.42	0.52
6:S4:242:LYS:HE3	6:S4:242:LYS:H	1.72	0.52
2:S0:12:GLU:O	2:S0:15:GLN:HB2	2.63	0.52
13:C1:73:GLY:HA3	13:C1:86:ILE:HD12	1.91	0.52
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.25	0.52
1:6:1305:U:O2	87:6:2074:OHX:N2	2.42	0.52
61:N5:92:LYS:HE3	36:5:1831:U:OP2	104.32	0.52
37:3:87:G:O2'	56:N0:119:ARG:NH2	2.43	0.52
1:6:278:U:OP2	1:6:278:U:H2'	2.10	0.52
14:C2:50:LYS:O	14:C2:54:ARG:HG2	4.37	0.52
28:D6:75:VAL:O	28:D6:79:ILE:N	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:2:2090:OHX:N1	87:2:2132:OHX:N2	2.57	0.52
75:09:50:ASN:O	75:09:51:ILE:HB	2.09	0.52
25:D3:7:ARG:HG2	25:D3:7:ARG:HH11	1.74	0.52
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.91	0.52
67:O1:81:GLU:O	67:O1:82:GLU:HG2	2.32	0.52
1:2:155:U:H4'	8:S6:59:GLN:H	1.75	0.52
3:S1:131:ASP:CG	3:S1:180:THR:HB	5.91	0.52
53:M7:69:ARG:HD2	36:5:3308:C:O2	185.22	0.52
1:2:740:A:C2'	1:2:741:C:H5''	2.39	0.52
36:1:2897:A:H2'	36:1:2899:C:H5'	1.92	0.52
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	6.60	0.52
21:C9:84:LYS:HE2	21:C9:94:ILE:HG13	4.92	0.52
24:D2:5:SER:O	24:D2:7:LEU:N	3.15	0.52
34:SR:159:ASN:ND2	34:SR:163:ASP:HA	2.25	0.52
34:SR:164:ASP:O	34:SR:166:SER:N	2.46	0.52
36:5:1017:C:H2'	36:5:1017:C:OP1	2.10	0.52
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	6.07	0.52
8:S6:121:LEU:H	8:S6:125:THR:HB	2.81	0.52
42:L5:88:ILE:HD13	42:L5:239:ILE:HG22	5.07	0.52
46:L9:165:CYS:SG	46:L9:179:ILE:HG13	3.52	0.52
39:L2:105:GLY:HA2	39:L2:139:HIS:CE1	3.55	0.52
23:D1:3:ASN:HD21	23:D1:7:GLN:HG2	5.23	0.52
36:5:3287:U:H2'	36:5:3288:G:H5'	1.91	0.52
36:1:2138:A:HO2'	73:O7:2:GLY:N	2.07	0.52
36:1:1722:U:H5''	55:M9:99:LEU:HD12	1.92	0.52
1:6:194:U:H2'	1:6:195:G:H4'	1.92	0.52
5:S3:137:VAL:HB	5:S3:185:LYS:HB2	1.92	0.52
38:8:83:C:H4'	38:8:85:G:C2	2.44	0.52
74:O8:66:ILE:HG21	74:O8:77:ARG:NH2	2.25	0.52
40:L3:60:LEU:HD23	40:L3:67:PHE:HB3	1.92	0.52
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.91	0.52
36:5:1340:G:H2'	36:5:1341:U:H6	1.75	0.52
49:M3:119:TYR:O	49:M3:123:ILE:HG23	2.09	0.52
7:S5:140:THR:HA	7:S5:214:LYS:HD2	3.79	0.52
69:O3:86:ARG:O	87:O3:201:OHX:N1	2.42	0.52
42:L5:257:GLU:C	42:L5:258:LYS:HD3	4.88	0.52
42:L5:258:LYS:O	42:L5:258:LYS:HG2	4.76	0.52
2:S0:206:ASP:H	2:S0:207:PRO:HA	4.80	0.52
49:M3:122:LYS:HA	71:O5:120:ALA:HA	2.70	0.52
36:1:1207:G:N7	87:1:4066:OHX:N2	2.58	0.52
36:5:1119:C:OP2	87:5:3991:OHX:N2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:54:GLU:CD	1:6:901:G:H22	282.78	0.52
4:S2:95:ARG:HH11	4:S2:97:ARG:HD3	7.53	0.52
36:1:3019:U:C4	36:1:3020:U:C4	2.98	0.52
18:C6:44:LEU:O	18:C6:47:LYS:HB2	2.10	0.52
40:L3:3:HIS:ND1	40:L3:3:HIS:O	2.43	0.52
1:6:1735:U:O4	87:6:2121:OHX:N5	2.42	0.52
52:M6:61:ALA:HB1	52:M6:66:LYS:HG3	2.15	0.52
45:L8:181:LYS:HD3	38:8:154:C:H5'	150.73	0.52
1:6:1173:C:H2'	1:6:1174:C:H6	1.74	0.52
87:6:2057:OHX:N1	87:6:2145:OHX:N4	2.58	0.52
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.92	0.52
1:2:1235:C:H5'	33:E1:146:SER:HB2	1.92	0.52
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.43	0.52
3:S1:126:THR:CG2	3:S1:136:ARG:HE	2.42	0.52
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.42	0.52
4:S2:203:LYS:O	4:S2:206:THR:HG23	4.11	0.52
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.82	0.52
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.90	0.52
62:N6:60:ARG:HB2	62:N6:103:LYS:HB3	1.91	0.52
14:C2:87:PRO:HA	14:C2:140:PHE:HE1	1.85	0.52
48:M1:91:LEU:HD12	48:M1:163:PHE:CZ	2.45	0.52
78:Q2:3:ASN:O	36:5:2655:U:H2'	238.98	0.52
36:5:1801:U:H2'	36:5:1802:C:C6	2.45	0.52
1:6:333:A:C6	1:6:334:G:C6	2.98	0.52
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.91	0.52
1:6:1261:G:H2'	1:6:1262:U:C6	2.45	0.52
36:5:2951:G:O2'	36:5:2952:G:H5'	2.09	0.52
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.92	0.52
36:1:784:A:C6	54:M8:93:ILE:HG22	2.45	0.52
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.09	0.52
21:C9:117:SER:HB2	21:C9:123:ARG:HB2	1.92	0.52
3:S1:42:ASN:N	3:S1:42:ASN:OD1	2.36	0.52
36:1:114:A:OP1	51:M5:54:LYS:NZ	2.42	0.52
64:N8:96:LYS:O	64:N8:98:THR:N	2.42	0.52
24:D2:35:ILE:O	24:D2:39:GLN:HG3	2.50	0.52
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	4.55	0.52
36:1:1108:U:H2'	36:1:1109:U:H6	1.73	0.52
36:1:1108:U:H2'	36:1:1109:U:C6	2.45	0.52
36:5:2309:A:H4'	87:5:4206:OHX:N4	2.25	0.52
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.42	0.52
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:3:ARG:N	11:S9:3:ARG:HD3	2.62	0.52
23:D1:74:GLN:OE1	23:D1:82:VAL:N	3.00	0.52
5:S3:182:LEU:H	5:S3:182:LEU:HD12	1.75	0.52
5:S3:144:ALA:HB1	35:SM:101:ASP:OD2	2.10	0.52
1:2:1537:C:N3	87:2:2155:OHX:N3	2.58	0.52
20:C8:129:TRP:O	35:SM:68:ARG:HB2	2.87	0.52
1:6:918:U:H2'	1:6:919:A:H8	1.75	0.52
36:1:1029:G:H2'	36:1:1030:A:C8	2.45	0.52
1:2:1680:G:OP2	1:2:1680:G:H8	1.92	0.52
40:L3:152:LYS:HD3	40:L3:189:SER:HA	3.69	0.52
43:L6:42:LEU:HD23	43:L6:84:VAL:HG22	2.87	0.52
12:C0:15:LEU:HD22	12:C0:46:LEU:HD11	1.91	0.52
71:O5:83:LYS:HA	38:8:38:U:C5	66.57	0.52
8:S6:48:TYR:CE1	8:S6:116:LYS:HG3	2.44	0.52
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.46	0.52
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.40	0.52
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	2.51	0.52
47:M0:206:LEU:O	47:M0:210:ILE:HG13	2.18	0.52
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.09	0.52
68:O2:19:ARG:HD2	68:O2:28:VAL:CG1	2.47	0.52
36:5:2971:A:H4'	36:5:2972:G:OP2	2.10	0.52
87:5:4005:OHX:N4	87:5:4200:OHX:N3	2.57	0.52
1:6:460:A:H3'	1:6:461:G:H8	1.74	0.52
36:1:3084:C:OP2	87:1:3890:OHX:N5	2.43	0.52
43:L6:50:LYS:HG2	43:L6:74:VAL:HG21	1.92	0.52
36:5:3227:A:H2'	36:5:3228:C:H5'	1.92	0.52
35:SM:22:PRO:HB3	48:M1:38:GLU:OE1	2.10	0.52
5:S3:146:ARG:HD3	1:6:1427:A:C2	378.55	0.52
34:SR:23:LEU:HD12	34:SR:292:LEU:HA	1.91	0.52
1:2:881:A:H2'	1:2:882:U:O4'	2.10	0.52
36:1:2284:C:H5''	36:1:2285:C:OP2	2.10	0.52
3:S1:222:LYS:O	3:S1:224:ASP:N	2.43	0.52
39:L2:64:ARG:HH22	45:L8:38:GLN:HA	2.13	0.52
36:1:1932:A:H5'	36:1:1933:A:OP2	2.10	0.52
36:1:779:G:OP1	54:M8:185:LYS:NZ	2.43	0.52
55:M9:46:LYS:HZ3	36:5:1766:G:H8	100.63	0.52
4:S2:140:ARG:NH1	4:S2:229:LEU:HD11	3.56	0.51
3:S1:179:SER:HB3	3:S1:183:GLN:HB2	2.66	0.51
41:L4:142:VAL:HB	41:L4:145:ILE:HG21	3.81	0.51
70:O4:8:ARG:CG	70:O4:8:ARG:HH11	2.21	0.51
36:1:1350:A:O2'	36:1:1351:U:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:121:ARG:HD3	63:N7:126:LYS:HD3	1.90	0.51
36:5:1307:G:C2	36:5:1308:A:C2	2.98	0.51
1:2:623:A:OP1	87:2:2158:OHX:N1	2.43	0.51
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.58	0.51
1:6:961:U:H2'	1:6:962:C:H6	1.75	0.51
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.39	0.51
36:1:2376:G:H2'	36:1:2377:G:C8	2.46	0.51
28:D6:66:LYS:H	28:D6:66:LYS:HD3	1.75	0.51
36:1:3330:A:H5''	36:1:3330:A:H8	1.74	0.51
36:1:1386:A:N7	41:L4:183:LYS:HE3	2.24	0.51
4:S2:140:ARG:HH22	4:S2:228:ASN:ND2	2.07	0.51
36:5:618:C:O2'	36:5:621:A:N3	2.33	0.51
25:D3:56:LYS:NZ	25:D3:96:VAL:O	5.67	0.51
47:M0:170:LYS:NZ	47:M0:175:ASN:O	2.41	0.51
11:S9:3:ARG:H	11:S9:3:ARG:HD3	1.83	0.51
3:S1:133:TYR:CE1	3:S1:220:GLN:HB3	2.45	0.51
34:SR:106:HIS:CE1	34:SR:126:SER:HB3	2.93	0.51
1:2:819:G:O2'	1:2:821:U:OP2	2.18	0.51
56:N0:13:ARG:NH2	56:N0:50:LYS:O	3.94	0.51
9:S7:117:THR:HG23	9:S7:120:ALA:H	1.75	0.51
36:5:3121:U:H1'	36:5:3122:A:H5''	1.93	0.51
52:M6:18:ARG:HA	36:5:1181:U:O4	267.63	0.51
17:C5:65:LEU:O	87:C5:201:OHX:N2	4.54	0.51
3:S1:70:LEU:HD22	3:S1:74:GLN:HB2	1.93	0.51
12:C0:47:GLN:O	12:C0:50:THR:OG1	2.23	0.51
36:1:608:A:H5''	36:1:609:G:OP2	2.10	0.51
45:L8:33:ASN:O	45:L8:35:GLY:N	3.22	0.51
87:1:4007:OHX:N3	87:1:4177:OHX:N1	2.58	0.51
42:L5:188:GLU:OE1	87:5:4243:OHX:N3	243.26	0.51
62:N6:28:ARG:HB2	62:N6:75:ARG:NH2	2.64	0.51
1:6:546:U:H2'	1:6:547:U:H6	1.75	0.51
1:2:127:G:N7	8:S6:202:ARG:NH2	2.59	0.51
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.46	0.51
1:2:1214:U:OP1	1:2:1246:C:H1'	2.10	0.51
1:6:1305:U:OP2	1:6:1306:C:N4	2.41	0.51
55:M9:46:LYS:NZ	36:5:1766:G:H8	100.53	0.51
14:C2:104:ALA:HB2	14:C2:115:VAL:HG22	5.30	0.51
1:2:1039:A:H5''	23:D1:62:ARG:NH2	2.25	0.51
71:O5:43:LYS:O	71:O5:46:THR:HG23	2.08	0.51
39:L2:32:LEU:HD22	39:L2:37:ARG:HD3	1.92	0.51
62:N6:2:ALA:N	36:5:213:A:H5''	80.65	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1518:C:OP2	87:6:2141:OHX:N1	2.43	0.51
1:6:1244:A:H3'	1:6:1244:A:N3	2.25	0.51
36:5:2106:A:H2'	36:5:2107:A:H8	1.74	0.51
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.92	0.51
1:2:1226:A:O2'	1:2:1227:A:OP1	2.25	0.51
1:2:760:A:H2'	1:2:761:G:O4'	2.10	0.51
1:6:909:U:H2'	1:6:910:C:C6	2.46	0.51
36:1:909:G:OP2	51:M5:77:LYS:HE3	2.10	0.51
56:N0:80:ARG:HB3	56:N0:122:HIS:HB2	1.92	0.51
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.43	0.51
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	1.92	0.51
20:C8:128:PHE:CD2	35:SM:61:ILE:HG22	2.44	0.51
75:O9:21:ARG:CZ	75:O9:24:PRO:HG3	2.40	0.51
71:O5:86:ARG:HG3	71:O5:90:ARG:CZ	3.09	0.51
30:D8:19:THR:OG1	30:D8:27:GLN:HG3	2.11	0.51
38:4:79:A:H5''	38:4:80:A:OP2	2.10	0.51
6:S4:205:PHE:HB3	6:S4:221:ARG:HD2	1.92	0.51
20:C8:45:LEU:HG	20:C8:81:ILE:HD12	4.08	0.51
57:N1:101:CYS:HB3	36:5:990:U:C1'	252.82	0.51
47:M0:153:ARG:HG2	47:M0:156:ARG:NH2	3.96	0.51
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.75	0.51
42:L5:158:ARG:HB2	37:7:46:A:OP1	279.53	0.51
11:S9:117:GLY:O	11:S9:119:ALA:N	2.40	0.51
21:C9:117:SER:OG	21:C9:118:PRO:O	2.62	0.51
47:M0:23:ASN:O	47:M0:24:ARG:HB2	2.10	0.51
36:1:1204:A:H2	36:1:2834:G:N3	2.09	0.51
36:1:111:C:O2'	36:1:112:U:H5'	2.09	0.51
36:1:2421:U:O2'	78:Q2:52:GLY:HA3	2.11	0.51
36:1:216:G:H4'	62:N6:19:TYR:CE2	2.46	0.51
6:S4:166:SER:O	6:S4:168:LYS:HG2	4.79	0.51
31:D9:24:CYS:HB2	1:6:1434:U:H4'	410.99	0.51
36:5:2875:U:C4	36:5:2954:U:C4	2.98	0.51
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.91	0.51
38:4:126:A:O2'	38:4:128:U:OP1	2.27	0.51
36:5:407:A:C2	38:8:17:A:H1'	2.46	0.51
36:5:1014:U:H3	36:5:1036:A:H61	1.57	0.51
42:L5:211:LEU:HD22	42:L5:215:ASP:HB3	2.30	0.51
45:L8:142:LEU:HD23	36:5:117:U:C4	106.81	0.51
1:2:138:A:O2'	8:S6:149:LYS:NZ	2.42	0.51
1:2:538:A:H8	1:2:543:C:N4	2.08	0.51
73:O7:25:ARG:HG3	75:O9:51:ILE:HD12	3.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:161:GLY:O	5:S3:164:VAL:HB	2.10	0.51
77:Q1:3:ALA:HB3	1:6:1773:C:OP1	313.23	0.51
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.45	0.51
41:L4:144:LYS:O	87:L4:402:OHX:N1	5.23	0.51
34:SR:161:LYS:HE3	34:SR:164:ASP:CB	2.41	0.51
42:L5:68:THR:HG22	42:L5:70:THR:N	2.24	0.51
1:6:1398:U:H4'	1:6:1399:C:OP2	2.10	0.51
9:S7:86:GLN:HG3	9:S7:87:ASP:H	1.74	0.51
36:5:3289:G:H2'	36:5:3290:G:H8	1.76	0.51
36:5:1069:C:H2'	36:5:1070:U:H6	1.76	0.51
7:S5:190:ILE:O	7:S5:194:LEU:HB2	2.42	0.51
45:L8:195:SER:O	45:L8:195:SER:OG	2.28	0.51
36:5:1560:G:O2'	36:5:1561:G:OP1	2.24	0.51
2:S0:71:GLU:HA	2:S0:95:ALA:N	2.24	0.51
1:6:1230:A:H8	1:6:1258:U:C5	2.28	0.51
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.51	0.51
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.98	0.51
87:5:4061:OHX:N1	87:5:4207:OHX:N4	2.59	0.51
11:S9:114:TYR:HE1	11:S9:121:SER:H	1.57	0.51
1:2:346:G:O6	87:2:2126:OHX:N5	2.43	0.51
36:5:2726:C:O2'	36:5:2727:A:H2'	2.10	0.51
1:6:1603:U:H2'	1:6:1604:U:H6	1.76	0.51
1:6:700:C:H2'	1:6:701:U:C6	2.45	0.51
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.17	0.51
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.52	0.51
48:M1:80:LEU:HD22	48:M1:84:LEU:HG	1.93	0.51
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.76	0.51
36:5:2158:A:H5'	36:5:2160:G:O4'	2.11	0.51
48:M1:155:THR:OG1	48:M1:158:ASP:HB2	2.18	0.51
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	2.21	0.51
1:2:1798:U:C6	28:D6:97:PRO:HB3	2.45	0.51
36:1:621:A:O2'	87:1:4169:OHX:N1	2.44	0.51
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.76	0.51
18:C6:82:ARG:HH12	18:C6:114:ARG:HB3	1.76	0.51
34:SR:74:THR:HG21	34:SR:79:TYR:HD2	1.75	0.51
3:S1:229:MET:HG3	36:5:2537:U:H5'	258.38	0.51
66:O0:16:LEU:HD22	66:O0:19:LYS:HE2	1.92	0.51
36:5:2234:G:O6	87:5:3967:OHX:N1	2.44	0.51
3:S1:183:GLN:O	3:S1:187:LYS:N	2.44	0.51
36:5:863:C:H2'	36:5:864:G:O4'	2.11	0.51
1:6:837:G:O6	87:6:2098:OHX:N1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.07	0.51
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.28	0.51
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.28	0.51
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	2.41	0.51
54:M8:122:ILE:HD11	54:M8:130:ARG:NH2	2.63	0.51
36:1:2747:A:H2'	36:1:2748:A:C8	2.46	0.51
1:2:1474:G:H2'	1:2:1475:A:C8	2.46	0.51
39:L2:200:ARG:HG3	36:5:2147:A:OP1	208.55	0.51
68:O2:26:HIS:O	68:O2:28:VAL:N	2.65	0.51
6:S4:38:LEU:O	6:S4:41:SER:OG	2.86	0.51
26:D4:35:VAL:HG11	26:D4:40:LEU:HD21	1.93	0.51
10:S8:103:GLN:HG2	10:S8:164:ARG:HB3	1.91	0.51
41:L4:337:GLU:O	41:L4:339:LEU:N	2.44	0.51
1:6:1042:G:N2	1:6:1077:C:O2	2.43	0.51
36:1:871:U:H2'	36:1:872:U:C6	2.46	0.51
36:5:2513:U:H1'	36:5:2514:U:C6	2.45	0.51
36:5:2112:U:O2	87:5:3981:OHX:N1	2.44	0.51
1:2:503:G:O2'	1:2:504:U:OP1	2.28	0.51
67:O1:37:LYS:HA	67:O1:49:VAL:HG11	1.93	0.51
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.46	0.51
36:5:1667:A:H2'	36:5:1668:G:C8	2.45	0.51
24:D2:18:GLU:OE1	24:D2:69:LEU:HB3	3.27	0.51
1:2:1091:A:H5''	1:2:1091:A:N3	2.26	0.51
36:1:2405:C:O2	36:1:2819:A:N1	2.43	0.51
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	2.51	0.51
36:1:2108:C:O2'	36:1:3362:A:N6	2.43	0.51
1:2:759:U:OP1	87:2:2161:OHX:N1	2.43	0.51
3:S1:35:PRO:HB3	3:S1:231:LEU:HD12	1.93	0.51
20:C8:145:ARG:HD3	35:SM:68:ARG:CZ	3.09	0.51
35:SM:48:ARG:HH11	36:5:1017:C:H5''	336.09	0.51
41:L4:285:ASP:OD2	41:L4:288:ARG:HB2	2.11	0.51
19:C7:66:VAL:O	19:C7:68:GLY:N	3.45	0.51
51:M5:119:TYR:OH	51:M5:131:GLU:OE1	2.88	0.51
3:S1:83:LYS:HB2	3:S1:104:ASP:HB3	1.92	0.51
1:6:800:U:H2'	1:6:801:G:C8	2.46	0.51
36:1:2683:U:H2'	36:1:2684:C:H6	1.74	0.51
36:1:715:A:H5''	64:N8:114:GLY:O	2.11	0.51
36:5:655:C:H2'	36:5:656:A:C8	2.46	0.51
45:L8:101:THR:HG22	45:L8:104:GLU:HB2	1.93	0.51
36:5:2585:G:C2	38:8:151:C:H5	2.29	0.51
14:C2:87:PRO:HA	14:C2:140:PHE:CE1	2.62	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3110:C:H2'	36:5:3111:U:C6	2.46	0.51
36:5:2916:U:H5	36:5:2935:U:HO2'	1.57	0.51
1:2:482:U:H2'	1:2:483:A:C8	2.45	0.51
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	2.03	0.51
36:1:1786:G:H2'	36:1:1787:A:C8	2.46	0.51
36:1:2267:C:H2'	36:1:2268:U:O4'	2.11	0.51
39:L2:9:ARG:NH1	36:5:912:G:OP2	180.21	0.51
54:M8:76:ALA:HA	54:M8:79:LYS:HD2	3.42	0.51
36:5:2850:G:HO2'	36:5:2851:A:H8	1.57	0.51
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	2.39	0.51
4:S2:82:ASN:HD22	4:S2:207:LEU:HD12	1.75	0.51
7:S5:186:ASN:OD1	7:S5:188:LYS:N	2.89	0.51
20:C8:62:THR:O	20:C8:66:LEU:HG	3.20	0.51
36:1:3228:C:H4'	36:1:3229:G:O5'	2.10	0.51
36:1:942:U:O5'	36:1:942:U:H6	1.93	0.51
71:O5:28:LEU:HD13	71:O5:32:LYS:HE2	1.92	0.51
40:L3:140:ASP:OD1	40:L3:141:GLY:N	2.43	0.51
87:2:2090:OHX:N5	87:2:2132:OHX:N2	2.59	0.51
55:M9:104:ARG:HE	55:M9:108:LYS:HZ1	1.58	0.51
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	2.33	0.51
6:S4:206:ASP:HB2	6:S4:222:LEU:HB2	2.34	0.51
41:L4:144:LYS:NZ	41:L4:144:LYS:H	6.62	0.51
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.66	0.51
56:N0:46:GLN:HG2	56:N0:51:VAL:O	2.27	0.51
38:8:79:A:C2	38:8:80:A:H1'	2.46	0.51
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.10	0.51
1:2:710:U:H2'	1:2:711:U:H5'	1.91	0.51
70:O4:81:CYS:HG	70:O4:84:CYS:HG	1.56	0.51
7:S5:146:THR:HG23	7:S5:221:ALA:HA	1.92	0.51
9:S7:98:ILE:HD13	9:S7:118:LEU:HA	2.57	0.51
59:N3:87:ARG:HH12	59:N3:137:VAL:HG21	1.75	0.51
5:S3:64:ARG:NH2	5:S3:65:ARG:HD3	9.91	0.51
42:L5:52:VAL:HG22	42:L5:147:ASP:HB3	1.91	0.51
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.78	0.51
51:M5:58:GLY:HA3	51:M5:142:ILE:CD1	2.40	0.51
36:5:945:C:H2'	36:5:946:U:C6	2.46	0.51
36:1:715:A:H8	64:N8:115:LYS:HG2	1.76	0.51
36:5:1796:G:O6	87:5:4234:OHX:N5	2.44	0.51
40:L3:46:PHE:CD2	40:L3:205:VAL:HG13	3.34	0.51
36:1:3174:A:H2'	36:1:3175:U:H5'	1.93	0.51
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:1:3880:OHX:N5	51:M5:91:GLU:OE2	2.43	0.51
1:6:241:U:H2'	1:6:242:U:C6	2.45	0.51
25:D3:73:ARG:HE	25:D3:84:THR:HG22	1.76	0.51
74:O8:3:ARG:NH2	36:5:1824:U:OP1	149.84	0.51
3:S1:194:ASN:ND2	3:S1:211:HIS:HA	2.26	0.51
37:7:73:C:H3'	37:7:73:C:H6	1.76	0.51
1:2:1199:G:O6	22:D0:67:THR:HG23	2.11	0.51
1:2:826:U:H2'	1:2:827:C:C6	2.46	0.51
4:S2:228:ASN:ND2	23:D1:1:MET:HB3	2.25	0.51
1:2:512:A:H2'	1:2:513:U:C6	2.46	0.51
25:D3:103:LEU:HD12	25:D3:126:LYS:HD3	1.92	0.51
41:L4:139:GLY:O	41:L4:180:LYS:HE2	4.69	0.51
13:C1:99:ARG:HB2	25:D3:12:ALA:HB2	1.93	0.51
63:N7:2:ALA:O	63:N7:4:PHE:N	2.44	0.51
45:L8:82:LEU:HD12	45:L8:83:ASP:H	1.76	0.51
44:L7:158:LYS:HD3	44:L7:203:TRP:HH2	3.90	0.51
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	3.96	0.51
33:E1:130:VAL:HG11	33:E1:143:LYS:HD3	1.92	0.51
8:S6:211:LEU:HD22	8:S6:215:ARG:HH21	1.76	0.51
25:D3:38:PHE:HB3	1:6:359:A:C2	326.00	0.51
51:M5:38:ARG:HH21	51:M5:60:VAL:HG22	1.75	0.51
20:C8:45:LEU:HD11	21:C9:36:ILE:HG22	1.93	0.51
12:C0:25:LYS:HD2	12:C0:64:TYR:OH	2.10	0.51
12:C0:68:LEU:HD11	12:C0:76:LEU:HD11	1.93	0.51
36:1:2404:A:H2	36:1:2872:A:N6	2.05	0.51
1:6:86:A:O2'	1:6:87:C:H5'	2.11	0.51
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.24	0.51
1:2:918:U:O3'	16:C4:18:ARG:NH1	2.44	0.51
5:S3:34:TYR:CE2	5:S3:37:VAL:HG13	2.66	0.51
1:2:434:G:H5'	25:D3:78:LYS:HB3	1.91	0.51
2:S0:168:HIS:HB3	2:S0:203:PHE:CZ	2.72	0.51
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	3.30	0.51
44:L7:80:GLN:HG3	57:N1:136:ARG:N	2.26	0.51
87:1:4007:OHX:N5	87:1:4177:OHX:N5	2.59	0.51
36:1:2534:G:O6	87:1:4000:OHX:N4	2.44	0.51
16:C4:103:ARG:NH2	28:D6:52:ASP:OD1	2.44	0.51
68:O2:19:ARG:HB3	68:O2:22:SER:HB3	1.92	0.51
27:D5:43:ASP:HB3	27:D5:46:LYS:H	3.73	0.51
1:6:812:A:H4'	1:6:813:U:O5'	2.09	0.51
36:1:655:C:H2'	36:1:656:A:H8	1.74	0.51
49:M3:140:SER:HB3	49:M3:143:ALA:HB3	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Q0:91:CYS:O	76:Q0:126:LYS:NZ	2.85	0.51
25:D3:63:GLN:HA	25:D3:65:ASN:H	1.75	0.51
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.61	0.51
36:5:1367:G:HO2'	36:5:1368:U:H6	1.59	0.51
1:2:354:C:H5''	10:S8:16:ALA:HB2	1.92	0.51
41:L4:259:ASP:OD1	41:L4:259:ASP:N	3.68	0.51
36:1:1460:A:H2'	36:1:1461:A:H8	1.75	0.51
1:6:1392:U:H2'	1:6:1393:C:C6	2.46	0.51
36:1:1817:G:OP1	87:1:4094:OHX:N1	2.44	0.51
1:6:199:G:HO2'	1:6:200:A:H8	1.59	0.51
1:6:678:A:N7	1:6:679:U:N3	2.59	0.51
62:N6:32:SER:HB2	62:N6:49:PRO:HA	4.17	0.51
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.60	0.51
16:C4:31:THR:HB	16:C4:38:THR:HA	1.93	0.51
45:L8:111:LYS:HZ2	45:L8:126:SER:HB3	12.28	0.51
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.11	0.51
36:1:1951:C:N4	36:1:2095:G:H1	2.05	0.51
63:N7:27:LYS:CB	63:N7:42:LEU:HB2	3.84	0.51
22:D0:72:ASN:ND2	1:6:1429:G:H21	386.36	0.51
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.11	0.51
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.87	0.51
5:S3:211:PRO:HG3	19:C7:20:TYR:CZ	2.50	0.51
1:2:778:G:H22	26:D4:10:ARG:HH12	1.59	0.51
36:1:2187:G:OP2	87:1:4005:OHX:N5	2.44	0.51
64:N8:75:LEU:O	64:N8:77:LYS:N	2.80	0.51
40:L3:232:ARG:NH2	36:5:2989:U:O2'	215.42	0.51
42:L5:34:LYS:HA	57:N1:27:LEU:HD21	1.91	0.51
44:L7:73:GLY:O	57:N1:143:THR:HB	2.26	0.51
87:5:4006:OHX:N6	87:5:4096:OHX:N2	2.58	0.51
41:L4:126:ILE:HD11	41:L4:233:LEU:HD12	2.54	0.51
48:M1:59:ILE:HG21	48:M1:65:ILE:HD11	1.92	0.51
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.76	0.51
53:M7:41:LEU:HD22	53:M7:41:LEU:O	2.11	0.51
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.46	0.51
1:6:1619:C:C2'	1:6:1620:C:H5'	2.41	0.51
45:L8:186:LEU:O	45:L8:189:LEU:HB3	4.13	0.51
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.42	0.51
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.44	0.51
46:L9:159:ALA:O	46:L9:163:GLN:HB2	2.47	0.51
36:5:119:U:H4'	36:5:120:G:H3'	1.92	0.51
36:1:1488:G:H5''	36:1:1838:G:O6	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.38	0.51
38:8:102:U:H2'	38:8:103:G:C8	2.46	0.51
36:1:1769:G:N7	87:1:4174:OHX:N2	2.59	0.51
37:3:58:C:H2'	37:3:59:U:H6	1.76	0.51
1:6:1263:G:C2	1:6:1264:G:H1'	2.45	0.51
60:N4:6:ASP:HB3	60:N4:10:GLY:H	1.75	0.51
59:N3:93:LEU:H	59:N3:93:LEU:HD23	2.03	0.51
36:5:1481:A:O4'	36:5:1481:A:OP1	2.28	0.51
1:2:209:U:H5'	10:S8:171:SER:HB3	1.93	0.51
73:O7:45:ARG:NH2	36:5:362:U:OP1	122.05	0.51
36:1:743:C:O2	54:M8:141:ARG:HD2	2.11	0.51
1:6:538:A:C8	1:6:543:C:N4	2.74	0.51
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.11	0.51
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.21	0.51
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.92	0.51
1:6:74:U:H5''	1:6:75:U:OP2	2.10	0.51
36:5:1878:G:O2'	36:5:1879:A:OP1	2.26	0.51
22:D0:58:LEU:HD13	22:D0:88:LYS:HE3	1.97	0.51
40:L3:250:ALA:HB3	36:5:2880:U:O2	224.37	0.51
61:N5:115:ARG:NH1	61:N5:115:ARG:HG3	2.25	0.51
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.93	0.51
17:C5:128:HIS:O	17:C5:130:ARG:HG2	2.11	0.51
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.45	0.51
28:D6:36:ILE:HD12	28:D6:36:ILE:H	4.71	0.51
43:L6:129:GLU:O	43:L6:130:ILE:HG13	4.39	0.51
36:1:2557:A:OP1	39:L2:69:TYR:OH	2.26	0.51
1:2:800:U:O4	87:2:2054:OHX:N5	2.44	0.51
1:2:927:C:H1'	16:C4:125:SER:HB2	1.93	0.51
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	3.75	0.51
54:M8:153:PHE:O	54:M8:161:LYS:HD3	4.59	0.51
34:SR:303:ALA:HB3	34:SR:313:TRP:HZ3	2.14	0.51
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	2.78	0.51
45:L8:94:PHE:HB3	45:L8:189:LEU:HD11	2.79	0.51
87:5:4061:OHX:N1	87:5:4207:OHX:N2	2.59	0.51
1:6:922:G:H2'	1:6:923:A:C8	2.46	0.51
36:5:2541:U:H4'	36:5:2542:U:OP1	2.11	0.51
3:S1:169:SER:O	3:S1:173:THR:OG1	3.55	0.51
36:1:1033:U:H2'	36:1:1034:U:C6	2.46	0.51
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.69	0.51
1:6:1248:C:H2'	1:6:1249:U:C6	2.46	0.51
52:M6:148:LYS:HE2	36:5:3135:U:OP1	257.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:171:LYS:NZ	45:L8:223:ALA:O	2.61	0.51
42:L5:155:THR:HB	42:L5:179:ARG:HD3	1.93	0.51
68:O2:24:ARG:HG2	68:O2:25:TYR:CE2	2.46	0.51
87:1:4088:OHX:N4	55:M9:14:VAL:O	2.44	0.51
36:5:847:A:H2'	36:5:848:A:C8	2.46	0.51
35:SM:139:GLU:HG2	35:SM:140:ASP:N	2.25	0.51
55:M9:6:THR:HG22	55:M9:10:LEU:HD22	2.97	0.51
1:6:496:G:O6	1:6:497:G:N2	2.43	0.51
68:O2:60:ASN:OD1	68:O2:62:LYS:HB2	2.22	0.51
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.40	0.50
87:2:2090:OHX:N1	87:2:2132:OHX:N4	2.59	0.50
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.11	0.50
1:2:1525:A:OP1	21:C9:93:HIS:ND1	2.44	0.50
75:O9:23:LEU:O	75:O9:25:GLN:NE2	2.44	0.50
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	1.92	0.50
1:2:533:U:C4'	26:D4:33:ALA:HB2	2.40	0.50
36:5:508:U:H2'	36:5:509:U:C6	2.47	0.50
46:L9:103:ILE:HG13	46:L9:136:PHE:CE2	2.46	0.50
24:D2:37:PHE:CZ	24:D2:103:ILE:HD11	4.91	0.50
1:2:694:U:H3	9:S7:98:ILE:HD12	1.75	0.50
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.75	0.50
5:S3:22:ASN:OD1	5:S3:34:TYR:OH	2.63	0.50
36:5:420:G:O5'	36:5:420:G:OP2	2.24	0.50
5:S3:66:ILE:O	5:S3:70:THR:OG1	2.29	0.50
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.43	0.50
1:6:196:G:O2'	1:6:197:A:OP2	2.20	0.50
79:Q3:56:THR:HG22	79:Q3:63:THR:HG23	1.92	0.50
27:D5:75:LEU:HA	27:D5:78:ILE:HG22	4.07	0.50
26:D4:12:VAL:HG22	26:D4:23:PHE:HB3	2.97	0.50
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	1.93	0.50
8:S6:49:VAL:HB	8:S6:115:LYS:HG3	3.38	0.50
36:1:2443:A:N6	36:1:2504:U:C4	2.79	0.50
73:O7:19:CYS:O	73:O7:23:GLY:N	2.38	0.50
65:N9:33:LYS:NZ	36:5:2722:U:OP1	203.51	0.50
59:N3:80:ARG:NE	59:N3:97:ASP:OD2	2.41	0.50
34:SR:136:ILE:O	34:SR:137:LYS:HD2	2.11	0.50
36:1:2294:U:OP1	59:N3:70:ARG:NH2	2.45	0.50
51:M5:35:VAL:HG23	36:5:1543:G:OP1	141.18	0.50
1:6:1017:U:H2'	1:6:1018:U:C6	2.46	0.50
1:2:520:A:H2'	1:2:521:A:C8	2.46	0.50
36:1:1454:A:H5''	36:1:1455:U:H5'	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:46:THR:OG1	15:C3:49:GLN:HG2	3.87	0.50
36:1:525:C:H5''	50:M4:79:ALA:HB2	1.92	0.50
52:M6:27:LEU:HD22	52:M6:98:ALA:O	2.11	0.50
87:5:3983:OHX:N2	87:5:4206:OHX:N5	2.59	0.50
87:1:3961:OHX:N4	44:L7:217:PRO:HA	2.26	0.50
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	2.50	0.50
5:S3:162:GLN:O	5:S3:164:VAL:N	2.83	0.50
36:5:2211:U:OP2	87:5:4230:OHX:N1	2.44	0.50
20:C8:145:ARG:HB2	35:SM:68:ARG:HH22	1.76	0.50
78:Q2:71:ARG:HH21	78:Q2:80:ARG:CZ	2.25	0.50
70:O4:8:ARG:NH2	70:O4:31:ARG:HD2	4.04	0.50
31:D9:22:ARG:HG2	31:D9:38:ILE:HD13	4.31	0.50
1:2:1370:U:H4'	1:2:1371:A:H5'	1.93	0.50
36:5:3242:G:H21	36:5:3245:A:H5''	1.76	0.50
1:2:415:C:O2'	1:2:416:A:H2'	2.11	0.50
18:C6:98:ASP:OD2	18:C6:100:GLN:N	2.44	0.50
16:C4:107:ARG:NH2	16:C4:107:ARG:HB2	3.43	0.50
40:L3:350:ALA:O	40:L3:351:LEU:HB2	2.11	0.50
36:1:1544:G:O6	87:1:4061:OHX:N4	2.44	0.50
15:C3:73:ARG:HD3	1:6:859:A:C6	330.46	0.50
36:1:1934:G:N7	87:1:3888:OHX:N2	2.58	0.50
36:5:2112:U:H4'	36:5:2113:A:H5'	1.93	0.50
1:2:194:U:HO2'	1:2:195:G:HO2'	1.60	0.50
1:2:1003:A:H1'	1:2:1005:A:N7	2.25	0.50
20:C8:17:LEU:O	20:C8:20:THR:N	3.22	0.50
33:E1:86:THR:HG23	33:E1:87:THR:H	4.21	0.50
1:6:1690:G:H1	1:6:1711:C:H42	1.59	0.50
1:6:621:A:HO2'	1:6:1106:U:HO2'	1.58	0.50
5:S3:147:ALA:N	1:6:1276:U:OP1	386.08	0.50
36:1:2674:A:C6	48:M1:124:GLY:HA3	2.46	0.50
1:2:446:A:N6	1:2:461:G:H21	2.09	0.50
1:2:245:U:O4	87:2:2093:OHX:N5	2.45	0.50
36:1:1176:C:OP1	52:M6:25:LYS:HE3	2.10	0.50
36:1:904:A:OP2	73:O7:30:GLN:NE2	2.43	0.50
36:5:2093:A:H3'	36:5:2093:A:N3	2.25	0.50
1:2:1367:G:N7	87:2:2109:OHX:N6	2.59	0.50
87:5:4211:OHX:N6	87:8:222:OHX:N5	2.59	0.50
40:L3:120:LYS:NZ	36:5:3001:C:OP1	205.23	0.50
40:L3:332:ARG:HH11	40:L3:332:ARG:HG2	1.76	0.50
34:SR:74:THR:HG23	34:SR:79:TYR:HB2	1.93	0.50
1:2:1555:A:OP1	17:C5:47:ARG:HD3	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:184:THR:C	6:S4:189:LEU:HD13	2.82	0.50
3:S1:133:TYR:CE2	3:S1:181:LEU:HD12	3.41	0.50
87:1:4036:OHX:N2	87:1:4048:OHX:N1	2.60	0.50
61:N5:115:ARG:HH11	61:N5:115:ARG:CG	2.24	0.50
37:3:62:U:O4	37:3:63:A:N6	2.44	0.50
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.41	0.50
1:2:558:U:O2'	1:2:559:C:O5'	2.28	0.50
57:N1:124:VAL:HG12	57:N1:125:ALA:N	2.46	0.50
1:2:647:G:H22	1:2:687:G:H1	1.60	0.50
3:S1:109:LYS:HE3	3:S1:113:MET:HE2	1.91	0.50
48:M1:7:ASN:HD21	48:M1:10:ARG:HH11	1.59	0.50
36:1:2970:C:H4'	36:1:2971:A:N1	2.27	0.50
19:C7:13:SER:HA	19:C7:54:THR:HG22	2.54	0.50
51:M5:74:PRO:O	51:M5:75:VAL:HG22	2.12	0.50
87:5:4005:OHX:N2	87:5:4200:OHX:N5	2.59	0.50
49:M3:35:ARG:NH1	36:5:685:G:OP2	83.58	0.50
87:5:4061:OHX:N5	87:5:4207:OHX:N2	2.59	0.50
62:N6:2:ALA:N	36:5:213:A:OP1	82.04	0.50
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	2.46	0.50
36:5:2924:U:O4	87:5:4065:OHX:N2	2.44	0.50
41:L4:261:VAL:HG12	41:L4:262:TRP:CD1	3.27	0.50
6:S4:256:ARG:HA	6:S4:259:GLN:HB3	3.53	0.50
70:O4:87:GLU:OE1	70:O4:91:ARG:NH1	3.73	0.50
39:L2:50:HIS:CD2	36:5:1795:U:H2'	199.13	0.50
36:5:2523:A:O2'	36:5:2587:U:H1'	2.11	0.50
36:1:1917:C:P	55:M9:85:ARG:HH12	2.35	0.50
1:6:30:G:H2'	1:6:31:C:C6	2.46	0.50
38:8:10:A:H2'	38:8:11:C:C6	2.46	0.50
36:1:2588:U:OP1	45:L8:48:ARG:NH2	2.40	0.50
36:1:2562:A:H1'	45:L8:30:THR:OG1	2.11	0.50
38:4:142:C:H2'	38:4:143:U:C6	2.46	0.50
4:S2:226:THR:OG1	4:S2:228:ASN:HB2	4.96	0.50
47:M0:86:HIS:ND1	47:M0:139:ARG:HD3	2.26	0.50
16:C4:59:ALA:O	16:C4:63:ALA:N	3.01	0.50
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.16	0.50
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.66	0.50
1:2:191:C:O2'	1:2:192:U:O5'	2.29	0.50
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	2.47	0.50
10:S8:81:VAL:N	10:S8:102:VAL:HG12	2.26	0.50
31:D9:22:ARG:HG3	31:D9:37:ASN:O	2.12	0.50
24:D2:119:LYS:HB3	24:D2:121:VAL:CG2	3.56	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:121:HIS:HE1	36:5:1719:G:N7	241.12	0.50
49:M3:166:ALA:H	64:N8:135:GLU:CD	2.15	0.50
36:1:1492:G:O3'	75:O9:48:LYS:NZ	2.44	0.50
40:L3:154:TYR:CD1	36:5:3242:G:H2'	261.52	0.50
39:L2:248:GLY:O	39:L2:249:SER:HB2	4.60	0.50
68:O2:19:ARG:HH22	36:5:1433:A:P	164.72	0.50
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.24	0.50
26:D4:51:GLU:O	26:D4:53:ASP:N	3.33	0.50
24:D2:104:LEU:HB2	24:D2:124:LYS:O	2.11	0.50
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.93	0.50
36:5:908:G:H4'	36:5:909:G:O5'	2.10	0.50
1:2:1417:A:OP1	87:2:2071:OHX:N5	2.44	0.50
36:1:2367:A:H2'	36:1:2368:A:O4'	2.12	0.50
3:S1:140:ILE:O	3:S1:210:ILE:HA	2.11	0.50
8:S6:191:ARG:HH11	1:6:177:U:H1'	319.40	0.50
6:S4:199:GLU:OE2	6:S4:209:HIS:NE2	2.39	0.50
2:S0:147:THR:O	2:S0:161:PRO:HA	2.82	0.50
36:5:1046:A:H2'	36:5:1049:C:C5	2.47	0.50
1:2:1202:A:H1'	1:2:1207:C:N4	2.26	0.50
7:S5:89:ILE:HD12	7:S5:90:ILE:H	2.76	0.50
39:L2:201:GLY:CA	39:L2:204:MET:HG3	2.41	0.50
25:D3:96:VAL:HG12	25:D3:127:VAL:HG11	1.94	0.50
34:SR:112:SER:OG	34:SR:153:GLN:HA	2.11	0.50
36:1:1364:C:H5''	54:M8:3:ILE:HD13	1.94	0.50
6:S4:222:LEU:O	6:S4:225:VAL:N	2.44	0.50
7:S5:37:GLN:CG	18:C6:53:LEU:HD13	2.87	0.50
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.11	0.50
1:6:72:A:H2'	1:6:73:U:C1'	2.41	0.50
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.11	0.50
10:S8:39:GLY:O	10:S8:59:ARG:HB3	2.10	0.50
35:SM:26:VAL:HG11	48:M1:49:LYS:HD2	4.03	0.50
87:5:4016:OHX:N6	87:5:4208:OHX:N5	2.59	0.50
1:2:711:U:H1'	1:2:712:G:H5'	1.93	0.50
36:5:1238:C:H2'	36:5:1239:C:C6	2.47	0.50
1:2:717:C:N4	1:2:720:G:H22	2.09	0.50
59:N3:35:TYR:HB2	59:N3:63:LYS:HD3	1.93	0.50
1:2:1623:C:H2'	1:2:1624:C:H6	1.76	0.50
36:1:2882:U:H2'	36:1:2883:U:C6	2.46	0.50
9:S7:39:ARG:HH22	55:M9:185:LEU:HA	1.76	0.50
36:1:1528:G:N3	36:1:1588:A:H2	2.10	0.50
36:5:2287:C:C5	36:5:2298:U:C2	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:88:LEU:HD22	15:C3:92:ILE:HG13	2.52	0.50
36:1:3001:C:H2'	36:1:3002:C:H6	1.77	0.50
36:1:792:G:H2'	36:1:793:C:C6	2.46	0.50
36:1:3289:G:N7	87:1:4135:OHX:N4	2.60	0.50
58:N2:21:SER:HA	58:N2:24:GLU:OE2	2.11	0.50
4:S2:52:THR:O	4:S2:55:GLU:HB2	2.11	0.50
1:6:1638:G:C2	1:6:1639:C:H1'	2.46	0.50
87:1:3963:OHX:N1	87:1:4144:OHX:N4	2.60	0.50
6:S4:187:ARG:NH2	1:6:753:A:N7	375.01	0.50
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	1.93	0.50
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.27	0.50
36:1:1635:G:N2	36:1:1638:A:OP2	2.36	0.50
65:N9:14:ARG:NH2	65:N9:18:ARG:HD3	2.27	0.50
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.39	0.50
7:S5:141:GLY:HA3	7:S5:167:ARG:HG2	1.94	0.50
69:O3:73:ARG:HG3	69:O3:82:ARG:HG3	1.93	0.50
5:S3:115:ILE:HD12	5:S3:116:ARG:H	4.63	0.50
87:5:3978:OHX:N1	87:5:4250:OHX:N2	2.60	0.50
1:2:103:A:H4'	1:2:104:A:OP2	2.10	0.50
33:E1:97:LYS:HE2	33:E1:98:VAL:HG12	1.94	0.50
36:1:1927:G:OP2	79:Q3:6:LYS:N	2.34	0.50
36:5:2101:C:HO2'	36:5:2102:U:P	2.35	0.50
17:C5:51:SER:OG	17:C5:53:PRO:HD2	6.77	0.50
48:M1:6:GLN:OE1	48:M1:7:ASN:N	2.44	0.50
34:SR:276:PRO:HB2	34:SR:278:PHE:CE1	5.54	0.50
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.47	0.50
64:N8:16:SER:HA	36:5:942:U:C4	170.91	0.50
1:6:986:G:OP2	87:6:2117:OHX:N2	2.45	0.50
42:L5:180:PHE:HB3	42:L5:195:LEU:HD13	2.26	0.50
49:M3:180:ARG:HD3	72:O6:11:LEU:HD11	2.98	0.50
42:L5:4:GLN:NE2	42:L5:4:GLN:O	6.69	0.50
2:S0:76:ILE:HD12	2:S0:123:VAL:HG22	2.91	0.50
36:5:135:C:H4'	36:5:136:G:OP2	2.10	0.50
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.50	0.50
55:M9:23:TRP:CE3	55:M9:51:VAL:HG13	2.47	0.50
68:O2:41:VAL:HG12	68:O2:46:PHE:CD2	2.82	0.50
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.18	0.50
40:L3:334:ARG:NH2	36:5:3304:U:O2'	212.99	0.50
36:1:3195:U:O2'	36:1:3197:G:N2	2.45	0.50
41:L4:23:PRO:O	41:L4:25:VAL:HG23	2.11	0.50
2:S0:88:LYS:O	2:S0:92:HIS:ND1	3.96	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3040:A:H5''	59:N3:12:ARG:HB2	1.94	0.50
22:D0:32:LYS:H	22:D0:32:LYS:HD2	4.23	0.50
36:1:1004:U:C4	36:1:1005:G:N7	2.79	0.50
1:2:1271:G:H2'	1:2:1272:U:O4'	2.12	0.50
7:S5:200:ASN:HB2	7:S5:208:SER:HB3	2.83	0.50
1:2:910:C:H2'	1:2:911:U:O4'	2.11	0.50
28:D6:24:VAL:HG11	28:D6:71:LEU:HD12	1.94	0.50
45:L8:108:ARG:NH1	36:5:121:A:C4	96.20	0.50
1:2:1585:U:N3	1:2:1611:A:H2	2.02	0.50
3:S1:178:GLY:HA3	3:S1:187:LYS:HZ1	1.76	0.50
87:6:2057:OHX:N5	87:6:2145:OHX:N6	2.60	0.50
15:C3:65:VAL:HG23	15:C3:66:ILE:HG23	5.31	0.50
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.44	0.50
36:5:1765:U:H4'	36:5:1765:U:OP1	2.10	0.50
34:SR:161:LYS:HE3	34:SR:164:ASP:HB3	1.93	0.50
63:N7:135:ARG:HB3	63:N7:135:ARG:NH2	3.49	0.50
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.94	0.50
36:1:1245:A:H3'	36:1:1246:G:H5''	1.92	0.50
1:6:485:A:C5	1:6:486:G:H1'	2.47	0.50
1:2:1280:C:H2'	1:2:1281:G:C8	2.47	0.50
36:1:3103:A:OP2	87:1:4172:OHX:N3	2.45	0.50
69:O3:13:HIS:ND1	69:O3:93:THR:HB	2.27	0.50
41:L4:209:TYR:OH	36:5:689:U:O4	87.12	0.50
42:L5:294:ALA:C	42:L5:296:GLN:H	2.15	0.50
47:M0:210:ILE:HG23	47:M0:217:PHE:CD2	2.47	0.50
4:S2:152:HIS:ND1	4:S2:174:ARG:HG3	2.27	0.50
36:1:1908:A:H2'	36:1:1909:A:O4'	2.11	0.50
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.45	0.50
49:M3:35:ARG:NH1	36:5:685:G:P	83.11	0.50
36:5:90:C:C2'	36:5:91:G:H5'	2.41	0.50
36:5:1769:G:C2	36:5:1770:G:C8	3.00	0.50
71:O5:31:LEU:HB3	71:O5:44:ILE:HG13	1.94	0.50
1:2:1391:A:H2'	1:2:1392:U:H6	1.75	0.50
36:1:1317:A:O2'	36:1:1318:A:H3'	2.12	0.50
36:5:1621:A:H2'	36:5:1622:U:C6	2.47	0.50
68:O2:18:LYS:HB3	68:O2:30:GLU:HG2	2.13	0.50
36:1:2664:C:OP2	48:M1:142:LYS:NZ	2.43	0.50
1:2:1178:G:H2'	1:2:1179:G:O4'	2.12	0.50
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	1.94	0.50
6:S4:45:ILE:O	6:S4:49:ARG:HB3	2.34	0.50
13:C1:71:LEU:HB3	13:C1:88:ARG:NH1	5.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.33	0.50
17:C5:40:ARG:NH2	1:6:1552:U:O4	393.85	0.50
24:D2:74:VAL:O	24:D2:75:ILE:HD13	2.92	0.50
53:M7:27:LYS:NZ	36:5:1447:G:OP2	161.63	0.50
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.47	0.50
67:O1:19:ARG:HD3	67:O1:35:GLU:HG3	2.35	0.50
38:4:106:C:O2'	87:4:234:OHX:N4	2.45	0.50
87:1:3975:OHX:N5	87:1:4161:OHX:N2	2.59	0.50
27:D5:47:TYR:CE1	27:D5:51:LEU:HD11	3.72	0.50
1:2:720:G:H1'	1:2:721:U:H5''	1.94	0.50
71:O5:28:LEU:O	71:O5:32:LYS:HG3	2.11	0.50
87:5:4211:OHX:N4	87:8:222:OHX:N1	2.60	0.50
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.27	0.50
36:1:955:U:H2'	36:1:956:U:C6	2.45	0.50
7:S5:144:GLU:HB2	7:S5:160:VAL:O	2.12	0.50
36:5:916:G:H5'	36:5:917:A:OP1	2.11	0.50
1:2:412:A:H2'	1:2:413:U:H6	1.77	0.50
1:2:1233:G:OP2	87:2:2153:OHX:N5	2.45	0.50
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.44	0.50
36:5:931:C:OP2	36:5:932:U:O2'	2.28	0.50
59:N3:3:GLY:HA2	59:N3:40:LYS:HB3	5.56	0.50
64:N8:93:SER:OG	64:N8:93:SER:O	2.29	0.50
36:5:2836:C:H41	36:5:2852:C:H41	1.60	0.50
36:1:2206:G:C2	36:1:2207:A:C8	3.00	0.50
1:2:1794:A:H1'	28:D6:79:ILE:HD12	1.94	0.50
17:C5:17:TYR:CD1	17:C5:18:ARG:HB2	2.47	0.50
4:S2:42:GLY:CA	4:S2:68:ILE:HD11	2.38	0.50
47:M0:9:TYR:O	47:M0:59:GLN:NE2	2.45	0.50
3:S1:180:THR:HB	3:S1:182:ALA:H	1.77	0.50
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.12	0.50
1:6:1714:A:H2'	1:6:1715:G:O4'	2.11	0.50
32:E0:49:LEU:HD21	32:E0:55:ARG:HB2	1.94	0.50
20:C8:27:LYS:O	20:C8:31:ALA:N	2.65	0.50
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.51	0.50
9:S7:114:ARG:O	9:S7:117:THR:HB	3.18	0.50
38:8:80:A:H8	38:8:80:A:O5'	1.94	0.50
36:1:2435:G:O2'	51:M5:24:ARG:NH2	2.45	0.50
56:N0:52:LYS:NZ	37:7:100:C:P	280.45	0.50
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	2.35	0.50
1:2:405:C:O2'	8:S6:92:ARG:O	2.26	0.50
36:1:1048:A:H2'	47:M0:22:TYR:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.11	0.50
1:2:827:C:H2'	1:2:828:U:C6	2.46	0.50
36:5:2298:U:O4	36:5:2923:U:H5	1.95	0.50
36:1:1090:G:H2'	36:1:1091:A:H8	1.77	0.50
15:C3:64:ARG:HG2	15:C3:64:ARG:HH11	3.91	0.50
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.94	0.50
1:2:1120:U:H2'	1:2:1121:C:C6	2.47	0.50
36:5:180:C:H2'	36:5:181:U:H6	1.76	0.50
47:M0:116:ARG:HH21	36:5:2618:G:H5'	229.13	0.50
49:M3:187:ALA:O	49:M3:190:LYS:HB3	4.57	0.50
1:2:1163:A:N6	1:2:1164:G:C6	2.80	0.50
42:L5:131:LEU:HD22	42:L5:131:LEU:H	1.76	0.50
1:2:181:A:H2'	1:2:182:A:C8	2.47	0.50
4:S2:140:ARG:HB3	4:S2:221:THR:HB	1.93	0.49
37:3:28:C:H5''	48:M1:137:ARG:HG2	1.92	0.49
87:2:2090:OHX:N3	87:2:2132:OHX:N4	2.60	0.49
87:2:2090:OHX:N5	87:2:2132:OHX:N6	2.60	0.49
7:S5:20:PHE:CE1	7:S5:34:GLN:HB3	2.95	0.49
87:6:2057:OHX:N5	87:6:2145:OHX:N3	2.60	0.49
3:S1:27:LYS:HE2	3:S1:49:ASN:OD1	2.66	0.49
36:1:2186:U:H2'	36:1:2187:G:O4'	2.12	0.49
1:2:1484:G:H21	1:2:1606:C:H1'	1.77	0.49
57:N1:130:ARG:HH11	36:5:1098:A:P	253.76	0.49
36:5:1471:U:H2'	36:5:1472:U:C6	2.47	0.49
4:S2:116:LYS:HB2	4:S2:131:ILE:HD12	2.38	0.49
23:D1:3:ASN:OD1	23:D1:7:GLN:HB2	2.11	0.49
57:N1:111:ALA:O	57:N1:115:LYS:HG3	2.94	0.49
36:1:612:U:H2'	36:1:613:G:H8	1.76	0.49
44:L7:179:LEU:H	44:L7:179:LEU:HD22	1.91	0.49
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.47	0.49
18:C6:22:VAL:HG22	18:C6:65:ILE:HD13	1.94	0.49
36:5:1668:G:H2'	36:5:1669:C:O4'	2.12	0.49
36:1:3228:C:O3'	50:M4:137:LYS:NZ	2.45	0.49
36:1:361:A:H5'	73:O7:35:SER:OG	2.11	0.49
73:O7:45:ARG:HH22	36:5:362:U:P	123.24	0.49
52:M6:27:LEU:O	52:M6:101:ARG:NH1	2.82	0.49
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.34	0.49
36:5:10:C:O2'	36:5:1558:A:N6	2.42	0.49
36:5:627:U:H2'	36:5:628:A:C8	2.47	0.49
63:N7:108:GLU:O	63:N7:112:LYS:HG3	2.12	0.49
61:N5:96:LYS:HE2	61:N5:100:LYS:NZ	4.03	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.46	0.49
21:C9:112:GLY:O	21:C9:127:ASN:HB3	2.62	0.49
15:C3:30:SER:OG	15:C3:31:GLU:N	4.32	0.49
35:SM:112:ASP:HB3	35:SM:115:LYS:HG3	1.93	0.49
52:M6:89:SER:O	52:M6:89:SER:OG	2.83	0.49
36:1:2228:A:H2'	36:1:2229:A:C8	2.47	0.49
23:D1:9:VAL:HG13	23:D1:10:GLU:N	2.63	0.49
20:C8:90:ASN:O	20:C8:92:ILE:N	2.43	0.49
34:SR:79:TYR:HB3	34:SR:91:LEU:HD11	2.08	0.49
47:M0:84:ALA:O	47:M0:140:THR:HB	3.66	0.49
36:1:1495:U:C5	36:1:1835:A:N1	2.74	0.49
40:L3:250:ALA:HB1	36:5:2947:G:C2	220.27	0.49
64:N8:8:THR:HG21	36:5:662:U:OP1	149.94	0.49
73:O7:62:GLY:O	73:O7:64:MET:N	2.45	0.49
87:5:4072:OHX:N5	87:5:4150:OHX:N2	2.60	0.49
40:L3:21:ARG:HG2	40:L3:269:GLN:HG2	1.93	0.49
31:D9:21:CYS:HA	31:D9:30:LEU:HD21	3.05	0.49
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.94	0.49
48:M1:8:PRO:HD2	48:M1:10:ARG:HG3	2.14	0.49
34:SR:260:ILE:HB	34:SR:274:LEU:HD12	2.70	0.49
56:N0:84:ARG:HG3	36:5:1295:G:OP1	295.49	0.49
48:M1:23:VAL:HG21	48:M1:30:LEU:HA	2.72	0.49
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.05	0.49
36:5:1560:G:H1	36:5:1579:C:H42	1.60	0.49
63:N7:33:SER:OG	63:N7:34:LYS:N	2.70	0.49
36:5:550:A:H2'	36:5:551:A:C8	2.47	0.49
2:S0:101:ARG:NH2	2:S0:104:PRO:HD3	2.27	0.49
36:5:2664:C:O2'	36:5:2665:U:H5'	2.13	0.49
28:D6:23:CYS:CB	28:D6:74:CYS:HB3	2.40	0.49
78:Q2:83:LEU:HD22	78:Q2:84:THR:H	1.77	0.49
27:D5:54:VAL:HA	27:D5:57:TYR:CE1	2.47	0.49
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	237.31	0.49
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	3.64	0.49
39:L2:202:VAL:HG13	39:L2:217:GLN:HB3	1.93	0.49
2:S0:139:VAL:CG2	4:S2:62:PRO:HG3	2.79	0.49
36:1:1804:A:H2'	36:1:1805:C:C6	2.47	0.49
44:L7:168:ILE:O	44:L7:172:ASN:ND2	4.70	0.49
48:M1:104:PHE:O	48:M1:127:PHE:HB2	2.50	0.49
36:5:1563:C:O2	36:5:1577:G:N2	2.45	0.49
1:2:1458:G:N3	1:2:1458:G:H2'	2.27	0.49
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:50:LYS:HE2	40:L3:328:ILE:HG22	3.60	0.49
60:N4:50:ALA:HA	60:N4:55:PHE:CG	2.47	0.49
36:5:873:C:H5'	36:5:874:U:O5'	2.12	0.49
4:S2:240:LEU:HD22	4:S2:240:LEU:H	1.76	0.49
42:L5:270:LYS:C	42:L5:272:TYR:H	2.61	0.49
49:M3:70:ARG:NH1	36:5:76:G:OP1	87.96	0.49
66:O0:38:LYS:HB3	66:O0:93:LEU:HD23	3.82	0.49
3:S1:131:ASP:O	3:S1:133:TYR:N	2.39	0.49
22:D0:109:GLU:HB3	22:D0:112:VAL:HB	2.88	0.49
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.90	0.49
48:M1:12:LEU:HD12	48:M1:162:TRP:CD1	4.95	0.49
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.05	0.49
87:5:4016:OHX:N6	87:5:4208:OHX:N2	2.60	0.49
17:C5:89:MET:HB2	17:C5:107:ILE:HD12	5.36	0.49
1:2:1657:U:C4	87:2:2089:OHX:N4	2.80	0.49
49:M3:166:ALA:N	64:N8:135:GLU:OE2	2.45	0.49
8:S6:173:PRO:O	1:6:79:C:H4'	345.04	0.49
15:C3:28:LEU:HD13	15:C3:32:SER:HB3	1.94	0.49
1:2:105:A:OP1	10:S8:18:ARG:NH1	2.41	0.49
55:M9:139:VAL:C	55:M9:141:HIS:H	3.36	0.49
53:M7:36:ILE:CD1	53:M7:95:LEU:HD11	2.42	0.49
41:L4:191:LYS:HD2	41:L4:194:TYR:OH	3.62	0.49
36:1:546:C:H5'	36:1:547:G:O4'	2.12	0.49
1:2:482:U:H2'	1:2:483:A:H8	1.78	0.49
1:2:1391:A:H2'	1:2:1392:U:C6	2.47	0.49
1:2:1650:U:H2'	1:2:1651:A:C8	2.47	0.49
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.96	0.49
36:5:1804:A:H2'	36:5:1805:C:C6	2.47	0.49
36:5:543:C:H42	36:5:548:G:H1	1.59	0.49
36:5:1192:C:N4	36:5:1301:A:O3'	2.45	0.49
21:C9:23:GLN:HG3	21:C9:55:TYR:CE2	3.77	0.49
1:2:438:A:H1'	1:2:466:U:O2	2.13	0.49
32:E0:54:ARG:HG2	32:E0:54:ARG:O	3.09	0.49
36:1:634:C:O2'	68:O2:47:ARG:HD3	2.11	0.49
36:1:2225:U:H2'	36:1:2226:U:C6	2.47	0.49
42:L5:270:LYS:HE2	42:L5:273:ARG:HA	8.82	0.49
36:5:314:U:H2'	36:5:315:C:C6	2.48	0.49
36:1:157:A:C8	72:O6:26:ILE:HG12	2.48	0.49
18:C6:48:VAL:HG23	18:C6:82:ARG:HB3	1.94	0.49
4:S2:37:PRO:HA	4:S2:65:GLU:OE1	2.60	0.49
16:C4:50:ALA:C	16:C4:52:ARG:H	2.79	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.41	0.49
11:S9:66:ASP:HB3	11:S9:69:ARG:HB3	2.40	0.49
87:2:2044:OHX:N2	87:2:2099:OHX:N5	2.60	0.49
52:M6:62:THR:HA	36:5:1306:G:C6	233.48	0.49
4:S2:225:LEU:HD12	24:D2:68:ARG:HA	2.62	0.49
40:L3:20:LYS:HG2	40:L3:21:ARG:N	2.27	0.49
28:D6:10:ARG:HH22	28:D6:35:ALA:N	5.75	0.49
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	2.35	0.49
1:6:1228:G:H4'	1:6:1228:G:OP2	2.12	0.49
43:L6:22:ARG:C	43:L6:23:LYS:HG2	2.33	0.49
1:2:1657:U:C5	87:2:2089:OHX:N2	2.81	0.49
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.94	0.49
42:L5:160:PHE:O	42:L5:180:PHE:HE1	1.96	0.49
34:SR:42:LEU:HD11	34:SR:82:SER:HB3	2.42	0.49
36:1:1101:G:OP2	44:L7:196:LYS:HE2	2.13	0.49
49:M3:39:ARG:NH1	36:5:107:A:OP1	73.86	0.49
36:1:3085:G:H5''	36:1:3086:A:OP1	2.12	0.49
18:C6:28:LEU:HB3	18:C6:64:ASP:OD2	2.12	0.49
45:L8:128:LYS:HB2	36:5:120:G:C6	98.96	0.49
40:L3:313:HIS:O	40:L3:333:LYS:HE3	3.09	0.49
1:6:680:U:O2'	1:6:681:U:O5'	2.30	0.49
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.45	0.49
46:L9:45:PHE:CD1	46:L9:55:VAL:HG22	2.47	0.49
31:D9:56:ARG:HD3	1:6:1334:U:O2	414.93	0.49
54:M8:111:ARG:O	54:M8:115:VAL:HG23	2.11	0.49
1:2:685:A:H2'	1:2:686:C:C6	2.47	0.49
1:2:616:G:C2	1:2:622:A:N7	2.80	0.49
36:1:268:A:C4	51:M5:12:ARG:HG2	2.47	0.49
47:M0:76:MET:SD	47:M0:148:VAL:HG22	2.52	0.49
1:6:1451:C:H2'	1:6:1452:U:H6	1.77	0.49
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.12	0.49
40:L3:59:ASP:OD1	40:L3:71:GLU:HG2	2.42	0.49
47:M0:61:SER:OG	47:M0:64:ALA:N	2.35	0.49
1:6:1482:C:OP2	1:6:1521:G:N1	2.44	0.49
36:1:3165:A:H61	36:1:3285:C:H42	1.60	0.49
27:D5:74:SER:C	27:D5:76:ALA:H	2.16	0.49
33:E1:144:CYS:HB3	33:E1:147:VAL:HG22	1.94	0.49
1:2:778:G:H22	26:D4:10:ARG:HH22	1.60	0.49
36:1:1024:G:N7	87:1:4170:OHX:N6	2.60	0.49
72:O6:81:THR:O	72:O6:84:LYS:HB2	2.13	0.49
10:S8:104:ILE:O	10:S8:105:ASP:HB2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:52:GLN:HG2	34:SR:53:LYS:N	2.58	0.49
1:6:825:U:O2'	1:6:826:U:H6	1.95	0.49
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.19	0.49
14:C2:66:VAL:HG11	14:C2:72:ILE:HG13	4.50	0.49
1:2:434:G:N7	87:2:2048:OHX:N4	2.61	0.49
1:6:1474:G:H2'	1:6:1475:A:C8	2.48	0.49
36:5:1238:C:H2'	36:5:1239:C:H6	1.78	0.49
1:6:1756:A:H8	1:6:1756:A:O5'	1.95	0.49
38:8:90:U:O2	87:8:218:OHX:N2	2.46	0.49
8:S6:20:ASP:OD2	8:S6:22:HIS:HB2	4.31	0.49
42:L5:215:ASP:OD1	42:L5:218:ARG:HG3	2.13	0.49
45:L8:128:LYS:HB2	36:5:120:G:O6	99.60	0.49
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.12	0.49
36:5:3084:C:H2'	36:5:3085:G:O4'	2.13	0.49
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.57	0.49
17:C5:96:ILE:HD11	17:C5:116:LEU:HD22	1.94	0.49
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.76	0.49
36:1:2296:A:H2	36:1:2918:G:N3	2.10	0.49
74:O8:64:LYS:HA	74:O8:64:LYS:HE3	1.93	0.49
36:1:3180:A:OP1	52:M6:171:LYS:NZ	2.46	0.49
36:1:810:A:H2'	36:1:811:U:C6	2.48	0.49
42:L5:206:GLN:HB3	42:L5:210:GLU:OE2	5.13	0.49
10:S8:8:ARG:NH2	10:S8:28:GLU:OE1	9.57	0.49
63:N7:65:ARG:HH11	63:N7:65:ARG:CG	2.77	0.49
35:SM:23:LYS:HG3	35:SM:24:GLU:N	4.80	0.49
36:1:1579:C:H2'	36:1:1580:A:C8	2.47	0.49
25:D3:30:LYS:HG2	25:D3:34:LEU:HD11	2.49	0.49
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.13	0.49
24:D2:66:ASN:OD1	24:D2:68:ARG:HG2	3.91	0.49
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.13	0.49
1:6:833:U:OP2	87:6:2201:OHX:N5	2.45	0.49
36:1:409:A:OP2	87:1:4060:OHX:N5	2.44	0.49
34:SR:156:VAL:HG23	34:SR:169:ILE:HG22	1.94	0.49
40:L3:144:ILE:HG22	40:L3:148:LEU:HD22	2.67	0.49
14:C2:40:GLY:O	14:C2:124:LYS:N	2.71	0.49
51:M5:97:SER:O	51:M5:100:ALA:N	2.59	0.49
9:S7:49:ILE:HG13	9:S7:57:ALA:HB3	2.44	0.49
36:5:2829:U:H5''	36:5:2830:G:OP2	2.12	0.49
36:1:3294:A:H2'	36:1:3295:A:O4'	2.12	0.49
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	2.41	0.49
87:5:4101:OHX:N5	87:5:4243:OHX:N2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:33:ASN:HD22	59:N3:63:LYS:HB2	4.31	0.49
8:S6:20:ASP:HB3	8:S6:23:ARG:HB2	1.95	0.49
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.44	0.49
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	1.94	0.49
36:5:604:G:N7	87:5:4175:OHX:N2	2.60	0.49
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.13	0.49
36:1:870:G:O6	87:1:3925:OHX:N4	2.45	0.49
36:5:1867:A:H2'	36:5:1868:G:C8	2.48	0.49
68:O2:3:SER:HB3	68:O2:71:HIS:NE2	2.91	0.49
1:2:1647:U:O2	32:E0:2:ALA:N	2.46	0.49
8:S6:2:LYS:HE2	8:S6:17:GLU:OE2	5.19	0.49
37:3:48:U:O4	42:L5:58:LYS:HE2	2.12	0.49
36:1:3165:A:H2'	36:1:3166:C:C6	2.48	0.49
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	3.99	0.49
36:5:3047:U:C2'	36:5:3048:A:H5'	2.43	0.49
40:L3:250:ALA:HB1	36:5:2947:G:N3	219.07	0.49
15:C3:65:VAL:HG23	15:C3:66:ILE:CG2	6.09	0.49
47:M0:208:ASN:O	47:M0:212:GLU:HB2	3.37	0.49
87:5:4072:OHX:N5	87:5:4150:OHX:N6	2.60	0.49
36:5:1556:C:C2	36:5:2169:G:C6	3.01	0.49
1:6:82:U:H2'	1:6:83:G:O4'	2.12	0.49
36:1:265:A:H5''	36:1:266:A:OP2	2.12	0.49
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.46	0.49
34:SR:50:ASP:O	34:SR:52:GLN:N	2.46	0.49
44:L7:27:ALA:O	44:L7:30:ARG:HB3	2.12	0.49
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.70	0.49
1:2:1338:C:H1'	1:2:1410:A:C4	2.47	0.49
26:D4:76:TYR:OH	26:D4:86:GLU:OE2	2.39	0.49
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.25	0.49
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.76	0.49
49:M3:180:ARG:HH22	36:5:2780:A:H4'	130.35	0.49
51:M5:73:ARG:NH1	51:M5:92:LEU:HD21	2.28	0.49
1:6:1490:C:H4'	1:6:1491:U:OP1	2.13	0.49
1:6:1491:U:H4'	1:6:1492:A:C5'	2.43	0.49
87:5:4101:OHX:N3	87:5:4243:OHX:N4	2.60	0.49
39:L2:45:VAL:HA	39:L2:61:VAL:HB	4.52	0.49
36:1:2554:A:N7	79:Q3:62:LYS:NZ	2.61	0.49
1:6:1213:G:O2'	1:6:1244:A:N6	2.45	0.49
40:L3:81:THR:O	40:L3:81:THR:HG22	2.15	0.49
70:O4:24:LYS:HE2	36:5:1669:C:OP1	156.82	0.49
8:S6:2:LYS:HB3	8:S6:108:VAL:HG12	4.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:223:U:O4	87:1:4201:OHX:N5	2.46	0.49
38:8:74:U:O2	87:8:217:OHX:N5	2.46	0.49
52:M6:157:GLU:O	52:M6:161:LYS:HG3	4.20	0.49
40:L3:107:ALA:HA	40:L3:199:PHE:CD2	2.47	0.49
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.43	0.49
36:5:578:A:H5''	36:5:579:G:O5'	2.12	0.49
65:N9:25:LYS:HB2	65:N9:25:LYS:NZ	2.27	0.49
36:1:922:U:P	73:O7:3:LYS:HD2	2.53	0.49
1:6:336:G:OP2	87:6:2153:OHX:N4	2.46	0.49
1:2:1202:A:H1'	1:2:1207:C:H42	1.77	0.49
7:S5:44:ASN:H	7:S5:44:ASN:HD22	3.65	0.49
36:1:1580:A:H1'	36:1:1581:C:H5	1.76	0.49
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.13	0.49
7:S5:57:SER:HB2	30:D8:53:ILE:HB	2.87	0.49
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.18	0.49
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.12	0.49
19:C7:20:TYR:CD2	19:C7:38:ILE:HD11	2.48	0.49
2:S0:200:ASP:HA	2:S0:203:PHE:CE1	2.84	0.49
36:1:290:G:H2'	36:1:291:C:C6	2.48	0.49
1:6:188:A:H2'	1:6:189:C:O4'	2.13	0.49
36:1:3295:A:OP2	40:L3:126:LYS:N	2.43	0.49
5:S3:94:ARG:NH2	35:SM:134:ASP:OD2	2.44	0.49
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.13	0.49
53:M7:24:VAL:CG1	53:M7:86:LYS:HG2	2.43	0.49
36:5:2107:A:C2	36:5:2108:C:C2	3.01	0.49
36:1:1176:C:H2'	36:1:1177:G:N2	2.28	0.49
55:M9:25:ASP:HB3	55:M9:28:GLU:HB2	2.79	0.49
36:5:678:G:H2'	36:5:679:U:O4'	2.12	0.49
24:D2:20:THR:OG1	24:D2:22:LYS:HD3	2.32	0.49
43:L6:91:VAL:HG23	43:L6:92:SER:O	3.14	0.49
40:L3:275:ARG:NH1	36:5:3045:G:O3'	234.84	0.49
36:1:391:A:OP2	87:1:4151:OHX:N1	2.46	0.49
1:2:1404:C:H2'	1:2:1405:G:H8	1.77	0.49
36:5:1196:C:OP1	87:5:4244:OHX:N6	2.45	0.49
1:6:841:U:H2'	1:6:842:C:C6	2.47	0.49
39:L2:111:THR:HB	39:L2:136:ILE:HD13	2.45	0.49
56:N0:125:LYS:HG3	56:N0:126:VAL:N	2.73	0.49
36:1:2843:U:H5''	36:1:2844:C:OP2	2.12	0.49
5:S3:62:ASN:OD1	5:S3:62:ASN:N	2.45	0.49
6:S4:57:ASN:HB2	6:S4:60:GLU:HB2	1.95	0.49
36:1:3217:C:H2'	36:1:3217:C:O2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.16	0.49
44:L7:53:LYS:O	44:L7:57:THR:HG23	2.27	0.49
36:1:1478:C:H2'	36:1:1479:U:C6	2.48	0.49
36:5:436:A:H3'	36:5:437:G:C8	2.47	0.49
1:6:1699:G:C2	1:6:1701:A:H5''	2.48	0.49
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.96	0.49
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	2.53	0.49
7:S5:33:VAL:O	7:S5:37:GLN:HB2	2.42	0.49
87:6:2057:OHX:N2	87:6:2145:OHX:N6	2.60	0.49
1:2:637:C:O2	9:S7:114:ARG:NH2	2.46	0.49
21:C9:30:VAL:HG12	21:C9:54:PHE:CD2	2.47	0.49
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.30	0.49
53:M7:67:ILE:HG22	53:M7:80:LYS:HB3	1.95	0.49
41:L4:352:ALA:HB1	41:L4:354:VAL:HG23	1.95	0.49
2:S0:62:ARG:HD3	23:D1:37:ALA:HB3	1.95	0.49
45:L8:33:ASN:HA	36:5:2549:G:N2	212.48	0.49
36:1:3153:U:O2	36:1:3158:G:N1	2.45	0.49
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.13	0.49
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	2.06	0.49
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	2.07	0.49
1:6:1258:U:H5	1:6:1259:U:C2	2.30	0.49
87:5:4101:OHX:N1	87:5:4243:OHX:N4	2.61	0.49
20:C8:119:ILE:HA	20:C8:119:ILE:HD12	2.60	0.49
21:C9:118:PRO:O	21:C9:120:GLY:N	2.97	0.49
8:S6:191:ARG:NH1	1:6:177:U:H1'	319.53	0.49
5:S3:124:ARG:HD2	35:SM:128:ALA:HA	8.64	0.49
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	2.39	0.49
4:S2:163:GLY:O	4:S2:164:SER:HB3	4.17	0.49
45:L8:61:GLN:HA	45:L8:64:ILE:HD12	3.21	0.49
52:M6:182:ASN:OD1	52:M6:186:ALA:HB2	7.02	0.49
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	3.67	0.49
36:1:1039:U:H2'	36:1:1040:A:C8	2.48	0.49
37:7:91:G:H2'	37:7:92:A:C8	2.47	0.49
36:1:2636:A:H5''	36:1:2637:A:H5'	1.95	0.49
74:O8:2:ALA:HA	36:5:1747:G:H21	145.06	0.49
36:5:3238:G:N2	36:5:3250:U:H1'	2.27	0.49
52:M6:56:ASP:O	52:M6:59:ARG:HG3	3.02	0.49
36:1:2854:U:P	47:M0:3:ARG:HH22	2.36	0.49
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.46	0.49
36:1:2206:G:OP2	36:1:2206:G:H8	1.96	0.49
4:S2:58:LEU:HA	23:D1:12:TYR:HE1	2.02	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.60	0.49
36:1:364:G:OP1	41:L4:60:THR:HG23	2.13	0.49
36:5:1876:U:H6	36:5:1876:U:H5''	1.77	0.49
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.12	0.49
44:L7:151:ARG:NH1	44:L7:244:ASN:O	3.23	0.49
56:N0:155:ARG:HD3	56:N0:172:TYR:CD2	2.48	0.49
36:1:1103:A:N3	36:1:1103:A:H2'	2.28	0.49
1:6:1765:A:OP2	87:6:2124:OHX:N4	2.45	0.49
49:M3:59:ARG:HD3	36:5:73:C:O2	92.24	0.49
25:D3:33:LEU:HD23	25:D3:33:LEU:HA	1.69	0.49
22:D0:46:GLU:HB2	22:D0:52:LYS:HZ2	1.78	0.49
45:L8:75:ILE:HG22	45:L8:76:ALA:N	2.28	0.49
87:1:3975:OHX:N5	87:1:4161:OHX:N1	2.61	0.49
1:6:1645:G:H22	1:6:1756:A:H2	1.61	0.49
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.95	0.49
4:S2:129:ILE:O	4:S2:133:LYS:HG2	2.13	0.49
61:N5:139:ILE:HG13	61:N5:139:ILE:O	2.13	0.49
2:S0:84:ARG:NH2	2:S0:201:LEU:HD12	3.70	0.49
1:2:178:U:C4	8:S6:191:ARG:HD3	2.48	0.49
87:5:4221:OHX:N4	87:5:4231:OHX:N3	2.60	0.49
1:6:681:U:H4'	1:6:682:C:OP1	2.12	0.49
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.19	0.49
36:1:2414:G:H2'	36:1:2415:C:O4'	2.11	0.49
1:6:1694:A:H2	1:6:1708:U:N3	2.11	0.49
9:S7:109:VAL:HG22	9:S7:110:GLN:H	1.78	0.49
36:1:129:U:H2'	36:1:130:A:C8	2.47	0.49
1:6:1171:A:H2'	1:6:1172:G:C8	2.47	0.49
87:1:4059:OHX:N6	87:1:4168:OHX:N3	2.61	0.49
1:2:795:U:C5	1:2:796:A:C8	3.00	0.49
25:D3:60:GLU:CD	32:E0:3:LYS:HB2	2.34	0.49
36:1:1899:G:N7	87:1:3935:OHX:N3	2.60	0.48
54:M8:176:ARG:HG3	36:5:2763:U:H5'	182.53	0.48
28:D6:37:LYS:HG2	28:D6:72:HIS:CD2	4.22	0.48
28:D6:84:VAL:O	28:D6:86:VAL:N	2.46	0.48
1:2:894:U:H2'	1:2:895:G:C8	2.49	0.48
6:S4:208:VAL:HG21	6:S4:225:VAL:HG21	2.41	0.48
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	2.22	0.48
20:C8:128:PHE:HD2	35:SM:61:ILE:HG22	1.78	0.48
40:L3:283:TYR:CZ	40:L3:325:LYS:HB2	2.49	0.48
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.26	0.48
87:6:2057:OHX:N1	87:6:2145:OHX:N3	2.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:118:LYS:HE2	36:5:694:C:OP2	106.71	0.48
19:C7:22:PRO:HA	34:SR:216:LYS:NZ	2.27	0.48
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.16	0.48
87:5:4016:OHX:N3	87:5:4208:OHX:N1	2.60	0.48
1:6:1151:A:O2'	1:6:1766:A:N7	2.32	0.48
4:S2:67:GLN:OE1	4:S2:67:GLN:N	2.56	0.48
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.25	0.48
1:6:489:C:O2'	1:6:490:C:O5'	2.30	0.48
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.75	0.48
41:L4:316:ASN:O	41:L4:318:LEU:N	3.02	0.48
34:SR:61:PHE:HD1	34:SR:92:TRP:CE3	2.73	0.48
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.61	0.48
1:6:626:U:H2'	1:6:627:C:C6	2.48	0.48
87:1:3975:OHX:N6	87:1:4161:OHX:N2	2.60	0.48
69:O3:45:LEU:HD23	69:O3:71:VAL:HG12	1.94	0.48
53:M7:24:VAL:HG13	53:M7:86:LYS:HG2	1.95	0.48
2:S0:140:ASN:ND2	23:D1:29:HIS:HA	2.28	0.48
55:M9:138:LEU:O	55:M9:142:ILE:HG13	2.18	0.48
36:5:1157:G:H2'	36:5:1158:A:O4'	2.13	0.48
21:C9:66:TYR:HA	21:C9:124:ILE:HB	1.95	0.48
36:1:2812:C:H2'	36:1:2813:A:H8	1.78	0.48
17:C5:64:LYS:HG3	17:C5:73:PRO:HG3	1.95	0.48
37:3:64:A:H3'	47:M0:204:GLY:O	2.13	0.48
12:C0:35:ILE:HG22	12:C0:36:ASP:H	1.77	0.48
36:5:3167:A:H2'	36:5:3168:A:O4'	2.12	0.48
39:L2:219:ILE:HG22	39:L2:221:LYS:O	2.12	0.48
1:2:1613:U:H2'	1:2:1614:A:H5''	1.94	0.48
1:2:340:U:O2'	1:2:341:A:H5'	2.12	0.48
36:5:138:U:H2'	36:5:139:G:H8	1.78	0.48
1:2:1738:U:H2'	1:2:1739:C:C6	2.47	0.48
50:M4:128:ARG:O	50:M4:128:ARG:HG2	2.13	0.48
25:D3:127:VAL:O	25:D3:130:VAL:HG22	2.14	0.48
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.41	0.48
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	2.26	0.48
68:O2:127:ALA:O	68:O2:128:LEU:HB3	4.81	0.48
9:S7:62:VAL:HG13	9:S7:63:PRO:HD2	1.95	0.48
75:O9:24:PRO:HB2	75:O9:27:ILE:HG13	3.55	0.48
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.79	0.48
1:6:1255:G:O2'	1:6:1256:A:O5'	2.30	0.48
36:5:3112:G:O6	87:5:3922:OHX:N6	2.46	0.48
49:M3:158:ALA:O	64:N8:124:ILE:HD11	2.86	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3206:C:O2	56:N0:155:ARG:NH1	2.46	0.48
18:C6:41:PRO:O	18:C6:42:GLU:HB3	2.11	0.48
34:SR:282:SER:N	1:6:1394:G:OP1	417.38	0.48
37:3:71:G:H2'	37:3:72:A:C8	2.47	0.48
25:D3:23:ARG:HG3	25:D3:23:ARG:NH1	2.29	0.48
36:1:979:U:H1'	36:1:980:A:C4	2.48	0.48
36:5:3352:U:O4'	36:5:3353:G:C2	2.66	0.48
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.13	0.48
36:1:180:C:H2'	36:1:181:U:C6	2.48	0.48
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.28	0.48
40:L3:81:THR:HG22	40:L3:205:VAL:HG21	1.94	0.48
36:5:766:U:H4'	36:5:767:U:O5'	2.13	0.48
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.35	0.48
41:L4:62:ALA:HB1	41:L4:76:ARG:O	2.27	0.48
45:L8:123:GLN:C	45:L8:125:ALA:H	3.34	0.48
56:N0:132:THR:OG1	56:N0:133:ALA:N	2.46	0.48
36:5:441:U:H2'	36:5:442:G:C8	2.47	0.48
36:1:3377:G:O6	87:1:4039:OHX:N1	2.46	0.48
36:1:3393:U:H2'	36:1:3394:U:C6	2.48	0.48
36:1:898:U:H2'	36:1:899:U:O4'	2.13	0.48
36:5:2225:U:H2'	36:5:2226:U:C6	2.48	0.48
43:L6:44:ALA:O	43:L6:48:ARG:HB3	3.49	0.48
36:1:817:A:H8	73:O7:15:SER:HG	1.61	0.48
1:2:425:A:H5'	1:2:425:A:H8	1.76	0.48
1:2:271:A:H5'	1:2:272:U:OP2	2.13	0.48
1:6:492:A:H2'	1:6:493:U:H5''	1.94	0.48
36:1:2585:G:C6	61:N5:24:LEU:HD13	2.47	0.48
42:L5:22:ARG:NH2	42:L5:28:THR:HG1	2.07	0.48
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.13	0.48
17:C5:18:ARG:HD2	17:C5:36:LEU:O	2.80	0.48
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.95	0.48
36:1:2307:G:O2'	36:1:2310:U:OP2	2.30	0.48
1:6:1098:U:H6	1:6:1098:U:H5''	1.77	0.48
27:D5:73:GLY:O	27:D5:77:ARG:HG3	2.12	0.48
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.27	0.48
36:1:1355:A:C5'	36:1:1356:U:H5	2.27	0.48
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.14	0.48
44:L7:208:SER:HB2	36:5:1334:U:H1'	242.56	0.48
44:L7:206:LYS:HB3	36:5:1334:U:OP1	235.60	0.48
16:C4:126:THR:HB	1:6:989:U:O2'	276.89	0.48
1:6:1133:A:H2'	1:6:1134:C:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.12	0.48
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	1.96	0.48
36:5:1308:A:OP2	36:5:1308:A:H8	1.93	0.48
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.28	0.48
1:6:709:C:O2	1:6:730:G:N2	2.46	0.48
38:4:85:G:H3'	38:4:85:G:H8	1.78	0.48
36:1:437:G:H2'	36:1:438:A:C8	2.48	0.48
87:5:4101:OHX:N1	87:5:4243:OHX:N2	2.60	0.48
18:C6:22:VAL:HG22	18:C6:65:ILE:HG23	1.96	0.48
2:S0:86:VAL:HG12	2:S0:174:TRP:CZ2	3.55	0.48
42:L5:256:THR:HA	42:L5:257:GLU:OE1	7.63	0.48
36:1:908:G:H4'	36:1:909:G:O5'	2.14	0.48
36:5:998:A:O2'	36:5:999:G:H5'	2.13	0.48
1:6:1694:A:H2	1:6:1708:U:H3	1.61	0.48
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.14	0.48
36:1:1481:A:O4'	36:1:1481:A:OP1	2.31	0.48
34:SR:29:GLN:C	34:SR:31:ASN:H	2.17	0.48
36:1:523:A:O2'	56:N0:69:PRO:HD2	2.13	0.48
63:N7:95:VAL:HG21	63:N7:113:VAL:HG11	1.94	0.48
4:S2:215:PHE:HA	4:S2:218:ILE:HD11	3.14	0.48
36:1:689:U:H3	41:L4:227:THR:HG1	1.60	0.48
36:5:1786:G:H2'	36:5:1787:A:C8	2.47	0.48
1:2:1340:U:C2	1:2:1378:U:H4'	2.48	0.48
4:S2:237:VAL:O	4:S2:238:SER:HB3	4.72	0.48
4:S2:58:LEU:HA	23:D1:12:TYR:CE1	2.83	0.48
17:C5:38:PRO:O	17:C5:42:ARG:HG3	2.13	0.48
36:1:2282:U:O2	36:1:2310:U:H4'	2.13	0.48
42:L5:114:GLY:C	42:L5:116:ASP:H	2.16	0.48
1:2:819:G:N3	1:2:820:U:H5	2.11	0.48
36:1:3087:A:P	87:1:4186:OHX:N5	2.87	0.48
3:S1:51:SER:OG	3:S1:57:ALA:HB3	2.13	0.48
87:5:4072:OHX:N1	87:5:4150:OHX:N2	2.62	0.48
1:2:778:G:H22	26:D4:10:ARG:NH1	2.11	0.48
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.94	0.48
33:E1:134:ASN:N	1:6:1251:U:H4'	443.34	0.48
63:N7:133:LYS:O	63:N7:134:LEU:HB3	4.69	0.48
19:C7:104:ASN:O	19:C7:107:SER:HB3	2.13	0.48
57:N1:101:CYS:SG	57:N1:102:ARG:N	3.76	0.48
17:C5:28:MET:HE3	17:C5:33:PHE:HB2	2.45	0.48
54:M8:100:THR:HG22	54:M8:122:ILE:HD12	4.34	0.48
46:L9:90:MET:HE1	46:L9:179:ILE:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:103:ILE:HD13	24:D2:126:LEU:HD13	1.96	0.48
59:N3:54:LEU:HA	59:N3:78:VAL:HG12	3.25	0.48
52:M6:60:LYS:CE	36:5:1307:G:H5"	250.89	0.48
14:C2:131:ASP:HB2	14:C2:132:GLU:OE1	2.14	0.48
22:D0:23:ARG:HB3	22:D0:117:VAL:HG12	1.95	0.48
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.13	0.48
32:E0:37:ARG:NH1	1:6:478:A:OP1	440.90	0.48
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.13	0.48
45:L8:180:VAL:HG11	45:L8:186:LEU:HD21	2.48	0.48
1:6:1395:G:C6	1:6:1396:U:C4	3.02	0.48
70:O4:65:VAL:HG13	70:O4:69:HIS:HB2	1.95	0.48
36:1:2443:A:N6	36:1:2504:U:O4	2.47	0.48
42:L5:256:THR:HG23	37:7:119:U:OP1	294.15	0.48
1:6:1244:A:O2'	1:6:1245:G:O5'	2.25	0.48
42:L5:211:LEU:HB3	42:L5:219:PHE:HD2	1.79	0.48
36:1:743:C:N3	54:M8:141:ARG:NH1	2.62	0.48
38:4:22:U:OP1	62:N6:12:ARG:NH2	2.46	0.48
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	1.96	0.48
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	2.26	0.48
72:O6:58:ILE:HA	72:O6:61:ILE:HG13	3.15	0.48
78:Q2:63:LYS:NZ	36:5:2761:G:N7	211.61	0.48
36:5:739:G:O6	87:5:3971:OHX:N6	2.46	0.48
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.76	0.48
36:5:1103:A:H3'	36:5:1104:G:H5'	1.94	0.48
8:S6:31:ARG:HH11	8:S6:34:GLN:HE22	1.59	0.48
1:6:1588:G:OP1	87:6:2122:OHX:N2	2.46	0.48
36:1:1940:G:H21	36:1:3362:A:H8	1.61	0.48
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.74	0.48
62:N6:50:ILE:HD12	62:N6:70:ILE:HG12	3.33	0.48
1:6:789:A:H3'	1:6:790:U:H6	1.78	0.48
3:S1:97:LEU:HG	3:S1:232:HIS:CE1	2.49	0.48
22:D0:58:LEU:HD22	1:6:1516:A:H5"	444.16	0.48
9:S7:181:ILE:HA	9:S7:181:ILE:HD13	3.08	0.48
87:2:2044:OHX:N2	87:2:2099:OHX:N6	2.61	0.48
20:C8:145:ARG:HE	20:C8:145:ARG:HA	4.69	0.48
87:5:4072:OHX:N3	87:5:4150:OHX:N4	2.61	0.48
1:2:1488:G:H5'	1:2:1489:U:OP1	2.13	0.48
36:5:2573:G:O6	87:5:4202:OHX:N6	2.46	0.48
87:5:4016:OHX:N3	87:5:4208:OHX:N5	2.60	0.48
40:L3:56:ILE:HG12	40:L3:323:MET:HE1	1.95	0.48
49:M3:59:ARG:HD3	36:5:73:C:C2	93.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:47:CYS:HB3	70:O4:84:CYS:SG	2.69	0.48
1:6:694:U:H3'	1:6:695:U:O2	2.13	0.48
68:O2:103:LYS:O	68:O2:106:VAL:HG22	4.35	0.48
45:L8:75:ILE:O	45:L8:76:ALA:HB3	2.13	0.48
73:O7:28:HIS:CE1	73:O7:31:LYS:HE2	2.96	0.48
42:L5:217:GLU:HG2	42:L5:218:ARG:N	2.28	0.48
36:1:2816:G:N2	36:1:2819:A:OP2	2.45	0.48
36:1:1795:U:H2'	39:L2:50:HIS:CD2	2.49	0.48
45:L8:121:SER:O	45:L8:123:GLN:N	3.96	0.48
36:1:1487:G:H1	36:1:1855:U:H3	1.61	0.48
71:O5:59:ASN:O	71:O5:63:ARG:HG2	3.68	0.48
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.14	0.48
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	2.80	0.48
36:1:1826:C:H2'	36:1:1827:C:H6	1.79	0.48
36:5:1397:C:O2'	36:5:1398:U:H5'	2.13	0.48
36:5:2528:G:N7	87:5:4216:OHX:N3	2.61	0.48
36:1:650:C:H2'	36:1:651:G:C8	2.48	0.48
36:5:2998:U:O4	87:5:4149:OHX:N4	2.47	0.48
34:SR:48:THR:HG22	34:SR:55:GLY:HA2	5.19	0.48
41:L4:229:ASN:OD1	41:L4:229:ASN:C	2.52	0.48
57:N1:137:GLU:O	57:N1:139:ARG:NH2	3.91	0.48
1:2:699:U:OP2	1:2:733:A:N6	2.47	0.48
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.22	0.48
1:2:1594:G:H5''	31:D9:33:LYS:HG3	1.94	0.48
36:1:608:A:N6	43:L6:22:ARG:HD3	2.29	0.48
37:7:55:A:H2'	37:7:56:A:O4'	2.14	0.48
48:M1:8:PRO:HG2	48:M1:9:MET:H	2.57	0.48
1:2:1459:C:C4	20:C8:139:LYS:HG3	2.49	0.48
36:1:735:A:H2'	36:1:736:A:H8	1.79	0.48
9:S7:154:LEU:HD11	9:S7:183:PHE:CD1	2.50	0.48
26:D4:88:THR:O	26:D4:92:VAL:HG22	4.24	0.48
2:S0:140:ASN:HD22	23:D1:29:HIS:HA	1.78	0.48
36:5:3096:C:H2'	36:5:3097:C:C6	2.49	0.48
5:S3:71:LEU:O	5:S3:75:LYS:HG2	3.43	0.48
39:L2:172:GLY:HA3	79:Q3:68:ALA:H	4.18	0.48
36:1:956:U:H2'	36:1:957:C:C6	2.49	0.48
1:2:179:A:H2'	1:2:180:A:O4'	2.14	0.48
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	2.38	0.48
15:C3:4:MET:HG3	15:C3:5:HIS:N	2.27	0.48
7:S5:76:ARG:HD3	18:C6:122:ARG:NE	2.54	0.48
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:50:GLN:OE1	53:M7:56:ARG:HD3	2.14	0.48
21:C9:139:THR:O	21:C9:142:GLU:N	3.63	0.48
36:5:1240:A:N6	36:5:1241:U:O4	2.46	0.48
42:L5:190:ILE:HG13	42:L5:191:ASP:N	2.27	0.48
36:1:3224:G:O6	87:1:3897:OHX:N4	2.46	0.48
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.14	0.48
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.48	0.48
34:SR:176:LYS:HD3	34:SR:196:ASN:HA	1.94	0.48
1:6:542:A:H8	1:6:543:C:H5'	1.78	0.48
32:E0:28:LYS:HD3	1:6:542:A:N1	430.35	0.48
36:1:1703:U:N3	36:1:1740:U:O2	2.47	0.48
1:2:7:G:N7	4:S2:205:ARG:NH1	2.47	0.48
36:1:3166:C:N4	36:1:3284:G:H1	2.07	0.48
3:S1:41:ARG:HH21	3:S1:97:LEU:HD11	1.79	0.48
87:5:3978:OHX:N3	87:5:4250:OHX:N2	2.61	0.48
1:6:1082:C:H2'	1:6:1083:G:O4'	2.13	0.48
36:1:2768:U:H2'	36:1:2769:A:C8	2.48	0.48
36:5:3242:G:N2	36:5:3245:A:H5''	2.28	0.48
36:1:1095:U:O2	57:N1:128:LEU:N	2.46	0.48
1:6:193:U:C4	1:6:195:G:C8	3.01	0.48
1:2:273:G:H1	1:2:283:U:H3	1.62	0.48
1:2:480:G:N2	1:2:509:G:H1'	2.28	0.48
5:S3:53:THR:HG22	5:S3:91:VAL:HG21	4.89	0.48
36:1:2209:U:H1'	36:1:2210:G:OP2	2.14	0.48
1:2:591:A:H2'	1:2:592:A:H8	1.78	0.48
39:L2:57:PRO:HB3	79:Q3:54:ILE:HD11	1.95	0.48
71:O5:119:LYS:NZ	71:O5:119:LYS:HA	3.16	0.48
78:Q2:34:SER:OG	78:Q2:35:LEU:O	2.32	0.48
39:L2:172:GLY:HA3	79:Q3:67:GLY:HA2	3.93	0.48
42:L5:155:THR:HA	42:L5:179:ARG:HA	1.95	0.48
36:1:3195:U:O2'	36:1:3196:U:H5'	2.14	0.48
1:6:652:G:N2	1:6:682:C:O2	2.47	0.48
55:M9:172:ARG:NH1	1:6:852:C:OP1	322.22	0.48
35:SM:129:ALA:O	35:SM:133:GLU:HG3	2.14	0.48
1:2:848:C:H2'	1:2:849:C:C6	2.49	0.48
36:1:1211:U:H2'	36:1:1212:A:C8	2.48	0.48
18:C6:9:THR:HG21	18:C6:88:GLY:HA2	1.96	0.48
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.46	0.48
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.13	0.48
40:L3:290:ASP:HB3	40:L3:293:ASN:OD1	2.65	0.48
21:C9:3:GLY:H	1:6:1360:A:H4'	426.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:133:ASN:OD1	26:D4:133:ASN:N	2.46	0.48
36:1:1879:A:HO2'	36:1:1879:A:H8	1.61	0.48
34:SR:34:LEU:HD12	34:SR:43:ILE:O	3.06	0.48
36:1:727:G:H2'	36:1:728:G:O4'	2.14	0.48
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.78	0.48
36:5:1501:U:O2'	36:5:1502:C:H5'	2.14	0.48
42:L5:268:GLU:C	42:L5:270:LYS:H	3.35	0.48
1:6:542:A:H1'	1:6:543:C:P	2.53	0.48
72:O6:26:ILE:HD13	36:5:155:G:H1'	88.33	0.48
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.38	0.48
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.37	0.48
1:2:1430:U:O4'	22:D0:72:ASN:ND2	2.47	0.48
20:C8:61:LEU:HD13	20:C8:65:GLU:HB3	2.32	0.48
75:O9:23:LEU:HD21	38:8:52:A:C6	83.59	0.48
11:S9:171:ARG:HA	11:S9:171:ARG:HE	2.41	0.48
62:N6:73:VAL:HA	62:N6:80:VAL:HG23	1.95	0.48
1:6:329:G:H2'	1:6:330:G:H8	1.77	0.48
21:C9:38:LYS:NZ	1:6:1564:U:OP1	378.07	0.48
36:1:22:G:H1'	38:4:104:A:N3	2.28	0.48
1:2:45:U:C2	1:2:436:A:N6	2.81	0.48
55:M9:105:LEU:HD11	55:M9:139:VAL:HG23	1.96	0.48
36:5:1081:U:HO2'	36:5:1082:U:C5'	2.25	0.48
36:5:3025:C:H2'	36:5:3026:G:O4'	2.14	0.48
11:S9:78:ARG:NH1	1:6:764:U:OP2	419.91	0.48
1:2:1469:A:H2'	1:2:1470:C:C6	2.48	0.48
36:1:2554:A:H62	79:Q3:62:LYS:NZ	2.12	0.48
87:1:4059:OHX:N4	87:1:4168:OHX:N1	2.61	0.48
2:S0:63:ILE:HG12	23:D1:36:VAL:HG22	3.80	0.48
36:5:72:C:C2	36:5:74:G:H1'	2.49	0.48
1:6:58:U:O2'	1:6:451:A:N3	2.42	0.48
36:5:2950:G:C5	36:5:2979:U:C4	3.02	0.48
1:6:1740:A:H2'	1:6:1741:U:C6	2.49	0.48
60:N4:43:ARG:HH11	60:N4:43:ARG:HB3	1.78	0.48
60:N4:54:LEU:H	60:N4:54:LEU:HD12	1.79	0.48
59:N3:104:ASN:O	59:N3:106:LYS:N	2.46	0.48
51:M5:179:LYS:O	36:5:287:G:H5'	124.80	0.48
79:Q3:18:TYR:H	36:5:2131:A:H61	227.81	0.48
36:1:1443:G:O6	87:1:3980:OHX:N3	2.47	0.48
78:Q2:12:CYS:SG	78:Q2:17:CYS:CB	3.02	0.48
40:L3:3:HIS:O	40:L3:4:ARG:C	2.52	0.48
1:6:821:U:H2'	1:6:822:U:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:141:ARG:CZ	41:L4:180:LYS:HD3	2.44	0.48
1:6:119:A:H1'	1:6:397:A:C5	2.49	0.48
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.47	0.48
3:S1:130:SER:OG	3:S1:131:ASP:N	2.47	0.48
47:M0:85:PHE:HA	47:M0:140:THR:HG22	2.12	0.48
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.36	0.48
36:1:2656:A:C4	36:1:2658:G:N7	2.82	0.48
35:SM:83:LYS:HB3	35:SM:84:LYS:H	2.22	0.48
10:S8:59:ARG:O	10:S8:60:ILE:HG13	2.37	0.48
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.47	0.48
36:1:408:A:OP1	87:1:4060:OHX:N3	2.47	0.48
14:C2:97:LEU:HD12	14:C2:118:ALA:HB3	2.70	0.48
18:C6:31:VAL:HA	18:C6:67:VAL:O	3.52	0.48
1:2:693:U:H5'	1:2:694:U:C5'	2.44	0.48
1:6:416:A:H4'	1:6:417:A:OP2	2.13	0.48
1:6:189:C:O2'	1:6:190:C:H5'	2.13	0.48
1:6:1688:U:H3	1:6:1713:G:H1	1.60	0.48
36:1:1310:G:N7	87:1:4031:OHX:N5	2.61	0.48
5:S3:53:THR:HB	5:S3:94:ARG:HD3	3.10	0.48
2:S0:9:LEU:HD13	2:S0:10:THR:O	2.54	0.48
45:L8:94:PHE:CE2	45:L8:200:LEU:HG	2.49	0.48
36:1:543:C:H42	36:1:548:G:H1	1.61	0.48
36:5:255:A:H2'	36:5:256:G:C8	2.48	0.48
22:D0:43:LYS:HA	22:D0:43:LYS:HD2	1.64	0.48
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.79	0.48
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.96	0.48
58:N2:100:THR:HA	36:5:1677:G:OP1	141.25	0.48
7:S5:116:HIS:O	7:S5:120:ILE:HG13	2.14	0.48
36:5:1701:C:H2'	36:5:1702:U:O4'	2.14	0.48
36:1:953:G:OP1	65:N9:15:LYS:NZ	2.33	0.48
58:N2:33:TYR:CE1	58:N2:80:THR:HG23	5.23	0.48
49:M3:161:ASP:OD1	64:N8:139:ARG:NH1	3.67	0.48
1:2:330:G:H2'	1:2:331:A:C8	2.49	0.48
36:1:1127:G:O5'	36:1:1127:G:H8	1.97	0.48
36:1:550:A:N6	36:1:551:A:H62	2.11	0.48
1:6:1759:C:H2'	1:6:1760:G:O4'	2.13	0.48
42:L5:125:VAL:HG12	42:L5:125:VAL:O	2.39	0.48
46:L9:47:LYS:HZ2	50:M4:6:ILE:H	1.61	0.48
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.41	0.48
1:2:952:A:O2'	15:C3:114:ARG:HG3	2.14	0.48
36:5:284:A:H4'	36:5:285:A:C2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:40:LYS:O	66:O0:41:LEU:HB2	2.13	0.48
36:1:1286:A:N3	36:1:1287:A:H1'	2.28	0.48
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.14	0.48
7:S5:166:ARG:HB2	30:D8:46:GLY:HA3	1.96	0.48
17:C5:126:VAL:HG13	17:C5:127:ARG:N	2.25	0.48
36:1:2718:U:OP2	87:1:3986:OHX:N3	2.46	0.48
8:S6:13:GLN:CD	1:6:151:G:H21	312.22	0.48
26:D4:33:ALA:O	26:D4:34:ASN:ND2	2.47	0.48
55:M9:20:ARG:HG3	36:5:1875:G:OP2	138.38	0.48
43:L6:54:TYR:HA	43:L6:65:ILE:HD12	6.14	0.48
36:1:1245:A:C3'	36:1:1246:G:H5''	2.44	0.48
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	2.48	0.48
21:C9:28:LEU:HD12	21:C9:29:GLU:N	2.28	0.48
52:M6:60:LYS:NZ	36:5:1307:G:H5''	251.47	0.48
18:C6:66:ARG:HG3	18:C6:67:VAL:N	2.28	0.48
14:C2:66:VAL:HB	14:C2:67:THR:H	1.49	0.48
21:C9:101:ASN:O	21:C9:104:VAL:N	2.46	0.48
2:S0:168:HIS:O	2:S0:172:LEU:HB2	2.78	0.48
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.14	0.48
36:1:250:U:H5''	36:1:251:G:H5''	1.96	0.48
36:5:420:G:OP1	36:5:420:G:OP2	2.32	0.48
36:1:1159:A:O2'	36:1:1160:C:H5''	2.14	0.48
1:6:53:G:H2'	1:6:54:C:O4'	2.14	0.48
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.89	0.48
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.54	0.48
37:3:45:A:H2'	37:3:46:A:H8	1.78	0.48
36:1:2443:A:O2'	36:1:2444:C:OP2	2.29	0.48
10:S8:31:ARG:NH2	1:6:333:A:OP1	298.67	0.48
55:M9:23:TRP:HE3	55:M9:51:VAL:HG13	1.79	0.48
68:O2:46:PHE:CE1	36:5:1145:G:H5'	211.21	0.48
45:L8:91:PHE:CZ	45:L8:185:ARG:HD3	4.53	0.48
56:N0:123:ILE:O	57:N1:153:PRO:HG2	2.14	0.48
87:5:4041:OHX:N6	87:5:4245:OHX:N2	2.62	0.48
1:2:763:G:C6	1:2:764:U:C4	3.02	0.48
61:N5:86:VAL:HG12	61:N5:120:LYS:HD2	2.39	0.48
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.14	0.48
43:L6:17:ALA:O	36:5:591:G:O2'	211.29	0.48
49:M3:185:LYS:HE3	49:M3:189:GLU:OE2	2.14	0.48
36:1:1608:C:H2'	36:1:1609:C:H6	1.79	0.48
41:L4:304:GLN:HB3	41:L4:306:THR:O	2.25	0.48
74:O8:39:ARG:NH1	74:O8:63:LYS:HE2	10.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1532:C:H2'	36:1:1533:U:C6	2.49	0.48
14:C2:27:ALA:O	14:C2:31:VAL:HG23	2.14	0.48
7:S5:32:GLU:OE2	7:S5:32:GLU:N	2.47	0.48
1:6:570:A:H5''	1:6:571:G:OP2	2.14	0.48
22:D0:104:THR:HG22	22:D0:116:VAL:HG11	3.92	0.48
36:1:2771:U:H2'	36:1:2772:C:O2	2.14	0.48
67:O1:13:THR:HG22	67:O1:72:ARG:NH2	4.11	0.47
7:S5:69:PHE:HD2	18:C6:50:GLU:HG3	1.78	0.47
1:6:819:G:O2'	1:6:821:U:OP2	2.32	0.47
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.30	0.47
34:SR:72:THR:HG23	34:SR:81:LEU:HB2	2.88	0.47
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.46	0.47
87:5:3978:OHX:N4	87:5:4250:OHX:N2	2.62	0.47
70:O4:8:ARG:NH2	36:5:1597:C:OP1	137.92	0.47
32:E0:39:LEU:HD23	32:E0:43:ARG:HH21	5.81	0.47
40:L3:221:THR:HG22	40:L3:272:TYR:H	1.97	0.47
36:1:2916:U:H5	36:1:2935:U:HO2'	1.58	0.47
36:5:741:U:H2'	36:5:742:G:O4'	2.13	0.47
42:L5:235:SER:O	42:L5:239:ILE:HG13	2.14	0.47
53:M7:182:ILE:HG22	53:M7:183:ALA:N	2.29	0.47
65:N9:23:LYS:HA	65:N9:23:LYS:HD2	1.63	0.47
36:5:731:U:H2'	36:5:732:C:C6	2.48	0.47
2:S0:157:ASP:OD2	23:D1:60:ARG:NE	3.93	0.47
1:6:191:C:O2'	1:6:192:U:O5'	2.31	0.47
8:S6:78:THR:HG22	8:S6:79:LYS:HE3	1.96	0.47
6:S4:212:ASP:C	6:S4:214:LEU:H	2.62	0.47
36:5:1817:G:O2'	36:5:1818:U:OP2	2.31	0.47
87:5:4101:OHX:N5	87:5:4243:OHX:N6	2.61	0.47
11:S9:90:LYS:HB3	11:S9:95:TYR:HB3	2.97	0.47
11:S9:91:LYS:O	11:S9:92:LYS:HG2	2.14	0.47
36:1:2728:G:O6	57:N1:78:LYS:HE3	2.14	0.47
27:D5:44:GLN:O	27:D5:47:TYR:HB3	2.70	0.47
36:1:1589:A:OP1	70:O4:11:ASN:HB2	2.14	0.47
20:C8:135:GLY:HA3	1:6:1559:A:H5''	366.64	0.47
36:1:656:A:H2'	36:1:657:A:C8	2.49	0.47
45:L8:101:THR:CG2	45:L8:104:GLU:H	2.27	0.47
36:5:595:G:H1	36:5:609:G:H5''	1.78	0.47
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.49	0.47
49:M3:140:SER:O	49:M3:144:THR:OG1	2.30	0.47
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.56	0.47
9:S7:39:ARG:NH1	55:M9:189:ALA:HB2	6.84	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:142:LYS:HE2	36:5:2664:C:OP2	282.62	0.47
36:1:1481:A:H2'	36:1:1858:A:N3	2.29	0.47
36:1:381:U:O4	87:1:4065:OHX:N4	2.46	0.47
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.47	0.47
36:5:78:U:O2'	36:5:79:U:H5'	2.14	0.47
75:O9:4:GLN:HG2	36:5:1588:A:C2	127.74	0.47
36:1:174:C:H2'	36:1:175:C:C6	2.49	0.47
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.40	0.47
36:1:1645:U:H2'	36:1:1646:G:H5'	1.94	0.47
1:6:412:A:O5'	1:6:412:A:H8	1.97	0.47
52:M6:49:ARG:O	52:M6:52:LEU:HB2	2.82	0.47
36:1:2207:A:O2'	36:1:2208:A:H5'	2.14	0.47
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.96	0.47
41:L4:206:LEU:HD23	41:L4:226:GLU:HB3	1.96	0.47
36:1:1364:C:OP1	44:L7:110:ARG:NH2	2.37	0.47
1:2:1553:G:O6	17:C5:43:ARG:HD3	2.13	0.47
15:C3:110:ASP:OD2	1:6:877:G:N2	296.92	0.47
6:S4:125:LYS:HB2	6:S4:226:PHE:CE2	3.25	0.47
3:S1:61:LEU:HD22	3:S1:61:LEU:H	1.78	0.47
1:2:1098:U:OP2	4:S2:168:ARG:NH2	2.36	0.47
5:S3:40:ARG:HG3	22:D0:110:PRO:HB3	3.44	0.47
1:2:1235:C:O2	33:E1:138:ARG:NH2	2.48	0.47
34:SR:44:SER:OG	34:SR:59:ARG:HB3	2.15	0.47
16:C4:17:ALA:HB2	16:C4:79:VAL:HG11	2.47	0.47
1:2:219:A:H5'	1:2:831:U:O2'	2.13	0.47
51:M5:61:ILE:CG2	51:M5:131:GLU:HG2	2.44	0.47
17:C5:90:ILE:HA	17:C5:107:ILE:HG13	4.41	0.47
71:O5:30:GLU:O	71:O5:34:GLN:HG3	2.79	0.47
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.14	0.47
36:5:2697:A:H2'	36:5:2698:G:H8	1.79	0.47
3:S1:167:VAL:O	3:S1:171:ILE:HG13	2.14	0.47
5:S3:52:ALA:O	5:S3:90:ARG:HA	2.14	0.47
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.71	0.47
56:N0:134:ASP:O	56:N0:136:LYS:HG2	3.10	0.47
45:L8:105:LYS:O	45:L8:109:LEU:HB2	2.81	0.47
36:5:1831:U:H2'	36:5:1832:C:C6	2.49	0.47
36:1:1460:A:H2'	36:1:1461:A:C8	2.49	0.47
1:2:209:U:H2'	1:2:210:A:C8	2.49	0.47
36:1:2881:C:H2'	36:1:2882:U:C6	2.48	0.47
36:1:2883:U:H2'	36:1:2884:C:C6	2.49	0.47
36:1:3195:U:H1'	36:1:3196:U:OP1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1080:A:OP1	42:L5:140:ARG:HB2	2.14	0.47
37:7:64:A:H5'	37:7:65:G:H5''	1.96	0.47
7:S5:118:LEU:HA	7:S5:121:ILE:HD12	1.96	0.47
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.24	0.47
36:1:2416:U:H2'	36:1:2417:U:C6	2.49	0.47
59:N3:84:SER:HA	59:N3:94:TYR:HB3	2.15	0.47
64:N8:148:ILE:HB	64:N8:149:ALA:H	1.56	0.47
30:D8:13:ILE:HD12	30:D8:29:ARG:HG2	3.08	0.47
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.49	0.47
1:6:1203:A:C4	1:6:1556:A:C2	3.02	0.47
15:C3:102:LEU:HA	15:C3:102:LEU:HD23	2.23	0.47
1:2:1082:C:H2'	1:2:1083:G:H5'	1.96	0.47
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.14	0.47
36:1:1471:U:H2'	36:1:1472:U:C6	2.49	0.47
7:S5:205:SER:O	7:S5:207:THR:N	2.47	0.47
13:C1:72:THR:HA	13:C1:123:VAL:O	2.14	0.47
36:1:2657:A:C2	36:1:2694:A:C8	3.02	0.47
36:1:2207:A:C2'	36:1:2208:A:H5'	2.44	0.47
1:2:1152:A:O2'	28:D6:85:ARG:HG3	2.14	0.47
7:S5:43:PHE:H	7:S5:46:TRP:H	2.28	0.47
36:1:13:A:H4'	61:N5:39:LYS:HG2	1.96	0.47
87:1:3961:OHX:N3	44:L7:217:PRO:O	2.46	0.47
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	1.96	0.47
1:2:702:G:O6	1:2:737:A:N6	2.47	0.47
9:S7:117:THR:HG22	9:S7:120:ALA:H	2.58	0.47
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.13	0.47
3:S1:71:ALA:HB3	16:C4:114:ARG:HH12	1.80	0.47
7:S5:150:GLY:C	7:S5:152:GLY:H	2.17	0.47
21:C9:73:VAL:HG23	1:6:1499:G:OP2	417.71	0.47
87:2:2096:OHX:N6	13:C1:18:HIS:O	2.47	0.47
18:C6:67:VAL:HG11	18:C6:81:ILE:HG22	2.26	0.47
1:6:1669:U:OP2	87:6:2189:OHX:N3	2.47	0.47
20:C8:54:LEU:HD12	20:C8:54:LEU:H	3.58	0.47
19:C7:83:GLN:O	19:C7:85:VAL:HG22	6.92	0.47
2:S0:200:ASP:HB2	19:C7:85:VAL:HG13	1.96	0.47
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.14	0.47
36:5:3294:A:H2'	36:5:3295:A:O4'	2.15	0.47
36:1:612:U:H2'	36:1:613:G:C8	2.49	0.47
36:1:2295:A:OP1	59:N3:63:LYS:NZ	2.47	0.47
36:5:3132:C:H2'	36:5:3133:C:H6	1.78	0.47
2:S0:101:ARG:HG3	2:S0:102:PHE:N	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:608:A:H5''	36:5:609:G:OP2	2.14	0.47
22:D0:43:LYS:C	22:D0:45:ALA:H	2.17	0.47
22:D0:43:LYS:HD3	22:D0:47:GLN:HB2	5.37	0.47
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.14	0.47
1:2:1340:U:N3	1:2:1378:U:H4'	2.30	0.47
36:5:415:G:OP2	87:5:4228:OHX:N4	2.47	0.47
46:L9:106:LYS:HD2	46:L9:106:LYS:HA	2.32	0.47
16:C4:60:ALA:HB3	16:C4:100:ALA:HB3	2.81	0.47
16:C4:80:HIS:ND1	16:C4:113:GLY:O	3.96	0.47
47:M0:100:ASN:ND2	47:M0:118:ALA:HB1	3.20	0.47
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.78	0.47
36:5:2402:A:OP2	87:5:4117:OHX:N3	2.47	0.47
18:C6:87:LYS:O	18:C6:90:VAL:HG22	2.15	0.47
36:5:1109:U:H2'	36:5:1110:U:O4'	2.14	0.47
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.28	0.47
7:S5:66:GLN:CD	7:S5:66:GLN:H	2.18	0.47
1:2:268:C:H41	8:S6:186:ARG:HD3	1.79	0.47
1:2:1543:A:H2'	1:2:1544:U:O4'	2.15	0.47
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	1.95	0.47
49:M3:106:GLN:HA	72:O6:20:MET:SD	2.69	0.47
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	1.60	0.47
87:1:4136:OHX:N5	87:1:4169:OHX:N6	2.62	0.47
1:2:144:U:H5	8:S6:137:ARG:NH1	2.12	0.47
2:S0:163:ASN:HB3	2:S0:169:SER:OG	2.63	0.47
10:S8:138:ASN:HB3	10:S8:142:LYS:HZ2	1.80	0.47
6:S4:184:THR:HA	6:S4:189:LEU:HD12	1.97	0.47
87:5:3978:OHX:N1	87:5:4250:OHX:N5	2.62	0.47
1:2:1534:G:O6	27:D5:77:ARG:HD3	2.13	0.47
7:S5:103:ASN:HA	7:S5:106:LYS:HD2	1.95	0.47
1:2:778:G:H22	26:D4:10:ARG:NH2	2.12	0.47
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	3.19	0.47
1:6:66:U:O2'	1:6:67:A:H5''	2.14	0.47
33:E1:97:LYS:HE2	1:6:1231:U:C5	438.15	0.47
44:L7:207:LEU:O	36:5:1334:U:H5'	240.99	0.47
3:S1:77:GLU:C	3:S1:79:HIS:H	2.18	0.47
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	2.28	0.47
1:2:1166:A:H2'	1:2:1167:G:O4'	2.14	0.47
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	3.06	0.47
1:6:486:G:H4'	1:6:486:G:OP1	2.13	0.47
1:2:1445:G:C4	33:E1:91:ILE:HB	2.49	0.47
1:2:1067:C:H5''	3:S1:150:VAL:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1307:G:C5	52:M6:60:LYS:HD3	2.50	0.47
40:L3:161:LEU:HD22	40:L3:178:LEU:HD11	1.96	0.47
2:S0:157:ASP:OD1	23:D1:60:ARG:NH2	2.48	0.47
36:1:239:G:H2'	36:1:240:U:C6	2.49	0.47
63:N7:58:GLY:O	63:N7:62:VAL:HG23	2.49	0.47
36:5:2696:A:H2'	36:5:2697:A:C8	2.49	0.47
15:C3:140:LYS:NZ	36:1:847:A:OP1	2.47	0.47
36:5:567:G:O6	87:5:4138:OHX:N2	2.48	0.47
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	2.11	0.47
36:1:1111:U:H5''	49:M3:5:LYS:HE2	1.96	0.47
64:N8:74:ASN:HB2	64:N8:76:ASP:HB2	1.97	0.47
6:S4:16:HIS:C	6:S4:18:TRP:H	2.18	0.47
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.72	0.47
59:N3:66:LYS:HB3	59:N3:68:GLU:OE1	2.14	0.47
26:D4:50:ALA:O	26:D4:51:GLU:HB3	2.32	0.47
27:D5:49:ARG:NH2	27:D5:53:GLU:OE2	3.16	0.47
43:L6:26:ARG:NH2	36:5:607:A:OP1	250.90	0.47
42:L5:144:VAL:HG12	42:L5:173:VAL:HG13	1.97	0.47
1:2:1480:G:H3'	1:2:1481:C:C6	2.49	0.47
52:M6:127:LEU:HD22	56:N0:156:VAL:HG13	4.13	0.47
39:L2:90:ALA:HB2	39:L2:101:VAL:HG13	3.13	0.47
16:C4:132:ARG:HB3	1:6:1787:C:OP2	293.18	0.47
36:1:1069:C:H2'	36:1:1070:U:C6	2.50	0.47
36:1:3200:G:O6	87:1:4132:OHX:N4	2.47	0.47
69:O3:10:LYS:O	69:O3:33:GLU:HB2	2.38	0.47
36:5:1659:U:H2'	36:5:1660:C:C6	2.49	0.47
36:1:3033:A:H2'	36:1:3034:C:H6	1.78	0.47
4:S2:63:VAL:HG12	4:S2:134:LEU:HD12	1.96	0.47
40:L3:322:ILE:HD13	40:L3:322:ILE:HA	1.94	0.47
44:L7:105:LEU:HA	44:L7:105:LEU:HD23	1.65	0.47
36:1:2571:U:H2'	36:1:2571:U:OP1	2.15	0.47
40:L3:146:ARG:HA	40:L3:149:ALA:HB3	1.95	0.47
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.97	0.47
69:O3:58:GLU:CD	69:O3:61:GLY:HA2	4.28	0.47
47:M0:3:ARG:HH22	36:5:2854:U:P	292.00	0.47
36:1:3353:G:O2'	36:1:3354:U:OP1	2.30	0.47
47:M0:36:LEU:HD12	47:M0:87:LEU:HB3	1.97	0.47
39:L2:118:GLU:HG3	39:L2:126:LEU:HD21	2.65	0.47
8:S6:58:LYS:HE3	8:S6:105:ASP:HA	1.97	0.47
36:1:1743:G:H2'	36:1:1744:G:H8	1.79	0.47
1:2:1542:G:H22	1:2:1568:C:H1'	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.96	0.47
7:S5:166:ARG:HD2	30:D8:46:GLY:CA	2.45	0.47
21:C9:42:GLY:HA2	21:C9:84:LYS:HB2	1.95	0.47
78:Q2:71:ARG:HE	78:Q2:80:ARG:NH2	2.13	0.47
31:D9:19:ARG:NH2	1:6:1597:A:P	407.51	0.47
1:6:1255:G:O2'	1:6:1256:A:H8	1.97	0.47
47:M0:16:PRO:HG3	47:M0:128:ARG:NH1	2.93	0.47
63:N7:17:ARG:HB2	36:5:1635:G:O6	203.41	0.47
1:2:296:U:H2'	1:2:297:U:C6	2.49	0.47
6:S4:247:SER:O	6:S4:251:GLU:HG3	2.14	0.47
36:5:1152:G:H22	36:5:1200:A:H61	1.61	0.47
57:N1:57:TYR:OH	57:N1:87:LYS:HD3	2.13	0.47
37:3:106:U:H2'	37:3:107:C:C6	2.50	0.47
48:M1:54:VAL:HG11	48:M1:57:PHE:CG	2.49	0.47
55:M9:99:LEU:HD22	55:M9:103:ARG:HG3	5.78	0.47
5:S3:70:THR:CG2	5:S3:86:LEU:HB2	2.93	0.47
36:5:3065:G:O6	87:5:4112:OHX:N6	2.47	0.47
36:5:3159:C:H4'	36:5:3395:G:C5	2.50	0.47
36:5:567:G:H2'	36:5:568:G:C8	2.50	0.47
78:Q2:100:LYS:N	78:Q2:100:LYS:HD3	2.28	0.47
1:2:720:G:H2'	1:2:720:G:N3	2.30	0.47
36:1:860:G:C5	39:L2:181:LYS:HB2	2.50	0.47
1:6:1590:G:H2'	1:6:1591:C:C6	2.48	0.47
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	2.70	0.47
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	2.49	0.47
1:2:902:G:H8	1:2:902:G:O5'	1.97	0.47
36:1:361:A:O3'	73:O7:45:ARG:NH2	2.47	0.47
36:1:2883:U:H2'	36:1:2884:C:H6	1.80	0.47
54:M8:98:LYS:HG2	54:M8:118:GLY:O	2.15	0.47
21:C9:6:VAL:HG13	21:C9:66:TYR:CZ	2.56	0.47
36:1:3187:A:H5''	50:M4:8:LYS:HD2	1.96	0.47
36:5:3155:U:OP1	87:5:4233:OHX:N4	2.48	0.47
1:6:976:G:O6	87:6:2077:OHX:N6	2.48	0.47
43:L6:144:ALA:O	43:L6:147:ALA:HB3	2.22	0.47
25:D3:108:GLY:HA2	1:6:600:U:OP2	358.44	0.47
36:1:2166:A:H2'	36:1:2167:A:C8	2.49	0.47
36:5:409:A:H2	36:5:1441:G:N3	2.13	0.47
64:N8:2:PRO:HG2	64:N8:5:PHE:CD2	2.49	0.47
64:N8:116:GLY:HA2	64:N8:137:LYS:HZ3	1.80	0.47
52:M6:159:LYS:NZ	36:5:3243:A:OP1	267.96	0.47
36:1:1256:G:O6	36:1:1261:G:N2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:1:3979:OHX:N1	87:1:4160:OHX:N4	2.63	0.47
36:1:29:C:H4'	36:1:62:A:H4'	1.95	0.47
48:M1:85:LYS:O	48:M1:88:GLU:N	2.45	0.47
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.14	0.47
1:6:867:G:O6	87:6:2055:OHX:N1	2.47	0.47
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.50	0.47
28:D6:82:ARG:O	28:D6:84:VAL:HG12	2.15	0.47
7:S5:69:PHE:CD2	18:C6:50:GLU:HG3	2.49	0.47
1:6:822:U:C2'	1:6:823:G:H5''	2.39	0.47
63:N7:4:PHE:O	63:N7:5:LEU:HB2	4.56	0.47
39:L2:213:GLY:HA3	36:5:2967:A:H5''	205.21	0.47
63:N7:65:ARG:HG3	63:N7:65:ARG:NH1	2.92	0.47
1:2:5:U:H2'	1:2:6:G:H8	1.79	0.47
3:S1:92:GLN:HG2	3:S1:97:LEU:HD21	6.28	0.47
56:N0:13:ARG:HH11	56:N0:13:ARG:HG3	4.20	0.47
36:1:694:C:OP2	41:L4:118:LYS:HE2	2.15	0.47
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.27	0.47
71:O5:13:SER:O	71:O5:15:GLU:N	2.98	0.47
28:D6:11:ASN:HB3	1:6:934:C:H6	332.25	0.47
36:1:3316:A:O2'	36:1:3317:U:OP2	2.27	0.47
30:D8:27:GLN:HG2	30:D8:43:ASN:OD1	2.15	0.47
19:C7:103:ASP:H	19:C7:106:THR:HB	1.79	0.47
1:2:887:A:H61	1:2:925:G:H1	1.61	0.47
1:6:988:A:C6	1:6:989:U:C2	3.03	0.47
1:6:1766:A:H5''	87:6:2124:OHX:N3	2.29	0.47
17:C5:87:PRO:O	17:C5:90:ILE:HG13	2.14	0.47
3:S1:103:MET:O	3:S1:214:LYS:HA	3.09	0.47
44:L7:140:SER:OG	44:L7:143:THR:HG23	2.15	0.47
64:N8:83:PRO:HG2	64:N8:86:LYS:HD2	5.45	0.47
14:C2:72:ILE:O	14:C2:76:GLU:HB2	2.26	0.47
70:O4:103:LYS:HA	70:O4:103:LYS:HD3	1.62	0.47
36:5:3163:A:C6	36:5:3288:G:O6	2.67	0.47
42:L5:36:LEU:HB3	42:L5:50:ARG:HD2	1.95	0.47
48:M1:32:ARG:NH1	48:M1:120:ILE:O	2.47	0.47
1:6:567:A:C2	1:6:583:C:H1'	2.49	0.47
36:5:1561:G:O6	36:5:1578:C:N4	2.47	0.47
43:L6:170:LYS:O	43:L6:173:MET:N	2.92	0.47
39:L2:54:ARG:HG2	39:L2:55:GLY:O	4.81	0.47
36:5:256:G:H2'	36:5:257:U:C6	2.50	0.47
87:1:4023:OHX:N4	87:1:4061:OHX:N2	2.63	0.47
87:1:3963:OHX:N1	87:1:4144:OHX:N3	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.95	0.47
1:2:341:A:H4'	10:S8:87:ASN:ND2	2.29	0.47
36:1:3392:U:H2'	36:1:3393:U:H6	1.79	0.47
36:5:1611:G:H2'	36:5:1612:A:C8	2.49	0.47
39:L2:143:GLU:O	39:L2:145:LYS:HG2	3.66	0.47
46:L9:115:ARG:NH2	46:L9:123:ILE:HD13	2.29	0.47
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.75	0.47
1:2:1351:G:C2	1:2:1375:A:C2	3.02	0.47
57:N1:53:PRO:HB3	57:N1:91:LEU:HD22	2.81	0.47
36:1:3218:A:H4'	36:1:3219:G:O5'	2.14	0.47
87:1:3916:OHX:N6	51:M5:32:GLN:O	2.48	0.47
36:1:926:A:H2'	36:1:927:C:C6	2.50	0.47
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.49	0.47
36:5:1887:A:OP2	87:5:3935:OHX:N5	2.48	0.47
36:1:2407:C:H2'	36:1:2408:U:C6	2.48	0.47
6:S4:45:ILE:HG13	6:S4:61:VAL:HG21	4.00	0.47
34:SR:102:ARG:NH2	1:6:1341:A:HO2'	458.04	0.47
36:5:495:G:H2'	36:5:496:C:O4'	2.15	0.47
26:D4:37:LYS:HE3	1:6:523:G:OP2	414.14	0.47
7:S5:41:LYS:HG2	7:S5:69:PHE:CZ	4.72	0.47
1:2:1550:A:P	17:C5:42:ARG:HH22	2.34	0.47
1:6:565:C:C2	87:6:2157:OHX:N4	2.83	0.47
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.57	0.47
36:1:121:A:C2	45:L8:129:PRO:HB3	2.49	0.47
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.42	0.47
13:C1:94:ILE:HD12	25:D3:16:ARG:HD3	3.40	0.47
63:N7:2:ALA:HA	66:O0:63:SER:O	5.62	0.47
1:6:27:U:OP1	87:6:2105:OHX:N3	2.48	0.47
36:1:1577:G:H2'	36:1:1578:C:C1'	2.44	0.47
20:C8:13:HIS:HD2	20:C8:13:HIS:H	3.06	0.47
1:6:1684:U:H2'	1:6:1685:G:C8	2.50	0.47
30:D8:9:LEU:HD23	30:D8:55:VAL:HG22	3.54	0.47
3:S1:61:LEU:O	3:S1:63:GLY:N	2.47	0.47
20:C8:120:ARG:HD2	35:SM:61:ILE:CD1	2.44	0.47
1:6:1347:U:O2	1:6:1516:A:H5'	2.15	0.47
24:D2:5:SER:HB2	1:6:1101:G:O2'	353.74	0.47
36:5:1015:U:O2'	36:5:1016:C:H3'	2.15	0.47
47:M0:74:LYS:HB2	47:M0:74:LYS:HE3	1.73	0.47
1:6:884:A:H2'	1:6:885:G:C8	2.49	0.47
1:2:1125:A:OP1	77:Q1:18:ARG:NH1	2.47	0.47
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:86:THR:HB	16:C4:91:THR:HG22	2.67	0.47
73:O7:55:ARG:HD3	36:5:353:G:N7	107.95	0.47
8:S6:179:VAL:HG21	1:6:140:A:H1'	328.10	0.47
36:1:2767:U:H2'	36:1:2768:U:C6	2.50	0.47
36:1:1719:G:H5''	55:M9:110:ARG:HH22	1.78	0.47
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.57	0.47
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	3.04	0.47
59:N3:87:ARG:NH2	59:N3:137:VAL:HG21	2.30	0.47
1:6:1557:U:O2'	1:6:1558:U:H2'	2.14	0.47
36:5:3289:G:H4'	36:5:3290:G:OP1	2.15	0.47
63:N7:46:ILE:HG12	63:N7:49:TYR:CD1	2.80	0.47
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	1.96	0.47
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	1.97	0.47
1:2:417:A:H4'	1:2:418:G:O5'	2.15	0.47
7:S5:93:LEU:HD23	7:S5:172:ILE:HG12	1.97	0.47
36:1:3095:U:H2'	36:1:3096:C:C6	2.50	0.47
43:L6:171:PRO:C	43:L6:173:MET:H	2.17	0.47
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	1.99	0.47
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.15	0.47
64:N8:115:LYS:HG3	36:5:715:A:H8	148.71	0.47
36:1:199:A:C4	36:1:201:A:C8	3.03	0.47
62:N6:59:VAL:HG22	62:N6:103:LYS:O	5.89	0.47
38:4:124:G:H3'	38:4:125:U:C5'	2.43	0.47
36:5:1409:G:N7	87:5:4169:OHX:N6	2.63	0.47
1:2:505:A:N3	1:2:505:A:H2'	2.30	0.47
1:2:577:G:O6	35:SM:100:THR:HG22	2.15	0.47
40:L3:125:SER:OG	40:L3:127:LYS:HD2	5.29	0.47
1:2:1629:G:H2'	1:2:1630:U:C6	2.50	0.47
61:N5:80:ASN:ND2	61:N5:126:LEU:HB2	2.30	0.47
11:S9:49:LEU:HD23	11:S9:104:PHE:CE2	2.50	0.47
45:L8:241:LYS:HB2	36:5:2586:G:C5	184.59	0.47
36:1:1734:G:N7	87:1:3919:OHX:N5	2.63	0.47
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.47	0.47
73:O7:31:LYS:O	73:O7:33:THR:HG22	2.17	0.47
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	2.50	0.47
22:D0:67:THR:HG21	31:D9:40:ARG:HB2	1.96	0.47
6:S4:187:ARG:NH2	1:6:753:A:H62	375.50	0.47
47:M0:72:ALA:O	47:M0:76:MET:HG3	4.81	0.47
1:2:154:G:H5'	8:S6:108:VAL:HG21	1.96	0.47
4:S2:161:LYS:HE2	4:S2:164:SER:H	6.85	0.47
9:S7:109:VAL:HG22	9:S7:110:GLN:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:899:U:O4	87:1:3941:OHX:N1	2.48	0.47
36:1:1480:G:H4'	36:1:1481:A:OP1	2.15	0.47
36:1:653:A:C2	36:1:1443:G:C4	3.03	0.47
74:O8:39:ARG:HH12	74:O8:63:LYS:HE2	9.88	0.47
52:M6:156:LEU:HB3	36:5:3243:A:C5	267.80	0.47
41:L4:210:ALA:HB3	41:L4:253:ALA:HB1	2.37	0.47
69:O3:88:ASN:HB2	36:5:429:U:H4'	215.91	0.47
65:N9:38:LYS:HE3	36:5:1076:C:O3'	216.91	0.47
1:6:276:C:H1'	1:6:277:U:C5	2.50	0.47
26:D4:84:LYS:HG3	26:D4:85:PHE:N	2.29	0.47
36:1:2567:C:C2'	36:1:2568:C:H5'	2.44	0.47
48:M1:82:ARG:HG2	48:M1:112:LEU:HB2	1.97	0.47
54:M8:19:PRO:HD3	54:M8:53:PHE:HD1	1.79	0.47
36:5:1365:G:OP2	87:5:4035:OHX:N3	2.47	0.47
1:2:1194:A:OP2	22:D0:75:GLY:N	2.48	0.47
36:5:2846:U:O2'	87:5:4058:OHX:N1	2.47	0.47
52:M6:8:VAL:HG13	52:M6:34:VAL:HG22	1.96	0.47
36:1:1304:A:OP1	87:1:4213:OHX:N5	2.48	0.47
36:1:790:U:H4'	41:L4:112:LYS:O	2.15	0.47
1:6:733:A:H2'	1:6:734:A:O4'	2.15	0.47
36:5:2505:U:H2'	36:5:2506:U:C5	2.49	0.47
26:D4:49:LYS:HD3	26:D4:49:LYS:N	3.21	0.47
42:L5:208:MET:HG3	42:L5:223:PHE:CZ	2.49	0.47
36:5:2801:A:O2'	36:5:2802:A:H2'	2.14	0.47
36:1:524:U:OP1	50:M4:77:ARG:NH2	2.48	0.47
10:S8:26:LYS:O	10:S8:28:GLU:N	2.92	0.47
36:5:618:C:H2'	36:5:619:A:N7	2.30	0.47
41:L4:217:LYS:HD2	36:5:210:U:O2	69.15	0.47
8:S6:64:LYS:NZ	8:S6:81:VAL:HG13	3.83	0.47
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.50	0.47
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	1.96	0.47
5:S3:7:LYS:HE3	22:D0:27:THR:HG21	3.74	0.47
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.15	0.47
49:M3:151:ALA:O	49:M3:153:ASP:N	3.65	0.47
57:N1:121:ALA:O	57:N1:122:GLN:HG3	4.89	0.47
8:S6:157:VAL:HG22	8:S6:173:PRO:HD2	1.96	0.47
18:C6:127:LYS:HE2	18:C6:132:LYS:O	4.68	0.47
42:L5:163:LEU:HD11	42:L5:175:HIS:CG	2.50	0.47
2:S0:188:LEU:HD12	2:S0:189:VAL:HB	1.96	0.47
36:5:1239:C:H42	36:5:1249:G:H1	1.62	0.47
2:S0:14:ALA:HA	2:S0:17:LEU:HD12	2.16	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1240:A:H61	36:1:1244:A:C5'	2.28	0.47
1:6:1542:G:N2	1:6:1568:C:H1'	2.30	0.47
36:5:944:C:O2'	36:5:945:C:H5'	2.14	0.47
87:5:4005:OHX:N6	87:5:4200:OHX:N3	2.62	0.47
59:N3:85:TRP:O	59:N3:92:PHE:HA	2.28	0.47
59:N3:24:ASN:ND2	59:N3:97:ASP:OD1	2.44	0.47
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.26	0.47
36:1:2842:U:OP1	36:1:2844:C:N4	2.48	0.47
55:M9:4:LEU:HD22	55:M9:7:GLN:HG3	4.71	0.47
36:5:1491:A:HO2'	36:5:1843:C:HO2'	1.58	0.47
14:C2:74:LEU:HD11	33:E1:106:TYR:HB3	3.12	0.47
57:N1:9:SER:OG	57:N1:10:ARG:HG3	2.94	0.47
55:M9:41:ILE:HA	55:M9:41:ILE:HD13	3.57	0.47
1:6:906:A:H2'	1:6:907:A:C8	2.50	0.47
36:1:1340:G:H2'	36:1:1341:U:H6	1.80	0.47
36:5:2786:G:O6	87:5:4156:OHX:N4	2.48	0.47
1:6:1375:A:H2'	1:6:1376:C:O4'	2.14	0.47
36:1:261:U:H2'	36:1:262:U:C6	2.49	0.47
1:2:265:A:C2	1:2:267:U:C4	3.02	0.47
33:E1:151:ASN:ND2	33:E1:151:ASN:O	2.48	0.47
1:6:514:G:O2'	1:6:515:A:H5''	2.14	0.47
36:5:1565:G:N2	36:5:1566:A:H1'	2.30	0.47
15:C3:114:ARG:HA	15:C3:114:ARG:HD3	1.65	0.47
67:O1:88:PRO:O	67:O1:89:LEU:HD12	2.90	0.47
53:M7:23:ARG:HH21	53:M7:125:GLN:CB	2.24	0.47
1:6:470:A:C8	1:6:470:A:H5''	2.46	0.47
1:2:1608:U:OP1	18:C6:15:SER:OG	2.30	0.47
22:D0:50:LEU:HA	22:D0:50:LEU:HD12	1.78	0.47
44:L7:159:GLN:O	44:L7:160:ARG:CB	2.61	0.47
44:L7:154:GLY:N	44:L7:161:VAL:O	2.63	0.47
53:M7:10:ASN:ND2	53:M7:13:LYS:HG3	2.30	0.47
36:5:2947:G:N2	36:5:2948:C:C2	2.83	0.47
36:1:2899:C:C5	46:L9:171:ASP:HA	2.50	0.47
63:N7:133:LYS:HD3	63:N7:135:ARG:HD3	6.84	0.47
57:N1:39:ILE:HD12	57:N1:102:ARG:HD2	1.97	0.47
36:5:955:U:H2'	36:5:956:U:H6	1.76	0.47
3:S1:149:GLN:HE22	3:S1:154:SER:HB2	1.79	0.47
36:1:2841:G:OP2	87:1:4147:OHX:N2	2.48	0.47
2:S0:110:TYR:HA	2:S0:115:PHE:CD2	2.87	0.47
10:S8:136:SER:HB2	10:S8:139:ALA:HB3	3.15	0.47
1:6:478:A:C2	1:6:511:A:C2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.80	0.47
2:S0:34:GLU:N	2:S0:35:PRO:HD2	3.61	0.47
21:C9:118:PRO:C	21:C9:120:GLY:H	2.31	0.47
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	2.38	0.47
8:S6:30:LYS:NZ	8:S6:34:GLN:OE1	2.48	0.47
21:C9:135:ILE:H	21:C9:135:ILE:HG13	1.53	0.47
74:O8:17:ARG:HG2	74:O8:19:ASP:OD2	2.30	0.47
34:SR:40:LYS:HG2	34:SR:66:HIS:O	2.14	0.47
25:D3:59:ILE:CD1	32:E0:4:VAL:HG13	2.45	0.47
57:N1:43:LYS:HD2	36:5:992:A:H5''	256.85	0.47
1:6:1614:A:C6	1:6:1615:C:N4	2.82	0.47
54:M8:43:PRO:HB3	36:5:728:G:H5''	192.17	0.47
39:L2:226:SER:N	36:5:2202:C:H5''	209.10	0.47
16:C4:131:GLY:O	16:C4:133:ARG:N	3.21	0.47
40:L3:291:GLU:OE1	40:L3:302:LYS:NZ	4.30	0.47
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.50	0.47
1:2:328:A:H2'	1:2:329:G:O4'	2.14	0.47
67:O1:36:ILE:HD13	67:O1:59:ILE:HD11	2.35	0.47
64:N8:62:HIS:O	64:N8:62:HIS:CG	2.81	0.47
36:5:3351:U:O2	36:5:3351:U:H3'	2.13	0.47
1:6:482:U:H3	1:6:505:A:H61	1.62	0.47
36:5:3189:G:H2'	36:5:3190:C:O4'	2.14	0.47
1:2:1182:U:O2	1:2:1184:A:H8	1.98	0.47
1:2:552:G:C6	1:2:553:G:C6	3.03	0.47
1:2:1379:C:H1'	18:C6:19:VAL:HG21	1.96	0.47
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.48	0.47
10:S8:8:ARG:HD3	10:S8:21:PHE:CD1	2.50	0.47
1:2:542:A:C8	1:2:543:C:H5'	2.40	0.47
25:D3:56:LYS:HG2	25:D3:93:LEU:HD11	1.97	0.47
2:S0:180:GLU:O	2:S0:184:LEU:HD23	2.15	0.47
1:6:823:G:C5	1:6:850:A:C2	3.03	0.47
4:S2:111:VAL:CG1	4:S2:191:ALA:HB2	2.45	0.47
47:M0:168:SER:OG	47:M0:170:LYS:HB2	2.43	0.47
73:O7:14:LYS:HE2	75:O9:51:ILE:HD11	3.22	0.47
36:5:2507:C:O2'	36:5:2508:U:OP1	2.27	0.47
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	1.96	0.47
5:S3:142:LEU:HD21	5:S3:148:LYS:O	7.86	0.47
36:5:2898:G:OP2	36:5:2899:C:H5'	2.15	0.47
24:D2:74:VAL:HA	24:D2:127:GLY:HA2	1.97	0.47
26:D4:2:SER:N	26:D4:32:ARG:HG3	2.30	0.47
3:S1:113:MET:HE3	3:S1:142:PHE:CE2	5.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:82:ILE:HD12	64:N8:82:ILE:HA	4.21	0.47
46:L9:77:ASN:HB3	46:L9:151:VAL:HG21	1.97	0.47
45:L8:149:LYS:HD2	45:L8:201:THR:O	4.84	0.47
21:C9:11:ALA:HB2	21:C9:63:ARG:HH21	1.80	0.47
30:D8:58:GLU:HB3	30:D8:61:ARG:HG3	8.22	0.47
7:S5:222:LYS:HA	7:S5:225:ARG:HD2	3.58	0.47
53:M7:41:LEU:HD23	53:M7:95:LEU:HD22	1.97	0.47
35:SM:131:ILE:O	35:SM:134:ASP:N	3.51	0.47
63:N7:33:SER:OG	63:N7:35:SER:O	3.21	0.47
1:6:1541:G:C6	1:6:1542:G:N1	2.83	0.47
9:S7:27:LEU:O	9:S7:30:SER:HB2	2.80	0.47
36:1:1114:U:H5''	64:N8:22:ILE:HD12	1.97	0.47
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.14	0.47
45:L8:134:TYR:CE2	45:L8:190:VAL:HG11	4.84	0.47
54:M8:179:ARG:HA	54:M8:185:LYS:HG2	2.98	0.47
36:1:1034:U:H2'	36:1:1035:G:O4'	2.15	0.47
36:5:522:A:OP1	87:5:3944:OHX:N1	2.48	0.47
36:1:3113:A:OP1	46:L9:73:SER:OG	2.30	0.47
1:2:1287:A:N6	1:2:1329:A:H5'	2.30	0.47
36:5:2775:U:H2'	36:5:2776:C:C6	2.50	0.47
36:1:553:U:H2'	36:1:554:A:O4'	2.15	0.47
1:2:18:C:C4	1:2:19:A:N7	2.83	0.47
36:5:787:G:H2'	36:5:788:C:C6	2.50	0.47
1:6:1120:U:H2'	1:6:1121:C:C6	2.49	0.47
36:5:1506:A:H1'	36:5:1848:G:O6	2.15	0.47
7:S5:72:HIS:ND1	18:C6:79:TYR:OH	2.80	0.46
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.82	0.46
77:Q1:10:THR:O	77:Q1:14:LYS:HG3	2.14	0.46
49:M3:73:ARG:HD2	36:5:76:G:H3'	83.22	0.46
1:2:1551:U:H3'	17:C5:43:ARG:NH2	2.30	0.46
47:M0:77:THR:HG23	47:M0:85:PHE:HZ	2.55	0.46
41:L4:146:PRO:O	87:L4:402:OHX:N5	2.47	0.46
78:Q2:104:LEU:HD12	78:Q2:104:LEU:HA	1.73	0.46
1:2:1524:A:H2'	1:2:1525:A:C8	2.50	0.46
36:5:1554:U:H4'	36:5:1555:U:OP1	2.14	0.46
1:6:219:A:O2'	1:6:220:A:O5'	2.28	0.46
40:L3:188:ILE:O	40:L3:192:VAL:HG12	2.14	0.46
1:2:960:U:H2'	1:2:961:U:H6	1.79	0.46
24:D2:30:SER:OG	24:D2:31:SER:N	2.64	0.46
34:SR:123:ILE:HG21	34:SR:169:ILE:HG21	1.96	0.46
48:M1:10:ARG:HB3	48:M1:152:HIS:CE1	3.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:33:ASN:ND2	36:5:2549:G:N3	215.77	0.46
1:2:1280:C:H2'	1:2:1281:G:H8	1.79	0.46
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	2.81	0.46
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.50	0.46
2:S0:168:HIS:N	2:S0:168:HIS:CD2	2.82	0.46
8:S6:164:LYS:HB3	8:S6:167:LYS:O	2.39	0.46
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.65	0.46
87:1:3893:OHX:N3	57:N1:18:ASP:OD2	2.48	0.46
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.81	0.46
36:1:209:A:N3	41:L4:221:ASN:ND2	2.61	0.46
1:2:992:A:C2	1:2:1012:U:N3	2.75	0.46
73:O7:72:ARG:HB3	73:O7:72:ARG:HE	2.75	0.46
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.14	0.46
34:SR:26:SER:OG	34:SR:75:ALA:O	2.31	0.46
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.46	0.46
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.89	0.46
1:2:862:A:N7	15:C3:64:ARG:NH2	2.61	0.46
36:5:959:C:N4	36:5:2801:A:C8	2.83	0.46
36:5:423:A:H2'	36:5:424:G:O4'	2.14	0.46
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.29	0.46
65:N9:22:LYS:HA	36:5:983:A:OP1	216.15	0.46
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.46	0.46
61:N5:63:ILE:HD11	61:N5:84:PHE:CD1	2.49	0.46
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	1.97	0.46
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.67	0.46
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.15	0.46
1:6:1091:A:H4'	1:6:1092:A:O5'	2.15	0.46
1:2:607:G:H5'	1:2:613:G:N2	2.30	0.46
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	2.05	0.46
1:2:12:U:H2'	1:2:13:C:C6	2.50	0.46
36:1:2249:G:H3'	36:1:2249:G:C8	2.50	0.46
1:2:176:C:OP1	87:2:2073:OHX:N3	2.47	0.46
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.47	0.46
1:2:738:G:O6	87:2:2097:OHX:N1	2.48	0.46
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.68	0.46
87:5:3983:OHX:N4	87:5:4206:OHX:N1	2.63	0.46
1:6:538:A:H2	1:6:540:G:N2	2.13	0.46
61:N5:115:ARG:HD3	61:N5:121:LYS:HE2	3.21	0.46
58:N2:43:VAL:HB	58:N2:49:ASN:HB3	1.97	0.46
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.30	0.46
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	6.10	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:62:LEU:HD22	14:C2:75:VAL:HG11	1.97	0.46
87:5:4029:OHX:N4	87:5:4224:OHX:N3	2.63	0.46
87:5:4006:OHX:N6	87:5:4096:OHX:N5	2.63	0.46
72:O6:56:ARG:O	72:O6:60:LEU:HD22	4.78	0.46
1:2:1370:U:H1'	1:2:1371:A:OP2	2.15	0.46
54:M8:80:THR:HG22	54:M8:100:THR:HB	1.97	0.46
37:3:20:A:C4	37:3:60:G:N2	2.84	0.46
51:M5:44:ARG:HH22	36:5:269:G:P	125.75	0.46
36:1:1807:G:C6	36:1:1808:G:N1	2.83	0.46
6:S4:11:ARG:NH1	6:S4:20:LEU:HB3	2.71	0.46
20:C8:25:ASN:O	27:D5:40:VAL:HG21	3.43	0.46
36:1:981:U:HO2'	36:1:982:C:P	2.39	0.46
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.36	0.46
44:L7:173:LEU:HB3	44:L7:178:ILE:HB	2.38	0.46
16:C4:47:LYS:HE2	16:C4:62:LEU:O	4.97	0.46
87:5:4061:OHX:N3	87:5:4207:OHX:N4	2.63	0.46
1:6:909:U:H2'	1:6:910:C:H6	1.79	0.46
45:L8:136:LEU:HD13	51:M5:3:ALA:CB	2.50	0.46
38:4:10:A:H2'	38:4:11:C:C6	2.50	0.46
36:1:3088:G:H2'	36:1:3089:C:O4'	2.16	0.46
53:M7:3:ARG:HD2	36:5:398:A:H5'	124.07	0.46
1:2:1718:G:H2'	1:2:1719:A:O4'	2.14	0.46
1:2:979:A:N3	1:2:1775:U:O2'	2.47	0.46
22:D0:25:THR:HB	22:D0:115:GLU:HG2	5.28	0.46
1:6:1752:U:OP2	87:6:2058:OHX:N5	2.48	0.46
8:S6:171:LYS:HZ1	1:6:68:A:P	349.04	0.46
34:SR:283:LYS:HG3	34:SR:284:ALA:N	4.82	0.46
1:2:138:A:N6	1:2:266:A:H61	2.13	0.46
1:2:396:G:O6	10:S8:26:LYS:HE2	2.16	0.46
1:2:542:A:H3'	1:2:543:C:H5'	1.97	0.46
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.16	0.46
1:2:320:U:H2'	1:2:321:C:C6	2.50	0.46
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.16	0.46
42:L5:22:ARG:NH1	42:L5:28:THR:OG1	4.35	0.46
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.97	0.46
39:L2:114:SER:HB2	39:L2:169:ILE:CD1	2.38	0.46
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	2.65	0.46
34:SR:177:MET:N	34:SR:199:ILE:HD11	2.30	0.46
49:M3:101:ARG:HB2	36:5:76:G:N7	85.02	0.46
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.37	0.46
53:M7:58:ILE:HG13	53:M7:84:PRO:HD2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:141:GLY:HA2	7:S5:142:PRO:HD3	1.82	0.46
7:S5:164:PRO:O	7:S5:168:VAL:HG23	2.15	0.46
5:S3:144:ALA:HB2	1:6:579:A:N1	391.67	0.46
1:6:653:C:N3	1:6:677:G:N1	2.46	0.46
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.86	0.46
87:5:4072:OHX:N1	87:5:4150:OHX:N4	2.63	0.46
49:M3:126:PHE:CD1	49:M3:133:PRO:HG2	2.50	0.46
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.16	0.46
28:D6:30:ILE:CD1	28:D6:35:ALA:HA	2.44	0.46
40:L3:188:ILE:HD12	40:L3:189:SER:N	2.28	0.46
38:8:141:C:H2'	38:8:142:C:C6	2.50	0.46
14:C2:62:LEU:HB2	14:C2:63:VAL:H	2.03	0.46
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.48	0.46
36:1:2278:C:P	77:Q1:23:ARG:HH12	2.38	0.46
36:1:595:G:C8	36:1:609:G:C6	3.03	0.46
49:M3:16:LYS:O	36:5:48:A:OP2	134.87	0.46
36:1:979:U:H1'	36:1:980:A:N9	2.31	0.46
38:8:70:G:O6	87:8:221:OHX:N1	2.48	0.46
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.48	0.46
55:M9:139:VAL:C	55:M9:141:HIS:N	3.38	0.46
25:D3:90:ASP:OD2	1:6:567:A:O2'	374.15	0.46
36:1:2544:U:H2'	36:1:2545:C:C6	2.50	0.46
16:C4:107:ARG:NH1	28:D6:52:ASP:OD2	4.70	0.46
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	2.12	0.46
2:S0:69:ASN:O	2:S0:71:GLU:N	2.49	0.46
2:S0:76:ILE:HG23	2:S0:98:ILE:HB	2.54	0.46
1:6:532:U:H2'	1:6:533:U:O4'	2.14	0.46
62:N6:34:PRO:HD2	62:N6:104:LEU:O	2.16	0.46
1:2:1157:A:C8	1:2:1157:A:H3'	2.50	0.46
23:D1:17:CYS:HA	23:D1:24:ILE:HD11	1.97	0.46
55:M9:138:LEU:O	55:M9:138:LEU:HD22	2.27	0.46
21:C9:14:PHE:HZ	21:C9:132:LEU:HG	1.80	0.46
34:SR:31:ASN:HA	34:SR:47:LEU:HB2	2.10	0.46
36:1:1486:G:N7	87:1:4160:OHX:N2	2.63	0.46
36:1:2977:G:OP1	87:1:4123:OHX:N5	2.48	0.46
36:5:985:U:H2'	36:5:986:U:H6	1.81	0.46
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.97	0.46
52:M6:7:VAL:HG23	52:M6:31:GLN:OE1	3.60	0.46
36:1:1383:G:O6	87:1:3884:OHX:N3	2.48	0.46
9:S7:158:ASP:O	9:S7:161:GLN:HG3	2.15	0.46
1:2:240:U:H1'	1:2:241:U:P	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:722:G:O6	87:1:4019:OHX:N6	2.48	0.46
1:6:793:A:OP2	1:6:793:A:H8	1.97	0.46
8:S6:25:ARG:CB	8:S6:25:ARG:HH11	2.27	0.46
36:5:188:U:O2'	36:5:207:U:O2	2.24	0.46
36:1:812:G:N7	87:1:3987:OHX:N1	2.64	0.46
36:1:1506:A:H1'	36:1:1848:G:O6	2.16	0.46
78:Q2:78:LYS:HG2	78:Q2:79:THR:N	2.59	0.46
4:S2:59:HIS:CD2	4:S2:238:SER:HA	2.51	0.46
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.16	0.46
7:S5:71:ALA:O	7:S5:91:GLU:HG3	2.16	0.46
39:L2:204:MET:HG2	36:5:914:A:N3	196.37	0.46
17:C5:15:HIS:CG	17:C5:16:SER:N	2.83	0.46
36:5:284:A:H4'	36:5:285:A:N3	2.31	0.46
3:S1:180:THR:HG23	3:S1:183:GLN:OE1	9.67	0.46
1:6:1716:C:HO2'	1:6:1717:G:C5'	2.27	0.46
1:6:721:U:O2'	1:6:722:G:O4'	2.33	0.46
1:6:1347:U:C2	1:6:1517:U:C5	3.04	0.46
36:5:1807:G:C6	36:5:1808:G:N1	2.83	0.46
26:D4:29:HIS:N	26:D4:29:HIS:CD2	3.63	0.46
1:2:1720:G:O5'	1:2:1720:G:H8	1.98	0.46
14:C2:41:LEU:O	14:C2:43:ARG:HD2	2.16	0.46
14:C2:43:ARG:HG3	1:6:1227:A:C2	463.43	0.46
17:C5:33:PHE:CD2	17:C5:87:PRO:HD2	2.50	0.46
49:M3:129:ASN:CG	49:M3:130:GLY:H	4.72	0.46
49:M3:9:ILE:HD13	64:N8:52:TYR:CE1	2.49	0.46
21:C9:34:VAL:O	21:C9:35:ASP:HB3	2.14	0.46
36:5:3163:A:O2'	36:5:3164:C:H5'	2.15	0.46
9:S7:46:ILE:HG12	9:S7:60:ILE:HG23	1.96	0.46
51:M5:67:ARG:O	51:M5:68:ARG:HB3	4.74	0.46
87:5:4005:OHX:N4	87:5:4200:OHX:N1	2.64	0.46
18:C6:14:LYS:HE2	1:6:1584:G:N7	396.32	0.46
18:C6:14:LYS:O	18:C6:123:ARG:NH1	2.48	0.46
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.16	0.46
40:L3:261:MET:O	40:L3:264:VAL:HG13	2.15	0.46
59:N3:66:LYS:O	59:N3:70:ARG:HG3	2.34	0.46
36:5:2225:U:H2'	36:5:2226:U:H6	1.81	0.46
10:S8:84:HIS:CE1	10:S8:90:LEU:HD13	3.17	0.46
36:5:1887:A:OP1	87:5:4121:OHX:N6	2.49	0.46
1:6:793:A:OP2	1:6:793:A:C8	2.69	0.46
1:6:1783:C:H2'	1:6:1784:C:C6	2.50	0.46
36:1:2257:C:H2'	36:1:2258:U:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:50:VAL:HG22	47:M0:167:LEU:HA	1.98	0.46
36:5:1919:G:N7	87:5:4078:OHX:N4	2.64	0.46
38:4:45:C:H2'	38:4:46:G:O4'	2.16	0.46
1:2:1223:A:H2	1:2:1260:U:H3	1.62	0.46
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.02	0.46
36:5:1752:A:OP2	87:5:4086:OHX:N6	2.48	0.46
36:1:1237:G:H2'	36:1:1237:G:N3	2.31	0.46
36:1:801:A:O2'	87:1:3984:OHX:N2	2.48	0.46
1:2:459:G:OP1	26:D4:109:LYS:NZ	2.42	0.46
1:2:36:C:H2'	1:2:37:U:O4'	2.15	0.46
5:S3:135:GLU:OE2	5:S3:187:LYS:HD3	2.15	0.46
50:M4:45:LEU:HD12	50:M4:56:GLN:O	2.14	0.46
11:S9:149:ARG:CG	11:S9:149:ARG:HH11	4.08	0.46
38:4:67:U:H5''	73:O7:84:SER:O	2.16	0.46
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.15	0.46
36:1:2943:G:H2'	36:1:2944:U:O4'	2.16	0.46
41:L4:140:HIS:CG	41:L4:247:PHE:HB2	3.06	0.46
47:M0:49:CYS:HB3	47:M0:168:SER:HB3	2.28	0.46
1:6:1699:G:H2'	1:6:1700:C:H5'	1.97	0.46
77:Q1:9:ARG:NH1	77:Q1:9:ARG:HG3	3.09	0.46
8:S6:63:MET:HB2	8:S6:63:MET:HE3	1.65	0.46
66:O0:100:ILE:HG13	66:O0:101:LEU:H	3.59	0.46
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.54	0.46
11:S9:64:GLU:HG3	11:S9:69:ARG:CZ	4.07	0.46
44:L7:222:HIS:ND1	44:L7:224:ILE:HG13	2.30	0.46
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.31	0.46
35:SM:84:LYS:HG2	35:SM:86:ASN:H	1.80	0.46
14:C2:32:LEU:HD22	14:C2:41:LEU:HD21	2.77	0.46
77:Q1:16:LYS:NZ	1:6:1750:A:OP1	288.20	0.46
52:M6:16:VAL:HG21	52:M6:43:ILE:HG12	2.37	0.46
68:O2:33:ARG:HD3	36:5:944:C:OP1	163.69	0.46
20:C8:70:VAL:O	20:C8:74:GLN:HG2	2.94	0.46
36:1:1833:G:OP1	75:O9:10:LYS:NZ	2.29	0.46
61:N5:132:ALA:O	61:N5:135:ILE:HG22	2.15	0.46
36:1:1541:G:OP2	87:1:4023:OHX:N5	2.48	0.46
15:C3:87:ASP:OD2	15:C3:88:LEU:N	2.48	0.46
71:O5:31:LEU:O	71:O5:35:LYS:N	2.74	0.46
6:S4:55:ALA:HB2	6:S4:64:ILE:HD12	1.97	0.46
87:1:4059:OHX:N6	87:1:4168:OHX:N5	2.63	0.46
37:3:65:G:O3'	47:M0:204:GLY:HA2	2.16	0.46
72:O6:58:ILE:O	72:O6:61:ILE:HB	2.52	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:6:U:H2'	38:8:7:U:C6	2.51	0.46
78:Q2:19:LYS:HA	36:5:2741:C:H4'	208.88	0.46
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.16	0.46
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.50	0.46
42:L5:69:ILE:HG22	57:N1:31:LEU:HB2	1.97	0.46
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.47	0.46
19:C7:115:LEU:HB3	19:C7:116:LYS:H	1.37	0.46
19:C7:71:PHE:HD1	19:C7:73:LEU:HB3	1.80	0.46
46:L9:150:SER:HB3	46:L9:153:ASP:HB2	2.92	0.46
70:O4:10:ARG:NH1	36:5:1489:A:OP1	130.24	0.46
59:N3:128:ARG:HB3	59:N3:128:ARG:NH2	6.55	0.46
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.43	0.46
5:S3:79:TYR:CD1	5:S3:84:ILE:HG12	2.51	0.46
36:5:223:U:O4	87:5:4251:OHX:N4	2.48	0.46
36:1:2400:G:H5''	36:1:2401:A:OP2	2.14	0.46
42:L5:270:LYS:HG2	42:L5:273:ARG:HD2	1.98	0.46
36:1:2206:G:H2'	36:1:2206:G:N3	2.30	0.46
47:M0:36:LEU:HD21	47:M0:69:ARG:CD	2.44	0.46
39:L2:169:ILE:HG22	39:L2:170:ALA:O	2.60	0.46
2:S0:185:ARG:HB3	2:S0:186:GLY:H	3.55	0.46
1:6:564:G:O2'	1:6:577:G:H4'	2.16	0.46
75:O9:5:LYS:HD3	75:O9:13:MET:CE	3.31	0.46
40:L3:20:LYS:HG2	40:L3:21:ARG:O	2.15	0.46
63:N7:17:ARG:HG2	70:O4:73:SER:O	2.15	0.46
41:L4:55:LYS:HD2	41:L4:59:GLN:CD	2.71	0.46
16:C4:122:PRO:C	16:C4:124:ASP:N	2.73	0.46
14:C2:41:LEU:HA	14:C2:41:LEU:HD23	1.72	0.46
42:L5:231:ILE:HG21	42:L5:239:ILE:HD11	1.98	0.46
10:S8:82:VAL:HG13	10:S8:196:LEU:HD21	3.05	0.46
69:O3:16:TYR:OH	69:O3:91:ALA:HB2	2.15	0.46
5:S3:25:PHE:CE1	5:S3:69:LEU:HD22	2.50	0.46
5:S3:70:THR:HG22	5:S3:86:LEU:HD13	2.51	0.46
1:2:1682:U:H4'	8:S6:65:GLN:NE2	2.31	0.46
20:C8:99:HIS:HD2	20:C8:101:LEU:HD21	1.80	0.46
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	2.21	0.46
59:N3:33:ASN:ND2	59:N3:64:LYS:HB2	2.53	0.46
36:1:565:U:H2'	36:1:566:G:H8	1.80	0.46
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.81	0.46
9:S7:39:ARG:NH2	55:M9:185:LEU:HD22	2.59	0.46
78:Q2:83:LEU:HD23	78:Q2:83:LEU:HA	1.92	0.46
12:C0:35:ILE:HG22	12:C0:36:ASP:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:91:ASN:ND2	61:N5:93:TYR:HD2	2.14	0.46
26:D4:132:ARG:HG2	26:D4:133:ASN:OD1	4.48	0.46
67:O1:36:ILE:O	67:O1:39:PHE:HB3	2.16	0.46
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.50	0.46
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.78	0.46
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.51	0.46
33:E1:102:VAL:O	33:E1:104:SER:N	2.48	0.46
5:S3:5:ILE:HG22	5:S3:10:LYS:HB3	4.54	0.46
54:M8:62:VAL:HB	54:M8:83:VAL:HG11	2.49	0.46
1:6:358:U:O2'	1:6:360:A:H5''	2.15	0.46
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.18	0.46
1:6:463:U:H2'	1:6:464:A:C8	2.51	0.46
36:1:2298:U:O4	36:1:2923:U:H5	1.98	0.46
36:1:2677:G:OP2	87:1:4052:OHX:N4	2.49	0.46
15:C3:11:ILE:HG13	15:C3:11:ILE:O	2.15	0.46
36:5:1692:U:O4	36:5:1693:C:N4	2.49	0.46
1:6:686:C:H2'	1:6:687:G:C8	2.50	0.46
2:S0:185:ARG:N	23:D1:45:ALA:H	3.42	0.46
1:6:820:U:H6	1:6:820:U:H2'	1.48	0.46
34:SR:79:TYR:HE1	34:SR:100:TYR:CE1	3.45	0.46
41:L4:341:SER:O	41:L4:342:LYS:CB	4.29	0.46
1:2:702:G:C2	1:2:703:G:H1'	2.51	0.46
36:1:1564:U:H2'	36:1:1565:G:H8	1.79	0.46
68:O2:126:LEU:HD23	68:O2:126:LEU:HA	1.79	0.46
6:S4:106:LYS:HG3	6:S4:108:ARG:NH1	2.85	0.46
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.97	0.46
19:C7:20:TYR:CE2	19:C7:38:ILE:HD11	2.51	0.46
49:M3:58:VAL:CG1	36:5:75:G:H5''	88.04	0.46
1:2:1502:G:O6	21:C9:102:ARG:NH2	2.49	0.46
87:5:4006:OHX:N4	87:5:4096:OHX:N1	2.64	0.46
38:4:136:G:OP1	61:N5:48:SER:HB3	2.16	0.46
1:6:696:C:O3'	1:6:697:C:H6	1.99	0.46
10:S8:110:ARG:NH2	10:S8:160:PHE:HB3	3.11	0.46
40:L3:154:TYR:CE2	36:5:3242:G:H8	259.34	0.46
41:L4:318:LEU:HD11	44:L7:146:GLN:HB3	2.13	0.46
23:D1:3:ASN:HD21	23:D1:7:GLN:CG	4.53	0.46
51:M5:155:VAL:HG23	51:M5:156:HIS:ND1	2.31	0.46
14:C2:86:VAL:O	14:C2:140:PHE:HE1	3.94	0.46
1:2:901:G:H22	16:C4:54:GLU:CD	2.19	0.46
1:2:901:G:N2	16:C4:54:GLU:OE1	2.48	0.46
52:M6:36:VAL:HB	52:M6:108:ILE:HB	4.67	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:489:C:H2'	1:2:490:C:C6	2.51	0.46
61:N5:106:ASP:O	61:N5:127:THR:HG23	2.16	0.46
52:M6:81:TYR:OH	52:M6:99:LEU:HD13	2.15	0.46
1:2:652:G:H1	1:2:682:C:H42	1.64	0.46
19:C7:9:VAL:HG13	19:C7:50:ILE:HA	1.97	0.46
36:5:1641:U:O2'	36:5:1642:A:H3'	2.16	0.46
20:C8:44:ASN:OD1	20:C8:48:LYS:HE3	2.16	0.46
49:M3:67:ARG:NH2	64:N8:108:GLY:HA2	2.94	0.46
36:1:2680:A:C2	48:M1:24:GLY:HA2	2.51	0.46
21:C9:85:SER:C	21:C9:87:GLY:H	2.19	0.46
36:1:1638:A:H5''	36:1:1639:C:OP2	2.16	0.46
69:O3:59:VAL:HG23	69:O3:60:ARG:N	2.62	0.46
37:7:23:A:H2'	37:7:24:A:C8	2.51	0.46
1:2:542:A:C8	1:2:543:C:H3'	2.50	0.46
57:N1:92:ARG:NH1	36:5:2736:A:OP1	235.87	0.46
4:S2:59:HIS:CE1	4:S2:238:SER:HA	3.98	0.46
25:D3:130:VAL:HG23	25:D3:131:SER:H	1.81	0.46
45:L8:111:LYS:NZ	45:L8:126:SER:HB3	11.95	0.46
1:6:93:A:H4'	1:6:94:U:OP2	2.16	0.46
63:N7:5:LEU:HD11	66:O0:35:ARG:HD2	2.95	0.46
36:1:2261:G:O6	87:1:3937:OHX:N4	2.48	0.46
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	2.98	0.46
1:2:1507:G:O6	87:2:2147:OHX:N5	2.49	0.46
41:L4:130:ALA:O	41:L4:148:ILE:HG21	2.16	0.46
36:1:1363:A:OP2	87:1:4048:OHX:N6	2.48	0.46
13:C1:133:LYS:HB2	1:6:337:G:H3'	290.82	0.46
26:D4:122:GLY:C	26:D4:124:ARG:N	2.93	0.46
22:D0:65:ILE:HD11	31:D9:36:LEU:HD21	1.97	0.46
1:2:1535:U:H5''	7:S5:187:ILE:HD11	1.98	0.46
36:5:2573:G:H3'	36:5:2574:G:H5''	1.98	0.46
12:C0:64:TYR:HB3	12:C0:66:TYR:CE2	2.51	0.46
1:2:1000:C:O2'	1:2:1002:G:N7	2.35	0.46
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	2.16	0.46
51:M5:49:ARG:NH2	36:5:115:A:OP1	101.65	0.46
2:S0:74:VAL:HG12	2:S0:76:ILE:HG12	3.05	0.46
36:1:3335:A:C2	36:1:3336:A:C4	3.04	0.46
36:1:276:U:O2	51:M5:93:LYS:NZ	2.37	0.46
36:1:1856:C:H2'	36:1:1857:C:C6	2.50	0.46
45:L8:190:VAL:HG12	45:L8:190:VAL:O	3.49	0.46
36:1:3174:A:H2'	36:1:3175:U:C5'	2.46	0.46
36:5:2542:U:O2'	36:5:2543:U:O5'	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:187:ARG:NH1	1:6:753:A:OP2	378.14	0.46
17:C5:114:HIS:ND1	17:C5:118:GLU:OE1	2.49	0.46
6:S4:55:ALA:HB1	6:S4:60:GLU:HB3	1.98	0.46
36:1:551:A:O2'	36:1:552:G:O5'	2.30	0.46
36:5:345:G:H2'	38:8:25:G:O2'	2.14	0.46
1:2:527:A:OP2	87:2:2053:OHX:N4	2.49	0.46
76:Q0:99:CYS:O	76:Q0:100:TYR:HB2	2.33	0.46
1:2:953:G:H2'	1:2:954:G:C8	2.51	0.46
36:5:1148:G:C2'	36:5:1149:G:H5'	2.46	0.46
64:N8:72:VAL:HG12	64:N8:111:LYS:HB3	2.50	0.46
1:2:1354:G:H5'	1:2:1355:C:OP2	2.16	0.46
36:1:1819:U:O4	87:1:4044:OHX:N6	2.49	0.46
1:2:1096:C:O2	1:2:1096:C:H2'	2.15	0.46
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.74	0.46
54:M8:95:GLU:H	54:M8:95:GLU:HG2	4.91	0.46
29:D7:8:LEU:HD23	29:D7:8:LEU:HA	1.79	0.46
41:L4:330:TYR:HA	41:L4:333:VAL:HG13	2.80	0.46
1:6:587:C:H2'	1:6:588:U:O4'	2.15	0.46
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.54	0.46
52:M6:51:LYS:HE2	52:M6:144:SER:OG	2.16	0.46
36:5:618:C:H2'	36:5:619:A:C8	2.51	0.46
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.51	0.46
1:6:647:G:N2	1:6:687:G:N2	2.64	0.46
75:O9:49:MET:O	75:O9:50:ASN:HB2	2.80	0.46
75:O9:5:LYS:HB3	75:O9:5:LYS:HE2	5.03	0.46
1:2:735:C:O2'	1:2:736:C:H5''	2.16	0.46
18:C6:60:PHE:HA	18:C6:63:ILE:HG12	2.66	0.46
7:S5:20:PHE:CE2	7:S5:35:GLN:HG3	2.50	0.46
1:6:72:A:H2'	1:6:73:U:H1'	1.98	0.46
1:6:1098:U:C6	1:6:1098:U:H5''	2.51	0.46
1:6:723:G:H5'	1:6:724:C:OP2	2.16	0.46
13:C1:3:THR:HA	13:C1:81:HIS:HE1	1.80	0.46
22:D0:57:ARG:N	22:D0:57:ARG:HD3	2.31	0.46
40:L3:221:THR:HB	40:L3:273:HIS:O	2.51	0.46
40:L3:19:ARG:HG3	40:L3:273:HIS:NE2	2.31	0.46
36:5:988:U:H2'	36:5:989:A:O4'	2.16	0.46
36:5:1525:G:O2'	36:5:1594:A:N1	2.40	0.46
1:6:486:G:H22	1:6:501:U:H3	1.63	0.46
36:5:420:G:O5'	36:5:420:G:OP1	2.34	0.46
7:S5:25:LEU:HB2	18:C6:27:GLY:HA3	1.98	0.46
38:8:156:U:H5'	38:8:157:U:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:60:PRO:C	28:D6:62:TYR:H	2.17	0.46
36:5:900:G:H1'	36:5:1589:A:H61	1.79	0.46
1:2:1645:G:H22	1:2:1756:A:H2	1.63	0.46
52:M6:76:PRO:HB3	52:M6:138:LEU:HD23	2.67	0.46
1:6:656:G:H2'	1:6:657:U:C6	2.51	0.46
11:S9:92:LYS:HB2	11:S9:95:TYR:CD2	7.39	0.46
36:1:3186:A:N3	46:L9:44:THR:OG1	2.47	0.46
52:M6:80:PHE:HD2	52:M6:104:VAL:HG11	1.80	0.46
36:1:715:A:H4'	36:1:716:A:OP1	2.15	0.46
1:6:320:U:H2'	1:6:321:C:C2	2.51	0.46
51:M5:93:LYS:HG3	36:5:289:A:N3	146.32	0.46
27:D5:82:HIS:O	27:D5:85:LYS:N	3.35	0.46
39:L2:202:VAL:HG22	39:L2:217:GLN:HB3	3.56	0.46
87:1:4059:OHX:N2	87:1:4168:OHX:N1	2.64	0.46
36:5:959:C:OP2	36:5:960:U:H5	1.98	0.46
36:5:703:G:O2'	36:5:787:G:H4'	2.16	0.46
61:N5:101:GLU:HG2	61:N5:102:LEU:HD23	2.39	0.46
61:N5:117:ASN:HB2	75:O9:18:LYS:HD3	1.97	0.46
27:D5:90:LYS:HD2	27:D5:104:ALA:HA	1.98	0.46
1:6:760:A:OP2	87:6:2081:OHX:N5	2.49	0.46
38:8:121:U:O2'	38:8:122:U:H5'	2.15	0.46
36:1:2539:C:H5'	36:1:2541:U:O4	2.16	0.46
3:S1:114:VAL:HG11	1:6:930:A:H2'	310.80	0.46
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.62	0.46
60:N4:57:LYS:HE3	60:N4:57:LYS:HB2	1.85	0.46
54:M8:41:ASP:OD1	54:M8:41:ASP:C	2.54	0.46
1:6:1489:U:H5'	1:6:1494:C:H1'	1.98	0.46
36:1:374:A:HO2'	36:1:376:G:H8	1.62	0.46
8:S6:154:ARG:HD3	1:6:78:A:C8	341.15	0.46
65:N9:46:ALA:O	65:N9:50:THR:HG23	3.27	0.46
6:S4:29:PRO:HD3	1:6:448:C:OP1	374.49	0.46
1:6:542:A:C8	1:6:543:C:H5'	2.51	0.46
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.31	0.46
1:6:916:U:H5''	1:6:917:U:OP2	2.16	0.46
1:2:734:A:H4'	1:2:735:C:H5'	1.97	0.46
6:S4:159:THR:HB	6:S4:227:VAL:HG23	1.98	0.46
66:O0:98:SER:OG	66:O0:100:ILE:HG13	2.16	0.46
12:C0:7:ASP:CB	12:C0:37:THR:HG21	2.43	0.46
44:L7:154:GLY:O	44:L7:160:ARG:HA	2.16	0.46
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	2.81	0.46
10:S8:44:HIS:O	10:S8:56:ARG:N	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:21:SER:HB3	30:D8:67:ARG:HB3	4.90	0.46
1:6:988:A:C2	1:6:989:U:H1'	2.51	0.46
21:C9:102:ARG:NH2	1:6:1502:G:N7	405.88	0.46
6:S4:146:THR:HG21	1:6:123:G:N2	340.77	0.46
1:6:1508:U:H2'	1:6:1509:C:H6	1.80	0.46
63:N7:46:ILE:HD11	63:N7:49:TYR:CG	2.51	0.46
1:2:1316:G:OP1	19:C7:7:LYS:N	2.43	0.46
36:1:3281:U:H2'	36:1:3282:U:H6	1.81	0.46
72:O6:93:ILE:O	72:O6:97:SER:HB3	2.16	0.46
87:5:4101:OHX:N3	87:5:4243:OHX:N6	2.64	0.46
45:L8:109:LEU:O	45:L8:113:ALA:N	2.39	0.46
1:6:263:C:H4'	1:6:292:U:H5'	1.98	0.46
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.15	0.46
1:2:1347:U:O2	1:2:1516:A:H5'	2.16	0.46
36:1:729:C:H2'	36:1:730:C:H6	1.81	0.46
36:1:1599:G:OP1	87:1:4088:OHX:N5	2.48	0.46
36:5:1785:U:H2'	36:5:1786:G:C8	2.51	0.46
72:O6:57:LEU:O	72:O6:61:ILE:HG12	4.24	0.46
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.16	0.46
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.51	0.46
21:C9:135:ILE:HA	21:C9:138:GLN:HB2	1.96	0.46
1:2:1183:A:C6	1:2:1184:A:N1	2.84	0.46
52:M6:108:ILE:HD13	52:M6:108:ILE:HG21	1.85	0.46
38:8:59:A:H5''	38:8:61:A:C8	2.51	0.46
61:N5:110:VAL:HG22	61:N5:124:VAL:HG13	2.52	0.46
45:L8:203:VAL:HG12	45:L8:204:ARG:O	4.11	0.46
1:6:509:G:H2'	1:6:510:G:C1'	2.46	0.46
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	3.35	0.46
15:C3:142:GLU:HG3	15:C3:145:THR:OG1	2.16	0.46
68:O2:11:LYS:NZ	36:5:1404:G:OP2	182.68	0.46
36:1:619:A:H5''	36:1:620:U:OP1	2.16	0.46
64:N8:13:GLY:O	68:O2:36:LYS:HE2	2.49	0.46
36:1:2850:G:O6	87:1:4079:OHX:N6	2.48	0.46
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.16	0.46
11:S9:182:GLU:H	11:S9:182:GLU:HG3	2.87	0.46
34:SR:270:LEU:O	34:SR:271:VAL:HG23	2.16	0.46
4:S2:87:GLN:OE1	4:S2:96:THR:HB	2.50	0.46
1:2:256:A:H2'	1:2:257:A:O4'	2.15	0.46
36:5:2248:C:H2'	36:5:2273:G:C8	2.50	0.45
36:5:1638:A:H5''	36:5:1639:C:OP2	2.16	0.45
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.86	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:4:ARG:O	40:L3:5:LYS:CB	2.64	0.45
34:SR:114:ASP:OD1	34:SR:115:ILE:N	2.90	0.45
34:SR:81:LEU:HG	34:SR:91:LEU:HD22	1.97	0.45
47:M0:99:ILE:CG2	47:M0:123:HIS:HB2	2.46	0.45
1:2:196:G:O2'	1:2:197:A:P	2.75	0.45
1:6:119:A:H1'	1:6:397:A:C4	2.51	0.45
1:2:702:G:N7	87:2:2130:OHX:N2	2.65	0.45
8:S6:58:LYS:H	8:S6:58:LYS:HG2	1.51	0.45
8:S6:57:ASP:OD1	8:S6:72:ARG:NH1	2.48	0.45
36:1:3163:A:N1	36:1:3164:C:N4	2.63	0.45
12:C0:7:ASP:N	12:C0:7:ASP:OD1	2.49	0.45
5:S3:142:LEU:O	5:S3:144:ALA:N	2.45	0.45
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CD1	5.14	0.45
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	2.18	0.45
17:C5:130:ARG:HD3	35:SM:74:LYS:HG2	1.98	0.45
34:SR:159:ASN:O	34:SR:161:LYS:N	4.41	0.45
36:1:1355:A:H4'	36:1:1356:U:O5'	2.16	0.45
62:N6:120:GLN:OE1	62:N6:126:LEU:HA	7.78	0.45
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	1.98	0.45
1:6:1228:G:H2'	1:6:1228:G:N3	2.32	0.45
44:L7:121:LYS:O	44:L7:121:LYS:HD3	2.15	0.45
1:6:85:A:OP1	87:6:2187:OHX:N4	2.49	0.45
46:L9:103:ILE:HG13	46:L9:136:PHE:CZ	2.51	0.45
36:1:846:A:H2'	36:1:847:A:O4'	2.16	0.45
38:8:67:U:H2'	38:8:68:G:C8	2.51	0.45
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	1.98	0.45
1:2:872:G:H2'	1:2:873:U:O4'	2.16	0.45
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.81	0.45
51:M5:143:ARG:HH21	71:O5:92:LEU:HD23	1.80	0.45
1:2:545:A:N3	1:2:546:U:H1'	2.30	0.45
36:1:2503:G:H1'	36:1:2504:U:H5	1.82	0.45
45:L8:99:PRO:HG2	45:L8:190:VAL:HG13	4.76	0.45
36:1:849:C:H2'	36:1:850:U:H6	1.81	0.45
43:L6:87:THR:OG1	43:L6:89:THR:HG23	2.85	0.45
36:5:1599:G:OP1	87:5:4144:OHX:N4	2.49	0.45
36:5:1494:U:H4'	36:5:1495:U:O5'	2.16	0.45
36:5:2822:U:OP2	87:5:3958:OHX:N1	2.49	0.45
1:6:5:U:H2'	1:6:6:G:H8	1.80	0.45
1:6:1423:U:H2'	1:6:1424:A:O4'	2.16	0.45
1:6:808:U:H2'	1:6:809:A:C8	2.51	0.45
1:6:1535:U:O2'	1:6:1536:G:P	2.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:67:HIS:NE2	36:5:71:A:OP2	119.34	0.45
1:2:97:C:H2'	1:2:98:U:C6	2.50	0.45
9:S7:155:ASP:OD2	9:S7:156:SER:N	2.96	0.45
36:5:1290:A:O2'	36:5:1291:A:H5'	2.15	0.45
1:2:350:U:O2	1:2:352:A:C6	2.70	0.45
29:D7:26:GLN:HB2	29:D7:26:GLN:HE21	1.53	0.45
18:C6:54:LEU:HD13	18:C6:54:LEU:HA	2.43	0.45
49:M3:182:ILE:HD12	49:M3:182:ILE:H	1.81	0.45
36:5:2689:A:N3	36:5:2689:A:H2'	2.31	0.45
5:S3:80:ALA:O	5:S3:83:THR:OG1	3.18	0.45
10:S8:3:ILE:HB	10:S8:30:GLY:O	2.60	0.45
36:1:2736:A:O2'	57:N1:68:THR:HG21	2.15	0.45
17:C5:19:GLY:N	20:C8:93:THR:O	2.49	0.45
6:S4:4:GLY:HA3	1:6:93:A:O2'	330.70	0.45
24:D2:71:LYS:NZ	1:6:1099:U:OP1	375.59	0.45
1:2:1196:A:C8	1:2:1602:C:H4'	2.51	0.45
36:1:1580:A:H1'	36:1:1581:C:C5	2.51	0.45
47:M0:82:ARG:O	47:M0:82:ARG:HG2	4.13	0.45
3:S1:88:VAL:HG11	3:S1:96:LEU:HD12	1.98	0.45
36:1:1877:U:OP2	87:1:3931:OHX:N2	2.50	0.45
25:D3:24:TRP:HZ3	25:D3:30:LYS:HG3	2.59	0.45
7:S5:112:ARG:CZ	18:C6:43:ILE:HD11	2.46	0.45
28:D6:10:ARG:HH12	28:D6:36:ILE:HG13	4.98	0.45
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	2.12	0.45
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.62	0.45
42:L5:153:THR:HG23	42:L5:160:PHE:CE2	2.51	0.45
87:5:3909:OHX:N5	38:8:1:A:OP1	2.49	0.45
53:M7:75:GLU:HG2	53:M7:76:PHE:CE2	2.76	0.45
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.62	0.45
48:M1:120:ILE:HG22	48:M1:121:GLY:O	2.26	0.45
19:C7:51:ALA:O	19:C7:55:THR:HG23	5.08	0.45
28:D6:17:HIS:ND1	28:D6:18:VAL:O	2.49	0.45
56:N0:134:ASP:O	56:N0:136:LYS:HG3	2.17	0.45
53:M7:48:LEU:HB3	53:M7:88:VAL:HG13	2.08	0.45
14:C2:52:LEU:HA	14:C2:52:LEU:HD13	1.83	0.45
5:S3:93:ASP:N	5:S3:93:ASP:OD2	2.50	0.45
87:1:4023:OHX:N3	87:1:4061:OHX:N1	2.64	0.45
36:5:1340:G:H2'	36:5:1341:U:C6	2.50	0.45
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.51	0.45
2:S0:92:HIS:HB3	2:S0:182:LEU:HD11	2.55	0.45
1:2:911:U:O2'	1:2:915:A:H1'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:31:ARG:HH11	8:S6:34:GLN:NE2	2.15	0.45
59:N3:83:LYS:HE2	59:N3:84:SER:N	2.29	0.45
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.02	0.45
1:2:739:G:O6	87:2:2097:OHX:N4	2.49	0.45
1:2:42:G:H4'	1:2:43:A:O5'	2.17	0.45
36:5:1559:A:C6	36:5:1582:C:N4	2.84	0.45
79:Q3:29:LEU:O	79:Q3:33:GLN:HG2	2.88	0.45
9:S7:121:VAL:O	9:S7:125:ILE:HD13	4.95	0.45
53:M7:120:ASN:HB2	53:M7:121:GLN:H	1.70	0.45
36:1:2361:A:C2'	36:1:2362:C:H5'	2.47	0.45
36:1:178:U:H1'	36:1:241:G:N1	2.31	0.45
42:L5:33:ARG:NH2	37:7:7:G:O3'	270.98	0.45
36:5:1001:G:H5'	36:5:1002:A:O5'	2.17	0.45
38:4:113:U:H5''	75:O9:7:PHE:HB3	1.98	0.45
75:O9:7:PHE:CE2	75:O9:11:GLN:HG2	5.21	0.45
41:L4:3:ARG:HA	41:L4:4:PRO:HD3	2.35	0.45
36:1:1260:A:H1'	36:1:1280:C:H1'	1.98	0.45
58:N2:55:THR:HG22	58:N2:57:THR:HG23	6.01	0.45
36:5:1581:C:OP2	36:5:1581:C:H4'	2.15	0.45
36:5:969:C:O5'	36:5:969:C:H6	1.99	0.45
44:L7:103:LEU:HA	44:L7:103:LEU:HD23	2.20	0.45
36:5:1604:G:H3'	36:5:1604:G:N3	2.30	0.45
36:1:1194:G:H2'	36:1:1195:A:C8	2.51	0.45
62:N6:27:ARG:CZ	62:N6:78:PHE:CE2	2.99	0.45
36:5:953:G:O2'	36:5:1116:G:H5'	2.16	0.45
36:1:2213:A:N1	36:1:2429:G:H1'	2.31	0.45
78:Q2:46:LYS:HE3	36:5:92:G:OP1	164.60	0.45
1:6:542:A:H1'	1:6:543:C:H5'	1.97	0.45
49:M3:46:ILE:HD13	49:M3:49:ARG:NH1	3.40	0.45
28:D6:79:ILE:HG12	28:D6:84:VAL:HG21	1.99	0.45
36:5:65:A:C4	36:5:110:G:N7	2.85	0.45
8:S6:77:LEU:HB3	8:S6:81:VAL:HG11	1.98	0.45
62:N6:52:ARG:HA	62:N6:70:ILE:CG2	2.85	0.45
7:S5:59:VAL:HG12	7:S5:60:ASP:H	2.26	0.45
22:D0:95:ALA:HB1	22:D0:99:ILE:HG21	1.98	0.45
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.28	0.45
53:M7:69:ARG:CZ	36:5:2389:C:H1'	189.91	0.45
20:C8:26:ILE:HG12	20:C8:31:ALA:HB2	3.12	0.45
36:1:594:U:H2'	36:1:609:G:O6	2.17	0.45
36:5:1724:U:O2	36:5:1725:C:C2	2.69	0.45
64:N8:91:LEU:HA	64:N8:121:VAL:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:81:PHE:HD2	3:S1:82:ARG:HG3	1.81	0.45
1:2:1229:G:H1	14:C2:47:GLU:HG3	1.79	0.45
1:2:1000:C:H2'	1:2:1002:G:OP2	2.16	0.45
9:S7:46:ILE:HD13	9:S7:59:ALA:O	2.15	0.45
1:6:246:G:C6	1:6:247:A:C6	3.04	0.45
63:N7:73:LYS:HZ2	36:5:1637:A:P	213.44	0.45
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.86	0.45
45:L8:115:ALA:O	45:L8:117:ALA:N	2.50	0.45
50:M4:25:LYS:HD3	50:M4:25:LYS:HA	2.75	0.45
36:1:1322:U:P	56:N0:117:ARG:HH21	2.39	0.45
36:5:2875:U:C4	36:5:2954:U:O4	2.69	0.45
40:L3:81:THR:HG21	40:L3:205:VAL:HG11	2.26	0.45
1:6:199:G:O2'	1:6:200:A:H8	2.00	0.45
27:D5:49:ARG:HD2	27:D5:53:GLU:OE1	3.03	0.45
7:S5:123:VAL:HG12	7:S5:124:LEU:HD12	1.98	0.45
56:N0:27:MET:CE	57:N1:153:PRO:HD3	2.47	0.45
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.16	0.45
52:M6:36:VAL:HB	52:M6:108:ILE:HG12	1.98	0.45
7:S5:216:GLU:OE2	7:S5:219:ARG:HD3	3.42	0.45
40:L3:47:LEU:HD23	40:L3:164:THR:HG23	2.12	0.45
71:O5:54:VAL:HG12	71:O5:58:ILE:HD11	2.55	0.45
36:1:412:G:C6	36:1:413:U:C4	3.04	0.45
36:1:889:U:H2'	36:1:890:C:O4'	2.16	0.45
39:L2:121:GLY:O	39:L2:123:ARG:HG3	2.16	0.45
1:2:603:U:H2'	1:2:604:A:H8	1.81	0.45
39:L2:44:ILE:HD13	39:L2:46:LYS:HD3	2.33	0.45
72:O6:62:ARG:NH1	72:O6:94:ILE:HD11	5.10	0.45
36:1:1484:U:O5'	36:1:1484:U:H6	1.99	0.45
33:E1:109:ASP:N	33:E1:109:ASP:OD1	2.49	0.45
1:2:1175:U:H2'	1:2:1176:G:C8	2.51	0.45
79:Q3:80:ARG:HE	79:Q3:80:ARG:HB2	2.65	0.45
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.97	0.45
36:1:3348:G:H2'	36:1:3349:C:C6	2.51	0.45
46:L9:21:LYS:HG3	46:L9:22:SER:N	2.31	0.45
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.77	0.45
1:2:1600:A:HO2'	1:2:1602:C:H41	1.61	0.45
1:2:699:U:H2'	1:2:700:C:C6	2.51	0.45
35:SM:23:LYS:HE3	35:SM:24:GLU:H	6.82	0.45
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.29	0.45
62:N6:57:LEU:HB3	62:N6:105:VAL:HG12	2.46	0.45
8:S6:211:LEU:HA	8:S6:211:LEU:HD23	1.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1927:G:OP1	79:Q3:8:VAL:HG13	2.16	0.45
30:D8:27:GLN:HE22	30:D8:64:ARG:NH1	5.48	0.45
21:C9:57:ARG:HH22	21:C9:80:TYR:CB	3.26	0.45
1:2:711:U:H4'	1:2:712:G:OP1	2.16	0.45
24:D2:30:SER:O	24:D2:31:SER:HB3	2.37	0.45
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	2.70	0.45
54:M8:122:ILE:HD11	54:M8:130:ARG:CZ	3.32	0.45
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.54	0.45
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.49	0.45
55:M9:8:LYS:O	55:M9:11:ALA:HB3	2.16	0.45
41:L4:324:LEU:O	41:L4:327:LEU:O	2.44	0.45
36:5:528:U:H2'	36:5:529:A:C8	2.51	0.45
36:1:829:U:H3	36:1:895:A:N6	2.15	0.45
50:M4:133:LYS:O	50:M4:136:ALA:HB3	2.15	0.45
36:1:2209:U:HO2'	36:1:2210:G:P	2.38	0.45
15:C3:36:GLN:NE2	15:C3:40:TYR:CZ	5.18	0.45
51:M5:153:ASP:OD2	51:M5:155:VAL:HG22	2.16	0.45
16:C4:99:GLN:HG3	28:D6:46:GLU:OE2	3.87	0.45
1:6:1590:G:OP2	87:6:2155:OHX:N6	2.49	0.45
36:1:2444:C:H3'	36:1:2445:A:H5''	1.98	0.45
36:1:2367:A:H2'	36:1:2368:A:C8	2.52	0.45
71:O5:31:LEU:HD23	71:O5:44:ILE:HA	1.98	0.45
15:C3:64:ARG:NH2	15:C3:70:LYS:HE3	2.31	0.45
36:1:1478:C:H2'	36:1:1479:U:H6	1.81	0.45
1:6:276:C:H1'	1:6:277:U:H5	1.81	0.45
79:Q3:29:LEU:HA	79:Q3:29:LEU:HD23	1.74	0.45
39:L2:29:LEU:O	39:L2:123:ARG:NH2	3.03	0.45
1:2:1530:C:C2	1:2:1531:G:C8	3.04	0.45
1:2:1407:U:H2'	1:2:1408:G:O4'	2.17	0.45
1:2:874:C:OP1	87:2:2033:OHX:N2	2.49	0.45
36:5:2581:U:O2'	36:5:2582:C:H5'	2.17	0.45
1:2:1059:U:H6	1:2:1060:U:C5	2.34	0.45
55:M9:133:LYS:HB3	55:M9:134:HIS:CD2	3.35	0.45
36:5:85:A:H8	36:5:85:A:OP1	2.00	0.45
40:L3:383:LEU:HD23	40:L3:383:LEU:HA	2.09	0.45
28:D6:88:SER:OG	28:D6:89:ARG:N	2.47	0.45
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.26	0.45
57:N1:68:THR:HG22	57:N1:71:SER:HB2	1.98	0.45
7:S5:73:THR:HG23	18:C6:114:ARG:HG3	1.97	0.45
39:L2:201:GLY:O	39:L2:204:MET:HG3	2.16	0.45
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:76:THR:HG21	49:M3:103:ASN:OD1	3.10	0.45
36:1:1555:U:H5	36:1:1559:A:H61	1.65	0.45
36:1:1581:C:H2'	36:1:1582:C:C5'	2.40	0.45
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.98	0.45
1:6:75:U:O2'	1:6:76:A:O5'	2.29	0.45
36:5:273:A:N7	87:5:4071:OHX:N3	2.65	0.45
1:6:1429:G:H2'	1:6:1430:U:C6	2.52	0.45
36:1:2947:G:OP2	40:L3:244:ARG:HD2	2.17	0.45
22:D0:34:LEU:HD23	22:D0:112:VAL:HG13	1.98	0.45
36:5:1015:U:O2'	36:5:1017:C:OP1	2.34	0.45
53:M7:112:LEU:HA	53:M7:151:THR:O	2.47	0.45
36:1:440:A:OP2	36:1:440:A:H8	2.00	0.45
36:5:3269:U:H5'	36:5:3271:G:O4'	2.17	0.45
10:S8:152:ILE:HB	10:S8:153:GLU:H	1.36	0.45
48:M1:7:ASN:ND2	48:M1:10:ARG:HH11	2.14	0.45
1:2:1274:C:C5	35:SM:95:SER:HA	2.51	0.45
1:6:708:C:H2'	1:6:709:C:O4'	2.16	0.45
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.97	0.45
54:M8:170:ARG:HD2	64:N8:56:VAL:O	5.07	0.45
7:S5:110:ALA:O	7:S5:113:ILE:N	2.47	0.45
7:S5:159:ALA:HB3	7:S5:225:ARG:HA	4.23	0.45
1:6:195:G:H2'	1:6:196:G:H5''	1.99	0.45
42:L5:126:GLU:HA	42:L5:196:ARG:HG3	2.81	0.45
51:M5:75:VAL:HA	51:M5:76:PRO:HD3	1.72	0.45
2:S0:76:ILE:HG12	2:S0:98:ILE:HD12	1.97	0.45
62:N6:58:VAL:HG12	62:N6:64:LYS:HA	1.97	0.45
36:5:3203:U:H2'	36:5:3204:C:H6	1.79	0.45
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.99	0.45
1:6:1175:U:H4'	1:6:1196:A:C6	2.52	0.45
36:1:2655:U:H2'	78:Q2:3:ASN:O	2.16	0.45
36:1:3174:A:C2'	36:1:3175:U:H5'	2.47	0.45
36:5:917:A:OP2	87:5:4231:OHX:N3	2.50	0.45
36:1:551:A:C4	36:1:552:G:C8	3.04	0.45
36:5:79:U:H2'	36:5:80:G:C8	2.51	0.45
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.09	0.45
41:L4:3:ARG:HA	41:L4:4:PRO:HD2	1.57	0.45
42:L5:119:TYR:CZ	42:L5:135:VAL:HG12	2.51	0.45
59:N3:125:LEU:HB3	59:N3:126:TRP:CD1	2.56	0.45
56:N0:166:LYS:O	56:N0:167:ARG:HB2	2.16	0.45
51:M5:133:ILE:HD12	51:M5:134:LEU:N	2.31	0.45
36:1:3173:G:N1	69:O3:92:LYS:O	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:407:A:H2'	1:2:408:C:C6	2.52	0.45
67:O1:24:SER:HB2	67:O1:27:LYS:HD3	4.33	0.45
1:6:1737:G:H2'	1:6:1738:U:C6	2.50	0.45
57:N1:82:ASN:N	57:N1:82:ASN:OD1	2.41	0.45
9:S7:116:ARG:HE	9:S7:116:ARG:HB2	1.60	0.45
68:O2:67:SER:HB2	68:O2:68:PRO:HD2	1.98	0.45
58:N2:85:LYS:HE2	36:5:1683:A:OP2	151.60	0.45
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.73	0.45
1:6:542:A:OP1	1:6:544:A:C4	2.70	0.45
7:S5:72:HIS:O	18:C6:47:LYS:HE3	2.16	0.45
57:N1:139:ARG:HH21	57:N1:139:ARG:CG	3.75	0.45
20:C8:30:TYR:CE2	20:C8:40:ARG:HD2	2.75	0.45
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	3.87	0.45
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.47	0.45
6:S4:104:ASP:HB3	6:S4:105:VAL:H	1.41	0.45
1:2:1796:C:H4'	1:2:1797:A:OP2	2.16	0.45
22:D0:50:LEU:HB3	22:D0:51:VAL:H	1.56	0.45
20:C8:49:LYS:HG3	20:C8:49:LYS:HZ2	1.66	0.45
59:N3:48:ARG:NH2	36:5:3043:C:P	251.42	0.45
87:5:3978:OHX:N1	87:5:4250:OHX:N1	2.63	0.45
36:1:1262:G:C6	36:1:1278:A:N6	2.85	0.45
36:5:2987:A:H2'	36:5:2988:C:C6	2.51	0.45
3:S1:23:PRO:O	3:S1:26:ARG:HB3	2.36	0.45
36:5:1555:U:O2'	36:5:2169:G:N2	2.49	0.45
1:6:219:A:C6	1:6:843:U:H1'	2.52	0.45
38:8:142:C:H2'	38:8:143:U:C6	2.51	0.45
43:L6:65:ILE:HA	43:L6:65:ILE:HD12	4.54	0.45
40:L3:361:THR:CG2	40:L3:371:GLN:HB3	2.47	0.45
27:D5:60:VAL:HB	27:D5:101:TYR:HB2	1.98	0.45
17:C5:122:THR:HG21	1:6:1455:G:OP1	370.18	0.45
1:2:123:G:N2	6:S4:146:THR:OG1	2.40	0.45
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	4.97	0.45
2:S0:167:LYS:HG2	2:S0:168:HIS:CD2	2.52	0.45
48:M1:54:VAL:O	48:M1:56:THR:N	2.47	0.45
87:1:3954:OHX:N4	87:1:4041:OHX:N5	2.65	0.45
55:M9:117:LYS:HD3	36:5:1718:G:H4'	247.75	0.45
1:2:1017:U:H2'	1:2:1018:U:H6	1.82	0.45
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.99	0.45
37:7:73:C:H3'	37:7:73:C:C6	2.51	0.45
78:Q2:70:LEU:N	78:Q2:83:LEU:O	2.76	0.45
8:S6:56:ASN:H	8:S6:108:VAL:HG23	4.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:848:C:H2'	1:2:849:C:H6	1.82	0.45
87:5:4041:OHX:N6	87:5:4245:OHX:N5	2.64	0.45
55:M9:13:SER:CB	55:M9:38:ARG:HH12	4.52	0.45
36:1:1472:U:H5'	55:M9:4:LEU:HB2	1.99	0.45
7:S5:205:SER:OG	7:S5:205:SER:O	2.24	0.45
48:M1:101:ASN:HB3	48:M1:129:VAL:O	2.16	0.45
36:1:171:G:H2'	36:1:172:G:O4'	2.16	0.45
36:5:953:G:H2'	36:5:1117:G:H5''	1.98	0.45
28:D6:88:SER:O	28:D6:92:ARG:HG3	2.24	0.45
49:M3:92:THR:HB	71:O5:112:PRO:O	2.96	0.45
79:Q3:35:ALA:HB3	79:Q3:37:TYR:CE2	3.30	0.45
13:C1:92:HIS:O	13:C1:100:TYR:HA	2.34	0.45
34:SR:154:VAL:HG12	34:SR:171:SER:HB3	1.99	0.45
36:1:94:G:H2'	36:1:95:A:C8	2.52	0.45
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.71	0.45
36:5:3056:U:OP2	87:5:3946:OHX:N2	2.50	0.45
29:D7:35:VAL:HG21	29:D7:73:LEU:HD21	3.34	0.45
1:6:363:G:OP1	87:6:2109:OHX:N1	2.49	0.45
34:SR:248:ASN:OD1	34:SR:249:ARG:HG3	3.40	0.45
36:5:3089:C:H2'	36:5:3090:U:O4'	2.16	0.45
18:C6:10:PHE:CE2	1:6:1379:C:H5'	432.94	0.45
36:1:1018:G:H8	36:1:1018:G:OP2	1.99	0.45
64:N8:27:LYS:O	64:N8:28:HIS:HB2	4.31	0.45
50:M4:121:MET:HE1	36:5:3215:A:O5'	276.09	0.45
39:L2:80:GLU:OE1	79:Q3:73:THR:HB	2.16	0.45
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.22	0.45
34:SR:153:GLN:HB2	34:SR:201:THR:HA	1.98	0.45
36:1:915:A:H2'	36:1:915:A:N3	2.31	0.45
16:C4:50:ALA:C	16:C4:52:ARG:N	2.98	0.45
36:1:1578:C:C6	36:1:1579:C:H5	2.34	0.45
3:S1:45:LYS:HD2	16:C4:13:VAL:HG12	7.32	0.45
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.26	0.45
1:2:393:C:H2'	1:2:394:C:C6	2.51	0.45
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	4.34	0.45
35:SM:65:THR:O	35:SM:67:GLY:N	5.08	0.45
36:5:1017:C:H42	36:5:2671:A:P	2.39	0.45
1:2:1519:U:H3'	1:2:1520:U:H2'	1.98	0.45
36:5:990:U:O4	87:5:4192:OHX:N6	2.50	0.45
55:M9:124:TYR:CE2	36:5:1720:U:C4	236.63	0.45
36:1:1953:G:N2	36:1:2093:A:N7	2.65	0.45
48:M1:133:ARG:NH1	48:M1:153:LYS:O	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:670:C:P	54:M8:147:ARG:NH2	2.90	0.45
36:5:528:U:H2'	36:5:529:A:H8	1.81	0.45
13:C1:37:ASN:O	1:6:247:A:O2'	319.68	0.45
8:S6:167:LYS:HD3	8:S6:169:TYR:CE2	2.51	0.45
5:S3:64:ARG:HG2	5:S3:65:ARG:N	3.82	0.45
11:S9:123:HIS:NE2	32:E0:37:ARG:HG3	2.32	0.45
40:L3:227:GLU:HG3	40:L3:270:ARG:CB	4.81	0.45
45:L8:113:ALA:C	45:L8:115:ALA:H	3.45	0.45
1:2:1015:U:OP1	87:2:2045:OHX:N3	2.49	0.45
6:S4:31:PRO:HD2	6:S4:38:LEU:HD13	2.77	0.45
1:6:1584:G:H22	1:6:1611:A:P	2.39	0.45
6:S4:196:VAL:HG12	6:S4:197:HIS:HB3	1.99	0.45
54:M8:159:LYS:HE2	54:M8:159:LYS:HB3	1.74	0.45
33:E1:89:LYS:HD2	33:E1:89:LYS:HA	1.81	0.45
35:SM:77:THR:C	35:SM:79:SER:N	3.33	0.45
87:5:4221:OHX:N1	87:5:4231:OHX:N5	2.64	0.45
52:M6:171:LYS:O	52:M6:175:THR:HG23	2.16	0.45
41:L4:74:ILE:HG23	41:L4:75:PRO:O	5.24	0.45
36:5:1243:G:O6	36:5:1244:A:N6	2.45	0.45
74:O8:9:LYS:NZ	74:O8:13:GLU:OE2	2.49	0.45
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.52	0.45
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.47	0.45
45:L8:211:LEU:O	45:L8:215:VAL:HG23	2.17	0.45
36:1:3143:C:O2'	87:1:3904:OHX:N2	2.50	0.45
55:M9:17:VAL:HG21	55:M9:52:LYS:HE2	3.41	0.45
1:2:775:G:H2'	1:2:776:G:O4'	2.16	0.45
36:1:2369:G:H2'	36:1:2370:G:O4'	2.16	0.45
36:5:2590:A:C6	36:5:2591:A:C5	3.05	0.45
52:M6:12:LYS:HD3	52:M6:40:GLU:HB3	4.45	0.45
36:5:2314:U:OP2	36:5:2314:U:H4'	2.17	0.45
4:S2:141:ARG:HG2	4:S2:141:ARG:H	1.87	0.45
70:O4:42:PRO:HB2	70:O4:51:LEU:HD21	1.97	0.45
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.70	0.45
1:6:862:A:C2	1:6:963:A:C4	3.05	0.45
87:6:2118:OHX:N4	87:6:2169:OHX:N1	2.65	0.45
73:O7:87:SER:C	87:O7:104:OHX:N1	2.70	0.45
1:2:320:U:H3'	1:2:321:C:C5'	2.36	0.45
36:1:2232:A:H2'	36:1:2233:A:C8	2.52	0.45
87:5:4197:OHX:N1	87:5:4199:OHX:N4	2.65	0.45
1:6:647:G:H1	1:6:687:G:N2	2.04	0.45
40:L3:4:ARG:HG3	40:L3:6:TYR:O	4.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:170:LYS:HG2	57:N1:160:ILE:C	2.37	0.45
7:S5:37:GLN:CD	18:C6:53:LEU:HD22	2.89	0.45
22:D0:22:ILE:HD12	22:D0:22:ILE:HA	1.79	0.45
25:D3:24:TRP:CZ3	25:D3:30:LYS:HG3	3.23	0.45
24:D2:28:ARG:HA	24:D2:29:PRO:HA	1.82	0.45
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH2	2.50	0.45
87:5:4072:OHX:N3	87:5:4150:OHX:N6	2.65	0.45
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.82	0.45
79:Q3:28:LYS:O	79:Q3:32:GLN:HG3	4.65	0.45
53:M7:139:TYR:CZ	36:5:2355:G:H4'	146.83	0.45
21:C9:105:LEU:HB3	21:C9:122:ARG:HE	1.82	0.45
51:M5:187:ARG:HA	51:M5:190:THR:HG23	1.99	0.45
36:1:1238:C:H41	36:1:1245:A:P	2.40	0.45
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.52	0.45
36:1:2746:A:H2'	36:1:2747:A:O4'	2.17	0.45
26:D4:52:LYS:C	26:D4:54:ALA:H	2.33	0.45
22:D0:105:GLN:HA	22:D0:108:ILE:HG12	5.06	0.45
36:5:2694:A:C6	36:5:2695:A:C6	3.05	0.45
1:2:873:U:O2'	1:2:1047:G:OP1	2.27	0.45
50:M4:24:LYS:HE2	50:M4:25:LYS:HE2	1.97	0.45
36:5:208:C:H2'	36:5:209:A:O4'	2.16	0.45
45:L8:135:GLY:O	45:L8:139:VAL:HG23	2.17	0.45
36:1:2633:U:H2'	36:1:2634:U:O4'	2.16	0.45
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.51	0.45
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.64	0.45
36:5:1366:A:C2	36:5:1367:G:C4	3.05	0.45
2:S0:171:GLY:HA3	2:S0:202:TYR:O	2.16	0.45
32:E0:3:LYS:HB2	32:E0:3:LYS:HE3	4.65	0.45
21:C9:6:VAL:HB	21:C9:14:PHE:CE1	2.51	0.45
65:N9:38:LYS:HB2	65:N9:41:ARG:HH12	3.79	0.45
9:S7:51:VAL:HG11	9:S7:168:SER:OG	2.17	0.45
11:S9:28:LEU:O	11:S9:31:ALA:N	3.06	0.45
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.67	0.45
36:5:1258:U:O2	36:5:1260:A:H8	2.00	0.45
36:1:2810:C:OP1	87:1:4086:OHX:N6	2.50	0.45
36:5:2398:A:OP1	36:5:2873:U:H4'	2.17	0.45
36:1:1650:G:O6	87:1:4142:OHX:N2	2.50	0.45
18:C6:20:ALA:HB2	18:C6:84:ALA:HB1	2.76	0.45
68:O2:8:LYS:HE3	68:O2:8:LYS:HB2	1.54	0.45
36:1:2887:A:H2'	36:1:2887:A:N3	2.32	0.45
10:S8:166:TYR:O	10:S8:183:ILE:HD12	6.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1729:C:H2'	1:2:1730:A:O4'	2.17	0.45
42:L5:269:SER:O	42:L5:270:LYS:HB2	4.46	0.45
11:S9:110:GLN:CD	11:S9:126:ARG:HG2	2.37	0.45
11:S9:143:ILE:HG22	11:S9:145:SER:H	1.82	0.45
36:5:1564:U:H2'	36:5:1565:G:H8	1.77	0.45
65:N9:14:ARG:CZ	65:N9:18:ARG:HD3	2.47	0.45
48:M1:94:ARG:HB2	48:M1:95:ASN:H	1.68	0.45
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.48	0.45
1:2:1548:G:OP1	17:C5:18:ARG:NH1	2.41	0.45
51:M5:176:LYS:HE2	36:5:66:A:N3	97.23	0.45
39:L2:206:PRO:HD3	39:L2:213:GLY:HA3	1.99	0.45
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.18	0.45
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.82	0.45
29:D7:44:THR:HB	29:D7:63:LEU:HD11	4.36	0.45
36:5:173:G:HO2'	36:5:174:C:C5'	2.29	0.45
26:D4:29:HIS:O	26:D4:29:HIS:ND1	2.47	0.45
1:6:585:A:H2'	1:6:586:G:C8	2.52	0.45
87:5:4016:OHX:N4	87:5:4208:OHX:N2	2.64	0.45
36:1:2093:A:H3'	36:1:2093:A:N3	2.32	0.45
24:D2:30:SER:HA	24:D2:34:ILE:HD12	1.98	0.45
70:O4:88:ARG:NH1	36:5:2556:C:OP1	200.91	0.45
24:D2:103:ILE:HG22	24:D2:112:ASP:HA	4.68	0.45
10:S8:197:THR:HG22	10:S8:200:LYS:HD2	1.98	0.45
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.50	0.45
36:1:874:U:H3	36:1:2978:U:H5''	1.82	0.45
1:6:1508:U:H2'	1:6:1509:C:C6	2.51	0.45
11:S9:37:LYS:HB2	32:E0:33:ARG:N	2.32	0.45
50:M4:62:GLN:HG2	50:M4:62:GLN:H	4.05	0.45
36:1:1387:G:OP1	87:1:4161:OHX:N6	2.50	0.45
16:C4:99:GLN:HB3	28:D6:46:GLU:OE2	2.17	0.45
87:1:4023:OHX:N6	87:1:4061:OHX:N2	2.65	0.45
59:N3:10:LYS:NZ	59:N3:53:SER:OG	3.11	0.45
34:SR:25:THR:OG1	34:SR:26:SER:N	3.16	0.45
1:6:781:U:H5''	1:6:781:U:O2	2.16	0.45
15:C3:21:ASN:HB2	15:C3:22:ALA:H	1.85	0.45
36:5:2542:U:H1'	36:5:2543:U:C5	2.52	0.45
1:2:411:C:H2'	1:2:412:A:O4'	2.17	0.45
42:L5:140:ARG:HB2	36:5:1080:A:OP1	229.02	0.45
51:M5:12:ARG:HG2	36:5:268:A:C4	128.54	0.45
66:O0:77:LEU:O	66:O0:80:ALA:HB3	2.17	0.45
9:S7:158:ASP:O	9:S7:160:GLN:N	2.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	1.99	0.45
34:SR:2:ALA:O	34:SR:3:SER:HB3	2.17	0.45
9:S7:174:ASN:O	9:S7:178:GLY:N	2.48	0.45
36:1:766:U:H4'	36:1:767:U:O5'	2.17	0.45
36:5:2733:A:H2'	36:5:2734:A:O4'	2.17	0.45
1:6:231:U:H2'	1:6:232:U:H5''	1.99	0.45
18:C6:59:LYS:HB2	18:C6:59:LYS:HE2	1.80	0.45
63:N7:64:LYS:HE3	36:5:1812:G:N7	184.66	0.45
36:5:2768:U:H2'	36:5:2769:A:C8	2.52	0.45
11:S9:70:LEU:O	11:S9:74:ASN:HB2	2.17	0.45
36:5:926:A:H2'	36:5:927:C:C6	2.52	0.45
6:S4:62:LYS:HE3	6:S4:66:MET:HE3	5.20	0.45
36:5:1841:A:H4'	36:5:1849:C:OP1	2.17	0.45
40:L3:299:ASP:OD1	40:L3:301:THR:HG23	2.46	0.45
8:S6:132:ARG:HG2	8:S6:132:ARG:HH11	1.82	0.45
19:C7:108:ASP:OD1	19:C7:108:ASP:N	2.60	0.45
21:C9:77:ASN:OD1	21:C9:98:GLY:HA2	2.17	0.45
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.17	0.45
63:N7:18:TYR:HA	63:N7:21:LYS:HD2	2.65	0.45
59:N3:75:PRO:HG2	59:N3:105:PRO:HD3	1.99	0.45
1:2:543:C:O2	1:2:543:C:H5''	2.16	0.45
20:C8:91:ASP:C	20:C8:93:THR:H	2.19	0.45
55:M9:104:ARG:HH21	55:M9:108:LYS:HZ2	1.65	0.45
1:2:1100:G:O2'	24:D2:76:SER:N	2.48	0.45
67:O1:82:GLU:C	67:O1:84:ASP:H	2.19	0.45
38:8:154:C:H2'	38:8:155:A:O4'	2.17	0.45
69:O3:75:HIS:HB2	69:O3:82:ARG:HG2	1.99	0.45
5:S3:116:ARG:CZ	5:S3:116:ARG:HB2	4.93	0.45
1:6:1097:U:H4'	1:6:1098:U:H5'	1.98	0.45
1:6:1346:A:H4'	1:6:1347:U:OP1	2.16	0.45
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.16	0.45
1:2:1236:A:C1'	33:E1:138:ARG:HH22	2.30	0.45
17:C5:130:ARG:NH2	35:SM:66:ALA:HA	3.48	0.45
28:D6:7:SER:HB2	28:D6:10:ARG:O	5.25	0.45
79:Q3:6:LYS:HE2	79:Q3:7:LYS:HE3	4.45	0.45
30:D8:64:ARG:HD2	30:D8:64:ARG:HA	1.57	0.45
40:L3:62:ARG:O	40:L3:68:HIS:HB2	2.73	0.45
10:S8:33:PRO:HB3	1:6:330:G:O2'	274.02	0.45
11:S9:162:SER:O	11:S9:165:GLY:N	4.70	0.45
87:6:2123:OHX:N5	87:6:2148:OHX:N3	2.65	0.45
72:O6:66:GLU:HB3	72:O6:70:ARG:NH2	4.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:150:ASN:C	48:M1:152:HIS:H	2.19	0.45
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	2.30	0.45
1:6:1504:G:H2'	1:6:1505:A:C8	2.51	0.45
1:6:105:A:H2'	1:6:106:U:O4'	2.16	0.45
1:2:95:G:C2	1:2:96:G:H1'	2.51	0.45
36:1:1100:U:OP2	44:L7:196:LYS:HE3	2.16	0.45
1:6:1474:G:H2'	1:6:1475:A:H8	1.82	0.45
7:S5:109:LYS:HE2	1:6:1474:G:OP2	364.04	0.45
7:S5:113:ILE:HG21	7:S5:190:ILE:HG22	1.99	0.45
7:S5:225:ARG:NH2	30:D8:58:GLU:H	5.23	0.45
55:M9:105:LEU:HD12	55:M9:135:LYS:CD	2.47	0.45
47:M0:194:GLY:O	47:M0:196:PHE:N	4.06	0.45
40:L3:7:GLU:HG2	36:5:2915:U:H5	256.84	0.45
27:D5:81:ARG:HB2	27:D5:81:ARG:HH11	4.37	0.45
9:S7:78:THR:O	9:S7:82:GLU:N	2.98	0.45
36:1:2775:U:H2'	36:1:2776:C:C6	2.50	0.45
36:5:2585:G:C2	38:8:151:C:C5	3.04	0.45
36:1:664:U:H5'	41:L4:107:ARG:HA	1.98	0.45
36:5:1110:U:H2'	36:5:1111:U:C6	2.52	0.45
7:S5:206:SER:O	7:S5:212:LYS:HE3	2.17	0.45
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.50	0.45
36:5:2911:A:H4'	36:5:2912:G:C8	2.52	0.45
1:6:1144:U:H2'	1:6:1145:U:C6	2.52	0.45
1:6:881:A:OP2	87:6:2106:OHX:N5	2.50	0.45
34:SR:314:GLN:HG3	34:SR:315:VAL:N	4.89	0.45
21:C9:108:LEU:HA	21:C9:111:ILE:HG22	1.99	0.45
19:C7:77:GLU:HG3	19:C7:80:ARG:HH21	7.85	0.45
42:L5:286:VAL:O	42:L5:290:ILE:HG13	2.17	0.45
27:D5:87:GLY:O	27:D5:89:ILE:N	2.45	0.45
55:M9:154:ALA:O	55:M9:158:GLU:HG2	2.32	0.45
36:5:249:U:OP2	36:5:249:U:H2'	2.17	0.45
4:S2:188:LEU:HA	4:S2:188:LEU:HD23	1.62	0.45
72:O6:67:LYS:HA	72:O6:67:LYS:HD2	4.32	0.45
27:D5:70:LYS:HA	27:D5:70:LYS:HD3	1.77	0.45
36:1:1192:C:O2	87:1:4054:OHX:N3	2.49	0.45
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.18	0.45
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.35	0.45
36:1:748:U:H2'	36:1:749:C:C6	2.51	0.45
36:5:1690:C:H2'	36:5:1691:U:O4'	2.16	0.45
62:N6:33:ALA:HB3	62:N6:106:ILE:HD11	2.90	0.45
1:2:1323:C:H2'	1:2:1324:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:129:ILE:HG22	11:S9:142:ASN:HA	1.98	0.44
71:O5:85:THR:HB	71:O5:88:LEU:HD12	1.99	0.44
7:S5:72:HIS:CE1	18:C6:79:TYR:HH	2.94	0.44
1:2:1550:A:P	17:C5:42:ARG:NH2	2.89	0.44
67:O1:44:MET:HE3	67:O1:44:MET:HB2	5.01	0.44
34:SR:113:VAL:HG13	34:SR:114:ASP:N	2.24	0.44
6:S4:7:LYS:HB2	1:6:94:U:O2'	346.40	0.44
12:C0:4:PRO:HG2	12:C0:7:ASP:OD1	2.18	0.44
35:SM:58:GLU:O	35:SM:62:ARG:HB2	2.71	0.44
36:1:1877:U:H5''	36:1:1878:G:O4'	2.17	0.44
27:D5:74:SER:HA	27:D5:77:ARG:NH2	3.27	0.44
42:L5:261:THR:OG1	42:L5:263:GLU:HB2	2.17	0.44
34:SR:218:GLY:HA2	34:SR:238:ASP:O	2.17	0.44
19:C7:104:ASN:ND2	19:C7:105:GLN:OE1	5.19	0.44
36:5:2572:C:H2'	36:5:2572:C:OP2	2.17	0.44
40:L3:133:TYR:O	40:L3:136:LYS:HB2	2.57	0.44
14:C2:67:THR:C	14:C2:69:ALA:H	2.21	0.44
13:C1:129:ARG:O	13:C1:131:ILE:HG12	2.17	0.44
42:L5:148:ILE:HD11	42:L5:160:PHE:CE1	2.52	0.44
1:6:1316:G:H2'	1:6:1317:C:H6	1.82	0.44
41:L4:52:VAL:HB	41:L4:99:MET:HE2	1.98	0.44
36:1:981:U:O2'	36:1:982:C:OP1	2.28	0.44
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.52	0.44
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.56	0.44
36:1:2554:A:H5''	39:L2:85:GLY:O	2.16	0.44
36:1:810:A:H2'	36:1:811:U:H6	1.82	0.44
1:2:154:G:O6	26:D4:128:LYS:NZ	2.46	0.44
8:S6:2:LYS:O	8:S6:3:LEU:HD23	2.17	0.44
87:1:4032:OHX:N6	87:1:4151:OHX:N5	2.65	0.44
7:S5:121:ILE:HG13	7:S5:195:ALA:HB1	2.65	0.44
36:5:1108:U:H2'	36:5:1109:U:H6	1.82	0.44
36:1:3033:A:H2'	36:1:3034:C:C6	2.52	0.44
39:L2:44:ILE:HG23	39:L2:87:PHE:CD1	2.52	0.44
36:1:3270:U:O4'	53:M7:174:GLY:HA3	2.16	0.44
38:4:37:A:H5''	38:4:39:G:O4'	2.16	0.44
1:2:812:A:OP1	1:2:858:G:N2	2.50	0.44
40:L3:45:SER:O	40:L3:181:ILE:HD13	2.54	0.44
36:5:3041:U:H2'	36:5:3042:U:C6	2.52	0.44
36:1:2358:A:H2'	36:1:2359:C:O4'	2.16	0.44
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.33	0.44
73:O7:48:ASN:HA	73:O7:54:LYS:NZ	3.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:116:LEU:O	20:C8:124:GLY:HA3	3.50	0.44
1:2:696:C:H1'	1:2:697:C:H2'	1.99	0.44
65:N9:7:HIS:O	36:5:1135:A:H5'	227.26	0.44
36:5:2304:C:C5	36:5:2305:G:C6	3.05	0.44
87:2:2083:OHX:N3	87:2:2085:OHX:N1	2.65	0.44
1:6:1182:U:O2	1:6:1184:A:H8	2.00	0.44
42:L5:194:LEU:O	42:L5:197:SER:HB3	2.16	0.44
1:6:46:A:N6	1:6:433:C:H4'	2.31	0.44
44:L7:191:VAL:O	44:L7:191:VAL:HG12	2.17	0.44
70:O4:38:LEU:HD12	70:O4:38:LEU:H	2.84	0.44
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	1.97	0.44
52:M6:28:LEU:HD23	52:M6:28:LEU:HA	2.28	0.44
47:M0:4:ARG:NH2	36:5:1128:U:OP1	265.14	0.44
36:5:1661:G:H2'	36:5:1662:G:C8	2.51	0.44
36:1:3:U:C2	38:4:157:U:C2	3.05	0.44
36:1:1659:U:H2'	36:1:1660:C:C6	2.53	0.44
11:S9:142:ASN:OD1	1:6:767:U:H5	425.28	0.44
11:S9:34:PHE:HE1	11:S9:106:GLU:HA	2.38	0.44
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.86	0.44
1:2:1556:A:C5	1:2:1560:U:C2	3.05	0.44
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.99	0.44
1:6:875:G:H2'	1:6:877:G:OP1	2.17	0.44
54:M8:178:ARG:HE	54:M8:186:VAL:CG2	4.13	0.44
28:D6:5:ARG:HH12	1:6:1795:U:H3'	338.99	0.44
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.38	0.44
22:D0:22:ILE:HD12	22:D0:118:VAL:HA	1.98	0.44
40:L3:283:TYR:OH	40:L3:325:LYS:HD2	2.38	0.44
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	4.34	0.44
9:S7:173:TYR:CE2	9:S7:177:THR:HG21	2.52	0.44
9:S7:173:TYR:HE1	9:S7:179:LYS:HB2	2.01	0.44
10:S8:56:ARG:NH2	1:6:332:U:OP2	287.06	0.44
46:L9:93:VAL:HG13	76:Q0:78:ILE:HD13	9.77	0.44
41:L4:292:SER:O	41:L4:293:SER:OG	2.25	0.44
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.82	0.44
19:C7:103:ASP:O	19:C7:104:ASN:ND2	6.29	0.44
14:C2:90:LYS:HD3	14:C2:90:LYS:HA	1.72	0.44
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	1.99	0.44
49:M3:9:ILE:CG2	64:N8:34:MET:HE3	3.27	0.44
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.53	0.44
34:SR:224:ASN:ND2	34:SR:226:ALA:HB3	4.50	0.44
36:1:508:U:O4	87:1:4177:OHX:N5	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:210:ILE:HA	47:M0:217:PHE:HE2	1.94	0.44
5:S3:90:ARG:HB3	5:S3:91:VAL:H	3.09	0.44
28:D6:17:HIS:CE1	28:D6:18:VAL:O	2.70	0.44
34:SR:133:VAL:O	34:SR:141:LEU:N	2.57	0.44
36:5:2971:A:H5''	36:5:2972:G:C5'	2.47	0.44
3:S1:115:ARG:HG3	3:S1:116:LYS:N	2.32	0.44
1:2:1629:G:H2'	1:2:1630:U:H6	1.83	0.44
45:L8:101:THR:HG22	45:L8:104:GLU:CB	2.47	0.44
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.35	0.44
1:6:961:U:H2'	1:6:962:C:C6	2.52	0.44
42:L5:211:LEU:HA	42:L5:211:LEU:HD23	1.69	0.44
36:5:2512:C:N4	36:5:2513:U:O4	2.51	0.44
36:5:2514:U:H6	36:5:2514:U:OP1	1.98	0.44
27:D5:55:PRO:HG3	27:D5:88:ILE:HD12	5.86	0.44
36:1:1826:C:H2'	36:1:1827:C:C6	2.52	0.44
1:2:1350:U:H2'	1:2:1351:G:C8	2.52	0.44
57:N1:42:ILE:HG12	57:N1:91:LEU:CD1	3.37	0.44
47:M0:184:LYS:HG3	47:M0:189:GLU:OE2	2.17	0.44
36:1:2516:U:O2'	36:1:2595:A:N6	2.49	0.44
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.40	0.44
1:2:1759:C:O2'	36:1:2263:C:H4'	2.17	0.44
3:S1:50:LYS:O	3:S1:52:THR:N	2.50	0.44
1:6:1358:G:H2'	1:6:1359:C:C6	2.53	0.44
56:N0:30:PHE:CE1	56:N0:103:VAL:HG21	2.98	0.44
1:6:454:U:P	1:6:455:C:H41	2.40	0.44
43:L6:55:LEU:HD23	43:L6:55:LEU:HA	1.66	0.44
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.99	0.44
40:L3:209:PHE:HB3	40:L3:282:ILE:CD1	2.64	0.44
36:1:2105:G:C2'	36:1:2106:A:H5'	2.47	0.44
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.52	0.44
50:M4:92:GLU:CD	50:M4:92:GLU:H	2.11	0.44
1:6:1243:G:N3	1:6:1243:G:H5''	2.32	0.44
64:N8:68:PHE:N	64:N8:68:PHE:CD2	3.11	0.44
87:5:4114:OHX:N5	38:8:139:U:O4	2.51	0.44
51:M5:72:LYS:NZ	36:5:2167:A:OP1	162.93	0.44
36:5:2310:U:OP1	87:5:4206:OHX:N2	2.51	0.44
36:1:299:G:N7	87:1:4084:OHX:N2	2.66	0.44
43:L6:78:ARG:CG	43:L6:78:ARG:HH11	2.30	0.44
1:6:818:C:C2'	1:6:819:G:H5'	2.47	0.44
52:M6:184:THR:OG1	52:M6:185:ALA:N	4.54	0.44
23:D1:79:LEU:HD13	23:D1:82:VAL:HG11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1573:G:H2'	36:1:1573:G:N3	2.33	0.44
3:S1:179:SER:OG	3:S1:183:GLN:NE2	5.76	0.44
36:5:3362:A:H2'	36:5:3363:U:O4'	2.18	0.44
22:D0:28:SER:HB2	22:D0:112:VAL:HA	2.00	0.44
17:C5:127:ARG:CZ	35:SM:66:ALA:HB2	4.50	0.44
34:SR:161:LYS:HB3	34:SR:161:LYS:HE3	2.11	0.44
41:L4:31:ARG:NH1	41:L4:34:ILE:HD11	2.32	0.44
42:L5:83:LEU:HA	42:L5:83:LEU:HD23	1.91	0.44
54:M8:126:GLN:O	54:M8:130:ARG:HG3	2.17	0.44
34:SR:131:ILE:HB	34:SR:144:LEU:HB2	1.99	0.44
34:SR:281:TYR:HB3	34:SR:282:SER:H	1.61	0.44
34:SR:305:TYR:HH	34:SR:313:TRP:HH2	2.09	0.44
13:C1:131:ILE:HA	13:C1:131:ILE:HD13	1.74	0.44
5:S3:64:ARG:O	5:S3:66:ILE:N	3.50	0.44
7:S5:25:LEU:N	7:S5:25:LEU:HD13	2.37	0.44
53:M7:36:ILE:HD12	53:M7:36:ILE:HG21	1.79	0.44
36:1:1887:A:OP2	87:1:3896:OHX:N4	2.51	0.44
30:D8:22:ARG:HD2	1:6:1619:C:O2	343.17	0.44
15:C3:138:ASN:O	15:C3:140:LYS:N	3.74	0.44
36:5:59:G:C4'	36:5:60:A:H4'	2.47	0.44
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.17	0.44
26:D4:89:TYR:O	26:D4:92:VAL:HG23	3.83	0.44
26:D4:21:LYS:N	26:D4:21:LYS:HD2	2.33	0.44
6:S4:15:PRO:HG2	6:S4:18:TRP:CZ2	3.13	0.44
48:M1:91:LEU:O	48:M1:171:VAL:HA	3.90	0.44
55:M9:142:ILE:HG22	55:M9:146:LYS:HD3	1.98	0.44
36:5:999:G:O2'	36:5:1000:C:H5'	2.17	0.44
36:1:2588:U:H2'	36:1:2589:G:O4'	2.18	0.44
36:5:180:C:H2'	36:5:181:U:C6	2.52	0.44
45:L8:182:GLY:HA3	45:L8:185:ARG:HB2	1.99	0.44
21:C9:14:PHE:HZ	21:C9:132:LEU:HB3	3.36	0.44
34:SR:47:LEU:HD23	34:SR:47:LEU:HA	1.84	0.44
31:D9:5:ASN:CG	31:D9:7:TRP:HE1	2.20	0.44
36:1:1018:G:H2'	36:1:1019:G:O4'	2.18	0.44
36:5:2767:U:H2'	36:5:2768:U:C6	2.52	0.44
36:5:1514:G:C6	36:5:1841:A:C5	3.05	0.44
24:D2:107:SER:HA	1:6:804:A:C8	367.78	0.44
1:6:1050:G:O6	87:6:2194:OHX:N4	2.50	0.44
36:1:3231:U:H2'	36:1:3232:G:H8	1.82	0.44
44:L7:96:PRO:O	44:L7:100:ARG:HB2	2.17	0.44
21:C9:12:GLN:O	21:C9:16:ASN:ND2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3341:U:N3	36:5:3355:U:C2	2.85	0.44
38:4:91:C:H2'	38:4:92:A:H8	1.83	0.44
11:S9:6:ARG:HH11	11:S9:6:ARG:HB2	1.82	0.44
51:M5:160:GLU:OE1	51:M5:160:GLU:N	3.07	0.44
36:1:2373:A:H3'	36:1:2373:A:OP2	2.17	0.44
23:D1:41:GLU:O	23:D1:42:GLU:HB3	2.76	0.44
79:Q3:14:TYR:HB2	79:Q3:23:ARG:HD3	1.99	0.44
40:L3:296:THR:CG2	40:L3:298:PHE:H	4.46	0.44
10:S8:22:ARG:HB2	10:S8:25:ARG:NH2	2.33	0.44
6:S4:50:ASN:O	6:S4:53:LYS:NZ	2.34	0.44
11:S9:146:PHE:HZ	1:6:765:G:C2	431.18	0.44
36:1:1233:G:N1	36:1:1234:G:O6	2.50	0.44
7:S5:73:THR:HG23	18:C6:114:ARG:CG	2.47	0.44
1:2:1102:G:P	24:D2:76:SER:HB2	2.58	0.44
1:2:1773:C:H2'	1:2:1774:G:C8	2.52	0.44
1:2:1773:C:OP1	77:Q1:3:ALA:HB3	2.17	0.44
20:C8:13:HIS:CD2	20:C8:13:HIS:N	3.41	0.44
56:N0:138:GLN:C	56:N0:140:VAL:H	2.21	0.44
56:N0:13:ARG:NH1	56:N0:13:ARG:HG3	4.65	0.44
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD13	2.40	0.44
8:S6:96:SER:OG	1:6:420:A:OP1	297.11	0.44
36:5:2207:A:H2'	36:5:2208:A:O4'	2.18	0.44
1:2:356:G:OP2	87:2:2036:OHX:N6	2.50	0.44
1:2:1727:G:H2'	1:2:1728:A:C8	2.51	0.44
1:2:1788:G:P	16:C4:127:ARG:HH12	2.40	0.44
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.47	0.44
57:N1:54:HIS:CD2	36:5:2724:U:H4'	229.47	0.44
15:C3:28:LEU:HB3	15:C3:29:SER:H	1.58	0.44
36:1:3152:U:O2	87:1:4149:OHX:N4	2.50	0.44
1:2:1478:G:H8	1:2:1478:G:OP2	2.01	0.44
6:S4:213:SER:O	6:S4:214:LEU:HD12	2.67	0.44
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.17	0.44
36:5:2386:A:OP1	87:5:4024:OHX:N1	2.50	0.44
1:2:275:C:H2'	1:2:276:C:C5	2.52	0.44
39:L2:181:LYS:HB2	36:5:860:G:C5	212.15	0.44
51:M5:95:GLN:O	36:5:289:A:H5'	129.90	0.44
25:D3:95:PHE:HE2	25:D3:136:TRP:HA	2.29	0.44
21:C9:117:SER:HB2	21:C9:123:ARG:HE	3.89	0.44
71:O5:43:LYS:HD3	71:O5:43:LYS:O	2.17	0.44
87:1:4088:OHX:N5	87:1:4159:OHX:N1	2.66	0.44
87:5:4211:OHX:N2	87:8:222:OHX:N1	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:412:A:H2'	1:2:413:U:C6	2.53	0.44
1:6:1451:C:H2'	1:6:1452:U:C6	2.52	0.44
58:N2:33:TYR:CE2	58:N2:63:VAL:HG21	2.53	0.44
49:M3:161:ASP:HB2	64:N8:144:VAL:HG11	2.19	0.44
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	2.01	0.44
36:5:1242:G:H2'	36:5:1243:G:O4'	2.17	0.44
4:S2:108:ASN:HD22	4:S2:108:ASN:C	3.85	0.44
4:S2:108:ASN:ND2	4:S2:108:ASN:O	3.13	0.44
1:6:1592:A:C2	1:6:1605:G:C2	3.05	0.44
45:L8:172:LYS:NZ	72:O6:46:GLU:OE2	3.01	0.44
4:S2:81:MET:HB2	4:S2:101:VAL:HG12	1.99	0.44
36:5:499:G:H2'	36:5:500:C:C6	2.52	0.44
53:M7:175:ARG:O	53:M7:179:GLN:N	2.48	0.44
36:1:3013:U:H2'	36:1:3014:U:C6	2.53	0.44
55:M9:115:ILE:HG13	55:M9:119:LEU:HD23	1.99	0.44
1:2:1146:G:C6	1:2:1147:A:C6	3.05	0.44
1:6:103:A:H4'	1:6:104:A:O5'	2.16	0.44
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.18	0.44
39:L2:218:HIS:HD2	36:5:2246:G:OP1	222.40	0.44
1:2:1433:G:C4	31:D9:41:GLN:HB3	2.53	0.44
1:6:1001:A:C6	1:6:1002:G:C6	3.06	0.44
34:SR:117:LYS:HE2	34:SR:117:LYS:H	1.81	0.44
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.85	0.44
1:2:1426:C:H5''	35:SM:93:ARG:HH12	1.82	0.44
36:1:295:A:H1'	72:O6:82:ARG:HH11	1.81	0.44
1:2:372:G:H1'	1:2:612:U:O2	2.17	0.44
36:5:2836:C:H41	36:5:2852:C:N4	2.16	0.44
51:M5:85:THR:HG22	78:Q2:50:PHE:O	2.18	0.44
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.49	0.44
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.67	0.44
7:S5:44:ASN:O	7:S5:45:LYS:HE3	2.18	0.44
4:S2:111:VAL:O	4:S2:137:ILE:HG22	3.48	0.44
4:S2:65:GLU:HB2	4:S2:68:ILE:HD12	2.00	0.44
1:6:1402:G:C6	1:6:1403:C:C4	3.05	0.44
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	2.03	0.44
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.83	0.44
36:5:3306:U:O2'	36:5:3308:C:OP2	2.25	0.44
1:6:716:C:H2'	1:6:717:C:O4'	2.17	0.44
87:1:4036:OHX:N2	87:1:4048:OHX:N5	2.65	0.44
1:6:1080:U:H2'	1:6:1081:A:C8	2.53	0.44
1:2:884:A:H2'	1:2:885:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.98	0.44
10:S8:146:ARG:HG3	10:S8:146:ARG:H	1.59	0.44
8:S6:48:TYR:CD2	8:S6:117:GLY:HA3	2.67	0.44
87:5:4006:OHX:N3	87:5:4096:OHX:N5	2.65	0.44
51:M5:23:GLN:HG2	51:M5:122:ASN:HD21	1.83	0.44
36:5:530:G:N7	87:5:3954:OHX:N3	2.65	0.44
40:L3:236:LYS:HD2	36:5:2340:U:OP1	234.57	0.44
48:M1:47:GLN:HG2	48:M1:67:VAL:HG12	1.99	0.44
5:S3:67:ASN:HA	5:S3:70:THR:OG1	2.68	0.44
26:D4:15:ASN:OD1	26:D4:17:LEU:HB2	4.69	0.44
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.68	0.44
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.21	0.44
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.58	0.44
1:2:1330:G:H2'	1:2:1331:A:O4'	2.16	0.44
50:M4:59:ASN:O	50:M4:62:GLN:HG2	4.89	0.44
28:D6:45:VAL:HG21	28:D6:64:LEU:HD13	4.42	0.44
6:S4:195:ILE:O	6:S4:210:ILE:HA	5.02	0.44
1:6:1294:G:O6	87:6:2066:OHX:N5	2.51	0.44
36:5:3227:A:C2'	36:5:3228:C:H5'	2.48	0.44
10:S8:16:ALA:HB2	1:6:354:C:H5''	298.20	0.44
55:M9:143:ILE:O	55:M9:145:ALA:N	3.29	0.44
15:C3:64:ARG:NH1	15:C3:64:ARG:HG2	4.36	0.44
27:D5:54:VAL:N	27:D5:55:PRO:HD2	2.33	0.44
45:L8:116:VAL:HG13	45:L8:123:GLN:H	1.83	0.44
72:O6:58:ILE:HG22	72:O6:90:MET:CG	2.99	0.44
36:5:1501:U:H6	36:5:1501:U:O5'	1.99	0.44
87:1:4065:OHX:N3	87:1:4179:OHX:N1	2.66	0.44
36:1:1069:C:H2'	36:1:1070:U:H6	1.81	0.44
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.17	0.44
36:1:1340:G:H2'	36:1:1341:U:C6	2.52	0.44
1:2:1183:A:C5	1:2:1184:A:C6	3.05	0.44
1:6:1535:U:H1'	1:6:1536:G:C2	2.53	0.44
36:5:1662:G:O6	87:5:3924:OHX:N1	2.49	0.44
15:C3:103:GLU:O	15:C3:106:ARG:NH2	2.51	0.44
36:5:2580:A:O2'	87:5:4137:OHX:N1	2.50	0.44
36:1:671:U:OP2	54:M8:57:ILE:HD12	2.18	0.44
62:N6:113:LYS:HB2	38:8:84:C:H1'	19.93	0.44
37:3:79:A:C2	37:3:102:A:C4	3.05	0.44
36:5:1450:G:OP1	87:5:4236:OHX:N4	2.50	0.44
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.52	0.44
1:2:252:U:H4'	6:S4:132:GLY:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:238:ILE:HG23	39:L2:238:ILE:HD12	4.50	0.44
46:L9:118:LEU:HD23	46:L9:118:LEU:HA	1.80	0.44
1:6:1207:C:H42	1:6:1456:C:H5	1.63	0.44
43:L6:68:PRO:HB2	43:L6:71:VAL:HG23	2.53	0.44
65:N9:46:ALA:O	65:N9:50:THR:HG22	2.18	0.44
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.50	0.44
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.80	0.44
1:2:1482:C:OP2	1:2:1521:G:N1	2.50	0.44
41:L4:174:ALA:O	41:L4:177:ASP:N	2.49	0.44
42:L5:107:ARG:O	42:L5:111:GLN:N	2.71	0.44
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.18	0.44
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.69	0.44
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.51	0.44
87:5:4100:OHX:N3	87:5:4209:OHX:N1	2.66	0.44
22:D0:72:ASN:HD21	1:6:1429:G:H21	386.28	0.44
76:Q0:77:ILE:HG22	76:Q0:78:ILE:H	1.83	0.44
1:6:151:G:N2	1:6:163:G:H22	2.15	0.44
45:L8:78:PHE:C	45:L8:80:TYR:H	2.21	0.44
28:D6:10:ARG:HA	28:D6:10:ARG:HD2	4.54	0.44
31:D9:31:ILE:HD11	1:6:1199:G:O6	405.24	0.44
45:L8:97:TYR:HB2	45:L8:132:VAL:HG13	4.83	0.44
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.56	0.44
57:N1:39:ILE:HG13	57:N1:102:ARG:HD2	3.95	0.44
1:6:1227:A:OP1	1:6:1228:G:H3'	2.18	0.44
43:L6:176:PHE:H	50:M4:117:ARG:HH22	4.71	0.44
8:S6:121:LEU:HD12	8:S6:121:LEU:HA	4.27	0.44
46:L9:112:ILE:N	46:L9:126:VAL:O	2.43	0.44
40:L3:344:THR:O	40:L3:344:THR:HG22	4.69	0.44
50:M4:13:ARG:HD2	50:M4:65:LEU:O	2.85	0.44
1:2:82:U:H2'	1:2:83:G:O4'	2.18	0.44
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.53	0.44
45:L8:71:VAL:CG2	45:L8:76:ALA:HB2	2.47	0.44
5:S3:90:ARG:HD2	5:S3:91:VAL:HG12	6.02	0.44
15:C3:33:VAL:HA	15:C3:36:GLN:HB2	2.00	0.44
15:C3:36:GLN:HA	15:C3:39:LYS:HB3	3.64	0.44
36:5:979:U:C2	36:5:980:A:C2	3.06	0.44
44:L7:60:ARG:HA	44:L7:63:ILE:HG13	1.99	0.44
60:N4:9:SER:HB2	60:N4:51:TRP:CZ3	2.52	0.44
1:2:1239:U:O2	1:2:1246:C:N4	2.51	0.44
3:S1:223:PHE:O	3:S1:224:ASP:HB3	2.63	0.44
9:S7:110:GLN:HE21	9:S7:110:GLN:HB3	4.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:1:4059:OHX:N2	87:1:4168:OHX:N5	2.65	0.44
87:5:4041:OHX:N3	87:5:4245:OHX:N1	2.66	0.44
55:M9:13:SER:HB3	55:M9:38:ARG:HH12	4.08	0.44
65:N9:32:LEU:HD23	65:N9:32:LEU:HA	2.47	0.44
28:D6:4:LYS:HE3	28:D6:92:ARG:CZ	2.48	0.44
10:S8:67:TRP:HA	10:S8:183:ILE:HG23	5.53	0.44
55:M9:39:ASN:OD1	55:M9:42:ARG:NH1	7.90	0.44
1:2:1107:G:C6	1:2:1108:G:C6	3.05	0.44
71:O5:7:TYR:CE1	71:O5:8:GLU:HG3	2.66	0.44
39:L2:40:TYR:O	36:5:2550:U:H5	212.19	0.44
1:6:607:G:H4'	1:6:608:U:H5''	1.99	0.44
36:5:69:C:H2'	36:5:70:A:O4'	2.18	0.44
1:6:154:G:H1	1:6:160:C:H42	1.66	0.44
36:1:880:G:H8	36:1:882:A:OP2	2.01	0.44
47:M0:30:LYS:H	47:M0:62:SER:HB2	1.82	0.44
4:S2:177:GLY:HA2	4:S2:194:GLU:O	2.74	0.44
1:2:964:U:H5''	15:C3:128:TYR:CE1	2.52	0.44
42:L5:187:THR:O	42:L5:189:GLU:N	2.51	0.44
1:6:1324:G:N7	87:6:2101:OHX:N2	2.65	0.44
38:4:81:U:C2	38:4:82:U:C5	3.05	0.44
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.82	0.44
58:N2:58:GLU:O	58:N2:60:GLY:N	2.50	0.44
39:L2:147:ARG:NH1	39:L2:147:ARG:HB3	5.23	0.44
26:D4:18:LEU:HA	26:D4:18:LEU:HD23	1.78	0.44
36:5:2836:C:H2'	36:5:2837:A:O4'	2.17	0.44
4:S2:58:LEU:HB3	4:S2:59:HIS:ND1	2.33	0.44
28:D6:85:ARG:HD3	28:D6:85:ARG:HA	1.41	0.44
47:M0:87:LEU:HD23	47:M0:138:VAL:HG22	2.86	0.44
42:L5:107:ARG:HD2	42:L5:107:ARG:HA	3.76	0.44
1:2:735:C:OP2	1:2:735:C:H2'	2.18	0.44
36:5:2209:U:O4	87:5:3967:OHX:N4	2.51	0.44
36:1:2094:C:H2'	36:1:2095:G:C8	2.52	0.44
3:S1:35:PRO:HG3	3:S1:98:THR:O	2.17	0.44
20:C8:80:LYS:HD2	20:C8:80:LYS:HA	1.66	0.44
13:C1:2:SER:OG	13:C1:81:HIS:HA	2.17	0.44
53:M7:13:LYS:HB3	53:M7:13:LYS:HE2	2.98	0.44
9:S7:173:TYR:CE1	9:S7:179:LYS:HB2	2.52	0.44
20:C8:145:ARG:HD3	35:SM:68:ARG:NH2	3.00	0.44
9:S7:31:SER:HB2	9:S7:32:PRO:CD	2.43	0.44
40:L3:21:ARG:HG3	36:5:2991:A:OP1	210.34	0.44
1:2:831:U:H2'	1:2:831:U:O2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:927:C:H1'	16:C4:125:SER:CB	2.47	0.44
12:C0:25:LYS:NZ	1:6:1435:G:N7	420.54	0.44
87:5:4029:OHX:N2	87:5:4224:OHX:N5	2.66	0.44
9:S7:104:ARG:HD2	1:6:803:A:N7	358.52	0.44
8:S6:157:VAL:CG2	8:S6:173:PRO:HD2	2.63	0.44
15:C3:27:LYS:H	15:C3:27:LYS:CE	2.30	0.44
64:N8:86:LYS:O	64:N8:89:GLN:HB2	2.17	0.44
18:C6:118:ILE:HG13	18:C6:118:ILE:O	2.18	0.44
2:S0:189:VAL:HG21	2:S0:193:GLN:CB	2.47	0.44
19:C7:7:LYS:HG2	1:6:1316:G:OP1	410.99	0.44
1:2:1474:G:P	7:S5:109:LYS:HE2	2.58	0.44
29:D7:49:HIS:CE1	29:D7:70:LYS:HG2	2.60	0.44
1:6:583:C:OP1	87:6:2047:OHX:N6	2.50	0.44
40:L3:224:HIS:HB2	40:L3:270:ARG:O	2.30	0.44
38:8:67:U:H2'	38:8:68:G:H8	1.83	0.44
36:1:437:G:O2'	36:1:438:A:H5'	2.17	0.44
41:L4:219:LEU:HD23	41:L4:219:LEU:HA	1.83	0.44
2:S0:102:PHE:O	2:S0:103:THR:HB	2.20	0.44
78:Q2:2:VAL:HA	36:5:2655:U:OP2	240.49	0.44
36:5:1760:A:C4	36:5:1766:G:C2	3.06	0.44
1:2:825:U:H2'	1:2:826:U:H6	1.83	0.44
36:1:2881:C:H2'	36:1:2882:U:H6	1.83	0.44
36:1:3006:A:H2'	36:1:3007:U:O4'	2.18	0.44
22:D0:85:ARG:NH2	1:6:1334:U:O3'	424.62	0.44
36:1:2245:C:O4'	39:L2:222:ALA:HA	2.17	0.44
36:5:138:U:H2'	36:5:139:G:C8	2.53	0.44
36:1:287:G:H5'	51:M5:179:LYS:O	2.18	0.44
1:2:1789:G:N7	16:C4:132:ARG:NH2	2.64	0.44
36:5:2823:G:O6	87:5:3958:OHX:N4	2.50	0.44
14:C2:81:ASP:O	14:C2:83:GLU:N	2.87	0.44
38:4:91:C:H2'	38:4:92:A:C8	2.53	0.44
36:5:1422:G:H2'	36:5:1423:C:C6	2.53	0.44
41:L4:11:LEU:HD13	41:L4:159:ILE:HD11	2.21	0.44
41:L4:159:ILE:HD13	41:L4:164:GLU:HG2	2.34	0.44
51:M5:6:TYR:CE2	72:O6:40:VAL:HG22	2.52	0.44
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.17	0.44
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.18	0.44
53:M7:123:PRO:HD3	38:8:14:C:H5''	130.51	0.44
50:M4:22:LEU:O	50:M4:64:VAL:HG12	4.80	0.44
87:1:4145:OHX:N1	87:1:4189:OHX:N5	2.65	0.44
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.90	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:116:TYR:CD2	48:M1:122:ILE:HD11	2.52	0.44
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.43	0.44
8:S6:26:VAL:HG21	8:S6:40:ALA:HB1	1.98	0.44
69:O3:20:LYS:HG3	36:5:1178:G:O6	241.07	0.44
34:SR:157:VAL:HG21	34:SR:168:THR:HG22	2.00	0.44
36:5:28:C:O2'	36:5:61:A:N3	2.49	0.44
39:L2:19:HIS:CD2	39:L2:19:HIS:N	2.85	0.44
13:C1:46:LYS:HA	13:C1:46:LYS:HD2	2.55	0.44
1:2:21:U:H2'	1:2:22:A:C8	2.52	0.44
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.16	0.44
11:S9:40:LYS:HA	11:S9:43:TYR:HB2	2.00	0.44
25:D3:116:ASP:O	25:D3:118:PRO:HD3	2.18	0.44
18:C6:83:GLN:HB3	18:C6:83:GLN:HE21	3.56	0.44
18:C6:83:GLN:HG2	18:C6:116:LEU:O	4.34	0.44
34:SR:153:GLN:HB3	34:SR:202:LEU:CD2	2.45	0.44
36:5:283:G:O6	36:5:304:G:H1'	2.18	0.44
1:2:1553:G:N2	1:2:1555:A:H3'	2.33	0.44
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	2.57	0.44
36:5:864:G:OP2	87:5:3921:OHX:N4	2.51	0.44
3:S1:36:SER:O	3:S1:38:PHE:N	2.50	0.44
6:S4:163:ASP:HB3	6:S4:167:GLY:O	4.94	0.44
9:S7:126:LEU:HD22	9:S7:173:TYR:CE2	3.00	0.44
55:M9:43:LYS:NZ	36:5:1765:U:H5'	93.69	0.44
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.83	0.44
72:O6:34:SER:O	72:O6:37:THR:HG23	4.90	0.44
36:1:2960:C:H2'	36:1:2961:G:H8	1.83	0.44
36:5:172:G:N1	36:5:247:C:C4	2.86	0.44
36:5:2205:U:O2'	36:5:2206:G:H5'	2.17	0.44
36:5:2204:C:O2'	36:5:2205:U:O5'	2.17	0.44
15:C3:3:ARG:NE	15:C3:3:ARG:HA	2.94	0.44
36:5:1876:U:H6	36:5:1876:U:C5'	2.31	0.44
36:5:1688:U:H2'	36:5:1689:U:H6	1.79	0.44
51:M5:106:VAL:O	51:M5:109:ARG:N	2.51	0.44
1:2:753:A:OP1	6:S4:220:THR:HG22	2.17	0.44
36:5:1097:G:H4'	36:5:1098:A:O5'	2.18	0.44
71:O5:49:LYS:HE3	71:O5:49:LYS:HB3	4.70	0.44
34:SR:13:LEU:HD22	34:SR:45:TRP:CE3	2.52	0.44
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.52	0.44
51:M5:99:ARG:O	51:M5:103:GLU:HG3	2.18	0.44
36:5:1329:U:O2'	36:5:1330:A:P	2.75	0.44
51:M5:73:ARG:O	51:M5:74:PRO:O	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3092:C:O2'	36:1:3094:A:OP2	2.29	0.44
36:5:2882:U:H2'	36:5:2883:U:H6	1.82	0.44
1:2:1157:A:H2'	1:2:1160:A:N7	2.33	0.44
87:5:4005:OHX:N6	87:5:4200:OHX:N5	2.66	0.44
36:1:564:G:H2'	36:1:565:U:C6	2.53	0.44
42:L5:258:LYS:O	42:L5:259:LYS:HG2	2.18	0.44
1:6:1603:U:H2'	1:6:1604:U:C6	2.53	0.44
60:N4:50:ALA:HA	60:N4:55:PHE:CD2	2.51	0.44
74:O8:64:LYS:HG3	74:O8:65:LEU:N	4.81	0.44
1:6:571:G:H8	1:6:572:C:C6	2.36	0.44
70:O4:42:PRO:HB2	70:O4:51:LEU:HD12	5.44	0.44
40:L3:84:VAL:HG13	40:L3:162:VAL:HB	2.18	0.44
1:6:357:G:OP2	87:6:2072:OHX:N6	2.50	0.44
36:5:1131:G:C4	36:5:2373:A:C2	3.06	0.44
36:5:996:A:C2	36:5:1054:A:C4	3.05	0.44
1:2:473:A:H4'	1:2:768:C:O2	2.18	0.44
24:D2:41:MET:HG2	24:D2:129:VAL:HG21	2.74	0.44
36:1:1748:G:OP2	74:O8:42:LYS:NZ	2.44	0.44
87:2:2075:OHX:N4	87:2:2163:OHX:N2	2.66	0.44
75:O9:37:TYR:O	36:5:351:A:N6	94.20	0.44
49:M3:6:ASN:HB2	64:N8:48:TYR:CE2	2.53	0.44
57:N1:65:TYR:CE2	57:N1:88:ARG:HB3	2.53	0.44
1:6:751:G:C2	1:6:752:A:C4	3.05	0.44
1:2:1635:A:O5'	1:2:1635:A:H8	2.01	0.44
39:L2:241:ARG:NH2	36:5:2156:C:OP2	216.05	0.44
39:L2:245:LEU:O	39:L2:247:ARG:HG2	2.18	0.44
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.63	0.44
1:6:754:A:H5'	1:6:755:A:OP2	2.18	0.44
1:2:514:G:N1	1:2:543:C:C5	2.84	0.44
26:D4:60:PHE:CD1	26:D4:71:GLY:HA3	2.53	0.44
36:1:1941:C:OP2	55:M9:74:ARG:HG2	2.18	0.44
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.57	0.44
47:M0:169:LYS:O	47:M0:170:LYS:HD3	3.30	0.44
36:1:2656:A:C8	36:1:2658:G:C8	3.06	0.44
32:E0:55:ARG:NH1	1:6:558:U:OP2	416.56	0.44
36:5:1806:A:H2'	36:5:1807:G:O4'	2.18	0.44
41:L4:193:LYS:HE3	41:L4:193:LYS:HB3	1.67	0.44
36:1:1567:U:H5	36:1:1568:U:C2	2.36	0.44
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.88	0.44
4:S2:90:THR:C	4:S2:92:ALA:N	2.71	0.44
36:5:1815:U:O2'	36:5:1816:A:P	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2652:U:C5	36:1:2653:C:C5	3.06	0.44
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.66	0.44
46:L9:67:ALA:HA	46:L9:70:THR:HG23	1.99	0.44
28:D6:10:ARG:NH2	28:D6:35:ALA:N	5.25	0.44
30:D8:12:VAL:HG22	30:D8:28:VAL:HG21	3.64	0.44
30:D8:65:ARG:HD3	30:D8:67:ARG:NH1	2.33	0.44
1:2:73:U:O2'	1:2:74:U:C2	2.71	0.44
37:7:110:G:C6	37:7:111:U:C4	3.05	0.44
42:L5:229:ASP:HB2	42:L5:231:ILE:HG12	2.60	0.44
12:C0:3:MET:HE2	12:C0:3:MET:HB3	3.93	0.44
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.18	0.44
1:2:1762:A:H1'	1:2:1783:C:H5'	2.00	0.44
69:O3:48:ARG:NH1	69:O3:48:ARG:HG2	2.32	0.44
36:5:1438:U:H2'	36:5:1439:U:H6	1.79	0.44
67:O1:55:LEU:HD22	67:O1:55:LEU:O	2.41	0.44
38:8:157:U:O2'	38:8:158:U:H5'	2.18	0.44
22:D0:106:ILE:O	22:D0:107:THR:OG1	2.30	0.44
36:5:1328:C:H2'	36:5:1329:U:C6	2.53	0.44
15:C3:38:VAL:O	15:C3:42:ARG:N	2.47	0.44
1:2:129:U:O4	1:2:264:G:H2'	2.17	0.44
48:M1:71:VAL:CG1	48:M1:75:LYS:HE3	6.34	0.44
36:1:661:G:H5'	41:L4:100:PHE:CZ	2.53	0.44
36:5:718:G:N7	36:5:721:G:H1'	2.33	0.44
29:D7:19:HIS:CE1	29:D7:20:LYS:HG2	2.53	0.44
17:C5:110:GLU:HB2	20:C8:119:ILE:HG12	2.00	0.44
1:6:1030:A:H4'	1:6:1031:U:OP2	2.18	0.44
34:SR:129:LYS:HG2	34:SR:149:ASP:O	2.60	0.44
47:M0:72:ALA:O	47:M0:76:MET:HB2	2.17	0.44
1:2:1309:C:H2'	1:2:1310:U:O4'	2.18	0.44
7:S5:120:ILE:HG22	7:S5:124:LEU:HD22	3.96	0.44
72:O6:62:ARG:CZ	72:O6:94:ILE:HD11	4.75	0.44
36:5:2734:A:OP1	87:5:4052:OHX:N6	2.51	0.44
36:5:1690:C:C4	36:5:1691:U:C4	3.06	0.44
36:1:520:U:N3	41:L4:347:THR:O	2.51	0.44
24:D2:106:THR:HG21	24:D2:111:MET:HE2	2.00	0.44
56:N0:40:ARG:HD2	56:N0:40:ARG:HA	1.55	0.44
36:5:815:G:C6	36:5:906:A:C4	3.05	0.44
75:O9:31:THR:O	75:O9:32:ASN:HB2	2.18	0.44
36:5:1383:G:O6	87:5:3941:OHX:N2	2.51	0.44
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.06	0.44
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:27:LYS:HG2	60:N4:29:PHE:CE2	6.14	0.44
56:N0:75:PHE:HB2	56:N0:94:ILE:O	2.18	0.44
63:N7:84:ARG:HA	66:O0:62:LEU:HD21	2.19	0.44
34:SR:70:ASP:OD1	34:SR:71:CYS:N	2.47	0.43
1:2:704:C:H4'	1:2:705:U:OP1	2.17	0.43
2:S0:49:ASN:CB	2:S0:52:LYS:HG3	2.40	0.43
41:L4:145:ILE:HA	41:L4:146:PRO:HD3	2.51	0.43
73:O7:64:MET:HB2	73:O7:68:LYS:HB3	5.32	0.43
76:Q0:78:ILE:HD11	76:Q0:83:LYS:N	8.68	0.43
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.39	0.43
64:N8:75:LEU:HD13	64:N8:118:ILE:HD13	2.00	0.43
41:L4:293:SER:HB2	41:L4:294:GLU:OE1	2.17	0.43
72:O6:80:PHE:O	72:O6:84:LYS:HG3	2.47	0.43
8:S6:211:LEU:O	8:S6:215:ARG:HB2	2.17	0.43
1:6:67:A:C2	1:6:84:A:C4	3.06	0.43
31:D9:33:LYS:HD3	31:D9:34:TYR:CE2	2.53	0.43
30:D8:30:VAL:HG22	30:D8:40:ILE:O	2.17	0.43
34:SR:52:GLN:N	34:SR:52:GLN:OE1	3.22	0.43
3:S1:70:LEU:HD13	3:S1:79:HIS:HB3	2.00	0.43
51:M5:38:ARG:HD3	51:M5:39:ALA:N	2.33	0.43
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.99	0.43
57:N1:100:LYS:HD2	57:N1:103:GLN:NE2	2.32	0.43
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.17	0.43
36:5:630:A:H2'	36:5:631:U:C6	2.53	0.43
42:L5:4:GLN:CD	42:L5:4:GLN:H	2.08	0.43
18:C6:99:GLU:O	18:C6:102:LYS:N	2.51	0.43
36:1:2617:U:C5	36:1:2621:G:OP2	2.69	0.43
44:L7:214:TRP:CZ2	44:L7:219:LYS:HE3	2.58	0.43
36:1:2554:A:H62	79:Q3:62:LYS:HZ3	1.64	0.43
50:M4:119:GLN:O	50:M4:122:VAL:N	3.08	0.43
36:1:744:A:H1'	54:M8:141:ARG:HD3	1.99	0.43
41:L4:229:ASN:OD1	41:L4:231:ALA:N	2.51	0.43
13:C1:123:VAL:HG23	13:C1:142:VAL:HG22	3.24	0.43
36:5:1441:G:OP1	87:5:4177:OHX:N5	2.51	0.43
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.99	0.43
36:1:3113:A:H4'	46:L9:69:ARG:HB3	1.99	0.43
66:O0:11:ASN:O	66:O0:15:ALA:N	2.70	0.43
36:1:2677:G:H2'	36:1:2679:A:C2	2.53	0.43
41:L4:330:TYR:CZ	44:L7:49:ALA:HA	2.53	0.43
36:5:3018:C:C4	36:5:3019:U:C4	3.07	0.43
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:278:U:H2'	36:1:279:U:O4'	2.18	0.43
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	1.99	0.43
36:1:3246:G:O6	87:1:4111:OHX:N4	2.51	0.43
1:6:1336:A:OP1	87:6:2177:OHX:N1	2.51	0.43
1:2:1586:A:H2'	1:2:1587:A:O4'	2.18	0.43
36:1:2518:C:OP1	87:1:4211:OHX:N5	2.51	0.43
36:1:2203:U:H2'	36:1:2204:C:C6	2.52	0.43
35:SM:102:THR:HG23	35:SM:105:LYS:H	1.83	0.43
36:5:570:A:H2'	36:5:571:U:O4'	2.18	0.43
1:6:108:A:H2'	1:6:109:G:C8	2.53	0.43
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.46	0.43
44:L7:39:GLU:O	44:L7:42:ALA:HB3	2.18	0.43
36:5:2152:A:H1'	36:5:2243:A:N3	2.33	0.43
2:S0:164:ASN:HA	2:S0:170:ILE:HD11	2.99	0.43
79:Q3:26:VAL:HG12	79:Q3:30:GLU:HG3	1.99	0.43
1:2:538:A:H5'	1:2:543:C:H42	1.83	0.43
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.58	0.43
34:SR:80:ALA:O	34:SR:91:LEU:HD12	3.68	0.43
2:S0:163:ASN:OD1	2:S0:165:ARG:HB2	2.18	0.43
2:S0:163:ASN:O	2:S0:165:ARG:N	2.84	0.43
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.53	0.43
36:5:2211:U:C5	36:5:2234:G:O6	2.57	0.43
22:D0:118:VAL:HG22	22:D0:119:ALA:N	2.30	0.43
5:S3:148:LYS:HB2	35:SM:110:TRP:CZ2	2.53	0.43
36:1:3118:C:C4'	76:Q0:106:ARG:HH22	2.26	0.43
33:E1:144:CYS:SG	33:E1:147:VAL:HG22	2.59	0.43
36:1:3112:G:O2'	46:L9:70:THR:HB	2.18	0.43
51:M5:125:SER:HB3	36:5:2433:U:C1'	161.99	0.43
13:C1:9:SER:O	13:C1:9:SER:OG	2.76	0.43
57:N1:14:MET:CE	57:N1:55:LYS:HB2	2.46	0.43
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.92	0.43
34:SR:278:PHE:HB3	34:SR:281:TYR:HD1	1.83	0.43
1:6:1720:G:O6	87:6:2091:OHX:N4	2.51	0.43
40:L3:153:LYS:HG2	40:L3:154:TYR:CZ	3.92	0.43
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	1.73	0.43
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.48	0.43
26:D4:112:LYS:O	26:D4:116:LYS:HG3	2.19	0.43
46:L9:8:GLN:CG	46:L9:68:LEU:HD13	2.48	0.43
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.69	0.43
64:N8:74:ASN:CB	64:N8:76:ASP:HB2	2.48	0.43
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:729:C:O2'	54:M8:79:LYS:HE2	2.18	0.43
71:O5:31:LEU:HA	71:O5:31:LEU:HD12	1.71	0.43
46:L9:106:LYS:HG3	46:L9:107:ASP:OD1	3.64	0.43
52:M6:156:LEU:HD22	36:5:3243:A:C8	265.83	0.43
62:N6:27:ARG:NH1	62:N6:76:LEU:O	2.70	0.43
74:O8:9:LYS:O	74:O8:13:GLU:HG3	2.17	0.43
55:M9:173:ARG:O	55:M9:177:VAL:HG23	2.17	0.43
36:5:585:A:H2'	36:5:586:C:C6	2.53	0.43
4:S2:178:ILE:HB	4:S2:185:LYS:HG3	2.00	0.43
16:C4:121:VAL:O	1:6:886:U:O2'	288.26	0.43
26:D4:67:GLY:O	26:D4:68:LYS:HB2	3.03	0.43
36:1:601:U:H2'	36:1:602:A:O4'	2.17	0.43
36:5:2217:U:H2'	36:5:2218:G:H8	1.82	0.43
38:4:26:U:H5'	41:L4:53:SER:HB2	1.99	0.43
64:N8:126:LYS:HA	64:N8:146:GLU:O	2.41	0.43
64:N8:128:ARG:O	64:N8:129:PHE:HB2	4.03	0.43
39:L2:109:GLU:CD	39:L2:138:GLY:HA2	2.38	0.43
36:1:818:C:N3	36:1:920:A:H5'	2.32	0.43
11:S9:24:LEU:HA	11:S9:24:LEU:HD23	1.83	0.43
36:1:1501:U:O5'	36:1:1501:U:H6	2.01	0.43
52:M6:15:LEU:HD23	52:M6:15:LEU:HA	1.70	0.43
20:C8:108:LYS:HD3	20:C8:108:LYS:HA	3.20	0.43
11:S9:142:ASN:ND2	26:D4:64:PHE:HZ	2.24	0.43
42:L5:41:LYS:HA	42:L5:41:LYS:HD2	1.69	0.43
36:1:3312:U:C5'	40:L3:25:ILE:HD12	2.48	0.43
55:M9:104:ARG:HB3	55:M9:104:ARG:NH1	2.29	0.43
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	2.30	0.43
34:SR:80:ALA:O	34:SR:91:LEU:HA	2.19	0.43
36:5:3194:C:H2'	36:5:3195:U:H3'	2.00	0.43
75:O9:9:ILE:HD12	75:O9:9:ILE:HG23	2.13	0.43
62:N6:50:ILE:CD1	62:N6:70:ILE:HD13	2.48	0.43
44:L7:128:LYS:C	44:L7:130:ILE:H	2.62	0.43
1:6:722:G:O2'	1:6:723:G:H5''	2.18	0.43
41:L4:20:LEU:HD13	41:L4:256:THR:HG23	3.46	0.43
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.51	0.43
24:D2:5:SER:O	24:D2:6:VAL:HB	4.51	0.43
78:Q2:72:LEU:O	78:Q2:80:ARG:HA	2.17	0.43
40:L3:169:THR:HG23	40:L3:170:PRO:HD2	2.00	0.43
10:S8:76:THR:CG2	10:S8:105:ASP:HB3	2.48	0.43
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.45	0.43
6:S4:151:ASP:HA	6:S4:152:PRO:HD2	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:36:ILE:HD12	28:D6:36:ILE:N	4.59	0.43
16:C4:91:THR:HG23	16:C4:92:LYS:N	2.94	0.43
38:4:79:A:H3'	38:4:80:A:C4'	2.48	0.43
21:C9:79:LEU:HD23	21:C9:80:TYR:CE2	2.89	0.43
49:M3:60:ALA:HA	49:M3:61:PRO:HD3	2.37	0.43
1:2:755:A:O2'	1:2:756:A:P	2.76	0.43
1:2:66:U:H5'	8:S6:173:PRO:HA	2.00	0.43
8:S6:157:VAL:HG23	8:S6:173:PRO:HD2	3.16	0.43
1:6:1160:A:H2'	1:6:1161:C:H6	1.82	0.43
1:2:693:U:H5'	1:2:694:U:H5''	2.00	0.43
36:5:1471:U:H2'	36:5:1472:U:H6	1.83	0.43
71:O5:95:PHE:CG	36:5:136:G:H5'	62.12	0.43
36:5:980:A:H2'	36:5:981:U:C1'	2.48	0.43
1:2:577:G:C4	35:SM:99:LYS:HD2	2.54	0.43
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	2.91	0.43
52:M6:83:ALA:HB1	36:5:1313:G:H5'	259.50	0.43
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.18	0.43
6:S4:71:LYS:HA	6:S4:76:VAL:O	2.18	0.43
40:L3:66:LYS:HD3	40:L3:67:PHE:HD2	4.54	0.43
68:O2:45:ARG:NH2	36:5:1367:G:OP1	198.25	0.43
87:1:4088:OHX:N2	87:1:4159:OHX:N4	2.66	0.43
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.99	0.43
36:5:181:U:H1'	36:5:236:G:N2	2.33	0.43
36:1:2812:C:H2'	36:1:2813:A:C8	2.53	0.43
63:N7:3:LYS:HE3	63:N7:30:ASP:OD2	2.18	0.43
42:L5:191:ASP:OD1	42:L5:193:GLU:HB2	2.20	0.43
36:1:1818:U:H3'	36:1:1819:U:H5''	2.00	0.43
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.79	0.43
36:1:1650:G:N7	87:1:4142:OHX:N6	2.66	0.43
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.18	0.43
36:1:1348:U:OP2	54:M8:38:ARG:NH2	2.52	0.43
1:2:929:A:N6	1:2:930:A:C6	2.87	0.43
69:O3:38:PRO:HD2	69:O3:39:GLN:OE1	2.17	0.43
1:2:497:G:O2'	1:2:498:G:C8	2.71	0.43
1:6:1067:C:H2'	1:6:1068:C:H6	1.83	0.43
34:SR:90:ARG:HD3	34:SR:99:THR:HG21	3.13	0.43
53:M7:96:GLN:O	53:M7:99:ALA:HB3	2.18	0.43
20:C8:89:GLN:NE2	1:6:1548:G:H1'	376.64	0.43
36:1:13124:G:H5'	46:L9:40:HIS:ND1	2.33	0.43
1:2:889:U:H2'	1:2:890:C:O4'	2.17	0.43
36:1:2751:G:OP1	57:N1:50:LYS:HE2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2606:G:N3	36:5:2606:G:H2'	2.33	0.43
42:L5:115:LEU:H	42:L5:115:LEU:HD22	1.83	0.43
68:O2:75:LEU:HA	68:O2:75:LEU:HD22	2.56	0.43
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.17	0.43
43:L6:131:LYS:HE2	43:L6:131:LYS:HA	4.70	0.43
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.67	0.43
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.79	0.43
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.18	0.43
11:S9:34:PHE:CE1	11:S9:105:LEU:HB3	2.53	0.43
4:S2:235:LEU:HA	4:S2:236:PRO:HD3	2.72	0.43
36:1:1940:G:N2	36:1:3362:A:C8	2.85	0.43
47:M0:86:HIS:O	47:M0:138:VAL:HA	2.33	0.43
15:C3:114:ARG:O	15:C3:118:ILE:HG13	2.51	0.43
67:O1:89:LEU:HA	67:O1:89:LEU:HD12	1.75	0.43
34:SR:200:ASN:H	34:SR:215:GLY:CA	2.31	0.43
53:M7:136:ILE:HD12	53:M7:136:ILE:HG23	3.75	0.43
36:1:1170:A:OP2	87:1:3961:OHX:N3	2.52	0.43
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.31	0.43
36:1:1577:G:H2'	36:1:1578:C:O4'	2.19	0.43
68:O2:122:PRO:O	68:O2:123:LYS:HB2	4.40	0.43
38:8:15:G:C6	38:8:16:G:N1	2.87	0.43
28:D6:5:ARG:NH2	1:6:1795:U:OP2	337.81	0.43
34:SR:106:HIS:CD2	34:SR:110:VAL:HG22	2.53	0.43
7:S5:166:ARG:HA	7:S5:169:ASN:HB2	2.81	0.43
22:D0:58:LEU:HD23	1:6:1516:A:C8	445.18	0.43
61:N5:72:ALA:O	61:N5:75:LYS:N	3.12	0.43
61:N5:72:ALA:HB1	61:N5:83:VAL:HG21	2.52	0.43
35:SM:68:ARG:NH2	1:6:1460:A:OP2	334.07	0.43
9:S7:31:SER:HA	9:S7:35:LYS:HB3	4.24	0.43
36:5:1556:C:C4	36:5:2169:G:C4	3.06	0.43
49:M3:47:ALA:CB	49:M3:48:PRO:HD2	2.58	0.43
14:C2:46:ARG:HD2	1:6:1255:G:O6	455.26	0.43
54:M8:67:ILE:HG12	54:M8:81:VAL:HG21	2.00	0.43
16:C4:126:THR:O	16:C4:127:ARG:C	2.56	0.43
36:1:678:G:H2'	36:1:679:U:O4'	2.18	0.43
24:D2:27:ILE:HD11	24:D2:34:ILE:HG21	2.00	0.43
34:SR:123:ILE:HD11	34:SR:156:VAL:CG2	4.02	0.43
54:M8:122:ILE:HG23	54:M8:126:GLN:CB	3.19	0.43
1:6:639:U:H5	1:6:695:U:C6	2.36	0.43
51:M5:120:TRP:CE3	36:5:269:G:H5'	132.96	0.43
41:L4:99:MET:CE	41:L4:103:THR:H	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:138:ARG:HH21	41:L4:240:PRO:HB2	2.23	0.43
1:2:1682:U:O2'	1:2:1683:C:H5'	2.18	0.43
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.83	0.43
1:6:1621:U:H2'	1:6:1622:G:H8	1.84	0.43
1:6:97:C:O2'	1:6:426:G:H5'	2.19	0.43
36:1:2242:A:H5''	39:L2:244:GLY:HA3	2.00	0.43
64:N8:26:ARG:HH11	64:N8:26:ARG:HD2	1.77	0.43
36:1:3019:U:O4	87:1:3992:OHX:N4	2.51	0.43
36:5:117:U:O2	36:5:119:U:H2'	2.19	0.43
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.52	0.43
87:5:4211:OHX:N6	87:8:222:OHX:N3	2.65	0.43
36:5:235:A:H2'	36:5:236:G:O4'	2.18	0.43
37:7:92:A:C5	37:7:93:C:H1'	2.53	0.43
38:4:21:C:H2'	38:4:22:U:H5'	2.01	0.43
71:O5:59:ASN:O	71:O5:63:ARG:HG3	2.19	0.43
7:S5:205:SER:C	7:S5:207:THR:H	2.21	0.43
36:5:2590:A:C5	36:5:2591:A:N7	2.85	0.43
1:6:862:A:H4'	1:6:863:A:O5'	2.19	0.43
6:S4:89:VAL:O	6:S4:99:PHE:O	4.65	0.43
20:C8:67:GLU:O	20:C8:71:GLN:HG3	4.61	0.43
41:L4:332:LYS:HD2	36:5:599:C:OP1	274.11	0.43
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.32	0.43
61:N5:64:GLU:OE2	61:N5:87:SER:HA	2.73	0.43
40:L3:24:SER:O	40:L3:220:VAL:HG21	2.18	0.43
36:1:1892:G:N7	87:1:4082:OHX:N1	2.67	0.43
1:2:201:G:H2'	1:2:202:A:C8	2.54	0.43
63:N7:54:THR:OG1	63:N7:55:LYS:N	2.50	0.43
36:1:256:G:H4'	71:O5:111:PHE:HZ	1.83	0.43
36:1:3004:C:O2'	36:1:3005:A:H5'	2.18	0.43
36:5:34:A:H2'	36:5:35:A:C8	2.53	0.43
36:1:2948:C:O5'	36:1:2948:C:H6	2.02	0.43
60:N4:35:LYS:HD2	36:5:3332:U:OP1	223.50	0.43
25:D3:128:SER:O	25:D3:143:PRO:HG2	2.18	0.43
36:5:2315:G:H2'	36:5:2316:G:H8	1.83	0.43
11:S9:150:LEU:HD12	11:S9:150:LEU:HA	1.96	0.43
23:D1:72:LEU:HA	23:D1:72:LEU:HD23	1.99	0.43
39:L2:180:LEU:HA	39:L2:180:LEU:HD23	1.67	0.43
17:C5:60:LEU:HA	17:C5:60:LEU:HD23	2.87	0.43
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.60	0.43
12:C0:70:GLU:O	12:C0:73:VAL:HG22	4.71	0.43
1:6:447:U:C4	1:6:448:C:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:46:ILE:HD12	49:M3:49:ARG:NH1	2.34	0.43
87:1:4084:OHX:N2	87:1:4155:OHX:N1	2.67	0.43
36:1:2184:U:OP1	39:L2:209:HIS:HE1	2.01	0.43
41:L4:135:VAL:HG12	41:L4:140:HIS:HB2	2.88	0.43
1:6:578:U:H6	1:6:578:U:H5'	1.83	0.43
1:6:894:U:H2'	1:6:895:G:C8	2.54	0.43
55:M9:81:ARG:HG2	55:M9:88:ARG:NH2	3.32	0.43
66:O0:93:LEU:HD23	66:O0:93:LEU:HA	1.68	0.43
16:C4:111:ARG:HA	28:D6:56:ALA:O	2.54	0.43
41:L4:299:ILE:HG23	41:L4:299:ILE:HD12	1.96	0.43
45:L8:140:VAL:O	45:L8:144:GLU:HG3	2.57	0.43
3:S1:130:SER:OG	3:S1:180:THR:HG22	5.87	0.43
40:L3:27:ALA:HB3	40:L3:218:ILE:HG22	2.00	0.43
30:D8:9:LEU:HB2	30:D8:34:GLU:OE1	2.18	0.43
3:S1:35:PRO:O	3:S1:41:ARG:HG2	2.18	0.43
36:5:3362:A:C2	36:5:3363:U:C2	3.07	0.43
1:6:1081:A:H2'	1:6:1083:G:N7	2.33	0.43
1:2:393:C:H4'	1:2:1673:G:O2'	2.18	0.43
35:SM:68:ARG:HD3	1:6:1460:A:OP2	336.39	0.43
29:D7:61:THR:O	29:D7:62:ILE:HB	2.20	0.43
17:C5:128:HIS:HA	1:6:1180:C:O2'	335.31	0.43
47:M0:198:LYS:HE2	36:5:1040:A:O2'	332.96	0.43
41:L4:293:SER:O	41:L4:296:GLN:N	2.86	0.43
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	2.23	0.43
36:1:2651:G:H4'	36:1:2652:U:OP2	2.19	0.43
44:L7:147:LEU:HD23	44:L7:147:LEU:HA	2.17	0.43
53:M7:67:ILE:CG2	53:M7:80:LYS:HB3	2.48	0.43
38:4:79:A:C3'	38:4:80:A:H4'	2.48	0.43
1:2:830:U:C2	1:2:831:U:C5	3.06	0.43
10:S8:99:ALA:HB3	1:6:329:G:H5'	271.02	0.43
17:C5:22:LEU:HD13	17:C5:26:LEU:HD13	1.99	0.43
64:N8:94:ALA:CB	64:N8:121:VAL:HG13	2.48	0.43
13:C1:22:ASN:ND2	13:C1:25:VAL:HG23	2.33	0.43
8:S6:164:LYS:O	8:S6:166:GLU:N	2.51	0.43
55:M9:99:LEU:HD13	36:5:1722:U:H5''	225.52	0.43
57:N1:12:ARG:HD3	57:N1:12:ARG:HH11	1.69	0.43
19:C7:32:LYS:HG3	19:C7:47:ARG:HD3	2.01	0.43
1:6:1257:U:O2'	1:6:1258:U:O2	2.36	0.43
74:O8:69:LEU:H	74:O8:69:LEU:HG	3.63	0.43
31:D9:45:GLU:CD	1:6:1433:G:H22	411.38	0.43
1:2:1239:U:O4	87:2:2047:OHX:N2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:99:TYR:CE2	42:L5:199:ILE:HG12	3.40	0.43
1:2:901:G:C6	1:2:902:G:C6	3.06	0.43
87:2:2095:OHX:N4	87:2:2109:OHX:N2	2.67	0.43
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.80	0.43
37:3:93:C:O2'	37:3:94:C:H5'	2.18	0.43
41:L4:304:GLN:O	41:L4:305:ALA:HB3	2.30	0.43
66:O0:18:ILE:HG12	66:O0:81:VAL:O	2.18	0.43
36:5:1641:U:O2'	36:5:1643:A:OP2	2.28	0.43
1:2:526:A:C6	1:2:527:A:C5	3.06	0.43
4:S2:40:LYS:HA	4:S2:43:ARG:HH11	2.77	0.43
43:L6:105:TYR:OH	43:L6:134:ARG:HD2	4.26	0.43
14:C2:125:ASN:ND2	35:SM:169:ALA:HA	2.33	0.43
44:L7:120:THR:HB	57:N1:132:PRO:HB2	2.00	0.43
41:L4:64:SER:OG	41:L4:73:ARG:O	2.68	0.43
72:O6:2:THR:O	72:O6:3:VAL:HB	2.18	0.43
64:N8:49:HIS:N	64:N8:50:PRO:HD3	2.88	0.43
36:1:2890:A:N1	36:1:2913:C:N3	2.67	0.43
45:L8:247:ASP:O	45:L8:251:LYS:HB2	2.18	0.43
1:6:282:C:H2'	1:6:283:U:O4'	2.18	0.43
36:5:2137:U:C6	36:5:2141:U:C4	3.07	0.43
1:2:632:U:OP1	13:C1:102:LYS:HG3	2.19	0.43
64:N8:24:LYS:HZ2	64:N8:24:LYS:HG2	1.46	0.43
71:O5:9:LEU:HD23	71:O5:9:LEU:HA	1.72	0.43
40:L3:287:LYS:HA	40:L3:287:LYS:HD2	4.31	0.43
5:S3:45:LYS:HE2	5:S3:45:LYS:HB2	1.83	0.43
9:S7:164:TYR:HD2	9:S7:164:TYR:H	1.68	0.43
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.32	0.43
50:M4:55:ARG:HD3	56:N0:70:THR:CB	2.49	0.43
64:N8:44:ASN:O	64:N8:47:LYS:O	2.67	0.43
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	1.76	0.43
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	2.00	0.43
36:1:119:U:C2	45:L8:138:HIS:CE1	3.06	0.43
36:1:2259:A:OP2	87:1:3937:OHX:N2	2.51	0.43
18:C6:52:LEU:HB2	18:C6:53:LEU:HD23	3.36	0.43
68:O2:123:LYS:HA	68:O2:126:LEU:CD1	3.05	0.43
7:S5:85:ALA:C	7:S5:87:CYS:H	2.80	0.43
34:SR:159:ASN:C	34:SR:161:LYS:H	4.28	0.43
75:O9:44:TRP:CZ3	75:O9:45:ARG:HG2	3.62	0.43
41:L4:170:LYS:HE2	41:L4:175:HIS:ND1	2.34	0.43
19:C7:66:VAL:O	19:C7:69:ILE:HG12	2.19	0.43
14:C2:62:LEU:HA	14:C2:120:VAL:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:73:VAL:HG21	21:C9:102:ARG:HB2	2.01	0.43
3:S1:105:PHE:CE2	3:S1:213:ARG:HA	2.53	0.43
36:1:839:C:H2'	36:1:840:C:C6	2.53	0.43
3:S1:145:LYS:HG3	3:S1:149:GLN:CD	4.94	0.43
1:6:738:G:O6	87:6:2071:OHX:N4	2.52	0.43
36:5:1615:C:H2'	36:5:1616:U:C6	2.52	0.43
1:6:485:A:C6	1:6:486:G:H1'	2.54	0.43
75:O9:48:LYS:HD2	75:O9:48:LYS:HA	2.30	0.43
9:S7:118:LEU:N	1:6:639:U:OP1	367.12	0.43
25:D3:29:TYR:CZ	25:D3:33:LEU:HD12	2.54	0.43
59:N3:120:LYS:H	59:N3:137:VAL:HG23	2.02	0.43
1:2:45:U:O2	1:2:434:G:H1'	2.19	0.43
5:S3:195:SER:O	5:S3:197:THR:N	2.48	0.43
5:S3:70:THR:HG23	5:S3:86:LEU:HD22	2.01	0.43
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.41	0.43
53:M7:36:ILE:HD12	53:M7:95:LEU:HD11	2.24	0.43
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.52	0.43
26:D4:36:SER:O	26:D4:40:LEU:HG	2.18	0.43
17:C5:98:ASN:OD1	17:C5:101:ALA:N	4.29	0.43
35:SM:97:THR:HG22	35:SM:99:LYS:HG2	2.01	0.43
36:5:3257:C:H2'	36:5:3258:U:O4'	2.18	0.43
1:6:909:U:O5'	1:6:909:U:H6	2.01	0.43
21:C9:7:ARG:HD2	1:6:1366:U:O2'	425.79	0.43
79:Q3:45:LYS:HE3	79:Q3:45:LYS:HB2	1.69	0.43
10:S8:84:HIS:NE2	10:S8:90:LEU:HD13	2.62	0.43
1:6:1360:A:C4	1:6:1361:U:H1'	2.54	0.43
1:6:761:G:O6	87:6:2081:OHX:N1	2.51	0.43
36:5:2591:A:O2'	36:5:2592:G:H5'	2.19	0.43
36:5:1231:A:H5''	36:5:1232:C:O5'	2.18	0.43
46:L9:169:ASN:O	46:L9:170:LYS:HE3	4.05	0.43
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.18	0.43
36:1:1770:G:H5'	36:1:1771:C:OP2	2.18	0.43
36:5:3312:U:OP1	87:5:4025:OHX:N1	2.51	0.43
2:S0:57:LEU:O	2:S0:60:ALA:HB3	2.18	0.43
87:5:4039:OHX:N1	87:5:4087:OHX:N2	2.65	0.43
1:2:1421:A:H4'	5:S3:159:HIS:O	2.18	0.43
36:5:2228:A:H2'	36:5:2229:A:C8	2.54	0.43
45:L8:70:LYS:HE3	45:L8:70:LYS:HB3	1.81	0.43
45:L8:231:LYS:HE3	45:L8:231:LYS:HB2	4.19	0.43
55:M9:160:GLU:HA	55:M9:163:ARG:HB2	2.00	0.43
36:1:1560:G:C2	36:1:1561:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:54:GLU:OE1	23:D1:11:LEU:HB2	2.54	0.43
1:2:448:C:OP2	6:S4:49:ARG:NH2	2.52	0.43
36:1:2108:C:H1'	36:1:3344:A:H8	1.84	0.43
15:C3:114:ARG:HG3	1:6:952:A:O2'	300.29	0.43
41:L4:178:LEU:O	41:L4:182:LEU:HD13	2.19	0.43
36:1:2254:U:H2'	36:1:2261:G:N2	2.34	0.43
53:M7:84:PRO:HB2	53:M7:87:SER:HB2	2.00	0.43
16:C4:112:ILE:H	28:D6:57:SER:HA	1.84	0.43
47:M0:77:THR:HG23	47:M0:85:PHE:CZ	3.40	0.43
41:L4:144:LYS:CG	41:L4:145:ILE:N	3.92	0.43
20:C8:28:ILE:HG13	20:C8:28:ILE:H	4.39	0.43
27:D5:71:ILE:HG23	27:D5:76:ALA:HB2	4.99	0.43
46:L9:171:ASP:HA	36:5:2899:C:C5	323.75	0.43
33:E1:146:SER:HB2	1:6:1235:C:H5'	434.92	0.43
33:E1:136:LYS:HA	33:E1:136:LYS:HD3	3.15	0.43
30:D8:28:VAL:HG12	30:D8:42:ARG:O	6.12	0.43
30:D8:26:THR:HB	30:D8:44:VAL:HG22	2.00	0.43
1:2:830:U:H2'	1:2:830:U:O2	2.17	0.43
1:6:825:U:O2'	1:6:826:U:OP2	2.29	0.43
36:1:30:G:P	51:M5:172:ARG:HE	2.42	0.43
40:L3:55:THR:O	40:L3:56:ILE:HD12	2.18	0.43
57:N1:14:MET:HE1	57:N1:55:LYS:HA	2.28	0.43
63:N7:124:ALA:O	63:N7:126:LYS:N	2.84	0.43
34:SR:278:PHE:HB3	34:SR:281:TYR:CD1	2.54	0.43
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.53	0.43
24:D2:37:PHE:CD2	24:D2:103:ILE:HD11	3.41	0.43
36:5:937:G:N3	36:5:963:G:H1'	2.33	0.43
55:M9:40:ALA:O	55:M9:44:LEU:HG	4.60	0.43
36:1:3242:G:H2'	40:L3:154:TYR:CD1	2.53	0.43
74:O8:12:LEU:HB3	74:O8:16:ARG:NH1	2.32	0.43
74:O8:12:LEU:HA	74:O8:12:LEU:HD13	4.09	0.43
13:C1:40:LEU:HD22	1:6:246:G:N2	326.43	0.43
6:S4:11:ARG:O	6:S4:12:LEU:CB	2.76	0.43
1:2:1475:A:H2'	1:2:1476:C:C6	2.53	0.43
36:5:698:U:H2'	36:5:699:A:O4'	2.18	0.43
24:D2:82:LYS:C	24:D2:84:GLY:H	2.18	0.43
36:5:1221:A:H4'	36:5:1222:G:OP2	2.18	0.43
36:1:1240:A:H3'	36:1:1241:U:C5'	2.49	0.43
11:S9:87:SER:OG	11:S9:90:LYS:HG2	2.18	0.43
36:5:549:U:O4	87:5:4018:OHX:N4	2.51	0.43
36:5:1464:G:N7	87:5:3979:OHX:N3	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3317:U:H4'	36:5:3318:G:O5'	2.18	0.43
36:5:1348:U:O4'	36:5:1355:A:N6	2.52	0.43
15:C3:46:THR:O	15:C3:50:ILE:HD12	2.18	0.43
36:1:1345:G:N7	87:1:3963:OHX:N4	2.66	0.43
4:S2:161:LYS:CE	4:S2:164:SER:H	6.16	0.43
36:1:503:C:O5'	43:L6:26:ARG:NH1	2.52	0.43
54:M8:19:PRO:HD3	54:M8:53:PHE:CD1	2.54	0.43
36:5:702:C:O2	36:5:788:C:H4'	2.19	0.43
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.54	0.43
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.28	0.43
54:M8:57:ILE:HD12	36:5:671:U:OP2	160.13	0.43
74:O8:42:LYS:HG2	74:O8:55:VAL:HG13	2.00	0.43
34:SR:90:ARG:NH1	34:SR:99:THR:OG1	2.51	0.43
61:N5:50:ALA:HB2	71:O5:79:ASP:HB3	5.70	0.43
48:M1:20:ASN:HB3	48:M1:126:ASP:HB2	2.00	0.43
45:L8:110:THR:O	45:L8:114:ALA:HB3	2.47	0.43
1:6:604:A:OP2	87:6:2149:OHX:N4	2.52	0.43
36:1:1228:C:O2	36:1:1282:G:C2	2.72	0.43
53:M7:57:ALA:HB2	53:M7:83:TRP:NE1	2.79	0.43
36:1:230:U:H2'	36:1:231:G:O4'	2.18	0.43
36:1:820:A:OP1	87:1:3945:OHX:N5	2.52	0.43
36:1:2529:A:OP1	45:L8:248:LYS:NZ	2.52	0.43
48:M1:117:ASP:HA	48:M1:118:PRO:HD2	1.78	0.43
68:O2:38:ILE:HG13	68:O2:39:ASP:N	2.45	0.43
1:2:206:A:H1'	1:2:262:U:C2	2.54	0.43
1:2:1617:U:O2'	1:2:1618:C:H5'	2.18	0.43
41:L4:200:THR:HG23	41:L4:202:ARG:HH22	2.73	0.43
5:S3:225:TYR:N	5:S3:225:TYR:CD2	3.55	0.43
1:2:641:G:H8	1:2:641:G:O5'	2.02	0.43
1:2:367:A:C6	1:2:368:U:C4	3.06	0.43
46:L9:22:SER:HB2	46:L9:39:LYS:NZ	3.06	0.43
1:2:538:A:H8	1:2:543:C:C4	2.37	0.43
28:D6:24:VAL:HG21	28:D6:71:LEU:CD1	2.49	0.43
9:S7:9:LEU:HB3	9:S7:10:SER:H	3.01	0.43
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.20	0.43
1:6:1698:G:HO2'	1:6:1699:G:P	2.39	0.43
36:1:2273:G:O6	87:1:4143:OHX:N5	2.52	0.43
1:2:1332:C:O5'	1:2:1332:C:H6	2.01	0.43
47:M0:97:LEU:O	47:M0:123:HIS:N	2.41	0.43
1:6:234:G:H2'	1:6:235:G:O4'	2.18	0.43
20:C8:33:THR:HA	20:C8:38:VAL:HG23	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:111:ARG:O	16:C4:112:ILE:HD13	2.19	0.43
56:N0:23:LYS:HB3	56:N0:25:PHE:CE2	2.54	0.43
7:S5:170:GLN:HE21	7:S5:170:GLN:HB2	1.66	0.43
76:Q0:77:ILE:HG22	76:Q0:79:GLU:H	1.83	0.43
24:D2:11:LEU:HA	24:D2:11:LEU:HD23	1.77	0.43
62:N6:5:SER:OG	62:N6:8:VAL:HG12	2.18	0.43
16:C4:24:ASN:O	16:C4:25:ASP:HB2	2.18	0.43
21:C9:43:ASN:ND2	1:6:1478:G:OP2	380.65	0.43
36:5:2101:C:O2'	36:5:2102:U:P	2.77	0.43
16:C4:125:SER:HB3	16:C4:126:THR:H	1.52	0.43
16:C4:18:ARG:HB2	16:C4:18:ARG:HE	4.25	0.43
18:C6:67:VAL:CG1	18:C6:81:ILE:HG22	2.97	0.43
38:4:104:A:C8	38:4:105:A:C8	3.07	0.43
19:C7:26:LEU:HD23	19:C7:58:MET:HB3	3.30	0.43
20:C8:54:LEU:C	20:C8:56:LYS:H	2.48	0.43
42:L5:146:LEU:HB3	36:5:2746:A:H2	260.21	0.43
34:SR:245:PHE:O	34:SR:294:TRP:CD1	2.79	0.43
36:5:3159:C:H2'	36:5:3160:U:H6	1.79	0.43
1:6:1116:A:C2	1:6:1131:A:C4	3.07	0.43
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.33	0.43
53:M7:48:LEU:HA	53:M7:48:LEU:HD23	1.69	0.43
36:1:1766:G:H8	36:1:1766:G:OP2	2.01	0.43
1:6:1371:A:H5'	1:6:1372:U:OP2	2.18	0.43
61:N5:132:ALA:HA	61:N5:135:ILE:HG22	2.35	0.43
36:1:685:G:P	49:M3:35:ARG:NH1	2.92	0.43
13:C1:26:LYS:NZ	13:C1:27:THR:O	8.94	0.43
69:O3:86:ARG:NH2	36:5:497:C:O3'	215.29	0.43
34:SR:135:THR:O	34:SR:137:LYS:N	2.52	0.43
36:1:1429:G:OP2	41:L4:107:ARG:NH2	2.41	0.43
87:1:4032:OHX:N2	87:1:4151:OHX:N1	2.66	0.43
16:C4:132:ARG:NH1	16:C4:132:ARG:HG3	2.32	0.43
26:D4:84:LYS:HD2	26:D4:85:PHE:CZ	2.54	0.43
9:S7:24:PHE:HE2	9:S7:43:PHE:HD2	4.28	0.43
75:O9:7:PHE:HB3	38:8:113:U:H5''	108.48	0.43
36:5:996:A:H2'	36:5:997:A:O4'	2.18	0.43
44:L7:120:THR:O	44:L7:124:LEU:HB2	2.34	0.43
36:1:3169:U:H2'	36:1:3170:A:O4'	2.18	0.43
36:1:945:C:H2'	36:1:946:U:C6	2.53	0.43
1:2:383:G:N7	87:2:2131:OHX:N4	2.67	0.43
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.33	0.43
1:2:1025:A:H2'	1:2:1027:A:O5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3136:G:OP2	87:5:4113:OHX:N3	2.51	0.43
1:6:1649:G:N7	87:6:2107:OHX:N2	2.66	0.43
5:S3:107:PHE:O	5:S3:111:ASN:HB2	3.69	0.43
36:5:1861:G:OP2	87:5:4000:OHX:N2	2.51	0.43
40:L3:129:ALA:O	36:5:3150:A:H5'	212.00	0.43
5:S3:209:ILE:HA	5:S3:209:ILE:HD12	1.83	0.43
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.43	0.43
61:N5:108:LEU:HA	61:N5:108:LEU:HD23	1.72	0.43
4:S2:44:LEU:HD23	4:S2:44:LEU:HA	1.77	0.43
36:5:3158:G:N3	36:5:3158:G:H2'	2.34	0.43
25:D3:140:LYS:HB2	25:D3:140:LYS:HE2	4.46	0.43
5:S3:217:ILE:O	5:S3:218:LEU:HB2	2.42	0.43
50:M4:20:VAL:HG13	50:M4:68:LEU:O	2.42	0.43
23:D1:1:MET:HE3	23:D1:11:LEU:O	2.19	0.43
36:1:1072:G:H21	65:N9:50:THR:HB	1.84	0.43
1:2:540:G:H3'	1:2:541:A:H5'	2.00	0.43
1:6:300:A:O2'	1:6:301:A:H5'	2.19	0.43
55:M9:104:ARG:NH1	36:5:1949:G:OP1	222.47	0.43
41:L4:140:HIS:NE2	41:L4:246:ARG:HG2	4.11	0.43
6:S4:3:ARG:NH1	1:6:399:A:N3	323.67	0.43
1:2:301:A:H2'	1:2:302:U:O4'	2.19	0.43
1:2:732:G:H2'	1:2:732:G:N3	2.33	0.43
3:S1:159:SER:OG	1:6:874:C:OP1	319.36	0.43
1:6:470:A:C5'	1:6:470:A:C8	3.01	0.43
19:C7:31:ASN:N	19:C7:31:ASN:HD22	4.76	0.43
22:D0:27:THR:O	22:D0:113:ASP:HB3	3.34	0.43
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.44	0.43
42:L5:76:ALA:CB	42:L5:109:THR:HG22	2.54	0.43
36:5:2946:A:H5''	36:5:2947:G:H5'	2.01	0.43
36:1:1567:U:C5	36:1:1568:U:C2	3.07	0.43
29:D7:59:CYS:HB2	29:D7:61:THR:CG2	4.37	0.43
38:4:75:G:C8	75:O9:30:ARG:HG2	2.54	0.43
87:5:4099:OHX:N6	87:7:218:OHX:N3	2.67	0.43
30:D8:41:VAL:O	30:D8:42:ARG:HD2	2.19	0.43
1:2:1535:U:H2'	1:2:1535:U:H6	1.53	0.43
49:M3:153:ASP:OD2	49:M3:154:VAL:N	2.58	0.43
36:5:2572:C:H1'	36:5:2573:G:O5'	2.19	0.43
1:2:61:A:C8	1:2:269:G:O2'	2.65	0.43
56:N0:52:LYS:NZ	37:7:100:C:OP2	281.81	0.43
36:1:1510:G:O5'	36:1:1510:G:H8	2.02	0.43
17:C5:22:LEU:HB3	17:C5:23:GLU:H	1.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:59:ARG:HA	49:M3:69:VAL:HG23	2.28	0.43
36:1:1307:G:H1'	36:1:1308:A:C8	2.54	0.43
36:5:2746:A:H2'	36:5:2747:A:O4'	2.19	0.43
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	2.91	0.43
5:S3:48:VAL:HB	5:S3:86:LEU:HD12	2.00	0.43
36:5:2406:C:H2'	36:5:2407:C:C6	2.54	0.43
36:1:736:A:H2'	36:1:737:G:O4'	2.19	0.43
51:M5:150:TRP:CZ3	51:M5:151:ILE:HD13	2.54	0.43
26:D4:35:VAL:O	26:D4:36:SER:HB3	2.18	0.43
36:5:945:C:H2'	36:5:946:U:H6	1.83	0.43
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.19	0.43
1:2:1559:A:O5'	20:C8:135:GLY:HA3	2.18	0.43
54:M8:93:ILE:H	54:M8:93:ILE:HG13	2.30	0.43
37:3:31:U:H4'	42:L5:218:ARG:NH2	2.34	0.43
3:S1:125:VAL:HG21	3:S1:173:THR:HG22	2.00	0.43
87:1:4088:OHX:N6	87:1:4159:OHX:N3	2.67	0.43
87:1:3963:OHX:N2	87:1:4144:OHX:N6	2.67	0.43
36:1:3041:U:OP1	59:N3:12:ARG:NH1	2.49	0.43
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.22	0.43
5:S3:60:GLY:O	5:S3:62:ASN:N	3.31	0.43
6:S4:57:ASN:HD22	6:S4:59:ARG:HE	1.66	0.43
36:1:2635:A:H4'	36:1:2636:A:O5'	2.18	0.43
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	2.00	0.43
36:5:43:A:N6	36:5:2802:A:C4	2.86	0.43
1:2:352:A:OP2	1:2:352:A:H8	2.02	0.43
39:L2:44:ILE:CD1	39:L2:62:VAL:HG13	3.24	0.43
36:5:2590:A:C4	36:5:2591:A:C8	3.06	0.43
39:L2:109:GLU:OE1	39:L2:138:GLY:HA2	2.18	0.43
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	2.01	0.43
19:C7:14:LYS:NZ	19:C7:18:GLU:OE2	2.51	0.43
36:1:72:C:H5'	49:M3:63:VAL:HG22	2.00	0.43
1:2:1752:U:H2'	1:2:1753:A:C8	2.54	0.43
8:S6:213:ALA:O	8:S6:217:SER:OG	4.38	0.43
46:L9:105:GLU:HG3	46:L9:109:ALA:H	1.83	0.43
23:D1:87:ARG:O	29:D7:11:THR:HG23	3.10	0.43
1:6:1606:C:H2'	1:6:1607:G:C8	2.53	0.43
53:M7:70:THR:CG2	53:M7:81:ALA:HB3	2.79	0.43
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.19	0.43
17:C5:109:PRO:O	17:C5:112:LEU:HG	2.18	0.43
59:N3:19:VAL:HG13	59:N3:37:ILE:HA	2.47	0.43
43:L6:13:GLU:OE2	68:O2:88:HIS:HA	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:80:MET:HE2	13:C1:80:MET:HB3	1.57	0.43
71:O5:93:THR:HG23	71:O5:96:GLU:OE1	2.19	0.43
1:6:876:G:H2'	1:6:936:G:N2	2.33	0.43
4:S2:99:LYS:HE2	4:S2:208:GLU:HG3	2.00	0.43
1:2:1609:U:H2'	1:2:1610:G:O4'	2.19	0.43
61:N5:27:ARG:HG2	61:N5:27:ARG:H	1.80	0.43
15:C3:75:LEU:H	15:C3:75:LEU:HD12	2.47	0.43
36:5:1853:U:OP2	87:5:4062:OHX:N6	2.52	0.43
36:1:806:A:C4	36:1:936:A:C2	3.07	0.43
1:2:767:U:H5	11:S9:142:ASN:OD1	2.02	0.43
43:L6:78:ARG:HG3	43:L6:78:ARG:HH11	1.83	0.43
25:D3:103:LEU:HA	25:D3:103:LEU:HD23	1.72	0.43
1:6:818:C:H2'	1:6:819:G:H5'	2.00	0.43
34:SR:200:ASN:O	34:SR:201:THR:HG22	2.18	0.43
5:S3:132:LYS:HB3	5:S3:189:MET:HG2	3.00	0.43
3:S1:58:SER:O	3:S1:62:LYS:HB2	4.54	0.43
1:2:1097:U:O4	4:S2:201:ASN:ND2	2.51	0.43
1:2:1537:C:C4	87:2:2155:OHX:N3	2.87	0.43
1:6:918:U:H2'	1:6:919:A:C8	2.54	0.43
72:O6:74:LYS:HA	72:O6:83:ALA:HB2	2.20	0.43
3:S1:69:CYS:O	3:S1:72:ASP:N	2.46	0.43
57:N1:39:ILE:CD1	57:N1:102:ARG:HD2	2.49	0.43
1:2:1165:G:O6	1:2:1166:A:N6	2.52	0.43
51:M5:190:THR:O	51:M5:194:GLN:HG3	2.19	0.43
36:1:73:C:C4	72:O6:15:LYS:HD3	2.53	0.43
3:S1:81:PHE:HA	3:S1:106:THR:HG23	2.01	0.43
1:2:694:U:N3	9:S7:98:ILE:HD12	2.34	0.43
69:O3:48:ARG:NH1	69:O3:69:GLY:O	3.68	0.43
62:N6:109:LEU:HD22	62:N6:115:ARG:NH1	2.34	0.43
42:L5:95:TRP:O	42:L5:98:ALA:HB3	2.19	0.43
36:5:528:U:O2'	36:5:529:A:H5'	2.19	0.43
51:M5:149:ASN:OD1	87:M5:303:OHX:N2	2.52	0.43
40:L3:266:ARG:HH22	36:5:2392:C:HO2'	209.12	0.43
1:6:1619:C:H2'	1:6:1620:C:H5'	2.00	0.43
1:2:1735:U:O4	87:2:2137:OHX:N2	2.51	0.43
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.18	0.43
36:1:2111:G:H4'	36:1:2112:U:OP2	2.19	0.43
43:L6:18:LEU:CD2	43:L6:18:LEU:N	2.82	0.43
64:N8:22:ILE:HD13	64:N8:22:ILE:HG21	2.15	0.43
4:S2:97:ARG:HG3	4:S2:97:ARG:HH11	3.13	0.43
40:L3:305:ILE:HG12	40:L3:321:PHE:CZ	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:81:THR:HB	40:L3:321:PHE:HA	2.14	0.43
59:N3:70:ARG:O	59:N3:72:LYS:HE3	5.76	0.43
1:2:1366:U:O4	87:2:2109:OHX:N6	2.52	0.43
87:2:2095:OHX:N6	87:2:2109:OHX:N5	2.66	0.43
1:2:1646:C:H2'	1:2:1647:U:C6	2.54	0.43
1:2:1404:C:H2'	1:2:1405:G:C8	2.54	0.43
34:SR:269:TYR:CE2	34:SR:271:VAL:HG22	3.46	0.43
36:1:748:U:H2'	36:1:749:C:H6	1.84	0.43
36:1:1562:C:H2'	36:1:1563:C:C6	2.54	0.43
71:O5:96:GLU:O	71:O5:99:GLN:HB2	2.22	0.43
23:D1:34:ILE:HG13	23:D1:69:LEU:HD11	2.01	0.43
23:D1:69:LEU:HD23	23:D1:69:LEU:HA	2.38	0.43
69:O3:29:LEU:O	69:O3:30:ILE:HD13	2.61	0.43
36:5:426:G:C6	36:5:427:C:N4	2.86	0.43
42:L5:143:LYS:HG3	42:L5:172:TYR:HD2	1.84	0.43
3:S1:93:GLY:C	3:S1:95:ASN:H	2.27	0.43
48:M1:106:ILE:CD1	48:M1:125:MET:HG2	5.26	0.43
36:1:345:G:O2'	38:4:25:G:N3	2.51	0.43
9:S7:111:LYS:HB3	9:S7:112:ARG:H	1.70	0.43
1:2:487:G:H3'	1:2:488:G:H5''	2.01	0.43
37:7:80:G:H2'	37:7:81:U:O4'	2.19	0.43
43:L6:155:LEU:HD23	43:L6:155:LEU:HA	1.86	0.43
36:1:314:U:H2'	36:1:315:C:C6	2.54	0.43
6:S4:252:ARG:NH2	6:S4:253:ASP:OD1	3.07	0.43
1:2:1301:U:H2'	1:2:1302:U:O4'	2.19	0.43
61:N5:77:GLU:HG2	61:N5:133:LEU:HD11	2.68	0.43
36:5:196:G:C2	36:5:199:A:C8	3.07	0.43
1:6:1727:G:H2'	1:6:1728:A:C8	2.54	0.43
29:D7:50:ALA:O	29:D7:51:GLN:HB2	2.18	0.43
36:5:1507:G:H5'	36:5:1507:G:N3	2.33	0.43
63:N7:81:LEU:HD23	63:N7:81:LEU:HA	1.81	0.43
36:5:2888:U:C6	36:5:2910:A:N6	2.86	0.43
4:S2:98:PHE:CZ	35:SM:116:GLU:HG3	2.54	0.43
5:S3:50:ILE:HB	5:S3:88:ALA:HA	2.01	0.43
45:L8:45:ASN:ND2	61:N5:26:VAL:HA	3.71	0.43
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.97	0.43
26:D4:11:LYS:HB2	26:D4:24:VAL:HG23	2.27	0.43
36:5:501:A:H2'	36:5:502:U:C6	2.54	0.43
50:M4:55:ARG:NH2	50:M4:77:ARG:HA	2.33	0.42
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.19	0.42
36:1:3182:G:H2'	36:1:3183:A:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	2.01	0.42
36:1:1941:C:O2'	36:1:3344:A:N6	2.47	0.42
25:D3:135:LEU:HA	25:D3:135:LEU:HD23	2.50	0.42
25:D3:56:LYS:HE3	25:D3:93:LEU:HD11	2.69	0.42
67:O1:77:ARG:HD2	67:O1:89:LEU:HD23	3.08	0.42
63:N7:5:LEU:HD13	63:N7:77:TYR:CE2	3.51	0.42
67:O1:80:ASN:OD1	67:O1:81:GLU:N	2.52	0.42
39:L2:213:GLY:CA	36:5:2967:A:H5''	205.72	0.42
1:2:702:G:C6	1:2:737:A:N6	2.87	0.42
8:S6:58:LYS:HG2	8:S6:105:ASP:O	2.19	0.42
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.80	0.42
1:2:6:G:OP2	4:S2:205:ARG:HD3	2.19	0.42
7:S5:37:GLN:NE2	18:C6:46:PHE:CD1	2.87	0.42
47:M0:140:THR:HB	47:M0:141:LYS:H	1.48	0.42
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.34	0.42
47:M0:205:SER:OG	47:M0:208:ASN:OD1	4.61	0.42
17:C5:126:VAL:CG1	17:C5:127:ARG:H	2.28	0.42
1:6:219:A:HO2'	1:6:220:A:P	2.42	0.42
1:6:837:G:H2'	1:6:838:G:H8	1.83	0.42
9:S7:71:HIS:HD2	9:S7:74:GLN:OE1	6.18	0.42
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.84	0.42
15:C3:150:VAL:HG12	15:C3:151:ASN:OD1	2.19	0.42
6:S4:123:LEU:HD12	6:S4:161:LYS:HA	2.01	0.42
1:2:558:U:HO2'	1:2:559:C:P	2.41	0.42
1:2:1166:A:H5''	7:S5:101:GLY:H	1.82	0.42
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	2.00	0.42
34:SR:305:TYR:HB2	34:SR:309:VAL:O	2.43	0.42
1:2:1229:G:HO2'	1:2:1255:G:N2	2.17	0.42
1:2:1258:U:H4'	12:C0:2:LEU:HD13	2.00	0.42
54:M8:54:LEU:HD22	54:M8:58:ASN:CB	2.49	0.42
1:2:81:G:C6	1:2:82:U:N3	2.87	0.42
69:O3:15:SER:OG	69:O3:16:TYR:N	3.87	0.42
2:S0:175:TYR:CD1	2:S0:199:PRO:HA	2.56	0.42
34:SR:245:PHE:HD1	34:SR:251:TRP:O	2.77	0.42
1:2:1476:C:H2'	1:2:1477:G:H8	1.84	0.42
1:2:278:U:OP1	1:2:279:G:N2	2.52	0.42
36:1:32:U:O3'	51:M5:71:ARG:NH2	2.52	0.42
47:M0:194:GLY:HA3	36:5:1010:G:H21	336.73	0.42
42:L5:237:GLU:O	42:L5:241:THR:HB	3.05	0.42
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.52	0.42
28:D6:12:LYS:HB3	28:D6:13:LYS:H	4.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:544:C:H1'	36:1:548:G:N2	2.34	0.42
2:S0:35:PRO:C	2:S0:37:VAL:H	2.21	0.42
36:5:656:A:H2'	36:5:657:A:C8	2.54	0.42
36:1:2098:C:H2'	36:1:2099:A:H8	1.84	0.42
34:SR:23:LEU:HD23	34:SR:23:LEU:HA	1.71	0.42
34:SR:255:ALA:HB2	34:SR:292:LEU:HD22	2.01	0.42
1:2:147:A:H2'	1:2:148:A:O4'	2.19	0.42
36:1:2245:C:H4'	39:L2:221:LYS:O	2.19	0.42
74:O8:11:PHE:O	74:O8:14:LEU:HB2	2.19	0.42
45:L8:116:VAL:O	45:L8:120:LYS:N	2.51	0.42
21:C9:135:ILE:HD12	21:C9:136:ALA:N	2.34	0.42
1:2:603:U:H2'	1:2:604:A:C8	2.54	0.42
11:S9:65:LYS:HA	11:S9:70:LEU:HD21	2.01	0.42
87:2:2075:OHX:N6	87:2:2163:OHX:N5	2.67	0.42
60:N4:27:LYS:HE3	60:N4:27:LYS:HB3	1.79	0.42
1:6:872:G:H2'	1:6:873:U:O4'	2.19	0.42
4:S2:165:VAL:HG11	4:S2:210:THR:HA	2.48	0.42
2:S0:3:LEU:HA	2:S0:4:PRO:HD2	1.91	0.42
36:1:132:C:H2'	36:1:133:U:H5''	2.01	0.42
36:5:2393:G:HO2'	36:5:2394:G:P	2.42	0.42
45:L8:73:PRO:HD3	45:L8:233:TRP:CD2	2.54	0.42
51:M5:171:SER:O	36:5:288:C:H4'	124.15	0.42
37:3:97:A:H2'	37:3:98:C:C6	2.54	0.42
36:1:1539:A:H2'	36:1:1540:U:H5'	2.00	0.42
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	2.08	0.42
47:M0:34:TYR:CD1	47:M0:34:TYR:N	2.87	0.42
54:M8:8:LYS:HB2	54:M8:8:LYS:HE3	2.29	0.42
73:O7:32:LYS:HA	73:O7:32:LYS:HD3	1.86	0.42
40:L3:387:LEU:HD12	40:L3:387:LEU:H	1.85	0.42
78:Q2:10:THR:HG22	78:Q2:23:HIS:CD2	2.54	0.42
37:7:38:U:HO2'	37:7:40:C:H5	1.62	0.42
11:S9:178:ALA:HA	11:S9:181:ALA:HB2	5.51	0.42
46:L9:23:ARG:NH2	46:L9:39:LYS:O	2.52	0.42
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.67	0.42
67:O1:46:THR:HB	67:O1:90:PHE:O	5.37	0.42
53:M7:141:SER:O	53:M7:143:PRO:HD3	2.33	0.42
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.37	0.42
41:L4:91:GLY:HA3	41:L4:93:MET:CE	2.49	0.42
1:2:639:U:P	9:S7:117:THR:HG1	2.35	0.42
8:S6:84:TYR:OH	8:S6:91:GLU:O	3.27	0.42
36:5:1763:U:C4	36:5:1764:U:N3	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:770:G:N7	87:5:4103:OHX:N6	2.67	0.42
87:5:4099:OHX:N6	87:7:218:OHX:N5	2.67	0.42
58:N2:47:VAL:C	58:N2:49:ASN:H	2.73	0.42
36:5:247:C:C2	36:5:248:U:H1'	2.54	0.42
10:S8:37:LYS:H	10:S8:59:ARG:H	1.67	0.42
10:S8:81:VAL:HG21	10:S8:95:THR:O	3.13	0.42
30:D8:44:VAL:HG21	30:D8:48:VAL:CG2	2.80	0.42
30:D8:65:ARG:NH2	30:D8:66:LEU:O	2.52	0.42
40:L3:62:ARG:H	40:L3:68:HIS:HD1	1.66	0.42
36:1:1794:G:C2	39:L2:187:HIS:CE1	3.06	0.42
36:1:594:U:C4	41:L4:308:LYS:HG3	2.54	0.42
87:2:2096:OHX:N1	87:2:2116:OHX:N2	2.67	0.42
87:2:2096:OHX:N3	87:2:2116:OHX:N6	2.67	0.42
17:C5:56:PHE:CE1	17:C5:83:MET:HE1	2.97	0.42
17:C5:89:MET:O	17:C5:107:ILE:HD11	5.23	0.42
40:L3:148:LEU:HA	40:L3:148:LEU:HD12	2.31	0.42
46:L9:129:ARG:O	46:L9:132:VAL:HG22	2.18	0.42
36:5:2551:U:H4'	36:5:2552:C:OP1	2.18	0.42
42:L5:148:ILE:HD11	42:L5:160:PHE:CZ	2.54	0.42
2:S0:175:TYR:OH	2:S0:195:TRP:HB3	3.10	0.42
23:D1:32:VAL:HB	23:D1:60:ARG:HD3	2.01	0.42
40:L3:266:ARG:NH2	36:5:2392:C:O2'	209.42	0.42
10:S8:136:SER:O	10:S8:140:GLU:HG3	5.21	0.42
36:1:149:U:P	51:M5:49:ARG:HH22	2.41	0.42
13:C1:67:ARG:O	13:C1:127:GLN:HB3	2.37	0.42
64:N8:73:LEU:HD23	64:N8:109:TYR:CZ	5.58	0.42
36:1:2535:A:N6	36:1:2544:U:H3	2.18	0.42
36:5:1560:G:HO2'	36:5:1561:G:P	2.41	0.42
36:5:1578:C:H2'	36:5:1579:C:C6	2.54	0.42
57:N1:79:MET:HA	57:N1:84:TYR:HA	2.01	0.42
39:L2:54:ARG:HG2	39:L2:56:ALA:H	1.84	0.42
78:Q2:15:LYS:HE2	36:5:2772:C:OP1	180.21	0.42
40:L3:103:THR:HG21	40:L3:147:GLU:OE2	2.23	0.42
54:M8:141:ARG:HD3	36:5:743:C:O2	175.23	0.42
87:2:2095:OHX:N3	87:2:2109:OHX:N5	2.68	0.42
87:1:3963:OHX:N5	87:1:4144:OHX:N6	2.68	0.42
1:2:1179:G:H4'	35:SM:79:SER:O	2.20	0.42
2:S0:119:ARG:NE	4:S2:240:LEU:HD23	4.02	0.42
52:M6:73:PHE:CB	52:M6:78:ARG:HG2	2.49	0.42
36:5:543:C:N3	36:5:548:G:N2	2.61	0.42
17:C5:96:ILE:HB	17:C5:120:SER:HB2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:796:A:OP2	87:2:2057:OHX:N6	2.52	0.42
1:6:1783:C:H2'	1:6:1784:C:H6	1.84	0.42
42:L5:119:TYR:OH	42:L5:141:PRO:HD3	2.19	0.42
36:5:499:G:H2'	36:5:500:C:H6	1.85	0.42
36:5:3331:U:H2'	36:5:3332:U:O4'	2.20	0.42
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	2.88	0.42
64:N8:35:ALA:HB2	36:5:39:A:H5''	167.61	0.42
87:1:3967:OHX:N3	87:1:4076:OHX:N4	2.68	0.42
10:S8:88:ASN:O	10:S8:91:VAL:HB	2.57	0.42
36:5:928:C:H2'	36:5:929:A:C8	2.54	0.42
6:S4:43:PRO:HD2	6:S4:46:VAL:HG21	2.01	0.42
36:1:627:U:H2'	36:1:628:A:C8	2.54	0.42
36:5:572:A:C5	36:5:573:C:C5	3.06	0.42
70:O4:20:ILE:HD12	70:O4:20:ILE:HA	1.61	0.42
29:D7:29:ARG:HG3	29:D7:29:ARG:HH11	1.97	0.42
56:N0:48:LEU:HA	56:N0:48:LEU:HD23	1.78	0.42
45:L8:238:LEU:HD12	45:L8:238:LEU:HA	1.89	0.42
2:S0:87:LEU:HD12	2:S0:87:LEU:HA	2.08	0.42
44:L7:33:ARG:NH1	36:5:596:C:OP2	238.22	0.42
36:1:2597:U:H2'	36:1:2598:G:H8	1.84	0.42
36:1:2222:A:H2'	36:1:2223:A:C8	2.53	0.42
51:M5:104:GLU:OE1	51:M5:161:ALA:HA	2.52	0.42
51:M5:85:THR:HA	78:Q2:51:GLY:N	2.95	0.42
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.25	0.42
38:4:67:U:H2'	38:4:68:G:H8	1.84	0.42
28:D6:96:ALA:HA	28:D6:97:PRO:HD3	1.72	0.42
36:1:1940:G:H2'	36:1:1941:C:O4'	2.19	0.42
20:C8:91:ASP:HB3	20:C8:94:ASP:OD2	2.19	0.42
20:C8:91:ASP:OD1	20:C8:92:ILE:N	4.75	0.42
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.18	0.42
1:2:737:A:OP2	1:2:737:A:H2'	2.19	0.42
66:O0:40:LYS:HD3	66:O0:93:LEU:O	2.19	0.42
54:M8:177:GLY:O	54:M8:186:VAL:N	2.45	0.42
7:S5:31:GLU:HA	7:S5:34:GLN:HB2	3.40	0.42
6:S4:106:LYS:NZ	1:6:788:A:OP1	398.46	0.42
20:C8:27:LYS:HA	20:C8:57:ARG:HA	2.00	0.42
41:L4:8:VAL:HG11	41:L4:252:GLU:OE1	3.50	0.42
53:M7:14:SER:HB3	53:M7:151:THR:OG1	2.19	0.42
8:S6:211:LEU:CD2	8:S6:215:ARG:HH21	2.32	0.42
7:S5:112:ARG:HD3	27:D5:95:HIS:NE2	2.37	0.42
6:S4:123:LEU:HD22	6:S4:236:ILE:HG23	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:28:GLN:HE22	43:L6:57:HIS:CE1	5.25	0.42
57:N1:122:GLN:O	57:N1:124:VAL:HG23	6.17	0.42
36:1:595:G:OP2	44:L7:30:ARG:NH2	2.53	0.42
36:5:1093:A:N3	36:5:1096:U:N3	2.67	0.42
45:L8:33:ASN:HA	36:5:2549:G:C2	212.08	0.42
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.53	0.42
1:2:79:C:H1'	8:S6:174:LYS:CD	2.48	0.42
1:2:1564:U:O2'	20:C8:84:TRP:O	2.37	0.42
40:L3:153:LYS:HD3	40:L3:154:TYR:CE2	2.54	0.42
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	2.10	0.42
36:5:3350:C:O2	36:5:3356:G:N2	2.52	0.42
54:M8:165:ILE:HG21	54:M8:168:THR:HG22	5.41	0.42
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	2.25	0.42
40:L3:306:THR:HG22	40:L3:310:GLY:HA2	2.01	0.42
1:6:1713:G:O5'	1:6:1713:G:H8	2.02	0.42
36:5:238:A:H2'	36:5:239:G:C8	2.54	0.42
41:L4:221:ASN:ND2	36:5:209:A:N3	84.14	0.42
52:M6:83:ALA:CB	36:5:1313:G:H5'	259.02	0.42
36:1:1769:G:O6	87:1:4174:OHX:N4	2.52	0.42
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	1.96	0.42
46:L9:43:VAL:HG13	46:L9:55:VAL:HG12	4.73	0.42
17:C5:116:LEU:O	17:C5:118:GLU:N	3.46	0.42
87:1:4032:OHX:N4	87:1:4151:OHX:N3	2.67	0.42
36:5:1240:A:H2'	36:5:1241:U:H5'	2.00	0.42
42:L5:124:GLU:HB3	42:L5:125:VAL:H	1.62	0.42
46:L9:69:ARG:NH1	46:L9:72:LYS:HE2	2.34	0.42
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.18	0.42
36:1:1305:U:N1	40:L3:257:PRO:HG3	2.34	0.42
42:L5:115:LEU:HD13	42:L5:115:LEU:HA	2.45	0.42
36:1:2948:C:H2'	36:1:2949:U:O4'	2.18	0.42
36:1:1561:G:HO2'	36:1:1562:C:H6	1.62	0.42
43:L6:13:GLU:HA	68:O2:4:LEU:HD11	2.01	0.42
40:L3:307:PRO:HD3	40:L3:311:PHE:CE2	2.99	0.42
1:2:494:U:O2'	1:2:495:C:O5'	2.30	0.42
45:L8:74:THR:HB	45:L8:230:LYS:NZ	2.34	0.42
1:6:1442:U:H2'	1:6:1443:U:C6	2.53	0.42
1:6:548:G:H2'	1:6:549:G:O4'	2.20	0.42
38:4:90:U:H6	38:4:90:U:H5'	1.84	0.42
1:2:1080:U:H6	1:2:1080:U:OP2	2.03	0.42
10:S8:58:LEU:HA	10:S8:58:LEU:HD23	3.43	0.42
66:O0:51:LEU:HA	66:O0:51:LEU:HD12	1.90	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:184:LEU:HD23	44:L7:184:LEU:HA	1.77	0.42
1:2:1085:G:N2	1:2:1087:A:H3'	2.34	0.42
36:1:3154:C:C2	36:1:3157:U:O4	2.73	0.42
44:L7:51:TYR:O	44:L7:54:GLU:HB3	2.19	0.42
41:L4:290:ILE:O	41:L4:290:ILE:HG22	2.19	0.42
1:6:755:A:H4'	1:6:756:A:OP1	2.19	0.42
42:L5:270:LYS:HD3	42:L5:273:ARG:NH1	2.34	0.42
36:1:1369:A:H2'	36:1:1370:G:O4'	2.19	0.42
4:S2:59:HIS:NE2	4:S2:238:SER:HA	2.81	0.42
79:Q3:73:THR:HB	79:Q3:76:ALA:N	4.38	0.42
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	2.87	0.42
2:S0:184:LEU:HA	2:S0:184:LEU:HD13	2.84	0.42
1:2:65:A:OP1	8:S6:176:GLN:NE2	2.48	0.42
25:D3:7:ARG:HG2	25:D3:7:ARG:NH1	2.33	0.42
39:L2:206:PRO:HD3	39:L2:213:GLY:CA	2.50	0.42
8:S6:63:MET:HE1	8:S6:106:LEU:CD1	2.85	0.42
52:M6:181:ALA:O	52:M6:184:THR:N	2.53	0.42
36:1:1703:U:H1'	36:1:1743:G:C2	2.53	0.42
3:S1:48:VAL:CG1	3:S1:61:LEU:HD21	2.48	0.42
7:S5:166:ARG:NH2	1:6:1163:A:O3'	348.52	0.42
55:M9:43:LYS:N	55:M9:43:LYS:HD2	5.24	0.42
26:D4:124:ARG:HA	26:D4:127:LYS:HG2	2.00	0.42
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.39	0.42
36:5:2206:G:O2'	36:5:2207:A:H5'	2.18	0.42
17:C5:78:THR:OG1	17:C5:80:MET:N	2.91	0.42
36:1:1720:U:C4	55:M9:124:TYR:CE2	3.07	0.42
36:5:508:U:H2'	36:5:509:U:H6	1.83	0.42
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	3.21	0.42
57:N1:104:GLU:HG2	36:5:989:A:O2'	257.96	0.42
1:2:1503:A:C6	1:2:1504:G:C6	3.08	0.42
22:D0:52:LYS:HD2	1:6:1345:A:OP1	472.88	0.42
42:L5:48:LYS:NZ	36:5:2748:A:O3'	244.32	0.42
7:S5:190:ILE:HG12	7:S5:190:ILE:H	2.51	0.42
47:M0:7:ARG:HH11	47:M0:7:ARG:HD2	1.70	0.42
72:O6:11:LEU:HA	72:O6:11:LEU:HD12	1.67	0.42
53:M7:41:LEU:CD2	53:M7:95:LEU:HD22	2.50	0.42
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	2.17	0.42
19:C7:28:PHE:HE1	19:C7:51:ALA:HB3	1.84	0.42
36:5:1579:C:H2'	36:5:1580:A:H8	1.84	0.42
6:S4:180:LEU:HD12	6:S4:234:PRO:HB3	2.58	0.42
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	1.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:78:LEU:HD13	74:O8:78:LEU:HA	1.82	0.42
36:1:900:G:H1'	36:1:1589:A:H61	1.84	0.42
26:D4:40:LEU:O	26:D4:44:LEU:HD12	2.18	0.42
36:1:1408:G:P	68:O2:33:ARG:HH22	2.43	0.42
36:1:1047:A:C6	36:1:1048:A:C6	3.06	0.42
36:1:3084:C:H2'	36:1:3085:G:O4'	2.19	0.42
1:6:1432:U:H4'	1:6:1433:G:H5''	2.00	0.42
6:S4:194:THR:O	6:S4:195:ILE:HB	2.18	0.42
45:L8:101:THR:HG22	45:L8:104:GLU:CG	2.50	0.42
2:S0:109:ASN:HB2	1:6:1294:G:O2'	413.52	0.42
36:1:938:C:OP1	36:1:963:G:H5'	2.19	0.42
36:5:1794:G:O2'	36:5:1795:U:H5'	2.19	0.42
55:M9:23:TRP:CH2	55:M9:25:ASP:HA	3.00	0.42
36:5:577:C:H2'	36:5:579:G:H5''	2.02	0.42
36:1:3200:G:C5	36:1:3201:C:C5	3.08	0.42
5:S3:134:CYS:SG	5:S3:135:GLU:N	2.92	0.42
59:N3:125:LEU:HA	59:N3:125:LEU:HD12	2.30	0.42
34:SR:3:SER:OG	34:SR:4:ASN:N	2.52	0.42
2:S0:170:ILE:HD12	2:S0:170:ILE:H	1.85	0.42
36:1:1560:G:N1	36:1:1561:G:N7	2.67	0.42
48:M1:117:ASP:OD1	48:M1:119:SER:HB3	2.19	0.42
43:L6:149:ILE:HG23	43:L6:155:LEU:HD12	2.88	0.42
1:6:992:A:OP1	1:6:1786:G:H5'	2.18	0.42
1:2:485:A:H2'	1:2:486:G:O4'	2.19	0.42
65:N9:45:HIS:CE1	36:5:1075:A:C6	195.11	0.42
36:1:407:A:C2	38:4:17:A:H1'	2.54	0.42
36:5:727:G:H5''	36:5:978:G:OP1	2.20	0.42
73:O7:58:THR:O	73:O7:61:THR:HG23	2.98	0.42
60:N4:14:TYR:O	60:N4:17:ARG:HB2	2.93	0.42
36:5:430:U:OP2	87:5:3988:OHX:N5	2.52	0.42
6:S4:65:LEU:HD23	6:S4:65:LEU:HA	2.86	0.42
51:M5:197:LEU:HD12	51:M5:197:LEU:HA	1.80	0.42
1:2:3:U:H6	1:2:3:U:H2'	1.67	0.42
45:L8:178:ALA:HB2	45:L8:218:ILE:HG23	2.01	0.42
61:N5:42:ARG:O	61:N5:44:PRO:HD3	2.68	0.42
71:O5:33:VAL:O	71:O5:36:LEU:HG	3.08	0.42
8:S6:177:ARG:NH2	1:6:143:G:N7	312.21	0.42
1:2:400:A:O5'	10:S8:25:ARG:HD3	2.19	0.42
36:1:951:A:OP1	65:N9:18:ARG:NH1	2.51	0.42
7:S5:94:THR:CG2	7:S5:114:ILE:HG13	2.57	0.42
7:S5:43:PHE:HA	7:S5:68:ILE:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:130:SER:HA	39:L2:169:ILE:HG22	2.27	0.42
25:D3:51:GLY:O	25:D3:101:GLU:HA	2.71	0.42
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.20	0.42
34:SR:81:LEU:O	34:SR:113:VAL:HG11	2.20	0.42
36:1:118:U:O2	36:1:121:A:H5'	2.20	0.42
54:M8:2:GLY:C	54:M8:3:ILE:HG13	2.39	0.42
34:SR:89:LEU:HD11	34:SR:124:SER:HB3	2.19	0.42
36:1:270:U:O2'	36:1:318:A:H1'	2.19	0.42
7:S5:59:VAL:C	7:S5:61:TYR:H	2.56	0.42
7:S5:37:GLN:HE21	18:C6:46:PHE:HD1	1.67	0.42
3:S1:185:THR:HG22	3:S1:189:ILE:HD11	3.55	0.42
36:5:1879:A:H2'	36:5:1879:A:N3	2.34	0.42
7:S5:87:CYS:SG	7:S5:92:ARG:HG3	2.95	0.42
53:M7:69:ARG:HG2	53:M7:79:THR:CG2	3.67	0.42
40:L3:77:THR:HG23	40:L3:327:CYS:HA	2.01	0.42
1:6:1595:U:N3	1:6:1600:A:C2	2.76	0.42
29:D7:62:ILE:HD12	29:D7:62:ILE:HA	1.98	0.42
75:O9:25:GLN:O	75:O9:28:ARG:HG3	2.63	0.42
58:N2:43:VAL:HG21	58:N2:50:LEU:N	2.34	0.42
42:L5:34:LYS:HE3	57:N1:30:TYR:CE1	3.84	0.42
36:1:3112:G:O6	36:1:3120:C:H5''	2.20	0.42
1:6:836:U:H2'	1:6:837:G:C8	2.55	0.42
1:6:1478:G:H2'	1:6:1479:A:O4'	2.19	0.42
1:2:72:A:C3'	1:2:73:U:H5''	2.49	0.42
1:2:749:U:H2'	1:2:750:U:C6	2.55	0.42
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.18	0.42
36:1:1507:G:N7	53:M7:129:THR:CG2	2.82	0.42
14:C2:28:LEU:HD13	14:C2:32:LEU:HD11	2.01	0.42
17:C5:85:ILE:HA	17:C5:89:MET:SD	2.60	0.42
54:M8:120:GLU:CD	54:M8:122:ILE:HD11	2.39	0.42
1:2:1230:A:H2'	1:2:1258:U:C5	2.55	0.42
13:C1:128:CYS:O	13:C1:129:ARG:CB	4.21	0.42
13:C1:131:ILE:HG21	13:C1:131:ILE:HD13	3.78	0.42
1:6:650:U:O2	1:6:651:G:H8	2.02	0.42
36:1:3152:U:C5	36:1:3395:G:C6	3.07	0.42
1:6:1344:A:O2'	1:6:1345:A:OP1	2.33	0.42
2:S0:172:LEU:HA	2:S0:172:LEU:HD23	2.11	0.42
36:1:239:G:O6	87:1:4038:OHX:N3	2.52	0.42
68:O2:103:LYS:O	68:O2:106:VAL:HG13	2.19	0.42
20:C8:83:ALA:O	20:C8:86:LEU:HB2	2.20	0.42
1:2:277:U:H2'	1:2:278:U:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.84	0.42
1:2:720:G:O2'	1:2:721:U:H5'	2.20	0.42
44:L7:62:ILE:O	44:L7:63:ILE:C	2.73	0.42
12:C0:9:ASN:O	12:C0:12:HIS:N	3.12	0.42
52:M6:25:LYS:HD3	52:M6:25:LYS:HA	1.71	0.42
36:5:79:U:H2'	36:5:80:G:H8	1.85	0.42
39:L2:44:ILE:HG23	39:L2:87:PHE:CE1	2.63	0.42
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.57	0.42
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	2.01	0.42
49:M3:105:ASN:OD1	49:M3:105:ASN:C	2.71	0.42
14:C2:125:ASN:ND2	35:SM:168:GLU:O	2.52	0.42
42:L5:14:SER:OG	37:7:68:C:OP1	300.69	0.42
37:7:114:U:H2'	37:7:115:G:H8	1.84	0.42
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.30	0.42
6:S4:248:ILE:HG13	6:S4:249:ALA:N	2.78	0.42
1:6:170:U:H6	1:6:267:U:HO2'	1.63	0.42
33:E1:94:LYS:HB3	33:E1:95:HIS:H	1.52	0.42
47:M0:135:ILE:HG22	47:M0:136:PHE:CD1	2.55	0.42
77:Q1:13:LEU:O	77:Q1:17:ARG:HG3	2.19	0.42
36:1:1642:A:O2'	36:1:1643:A:C8	2.73	0.42
4:S2:74:PRO:C	4:S2:76:LEU:H	2.23	0.42
1:6:926:A:H2'	1:6:927:C:O4'	2.20	0.42
36:5:785:G:H2'	36:5:785:G:N3	2.34	0.42
57:N1:106:LEU:HD23	57:N1:106:LEU:HA	4.31	0.42
69:O3:103:TYR:HA	69:O3:104:PRO:C	2.44	0.42
23:D1:11:LEU:HG	23:D1:11:LEU:H	1.44	0.42
50:M4:77:ARG:NH2	36:5:524:U:OP1	341.96	0.42
10:S8:5:ARG:HD3	10:S8:29:LEU:O	2.20	0.42
10:S8:8:ARG:HG3	10:S8:8:ARG:O	2.20	0.42
1:2:538:A:C8	1:2:543:C:C4	3.08	0.42
36:1:3312:U:H5''	40:L3:25:ILE:HD12	2.01	0.42
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	1.99	0.42
41:L4:181:VAL:O	41:L4:182:LEU:CB	2.62	0.42
1:6:1698:G:H1'	1:6:1699:G:OP1	2.19	0.42
16:C4:44:GLY:HA2	16:C4:59:ALA:HB1	2.91	0.42
42:L5:111:GLN:HA	42:L5:116:ASP:CB	2.85	0.42
41:L4:295:ILE:HG13	54:M8:36:LEU:HD21	2.34	0.42
3:S1:175:GLU:HG3	3:S1:187:LYS:NZ	5.30	0.42
41:L4:144:LYS:H	41:L4:144:LYS:HZ3	6.36	0.42
1:6:72:A:H2'	1:6:73:U:O4'	2.18	0.42
22:D0:50:LEU:O	22:D0:51:VAL:HG13	4.30	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1347:U:O2	1:6:1516:A:H2'	2.20	0.42
20:C8:26:ILE:HG23	20:C8:31:ALA:HB2	2.02	0.42
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.53	0.42
36:5:1556:C:N3	36:5:2169:G:C5	2.87	0.42
1:2:1253:U:H2'	1:2:1254:U:C6	2.54	0.42
31:D9:22:ARG:HG2	31:D9:37:ASN:O	3.60	0.42
77:Q1:20:VAL:O	77:Q1:23:ARG:HB2	2.19	0.42
36:5:1152:G:N2	36:5:1200:A:H61	2.18	0.42
13:C1:6:THR:HB	13:C1:9:SER:HB3	2.01	0.42
36:1:73:C:O2	49:M3:59:ARG:HD3	2.20	0.42
48:M1:9:MET:HB3	48:M1:10:ARG:H	4.53	0.42
44:L7:139:PRO:HA	44:L7:237:ASN:OD1	2.22	0.42
36:1:3298:C:C4	36:1:3299:A:C5	3.07	0.42
1:6:106:U:H2'	1:6:107:C:O4'	2.20	0.42
20:C8:126:ARG:HD2	20:C8:126:ARG:HA	2.50	0.42
5:S3:163:PRO:O	5:S3:167:PHE:N	2.50	0.42
9:S7:46:ILE:HA	9:S7:59:ALA:O	2.69	0.42
1:2:225:A:H2'	1:2:226:A:O4'	2.19	0.42
36:1:249:U:HO2'	36:1:250:U:H3	1.68	0.42
48:M1:65:ILE:HG21	48:M1:65:ILE:HD13	1.73	0.42
2:S0:74:VAL:HA	2:S0:96:THR:O	2.62	0.42
36:1:2209:U:C6	36:1:2209:U:OP2	2.73	0.42
28:D6:12:LYS:HB3	28:D6:12:LYS:HE3	1.86	0.42
68:O2:27:ARG:HD2	68:O2:27:ARG:HH11	1.65	0.42
8:S6:202:ARG:O	8:S6:205:ALA:HB3	2.19	0.42
25:D3:95:PHE:CE2	25:D3:136:TRP:HA	3.00	0.42
78:Q2:35:LEU:HD23	78:Q2:35:LEU:H	1.84	0.42
69:O3:32:ILE:HG12	69:O3:100:ILE:HD13	2.02	0.42
42:L5:155:THR:HB	42:L5:179:ARG:HA	2.37	0.42
87:2:2095:OHX:N3	87:2:2109:OHX:N1	2.67	0.42
40:L3:160:VAL:CG2	40:L3:183:LEU:HD22	2.49	0.42
57:N1:31:LEU:HD23	57:N1:31:LEU:HA	2.17	0.42
44:L7:95:ILE:HG22	44:L7:100:ARG:HB2	2.85	0.42
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.54	0.42
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	2.22	0.42
6:S4:131:LEU:HD11	6:S4:135:GLY:HA2	2.01	0.42
9:S7:139:ARG:HD3	24:D2:53:ILE:HA	2.01	0.42
36:1:1187:C:H2'	36:1:1188:U:H6	1.85	0.42
40:L3:226:PHE:CE1	40:L3:268:GLY:HA2	2.93	0.42
36:5:2369:G:H2'	36:5:2370:G:O4'	2.20	0.42
44:L7:136:TYR:CE2	44:L7:231:ASN:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:939:A:H2'	1:2:940:A:C8	2.54	0.42
34:SR:20:VAL:O	34:SR:291:SER:OG	2.25	0.42
36:5:3219:G:H4'	36:5:3220:G:H5'	2.01	0.42
33:E1:123:ASN:HA	33:E1:124:PRO:HD2	2.17	0.42
1:6:1609:U:H2'	1:6:1610:G:O4'	2.20	0.42
44:L7:149:TYR:CD2	44:L7:181:ILE:HD13	2.66	0.42
34:SR:64:HIS:ND1	34:SR:84:SER:HB3	2.88	0.42
1:2:967:A:H2'	1:2:968:U:O4'	2.18	0.42
47:M0:129:VAL:HG22	47:M0:133:GLN:HG2	2.01	0.42
49:M3:116:LEU:HD23	49:M3:116:LEU:HA	2.27	0.42
51:M5:203:ARG:HA	51:M5:203:ARG:HD3	2.19	0.42
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.60	0.42
6:S4:44:LEU:HA	6:S4:44:LEU:HD23	1.78	0.42
36:5:2702:A:H5'	36:5:2704:A:O4'	2.20	0.42
1:6:768:C:H2'	1:6:769:A:O4'	2.20	0.42
36:5:2973:G:N7	87:5:4124:OHX:N1	2.68	0.42
36:5:3275:U:O4'	36:5:3275:U:OP1	2.37	0.42
37:7:22:A:H5'	37:7:23:A:OP2	2.19	0.42
37:3:49:G:O6	42:L5:58:LYS:NZ	2.37	0.42
71:O5:104:GLN:O	71:O5:108:GLN:HG3	2.68	0.42
67:O1:44:MET:O	67:O1:46:THR:N	3.26	0.42
54:M8:2:GLY:O	54:M8:3:ILE:HD13	5.29	0.42
1:2:706:A:C6	1:2:734:A:N6	2.88	0.42
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.50	0.42
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	2.19	0.42
3:S1:158:SER:HB2	1:6:875:G:OP2	315.01	0.42
66:O0:13:LYS:HB3	66:O0:100:ILE:HG23	2.16	0.42
34:SR:109:ASP:O	34:SR:126:SER:OG	2.22	0.42
3:S1:56:SER:HB2	3:S1:59:ASP:OD2	6.73	0.42
7:S5:97:LEU:HA	7:S5:97:LEU:HD23	2.17	0.42
36:1:3048:A:H5'	40:L3:53:MET:HE3	2.01	0.42
87:1:4036:OHX:N6	87:1:4048:OHX:N5	2.68	0.42
36:1:1595:U:C2	36:1:1596:C:C5	3.07	0.42
10:S8:10:LYS:HE3	1:6:339:C:OP2	285.26	0.42
36:1:1027:A:H2'	36:1:1029:G:H5''	2.00	0.42
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	2.01	0.42
36:5:2840:C:H2'	36:5:2841:G:O4'	2.20	0.42
87:2:2167:OHX:N2	87:2:2168:OHX:N6	2.68	0.42
33:E1:98:VAL:HG12	33:E1:99:LYS:N	3.51	0.42
30:D8:44:VAL:HG21	30:D8:48:VAL:HG21	2.39	0.42
36:5:3269:U:O2	36:5:3271:G:N1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:129:THR:HG23	53:M7:131:ARG:HD3	5.44	0.42
1:6:825:U:O2'	1:6:826:U:P	2.78	0.42
36:1:608:A:C4	43:L6:22:ARG:NH1	2.88	0.42
1:2:646:C:H2'	1:2:647:G:C8	2.54	0.42
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.27	0.42
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.38	0.42
29:D7:36:LYS:O	29:D7:77:THR:HG22	3.14	0.42
5:S3:195:SER:C	5:S3:197:THR:H	2.23	0.42
42:L5:160:PHE:HA	42:L5:163:LEU:HB3	2.50	0.42
21:C9:11:ALA:CB	21:C9:63:ARG:HH21	2.32	0.42
2:S0:195:TRP:CE2	2:S0:197:ILE:HD12	4.01	0.42
6:S4:241:GLY:H	6:S4:242:LYS:HZ2	1.68	0.42
26:D4:15:ASN:HD22	26:D4:22:GLN:NE2	2.94	0.42
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.46	0.42
1:2:277:U:H6	1:2:277:U:H3'	1.84	0.42
48:M1:28:ASP:OD2	48:M1:32:ARG:HD3	5.67	0.42
47:M0:206:LEU:HD12	47:M0:206:LEU:HA	1.95	0.42
54:M8:151:ARG:HD2	54:M8:151:ARG:HH11	2.16	0.42
28:D6:18:VAL:HG21	28:D6:33:ASP:OD1	2.20	0.42
15:C3:54:LEU:HD23	15:C3:54:LEU:HA	1.91	0.42
40:L3:350:ALA:O	40:L3:351:LEU:CB	2.67	0.42
36:1:566:G:N7	87:1:4006:OHX:N4	2.68	0.42
6:S4:72:VAL:HG22	6:S4:90:ILE:HG12	3.27	0.42
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.82	0.42
33:E1:88:PRO:HA	33:E1:89:LYS:HA	4.79	0.42
72:O6:61:ILE:HD11	72:O6:87:VAL:HG13	2.40	0.42
36:5:1102:A:H5''	36:5:1103:A:OP1	2.19	0.42
36:1:1608:C:H2'	36:1:1609:C:C6	2.54	0.42
36:5:1149:G:N2	36:5:1198:C:N3	2.54	0.42
1:6:509:G:H2'	1:6:510:G:O4'	2.19	0.42
1:2:766:U:H3'	1:2:768:C:OP2	2.19	0.42
49:M3:6:ASN:O	54:M8:164:ARG:NH1	3.05	0.42
69:O3:35:VAL:HG13	69:O3:40:ASP:HB2	2.78	0.42
79:Q3:26:VAL:CG1	79:Q3:30:GLU:HG3	2.50	0.42
1:2:325:G:O4'	13:C1:80:MET:HE1	2.19	0.42
36:1:313:A:H2'	36:1:314:U:O4'	2.20	0.42
36:1:1668:G:C6	36:1:1669:C:C4	3.08	0.42
36:5:2787:G:OP2	87:5:4040:OHX:N6	2.53	0.42
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.65	0.42
44:L7:70:LYS:NZ	36:5:519:A:O5'	316.39	0.42
53:M7:101:ASN:OD1	36:5:388:G:N2	114.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.85	0.42
36:1:787:G:H2'	36:1:788:C:C6	2.55	0.42
36:1:2318:U:O4	87:1:4043:OHX:N2	2.53	0.42
36:1:1247:U:H2'	36:1:1268:G:O6	2.19	0.42
42:L5:277:LEU:HB3	42:L5:281:GLU:OE2	3.66	0.42
42:L5:113:LEU:HD12	42:L5:113:LEU:HA	2.00	0.42
36:5:2396:G:N2	36:5:2985:C:C2	2.88	0.42
32:E0:23:LYS:HB3	32:E0:23:LYS:HE2	4.34	0.42
36:1:90:C:O2'	36:1:282:G:OP1	2.27	0.42
36:5:687:U:H2'	36:5:688:G:C8	2.54	0.42
36:1:1388:U:O4	41:L4:186:LYS:HD2	2.19	0.42
52:M6:84:LEU:HD13	52:M6:102:LEU:HD21	2.02	0.42
53:M7:168:LEU:HB2	53:M7:172:GLN:CB	2.50	0.42
37:7:2:G:O2'	37:7:23:A:N1	2.39	0.42
4:S2:59:HIS:CE1	4:S2:239:PRO:HD3	3.15	0.42
36:5:1948:G:C2	36:5:1949:G:C8	3.08	0.42
36:1:2943:G:C8	40:L3:2:SER:N	2.88	0.42
1:6:577:G:C2	87:6:2157:OHX:N4	2.87	0.42
1:6:915:A:H5''	1:6:916:U:OP2	2.19	0.42
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.47	0.42
6:S4:184:THR:OG1	6:S4:224:ASN:O	3.52	0.42
19:C7:4:VAL:HA	1:6:1402:G:OP1	405.68	0.42
4:S2:49:LYS:HD2	4:S2:243:TYR:CD1	2.55	0.42
35:SM:61:ILE:HD12	35:SM:62:ARG:H	1.84	0.42
1:6:1594:G:C6	1:6:1595:U:N3	2.88	0.42
13:C1:3:THR:HG1	13:C1:82:ARG:HE	1.66	0.42
9:S7:173:TYR:CD1	9:S7:181:ILE:HB	2.54	0.42
11:S9:171:ARG:HH11	11:S9:174:ARG:HB3	3.71	0.42
36:1:2718:U:H2'	36:1:2719:U:C6	2.55	0.42
3:S1:136:ARG:NH1	1:6:885:G:OP1	275.60	0.42
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	4.11	0.42
1:2:73:U:H1'	1:2:74:U:H5'	2.02	0.42
10:S8:147:ALA:O	10:S8:149:SER:N	3.32	0.42
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.20	0.42
51:M5:184:LYS:HG3	51:M5:185:ALA:N	4.32	0.42
67:O1:15:ASN:O	67:O1:19:ARG:NH1	2.81	0.42
13:C1:17:PRO:HB2	13:C1:18:HIS:ND1	4.58	0.42
2:S0:120:LEU:HD12	2:S0:121:VAL:N	2.33	0.42
48:M1:10:ARG:H	48:M1:10:ARG:HG3	1.69	0.42
14:C2:132:GLU:O	14:C2:136:ILE:HG12	2.20	0.42
10:S8:199:LYS:HG3	10:S8:200:LYS:N	5.05	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:87:ARG:HB2	59:N3:89:ASP:OD1	2.20	0.42
36:5:3164:C:HO2'	36:5:3165:A:P	2.43	0.42
42:L5:148:ILE:HG21	42:L5:148:ILE:HD13	1.75	0.42
26:D4:52:LYS:C	26:D4:54:ALA:N	2.88	0.42
51:M5:71:ARG:NH1	36:5:1546:A:N7	137.80	0.42
15:C3:83:GLU:HG2	15:C3:83:GLU:H	1.60	0.42
46:L9:36:LYS:NZ	46:L9:152:GLU:OE1	2.47	0.42
13:C1:127:GLN:HG3	13:C1:137:PHE:CZ	2.55	0.42
63:N7:22:LYS:HE2	63:N7:129:TRP:CH2	2.64	0.42
36:1:1240:A:H3'	36:1:1241:U:H5'	2.02	0.42
62:N6:58:VAL:HG22	62:N6:104:LEU:CD2	2.50	0.42
36:1:517:G:P	44:L7:60:ARG:HH22	2.43	0.42
1:2:1238:A:OP2	87:2:2047:OHX:N2	2.52	0.42
1:6:763:G:C6	1:6:764:U:C4	3.08	0.42
36:5:3078:U:O2'	87:5:4203:OHX:N1	2.53	0.42
1:2:1136:U:O4	25:D3:112:LYS:HD2	2.20	0.42
36:1:709:A:P	54:M8:179:ARG:HH22	2.42	0.42
31:D9:24:CYS:SG	31:D9:26:SER:HB3	3.22	0.42
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.28	0.42
55:M9:143:ILE:HG23	36:5:2093:A:P	255.16	0.42
49:M3:187:ALA:HA	49:M3:190:LYS:CG	2.49	0.42
27:D5:54:VAL:HA	27:D5:57:TYR:CD1	2.61	0.42
87:5:4041:OHX:N4	87:5:4245:OHX:N1	2.67	0.42
36:5:428:A:H2'	36:5:429:U:C6	2.54	0.42
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.19	0.42
45:L8:136:LEU:HB2	36:5:147:U:OP2	117.97	0.42
63:N7:64:LYS:HB2	63:N7:64:LYS:NZ	4.48	0.42
87:2:2083:OHX:N6	87:2:2085:OHX:N2	2.68	0.42
55:M9:114:LYS:HE2	55:M9:114:LYS:HB3	1.70	0.42
36:5:3302:U:H3	36:5:3312:U:H3	1.67	0.42
5:S3:216:PRO:HB2	5:S3:217:ILE:H	1.54	0.42
44:L7:111:ILE:O	44:L7:112:ASN:HB2	2.20	0.42
36:1:1112:A:H2'	36:1:1113:G:C8	2.54	0.42
36:1:761:A:C2	36:1:771:A:H1'	2.55	0.42
36:5:2718:U:O4	87:5:4239:OHX:N6	2.53	0.42
1:2:1498:G:C2'	1:2:1499:G:H5'	2.50	0.42
10:S8:168:CYS:HB2	10:S8:184:LEU:HD11	2.01	0.42
1:6:1045:C:C2	1:6:1074:G:C2	3.08	0.42
1:6:736:C:H2'	1:6:737:A:H8	1.85	0.42
26:D4:117:LYS:HG2	26:D4:117:LYS:H	1.68	0.42
19:C7:111:LYS:HB2	19:C7:111:LYS:HE3	3.69	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:42:LEU:O	67:O1:42:LEU:HG	2.20	0.42
45:L8:167:PRO:HB3	45:L8:177:TYR:CE1	3.15	0.42
49:M3:13:HIS:NE2	36:5:98:G:N7	139.55	0.42
36:5:3384:U:H2'	36:5:3385:U:C6	2.55	0.42
50:M4:46:ILE:O	50:M4:55:ARG:HA	2.53	0.42
36:1:1072:G:C5	36:1:1087:G:C2	3.07	0.42
11:S9:118:LEU:HD23	11:S9:158:PHE:CZ	2.67	0.42
1:2:1203:A:C5	1:2:1556:A:C2	3.07	0.42
1:2:1013:A:H2'	1:2:1014:G:O4'	2.19	0.42
42:L5:110:LEU:O	42:L5:116:ASP:HB3	4.87	0.42
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.85	0.42
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.49	0.42
16:C4:12:GLN:CD	16:C4:111:ARG:HG3	2.39	0.42
27:D5:66:VAL:HA	27:D5:71:ILE:O	2.20	0.42
1:6:1079:U:H2'	1:6:1080:U:O4'	2.20	0.42
36:1:662:U:H2'	36:1:663:C:C6	2.55	0.42
1:2:1126:G:OP1	77:Q1:15:ARG:NH1	2.52	0.42
58:N2:50:LEU:HB2	58:N2:54:VAL:HB	2.02	0.42
36:5:2960:C:H2'	36:5:2961:G:C8	2.54	0.42
36:1:75:G:H5''	49:M3:58:VAL:HG13	2.01	0.42
26:D4:29:HIS:CE1	26:D4:34:ASN:H	2.38	0.42
28:D6:10:ARG:HB3	28:D6:34:LYS:HA	2.02	0.42
6:S4:86:PHE:CE2	6:S4:102:VAL:HG23	2.71	0.42
36:5:128:G:H2'	36:5:129:U:O4'	2.19	0.42
36:1:1720:U:P	55:M9:110:ARG:HH12	2.41	0.42
48:M1:133:ARG:HH11	48:M1:153:LYS:N	3.69	0.42
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.68	0.42
69:O3:91:ALA:C	69:O3:93:THR:H	2.27	0.42
1:2:1316:G:H2'	1:2:1317:C:H6	1.85	0.42
2:S0:106:SER:HA	2:S0:112:THR:HG21	2.02	0.42
1:2:57:G:OP1	26:D4:112:LYS:NZ	2.53	0.42
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.53	0.42
1:6:1185:U:C2	1:6:1458:G:N7	2.88	0.42
36:1:208:C:O2'	36:1:209:A:H5'	2.19	0.42
62:N6:101:PRO:HA	62:N6:104:LEU:HG	2.60	0.42
43:L6:102:ASN:OD1	43:L6:102:ASN:N	3.71	0.42
1:6:320:U:C2	1:6:321:C:O2	2.73	0.42
36:5:1363:A:OP2	87:5:4207:OHX:N3	2.53	0.42
79:Q3:84:ARG:NH2	79:Q3:88:GLU:HG3	2.35	0.42
1:2:1070:C:O2'	1:2:1071:U:H5'	2.20	0.42
1:2:761:G:H4'	11:S9:72:GLU:OE1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	2.27	0.42
1:2:827:C:H2'	1:2:828:U:H6	1.83	0.42
33:E1:87:THR:HA	33:E1:88:PRO:HD3	1.91	0.42
36:1:634:C:H5'	69:O3:21:ARG:O	2.20	0.42
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.54	0.42
36:1:953:G:N2	36:1:1116:G:H2'	2.35	0.42
52:M6:156:LEU:HD23	52:M6:156:LEU:HA	2.02	0.42
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.20	0.42
36:1:2921:U:H2'	36:1:2923:U:H5''	2.02	0.42
52:M6:108:ILE:HA	52:M6:109:PRO:HD2	2.17	0.42
39:L2:238:ILE:HA	39:L2:238:ILE:HD13	4.19	0.42
36:1:85:A:O2'	87:1:4145:OHX:N6	2.53	0.42
36:1:1178:G:O6	69:O3:20:LYS:HD3	2.20	0.42
40:L3:86:VAL:HG22	40:L3:162:VAL:HG12	2.57	0.42
63:N7:81:LEU:HD22	63:N7:81:LEU:HA	2.17	0.42
34:SR:64:HIS:HE1	34:SR:88:THR:OG1	2.03	0.42
7:S5:81:ARG:HD3	7:S5:82:PHE:CE2	2.55	0.42
56:N0:21:GLU:N	56:N0:22:PRO:HD3	2.34	0.42
1:6:1511:U:H2'	1:6:1512:G:C8	2.55	0.42
35:SM:34:LYS:HE3	36:1:2707:C:OP1	2.20	0.42
57:N1:32:LYS:HE3	57:N1:98:HIS:HD2	9.67	0.42
1:6:622:A:H4'	1:6:623:A:OP1	2.20	0.42
36:5:3057:U:O2'	36:5:3059:G:OP1	2.37	0.42
25:D3:98:GLU:O	25:D3:99:ASN:HB2	2.20	0.42
13:C1:118:GLN:HE21	13:C1:118:GLN:HB2	1.63	0.42
36:5:773:G:N7	87:5:3943:OHX:N5	2.68	0.42
39:L2:156:LYS:HG2	39:L2:158:ILE:HD13	3.95	0.42
51:M5:2:GLY:HA3	36:5:116:A:OP2	107.69	0.42
1:2:30:G:H2'	1:2:31:C:C6	2.54	0.42
36:5:1138:U:H2'	36:5:1139:G:O4'	2.20	0.42
23:D1:18:SER:N	23:D1:54:ALA:O	2.34	0.42
1:2:142:G:O5'	1:2:142:G:C8	2.72	0.42
11:S9:134:ILE:N	11:S9:134:ILE:HD12	4.10	0.42
5:S3:162:GLN:O	5:S3:165:ASN:N	2.72	0.42
36:5:65:A:C8	36:5:110:G:O6	2.73	0.42
42:L5:120:LYS:HD3	42:L5:123:GLU:OE1	3.39	0.42
45:L8:81:THR:HG21	45:L8:181:LYS:HD2	2.01	0.42
1:6:139:C:C5	1:6:176:C:H1'	2.55	0.42
9:S7:63:PRO:C	9:S7:65:PRO:HD2	2.73	0.42
20:C8:61:LEU:HA	20:C8:65:GLU:OE1	2.60	0.42
36:5:2947:G:H4'	36:5:2947:G:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:23:LEU:HA	75:O9:24:PRO:HD3	1.79	0.42
34:SR:44:SER:HG	34:SR:59:ARG:HB3	1.85	0.42
1:2:1253:U:H4'	33:E1:143:LYS:N	2.35	0.42
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.42	0.42
36:1:839:C:H4'	36:1:1724:U:H2'	2.02	0.42
52:M6:125:ARG:HD3	52:M6:125:ARG:HH11	1.87	0.42
1:2:1067:C:O2'	1:2:1068:C:H5'	2.20	0.42
1:2:1503:A:C6	20:C8:84:TRP:CD1	3.07	0.42
47:M0:153:ARG:HH11	47:M0:156:ARG:HH21	4.35	0.42
1:2:677:G:H2'	1:2:678:A:C8	2.55	0.42
36:1:2971:A:N3	36:1:2971:A:H3'	2.35	0.42
1:2:986:G:H2'	1:2:987:G:O4'	2.20	0.42
36:5:1230:G:OP2	87:5:4012:OHX:N6	2.53	0.42
2:S0:71:GLU:C	2:S0:73:VAL:H	2.23	0.42
87:1:4056:OHX:N6	87:1:4165:OHX:N4	2.67	0.42
36:5:1221:A:H3'	36:5:1222:G:H5'	2.02	0.42
50:M4:60:LEU:C	50:M4:62:GLN:H	2.22	0.42
6:S4:30:ARG:HA	6:S4:31:PRO:HD3	1.82	0.42
46:L9:44:THR:HG22	36:5:3186:A:N3	326.98	0.42
62:N6:60:ARG:HA	62:N6:60:ARG:HD3	1.37	0.42
6:S4:130:GLN:HB3	6:S4:138:TYR:CZ	3.83	0.42
2:S0:104:PRO:HA	2:S0:135:GLU:OE2	2.74	0.42
40:L3:92:TYR:CE2	40:L3:101:SER:HB3	2.88	0.42
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.20	0.42
87:1:4088:OHX:N6	87:1:4159:OHX:N4	2.68	0.42
87:5:4211:OHX:N2	87:8:222:OHX:N5	2.68	0.42
2:S0:88:LYS:HD2	2:S0:88:LYS:HA	2.55	0.42
36:1:3041:U:H2'	36:1:3042:U:C6	2.55	0.42
27:D5:53:GLU:HG2	27:D5:57:TYR:OH	5.42	0.42
54:M8:111:ARG:HD2	54:M8:111:ARG:HH11	1.64	0.42
54:M8:115:VAL:O	54:M8:118:GLY:N	2.49	0.42
7:S5:118:LEU:HD22	7:S5:129:PRO:HB2	2.02	0.42
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.20	0.42
52:M6:9:ILE:O	52:M6:36:VAL:HG22	2.20	0.42
18:C6:56:GLY:HA3	18:C6:59:LYS:HD3	6.10	0.42
1:2:21:U:H2'	1:2:22:A:H8	1.85	0.42
87:2:2075:OHX:N6	87:2:2163:OHX:N2	2.67	0.42
1:6:386:G:H2'	1:6:387:A:C8	2.55	0.42
54:M8:55:SER:O	54:M8:59:ARG:HG3	2.19	0.42
40:L3:358:TRP:CH2	60:N4:15:PRO:HD2	2.55	0.42
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:122:SER:OG	24:D2:123:GLY:N	2.52	0.42
1:2:1438:G:H4'	5:S3:178:ARG:O	2.20	0.42
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.55	0.42
11:S9:61:THR:HG22	24:D2:97:ARG:NH2	2.35	0.42
24:D2:96:ALA:HB1	24:D2:98:GLN:HE21	1.84	0.42
36:5:1190:A:H5'	36:5:1191:U:OP1	2.20	0.42
1:6:1363:U:O2'	1:6:1364:G:H5'	2.19	0.42
1:6:669:G:H2'	1:6:669:G:N3	2.35	0.42
7:S5:203:LYS:HD2	7:S5:203:LYS:HA	1.90	0.42
25:D3:133:LEU:HD22	25:D3:133:LEU:HA	2.31	0.42
69:O3:23:ASN:OD1	69:O3:23:ASN:C	2.58	0.42
36:1:40:A:N7	64:N8:29:PRO:O	2.53	0.42
36:1:539:C:H2'	36:1:540:U:H6	1.85	0.42
57:N1:40:VAL:HG21	57:N1:96:ILE:HG13	2.02	0.42
59:N3:74:MET:HE3	59:N3:102:ILE:HD13	2.02	0.42
50:M4:47:ASP:OD1	50:M4:55:ARG:HB2	2.39	0.41
36:5:3214:U:O2	36:5:3214:U:O4'	2.38	0.41
13:C1:74:THR:HB	13:C1:122:ILE:HD13	5.06	0.41
67:O1:79:ARG:HA	67:O1:89:LEU:HD12	2.02	0.41
4:S2:53:ILE:HB	4:S2:57:PHE:CE2	2.55	0.41
34:SR:79:TYR:HE1	34:SR:100:TYR:HE1	2.88	0.41
1:2:704:C:OP2	1:2:704:C:H3'	2.19	0.41
8:S6:71:THR:HG22	8:S6:72:ARG:H	4.53	0.41
36:1:1741:A:C2	36:1:1742:U:C4	3.08	0.41
1:6:1715:G:C6	1:6:1716:C:N4	2.88	0.41
1:6:71:A:H2'	1:6:72:A:O4'	2.20	0.41
59:N3:45:ARG:O	59:N3:46:LEU:C	2.58	0.41
87:5:4071:OHX:N6	87:5:4080:OHX:N5	2.68	0.41
1:6:1279:C:H2'	1:6:1280:C:O4'	2.20	0.41
32:E0:48:THR:HB	32:E0:49:LEU:H	1.69	0.41
40:L3:250:ALA:HB3	36:5:2880:U:H1'	224.58	0.41
52:M6:68:ARG:H	52:M6:68:ARG:HG2	1.49	0.41
36:5:172:G:C6	36:5:247:C:N4	2.88	0.41
30:D8:35:ASP:O	30:D8:37:SER:N	4.48	0.41
67:O1:74:ARG:HH21	67:O1:109:VAL:HG21	2.34	0.41
36:1:2860:U:H2'	36:1:2861:U:H5'	2.02	0.41
45:L8:156:ASP:OD1	45:L8:183:LYS:HG2	2.38	0.41
36:1:990:U:H1'	57:N1:101:CYS:HA	2.02	0.41
3:S1:106:THR:HA	16:C4:116:GLU:OE1	2.78	0.41
64:N8:85:ASP:O	64:N8:89:GLN:HG3	2.19	0.41
64:N8:10:LYS:HD2	64:N8:10:LYS:HA	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:95:G:N2	1:2:96:G:H1'	2.35	0.41
36:5:734:C:C2	36:5:735:A:H1'	2.55	0.41
51:M5:49:ARG:NH1	51:M5:49:ARG:HB2	2.35	0.41
45:L8:63:LYS:O	45:L8:67:ILE:HG13	2.19	0.41
19:C7:32:LYS:NZ	1:6:1387:G:OP1	440.37	0.41
43:L6:170:LYS:HA	43:L6:171:PRO:HD2	2.34	0.41
9:S7:184:GLU:HG2	9:S7:185:ILE:N	2.35	0.41
41:L4:222:VAL:HG13	41:L4:225:VAL:HB	2.01	0.41
38:8:145:U:H2'	38:8:146:U:C6	2.54	0.41
18:C6:28:LEU:HD12	18:C6:29:ILE:N	2.35	0.41
6:S4:193:GLY:O	6:S4:210:ILE:HG23	2.19	0.41
14:C2:86:VAL:N	14:C2:87:PRO:HD3	2.55	0.41
36:1:1144:U:OP1	36:1:1367:G:O2'	2.28	0.41
87:5:4221:OHX:N1	87:5:4231:OHX:N3	2.67	0.41
36:5:543:C:N4	36:5:548:G:H1	2.17	0.41
36:5:1192:C:H41	36:5:1302:A:P	2.43	0.41
47:M0:76:MET:CE	47:M0:148:VAL:HA	4.45	0.41
36:1:650:C:O2'	36:1:651:G:H5'	2.19	0.41
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.86	0.41
42:L5:119:TYR:OH	42:L5:135:VAL:HG12	2.20	0.41
11:S9:6:ARG:HD3	11:S9:6:ARG:HA	1.86	0.41
87:2:2075:OHX:N4	87:2:2163:OHX:N1	2.68	0.41
13:C1:77:SER:HB3	13:C1:85:VAL:HB	2.08	0.41
1:6:871:G:H2'	1:6:872:G:C8	2.55	0.41
36:1:964:G:OP1	87:1:3967:OHX:N2	2.53	0.41
1:6:1087:A:H5'	1:6:1298:U:O4	2.19	0.41
58:N2:94:ARG:O	58:N2:96:VAL:HG23	2.81	0.41
1:6:1060:U:H4'	1:6:1061:A:H5''	2.02	0.41
11:S9:7:THR:HG21	1:6:758:U:OP1	384.03	0.41
36:1:782:U:H2'	36:1:783:A:O4'	2.20	0.41
2:S0:107:PHE:HE2	2:S0:116:LYS:HB2	2.21	0.41
36:5:3225:C:H2'	36:5:3226:A:O4'	2.20	0.41
1:6:166:C:OP2	87:6:2168:OHX:N4	2.53	0.41
36:5:1270:A:C6	36:5:1271:A:C6	3.07	0.41
36:5:1270:A:H2'	36:5:1271:A:C8	2.55	0.41
36:5:370:U:OP1	87:5:4173:OHX:N1	2.53	0.41
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.20	0.41
3:S1:127:VAL:HG13	3:S1:176:VAL:HG11	2.01	0.41
1:2:248:U:H4'	13:C1:36:LYS:HD3	2.02	0.41
7:S5:108:LEU:HA	7:S5:108:LEU:HD23	2.03	0.41
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1034:U:H2'	36:5:1035:G:O4'	2.20	0.41
36:1:739:G:O2'	36:1:740:G:H5'	2.20	0.41
1:6:1218:G:O6	1:6:1444:A:H2'	2.19	0.41
78:Q2:14:GLY:O	78:Q2:17:CYS:O	4.39	0.41
36:1:31:C:H5'	51:M5:96:ARG:HD2	2.02	0.41
72:O6:31:GLY:HA3	36:5:299:G:C4	112.80	0.41
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	2.99	0.41
34:SR:200:ASN:N	34:SR:214:ALA:O	3.86	0.41
5:S3:168:ILE:H	5:S3:168:ILE:HG13	1.61	0.41
24:D2:77:PRO:HD3	25:D3:7:ARG:O	4.55	0.41
1:2:1073:G:C2'	1:2:1074:G:H5''	2.43	0.41
77:Q1:1:MET:HE2	77:Q1:5:TRP:HB2	2.29	0.41
1:2:1643:U:H5'	77:Q1:9:ARG:NH2	2.35	0.41
62:N6:35:LEU:HD21	62:N6:48:LEU:HD12	2.02	0.41
1:2:1572:G:N3	1:2:1572:G:H2'	2.35	0.41
1:2:1201:G:H21	1:2:1600:A:H5''	1.86	0.41
8:S6:57:ASP:HA	8:S6:107:ALA:H	1.85	0.41
36:1:3283:U:H2'	36:1:3284:G:C8	2.55	0.41
59:N3:45:ARG:HD3	59:N3:46:LEU:N	2.35	0.41
44:L7:40:LYS:HB2	44:L7:40:LYS:HE3	1.44	0.41
20:C8:28:ILE:HG13	20:C8:61:LEU:HG	2.02	0.41
61:N5:67:ILE:HB	61:N5:83:VAL:HG12	2.33	0.41
33:E1:143:LYS:HD3	1:6:1254:U:OP1	458.00	0.41
26:D4:124:ARG:NH1	26:D4:124:ARG:HB3	2.28	0.41
45:L8:78:PHE:CD2	45:L8:179:ILE:HD13	2.56	0.41
28:D6:10:ARG:NH1	28:D6:36:ILE:HG13	4.88	0.41
31:D9:31:ILE:HB	31:D9:38:ILE:O	2.20	0.41
15:C3:16:ILE:HG13	15:C3:62:GLN:OE1	3.25	0.41
36:1:1092:C:H4'	57:N1:120:LYS:NZ	2.35	0.41
36:5:1064:A:N6	36:5:1096:U:N3	2.68	0.41
3:S1:212:VAL:O	3:S1:214:LYS:N	2.53	0.41
36:5:956:U:OP1	87:5:4161:OHX:N2	2.53	0.41
34:SR:182:ASN:O	34:SR:186:PHE:HA	2.30	0.41
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.19	0.41
34:SR:37:SER:HB3	34:SR:39:ASP:OD1	2.20	0.41
14:C2:131:ASP:HB2	14:C2:132:GLU:CD	2.41	0.41
12:C0:1:MET:HE2	12:C0:2:LEU:H	1.84	0.41
36:1:2748:A:H1'	42:L5:36:LEU:HD23	2.01	0.41
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.19	0.41
36:5:2919:A:N1	36:5:2927:C:O2	2.53	0.41
49:M3:174:ARG:NH1	72:O6:9:ILE:HG21	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.11	0.41
36:5:238:A:HO2'	36:5:239:G:P	2.42	0.41
1:6:846:G:H2'	1:6:847:A:H8	1.83	0.41
36:1:547:G:H1'	36:1:548:G:C8	2.55	0.41
1:2:912:U:H4'	1:2:913:G:H2'	2.02	0.41
44:L7:89:ILE:HD12	44:L7:89:ILE:HG23	1.79	0.41
36:1:1854:C:OP2	87:1:4037:OHX:N5	2.53	0.41
40:L3:305:ILE:HG13	40:L3:305:ILE:H	1.55	0.41
36:1:3174:A:C6	36:1:3175:U:C4	3.09	0.41
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	1.84	0.41
38:8:43:A:OP1	87:8:222:OHX:N3	2.53	0.41
36:1:2296:A:C2	36:1:2918:G:N3	2.88	0.41
26:D4:128:LYS:HA	26:D4:131:ARG:HG2	2.02	0.41
1:2:1340:U:O4'	1:2:1378:U:H5'	2.20	0.41
74:O8:17:ARG:HB3	74:O8:20:VAL:HG23	2.01	0.41
36:1:1229:G:H1	36:1:1280:C:H42	1.68	0.41
87:2:2075:OHX:N3	87:2:2163:OHX:N1	2.68	0.41
24:D2:111:MET:HE3	24:D2:116:ALA:HA	2.13	0.41
48:M1:21:ILE:HG12	48:M1:125:MET:HB2	3.35	0.41
61:N5:133:LEU:HD23	61:N5:133:LEU:HA	1.86	0.41
40:L3:311:PHE:HE2	40:L3:317:ILE:HG13	1.93	0.41
38:4:89:A:H5''	38:4:90:U:OP2	2.20	0.41
36:1:703:G:C5	36:1:704:U:C5	3.07	0.41
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.55	0.41
36:1:35:A:O2'	36:1:36:C:H5'	2.20	0.41
67:O1:17:HIS:HB2	67:O1:69:TYR:HB3	2.01	0.41
49:M3:33:VAL:HG12	49:M3:34:SER:N	2.34	0.41
40:L3:108:GLU:O	40:L3:134:SER:OG	2.39	0.41
36:1:535:G:O6	87:1:4064:OHX:N3	2.53	0.41
55:M9:130:ASN:C	55:M9:132:PHE:H	2.22	0.41
36:5:126:U:H2'	36:5:127:G:O4'	2.20	0.41
37:7:8:G:C6	37:7:9:C:C4	3.09	0.41
36:5:2311:G:OP2	87:5:3983:OHX:N2	2.53	0.41
4:S2:140:ARG:HB2	4:S2:222:TYR:CD2	2.55	0.41
42:L5:270:LYS:HG2	37:7:2:G:H5'	321.04	0.41
10:S8:5:ARG:H	10:S8:5:ARG:HG3	1.60	0.41
37:3:49:G:C5	42:L5:58:LYS:HG3	2.53	0.41
67:O1:50:ARG:HD2	67:O1:90:PHE:CE1	4.65	0.41
4:S2:38:VAL:HG22	4:S2:39:THR:H	1.84	0.41
34:SR:74:THR:HG21	34:SR:79:TYR:CD2	2.53	0.41
16:C4:38:THR:HG23	16:C4:39:ILE:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:36:SER:OG	62:N6:39:LEU:HD23	2.98	0.41
1:2:1595:U:H5	1:2:1596:C:C5	2.38	0.41
10:S8:43:ILE:HG12	10:S8:57:ALA:HA	2.17	0.41
30:D8:7:VAL:HG13	30:D8:55:VAL:HG13	2.80	0.41
68:O2:78:ASN:H	68:O2:81:ASP:HB2	2.50	0.41
41:L4:314:LYS:HD2	44:L7:162:PRO:HB3	2.88	0.41
49:M3:50:PRO:HB3	49:M3:138:VAL:O	2.46	0.41
33:E1:144:CYS:C	33:E1:146:SER:H	2.59	0.41
47:M0:90:ARG:O	47:M0:91:VAL:HG23	2.47	0.41
6:S4:154:ILE:C	6:S4:155:LYS:HG2	2.40	0.41
6:S4:155:LYS:HG3	6:S4:174:LYS:NZ	2.35	0.41
55:M9:20:ARG:HG3	55:M9:20:ARG:H	3.69	0.41
16:C4:90:ARG:HA	16:C4:128:LYS:HZ3	1.84	0.41
17:C5:79:HIS:O	17:C5:81:ARG:N	2.56	0.41
19:C7:103:ASP:H	19:C7:106:THR:CG2	3.42	0.41
2:S0:50:VAL:HG23	19:C7:109:LEU:HD21	2.02	0.41
1:2:74:U:O2'	1:2:75:U:H5''	2.20	0.41
36:1:2767:U:H2'	36:1:2768:U:H6	1.85	0.41
39:L2:52:SER:HB3	39:L2:191:LEU:HD12	6.44	0.41
3:S1:144:ARG:HB3	3:S1:208:GLN:HG2	3.37	0.41
52:M6:10:ASP:CG	52:M6:37:ARG:HH21	2.43	0.41
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.21	0.41
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.20	0.41
5:S3:195:SER:HB2	5:S3:200:LYS:HG2	3.57	0.41
2:S0:175:TYR:HD2	2:S0:176:LEU:HD23	1.85	0.41
1:2:649:U:O2'	1:2:650:U:H6	2.02	0.41
41:L4:209:TYR:C	41:L4:254:ALA:HB2	2.69	0.41
49:M3:93:ILE:HA	49:M3:93:ILE:HD13	1.74	0.41
26:D4:20:ARG:HE	26:D4:22:GLN:NE2	4.26	0.41
3:S1:171:ILE:HG23	3:S1:196:GLU:OE1	2.79	0.41
11:S9:123:HIS:O	11:S9:127:VAL:HG23	2.20	0.41
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.65	0.41
1:6:845:G:H2'	1:6:846:G:H8	1.86	0.41
36:1:2112:U:OP2	60:N4:48:ARG:NH1	2.54	0.41
41:L4:51:ALA:O	38:8:27:U:H5'	110.24	0.41
20:C8:74:GLN:O	20:C8:75:ASN:ND2	2.53	0.41
36:5:920:A:OP1	36:5:922:U:C5	2.72	0.41
11:S9:45:ILE:HG22	11:S9:101:VAL:HG12	2.02	0.41
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	2.53	0.41
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.20	0.41
36:5:2655:U:H4'	36:5:2656:A:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:2:2095:OHX:N6	87:2:2109:OHX:N2	2.68	0.41
55:M9:184:LEU:O	55:M9:185:LEU:HD23	2.68	0.41
9:S7:39:ARG:HH12	55:M9:188:ASP:HB2	1.84	0.41
40:L3:160:VAL:HG13	40:L3:183:LEU:HD22	4.06	0.41
87:1:4065:OHX:N6	87:1:4179:OHX:N2	2.68	0.41
57:N1:89:LEU:HD23	57:N1:91:LEU:HD11	2.01	0.41
36:1:1551:C:HO2'	36:1:2170:U:HO2'	1.69	0.41
13:C1:80:MET:HB2	13:C1:80:MET:HE2	2.12	0.41
35:SM:34:LYS:HA	35:SM:34:LYS:HD3	3.28	0.41
7:S5:135:ASP:O	7:S5:139:ASN:HB2	2.21	0.41
8:S6:214:LYS:HB3	8:S6:218:GLU:OE1	5.78	0.41
36:5:612:U:H2'	36:5:613:G:H8	1.85	0.41
1:6:1054:U:H2'	1:6:1055:U:O4'	2.20	0.41
36:5:167:U:H2'	36:5:168:U:C6	2.56	0.41
1:2:1677:C:OP1	10:S8:42:ARG:NH1	2.53	0.41
1:6:322:G:OP1	87:6:2104:OHX:N5	2.53	0.41
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.79	0.41
38:8:152:G:H2'	38:8:153:U:O4'	2.20	0.41
1:2:1172:G:H21	21:C9:88:VAL:CG2	2.33	0.41
1:2:617:U:H2'	1:2:618:U:C6	2.56	0.41
13:C1:91:LEU:HD12	13:C1:91:LEU:H	1.84	0.41
45:L8:245:LYS:HB3	45:L8:245:LYS:HE3	1.84	0.41
36:1:720:A:H2'	36:1:720:A:N3	2.36	0.41
37:7:48:U:O2	37:7:50:U:C4	2.73	0.41
37:3:24:A:H2'	37:3:25:G:O4'	2.20	0.41
78:Q2:50:PHE:O	87:Q2:503:OHX:N2	2.52	0.41
1:2:1798:U:C4	28:D6:38:ARG:NH2	2.88	0.41
28:D6:73:TYR:HB2	28:D6:78:ALA:HB2	2.67	0.41
17:C5:18:ARG:HD3	20:C8:90:ASN:CG	2.40	0.41
5:S3:164:VAL:HG12	5:S3:165:ASN:N	2.35	0.41
5:S3:168:ILE:O	5:S3:168:ILE:HD12	2.21	0.41
36:1:916:G:H5'	36:1:917:A:OP1	2.20	0.41
36:5:2255:A:HO2'	36:5:2256:A:P	2.43	0.41
7:S5:58:LEU:HD23	7:S5:58:LEU:HA	2.21	0.41
15:C3:48:SER:O	15:C3:52:VAL:HG23	3.26	0.41
41:L4:44:LYS:HA	41:L4:47:ARG:HD2	2.02	0.41
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.77	0.41
42:L5:285:ARG:O	42:L5:288:ALA:HB3	2.97	0.41
58:N2:50:LEU:H	58:N2:50:LEU:HG	2.02	0.41
27:D5:95:HIS:CG	27:D5:96:SER:N	2.88	0.41
41:L4:120:TYR:O	41:L4:124:SER:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.21	0.41
36:5:2572:C:O2'	36:5:2573:G:P	2.78	0.41
1:2:269:G:C6	1:2:287:G:C6	3.08	0.41
41:L4:271:LYS:O	41:L4:272:VAL:C	2.74	0.41
36:5:508:U:O4	87:5:4026:OHX:N3	2.53	0.41
35:SM:120:GLU:O	35:SM:122:GLU:N	4.03	0.41
5:S3:117:ARG:NE	35:SM:122:GLU:HB3	2.33	0.41
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.19	0.41
42:L5:84:PRO:HA	42:L5:88:ILE:O	2.61	0.41
15:C3:25:TRP:HA	15:C3:27:LYS:CE	6.81	0.41
38:4:104:A:H3'	38:4:105:A:H5''	2.01	0.41
36:5:3353:G:O2'	36:5:3356:G:H5'	2.20	0.41
36:5:3288:G:O2'	36:5:3289:G:OP2	2.37	0.41
63:N7:46:ILE:HD12	63:N7:47:GLU:N	2.36	0.41
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.88	0.41
1:2:1746:A:H2'	1:2:1747:G:O4'	2.20	0.41
1:2:1476:C:H2'	1:2:1477:G:C8	2.55	0.41
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	2.02	0.41
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	2.81	0.41
49:M3:180:ARG:HG2	49:M3:184:GLU:OE1	4.47	0.41
2:S0:69:ASN:HB2	2:S0:72:ASP:OD2	3.22	0.41
15:C3:42:ARG:NH1	15:C3:80:LEU:HD11	5.73	0.41
1:6:517:U:H2'	1:6:518:A:O4'	2.21	0.41
1:6:1756:A:C8	1:6:1756:A:O5'	2.73	0.41
1:6:1756:A:H2'	1:6:1757:G:H8	1.85	0.41
44:L7:179:LEU:HD22	44:L7:183:ASP:OD2	2.21	0.41
38:4:124:G:H1	38:4:129:C:H42	1.67	0.41
36:1:1047:A:N3	36:1:2633:U:O2'	2.48	0.41
36:1:1833:G:OP1	75:O9:10:LYS:HD3	2.20	0.41
36:1:108:A:O2'	36:1:109:A:H2'	2.20	0.41
40:L3:66:LYS:HD3	40:L3:67:PHE:CE2	5.65	0.41
54:M8:93:ILE:HG23	36:5:784:A:C6	150.86	0.41
87:2:2095:OHX:N4	87:2:2109:OHX:N1	2.68	0.41
45:L8:91:PHE:CE2	45:L8:185:ARG:HD3	5.20	0.41
42:L5:124:GLU:O	42:L5:125:VAL:HB	2.20	0.41
1:6:1556:A:O2'	1:6:1560:U:OP2	2.27	0.41
36:5:1108:U:H2'	36:5:1109:U:C6	2.56	0.41
1:2:978:A:H2'	1:2:979:A:O4'	2.20	0.41
54:M8:83:VAL:O	54:M8:85:GLY:N	2.93	0.41
52:M6:108:ILE:O	52:M6:108:ILE:HG12	4.71	0.41
65:N9:7:HIS:CG	65:N9:8:THR:N	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:57:ILE:HG21	54:M8:57:ILE:HD13	1.71	0.41
36:1:1696:A:H61	36:1:1748:G:H2'	1.85	0.41
36:5:3136:G:C5	36:5:3137:C:C5	3.07	0.41
1:2:387:A:H5''	1:2:389:G:OP2	2.20	0.41
36:5:330:G:OP2	87:5:4055:OHX:N1	2.53	0.41
1:2:1660:A:H2'	1:2:1661:U:C6	2.55	0.41
42:L5:15:ARG:CZ	36:5:1003:A:H1'	290.78	0.41
5:S3:105:MET:O	5:S3:106:LYS:C	2.58	0.41
67:O1:71:LEU:HD23	67:O1:71:LEU:HA	1.78	0.41
52:M6:128:ARG:HD2	52:M6:128:ARG:HA	4.28	0.41
71:O5:94:LYS:HE2	71:O5:94:LYS:HB2	1.96	0.41
41:L4:117:GLU:O	41:L4:117:GLU:HG2	2.19	0.41
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.79	0.41
28:D6:71:LEU:HD13	28:D6:73:TYR:OH	5.54	0.41
17:C5:16:SER:HB3	17:C5:21:ASP:OD1	2.21	0.41
34:SR:201:THR:OG1	34:SR:242:SER:HA	2.20	0.41
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.20	0.41
36:5:3194:C:O2'	36:5:3195:U:H5'	2.21	0.41
36:1:2255:A:OP1	87:1:3937:OHX:N3	2.53	0.41
36:1:317:A:C2	36:1:318:A:C4	3.08	0.41
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	2.58	0.41
3:S1:61:LEU:HA	3:S1:61:LEU:HD12	4.09	0.41
20:C8:125:ILE:HG12	35:SM:61:ILE:HG23	2.01	0.41
44:L7:155:LYS:HG3	44:L7:203:TRP:HZ3	1.84	0.41
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.45	0.41
36:1:1010:G:N2	47:M0:193:ASP:OD2	2.53	0.41
40:L3:18:PRO:HG2	40:L3:20:LYS:HD2	3.09	0.41
36:1:439:C:H2'	36:1:439:C:O2	2.19	0.41
28:D6:10:ARG:HB3	28:D6:11:ASN:H	3.91	0.41
16:C4:25:ASP:N	16:C4:55:SER:HB3	2.35	0.41
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.73	0.41
56:N0:155:ARG:O	56:N0:170:THR:HG22	2.19	0.41
1:2:1484:G:O4'	1:2:1607:G:H4'	2.21	0.41
28:D6:44:ILE:HD11	28:D6:65:PRO:HD2	2.03	0.41
15:C3:17:PRO:HD2	15:C3:62:GLN:HE22	1.85	0.41
1:6:826:U:H2'	1:6:827:C:C6	2.56	0.41
36:5:611:A:H4'	36:5:611:A:OP2	2.21	0.41
20:C8:141:THR:HB	20:C8:142:GLY:H	2.63	0.41
48:M1:109:HIS:HD2	48:M1:114:ILE:HG21	1.81	0.41
48:M1:114:ILE:HG22	48:M1:114:ILE:O	2.19	0.41
1:2:584:C:H1'	32:E0:18:THR:HG21	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.57	0.41
38:4:104:A:H3'	38:4:105:A:C5'	2.50	0.41
62:N6:122:LYS:HE3	62:N6:122:LYS:HB3	3.25	0.41
42:L5:48:LYS:HZ1	36:5:2749:G:P	242.28	0.41
8:S6:162:VAL:O	8:S6:169:TYR:N	2.53	0.41
7:S5:51:VAL:HA	7:S5:131:GLN:OE1	2.20	0.41
11:S9:88:GLU:O	11:S9:91:LYS:HE3	2.86	0.41
79:Q3:54:ILE:HG12	79:Q3:55:TRP:N	4.70	0.41
59:N3:35:TYR:CD2	59:N3:63:LYS:HE2	2.88	0.41
36:1:929:A:H2'	36:1:930:U:H6	1.82	0.41
1:2:1557:U:OP2	1:2:1559:A:O2'	2.27	0.41
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.53	0.41
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.25	0.41
36:5:2842:U:C4	36:5:2843:U:C5	3.08	0.41
36:1:1915:A:H2'	36:1:1916:U:C6	2.56	0.41
40:L3:33:PRO:HG2	40:L3:340:LYS:HB2	2.12	0.41
35:SM:77:THR:O	35:SM:80:ALA:N	3.67	0.41
36:1:2296:A:OP1	87:1:4152:OHX:N2	2.53	0.41
87:1:4059:OHX:N4	87:1:4168:OHX:N3	2.68	0.41
7:S5:124:LEU:HD11	27:D5:59:TYR:HB2	2.02	0.41
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.02	0.41
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	4.47	0.41
6:S4:141:THR:O	6:S4:143:ASP:N	2.52	0.41
24:D2:53:ILE:HG13	24:D2:54:ASP:N	2.35	0.41
1:2:1031:U:H4'	1:2:1032:G:OP2	2.21	0.41
1:6:777:C:C2	1:6:778:G:C8	3.08	0.41
40:L3:255:TRP:CD1	36:5:2395:G:H5''	216.90	0.41
6:S4:95:THR:O	6:S4:97:GLU:HG3	2.20	0.41
36:5:1699:A:H2'	36:5:1700:G:H8	1.85	0.41
36:1:1680:G:C4	36:1:1681:U:C5	3.08	0.41
36:1:1325:U:H2'	36:1:1326:A:O4'	2.20	0.41
5:S3:194:LYS:O	5:S3:196:ARG:N	2.53	0.41
36:5:830:A:O2'	36:5:1866:C:H2'	2.20	0.41
20:C8:3:LEU:HD23	20:C8:5:VAL:HG22	2.02	0.41
52:M6:166:GLU:O	52:M6:167:TYR:C	2.59	0.41
36:1:3024:A:C6	36:1:3032:A:C8	3.08	0.41
36:1:629:U:H2'	36:1:630:A:C8	2.55	0.41
1:2:1648:A:H2'	1:2:1649:G:C8	2.56	0.41
36:1:2808:A:O2'	36:1:2969:A:OP1	2.29	0.41
36:5:3386:G:H2'	36:5:3387:U:H6	1.84	0.41
36:1:274:G:H2'	36:1:275:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:113:LEU:N	51:M5:113:LEU:HD22	2.35	0.41
36:1:1072:G:C4	36:1:1087:G:C2	3.09	0.41
11:S9:83:VAL:HA	11:S9:149:ARG:HA	2.02	0.41
28:D6:97:PRO:HA	28:D6:98:PRO:HD2	3.71	0.41
1:2:1561:U:H2'	1:2:1562:G:H8	1.85	0.41
41:L4:174:ALA:O	41:L4:178:LEU:HG	2.71	0.41
36:1:118:U:C5	36:1:119:U:C4	3.08	0.41
3:S1:158:SER:HA	3:S1:161:ILE:HD12	2.03	0.41
12:C0:31:LYS:HA	12:C0:37:THR:O	2.63	0.41
1:2:1188:G:O2'	1:2:1430:U:OP1	2.30	0.41
7:S5:99:MET:O	7:S5:100:ASN:HB2	2.20	0.41
46:L9:173:ARG:O	46:L9:176:LEU:HG	2.20	0.41
46:L9:41:ILE:HD11	46:L9:67:ALA:HB1	2.01	0.41
1:6:220:A:OP2	1:6:832:U:H5''	2.20	0.41
45:L8:95:ASN:C	45:L8:97:TYR:H	2.23	0.41
1:2:74:U:O2'	1:2:75:U:OP2	2.32	0.41
10:S8:146:ARG:O	10:S8:147:ALA:HB3	2.21	0.41
1:6:500:C:H2'	1:6:501:U:C6	2.55	0.41
1:2:1558:U:O4	17:C5:122:THR:HG23	2.21	0.41
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	3.97	0.41
36:5:3160:U:H2'	36:5:3161:C:C6	2.55	0.41
51:M5:68:ARG:HD2	36:5:291:C:OP1	146.31	0.41
37:3:121:U:H5''	42:L5:265:TYR:HE1	1.85	0.41
1:6:1372:U:H2'	1:6:1373:C:C6	2.55	0.41
68:O2:32:TRP:HB3	36:5:1407:A:H5'	171.62	0.41
45:L8:101:THR:HG23	45:L8:103:ALA:H	1.86	0.41
51:M5:204:LYS:HE2	36:5:683:U:OP1	107.55	0.41
1:6:1076:A:C2	1:6:1077:C:C2	3.08	0.41
60:N4:5:ILE:HD12	60:N4:10:GLY:HA2	2.03	0.41
42:L5:155:THR:HG22	42:L5:179:ARG:NH1	2.36	0.41
37:3:93:C:C2'	37:3:94:C:H5'	2.50	0.41
36:1:2842:U:C5	36:1:2843:U:C5	3.08	0.41
59:N3:83:LYS:HE3	59:N3:84:SER:O	3.76	0.41
1:2:1081:A:H2'	1:2:1083:G:N7	2.35	0.41
1:2:1480:G:H3'	1:2:1481:C:H6	1.86	0.41
1:2:553:G:C6	1:2:554:C:N3	2.88	0.41
19:C7:41:ILE:HD13	19:C7:50:ILE:HD12	2.03	0.41
39:L2:44:ILE:HD12	39:L2:44:ILE:H	1.86	0.41
4:S2:108:ASN:HA	4:S2:141:ARG:NH1	2.36	0.41
40:L3:215:ILE:HD13	40:L3:282:ILE:HD11	2.02	0.41
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3365:U:H2'	36:1:3366:G:C8	2.56	0.41
4:S2:74:PRO:O	4:S2:76:LEU:N	2.53	0.41
36:5:142:C:H2'	36:5:143:G:O4'	2.21	0.41
36:1:2419:A:H2'	36:1:2420:C:C6	2.55	0.41
41:L4:358:THR:O	56:N0:26:ARG:NE	2.68	0.41
36:5:2931:C:H2'	36:5:2932:U:O4'	2.21	0.41
22:D0:16:GLN:HB3	22:D0:17:GLN:H	1.51	0.41
1:6:456:A:H2'	1:6:457:G:O4'	2.21	0.41
54:M8:145:ASN:ND2	36:5:746:A:OP1	176.56	0.41
36:5:8:C:H2'	36:5:9:U:O4'	2.20	0.41
3:S1:226:GLY:HA2	36:5:2536:A:H4'	257.46	0.41
4:S2:212:LYS:O	4:S2:216:VAL:HG23	2.20	0.41
42:L5:222:LEU:HG	42:L5:222:LEU:H	1.56	0.41
43:L6:145:LEU:HD23	43:L6:145:LEU:HA	2.28	0.41
43:L6:14:ASP:N	43:L6:14:ASP:OD2	3.94	0.41
17:C5:84:ILE:HG23	17:C5:84:ILE:HD12	1.80	0.41
68:O2:55:ILE:HB	36:5:947:G:H5''	188.76	0.41
36:5:113:C:C2	36:5:319:A:C2	3.09	0.41
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.21	0.41
36:1:1234:G:H2'	36:1:1235:U:C5	2.54	0.41
42:L5:21:ARG:HH11	42:L5:21:ARG:HG2	1.91	0.41
2:S0:185:ARG:HA	23:D1:44:ARG:HA	2.02	0.41
36:1:2273:G:O2'	36:1:2274:U:P	2.78	0.41
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.20	0.41
7:S5:57:SER:OG	7:S5:58:LEU:N	3.02	0.41
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	2.03	0.41
1:2:788:A:H2'	6:S4:19:LEU:HD22	2.02	0.41
28:D6:95:ARG:NH1	1:6:1796:C:O2'	342.33	0.41
28:D6:5:ARG:NH1	1:6:1796:C:OP2	341.22	0.41
28:D6:5:ARG:HD3	1:6:1796:C:O4'	341.07	0.41
3:S1:59:ASP:C	3:S1:61:LEU:H	3.54	0.41
36:5:1470:U:OP1	87:5:3962:OHX:N6	2.53	0.41
3:S1:49:ASN:O	3:S1:57:ALA:HB2	2.21	0.41
70:O4:8:ARG:HH22	36:5:1597:C:P	136.24	0.41
36:5:174:C:H2'	36:5:175:C:C6	2.55	0.41
63:N7:17:ARG:C	63:N7:19:ALA:N	2.73	0.41
36:1:3318:G:H2'	36:1:3318:G:P	2.60	0.41
2:S0:122:ILE:HG12	2:S0:144:ILE:HG13	4.18	0.41
1:6:1479:A:O2'	1:6:1480:G:H5'	2.21	0.41
67:O1:8:VAL:HG12	67:O1:9:THR:H	2.21	0.41
19:C7:107:SER:O	19:C7:110:VAL:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:87:MET:HG3	6:S4:123:LEU:O	2.97	0.41
51:M5:36:ILE:HG21	51:M5:109:ARG:HG2	2.02	0.41
87:5:4187:OHX:N6	87:5:4247:OHX:N3	2.69	0.41
18:C6:39:VAL:O	18:C6:39:VAL:HG13	2.20	0.41
46:L9:11:GLU:HG2	46:L9:12:VAL:N	2.35	0.41
3:S1:139:ALA:HA	3:S1:212:VAL:HA	2.63	0.41
1:6:1304:G:H5'	1:6:1322:A:OP2	2.21	0.41
46:L9:161:LEU:CD1	46:L9:179:ILE:HG21	3.19	0.41
36:1:976:U:P	54:M8:144:ARG:HH22	2.43	0.41
8:S6:50:PHE:HB3	8:S6:111:LEU:HB3	2.61	0.41
36:5:114:A:H2'	36:5:115:A:O4'	2.20	0.41
15:C3:42:ARG:C	15:C3:44:GLY:H	2.87	0.41
1:2:1149:G:H1'	1:2:1765:A:C4	2.56	0.41
53:M7:52:LEU:HD12	53:M7:52:LEU:HA	1.92	0.41
66:O0:86:ARG:NH1	79:Q3:44:LYS:HG2	2.36	0.41
36:1:199:A:H4'	36:1:200:C:OP1	2.21	0.41
36:1:200:C:P	62:N6:60:ARG:HH12	2.44	0.41
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.35	0.41
39:L2:181:LYS:HE2	39:L2:184:ARG:NH2	2.34	0.41
36:5:106:A:C2	36:5:325:A:N3	2.89	0.41
78:Q2:35:LEU:O	78:Q2:36:PHE:CB	2.69	0.41
34:SR:167:VAL:O	34:SR:183:LEU:HB2	3.31	0.41
36:1:1933:A:OP2	87:1:3888:OHX:N6	2.53	0.41
38:8:103:G:O6	87:8:215:OHX:N5	2.54	0.41
1:2:1366:U:O2'	21:C9:7:ARG:HD2	2.20	0.41
15:C3:30:SER:O	15:C3:34:ILE:HG13	2.56	0.41
27:D5:88:ILE:HD13	27:D5:88:ILE:HA	4.22	0.41
36:5:767:U:H1'	36:5:768:C:C6	2.56	0.41
36:1:359:U:H4'	36:1:817:A:N6	2.36	0.41
1:2:425:A:C8	1:2:425:A:H5'	2.55	0.41
42:L5:191:ASP:HA	42:L5:192:PRO:HD3	2.15	0.41
1:2:1308:G:C6	1:2:1309:C:C4	3.08	0.41
36:5:2509:U:H2'	36:5:2510:U:C5'	2.50	0.41
55:M9:41:ILE:O	55:M9:45:VAL:HG23	2.20	0.41
61:N5:63:ILE:O	61:N5:63:ILE:HD13	2.22	0.41
1:2:13:C:H6	1:2:13:C:O5'	2.03	0.41
36:1:2921:U:O5'	36:1:2921:U:H6	2.04	0.41
64:N8:66:ALA:O	64:N8:67:HIS:C	2.59	0.41
36:1:818:C:C2	36:1:920:A:H5'	2.55	0.41
36:5:1861:G:N7	87:5:4059:OHX:N1	2.69	0.41
44:L7:33:ARG:HG3	44:L7:34:LYS:N	3.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:14:TYR:O	60:N4:17:ARG:HB3	2.20	0.41
36:1:703:G:O2'	36:1:787:G:H4'	2.21	0.41
24:D2:50:PHE:CB	24:D2:63:VAL:HG22	3.27	0.41
36:1:3276:G:N7	53:M7:171:ARG:NH1	2.69	0.41
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.37	0.41
41:L4:264:SER:OG	41:L4:267:VAL:HG12	3.56	0.41
54:M8:173:GLU:HA	64:N8:51:GLY:C	2.68	0.41
38:8:137:C:OP2	87:8:225:OHX:N4	2.53	0.41
36:5:1468:A:C6	36:5:1469:C:N4	2.88	0.41
36:5:1656:A:H4'	36:5:1657:C:O4'	2.20	0.41
67:O1:57:GLN:NE2	36:5:1474:A:O2'	141.12	0.41
36:1:1591:G:OP1	70:O4:16:ARG:NH1	2.54	0.41
36:1:1632:A:H2'	36:1:1633:C:C6	2.56	0.41
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.21	0.41
5:S3:128:GLU:C	5:S3:130:GLY:H	2.24	0.41
36:5:2617:U:H4'	36:5:2644:C:C5	2.55	0.41
26:D4:19:ALA:HB3	26:D4:81:GLU:HG2	2.03	0.41
36:5:2348:A:OP2	36:5:2349:U:H5	2.04	0.41
69:O3:59:VAL:C	69:O3:61:GLY:N	2.73	0.41
6:S4:49:ARG:HH12	1:6:448:C:P	378.00	0.41
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.86	0.41
1:2:1560:U:C4	1:2:1561:U:C4	3.09	0.41
47:M0:36:LEU:CD1	47:M0:87:LEU:HB3	2.51	0.41
1:6:648:G:C2	1:6:687:G:C2	3.08	0.41
36:5:2257:C:H6	36:5:2257:C:O5'	2.04	0.41
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.41	0.41
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.53	0.41
73:O7:18:LEU:HD21	75:O9:51:ILE:CG2	2.51	0.41
13:C1:101:GLU:OE1	13:C1:103:ARG:NH2	2.94	0.41
1:2:192:U:O2'	1:2:193:U:O5'	2.38	0.41
76:Q0:127:LEU:HA	76:Q0:127:LEU:HD23	1.84	0.41
41:L4:301:PRO:O	54:M8:39:ARG:NH1	3.46	0.41
1:6:1714:A:C5	1:6:1715:G:C8	3.08	0.41
3:S1:48:VAL:HG23	3:S1:64:ARG:NH2	4.26	0.41
45:L8:166:LEU:HD23	45:L8:166:LEU:HA	1.92	0.41
1:2:319:U:H1'	1:2:323:A:C4	2.56	0.41
1:2:1125:A:C5	1:2:1126:G:H1'	2.55	0.41
47:M0:12:GLN:OE1	47:M0:57:LEU:HD22	2.21	0.41
1:6:830:U:C2'	1:6:831:U:H5'	2.49	0.41
16:C4:92:LYS:HE2	16:C4:92:LYS:HB2	4.33	0.41
2:S0:41:ARG:HH21	19:C7:103:ASP:CB	3.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:70:LEU:HD13	3:S1:71:ALA:N	2.36	0.41
36:1:2767:U:OP1	78:Q2:33:ALA:O	2.38	0.41
43:L6:54:TYR:OH	43:L6:57:HIS:HB2	2.75	0.41
39:L2:190:ARG:HB3	39:L2:190:ARG:HH21	1.86	0.41
21:C9:122:ARG:NH1	1:6:1499:G:OP1	422.90	0.41
57:N1:119:ALA:O	57:N1:122:GLN:N	2.54	0.41
87:6:2123:OHX:N2	87:6:2148:OHX:N4	2.68	0.41
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.65	0.41
20:C8:82:PRO:HB2	20:C8:84:TRP:CD1	3.80	0.41
25:D3:23:ARG:HB3	25:D3:29:TYR:CD1	2.56	0.41
36:5:529:A:O2'	36:5:530:G:H5'	2.21	0.41
57:N1:17:ARG:HB3	57:N1:22:HIS:CE1	2.55	0.41
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	3.75	0.41
39:L2:48:ILE:HD11	79:Q3:63:THR:O	5.09	0.41
28:D6:46:GLU:HG3	28:D6:47:ALA:N	2.74	0.41
36:1:1408:G:P	68:O2:33:ARG:NH2	2.94	0.41
36:5:980:A:H2'	36:5:981:U:C2	2.55	0.41
1:6:460:A:H3'	1:6:461:G:C8	2.55	0.41
51:M5:93:LYS:HG3	36:5:289:A:C2	147.40	0.41
2:S0:124:THR:HA	2:S0:146:LEU:HB2	2.03	0.41
36:1:2503:G:HO2'	36:1:2504:U:H5	1.66	0.41
42:L5:42:ALA:HB2	57:N1:67:VAL:HG12	2.68	0.41
41:L4:23:PRO:O	41:L4:24:ALA:HB3	2.25	0.41
35:SM:77:THR:OG1	35:SM:79:SER:HB3	3.97	0.41
59:N3:40:LYS:HG3	59:N3:57:MET:HE1	2.03	0.41
36:1:3180:A:C6	52:M6:114:LYS:HD3	2.55	0.41
74:O8:5:ILE:HA	74:O8:5:ILE:HD12	4.44	0.41
55:M9:109:TYR:HB3	55:M9:115:ILE:CG2	2.51	0.41
36:1:279:U:H2'	36:1:280:U:C6	2.56	0.41
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.70	0.41
1:6:766:U:H3'	1:6:768:C:OP2	2.21	0.41
1:2:1497:U:H2'	1:2:1498:G:H8	1.86	0.41
1:2:1498:G:C2	1:2:1510:U:O2	2.74	0.41
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	2.96	0.41
26:D4:19:ALA:HB1	26:D4:81:GLU:OE2	4.35	0.41
66:O0:50:VAL:HB	36:5:2553:U:O4'	230.60	0.41
36:1:81:C:HO2'	36:1:683:U:HO2'	1.68	0.41
10:S8:12:SER:O	10:S8:15:GLY:N	2.50	0.41
36:1:696:C:HO2'	36:1:697:A:H8	1.64	0.41
36:5:26:A:N3	36:5:328:U:O2'	2.37	0.41
5:S3:183:GLY:O	5:S3:184:ILE:HD13	3.12	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:17:LEU:HA	59:N3:18:PRO:HD2	2.23	0.41
45:L8:158:ASP:HB3	45:L8:159:PRO:HD3	2.03	0.41
1:2:516:G:N2	1:2:537:G:H1'	2.36	0.41
36:1:1444:G:H2'	36:1:1445:U:O4'	2.21	0.41
5:S3:61:GLU:O	5:S3:63:GLY:N	2.54	0.41
50:M4:102:LYS:HB2	50:M4:102:LYS:HE3	1.83	0.41
72:O6:43:LEU:HD22	72:O6:43:LEU:HA	2.06	0.41
1:6:250:C:H6	1:6:250:C:H5'	1.86	0.41
19:C7:3:ARG:HD3	19:C7:3:ARG:HA	1.94	0.41
39:L2:73:GLU:O	39:L2:73:GLU:HG2	2.20	0.41
49:M3:51:LEU:HD23	49:M3:51:LEU:HA	1.79	0.41
7:S5:98:MET:HB2	7:S5:105:GLY:O	2.21	0.41
36:1:1384:U:O2'	36:1:1385:C:H5'	2.21	0.41
36:5:1499:C:O2'	36:5:1500:G:H5'	2.21	0.41
4:S2:54:GLU:H	4:S2:54:GLU:HG2	1.69	0.41
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.35	0.41
1:6:755:A:C4	1:6:756:A:C8	3.09	0.41
11:S9:107:ARG:O	11:S9:147:MET:HA	2.21	0.41
1:2:512:A:OP1	11:S9:170:GLY:N	2.54	0.41
38:4:68:G:OP2	87:O7:104:OHX:N6	2.54	0.41
49:M3:46:ILE:HA	49:M3:46:ILE:HD13	1.65	0.41
37:3:28:C:H1'	37:3:55:A:H61	1.86	0.41
87:1:4084:OHX:N4	87:1:4155:OHX:N1	2.69	0.41
42:L5:58:LYS:N	42:L5:58:LYS:HD3	2.36	0.41
36:5:2257:C:H2'	36:5:2258:U:O4'	2.21	0.41
4:S2:53:ILE:HG12	4:S2:53:ILE:H	1.69	0.41
16:C4:29:HIS:ND1	1:6:917:U:O2'	275.62	0.41
16:C4:16:VAL:HG23	16:C4:31:THR:HG23	2.01	0.41
75:O9:5:LYS:HE3	75:O9:13:MET:CE	2.51	0.41
41:L4:15:ALA:O	41:L4:16:THR:OG1	2.23	0.41
36:1:915:A:C5	36:1:917:A:H1'	2.56	0.41
11:S9:93:LEU:HD12	11:S9:93:LEU:HA	4.17	0.41
36:1:2253:G:C2'	36:1:2254:U:H5'	2.51	0.41
36:1:1554:U:O2'	36:1:1582:C:H5	2.03	0.41
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	2.02	0.41
20:C8:13:HIS:HA	20:C8:24:GLY:HA3	2.03	0.41
28:D6:87:ARG:HD3	1:6:1796:C:OP1	346.48	0.41
36:1:2836:C:C2'	36:1:2837:A:H5'	2.50	0.41
3:S1:33:LYS:HE2	3:S1:41:ARG:HH11	4.87	0.41
1:6:715:U:H2'	1:6:716:C:C6	2.56	0.41
1:2:1533:C:OP1	20:C8:27:LYS:NZ	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:99:MET:HB2	7:S5:100:ASN:H	1.73	0.41
44:L7:155:LYS:HG3	44:L7:203:TRP:CZ3	2.55	0.41
44:L7:160:ARG:HB2	44:L7:203:TRP:CE3	2.56	0.41
44:L7:161:VAL:HA	44:L7:162:PRO:HD2	1.82	0.41
36:5:2946:A:C5'	36:5:2947:G:H5'	2.51	0.41
33:E1:135:HIS:ND1	1:6:1250:U:O2	433.30	0.41
1:6:1179:G:C6	1:6:1180:C:N3	2.89	0.41
1:2:1597:A:H2'	1:2:1598:U:H6	1.86	0.41
35:SM:48:ARG:HB3	35:SM:50:ASN:H	5.20	0.41
1:2:1253:U:H4'	33:E1:143:LYS:HB2	2.02	0.41
4:S2:225:LEU:HD11	4:S2:230:TRP:CD1	3.32	0.41
62:N6:120:GLN:CD	62:N6:126:LEU:HA	8.46	0.41
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.21	0.41
28:D6:8:ASN:HB2	28:D6:9:GLY:H	2.22	0.41
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.35	0.41
1:6:219:A:OP1	1:6:219:A:H4'	2.21	0.41
63:N7:107:ARG:NH2	36:5:1635:G:OP1	209.94	0.41
36:1:409:A:H3'	36:1:410:U:H6	1.86	0.41
19:C7:106:THR:O	19:C7:109:LEU:HB3	2.20	0.41
1:2:1727:G:H21	10:S8:32:GLN:NE2	2.13	0.41
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.24	0.41
51:M5:60:VAL:O	51:M5:61:ILE:HD13	2.21	0.41
36:5:1387:G:C2	36:5:1388:U:C5	3.09	0.41
14:C2:94:ALA:HB1	14:C2:119:SER:H	1.84	0.41
41:L4:269:SER:C	41:L4:271:LYS:N	2.74	0.41
18:C6:39:VAL:O	18:C6:40:GLU:C	2.59	0.41
57:N1:120:LYS:C	57:N1:122:GLN:N	2.93	0.41
87:5:4006:OHX:N3	87:5:4096:OHX:N1	2.69	0.41
87:2:2096:OHX:N3	87:2:2116:OHX:N5	2.68	0.41
36:1:7:C:H2'	36:1:8:C:C6	2.56	0.41
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.59	0.41
4:S2:143:TYR:CD2	4:S2:147:ASN:HA	4.21	0.41
46:L9:13:PRO:HG2	46:L9:16:VAL:CG1	2.98	0.41
36:1:2724:U:H4'	57:N1:54:HIS:CD2	2.56	0.41
3:S1:144:ARG:HG3	3:S1:145:LYS:O	2.21	0.41
42:L5:279:LYS:HG2	42:L5:282:ARG:HH12	1.86	0.41
42:L5:88:ILE:HD12	42:L5:240:TYR:CE1	4.38	0.41
46:L9:126:VAL:HG21	46:L9:161:LEU:HA	2.01	0.41
1:6:1161:C:H2'	1:6:1162:C:H6	1.86	0.41
1:6:1697:G:H8	1:6:1705:C:C4	2.39	0.41
25:D3:23:ARG:HD3	25:D3:26:GLU:OE1	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1451:C:H2'	1:2:1452:U:H6	1.85	0.41
17:C5:121:ILE:N	35:SM:57:ASN:OD1	2.51	0.41
46:L9:4:ILE:HD11	56:N0:148:LEU:HD21	2.92	0.41
42:L5:24:ARG:NH1	37:7:14:U:H5'	299.10	0.41
2:S0:27:ARG:C	2:S0:29:VAL:N	2.73	0.41
24:D2:83:ILE:HG12	24:D2:117:ARG:NH1	2.34	0.41
47:M0:149:VAL:HG13	47:M0:165:ILE:HG21	3.15	0.41
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.20	0.41
19:C7:7:LYS:O	19:C7:11:ARG:HB2	2.21	0.41
41:L4:157:GLU:HA	41:L4:215:ILE:HB	2.03	0.41
5:S3:65:ARG:O	5:S3:69:LEU:HB2	3.05	0.41
6:S4:240:LYS:HA	6:S4:242:LYS:HZ1	1.86	0.41
30:D8:61:ARG:HB3	30:D8:61:ARG:HH11	1.86	0.41
26:D4:15:ASN:HB3	26:D4:20:ARG:O	2.21	0.41
36:5:2828:G:C2	36:5:2829:U:H1'	2.55	0.41
55:M9:105:LEU:O	55:M9:105:LEU:HD23	2.21	0.41
1:2:1769:U:O2	16:C4:136:ARG:HD2	2.21	0.41
1:2:404:G:H2'	1:2:405:C:H6	1.85	0.41
36:5:1081:U:O2'	36:5:1082:U:C5'	2.69	0.41
11:S9:123:HIS:CD2	32:E0:37:ARG:HD2	3.54	0.41
48:M1:29:ARG:HA	48:M1:32:ARG:NH2	2.36	0.41
36:5:3191:G:H2'	36:5:3192:U:C6	2.56	0.41
26:D4:113:ASN:ND2	1:6:54:C:H5''	349.67	0.41
66:O0:22:LYS:HE2	66:O0:94:GLU:HG3	3.73	0.41
51:M5:151:ILE:HA	51:M5:151:ILE:HD13	1.78	0.41
50:M4:25:LYS:HG3	50:M4:62:GLN:HG2	2.02	0.41
39:L2:112:ILE:O	39:L2:112:ILE:HG13	4.78	0.41
36:1:200:C:P	62:N6:60:ARG:NH1	2.94	0.41
1:2:992:A:H2	1:2:1012:U:O4	2.03	0.41
41:L4:222:VAL:HA	41:L4:223:PRO:HD3	2.19	0.41
1:6:350:U:H5''	1:6:352:A:C5'	2.51	0.41
1:2:274:G:N1	1:2:275:C:O2	2.54	0.41
4:S2:69:ILE:HG12	4:S2:133:LYS:HB3	2.01	0.41
26:D4:108:ARG:NH2	1:6:444:C:OP2	373.91	0.41
17:C5:111:MET:HG2	20:C8:119:ILE:CG1	3.79	0.41
1:2:1628:U:H2'	1:2:1629:G:C8	2.55	0.41
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.56	0.41
43:L6:50:LYS:HG2	43:L6:74:VAL:CG2	2.50	0.41
40:L3:66:LYS:HE3	59:N3:124:ASP:OD2	2.20	0.41
36:1:2503:G:H1'	36:1:2504:U:C5	2.55	0.41
61:N5:92:LYS:HD3	61:N5:112:THR:HG23	3.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.56	0.41
47:M0:23:ASN:HB3	47:M0:24:ARG:H	1.68	0.41
40:L3:81:THR:HG22	40:L3:205:VAL:CG2	2.50	0.41
36:1:2403:G:C2	36:1:2405:C:C4	3.09	0.41
37:3:58:C:H2'	37:3:59:U:C6	2.55	0.41
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	2.96	0.41
38:4:142:C:H2'	38:4:143:U:H6	1.85	0.41
41:L4:23:PRO:HD2	41:L4:26:PHE:CD2	2.55	0.41
36:1:1317:A:OP1	87:1:4067:OHX:N2	2.54	0.41
1:2:412:A:H2	1:2:421:A:N1	2.19	0.41
61:N5:96:LYS:O	61:N5:100:LYS:HB2	2.75	0.41
45:L8:168:ALA:HB3	72:O6:47:ILE:HD11	2.08	0.41
36:1:3007:U:OP1	52:M6:73:PHE:HA	2.20	0.41
36:1:2585:G:N3	38:4:151:C:H5	2.19	0.41
58:N2:17:VAL:O	58:N2:63:VAL:HG23	3.69	0.41
47:M0:202:LYS:HD3	37:7:64:A:C2	343.88	0.41
1:2:268:C:N4	8:S6:186:ARG:HD3	2.34	0.41
48:M1:16:LYS:HG2	48:M1:130:VAL:HG13	2.02	0.41
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	2.01	0.41
50:M4:8:LYS:HB3	50:M4:9:ALA:H	1.71	0.41
36:1:2118:C:H2'	36:1:2119:A:O4'	2.20	0.41
1:6:1535:U:O2'	1:6:1536:G:O5'	2.39	0.41
36:1:2359:C:H2'	36:1:2360:C:C6	2.56	0.41
53:M7:176:ILE:HA	53:M7:179:GLN:HB2	2.02	0.41
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.21	0.41
39:L2:147:ARG:HB3	39:L2:147:ARG:CZ	5.07	0.41
40:L3:119:TYR:HE2	40:L3:129:ALA:HB2	2.42	0.41
38:4:24:G:N2	38:4:25:G:H1'	2.36	0.41
6:S4:65:LEU:C	6:S4:67:GLN:H	2.78	0.41
6:S4:131:LEU:HD13	6:S4:135:GLY:HA2	2.32	0.41
36:1:539:C:H2'	36:1:540:U:C6	2.55	0.41
40:L3:358:TRP:CZ2	40:L3:360:ASP:HA	2.68	0.41
4:S2:145:GLY:HA2	24:D2:98:GLN:OE1	2.21	0.41
17:C5:84:ILE:HA	17:C5:84:ILE:HD13	1.94	0.41
36:1:1631:C:H5''	36:1:1632:A:H5''	2.02	0.41
7:S5:80:LYS:HG3	7:S5:83:ARG:NH1	3.68	0.41
38:8:108:C:H2'	38:8:109:A:O4'	2.21	0.41
6:S4:147:ILE:HD13	6:S4:169:ILE:HG13	2.03	0.41
1:6:887:A:H2'	1:6:888:U:C6	2.56	0.41
36:5:2288:G:H2'	36:5:2289:U:C6	2.56	0.41
36:5:439:C:O2	36:5:493:G:N2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1145:U:O2'	4:S2:89:GLN:O	2.26	0.41
30:D8:18:ARG:NH1	1:6:1616:G:H4'	363.28	0.41
36:1:974:G:H2'	36:1:975:C:C6	2.56	0.41
54:M8:123:THR:OG1	54:M8:125:ASP:OD2	2.24	0.41
24:D2:94:LEU:HA	24:D2:95:PRO:HD3	1.83	0.41
1:6:748:U:H2'	1:6:749:U:H6	1.86	0.41
40:L3:294:GLY:HA3	40:L3:303:LYS:HG3	3.11	0.41
40:L3:297:SER:O	40:L3:300:ARG:NE	2.54	0.41
36:5:2599:U:H2'	36:5:2600:C:C6	2.55	0.41
36:1:3305:A:H2'	36:1:3306:U:O2	2.21	0.41
36:1:537:A:C2	36:1:557:A:C4	3.09	0.41
45:L8:43:LYS:HD3	45:L8:43:LYS:HA	1.80	0.41
37:7:101:G:H8	37:7:101:G:O5'	2.03	0.41
25:D3:9:LEU:HA	25:D3:9:LEU:HD23	1.98	0.41
40:L3:43:LEU:HA	40:L3:43:LEU:HD12	2.29	0.41
36:5:205:C:H2'	36:5:206:G:O5'	2.21	0.41
1:6:576:G:H4'	1:6:580:A:C4	2.56	0.41
52:M6:54:TYR:CD2	52:M6:145:VAL:HG11	2.55	0.41
1:6:318:U:O4	87:6:2159:OHX:N4	2.54	0.41
48:M1:22:SER:HA	48:M1:66:ALA:CB	2.88	0.41
11:S9:48:GLN:O	11:S9:52:ILE:HD12	3.12	0.41
36:1:1686:U:OP1	58:N2:42:LYS:NZ	2.42	0.41
34:SR:21:THR:HG23	34:SR:36:ALA:O	5.34	0.41
1:2:304:U:H2'	1:2:305:C:H6	1.86	0.41
1:2:772:G:N2	1:2:774:A:O2'	2.54	0.41
1:2:51:A:OP2	87:2:2072:OHX:N3	2.54	0.41
36:5:1729:A:H4'	36:5:1730:G:OP2	2.21	0.41
1:2:477:A:OP1	32:E0:30:PRO:HA	2.21	0.41
36:5:2331:C:H2'	36:5:2332:A:O4'	2.20	0.41
36:5:2409:G:H4'	36:5:2410:U:OP2	2.21	0.41
36:5:2827:U:O2	36:5:2827:U:H2'	2.21	0.41
33:E1:116:LYS:H	33:E1:116:LYS:HG3	1.73	0.41
8:S6:143:LYS:HA	8:S6:143:LYS:HE3	3.72	0.41
36:5:2250:G:C2'	36:5:2251:G:H5'	2.51	0.41
45:L8:24:ASN:N	45:L8:25:PRO:HD2	2.36	0.41
36:1:1273:A:O2'	36:1:1274:A:OP1	2.37	0.41
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.49	0.41
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.54	0.41
1:2:1341:A:H1'	34:SR:65:SER:OG	2.21	0.41
38:4:67:U:H2'	38:4:68:G:C8	2.55	0.41
47:M0:36:LEU:N	47:M0:36:LEU:HD12	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:124:SER:OG	34:SR:132:LYS:HB2	2.83	0.41
66:O0:16:LEU:HD12	66:O0:98:SER:N	2.36	0.41
37:3:86:U:O2	87:3:218:OHX:N5	2.54	0.41
55:M9:151:ARG:O	55:M9:155:LEU:HB2	2.21	0.41
1:2:1568:C:H6	1:2:1568:C:H2'	1.74	0.41
15:C3:52:VAL:HG22	1:6:960:U:H1'	329.94	0.41
9:S7:170:GLN:HA	9:S7:181:ILE:HG22	2.02	0.41
1:2:338:C:P	13:C1:133:LYS:HG3	2.62	0.41
36:1:1464:G:N7	87:1:4203:OHX:N6	2.69	0.41
18:C6:95:LYS:HE3	18:C6:96:TYR:CZ	2.55	0.41
38:4:79:A:C6	38:4:80:A:C2	3.09	0.41
21:C9:57:ARG:NH1	1:6:1479:A:OP1	393.70	0.41
56:N0:171:PHE:O	56:N0:172:TYR:C	4.30	0.41
67:O1:9:THR:HG22	67:O1:109:VAL:HB	2.03	0.41
10:S8:32:GLN:HG2	10:S8:33:PRO:HD2	4.54	0.41
19:C7:105:GLN:CD	19:C7:105:GLN:H	2.23	0.41
15:C3:16:ILE:HA	15:C3:17:PRO:HD3	1.94	0.41
37:3:13:A:O4'	37:3:112:G:C8	2.74	0.41
57:N1:102:ARG:O	57:N1:102:ARG:HG3	3.53	0.41
57:N1:105:PHE:O	57:N1:108:ARG:N	2.54	0.41
48:M1:23:VAL:HB	48:M1:65:ILE:O	2.71	0.41
22:D0:106:ILE:C	22:D0:108:ILE:H	2.23	0.41
49:M3:180:ARG:NH1	49:M3:180:ARG:HB3	5.12	0.41
2:S0:96:THR:HA	2:S0:97:PRO:HD3	1.87	0.41
36:5:1627:U:H2'	36:5:1814:A:H62	1.86	0.41
50:M4:60:LEU:HA	50:M4:60:LEU:HD23	1.91	0.41
39:L2:48:ILE:HG13	79:Q3:63:THR:CG2	2.82	0.41
36:1:1618:G:H4'	38:4:129:C:H1'	2.03	0.41
71:O5:119:LYS:HD2	71:O5:119:LYS:HA	2.60	0.41
37:7:107:C:H2'	37:7:108:A:C8	2.56	0.41
2:S0:105:GLY:O	2:S0:109:ASN:HB3	2.59	0.41
36:5:594:U:O2'	36:5:595:G:H5'	2.21	0.41
40:L3:123:TYR:CZ	40:L3:124:LYS:HD3	3.37	0.41
61:N5:79:GLY:C	61:N5:81:ILE:HD12	3.72	0.41
48:M1:90:GLN:OE1	48:M1:172:LEU:HD11	2.21	0.41
1:6:1248:C:H2'	1:6:1249:U:H6	1.86	0.41
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.21	0.41
87:1:3963:OHX:N5	87:1:4144:OHX:N3	2.68	0.41
36:5:924:G:OP1	87:5:4221:OHX:N4	2.53	0.41
1:2:685:A:HO2'	1:2:686:C:P	2.43	0.41
87:1:4032:OHX:N4	87:1:4151:OHX:N1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:304:GLN:C	41:L4:306:THR:H	2.24	0.41
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.53	0.41
1:6:1560:U:O4'	1:6:1560:U:O2	2.39	0.41
5:S3:170:THR:HG22	5:S3:187:LYS:HA	2.86	0.41
36:1:888:A:H2'	36:1:889:U:O4'	2.21	0.41
74:O8:13:GLU:H	74:O8:13:GLU:HG3	2.11	0.41
44:L7:95:ILE:HA	44:L7:96:PRO:HD3	1.98	0.41
1:2:1426:C:H5''	35:SM:93:ARG:NH1	2.36	0.41
38:4:71:A:H2	38:4:82:U:O2	2.04	0.41
39:L2:247:ARG:HB3	39:L2:247:ARG:HE	1.61	0.41
64:N8:128:ARG:HB2	72:O6:8:ALA:HB2	4.51	0.41
36:1:1282:G:C6	36:1:1283:C:C4	3.09	0.41
5:S3:217:ILE:HB	5:S3:218:LEU:H	1.94	0.41
38:4:24:G:OP2	62:N6:13:ARG:HD3	2.21	0.41
36:1:2223:A:H8	36:1:2223:A:OP2	2.03	0.41
41:L4:258:LEU:HA	41:L4:258:LEU:HD12	2.03	0.41
26:D4:19:ALA:CB	26:D4:81:GLU:HG2	2.51	0.41
36:1:1021:G:N2	36:1:1032:C:C2	2.89	0.41
36:5:2271:A:H2'	36:5:2272:G:O4'	2.21	0.41
1:6:794:U:H4'	1:6:795:U:OP2	2.20	0.41
8:S6:85:ARG:HA	8:S6:86:PRO:HD3	1.85	0.41
24:D2:79:PHE:O	24:D2:125:ILE:HG22	2.21	0.41
1:6:654:C:H2'	1:6:655:G:C8	2.56	0.41
15:C3:135:LEU:HD13	15:C3:139:TRP:CD2	2.56	0.41
1:2:1224:A:H2'	1:2:1225:U:C6	2.55	0.41
40:L3:385:LYS:O	40:L3:386:ASP:HB2	2.63	0.41
36:5:913:A:H2	36:5:2134:G:N3	2.19	0.41
36:5:2594:C:H2'	36:5:2595:A:O4'	2.21	0.41
36:5:2148:U:H2'	36:5:2149:A:C4	2.55	0.41
15:C3:76:LYS:HB3	15:C3:76:LYS:HE3	1.75	0.41
36:5:1908:A:O5'	36:5:1908:A:H8	2.04	0.41
65:N9:54:LEU:HD23	65:N9:54:LEU:HA	1.90	0.41
10:S8:135:LYS:O	10:S8:135:LYS:HD3	2.21	0.41
39:L2:75:ILE:HG21	39:L2:75:ILE:HD13	2.02	0.41
6:S4:200:ARG:NH2	6:S4:202:ASP:OD1	2.54	0.41
1:6:1200:G:H4'	1:6:1201:G:C5'	2.51	0.41
32:E0:41:THR:HA	32:E0:45:VAL:HB	2.03	0.41
36:5:3273:A:O2'	36:5:3274:A:H5'	2.21	0.40
6:S4:25:GLY:HA3	1:6:447:U:O2'	375.44	0.40
1:6:542:A:OP1	1:6:544:A:C5	2.74	0.40
36:5:437:G:OP2	36:5:437:G:H8	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:49:G:H4'	37:3:50:U:O4'	2.21	0.40
67:O1:90:PHE:HB3	67:O1:91:SER:H	3.82	0.40
1:6:40:A:H2'	1:6:41:A:O4'	2.21	0.40
36:1:284:A:H4'	36:1:285:A:C2	2.56	0.40
62:N6:38:GLU:O	62:N6:42:GLN:HG3	4.61	0.40
8:S6:57:ASP:C	8:S6:57:ASP:OD2	2.76	0.40
45:L8:81:THR:O	45:L8:222:PHE:HZ	3.69	0.40
56:N0:50:LYS:HD3	56:N0:50:LYS:HA	1.70	0.40
20:C8:28:ILE:HA	20:C8:31:ALA:HB3	2.03	0.40
9:S7:25:VAL:O	9:S7:28:GLU:HB3	2.21	0.40
8:S6:12:SER:C	8:S6:13:GLN:HG2	2.40	0.40
36:1:3121:U:H1'	36:1:3122:A:H5''	2.02	0.40
3:S1:71:ALA:HB3	16:C4:114:ARG:NH1	2.36	0.40
1:2:287:G:O2'	1:2:288:A:OP2	2.34	0.40
71:O5:74:LYS:NZ	36:5:128:G:OP2	78.93	0.40
36:1:501:A:H5''	43:L6:28:GLN:HE21	1.86	0.40
36:1:1739:U:O2'	70:O4:56:THR:HG21	2.21	0.40
6:S4:245:LYS:HG3	6:S4:246:LEU:N	3.46	0.40
40:L3:56:ILE:HG22	40:L3:74:GLU:HB2	2.37	0.40
59:N3:120:LYS:H	59:N3:137:VAL:CG2	2.57	0.40
1:6:138:A:H62	1:6:266:A:H61	1.65	0.40
36:5:982:C:N4	36:5:1101:G:H1	2.14	0.40
36:1:830:A:H2'	36:1:831:G:O4'	2.21	0.40
5:S3:156:PHE:O	5:S3:157:LEU:HD12	2.21	0.40
14:C2:126:TRP:HD1	14:C2:127:GLY:N	3.58	0.40
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.22	0.40
26:D4:87:PRO:HG2	26:D4:90:ARG:NE	2.36	0.40
87:1:3954:OHX:N2	87:1:4041:OHX:N6	2.70	0.40
2:S0:148:ASP:N	2:S0:151:SER:OG	2.57	0.40
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	2.03	0.40
20:C8:134:ARG:HG3	1:6:1545:A:OP2	356.79	0.40
54:M8:69:ARG:HG3	54:M8:69:ARG:NH1	2.49	0.40
87:1:4023:OHX:N3	87:1:4061:OHX:N5	2.69	0.40
6:S4:210:ILE:O	6:S4:217:THR:HA	2.48	0.40
40:L3:252:ILE:HA	40:L3:252:ILE:HD12	2.62	0.40
3:S1:221:PRO:HB2	3:S1:222:LYS:H	1.64	0.40
74:O8:3:ARG:NH1	74:O8:52:TYR:HE1	4.65	0.40
25:D3:63:GLN:HA	25:D3:65:ASN:N	2.36	0.40
52:M6:27:LEU:HB3	52:M6:98:ALA:HB1	2.03	0.40
8:S6:27:PHE:O	8:S6:30:LYS:HG3	3.18	0.40
17:C5:115:TYR:CZ	1:6:1556:A:H5''	385.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:760:A:H2'	1:6:761:G:O4'	2.21	0.40
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.35	0.40
45:L8:251:LYS:O	45:L8:255:SER:HB2	2.21	0.40
23:D1:86:SER:HB3	29:D7:11:THR:HG22	2.74	0.40
1:2:617:U:O4'	1:2:1031:U:C2	2.74	0.40
36:1:183:G:H2'	36:1:184:U:O4'	2.21	0.40
41:L4:189:ALA:O	36:5:1420:C:OP2	115.04	0.40
39:L2:188:LYS:HD2	39:L2:189:TYR:CZ	4.81	0.40
42:L5:242:SER:O	42:L5:245:GLU:HB2	4.15	0.40
26:D4:58:PHE:HB2	26:D4:59:GLY:H	1.75	0.40
35:SM:25:ILE:HG22	48:M1:46:VAL:HB	2.37	0.40
36:1:643:U:O2'	36:1:1153:A:N1	2.48	0.40
42:L5:278:SER:O	42:L5:280:GLU:N	3.14	0.40
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.32	0.40
36:1:1522:U:H4'	36:1:1523:U:OP2	2.21	0.40
1:6:1:U:C4	1:6:369:A:C6	3.09	0.40
29:D7:75:GLU:HB3	29:D7:76:GLY:H	1.63	0.40
1:6:43:A:H1'	1:6:378:A:N3	2.36	0.40
36:5:378:A:N7	36:5:391:A:H2	2.18	0.40
21:C9:116:ILE:HG13	21:C9:116:ILE:H	1.38	0.40
9:S7:124:LYS:HB3	9:S7:124:LYS:HE2	4.55	0.40
57:N1:26:HIS:C	57:N1:26:HIS:HD1	2.24	0.40
18:C6:117:LEU:HD12	18:C6:117:LEU:HA	1.95	0.40
36:5:2222:A:H8	36:5:2222:A:O5'	2.04	0.40
38:4:154:C:H2'	38:4:155:A:O4'	2.21	0.40
36:1:2136:C:H2'	36:1:2142:A:N6	2.36	0.40
36:1:1071:U:O2'	36:1:1072:G:OP2	2.29	0.40
6:S4:45:ILE:HB	6:S4:80:THR:HG23	2.67	0.40
11:S9:38:ASN:OD1	11:S9:41:GLU:HG3	4.47	0.40
39:L2:129:ALA:O	39:L2:130:SER:C	2.84	0.40
25:D3:130:VAL:HG21	25:D3:135:LEU:HD21	2.03	0.40
34:SR:113:VAL:CG1	34:SR:114:ASP:H	2.22	0.40
34:SR:201:THR:HB	34:SR:242:SER:HA	2.03	0.40
75:O9:9:ILE:CD1	75:O9:51:ILE:HG23	2.51	0.40
8:S6:98:ARG:NH1	8:S6:105:ASP:OD2	3.02	0.40
34:SR:132:LYS:HA	34:SR:142:ALA:O	2.22	0.40
36:1:1582:C:O2'	36:1:1583:A:O5'	2.31	0.40
7:S5:56:ALA:O	7:S5:57:SER:OG	2.25	0.40
7:S5:58:LEU:HD21	7:S5:167:ARG:NH1	2.35	0.40
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.21	0.40
32:E0:56:MET:C	32:E0:58:PRO:HD3	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:208:ASN:HA	47:M0:211:ARG:HB2	2.02	0.40
36:5:1764:U:H3'	36:5:1765:U:C5'	2.48	0.40
9:S7:35:LYS:HB3	9:S7:35:LYS:HE3	1.93	0.40
36:1:1356:U:O5'	36:1:1356:U:H6	2.04	0.40
36:5:246:U:H2'	36:5:247:C:H5''	2.03	0.40
36:5:2206:G:C2'	36:5:2207:A:H5'	2.51	0.40
57:N1:25:VAL:HG23	57:N1:30:TYR:HE2	1.85	0.40
8:S6:215:ARG:HD3	8:S6:215:ARG:HA	1.91	0.40
16:C4:90:ARG:HB3	16:C4:91:THR:H	1.63	0.40
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	2.23	0.40
6:S4:246:LEU:HD21	6:S4:254:ARG:CZ	2.75	0.40
87:5:4187:OHX:N4	87:5:4247:OHX:N1	2.70	0.40
10:S8:147:ALA:C	10:S8:149:SER:N	2.86	0.40
47:M0:81:GLY:C	47:M0:83:ASP:N	3.33	0.40
3:S1:103:MET:N	3:S1:215:VAL:HG22	4.56	0.40
3:S1:153:HIS:ND1	3:S1:154:SER:N	2.70	0.40
70:O4:84:CYS:O	70:O4:88:ARG:HB2	3.13	0.40
34:SR:276:PRO:HG3	34:SR:311:ARG:HD3	2.03	0.40
1:2:1229:G:O2'	1:2:1255:G:N2	2.55	0.40
46:L9:77:ASN:HA	46:L9:80:THR:HG23	3.72	0.40
21:C9:101:ASN:O	21:C9:104:VAL:HB	2.47	0.40
52:M6:3:VAL:HG22	52:M6:4:GLU:HG3	2.03	0.40
9:S7:91:ILE:HG12	9:S7:129:LEU:HD23	2.02	0.40
36:1:1095:U:H4'	36:1:1096:U:H5''	2.02	0.40
51:M5:68:ARG:HD3	51:M5:128:LYS:HG2	4.93	0.40
1:2:1591:C:H2'	1:2:1592:A:C8	2.56	0.40
20:C8:83:ALA:C	20:C8:85:PHE:H	2.23	0.40
10:S8:136:SER:HB2	10:S8:139:ALA:CB	3.82	0.40
36:1:582:G:O6	87:1:4177:OHX:N2	2.55	0.40
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.21	0.40
36:1:706:A:H4'	36:1:781:G:O2'	2.22	0.40
15:C3:33:VAL:O	15:C3:37:ILE:HG13	2.21	0.40
20:C8:36:LYS:O	20:C8:102:ALA:N	2.51	0.40
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.21	0.40
62:N6:58:VAL:O	62:N6:64:LYS:HA	2.70	0.40
79:Q3:17:ARG:NH1	36:5:860:G:OP1	220.06	0.40
1:2:1294:G:H4'	2:S0:109:ASN:HB2	2.01	0.40
49:M3:108:ILE:HD12	49:M3:108:ILE:HG23	1.73	0.40
79:Q3:53:GLY:HA2	79:Q3:67:GLY:O	2.44	0.40
35:SM:79:SER:O	35:SM:82:THR:HG23	2.21	0.40
2:S0:119:ARG:HH11	2:S0:119:ARG:HD3	1.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:118:GLU:O	20:C8:121:ALA:HA	2.67	0.40
23:D1:36:VAL:O	23:D1:51:VAL:N	2.61	0.40
36:1:51:A:H2'	36:1:52:A:H8	1.86	0.40
74:O8:19:ASP:N	74:O8:19:ASP:OD2	3.03	0.40
49:M3:67:ARG:HG3	49:M3:67:ARG:H	1.61	0.40
41:L4:156:LEU:HD23	41:L4:159:ILE:HG13	3.12	0.40
39:L2:241:ARG:HG2	36:5:2155:G:OP1	221.07	0.40
64:N8:128:ARG:HB2	72:O6:8:ALA:CB	4.88	0.40
36:5:612:U:H2'	36:5:613:G:C8	2.55	0.40
4:S2:162:CYS:SG	4:S2:212:LYS:HE2	2.61	0.40
52:M6:54:TYR:CE2	52:M6:58:LEU:HD22	2.56	0.40
36:5:1590:G:N2	36:5:1798:A:C2	2.89	0.40
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.56	0.40
36:5:646:A:C2	36:5:2375:G:C2	3.09	0.40
36:5:1165:A:H2'	36:5:1166:G:O4'	2.21	0.40
62:N6:111:LEU:HD23	62:N6:116:LYS:CG	2.51	0.40
2:S0:6:THR:C	2:S0:8:ASP:H	2.24	0.40
36:1:1394:A:H4'	36:1:1420:C:H4'	2.03	0.40
44:L7:29:GLU:O	44:L7:32:ALA:HB3	3.69	0.40
11:S9:148:VAL:HG21	11:S9:156:ILE:HD11	2.03	0.40
36:5:170:G:N3	36:5:170:G:H2'	2.36	0.40
27:D5:52:LYS:HB3	27:D5:52:LYS:HE2	4.52	0.40
35:SM:46:LYS:O	35:SM:46:LYS:HG3	2.22	0.40
9:S7:157:LYS:HB2	9:S7:157:LYS:HE3	4.19	0.40
1:2:1637:C:O2'	35:SM:94:HIS:CE1	2.74	0.40
70:O4:74:ARG:HD3	70:O4:85:VAL:HG21	4.86	0.40
1:2:142:G:C5	1:2:266:A:C6	3.09	0.40
11:S9:149:ARG:H	11:S9:149:ARG:HD3	1.87	0.40
10:S8:163:GLY:HA3	36:1:3354:U:H1'	2.03	0.40
39:L2:80:GLU:HG2	79:Q3:76:ALA:HB1	2.97	0.40
20:C8:88:ARG:HD2	20:C8:100:THR:HG21	2.03	0.40
1:2:1583:A:N1	1:2:1611:A:H5"	2.36	0.40
53:M7:28:ASN:O	53:M7:32:THR:HG22	2.21	0.40
34:SR:132:LYS:HG2	34:SR:143:THR:HG23	3.65	0.40
49:M3:91:ARG:NH2	49:M3:97:VAL:O	2.88	0.40
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	7.07	0.40
3:S1:180:THR:HG22	3:S1:181:LEU:N	2.36	0.40
22:D0:28:SER:OG	22:D0:111:GLY:O	3.08	0.40
1:2:1672:G:N7	87:2:2044:OHX:N5	2.70	0.40
61:N5:121:LYS:HD2	61:N5:123:TYR:CZ	3.03	0.40
1:2:323:A:OP2	10:S8:10:LYS:HA	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:885:G:H2'	1:2:886:U:C6	2.56	0.40
1:6:150:U:H2'	1:6:151:G:O4'	2.21	0.40
41:L4:31:ARG:HG3	41:L4:120:TYR:CE1	2.57	0.40
28:D6:8:ASN:HB3	1:6:1791:A:H5''	329.60	0.40
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	2.28	0.40
36:5:1947:G:N2	36:5:2102:U:C2	2.89	0.40
15:C3:125:LEU:HA	15:C3:125:LEU:HD23	1.88	0.40
39:L2:191:LEU:HD13	39:L2:191:LEU:HA	4.29	0.40
71:O5:83:LYS:O	71:O5:89:ARG:NE	2.54	0.40
18:C6:37:THR:O	18:C6:38:LEU:HD23	2.21	0.40
56:N0:52:LYS:HZ2	37:7:100:C:P	279.84	0.40
57:N1:108:ARG:CD	57:N1:130:ARG:HD3	2.50	0.40
40:L3:159:ARG:HG2	40:L3:182:GLN:CA	2.49	0.40
1:2:221:A:H5''	1:2:833:U:H1'	2.04	0.40
1:2:892:A:C6	1:2:893:U:C4	3.10	0.40
55:M9:118:HIS:CD2	36:5:1716:U:N3	260.60	0.40
60:N4:25:ASP:OD2	60:N4:25:ASP:N	3.92	0.40
1:2:648:G:C6	1:2:649:U:C4	3.09	0.40
51:M5:97:SER:OG	51:M5:99:ARG:HB3	2.52	0.40
1:6:192:U:O2'	1:6:193:U:O4'	2.38	0.40
36:1:159:A:C2'	36:1:160:G:H5'	2.51	0.40
1:2:279:G:N7	1:2:281:G:C8	2.89	0.40
9:S7:75:THR:O	9:S7:79:ARG:HB2	2.32	0.40
87:1:4007:OHX:N4	87:1:4177:OHX:N1	2.68	0.40
5:S3:55:THR:HG21	5:S3:90:ARG:N	2.37	0.40
1:6:390:G:N7	1:6:407:A:N1	2.69	0.40
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.53	0.40
36:5:240:U:O2'	36:5:241:G:H8	2.04	0.40
50:M4:40:ASP:OD1	50:M4:42:LYS:N	2.40	0.40
36:5:595:G:C8	36:5:609:G:C6	3.09	0.40
36:1:2247:G:H2'	36:1:2248:C:O4'	2.20	0.40
36:5:644:G:OP1	36:5:1142:G:O2'	2.36	0.40
36:1:2554:A:C8	36:1:2554:A:H5'	2.56	0.40
36:1:213:A:H5''	62:N6:2:ALA:HA	2.03	0.40
36:5:3109:G:O2'	36:5:3110:C:H5'	2.21	0.40
1:6:240:U:H1'	1:6:241:U:OP1	2.20	0.40
36:5:1000:C:C2	36:5:1045:C:N4	2.89	0.40
1:2:180:A:H2'	1:2:181:A:O4'	2.21	0.40
1:6:493:U:H2'	1:6:494:U:H5''	2.03	0.40
36:5:1784:G:H2'	36:5:1785:U:O4'	2.22	0.40
7:S5:121:ILE:HA	7:S5:199:ILE:HD11	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:53:TYR:HB2	72:O6:76:ARG:HD2	2.03	0.40
32:E0:4:VAL:HG12	32:E0:4:VAL:O	2.21	0.40
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.56	0.40
68:O2:34:LYS:O	68:O2:36:LYS:HD3	3.11	0.40
8:S6:24:ILE:O	8:S6:26:VAL:N	2.54	0.40
25:D3:142:LYS:HA	25:D3:143:PRO:HD3	1.82	0.40
45:L8:73:PRO:HD3	45:L8:233:TRP:CG	2.56	0.40
1:2:1498:G:N2	1:2:1510:U:O2	2.54	0.40
76:Q0:110:CYS:SG	76:Q0:111:ARG:N	2.94	0.40
36:1:306:A:C2	36:1:307:A:C8	3.09	0.40
34:SR:203:THR:OG1	34:SR:204:ALA:N	2.53	0.40
61:N5:74:LYS:O	61:N5:78:ASP:HB2	2.64	0.40
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	2.89	0.40
36:1:950:G:H5'	36:1:971:G:OP1	2.21	0.40
36:5:1648:A:H2'	36:5:1649:U:O4'	2.21	0.40
60:N4:8:PHE:O	60:N4:46:PRO:HB3	2.62	0.40
55:M9:164:LEU:HA	55:M9:164:LEU:HD13	1.82	0.40
6:S4:6:LYS:HB2	6:S4:6:LYS:NZ	3.28	0.40
1:6:1157:A:OP2	87:6:2140:OHX:N1	2.55	0.40
5:S3:220:PRO:O	5:S3:221:SER:OG	2.51	0.40
1:2:38:C:H2'	1:2:39:A:H5'	2.03	0.40
36:1:1841:A:O2'	36:1:1842:A:H5''	2.21	0.40
11:S9:146:PHE:HZ	1:6:765:G:N2	431.33	0.40
1:2:1798:U:O4	28:D6:83:ILE:HG13	2.21	0.40
17:C5:16:SER:HA	17:C5:20:VAL:O	2.21	0.40
47:M0:174:THR:OG1	47:M0:175:ASN:O	7.06	0.40
8:S6:106:LEU:HD23	8:S6:106:LEU:HA	1.84	0.40
19:C7:5:ARG:HD3	19:C7:5:ARG:N	2.36	0.40
7:S5:162:VAL:CG2	7:S5:167:ARG:HG2	4.66	0.40
36:1:3164:C:O2'	36:1:3165:A:H8	2.05	0.40
19:C7:30:THR:HG22	34:SR:127:ARG:HH22	5.10	0.40
70:O4:58:ARG:NH1	36:5:1592:G:OP1	161.42	0.40
1:2:1097:U:O3'	4:S2:168:ARG:NE	2.55	0.40
1:2:1098:U:P	4:S2:168:ARG:HH21	2.42	0.40
1:6:1613:U:H6	1:6:1613:U:O5'	2.03	0.40
7:S5:87:CYS:HA	7:S5:88:PRO:HD2	1.78	0.40
1:6:1078:C:H2'	1:6:1079:U:C6	2.56	0.40
53:M7:13:LYS:HE2	53:M7:152:GLU:HB2	3.01	0.40
76:Q0:125:LYS:NZ	36:5:2898:G:O6	329.16	0.40
36:1:1597:C:H2'	36:1:1598:G:C8	2.56	0.40
36:5:1764:U:C4	36:5:1765:U:C2	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:10:LYS:HG2	13:C1:133:LYS:CE	3.04	0.40
75:O9:27:ILE:HG23	75:O9:30:ARG:CZ	2.63	0.40
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	2.03	0.40
3:S1:126:THR:HA	3:S1:135:LEU:O	2.49	0.40
3:S1:217:LEU:HD12	3:S1:217:LEU:HA	1.93	0.40
4:S2:90:THR:HG22	4:S2:93:GLY:N	2.37	0.40
1:2:25:C:H2'	1:2:25:C:H6	1.74	0.40
36:5:3119:U:OP2	87:5:3922:OHX:N3	2.55	0.40
34:SR:216:LYS:C	34:SR:218:GLY:H	2.48	0.40
1:2:1793:G:N7	28:D6:34:LYS:NZ	2.69	0.40
47:M0:117:GLY:HA2	36:5:2645:G:OP2	244.26	0.40
1:6:329:G:H2'	1:6:330:G:C8	2.56	0.40
3:S1:71:ALA:HB2	3:S1:79:HIS:O	2.21	0.40
1:6:1238:A:H2'	1:6:1239:U:H5'	2.04	0.40
14:C2:61:VAL:HB	14:C2:89:ILE:CG2	2.92	0.40
1:2:1500:C:P	21:C9:122:ARG:HH22	2.43	0.40
1:2:557:G:H3'	1:2:558:U:H5''	2.02	0.40
17:C5:25:LEU:O	17:C5:28:MET:HE2	2.70	0.40
36:1:3128:G:OP2	87:1:4172:OHX:N6	2.55	0.40
56:N0:115:ARG:HD3	36:5:1295:G:O2'	295.67	0.40
69:O3:13:HIS:CD2	69:O3:28:SER:HG	3.58	0.40
36:5:114:A:N1	36:5:266:A:O2'	2.47	0.40
36:5:265:A:H5''	36:5:266:A:OP2	2.21	0.40
1:6:1620:C:H2'	1:6:1621:U:C6	2.57	0.40
1:6:1621:U:H2'	1:6:1622:G:C8	2.57	0.40
36:5:1771:C:H2'	36:5:1772:U:O4'	2.21	0.40
2:S0:74:VAL:HG12	2:S0:76:ILE:HG13	2.04	0.40
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	2.09	0.40
27:D5:42:LEU:HD22	27:D5:47:TYR:HB2	6.31	0.40
87:1:3994:OHX:N1	87:1:4034:OHX:N2	2.70	0.40
1:2:67:A:O2'	1:2:69:G:OP1	2.26	0.40
1:6:1673:G:O5'	1:6:1673:G:H8	2.04	0.40
45:L8:101:THR:HG23	45:L8:103:ALA:N	2.37	0.40
48:M1:171:VAL:HG13	48:M1:172:LEU:N	2.37	0.40
21:C9:117:SER:HB2	21:C9:123:ARG:NE	4.21	0.40
1:2:1199:G:N7	22:D0:67:THR:HG23	2.36	0.40
48:M1:112:LEU:N	48:M1:112:LEU:HD23	2.36	0.40
57:N1:9:SER:O	57:N1:10:ARG:HB2	2.20	0.40
40:L3:302:LYS:HB3	40:L3:302:LYS:HE3	1.76	0.40
36:5:1692:U:C4	36:5:1693:C:N4	2.89	0.40
36:5:1643:A:H4'	36:5:1822:C:H5'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:34:LYS:HG3	68:O2:36:LYS:HD3	2.48	0.40
9:S7:155:ASP:HB3	9:S7:156:SER:H	1.67	0.40
21:C9:58:ALA:O	21:C9:108:LEU:HD11	2.21	0.40
21:C9:111:ILE:HG23	21:C9:113:ILE:HG12	2.03	0.40
43:L6:36:PRO:HB3	43:L6:55:LEU:O	3.11	0.40
3:S1:86:LEU:HA	3:S1:86:LEU:HD23	4.11	0.40
55:M9:109:TYR:CD2	55:M9:114:LYS:HD2	5.78	0.40
87:2:2075:OHX:N3	87:2:2163:OHX:N5	2.69	0.40
69:O3:37:THR:HB	69:O3:38:PRO:HD2	2.33	0.40
36:5:38:U:H2'	36:5:39:A:O4'	2.22	0.40
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	2.04	0.40
1:6:1236:A:H2'	1:6:1237:G:C8	2.56	0.40
4:S2:173:PRO:HD2	4:S2:176:SER:OG	2.21	0.40
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	2.03	0.40
63:N7:103:GLN:HA	63:N7:104:PRO:HD3	2.08	0.40
26:D4:41:ARG:NE	26:D4:55:VAL:O	3.00	0.40
36:5:1440:G:N7	87:5:3969:OHX:N6	2.70	0.40
41:L4:361:HIS:CG	41:L4:362:ASP:N	3.10	0.40
7:S5:175:LEU:HD22	7:S5:198:LEU:HD23	2.02	0.40
35:SM:32:SER:HB2	36:5:2692:A:C4'	277.66	0.40
4:S2:242:ILE:HD13	4:S2:242:ILE:HA	1.87	0.40
6:S4:133:LYS:HB3	6:S4:133:LYS:HE3	4.64	0.40
36:5:1390:A:N3	36:5:1390:A:H5'	2.36	0.40
76:Q0:95:VAL:HA	76:Q0:101:ALA:O	2.22	0.40
70:O4:74:ARG:CZ	70:O4:82:ALA:HB2	2.52	0.40
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.54	0.40
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.95	0.40
20:C8:92:ILE:HD13	20:C8:92:ILE:O	2.22	0.40
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.22	0.40
63:N7:4:PHE:CE2	66:O0:35:ARG:HA	2.56	0.40
6:S4:125:LYS:NZ	6:S4:225:VAL:O	2.38	0.40
1:2:1567:U:H2'	1:2:1568:C:H5'	2.03	0.40
36:1:2836:C:O2	36:1:2836:C:O4'	2.40	0.40
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	2.03	0.40
3:S1:97:LEU:HD13	3:S1:97:LEU:HA	1.90	0.40
1:2:856:A:N6	9:S7:96:ARG:HB3	2.37	0.40
55:M9:167:ARG:HG2	55:M9:170:ARG:CZ	2.52	0.40
36:1:1764:U:H5''	55:M9:43:LYS:HE2	2.02	0.40
11:S9:174:ARG:HE	11:S9:174:ARG:HA	1.86	0.40
36:5:1016:C:OP1	36:5:1016:C:H6	2.03	0.40
36:1:2653:C:O2'	36:1:2654:C:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:128:LYS:HD3	28:D6:27:SER:OG	4.30	0.40
41:L4:55:LYS:HE2	41:L4:55:LYS:HB2	4.29	0.40
41:L4:352:ALA:O	41:L4:355:PHE:N	2.53	0.40
56:N0:155:ARG:HB2	56:N0:172:TYR:HB2	2.03	0.40
1:2:887:A:H2'	1:2:888:U:C6	2.56	0.40
1:2:712:G:H2'	1:2:713:A:O4'	2.22	0.40
39:L2:190:ARG:HH11	39:L2:190:ARG:HD3	4.32	0.40
36:1:1246:G:N2	36:1:1264:G:HO2'	2.20	0.40
36:1:2724:U:OP2	57:N1:87:LYS:NZ	2.54	0.40
46:L9:112:ILE:HD13	46:L9:112:ILE:HG21	1.89	0.40
1:2:694:U:O2	1:2:694:U:H2'	2.21	0.40
36:5:3356:G:H2'	36:5:3357:U:O4'	2.22	0.40
36:5:2335:G:C2	36:5:2340:U:C4	3.09	0.40
51:M5:98:LEU:HD23	51:M5:128:LYS:NZ	4.76	0.40
36:1:3160:U:H2'	36:1:3161:C:C6	2.55	0.40
1:6:1258:U:C5	1:6:1259:U:C4	3.10	0.40
1:6:427:C:C4	1:6:428:A:N7	2.90	0.40
36:5:1222:G:O3'	36:5:1223:A:H8	2.05	0.40
1:2:720:G:H1'	1:2:721:U:C5'	2.52	0.40
38:8:145:U:H2'	38:8:146:U:H6	1.85	0.40
61:N5:135:ILE:HD13	61:N5:135:ILE:O	2.46	0.40
45:L8:47:SER:O	45:L8:50:VAL:HG13	2.54	0.40
6:S4:179:LYS:N	6:S4:194:THR:O	2.53	0.40
25:D3:112:LYS:HD3	25:D3:112:LYS:HA	1.98	0.40
36:1:213:A:H2'	36:1:214:G:O4'	2.22	0.40
47:M0:24:ARG:HB2	47:M0:24:ARG:HH11	1.86	0.40
42:L5:219:PHE:HE1	42:L5:227:LEU:HD11	1.86	0.40
1:6:1076:A:H2'	1:6:1077:C:O4'	2.21	0.40
36:1:1916:U:H2'	36:1:1917:C:C6	2.56	0.40
87:1:4032:OHX:N6	87:1:4151:OHX:N3	2.70	0.40
59:N3:104:ASN:ND2	59:N3:106:LYS:H	2.19	0.40
87:5:4041:OHX:N3	87:5:4245:OHX:N5	2.69	0.40
36:1:1470:U:H2'	36:1:1471:U:H6	1.87	0.40
18:C6:86:ALA:O	18:C6:90:VAL:HG13	2.21	0.40
54:M8:43:PRO:CB	36:5:728:G:H5''	191.91	0.40
38:4:11:C:OP2	87:4:238:OHX:N1	2.55	0.40
75:O9:11:GLN:O	75:O9:14:ALA:N	3.15	0.40
60:N4:17:ARG:HD3	60:N4:17:ARG:HA	1.86	0.40
71:O5:40:SER:HA	38:8:49:G:O2'	55.23	0.40
1:6:222:A:H2'	1:6:223:U:O4'	2.21	0.40
48:M1:173:ASP:HA	48:M1:174:LYS:HE2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2333:C:H2'	36:1:2334:U:O4'	2.22	0.40
1:2:1396:U:H2'	1:2:1397:U:O4'	2.22	0.40
43:L6:146:ILE:HG22	43:L6:150:LYS:NZ	2.36	0.40
36:1:1313:G:O3'	52:M6:17:GLY:HA3	2.21	0.40
1:2:443:C:H2'	1:2:444:C:O4'	2.22	0.40
36:1:2564:G:C5	36:1:2565:U:C5	3.10	0.40
36:1:3131:U:H2'	36:1:3132:C:H6	1.85	0.40
4:S2:132:ALA:O	4:S2:135:SER:OG	2.71	0.40
39:L2:15:ILE:HD12	39:L2:15:ILE:HA	4.61	0.40
22:D0:77:LYS:N	22:D0:77:LYS:HD2	4.01	0.40
50:M4:135:LEU:HD22	50:M4:135:LEU:O	2.22	0.40
64:N8:45:MET:HA	64:N8:45:MET:HE2	5.02	0.40
54:M8:140:LEU:HA	54:M8:140:LEU:HD23	1.82	0.40
1:2:1748:G:O6	87:2:2105:OHX:N4	2.55	0.40
36:5:2611:U:H2'	36:5:2612:U:C6	2.57	0.40
1:2:1:U:C4	1:2:369:A:C6	3.09	0.40
36:5:948:C:H2'	36:5:949:C:C6	2.56	0.40

All (1) 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)
36:1:3156:U:O4	34:sR:46:LYS:NZ[2_656]	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%)	141 (69%)	40 (20%)	23 (11%)	0	2
2	s0	204/251 (81%)	156 (76%)	27 (13%)	21 (10%)	1	3
3	S1	212/254 (84%)	147 (69%)	38 (18%)	27 (13%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	s1	214/254 (84%)	179 (84%)	27 (13%)	8 (4%)	4	23
4	S2	215/253 (85%)	179 (83%)	22 (10%)	14 (6%)	1	8
4	s2	215/253 (85%)	178 (83%)	26 (12%)	11 (5%)	2	15
5	S3	221/239 (92%)	181 (82%)	32 (14%)	8 (4%)	4	24
5	s3	221/239 (92%)	185 (84%)	24 (11%)	12 (5%)	2	14
6	S4	258/260 (99%)	206 (80%)	33 (13%)	19 (7%)	1	6
6	s4	258/260 (99%)	209 (81%)	34 (13%)	15 (6%)	2	12
7	S5	204/224 (91%)	159 (78%)	27 (13%)	18 (9%)	1	4
7	s5	204/224 (91%)	159 (78%)	32 (16%)	13 (6%)	2	9
8	S6	224/236 (95%)	198 (88%)	13 (6%)	13 (6%)	2	12
8	s6	216/236 (92%)	188 (87%)	21 (10%)	7 (3%)	5	27
9	S7	182/189 (96%)	134 (74%)	25 (14%)	23 (13%)	0	1
9	s7	184/189 (97%)	145 (79%)	27 (15%)	12 (6%)	1	8
10	S8	184/200 (92%)	149 (81%)	24 (13%)	11 (6%)	2	11
10	s8	184/200 (92%)	152 (83%)	22 (12%)	10 (5%)	2	14
11	S9	183/196 (93%)	152 (83%)	20 (11%)	11 (6%)	2	11
11	s9	183/196 (93%)	150 (82%)	27 (15%)	6 (3%)	5	26
12	C0	94/105 (90%)	74 (79%)	11 (12%)	9 (10%)	1	3
12	c0	92/105 (88%)	61 (66%)	12 (13%)	19 (21%)	0	0
13	C1	153/155 (99%)	120 (78%)	18 (12%)	15 (10%)	1	3
13	c1	144/155 (93%)	126 (88%)	14 (10%)	4 (3%)	6	30
14	C2	122/142 (86%)	69 (57%)	33 (27%)	20 (16%)	0	1
14	c2	122/142 (86%)	72 (59%)	35 (29%)	15 (12%)	0	2
15	C3	148/150 (99%)	123 (83%)	19 (13%)	6 (4%)	3	20
15	c3	148/150 (99%)	120 (81%)	17 (12%)	11 (7%)	1	6
16	C4	125/136 (92%)	96 (77%)	17 (14%)	12 (10%)	1	3
16	c4	126/136 (93%)	102 (81%)	17 (14%)	7 (6%)	2	13
17	C5	122/141 (86%)	96 (79%)	15 (12%)	11 (9%)	1	4
17	c5	133/141 (94%)	96 (72%)	20 (15%)	17 (13%)	0	1
18	C6	139/142 (98%)	115 (83%)	17 (12%)	7 (5%)	3	15
18	c6	140/142 (99%)	123 (88%)	9 (6%)	8 (6%)	2	12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	C7	116/136 (85%)	88 (76%)	20 (17%)	8 (7%)	1	7
19	c7	113/136 (83%)	89 (79%)	19 (17%)	5 (4%)	3	18
20	C8	143/145 (99%)	114 (80%)	19 (13%)	10 (7%)	1	7
20	c8	143/145 (99%)	116 (81%)	18 (13%)	9 (6%)	2	9
21	C9	141/143 (99%)	114 (81%)	22 (16%)	5 (4%)	4	24
21	c9	141/143 (99%)	120 (85%)	16 (11%)	5 (4%)	4	24
22	D0	105/120 (88%)	83 (79%)	14 (13%)	8 (8%)	1	6
22	d0	108/120 (90%)	84 (78%)	13 (12%)	11 (10%)	1	3
23	D1	85/87 (98%)	62 (73%)	18 (21%)	5 (6%)	2	11
23	d1	85/87 (98%)	71 (84%)	12 (14%)	2 (2%)	7	35
24	D2	127/129 (98%)	108 (85%)	17 (13%)	2 (2%)	12	48
24	d2	127/129 (98%)	111 (87%)	14 (11%)	2 (2%)	12	48
25	D3	142/144 (99%)	110 (78%)	17 (12%)	15 (11%)	0	3
25	d3	142/144 (99%)	120 (84%)	18 (13%)	4 (3%)	6	30
26	D4	132/134 (98%)	114 (86%)	8 (6%)	10 (8%)	1	6
26	d4	132/134 (98%)	104 (79%)	20 (15%)	8 (6%)	2	11
27	D5	68/107 (64%)	48 (71%)	13 (19%)	7 (10%)	1	3
27	d5	67/107 (63%)	46 (69%)	16 (24%)	5 (8%)	1	6
28	D6	95/97 (98%)	62 (65%)	14 (15%)	19 (20%)	0	0
28	d6	95/97 (98%)	73 (77%)	10 (10%)	12 (13%)	0	1
29	D7	79/81 (98%)	54 (68%)	17 (22%)	8 (10%)	1	3
29	d7	79/81 (98%)	61 (77%)	15 (19%)	3 (4%)	4	22
30	D8	61/66 (92%)	49 (80%)	7 (12%)	5 (8%)	1	5
30	d8	61/66 (92%)	43 (70%)	12 (20%)	6 (10%)	1	3
31	D9	51/55 (93%)	42 (82%)	6 (12%)	3 (6%)	2	11
31	d9	51/55 (93%)	41 (80%)	6 (12%)	4 (8%)	1	6
32	E0	58/60 (97%)	46 (79%)	10 (17%)	2 (3%)	5	25
33	E1	69/76 (91%)	36 (52%)	14 (20%)	19 (28%)	0	0
34	SR	316/318 (99%)	248 (78%)	51 (16%)	17 (5%)	2	14
34	sR	316/318 (99%)	274 (87%)	30 (10%)	12 (4%)	4	22
35	SM	155/273 (57%)	111 (72%)	24 (16%)	20 (13%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	sM	98/273 (36%)	64 (65%)	20 (20%)	14 (14%)	0	1
39	L2	250/253 (99%)	224 (90%)	17 (7%)	9 (4%)	4	24
39	l2	250/253 (99%)	218 (87%)	21 (8%)	11 (4%)	3	18
40	L3	384/386 (100%)	346 (90%)	22 (6%)	16 (4%)	3	20
40	l3	384/386 (100%)	345 (90%)	30 (8%)	9 (2%)	8	36
41	L4	359/361 (99%)	312 (87%)	28 (8%)	19 (5%)	2	14
41	l4	359/361 (99%)	298 (83%)	44 (12%)	17 (5%)	3	17
42	L5	294/296 (99%)	252 (86%)	29 (10%)	13 (4%)	3	18
42	l5	292/296 (99%)	254 (87%)	26 (9%)	12 (4%)	3	20
43	L6	152/175 (87%)	132 (87%)	16 (10%)	4 (3%)	7	33
43	l6	153/175 (87%)	132 (86%)	16 (10%)	5 (3%)	5	26
44	L7	220/243 (90%)	196 (89%)	19 (9%)	5 (2%)	8	36
44	l7	221/243 (91%)	194 (88%)	22 (10%)	5 (2%)	8	36
45	L8	231/255 (91%)	188 (81%)	31 (13%)	12 (5%)	2	15
45	l8	229/255 (90%)	182 (80%)	31 (14%)	16 (7%)	1	7
46	L9	189/191 (99%)	162 (86%)	21 (11%)	6 (3%)	5	27
46	l9	189/191 (99%)	165 (87%)	19 (10%)	5 (3%)	7	33
47	M0	207/220 (94%)	179 (86%)	21 (10%)	7 (3%)	5	25
47	m0	209/220 (95%)	170 (81%)	22 (10%)	17 (8%)	1	5
48	M1	167/173 (96%)	133 (80%)	17 (10%)	17 (10%)	1	3
48	m1	167/173 (96%)	141 (84%)	17 (10%)	9 (5%)	2	14
49	M3	191/198 (96%)	160 (84%)	26 (14%)	5 (3%)	7	33
49	m3	192/198 (97%)	160 (83%)	20 (10%)	12 (6%)	2	9
50	M4	134/137 (98%)	113 (84%)	12 (9%)	9 (7%)	1	8
50	m4	135/137 (98%)	126 (93%)	6 (4%)	3 (2%)	8	38
51	M5	201/203 (99%)	183 (91%)	12 (6%)	6 (3%)	5	29
51	m5	201/203 (99%)	185 (92%)	10 (5%)	6 (3%)	5	29
52	M6	195/198 (98%)	175 (90%)	15 (8%)	5 (3%)	7	33
52	m6	195/198 (98%)	179 (92%)	9 (5%)	7 (4%)	4	24
53	M7	181/183 (99%)	156 (86%)	20 (11%)	5 (3%)	6	30
53	m7	153/183 (84%)	142 (93%)	10 (6%)	1 (1%)	26	70

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
54	M8	183/185 (99%)	161 (88%)	18 (10%)	4 (2%)	8	38
54	m8	183/185 (99%)	155 (85%)	21 (12%)	7 (4%)	4	22
55	M9	186/188 (99%)	166 (89%)	19 (10%)	1 (0%)	34	76
55	m9	186/188 (99%)	170 (91%)	13 (7%)	3 (2%)	12	48
56	N0	170/172 (99%)	157 (92%)	11 (6%)	2 (1%)	16	56
56	n0	170/172 (99%)	158 (93%)	10 (6%)	2 (1%)	16	56
57	N1	157/159 (99%)	139 (88%)	11 (7%)	7 (4%)	3	18
57	n1	157/159 (99%)	140 (89%)	11 (7%)	6 (4%)	4	22
58	N2	98/120 (82%)	72 (74%)	19 (19%)	7 (7%)	1	7
58	n2	96/120 (80%)	81 (84%)	11 (12%)	4 (4%)	3	20
59	N3	134/136 (98%)	123 (92%)	9 (7%)	2 (2%)	13	50
59	n3	134/136 (98%)	125 (93%)	9 (7%)	0	100	100
60	N4	96/155 (62%)	75 (78%)	12 (12%)	9 (9%)	1	4
60	n4	133/155 (86%)	105 (79%)	16 (12%)	12 (9%)	1	4
61	N5	119/141 (84%)	106 (89%)	12 (10%)	1 (1%)	24	66
61	n5	118/141 (84%)	101 (86%)	12 (10%)	5 (4%)	3	20
62	N6	124/126 (98%)	112 (90%)	6 (5%)	6 (5%)	3	17
62	n6	124/126 (98%)	113 (91%)	6 (5%)	5 (4%)	4	21
63	N7	133/135 (98%)	112 (84%)	12 (9%)	9 (7%)	1	7
63	n7	133/135 (98%)	106 (80%)	19 (14%)	8 (6%)	2	11
64	N8	146/148 (99%)	119 (82%)	19 (13%)	8 (6%)	2	13
64	n8	146/148 (99%)	124 (85%)	15 (10%)	7 (5%)	3	17
65	N9	56/58 (97%)	48 (86%)	4 (7%)	4 (7%)	1	7
65	n9	56/58 (97%)	43 (77%)	6 (11%)	7 (12%)	0	1
66	O0	95/104 (91%)	86 (90%)	6 (6%)	3 (3%)	5	27
66	o0	98/104 (94%)	84 (86%)	11 (11%)	3 (3%)	5	28
67	O1	107/112 (96%)	96 (90%)	7 (6%)	4 (4%)	4	23
67	o1	107/112 (96%)	88 (82%)	7 (6%)	12 (11%)	0	2
68	O2	125/129 (97%)	110 (88%)	14 (11%)	1 (1%)	24	66
68	o2	125/129 (97%)	108 (86%)	12 (10%)	5 (4%)	4	21
69	O3	104/106 (98%)	96 (92%)	6 (6%)	2 (2%)	10	43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
69	o3	104/106 (98%)	95 (91%)	7 (7%)	2 (2%)	10	43
70	O4	110/119 (92%)	95 (86%)	13 (12%)	2 (2%)	11	45
70	o4	110/119 (92%)	99 (90%)	10 (9%)	1 (1%)	21	64
71	O5	117/119 (98%)	106 (91%)	10 (8%)	1 (1%)	21	64
71	o5	117/119 (98%)	97 (83%)	11 (9%)	9 (8%)	1	6
72	O6	97/99 (98%)	80 (82%)	11 (11%)	6 (6%)	2	10
72	o6	97/99 (98%)	84 (87%)	9 (9%)	4 (4%)	3	20
73	O7	85/87 (98%)	73 (86%)	8 (9%)	4 (5%)	3	17
73	o7	85/87 (98%)	72 (85%)	12 (14%)	1 (1%)	16	56
74	O8	75/77 (97%)	66 (88%)	8 (11%)	1 (1%)	15	53
74	o8	75/77 (97%)	66 (88%)	6 (8%)	3 (4%)	4	21
75	O9	48/50 (96%)	43 (90%)	4 (8%)	1 (2%)	9	40
75	o9	48/50 (96%)	40 (83%)	7 (15%)	1 (2%)	9	40
76	Q0	50/52 (96%)	47 (94%)	1 (2%)	2 (4%)	4	21
76	q0	50/52 (96%)	45 (90%)	4 (8%)	1 (2%)	9	41
77	Q1	23/25 (92%)	20 (87%)	2 (9%)	1 (4%)	3	19
77	q1	23/25 (92%)	19 (83%)	4 (17%)	0	100	100
78	Q2	103/105 (98%)	82 (80%)	18 (18%)	3 (3%)	6	29
78	q2	103/105 (98%)	93 (90%)	8 (8%)	2 (2%)	10	43
79	Q3	89/91 (98%)	77 (86%)	10 (11%)	2 (2%)	8	38
79	q3	89/91 (98%)	80 (90%)	8 (9%)	1 (1%)	17	58
80	e0	60/62 (97%)	45 (75%)	8 (13%)	7 (12%)	0	2
81	e1	74/76 (97%)	36 (49%)	19 (26%)	19 (26%)	0	0
83	p0	139/311 (45%)	119 (86%)	16 (12%)	4 (3%)	6	29
All	All	22333/24141 (92%)	18606 (83%)	2512 (11%)	1215 (5%)	2	14

All (1215) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	39	ASN
2	S0	66	ALA
2	S0	139	VAL
2	S0	140	ASN

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Mol	Chain	Res	Type
2	S0	158	VAL
2	S0	185	ARG
2	S0	191	ARG
2	S0	194	PRO
3	S1	36	SER
3	S1	49	ASN
3	S1	63	GLY
3	S1	132	ASP
3	S1	221	PRO
3	S1	223	PHE
4	S2	107	SER
4	S2	236	PRO
5	S3	62	ASN
5	S3	93	ASP
5	S3	220	PRO
6	S4	3	ARG
6	S4	26	CYS
6	S4	104	ASP
6	S4	223	ASN
7	S5	26	ALA
7	S5	39	GLU
7	S5	63	GLN
7	S5	101	GLY
8	S6	122	GLU
8	S6	149	LYS
8	S6	173	PRO
9	S7	31	SER
9	S7	32	PRO
9	S7	64	VAL
9	S7	67	LEU
9	S7	85	PHE
9	S7	111	LYS
9	S7	112	ARG
9	S7	131	PHE
9	S7	133	THR
9	S7	155	ASP
10	S8	22	ARG
10	S8	81	VAL
10	S8	120	THR
10	S8	199	LYS
11	S9	98	ALA
11	S9	134	ILE

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Mol	Chain	Res	Type
11	S9	163	PRO
11	S9	164	PHE
12	C0	60	SER
12	C0	64	TYR
12	C0	87	VAL
12	C0	88	PRO
12	C0	89	ALA
12	C0	94	GLU
13	C1	3	THR
13	C1	7	VAL
13	C1	29	LYS
13	C1	72	THR
14	C2	91	VAL
14	C2	93	ASP
14	C2	101	ALA
14	C2	113	ARG
14	C2	115	VAL
15	C3	68	GLY
16	C4	42	VAL
16	C4	50	ALA
16	C4	92	LYS
16	C4	124	ASP
16	C4	125	SER
16	C4	126	THR
17	C5	22	LEU
17	C5	125	PRO
17	C5	126	VAL
18	C6	58	ASP
18	C6	97	VAL
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	82	PRO
20	C8	83	ALA
21	C9	53	TRP
23	D1	7	GLN
25	D3	37	ALA
25	D3	41	SER
25	D3	128	SER

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Mol	Chain	Res	Type
25	D3	131	SER
26	D4	100	VAL
27	D5	41	ILE
27	D5	43	ASP
27	D5	44	GLN
27	D5	88	ILE
28	D6	45	VAL
28	D6	47	ALA
28	D6	84	VAL
28	D6	85	ARG
28	D6	86	VAL
29	D7	38	PRO
29	D7	62	ILE
30	D8	36	THR
31	D9	8	PHE
32	E0	47	VAL
33	E1	84	VAL
33	E1	87	THR
33	E1	98	VAL
33	E1	106	TYR
33	E1	128	ALA
33	E1	144	CYS
34	SR	24	ALA
34	SR	161	LYS
35	SM	52	PRO
35	SM	86	ASN
35	SM	99	LYS
35	SM	100	THR
35	SM	102	THR
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	250	GLN
40	L3	4	ARG
40	L3	5	LYS
40	L3	140	ASP
40	L3	142	ALA
41	L4	4	PRO
41	L4	131	VAL
41	L4	232	SER
41	L4	270	SER
41	L4	292	SER

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Mol	Chain	Res	Type
41	L4	293	SER
41	L4	338	LYS
42	L5	57	ASN
42	L5	124	GLU
42	L5	125	VAL
42	L5	233	ALA
42	L5	234	ASP
42	L5	258	LYS
43	L6	98	VAL
45	L8	25	PRO
45	L8	31	PRO
45	L8	209	ALA
46	L9	190	ASP
47	M0	187	ALA
48	M1	9	MET
48	M1	94	ARG
48	M1	95	ASN
48	M1	165	GLN
49	M3	47	ALA
49	M3	129	ASN
50	M4	8	LYS
50	M4	9	ALA
50	M4	113	THR
50	M4	135	LEU
51	M5	74	PRO
52	M6	111	PRO
52	M6	182	ASN
53	M7	157	VAL
54	M8	98	LYS
54	M8	99	THR
56	N0	167	ARG
57	N1	124	VAL
57	N1	125	ALA
57	N1	126	VAL
57	N1	159	PHE
58	N2	31	ALA
58	N2	60	GLY
60	N4	26	SER
60	N4	81	PRO
60	N4	97	LYS
62	N6	52	ARG
62	N6	53	ASP

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Mol	Chain	Res	Type
62	N6	84	LYS
63	N7	3	LYS
63	N7	18	TYR
64	N8	66	ALA
64	N8	76	ASP
67	O1	6	ASP
71	O5	119	LYS
72	O6	33	ALA
72	O6	34	SER
73	O7	63	ARG
75	O9	4	GLN
76	Q0	78	ILE
2	s0	4	PRO
2	s0	29	VAL
2	s0	30	GLN
2	s0	44	GLY
2	s0	95	ALA
2	s0	164	ASN
2	s0	186	GLY
2	s0	206	ASP
3	s1	21	VAL
3	s1	206	PRO
3	s1	223	PHE
4	s2	91	ARG
4	s2	92	ALA
5	s3	61	GLU
5	s3	90	ARG
5	s3	216	PRO
5	s3	220	PRO
6	s4	95	THR
6	s4	104	ASP
6	s4	163	ASP
6	s4	164	LEU
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	36	ALA
7	s5	184	PHE
8	s6	122	GLU
8	s6	173	PRO
9	s7	30	SER
9	s7	64	VAL

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Mol	Chain	Res	Type
9	s7	66	SER
9	s7	74	GLN
9	s7	131	PHE
9	s7	185	ILE
10	s8	116	HIS
11	s9	134	ILE
11	s9	183	ALA
12	c0	32	HIS
12	c0	83	PRO
12	c0	88	PRO
12	c0	92	ILE
12	c0	97	PRO
13	c1	129	ARG
13	c1	144	ALA
14	c2	22	VAL
15	c3	19	SER
15	c3	66	ILE
15	c3	87	ASP
15	c3	137	PRO
15	c3	139	TRP
15	c3	140	LYS
16	c4	35	GLY
16	c4	50	ALA
16	c4	132	ARG
17	c5	17	TYR
17	c5	51	SER
17	c5	125	PRO
17	c5	126	VAL
17	c5	131	ALA
18	c6	40	GLU
18	c6	42	GLU
19	c7	67	ARG
19	c7	88	VAL
19	c7	116	LYS
20	c8	9	GLY
20	c8	91	ASP
20	c8	92	ILE
21	c9	29	GLU
21	c9	33	TYR
22	d0	15	GLN
22	d0	49	ASN
22	d0	51	VAL

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Mol	Chain	Res	Type
22	d0	52	LYS
22	d0	97	VAL
22	d0	118	VAL
23	d1	44	ARG
24	d2	56	HIS
25	d3	138	GLU
26	d4	30	PRO
26	d4	33	ALA
27	d5	85	LYS
27	d5	103	ARG
27	d5	104	ALA
29	d7	3	LEU
29	d7	62	ILE
30	d8	33	LEU
30	d8	61	ARG
31	d9	6	VAL
31	d9	7	TRP
80	e0	60	PRO
81	e1	83	LYS
81	e1	87	THR
81	e1	92	LYS
81	e1	98	VAL
81	e1	103	LEU
81	e1	106	TYR
34	sR	4	ASN
34	sR	165	ASP
35	sM	48	ARG
35	sM	50	ASN
35	sM	65	THR
39	l2	194	ASN
39	l2	238	ILE
39	l2	249	SER
40	l3	140	ASP
40	l3	187	SER
40	l3	347	SER
41	l4	90	PHE
41	l4	145	ILE
41	l4	272	VAL
41	l4	301	PRO
41	l4	302	ALA
41	l4	329	PRO
41	l4	339	LEU

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Mol	Chain	Res	Type
41	l4	342	LYS
42	l5	115	LEU
42	l5	258	LYS
42	l5	260	PHE
42	l5	270	LYS
43	l6	98	VAL
45	l8	25	PRO
45	l8	26	LEU
45	l8	34	PHE
45	l8	81	THR
45	l8	112	GLU
45	l8	121	SER
45	l8	133	LYS
47	m0	25	ALA
47	m0	82	ARG
47	m0	194	GLY
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	108	GLU
48	m1	115	LYS
48	m1	167	TYR
49	m3	47	ALA
49	m3	51	LEU
49	m3	93	ILE
49	m3	134	GLU
49	m3	150	PRO
49	m3	152	THR
50	m4	136	ALA
51	m5	184	LYS
52	m6	12	LYS
52	m6	16	VAL
52	m6	110	PRO
52	m6	111	PRO
54	m8	99	THR
54	m8	171	LYS
56	n0	2	ALA
57	n1	16	GLN
57	n1	135	PRO
58	n2	50	LEU
60	n4	26	SER
60	n4	63	ILE

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Mol	Chain	Res	Type
60	n4	71	ARG
60	n4	76	VAL
60	n4	133	THR
61	n5	24	LEU
61	n5	25	LYS
62	n6	83	ASP
62	n6	125	LYS
63	n7	125	GLY
64	n8	4	ARG
64	n8	76	ASP
65	n9	21	ILE
65	n9	25	LYS
65	n9	39	PHE
66	o0	100	ILE
67	o1	83	GLU
67	o1	84	ASP
67	o1	85	ALA
67	o1	90	PHE
67	o1	91	SER
67	o1	99	ALA
68	o2	5	PRO
68	o2	6	HIS
68	o2	27	ARG
71	o5	14	LYS
71	o5	40	SER
71	o5	88	LEU
72	o6	33	ALA
72	o6	98	ARG
74	o8	18	ALA
75	o9	3	ALA
76	q0	78	ILE
83	p0	93	LEU
83	p0	102	SER
2	S0	5	ALA
2	S0	28	ASN
2	S0	94	GLY
3	S1	51	SER
3	S1	59	ASP
3	S1	148	ASN
3	S1	158	SER
3	S1	179	SER
3	S1	206	PRO

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Mol	Chain	Res	Type
3	S1	213	ARG
4	S2	75	GLY
4	S2	91	ARG
4	S2	148	LEU
5	S3	81	PRO
5	S3	216	PRO
5	S3	218	LEU
6	S4	17	HIS
6	S4	96	ASN
6	S4	195	ILE
7	S5	43	PHE
7	S5	58	LEU
7	S5	151	GLY
8	S6	59	GLN
8	S6	165	GLY
8	S6	174	LYS
9	S7	55	LYS
9	S7	134	GLU
9	S7	156	SER
10	S8	40	ALA
10	S8	105	ASP
10	S8	152	ILE
11	S9	152	SER
12	C0	27	PHE
13	C1	4	GLU
13	C1	30	ARG
13	C1	144	ALA
13	C1	145	ALA
13	C1	146	ALA
14	C2	126	TRP
14	C2	127	GLY
14	C2	130	THR
15	C3	22	ALA
16	C4	51	ASP
17	C5	24	LYS
17	C5	54	ALA
19	C7	113	LEU
19	C7	115	LEU
20	C8	8	GLN
20	C8	61	LEU
20	C8	91	ASP
20	C8	92	ILE

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Mol	Chain	Res	Type
22	D0	18	GLN
22	D0	44	ASN
23	D1	2	GLU
23	D1	12	TYR
24	D2	83	ILE
25	D3	3	LYS
25	D3	40	SER
25	D3	96	VAL
25	D3	112	LYS
25	D3	137	LYS
25	D3	138	GLU
27	D5	39	ALA
28	D6	46	GLU
28	D6	63	ALA
28	D6	82	ARG
29	D7	57	GLU
29	D7	63	LEU
32	E0	33	ARG
33	E1	85	TYR
33	E1	127	GLY
34	SR	112	SER
34	SR	136	ILE
34	SR	160	GLU
34	SR	162	ALA
34	SR	231	MET
34	SR	271	VAL
34	SR	295	SER
35	SM	64	LYS
35	SM	87	THR
35	SM	89	ARG
35	SM	139	GLU
39	L2	143	GLU
40	L3	3	HIS
40	L3	139	GLN
40	L3	347	SER
40	L3	351	LEU
41	L4	16	THR
41	L4	130	ALA
41	L4	190	GLY
41	L4	268	ALA
41	L4	311	HIS
41	L4	339	LEU

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Mol	Chain	Res	Type
42	L5	137	ASP
42	L5	253	PHE
42	L5	259	LYS
42	L5	260	PHE
44	L7	24	GLU
44	L7	26	VAL
45	L8	96	LYS
45	L8	115	ALA
45	L8	116	VAL
45	L8	157	VAL
46	L9	108	GLY
47	M0	24	ARG
47	M0	117	GLY
47	M0	211	ARG
47	M0	219	ALA
48	M1	8	PRO
48	M1	11	ASP
48	M1	151	SER
48	M1	167	TYR
49	M3	13	HIS
50	M4	136	ALA
51	M5	144	ARG
51	M5	184	LYS
52	M6	16	VAL
52	M6	183	ALA
53	M7	164	LYS
57	N1	29	THR
58	N2	50	LEU
58	N2	59	ASP
60	N4	16	GLY
60	N4	17	ARG
60	N4	76	VAL
62	N6	83	ASP
62	N6	126	LEU
63	N7	7	ALA
63	N7	17	ARG
63	N7	125	GLY
63	N7	128	GLN
64	N8	57	GLY
66	O0	41	LEU
66	O0	96	GLY
67	O1	82	GLU

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Mol	Chain	Res	Type
68	O2	127	ALA
69	O3	59	VAL
70	O4	77	GLY
72	O6	97	SER
73	O7	68	LYS
73	O7	86	ALA
78	Q2	17	CYS
78	Q2	94	GLY
2	s0	8	ASP
2	s0	183	ARG
2	s0	185	ARG
2	s0	189	VAL
3	s1	26	ARG
3	s1	93	GLY
3	s1	106	THR
3	s1	147	ALA
4	s2	163	GLY
5	s3	92	GLN
5	s3	93	ASP
5	s3	211	PRO
5	s3	217	ILE
6	s4	12	LEU
7	s5	35	GLN
7	s5	43	PHE
7	s5	151	GLY
7	s5	204	GLY
8	s6	156	PHE
10	s8	101	ILE
10	s8	115	ALA
10	s8	148	ALA
12	c0	2	LEU
12	c0	10	LYS
12	c0	31	LYS
14	c2	45	LEU
14	c2	89	ILE
14	c2	115	VAL
15	c3	60	VAL
17	c5	11	VAL
17	c5	69	GLU
17	c5	117	GLY
17	c5	127	ARG
17	c5	132	GLY

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Mol	Chain	Res	Type
18	c6	97	VAL
18	c6	113	ASP
18	c6	116	LEU
19	c7	99	VAL
20	c8	14	ILE
20	c8	55	HIS
21	c9	28	LEU
25	d3	27	ASN
25	d3	131	SER
26	d4	35	VAL
26	d4	53	ASP
26	d4	58	PHE
27	d5	38	HIS
28	d6	8	ASN
28	d6	34	LYS
28	d6	47	ALA
29	d7	75	GLU
30	d8	65	ARG
31	d9	25	SER
80	e0	45	VAL
80	e0	47	VAL
81	e1	84	VAL
81	e1	102	VAL
81	e1	127	GLY
34	sR	163	ASP
34	sR	186	PHE
35	sM	47	ALA
35	sM	66	ALA
39	l2	69	TYR
39	l2	96	LEU
39	l2	215	ASN
40	l3	143	GLY
40	l3	155	ALA
41	l4	15	ALA
41	l4	311	HIS
42	l5	269	SER
43	l6	154	LEU
44	l7	63	ILE
44	l7	159	GLN
45	l8	82	LEU
45	l8	114	ALA
45	l8	122	LYS

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Mol	Chain	Res	Type
45	l8	203	VAL
46	l9	2	LYS
46	l9	144	ILE
47	m0	117	GLY
47	m0	175	ASN
47	m0	195	ALA
47	m0	207	GLU
51	m5	76	PRO
51	m5	81	TYR
52	m6	13	GLY
54	m8	4	ASP
54	m8	41	ASP
54	m8	91	ALA
61	n5	47	ALA
62	n6	84	LYS
62	n6	126	LEU
63	n7	16	GLY
63	n7	28	PRO
65	n9	23	LYS
68	o2	124	GLY
71	o5	119	LYS
72	o6	34	SER
74	o8	17	ARG
74	o8	73	LEU
79	q3	51	ALA
2	S0	95	ALA
2	S0	153	SER
2	S0	192	THR
2	S0	195	TRP
3	S1	37	THR
3	S1	58	SER
3	S1	81	PHE
4	S2	39	THR
4	S2	92	ALA
5	S3	129	SER
6	S4	77	ARG
6	S4	142	HIS
6	S4	157	ASN
6	S4	164	LEU
6	S4	222	LEU
7	S5	51	VAL
7	S5	154	ALA

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Mol	Chain	Res	Type
7	S5	156	ARG
8	S6	148	SER
8	S6	152	ASP
9	S7	13	PRO
9	S7	87	ASP
9	S7	98	ILE
9	S7	132	PRO
10	S8	59	ARG
11	S9	118	LEU
11	S9	120	LYS
12	C0	86	ILE
13	C1	6	THR
13	C1	55	ASP
13	C1	139	VAL
13	C1	154	ALA
14	C2	21	GLU
14	C2	66	VAL
14	C2	83	GLU
14	C2	112	ALA
14	C2	119	SER
14	C2	131	ASP
15	C3	12	SER
15	C3	27	LYS
16	C4	52	ARG
16	C4	123	SER
17	C5	52	LYS
17	C5	101	ALA
18	C6	16	ALA
19	C7	87	GLU
20	C8	7	GLU
22	D0	118	VAL
23	D1	10	GLU
25	D3	70	LYS
25	D3	114	LYS
26	D4	5	VAL
26	D4	34	ASN
26	D4	36	SER
26	D4	51	GLU
27	D5	69	LEU
28	D6	8	ASN
28	D6	10	ARG
28	D6	61	GLU

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Mol	Chain	Res	Type
28	D6	65	PRO
29	D7	3	LEU
30	D8	14	LYS
33	E1	94	LYS
33	E1	100	LEU
33	E1	102	VAL
33	E1	103	LEU
33	E1	118	ARG
33	E1	138	ARG
33	E1	145	HIS
34	SR	51	ASP
35	SM	174	LEU
39	L2	130	SER
39	L2	246	LEU
39	L2	251	LYS
40	L3	155	ALA
40	L3	300	ARG
40	L3	385	LYS
41	L4	15	ALA
42	L5	58	LYS
44	L7	164	SER
45	L8	36	ILE
45	L8	39	ALA
46	L9	96	HIS
46	L9	120	ASP
48	M1	13	LYS
48	M1	74	PRO
48	M1	88	GLU
48	M1	108	GLU
48	M1	115	LYS
48	M1	117	ASP
48	M1	152	HIS
48	M1	173	ASP
50	M4	28	SER
51	M5	75	VAL
53	M7	160	ALA
53	M7	161	ALA
54	M8	41	ASP
54	M8	162	ALA
56	N0	50	LYS
58	N2	52	ASN
60	N4	69	LYS

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Mol	Chain	Res	Type
60	N4	74	LYS
61	N5	26	VAL
63	N7	35	SER
63	N7	102	GLU
64	N8	96	LYS
64	N8	117	ARG
66	O0	100	ILE
67	O1	84	ASP
69	O3	60	ARG
70	O4	82	ALA
73	O7	84	SER
74	O8	33	LYS
77	Q1	23	ARG
79	Q3	58	SER
2	s0	49	ASN
2	s0	68	PRO
2	s0	191	ARG
4	s2	234	PRO
5	s3	115	ILE
6	s4	66	MET
6	s4	245	LYS
7	s5	152	GLY
8	s6	25	ARG
8	s6	69	LEU
9	s7	67	LEU
9	s7	155	ASP
10	s8	94	ASN
11	s9	167	ALA
12	c0	23	ALA
12	c0	25	LYS
12	c0	82	LEU
13	c1	7	VAL
13	c1	55	ASP
14	c2	103	LEU
14	c2	108	ARG
14	c2	111	ASN
14	c2	119	SER
14	c2	131	ASP
15	c3	29	SER
16	c4	92	LYS
17	c5	50	THR
17	c5	128	HIS

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Mol	Chain	Res	Type
20	c8	18	LEU
20	c8	61	LEU
22	d0	17	GLN
22	d0	53	LYS
28	d6	13	LYS
28	d6	61	GLU
80	e0	54	ARG
80	e0	61	SER
81	e1	81	LYS
81	e1	85	TYR
81	e1	112	GLY
81	e1	128	ALA
34	sR	160	GLU
34	sR	317	THR
35	sM	64	LYS
41	l4	330	TYR
42	l5	72	ASP
42	l5	215	ASP
43	l6	10	TYR
43	l6	171	PRO
44	l7	158	LYS
45	l8	39	ALA
47	m0	78	THR
47	m0	79	VAL
47	m0	101	LYS
47	m0	170	LYS
47	m0	176	LEU
47	m0	193	ASP
47	m0	219	ALA
49	m3	50	PRO
49	m3	76	THR
49	m3	135	ALA
50	m4	135	LEU
51	m5	183	THR
52	m6	186	ALA
53	m7	67	ILE
54	m8	113	LYS
56	n0	139	TYR
57	n1	122	GLN
58	n2	44	GLU
58	n2	91	ASP
60	n4	77	LYS

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Mol	Chain	Res	Type
60	n4	132	GLY
66	o0	41	LEU
67	o1	44	MET
69	o3	88	ASN
71	o5	79	ASP
72	o6	12	ASN
83	p0	33	VAL
2	S0	49	ASN
2	S0	103	THR
2	S0	188	LEU
3	S1	55	LYS
3	S1	82	ARG
3	S1	117	TRP
4	S2	145	GLY
4	S2	150	GLN
4	S2	242	ILE
5	S3	217	ILE
6	S4	12	LEU
6	S4	205	PHE
7	S5	127	GLN
7	S5	206	SER
8	S6	25	ARG
8	S6	146	GLY
9	S7	116	ARG
9	S7	186	PRO
10	S8	10	LYS
10	S8	52	ASN
10	S8	146	ARG
11	S9	168	ARG
14	C2	106	ILE
14	C2	107	ASP
15	C3	31	GLU
16	C4	18	ARG
17	C5	51	SER
17	C5	69	GLU
18	C6	39	VAL
18	C6	41	PRO
21	C9	28	LEU
21	C9	69	LYS
22	D0	119	ALA
26	D4	6	THR
26	D4	58	PHE

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Mol	Chain	Res	Type
26	D4	60	PHE
28	D6	36	ILE
28	D6	97	PRO
30	D8	35	ASP
31	D9	11	PRO
31	D9	12	ARG
33	E1	93	HIS
33	E1	111	GLU
33	E1	148	TYR
34	SR	98	GLU
34	SR	105	GLY
34	SR	270	LEU
35	SM	12	VAL
35	SM	53	ARG
35	SM	82	THR
35	SM	88	ARG
39	L2	14	SER
39	L2	47	GLN
39	L2	127	ALA
40	L3	187	SER
40	L3	262	TRP
41	L4	14	GLU
41	L4	146	PRO
42	L5	185	PHE
43	L6	150	LYS
45	L8	78	PHE
46	L9	2	LYS
46	L9	110	LYS
47	M0	207	GLU
48	M1	114	ILE
52	M6	110	PRO
55	M9	53	LYS
58	N2	11	ILE
58	N2	70	LYS
59	N3	105	PRO
60	N4	77	LYS
63	N7	103	GLN
64	N8	47	LYS
64	N8	56	VAL
64	N8	67	HIS
65	N9	21	ILE
65	N9	25	LYS

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Mol	Chain	Res	Type
72	O6	3	VAL
72	O6	21	THR
76	Q0	79	GLU
79	Q3	51	ALA
2	s0	10	THR
2	s0	14	ALA
2	s0	66	ALA
2	s0	103	THR
2	s0	114	SER
4	s2	107	SER
4	s2	152	HIS
4	s2	235	LEU
4	s2	238	SER
5	s3	221	SER
6	s4	90	ILE
6	s4	171	ASP
6	s4	255	ARG
7	s5	29	ILE
7	s5	55	ASP
9	s7	163	ASP
10	s8	62	THR
11	s9	147	MET
12	c0	3	MET
12	c0	9	ASN
14	c2	58	LEU
14	c2	106	ILE
14	c2	107	ASP
15	c3	22	ALA
15	c3	133	ALA
16	c4	11	SER
16	c4	12	GLN
16	c4	32	ASP
17	c5	8	LYS
17	c5	90	ILE
20	c8	145	ARG
22	d0	43	LYS
22	d0	45	ALA
24	d2	31	SER
27	d5	53	GLU
28	d6	46	GLU
28	d6	59	TYR
30	d8	36	THR

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Mol	Chain	Res	Type
31	d9	11	PRO
80	e0	51	ASN
81	e1	137	ASP
81	e1	145	HIS
34	sR	15	GLY
34	sR	161	LYS
34	sR	281	TYR
35	sM	43	ASP
35	sM	78	ASP
35	sM	168	GLU
39	l2	56	ALA
39	l2	80	GLU
39	l2	247	ARG
40	l3	385	LYS
41	l4	144	LYS
41	l4	338	LYS
44	l7	191	VAL
45	l8	150	LEU
45	l8	196	ALA
45	l8	198	ALA
45	l8	237	ILE
48	m1	117	ASP
49	m3	60	ALA
49	m3	101	ARG
50	m4	3	THR
51	m5	181	ASN
54	m8	98	LYS
55	m9	35	ALA
55	m9	144	GLN
57	n1	121	ALA
57	n1	144	GLU
60	n4	64	THR
60	n4	95	SER
61	n5	38	LEU
63	n7	34	LYS
63	n7	93	LYS
63	n7	103	GLN
63	n7	134	LEU
64	n8	47	LYS
64	n8	120	ASN
65	n9	22	LYS
65	n9	24	PRO

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Mol	Chain	Res	Type
67	o1	45	GLY
67	o1	82	GLU
70	o4	82	ALA
71	o5	84	LYS
71	o5	87	ALA
71	o5	99	GLN
78	q2	33	ALA
3	S1	54	LEU
3	S1	62	LYS
3	S1	116	LYS
3	S1	147	ALA
6	S4	233	LYS
6	S4	245	LYS
7	S5	21	THR
7	S5	64	VAL
7	S5	65	ARG
7	S5	84	LYS
8	S6	69	LEU
8	S6	70	PRO
8	S6	150	GLU
9	S7	36	ALA
9	S7	53	GLY
9	S7	73	VAL
11	S9	147	MET
14	C2	87	PRO
14	C2	108	ARG
14	C2	118	ALA
15	C3	3	ARG
17	C5	80	MET
19	C7	83	GLN
20	C8	142	GLY
20	C8	144	ARG
21	C9	50	ALA
21	C9	51	GLU
22	D0	16	GLN
22	D0	21	LYS
22	D0	51	VAL
23	D1	46	ILE
25	D3	144	ARG
26	D4	4	ALA
27	D5	38	HIS
28	D6	59	TYR

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Mol	Chain	Res	Type
28	D6	62	TYR
28	D6	64	LEU
28	D6	88	SER
29	D7	18	LYS
29	D7	60	SER
29	D7	80	ARG
30	D8	65	ARG
33	E1	83	LYS
34	SR	3	SER
34	SR	22	SER
40	L3	138	ALA
41	L4	107	ARG
41	L4	294	GLU
42	L5	178	ASN
43	L6	147	ALA
44	L7	178	ILE
44	L7	191	VAL
50	M4	10	SER
51	M5	94	TYR
51	M5	146	ALA
53	M7	75	GLU
59	N3	131	SER
72	O6	64	SER
78	Q2	100	LYS
3	s1	22	ASP
4	s2	150	GLN
5	s3	219	ALA
6	s4	168	LYS
7	s5	60	ASP
7	s5	100	ASN
8	s6	165	GLY
9	s7	11	GLN
9	s7	159	VAL
10	s8	27	PHE
10	s8	78	ILE
10	s8	136	SER
12	c0	24	LYS
12	c0	30	ALA
12	c0	35	ILE
12	c0	95	ARG
14	c2	91	VAL
17	c5	52	LYS

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Mol	Chain	Res	Type
18	c6	141	SER
19	c7	86	PRO
20	c8	7	GLU
21	c9	34	VAL
23	d1	10	GLU
25	d3	70	LYS
26	d4	49	LYS
28	d6	16	GLY
28	d6	35	ALA
28	d6	62	TYR
30	d8	62	GLU
34	sR	96	THR
34	sR	217	ASP
34	sR	250	TYR
35	sM	42	ALA
35	sM	166	VAL
35	sM	171	LYS
39	l2	24	GLN
39	l2	143	GLU
40	l3	386	ASP
41	l4	258	LEU
41	l4	328	ASN
42	l5	44	TYR
42	l5	286	VAL
43	l6	97	ASN
46	l9	31	ARG
47	m0	3	ARG
47	m0	100	ASN
48	m1	114	ILE
49	m3	130	GLY
51	m5	68	ARG
57	n1	55	LYS
60	n4	83	THR
61	n5	39	LYS
62	n6	64	LYS
64	n8	17	ALA
64	n8	28	HIS
64	n8	129	PHE
65	n9	37	PRO
67	o1	46	THR
67	o1	97	LEU
73	o7	85	LYS

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Mol	Chain	Res	Type
3	S1	210	ILE
4	S2	36	VAL
4	S2	182	PRO
4	S2	248	SER
6	S4	73	ASP
6	S4	193	GLY
7	S5	79	ASN
13	C1	113	PRO
16	C4	127	ARG
17	C5	25	LEU
25	D3	110	LYS
34	SR	113	VAL
35	SM	17	VAL
40	L3	317	ILE
47	M0	91	VAL
49	M3	46	ILE
49	M3	146	PRO
50	M4	6	ILE
57	N1	18	ASP
57	N1	120	LYS
65	N9	44	LYS
67	O1	7	VAL
4	s2	164	SER
5	s3	180	GLY
6	s4	30	ARG
7	s5	21	THR
8	s6	70	PRO
9	s7	112	ARG
10	s8	100	ALA
11	s9	5	PRO
11	s9	168	ARG
14	c2	87	PRO
17	c5	71	GLU
26	d4	68	LYS
26	d4	123	LYS
81	e1	131	PHE
81	e1	146	SER
81	e1	148	TYR
35	sM	52	PRO
40	l3	142	ALA
41	l4	146	PRO
41	l4	190	GLY

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Mol	Chain	Res	Type
42	l5	125	VAL
42	l5	178	ASN
42	l5	266	ALA
46	l9	62	ARG
46	l9	167	VAL
48	m1	111	ASP
52	m6	4	GLU
60	n4	98	PRO
60	n4	134	GLN
63	n7	85	TYR
69	o3	91	ALA
78	q2	78	LYS
11	S9	169	PRO
16	C4	75	GLY
26	D4	35	VAL
35	SM	172	VAL
50	M4	36	VAL
2	s0	194	PRO
4	s2	83	ILE
6	s4	152	PRO
12	c0	96	ASN
18	c6	4	VAL
18	c6	39	VAL
30	d8	20	GLY
35	sM	172	VAL
67	o1	64	VAL
68	o2	122	PRO
83	p0	47	GLY
2	S0	64	ILE
2	S0	161	PRO
3	S1	226	GLY
4	S2	235	LEU
9	S7	63	PRO
11	S9	162	SER
14	C2	22	VAL
22	D0	110	PRO
24	D2	48	GLY
35	SM	20	LEU
39	L2	141	PRO
40	L3	141	GLY
45	L8	163	VAL
17	c5	75	PRO

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Mol	Chain	Res	Type
28	d6	58	VAL
28	d6	60	PRO
66	o0	10	ILE
2	S0	111	ILE
2	S0	117	GLU
3	S1	193	ILE
6	S4	228	ILE
7	S5	150	GLY
41	L4	223	PRO
43	L6	149	ILE
15	c3	65	VAL
21	c9	3	GLY
80	e0	27	PRO
44	l7	178	ILE
47	m0	47	PRO
12	C0	11	ILE
13	C1	140	VAL
25	D3	8	GLY
28	D6	18	VAL
45	L8	30	THR
62	N6	45	ILE
65	N9	20	GLY
22	d0	96	PRO
81	e1	124	PRO
55	m9	17	VAL
58	n2	45	GLY
71	o5	3	GLY
3	S1	197	ILE
18	C6	40	GLU
30	D8	20	GLY
34	SR	146	GLY
12	c0	4	PRO
14	c2	82	PRO
40	l3	141	GLY

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%)	138 (84%)	26 (16%)	3	15
2	s0	165/209 (79%)	130 (79%)	35 (21%)	1	6
3	S1	191/223 (86%)	152 (80%)	39 (20%)	1	7
3	s1	192/223 (86%)	156 (81%)	36 (19%)	2	10
4	S2	176/204 (86%)	143 (81%)	33 (19%)	2	10
4	s2	176/204 (86%)	131 (74%)	45 (26%)	0	3
5	S3	182/194 (94%)	138 (76%)	44 (24%)	1	4
5	s3	182/194 (94%)	149 (82%)	33 (18%)	2	11
6	S4	221/221 (100%)	181 (82%)	40 (18%)	2	11
6	s4	221/221 (100%)	184 (83%)	37 (17%)	3	13
7	S5	173/190 (91%)	145 (84%)	28 (16%)	3	14
7	s5	173/190 (91%)	137 (79%)	36 (21%)	1	7
8	S6	188/201 (94%)	156 (83%)	32 (17%)	2	13
8	s6	187/201 (93%)	151 (81%)	36 (19%)	2	9
9	S7	165/169 (98%)	137 (83%)	28 (17%)	2	13
9	s7	165/169 (98%)	139 (84%)	26 (16%)	3	15
10	S8	150/161 (93%)	127 (85%)	23 (15%)	3	16
10	s8	150/161 (93%)	126 (84%)	24 (16%)	3	15
11	S9	158/165 (96%)	125 (79%)	33 (21%)	1	7
11	s9	158/165 (96%)	128 (81%)	30 (19%)	2	10
12	C0	77/98 (79%)	65 (84%)	12 (16%)	3	16
12	c0	73/98 (74%)	61 (84%)	12 (16%)	3	14
13	C1	129/136 (95%)	105 (81%)	24 (19%)	2	10
13	c1	129/136 (95%)	109 (84%)	20 (16%)	3	16
14	C2	88/118 (75%)	68 (77%)	20 (23%)	1	5
14	c2	88/118 (75%)	64 (73%)	24 (27%)	0	2
15	C3	127/127 (100%)	106 (84%)	21 (16%)	3	13
15	c3	127/127 (100%)	106 (84%)	21 (16%)	3	13
16	C4	81/104 (78%)	57 (70%)	24 (30%)	0	2
16	c4	97/104 (93%)	81 (84%)	16 (16%)	3	13
17	C5	101/117 (86%)	84 (83%)	17 (17%)	2	13
17	c5	103/117 (88%)	81 (79%)	22 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	C6	117/118 (99%)	90 (77%)	27 (23%)	1	5
18	c6	118/118 (100%)	99 (84%)	19 (16%)	3	14
19	C7	94/124 (76%)	73 (78%)	21 (22%)	1	5
19	c7	92/124 (74%)	69 (75%)	23 (25%)	1	3
20	C8	128/128 (100%)	101 (79%)	27 (21%)	1	6
20	c8	128/128 (100%)	104 (81%)	24 (19%)	2	10
21	C9	115/115 (100%)	89 (77%)	26 (23%)	1	5
21	c9	115/115 (100%)	94 (82%)	21 (18%)	2	11
22	D0	100/113 (88%)	76 (76%)	24 (24%)	1	4
22	d0	103/113 (91%)	81 (79%)	22 (21%)	1	6
23	D1	74/74 (100%)	54 (73%)	20 (27%)	0	3
23	d1	74/74 (100%)	59 (80%)	15 (20%)	1	7
24	D2	110/110 (100%)	85 (77%)	25 (23%)	1	5
24	d2	110/110 (100%)	98 (89%)	12 (11%)	8	30
25	D3	119/119 (100%)	97 (82%)	22 (18%)	2	10
25	d3	119/119 (100%)	96 (81%)	23 (19%)	2	9
26	D4	112/112 (100%)	95 (85%)	17 (15%)	3	16
26	d4	112/112 (100%)	97 (87%)	15 (13%)	5	21
27	D5	61/88 (69%)	47 (77%)	14 (23%)	1	5
27	d5	61/88 (69%)	50 (82%)	11 (18%)	2	11
28	D6	83/83 (100%)	70 (84%)	13 (16%)	3	15
28	d6	83/83 (100%)	72 (87%)	11 (13%)	5	21
29	D7	70/70 (100%)	56 (80%)	14 (20%)	1	8
29	d7	70/70 (100%)	58 (83%)	12 (17%)	2	12
30	D8	56/59 (95%)	42 (75%)	14 (25%)	1	3
30	d8	56/59 (95%)	44 (79%)	12 (21%)	1	6
31	D9	47/48 (98%)	40 (85%)	7 (15%)	4	17
31	d9	47/48 (98%)	39 (83%)	8 (17%)	2	13
32	E0	51/51 (100%)	44 (86%)	7 (14%)	4	20
33	E1	62/66 (94%)	47 (76%)	15 (24%)	1	4
34	SR	260/261 (100%)	230 (88%)	30 (12%)	7	28

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	sR	260/261 (100%)	233 (90%)	27 (10%)	9	32
35	SM	97/228 (42%)	78 (80%)	19 (20%)	1	9
35	sM	54/228 (24%)	43 (80%)	11 (20%)	1	7
39	L2	193/195 (99%)	152 (79%)	41 (21%)	1	6
39	l2	192/195 (98%)	153 (80%)	39 (20%)	1	7
40	L3	321/322 (100%)	248 (77%)	73 (23%)	1	5
40	l3	320/322 (99%)	259 (81%)	61 (19%)	2	10
41	L4	288/288 (100%)	242 (84%)	46 (16%)	3	15
41	l4	288/288 (100%)	231 (80%)	57 (20%)	1	8
42	L5	244/244 (100%)	196 (80%)	48 (20%)	1	9
42	l5	243/244 (100%)	192 (79%)	51 (21%)	1	7
43	L6	134/152 (88%)	116 (87%)	18 (13%)	5	21
43	l6	135/152 (89%)	113 (84%)	22 (16%)	3	14
44	L7	186/204 (91%)	163 (88%)	23 (12%)	6	24
44	l7	187/204 (92%)	157 (84%)	30 (16%)	3	15
45	L8	187/207 (90%)	153 (82%)	34 (18%)	2	11
45	l8	177/207 (86%)	141 (80%)	36 (20%)	1	7
46	L9	171/171 (100%)	137 (80%)	34 (20%)	1	8
46	l9	171/171 (100%)	138 (81%)	33 (19%)	2	9
47	M0	177/186 (95%)	139 (78%)	38 (22%)	1	6
47	m0	179/186 (96%)	149 (83%)	30 (17%)	2	13
48	M1	147/150 (98%)	122 (83%)	25 (17%)	2	13
48	m1	147/150 (98%)	118 (80%)	29 (20%)	1	9
49	M3	154/158 (98%)	129 (84%)	25 (16%)	3	14
49	m3	154/158 (98%)	134 (87%)	20 (13%)	5	22
50	M4	107/108 (99%)	89 (83%)	18 (17%)	2	13
50	m4	108/108 (100%)	88 (82%)	20 (18%)	2	10
51	M5	175/175 (100%)	147 (84%)	28 (16%)	3	15
51	m5	175/175 (100%)	150 (86%)	25 (14%)	4	19
52	M6	160/161 (99%)	133 (83%)	27 (17%)	2	13
52	m6	160/161 (99%)	125 (78%)	35 (22%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
53	M7	140/145 (97%)	112 (80%)	28 (20%)	1	8
53	m7	125/145 (86%)	104 (83%)	21 (17%)	2	13
54	M8	150/150 (100%)	124 (83%)	26 (17%)	2	12
54	m8	150/150 (100%)	125 (83%)	25 (17%)	3	13
55	M9	153/153 (100%)	128 (84%)	25 (16%)	3	14
55	m9	153/153 (100%)	128 (84%)	25 (16%)	3	14
56	N0	156/156 (100%)	125 (80%)	31 (20%)	1	8
56	n0	156/156 (100%)	120 (77%)	36 (23%)	1	5
57	N1	136/136 (100%)	109 (80%)	27 (20%)	1	8
57	n1	136/136 (100%)	107 (79%)	29 (21%)	1	6
58	N2	87/106 (82%)	76 (87%)	11 (13%)	5	24
58	n2	85/106 (80%)	72 (85%)	13 (15%)	3	16
59	N3	104/104 (100%)	84 (81%)	20 (19%)	2	10
59	n3	104/104 (100%)	89 (86%)	15 (14%)	4	18
60	N4	57/129 (44%)	50 (88%)	7 (12%)	6	25
60	n4	100/129 (78%)	84 (84%)	16 (16%)	3	15
61	N5	104/117 (89%)	81 (78%)	23 (22%)	1	5
61	n5	104/117 (89%)	81 (78%)	23 (22%)	1	5
62	N6	109/109 (100%)	86 (79%)	23 (21%)	1	6
62	n6	109/109 (100%)	80 (73%)	29 (27%)	0	3
63	N7	115/115 (100%)	93 (81%)	22 (19%)	2	10
63	n7	115/115 (100%)	88 (76%)	27 (24%)	1	4
64	N8	118/118 (100%)	98 (83%)	20 (17%)	2	13
64	n8	118/118 (100%)	92 (78%)	26 (22%)	1	6
65	N9	46/46 (100%)	37 (80%)	9 (20%)	1	9
65	n9	46/46 (100%)	37 (80%)	9 (20%)	1	9
66	O0	81/87 (93%)	69 (85%)	12 (15%)	4	17
66	o0	84/87 (97%)	67 (80%)	17 (20%)	1	8
67	O1	92/96 (96%)	74 (80%)	18 (20%)	1	9
67	o1	94/96 (98%)	74 (79%)	20 (21%)	1	6
68	O2	109/110 (99%)	87 (80%)	22 (20%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
68	o2	109/110 (99%)	86 (79%)	23 (21%)	1	6
69	O3	90/90 (100%)	77 (86%)	13 (14%)	4	18
69	o3	90/90 (100%)	76 (84%)	14 (16%)	3	16
70	O4	95/101 (94%)	79 (83%)	16 (17%)	2	13
70	o4	95/101 (94%)	79 (83%)	16 (17%)	2	13
71	O5	104/104 (100%)	78 (75%)	26 (25%)	1	3
71	o5	103/104 (99%)	84 (82%)	19 (18%)	2	10
72	O6	81/81 (100%)	64 (79%)	17 (21%)	1	7
72	o6	80/81 (99%)	55 (69%)	25 (31%)	0	2
73	O7	70/70 (100%)	57 (81%)	13 (19%)	2	10
73	o7	70/70 (100%)	56 (80%)	14 (20%)	1	8
74	O8	68/68 (100%)	53 (78%)	15 (22%)	1	5
74	o8	67/68 (98%)	53 (79%)	14 (21%)	1	7
75	O9	45/45 (100%)	36 (80%)	9 (20%)	1	8
75	o9	45/45 (100%)	35 (78%)	10 (22%)	1	5
76	Q0	47/47 (100%)	39 (83%)	8 (17%)	2	13
76	q0	47/47 (100%)	35 (74%)	12 (26%)	1	3
77	Q1	23/23 (100%)	16 (70%)	7 (30%)	0	2
77	q1	23/23 (100%)	15 (65%)	8 (35%)	0	1
78	Q2	90/90 (100%)	71 (79%)	19 (21%)	1	6
78	q2	90/90 (100%)	69 (77%)	21 (23%)	1	4
79	Q3	71/71 (100%)	57 (80%)	14 (20%)	1	9
79	q3	71/71 (100%)	61 (86%)	10 (14%)	4	19
80	e0	53/53 (100%)	40 (76%)	13 (24%)	1	4
81	e1	66/66 (100%)	52 (79%)	14 (21%)	1	6
83	p0	105/253 (42%)	88 (84%)	17 (16%)	3	14
All	All	18729/20239 (92%)	15216 (81%)	3513 (19%)	2	10

All (3513) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	28	ASN
2	S0	32	HIS

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Mol	Chain	Res	Type
2	S0	37	VAL
2	S0	50	VAL
2	S0	52	LYS
2	S0	62	ARG
2	S0	84	ARG
2	S0	86	VAL
2	S0	88	LYS
2	S0	96	THR
2	S0	101	ARG
2	S0	108	THR
2	S0	110	TYR
2	S0	111	ILE
2	S0	112	THR
2	S0	119	ARG
2	S0	140	ASN
2	S0	156	VAL
2	S0	157	ASP
2	S0	172	LEU
2	S0	177	LEU
2	S0	184	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	196	SER
2	S0	200	ASP
3	S1	21	VAL
3	S1	25	THR
3	S1	29	TRP
3	S1	31	ASP
3	S1	39	GLU
3	S1	42	ASN
3	S1	46	THR
3	S1	61	LEU
3	S1	68	VAL
3	S1	70	LEU
3	S1	81	PHE
3	S1	85	LYS
3	S1	89	ASP
3	S1	97	LEU
3	S1	104	ASP
3	S1	105	PHE
3	S1	108	ASP
3	S1	110	LEU

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Mol	Chain	Res	Type
3	S1	111	ARG
3	S1	117	TRP
3	S1	125	VAL
3	S1	129	THR
3	S1	135	LEU
3	S1	137	ILE
3	S1	144	ARG
3	S1	154	SER
3	S1	177	GLN
3	S1	181	LEU
3	S1	184	LEU
3	S1	198	GLU
3	S1	202	LYS
3	S1	212	VAL
3	S1	214	LYS
3	S1	215	VAL
3	S1	218	LEU
3	S1	219	LYS
3	S1	220	GLN
3	S1	223	PHE
3	S1	231	LEU
4	S2	53	ILE
4	S2	58	LEU
4	S2	60	SER
4	S2	64	LYS
4	S2	69	ILE
4	S2	77	GLN
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	111	VAL
4	S2	117	THR
4	S2	134	LEU
4	S2	137	ILE
4	S2	139	ILE
4	S2	141	ARG
4	S2	146	THR
4	S2	148	LEU
4	S2	166	THR

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Mol	Chain	Res	Type
4	S2	174	ARG
4	S2	189	GLN
4	S2	207	LEU
4	S2	208	GLU
4	S2	221	THR
4	S2	225	LEU
4	S2	226	THR
4	S2	235	LEU
4	S2	240	LEU
4	S2	245	ASP
4	S2	246	GLU
4	S2	250	GLN
5	S3	4	LEU
5	S3	6	SER
5	S3	7	LYS
5	S3	9	ARG
5	S3	21	LEU
5	S3	23	GLU
5	S3	39	VAL
5	S3	41	VAL
5	S3	59	LEU
5	S3	62	ASN
5	S3	65	ARG
5	S3	70	THR
5	S3	76	ARG
5	S3	84	ILE
5	S3	90	ARG
5	S3	92	GLN
5	S3	93	ASP
5	S3	99	VAL
5	S3	120	TYR
5	S3	122	VAL
5	S3	124	ARG
5	S3	127	MET
5	S3	134	CYS
5	S3	135	GLU
5	S3	142	LEU
5	S3	143	ARG
5	S3	146	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	172	THR

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Mol	Chain	Res	Type
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	181	VAL
5	S3	182	LEU
5	S3	190	ARG
5	S3	207	THR
5	S3	210	GLU
5	S3	214	GLU
5	S3	215	GLU
5	S3	217	ILE
5	S3	222	VAL
5	S3	223	LYS
5	S3	224	ASP
6	S4	6	LYS
6	S4	7	LYS
6	S4	8	HIS
6	S4	9	LEU
6	S4	23	LEU
6	S4	38	LEU
6	S4	45	ILE
6	S4	48	LEU
6	S4	54	TYR
6	S4	62	LYS
6	S4	65	LEU
6	S4	68	ARG
6	S4	77	ARG
6	S4	81	THR
6	S4	92	LEU
6	S4	95	THR
6	S4	96	ASN
6	S4	116	ASP
6	S4	117	GLU
6	S4	123	LEU
6	S4	131	LEU
6	S4	155	LYS
6	S4	160	VAL
6	S4	180	LEU
6	S4	182	TYR
6	S4	187	ARG
6	S4	197	HIS
6	S4	198	LYS

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Mol	Chain	Res	Type
6	S4	211	LYS
6	S4	215	ASP
6	S4	220	THR
6	S4	221	ARG
6	S4	226	PHE
6	S4	227	VAL
6	S4	234	PRO
6	S4	242	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	258	GLN
6	S4	259	GLN
7	S5	25	LEU
7	S5	27	THR
7	S5	38	THR
7	S5	39	GLU
7	S5	41	LYS
7	S5	43	PHE
7	S5	45	LYS
7	S5	53	VAL
7	S5	65	ARG
7	S5	66	GLN
7	S5	76	ARG
7	S5	79	ASN
7	S5	84	LYS
7	S5	93	LEU
7	S5	97	LEU
7	S5	99	MET
7	S5	104	ASN
7	S5	112	ARG
7	S5	139	ASN
7	S5	147	THR
7	S5	156	ARG
7	S5	157	ARG
7	S5	162	VAL
7	S5	166	ARG
7	S5	186	ASN
7	S5	194	LEU
7	S5	206	SER
7	S5	225	ARG
8	S6	5	ILE
8	S6	6	SER

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Mol	Chain	Res	Type
8	S6	7	TYR
8	S6	13	GLN
8	S6	25	ARG
8	S6	30	LYS
8	S6	58	LYS
8	S6	63	MET
8	S6	67	VAL
8	S6	68	LEU
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	81	VAL
8	S6	82	SER
8	S6	89	ASP
8	S6	93	LYS
8	S6	94	ARG
8	S6	98	ARG
8	S6	109	LEU
8	S6	115	LYS
8	S6	126	ASP
8	S6	127	THR
8	S6	128	THR
8	S6	132	ARG
8	S6	133	LEU
8	S6	150	GLU
8	S6	151	ASP
8	S6	158	ILE
8	S6	175	ILE
8	S6	177	ARG
8	S6	211	LEU
9	S7	15	GLU
9	S7	24	PHE
9	S7	37	GLU
9	S7	42	GLN
9	S7	46	ILE
9	S7	50	ASP
9	S7	51	VAL
9	S7	60	ILE
9	S7	67	LEU
9	S7	70	PHE
9	S7	85	PHE
9	S7	87	ASP

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Mol	Chain	Res	Type
9	S7	97	ARG
9	S7	104	ARG
9	S7	105	THR
9	S7	114	ARG
9	S7	116	ARG
9	S7	126	LEU
9	S7	129	LEU
9	S7	130	VAL
9	S7	134	GLU
9	S7	144	VAL
9	S7	147	ASN
9	S7	154	LEU
9	S7	163	ASP
9	S7	167	GLU
9	S7	182	VAL
9	S7	185	ILE
10	S8	5	ARG
10	S8	7	SER
10	S8	8	ARG
10	S8	21	PHE
10	S8	22	ARG
10	S8	29	LEU
10	S8	36	THR
10	S8	56	ARG
10	S8	58	LEU
10	S8	60	ILE
10	S8	62	THR
10	S8	66	SER
10	S8	73	SER
10	S8	76	THR
10	S8	81	VAL
10	S8	102	VAL
10	S8	103	GLN
10	S8	107	THR
10	S8	120	THR
10	S8	123	LYS
10	S8	152	ILE
10	S8	161	SER
10	S8	196	LEU
11	S9	3	ARG
11	S9	6	ARG
11	S9	7	THR

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Mol	Chain	Res	Type
11	S9	14	THR
11	S9	22	SER
11	S9	28	LEU
11	S9	40	LYS
11	S9	46	SER
11	S9	49	LEU
11	S9	54	ARG
11	S9	60	LEU
11	S9	61	THR
11	S9	67	PRO
11	S9	82	ARG
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	101	VAL
11	S9	105	LEU
11	S9	113	VAL
11	S9	115	LYS
11	S9	121	SER
11	S9	122	VAL
11	S9	134	ILE
11	S9	138	LYS
11	S9	149	ARG
11	S9	150	LEU
11	S9	151	ASP
11	S9	162	SER
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	182	GLU
12	C0	1	MET
12	C0	7	ASP
12	C0	8	ARG
12	C0	12	HIS
12	C0	20	VAL
12	C0	27	PHE
12	C0	55	VAL
12	C0	56	LYS
12	C0	71	GLU
12	C0	76	LEU
12	C0	81	ASN
12	C0	82	LEU

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Mol	Chain	Res	Type
13	C1	7	VAL
13	C1	21	ASN
13	C1	29	LYS
13	C1	31	THR
13	C1	40	LEU
13	C1	44	THR
13	C1	63	LEU
13	C1	64	VAL
13	C1	67	ARG
13	C1	69	LYS
13	C1	79	LYS
13	C1	80	MET
13	C1	88	ARG
13	C1	91	LEU
13	C1	94	ILE
13	C1	99	ARG
13	C1	109	VAL
13	C1	112	SER
13	C1	117	VAL
13	C1	118	GLN
13	C1	127	GLN
13	C1	136	ARG
13	C1	138	ASN
13	C1	140	VAL
14	C2	28	LEU
14	C2	36	LEU
14	C2	41	LEU
14	C2	43	ARG
14	C2	46	ARG
14	C2	50	LYS
14	C2	52	LEU
14	C2	59	LEU
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	86	VAL
14	C2	89	ILE
14	C2	103	LEU
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU
14	C2	133	LEU

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Mol	Chain	Res	Type
14	C2	139	HIS
14	C2	140	PHE
15	C3	3	ARG
15	C3	4	MET
15	C3	6	SER
15	C3	9	LYS
15	C3	11	ILE
15	C3	16	ILE
15	C3	27	LYS
15	C3	39	LYS
15	C3	45	LEU
15	C3	53	LEU
15	C3	56	ASP
15	C3	64	ARG
15	C3	66	ILE
15	C3	76	LYS
15	C3	80	LEU
15	C3	94	LYS
15	C3	102	LEU
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	149	LEU
16	C4	13	VAL
16	C4	20	TYR
16	C4	29	HIS
16	C4	30	VAL
16	C4	31	THR
16	C4	38	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	48	VAL
16	C4	53	ASP
16	C4	56	SER
16	C4	76	ILE
16	C4	79	VAL
16	C4	84	ARG
16	C4	92	LYS
16	C4	103	ARG
16	C4	108	SER
16	C4	118	VAL
16	C4	123	SER

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Mol	Chain	Res	Type
16	C4	124	ASP
16	C4	125	SER
16	C4	129	LYS
16	C4	136	ARG
16	C4	137	LEU
17	C5	11	VAL
17	C5	18	ARG
17	C5	20	VAL
17	C5	22	LEU
17	C5	34	VAL
17	C5	36	LEU
17	C5	43	ARG
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	60	LEU
17	C5	107	ILE
17	C5	110	GLU
17	C5	121	ILE
17	C5	124	THR
17	C5	125	PRO
17	C5	130	ARG
18	C6	14	LYS
18	C6	15	SER
18	C6	17	THR
18	C6	28	LEU
18	C6	32	ASN
18	C6	39	VAL
18	C6	45	ARG
18	C6	47	LYS
18	C6	48	VAL
18	C6	54	LEU
18	C6	57	LEU
18	C6	65	ILE
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	98	ASP
18	C6	101	SER
18	C6	104	GLU
18	C6	114	ARG
18	C6	117	LEU

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Mol	Chain	Res	Type
18	C6	118	ILE
18	C6	123	ARG
18	C6	127	LYS
18	C6	128	LYS
18	C6	136	SER
18	C6	137	ARG
18	C6	143	ARG
19	C7	5	ARG
19	C7	18	GLU
19	C7	26	LEU
19	C7	34	LEU
19	C7	36	ASP
19	C7	38	ILE
19	C7	40	THR
19	C7	46	LEU
19	C7	49	LYS
19	C7	54	THR
19	C7	62	GLN
19	C7	69	ILE
19	C7	72	LYS
19	C7	82	ASP
19	C7	83	GLN
19	C7	88	VAL
19	C7	105	GLN
19	C7	111	LYS
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	8	GLN
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	40	ARG
20	C8	46	VAL
20	C8	54	LEU
20	C8	61	LEU

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Mol	Chain	Res	Type
20	C8	77	THR
20	C8	80	LYS
20	C8	85	PHE
20	C8	92	ILE
20	C8	93	THR
20	C8	107	SER
20	C8	108	LYS
20	C8	116	LEU
20	C8	132	ARG
20	C8	136	GLN
20	C8	138	THR
20	C8	140	THR
20	C8	143	ARG
21	C9	22	LEU
21	C9	27	LYS
21	C9	28	LEU
21	C9	33	TYR
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	38	LYS
21	C9	41	SER
21	C9	48	GLN
21	C9	57	ARG
21	C9	60	SER
21	C9	63	ARG
21	C9	67	MET
21	C9	68	ARG
21	C9	70	GLN
21	C9	88	VAL
21	C9	94	ILE
21	C9	116	ILE
21	C9	122	ARG
21	C9	124	ILE
21	C9	130	ARG
21	C9	131	ASP
21	C9	133	ASP
21	C9	139	THR
21	C9	144	GLU
22	D0	15	GLN
22	D0	22	ILE
22	D0	23	ARG

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Mol	Chain	Res	Type
22	D0	27	THR
22	D0	30	LYS
22	D0	39	SER
22	D0	47	GLN
22	D0	50	LEU
22	D0	57	ARG
22	D0	58	LEU
22	D0	60	THR
22	D0	61	LYS
22	D0	66	SER
22	D0	70	THR
22	D0	74	GLU
22	D0	76	SER
22	D0	77	LYS
22	D0	81	THR
22	D0	83	GLU
22	D0	88	LYS
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	117	VAL
23	D1	3	ASN
23	D1	5	LYS
23	D1	7	GLN
23	D1	8	LEU
23	D1	9	VAL
23	D1	11	LEU
23	D1	16	LYS
23	D1	36	VAL
23	D1	41	GLU
23	D1	49	GLU
23	D1	50	TYR
23	D1	52	THR
23	D1	61	SER
23	D1	62	ARG
23	D1	68	SER
23	D1	69	LEU
23	D1	75	ASN
23	D1	76	ASP
23	D1	80	LYS
23	D1	82	VAL
24	D2	3	ARG

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Mol	Chain	Res	Type
24	D2	7	LEU
24	D2	12	ASN
24	D2	22	LYS
24	D2	24	GLN
24	D2	25	VAL
24	D2	26	LEU
24	D2	27	ILE
24	D2	29	PRO
24	D2	42	GLN
24	D2	53	ILE
24	D2	65	LEU
24	D2	66	ASN
24	D2	70	ASN
24	D2	74	VAL
24	D2	81	VAL
24	D2	93	LEU
24	D2	97	ARG
24	D2	98	GLN
24	D2	103	ILE
24	D2	105	THR
24	D2	110	ILE
24	D2	121	VAL
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	28	ASN
25	D3	31	LYS
25	D3	36	THR
25	D3	40	SER
25	D3	47	SER
25	D3	82	LYS
25	D3	84	THR
25	D3	101	GLU
25	D3	103	LEU
25	D3	107	PHE
25	D3	110	LYS
25	D3	114	LYS
25	D3	128	SER

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Mol	Chain	Res	Type
25	D3	132	LEU
25	D3	138	GLU
25	D3	140	LYS
25	D3	144	ARG
26	D4	17	LEU
26	D4	21	LYS
26	D4	28	LEU
26	D4	32	ARG
26	D4	34	ASN
26	D4	51	GLU
26	D4	52	LYS
26	D4	57	VAL
26	D4	61	ARG
26	D4	62	THR
26	D4	81	GLU
26	D4	99	LYS
26	D4	101	GLU
26	D4	102	LYS
26	D4	124	ARG
26	D4	127	LYS
26	D4	133	ASN
27	D5	42	LEU
27	D5	50	ILE
27	D5	58	ARG
27	D5	62	VAL
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	78	ILE
27	D5	85	LYS
27	D5	92	ILE
27	D5	93	SER
27	D5	95	HIS
27	D5	96	SER
27	D5	97	LYS
28	D6	30	ILE
28	D6	38	ARG
28	D6	44	ILE
28	D6	45	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	69	ASN

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Mol	Chain	Res	Type
28	D6	70	LYS
28	D6	82	ARG
28	D6	83	ILE
28	D6	85	ARG
28	D6	88	SER
28	D6	90	GLU
29	D7	3	LEU
29	D7	4	VAL
29	D7	17	ARG
29	D7	26	GLN
29	D7	29	ARG
29	D7	33	LEU
29	D7	34	ASP
29	D7	42	ASN
29	D7	43	ILE
29	D7	44	THR
29	D7	55	THR
29	D7	63	LEU
29	D7	65	THR
29	D7	79	PHE
30	D8	12	VAL
30	D8	13	ILE
30	D8	15	VAL
30	D8	19	THR
30	D8	33	LEU
30	D8	36	THR
30	D8	44	VAL
30	D8	49	ARG
30	D8	57	MET
30	D8	58	GLU
30	D8	59	SER
30	D8	61	ARG
30	D8	64	ARG
30	D8	65	ARG
31	D9	7	TRP
31	D9	11	PRO
31	D9	19	ARG
31	D9	30	LEU
31	D9	32	ARG
31	D9	36	LEU
31	D9	56	ARG
32	E0	24	THR

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Mol	Chain	Res	Type
32	E0	28	LYS
32	E0	29	LYS
32	E0	41	THR
32	E0	42	ARG
32	E0	47	VAL
32	E0	56	MET
33	E1	84	VAL
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	94	LYS
33	E1	97	LYS
33	E1	98	VAL
33	E1	108	VAL
33	E1	109	ASP
33	E1	113	LYS
33	E1	118	ARG
33	E1	120	GLU
33	E1	137	ASP
33	E1	138	ARG
33	E1	151	ASN
34	SR	6	VAL
34	SR	22	SER
34	SR	29	GLN
34	SR	52	GLN
34	SR	59	ARG
34	SR	76	ASP
34	SR	88	THR
34	SR	91	LEU
34	SR	96	THR
34	SR	117	LYS
34	SR	136	ILE
34	SR	141	LEU
34	SR	149	ASP
34	SR	152	SER
34	SR	153	GLN
34	SR	154	VAL
34	SR	163	ASP
34	SR	165	ASP
34	SR	185	GLN
34	SR	188	ILE
34	SR	199	ILE

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Mol	Chain	Res	Type
34	SR	200	ASN
34	SR	201	THR
34	SR	231	MET
34	SR	238	ASP
34	SR	265	LEU
34	SR	277	GLU
34	SR	300	THR
34	SR	312	VAL
34	SR	317	THR
35	SM	27	LYS
35	SM	28	SER
35	SM	45	SER
35	SM	51	ARG
35	SM	53	ARG
35	SM	61	ILE
35	SM	65	THR
35	SM	69	ARG
35	SM	74	LYS
35	SM	84	LYS
35	SM	89	ARG
35	SM	94	HIS
35	SM	97	THR
35	SM	100	THR
35	SM	103	LYS
35	SM	115	LYS
35	SM	116	GLU
35	SM	130	GLU
35	SM	131	ILE
39	L2	10	LYS
39	L2	17	THR
39	L2	18	SER
39	L2	20	THR
39	L2	23	ARG
39	L2	32	LEU
39	L2	44	ILE
39	L2	45	VAL
39	L2	52	SER
39	L2	71	LEU
39	L2	74	GLU
39	L2	88	ILE
39	L2	95	SER
39	L2	96	LEU

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Mol	Chain	Res	Type
39	L2	101	VAL
39	L2	104	LEU
39	L2	116	VAL
39	L2	134	VAL
39	L2	137	ILE
39	L2	141	PRO
39	L2	143	GLU
39	L2	158	ILE
39	L2	165	VAL
39	L2	168	VAL
39	L2	169	ILE
39	L2	177	LYS
39	L2	179	LEU
39	L2	180	LEU
39	L2	181	LYS
39	L2	190	ARG
39	L2	191	LEU
39	L2	193	ARG
39	L2	202	VAL
39	L2	204	MET
39	L2	207	VAL
39	L2	225	ILE
39	L2	227	ARG
39	L2	230	VAL
39	L2	241	ARG
39	L2	242	ARG
39	L2	247	ARG
40	L3	7	GLU
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	20	LYS
40	L3	21	ARG
40	L3	25	ILE
40	L3	30	LYS
40	L3	37	ARG
40	L3	47	LEU
40	L3	50	LYS
40	L3	55	THR
40	L3	56	ILE
40	L3	70	ARG
40	L3	79	VAL

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Mol	Chain	Res	Type
40	L3	84	VAL
40	L3	85	VAL
40	L3	100	ARG
40	L3	103	THR
40	L3	104	THR
40	L3	114	VAL
40	L3	115	LYS
40	L3	116	ARG
40	L3	120	LYS
40	L3	134	SER
40	L3	139	GLN
40	L3	146	ARG
40	L3	148	LEU
40	L3	150	ARG
40	L3	156	SER
40	L3	162	VAL
40	L3	167	ARG
40	L3	169	THR
40	L3	178	LEU
40	L3	188	ILE
40	L3	189	SER
40	L3	192	VAL
40	L3	196	ARG
40	L3	202	THR
40	L3	205	VAL
40	L3	206	ASP
40	L3	210	GLU
40	L3	211	GLN
40	L3	222	LYS
40	L3	229	VAL
40	L3	232	ARG
40	L3	235	THR
40	L3	238	LEU
40	L3	241	LYS
40	L3	242	THR
40	L3	244	ARG
40	L3	252	ILE
40	L3	284	ARG
40	L3	287	LYS
40	L3	296	THR
40	L3	300	ARG
40	L3	304	THR

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Mol	Chain	Res	Type
40	L3	305	ILE
40	L3	308	MET
40	L3	320	ASP
40	L3	324	VAL
40	L3	328	ILE
40	L3	332	ARG
40	L3	337	THR
40	L3	338	LEU
40	L3	348	ARG
40	L3	353	GLU
40	L3	355	SER
40	L3	357	LYS
40	L3	364	LYS
40	L3	376	LYS
40	L3	382	THR
40	L3	385	LYS
41	L4	20	LEU
41	L4	22	LEU
41	L4	40	THR
41	L4	60	THR
41	L4	73	ARG
41	L4	74	ILE
41	L4	93	MET
41	L4	112	LYS
41	L4	124	SER
41	L4	133	SER
41	L4	138	ARG
41	L4	148	ILE
41	L4	152	VAL
41	L4	156	LEU
41	L4	170	LYS
41	L4	172	VAL
41	L4	177	ASP
41	L4	179	LEU
41	L4	187	LEU
41	L4	188	ARG
41	L4	193	LYS
41	L4	194	TYR
41	L4	200	THR
41	L4	203	ARG
41	L4	206	LEU
41	L4	220	ARG

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Mol	Chain	Res	Type
41	L4	229	ASN
41	L4	230	VAL
41	L4	246	ARG
41	L4	258	LEU
41	L4	280	ILE
41	L4	295	ILE
41	L4	304	GLN
41	L4	306	THR
41	L4	307	GLN
41	L4	311	HIS
41	L4	321	LYS
41	L4	323	VAL
41	L4	327	LEU
41	L4	332	LYS
41	L4	339	LEU
41	L4	343	LYS
41	L4	346	LYS
41	L4	347	THR
41	L4	354	VAL
41	L4	358	THR
42	L5	3	PHE
42	L5	4	GLN
42	L5	5	LYS
42	L5	10	SER
42	L5	22	ARG
42	L5	23	ARG
42	L5	41	LYS
42	L5	67	SER
42	L5	69	ILE
42	L5	75	LEU
42	L5	89	THR
42	L5	105	ILE
42	L5	109	THR
42	L5	112	LYS
42	L5	115	LEU
42	L5	117	GLU
42	L5	118	THR
42	L5	123	GLU
42	L5	131	LEU
42	L5	140	ARG
42	L5	146	LEU
42	L5	148	ILE

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Mol	Chain	Res	Type
42	L5	152	ARG
42	L5	155	THR
42	L5	158	ARG
42	L5	163	LEU
42	L5	177	GLU
42	L5	185	PHE
42	L5	187	THR
42	L5	188	GLU
42	L5	190	ILE
42	L5	194	LEU
42	L5	203	HIS
42	L5	216	GLU
42	L5	217	GLU
42	L5	222	LEU
42	L5	227	LEU
42	L5	232	ASP
42	L5	234	ASP
42	L5	254	LYS
42	L5	257	GLU
42	L5	259	LYS
42	L5	261	THR
42	L5	262	LYS
42	L5	263	GLU
42	L5	273	ARG
42	L5	277	LEU
42	L5	290	ILE
43	L6	4	GLN
43	L6	5	LYS
43	L6	12	SER
43	L6	21	THR
43	L6	35	VAL
43	L6	52	VAL
43	L6	64	LEU
43	L6	65	ILE
43	L6	78	ARG
43	L6	79	VAL
43	L6	84	VAL
43	L6	89	THR
43	L6	93	VAL
43	L6	98	VAL
43	L6	129	GLU
43	L6	134	ARG

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Mol	Chain	Res	Type
43	L6	152	THR
43	L6	155	LEU
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	40	LYS
44	L7	44	ILE
44	L7	45	LEU
44	L7	63	ILE
44	L7	77	VAL
44	L7	80	GLN
44	L7	83	LEU
44	L7	98	LYS
44	L7	100	ARG
44	L7	101	LYS
44	L7	124	LEU
44	L7	143	THR
44	L7	158	LYS
44	L7	164	SER
44	L7	175	LYS
44	L7	179	LEU
44	L7	182	ASP
44	L7	184	LEU
44	L7	211	SER
44	L7	239	LEU
45	L8	26	LEU
45	L8	27	THR
45	L8	41	GLN
45	L8	63	LYS
45	L8	65	LEU
45	L8	67	ILE
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	81	THR
45	L8	84	ARG
45	L8	95	ASN
45	L8	118	GLU
45	L8	126	SER
45	L8	132	VAL
45	L8	136	LEU
45	L8	149	LYS

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Mol	Chain	Res	Type
45	L8	156	ASP
45	L8	157	VAL
45	L8	160	ILE
45	L8	163	VAL
45	L8	169	LEU
45	L8	172	LYS
45	L8	173	MET
45	L8	185	ARG
45	L8	188	THR
45	L8	189	LEU
45	L8	190	VAL
45	L8	194	THR
45	L8	203	VAL
45	L8	217	THR
45	L8	238	LEU
45	L8	241	LYS
45	L8	248	LYS
46	L9	5	GLN
46	L9	14	GLU
46	L9	19	SER
46	L9	20	ILE
46	L9	22	SER
46	L9	33	THR
46	L9	34	LEU
46	L9	41	ILE
46	L9	48	VAL
46	L9	52	LEU
46	L9	65	VAL
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	82	VAL
46	L9	115	ARG
46	L9	118	LEU
46	L9	120	ASP
46	L9	121	LYS
46	L9	124	ARG
46	L9	133	THR
46	L9	135	GLU
46	L9	139	ASN
46	L9	141	LYS
46	L9	150	SER

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Mol	Chain	Res	Type
46	L9	151	VAL
46	L9	152	GLU
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	164	ILE
46	L9	172	ILE
46	L9	173	ARG
46	L9	189	GLU
47	M0	3	ARG
47	M0	24	ARG
47	M0	26	VAL
47	M0	31	ILE
47	M0	32	ARG
47	M0	33	ILE
47	M0	35	ASP
47	M0	36	LEU
47	M0	39	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	57	LEU
47	M0	63	GLU
47	M0	74	LYS
47	M0	76	MET
47	M0	78	THR
47	M0	80	SER
47	M0	87	LEU
47	M0	91	VAL
47	M0	102	MET
47	M0	116	ARG
47	M0	129	VAL
47	M0	130	ASP
47	M0	133	GLN
47	M0	139	ARG
47	M0	143	SER
47	M0	163	GLN
47	M0	165	ILE
47	M0	169	LYS
47	M0	174	THR
47	M0	177	ASP
47	M0	178	ARG

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Mol	Chain	Res	Type
47	M0	184	LYS
47	M0	189	GLU
47	M0	200	LEU
47	M0	203	LYS
47	M0	205	SER
48	M1	6	GLN
48	M1	9	MET
48	M1	10	ARG
48	M1	12	LEU
48	M1	13	LYS
48	M1	28	ASP
48	M1	40	LEU
48	M1	44	THR
48	M1	46	VAL
48	M1	65	ILE
48	M1	70	THR
48	M1	80	LEU
48	M1	94	ARG
48	M1	107	ASP
48	M1	112	LEU
48	M1	130	VAL
48	M1	137	ARG
48	M1	140	ARG
48	M1	142	LYS
48	M1	143	ARG
48	M1	151	SER
48	M1	158	ASP
48	M1	166	LYS
48	M1	173	ASP
48	M1	174	LYS
49	M3	23	LYS
49	M3	33	VAL
49	M3	35	ARG
49	M3	41	THR
49	M3	54	LEU
49	M3	55	ARG
49	M3	59	ARG
49	M3	67	ARG
49	M3	69	VAL
49	M3	70	ARG
49	M3	107	GLU
49	M3	114	GLN

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Mol	Chain	Res	Type
49	M3	117	LYS
49	M3	118	GLU
49	M3	124	ILE
49	M3	128	ARG
49	M3	131	LYS
49	M3	136	GLU
49	M3	138	VAL
49	M3	144	THR
49	M3	164	GLU
49	M3	165	SER
49	M3	168	ARG
49	M3	171	ARG
49	M3	190	LYS
50	M4	4	ASP
50	M4	5	SER
50	M4	8	LYS
50	M4	20	VAL
50	M4	38	ILE
50	M4	53	VAL
50	M4	55	ARG
50	M4	58	ILE
50	M4	63	VAL
50	M4	72	LEU
50	M4	74	ARG
50	M4	83	LYS
50	M4	90	VAL
50	M4	91	CYS
50	M4	93	LYS
50	M4	102	LYS
50	M4	106	ARG
50	M4	135	LEU
51	M5	10	LEU
51	M5	19	LEU
51	M5	20	ARG
51	M5	22	LEU
51	M5	24	ARG
51	M5	38	ARG
51	M5	49	ARG
51	M5	50	ARG
51	M5	68	ARG
51	M5	80	THR
51	M5	83	LYS

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Mol	Chain	Res	Type
51	M5	85	THR
51	M5	96	ARG
51	M5	97	SER
51	M5	105	ARG
51	M5	109	ARG
51	M5	133	ILE
51	M5	138	GLN
51	M5	151	ILE
51	M5	155	VAL
51	M5	167	THR
51	M5	171	SER
51	M5	183	THR
51	M5	184	LYS
51	M5	187	ARG
51	M5	188	ARG
51	M5	190	THR
51	M5	196	THR
52	M6	22	VAL
52	M6	25	LYS
52	M6	33	ILE
52	M6	41	LEU
52	M6	58	LEU
52	M6	59	ARG
52	M6	68	ARG
52	M6	78	ARG
52	M6	79	ILE
52	M6	82	LYS
52	M6	84	LEU
52	M6	85	ARG
52	M6	106	GLU
52	M6	110	PRO
52	M6	114	LYS
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	143	THR
52	M6	152	VAL
52	M6	160	ARG
52	M6	180	SER

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Mol	Chain	Res	Type
52	M6	182	ASN
52	M6	190	VAL
53	M7	9	THR
53	M7	10	ASN
53	M7	13	LYS
53	M7	14	SER
53	M7	24	VAL
53	M7	25	SER
53	M7	29	THR
53	M7	32	THR
53	M7	36	ILE
53	M7	41	LEU
53	M7	49	GLU
53	M7	52	LEU
53	M7	53	ASP
53	M7	56	ARG
53	M7	65	SER
53	M7	69	ARG
53	M7	79	THR
53	M7	94	LEU
53	M7	112	LEU
53	M7	119	VAL
53	M7	120	ASN
53	M7	124	LYS
53	M7	126	ARG
53	M7	127	ARG
53	M7	144	SER
53	M7	166	VAL
53	M7	181	ARG
53	M7	182	ILE
54	M8	17	THR
54	M8	20	LYS
54	M8	21	SER
54	M8	22	ASP
54	M8	24	VAL
54	M8	26	LEU
54	M8	31	LYS
54	M8	32	LEU
54	M8	34	THR
54	M8	41	ASP
54	M8	49	LEU
54	M8	57	ILE

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Mol	Chain	Res	Type
54	M8	63	SER
54	M8	66	ARG
54	M8	72	LYS
54	M8	73	GLN
54	M8	98	LYS
54	M8	100	THR
54	M8	127	LEU
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG
54	M8	147	ARG
54	M8	168	THR
54	M8	170	ARG
54	M8	180	ARG
55	M9	8	LYS
55	M9	17	VAL
55	M9	29	THR
55	M9	41	ILE
55	M9	44	LEU
55	M9	51	VAL
55	M9	52	LYS
55	M9	55	VAL
55	M9	74	ARG
55	M9	86	GLU
55	M9	91	SER
55	M9	99	LEU
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	110	ARG
55	M9	115	ILE
55	M9	116	ASP
55	M9	128	LYS
55	M9	134	HIS
55	M9	138	LEU
55	M9	153	LYS
55	M9	155	LEU
55	M9	165	LYS
55	M9	180	LYS
56	N0	1	MET
56	N0	8	GLN
56	N0	40	ARG

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Mol	Chain	Res	Type
56	N0	45	LEU
56	N0	49	HIS
56	N0	51	VAL
56	N0	57	GLU
56	N0	79	VAL
56	N0	80	ARG
56	N0	87	THR
56	N0	92	LYS
56	N0	100	VAL
56	N0	105	THR
56	N0	115	ARG
56	N0	117	ARG
56	N0	120	SER
56	N0	122	HIS
56	N0	132	THR
56	N0	137	ARG
56	N0	138	GLN
56	N0	142	GLN
56	N0	145	THR
56	N0	155	ARG
56	N0	157	GLN
56	N0	160	THR
56	N0	161	LYS
56	N0	166	LYS
56	N0	167	ARG
56	N0	169	SER
56	N0	170	THR
56	N0	172	TYR
57	N1	9	SER
57	N1	12	ARG
57	N1	14	MET
57	N1	26	HIS
57	N1	27	LEU
57	N1	32	LYS
57	N1	55	LYS
57	N1	68	THR
57	N1	69	LYS
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	80	VAL
57	N1	83	ARG

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Mol	Chain	Res	Type
57	N1	88	ARG
57	N1	96	ILE
57	N1	104	GLU
57	N1	106	LEU
57	N1	118	GLU
57	N1	124	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	139	ARG
57	N1	143	THR
57	N1	146	ASN
57	N1	158	THR
57	N1	159	PHE
58	N2	10	LYS
58	N2	50	LEU
58	N2	52	ASN
58	N2	66	VAL
58	N2	70	LYS
58	N2	80	THR
58	N2	82	LYS
58	N2	88	GLN
58	N2	92	TRP
58	N2	93	ILE
58	N2	100	THR
59	N3	9	THR
59	N3	13	ILE
59	N3	44	SER
59	N3	45	ARG
59	N3	48	ARG
59	N3	54	LEU
59	N3	59	MET
59	N3	63	LYS
59	N3	64	LYS
59	N3	69	LEU
59	N3	73	VAL
59	N3	74	MET
59	N3	83	LYS
59	N3	102	ILE
59	N3	104	ASN
59	N3	120	LYS
59	N3	125	LEU
59	N3	128	ARG

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Mol	Chain	Res	Type
59	N3	135	VAL
59	N3	137	VAL
60	N4	5	ILE
60	N4	19	THR
60	N4	25	ASP
60	N4	34	SER
60	N4	39	LEU
60	N4	43	ARG
60	N4	63	ILE
61	N5	27	ARG
61	N5	37	THR
61	N5	38	LEU
61	N5	39	LYS
61	N5	40	LEU
61	N5	45	LYS
61	N5	49	LYS
61	N5	59	SER
61	N5	63	ILE
61	N5	65	GLN
61	N5	71	THR
61	N5	73	MET
61	N5	86	VAL
61	N5	104	GLU
61	N5	108	LEU
61	N5	112	THR
61	N5	115	ARG
61	N5	125	ARG
61	N5	133	LEU
61	N5	135	ILE
61	N5	138	ARG
61	N5	139	ILE
61	N5	142	ILE
62	N6	5	SER
62	N6	8	VAL
62	N6	13	ARG
62	N6	17	LYS
62	N6	37	LYS
62	N6	39	LEU
62	N6	42	GLN
62	N6	45	ILE
62	N6	50	ILE
62	N6	51	ARG

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Mol	Chain	Res	Type
62	N6	55	GLU
62	N6	56	VAL
62	N6	57	LEU
62	N6	59	VAL
62	N6	60	ARG
62	N6	70	ILE
62	N6	72	SER
62	N6	76	LEU
62	N6	80	VAL
62	N6	88	GLU
62	N6	105	VAL
62	N6	115	ARG
62	N6	126	LEU
63	N7	14	VAL
63	N7	15	ARG
63	N7	17	ARG
63	N7	24	VAL
63	N7	26	VAL
63	N7	30	ASP
63	N7	34	LYS
63	N7	35	SER
63	N7	46	ILE
63	N7	52	LYS
63	N7	55	LYS
63	N7	64	LYS
63	N7	72	ILE
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	89	VAL
63	N7	99	GLU
63	N7	102	GLU
63	N7	107	ARG
63	N7	109	GLU
63	N7	134	LEU
64	N8	4	ARG
64	N8	6	THR
64	N8	8	THR
64	N8	10	LYS
64	N8	16	SER
64	N8	27	LYS
64	N8	42	ARG

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Mol	Chain	Res	Type
64	N8	47	LYS
64	N8	58	MET
64	N8	60	TYR
64	N8	76	ASP
64	N8	78	LEU
64	N8	91	LEU
64	N8	92	LYS
64	N8	93	SER
64	N8	115	LYS
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
64	N8	139	ARG
65	N9	21	ILE
65	N9	22	LYS
65	N9	25	LYS
65	N9	28	LYS
65	N9	38	LYS
65	N9	40	ARG
65	N9	44	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	16	LEU
66	O0	30	THR
66	O0	32	LYS
66	O0	36	GLN
66	O0	40	LYS
66	O0	48	THR
66	O0	61	MET
66	O0	83	LYS
66	O0	87	VAL
66	O0	97	ASP
66	O0	100	ILE
66	O0	101	LEU
67	O1	6	ASP
67	O1	8	VAL
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	41	LYS
67	O1	44	MET
67	O1	47	ASP

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Mol	Chain	Res	Type
67	O1	53	PRO
67	O1	55	LEU
67	O1	64	VAL
67	O1	68	GLU
67	O1	79	ARG
67	O1	84	ASP
67	O1	87	ASN
67	O1	89	LEU
67	O1	96	VAL
67	O1	100	SER
68	O2	4	LEU
68	O2	16	LYS
68	O2	18	LYS
68	O2	19	ARG
68	O2	31	ASN
68	O2	33	ARG
68	O2	41	VAL
68	O2	51	SER
68	O2	61	LYS
68	O2	62	LYS
68	O2	73	THR
68	O2	75	LEU
68	O2	76	VAL
68	O2	82	LEU
68	O2	84	THR
68	O2	87	MET
68	O2	90	LYS
68	O2	106	VAL
68	O2	109	LEU
68	O2	125	ARG
68	O2	126	LEU
68	O2	128	LEU
69	O3	4	SER
69	O3	15	SER
69	O3	33	GLU
69	O3	49	ILE
69	O3	59	VAL
69	O3	65	ARG
69	O3	70	LYS
69	O3	78	SER
69	O3	81	VAL
69	O3	92	LYS

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Mol	Chain	Res	Type
69	O3	93	THR
69	O3	98	VAL
69	O3	106	ASN
70	O4	3	GLN
70	O4	8	ARG
70	O4	20	ILE
70	O4	23	VAL
70	O4	49	SER
70	O4	51	LEU
70	O4	56	THR
70	O4	58	ARG
70	O4	65	VAL
70	O4	71	THR
70	O4	73	SER
70	O4	74	ARG
70	O4	86	LYS
70	O4	102	LYS
70	O4	103	LYS
70	O4	104	VAL
71	O5	4	VAL
71	O5	15	GLU
71	O5	21	LEU
71	O5	28	LEU
71	O5	31	LEU
71	O5	38	ARG
71	O5	41	LEU
71	O5	43	LYS
71	O5	44	ILE
71	O5	46	THR
71	O5	47	VAL
71	O5	48	ARG
71	O5	50	SER
71	O5	62	GLN
71	O5	71	LYS
71	O5	73	LYS
71	O5	84	LYS
71	O5	85	THR
71	O5	89	ARG
71	O5	100	VAL
71	O5	101	THR
71	O5	102	GLU
71	O5	105	ARG

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Mol	Chain	Res	Type
71	O5	107	LYS
71	O5	115	LYS
71	O5	119	LYS
72	O6	11	LEU
72	O6	17	VAL
72	O6	18	THR
72	O6	26	ILE
72	O6	34	SER
72	O6	36	ARG
72	O6	43	LEU
72	O6	45	ARG
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	62	ARG
72	O6	76	ARG
72	O6	81	THR
72	O6	88	GLU
72	O6	98	ARG
72	O6	99	ARG
73	O7	5	THR
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	33	THR
73	O7	37	CYS
73	O7	58	THR
73	O7	59	THR
73	O7	65	ARG
73	O7	67	LEU
73	O7	79	GLN
73	O7	82	SER
73	O7	85	LYS
74	O8	3	ARG
74	O8	8	ILE
74	O8	24	THR
74	O8	41	THR
74	O8	45	VAL
74	O8	46	ARG
74	O8	50	SER
74	O8	53	THR
74	O8	54	LEU

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Mol	Chain	Res	Type
74	O8	61	LYS
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	72	THR
74	O8	77	ARG
75	O9	4	GLN
75	O9	5	LYS
75	O9	21	ARG
75	O9	29	LEU
75	O9	30	ARG
75	O9	36	ARG
75	O9	42	ARG
75	O9	45	ARG
75	O9	51	ILE
76	Q0	77	ILE
76	Q0	78	ILE
76	Q0	83	LYS
76	Q0	85	LEU
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	127	LEU
77	Q1	2	ARG
77	Q1	6	ARG
77	Q1	10	THR
77	Q1	11	ARG
77	Q1	13	LEU
77	Q1	19	LYS
77	Q1	21	ARG
78	Q2	4	VAL
78	Q2	8	ARG
78	Q2	19	LYS
78	Q2	26	THR
78	Q2	27	GLN
78	Q2	35	LEU
78	Q2	47	GLN
78	Q2	48	SER
78	Q2	60	LYS
78	Q2	66	LYS
78	Q2	72	LEU
78	Q2	78	LYS

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Mol	Chain	Res	Type
78	Q2	80	ARG
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	88	CYS
78	Q2	93	LEU
78	Q2	104	LEU
79	Q3	5	THR
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	25	GLN
79	Q3	32	GLN
79	Q3	36	ARG
79	Q3	45	LYS
79	Q3	48	LYS
79	Q3	49	ARG
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	73	THR
79	Q3	81	SER
79	Q3	90	VAL
2	s0	9	LEU
2	s0	10	THR
2	s0	12	GLU
2	s0	18	LEU
2	s0	24	LEU
2	s0	27	ARG
2	s0	28	ASN
2	s0	29	VAL
2	s0	30	GLN
2	s0	34	GLU
2	s0	41	ARG
2	s0	45	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	72	ASP
2	s0	76	ILE
2	s0	83	GLN
2	s0	87	LEU
2	s0	88	LYS
2	s0	93	THR
2	s0	96	THR

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Mol	Chain	Res	Type
2	s0	106	SER
2	s0	111	ILE
2	s0	112	THR
2	s0	121	VAL
2	s0	144	ILE
2	s0	154	GLU
2	s0	158	VAL
2	s0	172	LEU
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	188	LEU
2	s0	189	VAL
2	s0	198	MET
3	s1	21	VAL
3	s1	25	THR
3	s1	37	THR
3	s1	47	LEU
3	s1	48	VAL
3	s1	51	SER
3	s1	56	SER
3	s1	70	LEU
3	s1	73	LEU
3	s1	74	GLN
3	s1	78	ASP
3	s1	81	PHE
3	s1	89	ASP
3	s1	90	GLU
3	s1	96	LEU
3	s1	97	LEU
3	s1	105	PHE
3	s1	116	LYS
3	s1	125	VAL
3	s1	126	THR
3	s1	137	ILE
3	s1	146	GLN
3	s1	152	ARG
3	s1	169	SER
3	s1	173	THR
3	s1	179	SER
3	s1	180	THR
3	s1	181	LEU

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Mol	Chain	Res	Type
3	s1	184	LEU
3	s1	202	LYS
3	s1	209	ASN
3	s1	212	VAL
3	s1	223	PHE
3	s1	228	LEU
3	s1	231	LEU
3	s1	234	GLU
4	s2	39	THR
4	s2	41	LEU
4	s2	46	LYS
4	s2	53	ILE
4	s2	55	GLU
4	s2	61	LEU
4	s2	69	ILE
4	s2	72	LEU
4	s2	73	LEU
4	s2	77	GLN
4	s2	79	GLU
4	s2	81	MET
4	s2	83	ILE
4	s2	86	VAL
4	s2	90	THR
4	s2	91	ARG
4	s2	97	ARG
4	s2	106	ASP
4	s2	108	ASN
4	s2	111	VAL
4	s2	117	THR
4	s2	126	ARG
4	s2	130	ILE
4	s2	139	ILE
4	s2	140	ARG
4	s2	141	ARG
4	s2	148	LEU
4	s2	153	SER
4	s2	158	THR
4	s2	159	THR
4	s2	161	LYS
4	s2	164	SER
4	s2	166	THR
4	s2	169	LEU

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Mol	Chain	Res	Type
4	s2	170	ILE
4	s2	185	LYS
4	s2	194	GLU
4	s2	199	GLN
4	s2	206	THR
4	s2	218	ILE
4	s2	222	TYR
4	s2	238	SER
4	s2	240	LEU
4	s2	244	SER
4	s2	248	SER
5	s3	6	SER
5	s3	9	ARG
5	s3	10	LYS
5	s3	21	LEU
5	s3	39	VAL
5	s3	40	ARG
5	s3	41	VAL
5	s3	42	THR
5	s3	46	THR
5	s3	53	THR
5	s3	61	GLU
5	s3	69	LEU
5	s3	70	THR
5	s3	84	ILE
5	s3	90	ARG
5	s3	93	ASP
5	s3	111	ASN
5	s3	115	ILE
5	s3	127	MET
5	s3	128	GLU
5	s3	134	CYS
5	s3	139	SER
5	s3	142	LEU
5	s3	143	ARG
5	s3	158	ILE
5	s3	162	GLN
5	s3	169	ASP
5	s3	172	THR
5	s3	209	ILE
5	s3	212	LYS
5	s3	213	GLU

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Mol	Chain	Res	Type
5	s3	223	LYS
5	s3	225	TYR
6	s4	6	LYS
6	s4	11	ARG
6	s4	22	LYS
6	s4	23	LEU
6	s4	38	LEU
6	s4	39	ARG
6	s4	42	LEU
6	s4	48	LEU
6	s4	51	ARG
6	s4	67	GLN
6	s4	68	ARG
6	s4	69	HIS
6	s4	70	VAL
6	s4	78	THR
6	s4	93	ASP
6	s4	95	THR
6	s4	96	ASN
6	s4	104	ASP
6	s4	108	ARG
6	s4	113	ARG
6	s4	117	GLU
6	s4	131	LEU
6	s4	146	THR
6	s4	147	ILE
6	s4	160	VAL
6	s4	175	PHE
6	s4	176	ASP
6	s4	180	LEU
6	s4	182	TYR
6	s4	184	THR
6	s4	200	ARG
6	s4	219	VAL
6	s4	221	ARG
6	s4	222	LEU
6	s4	233	LYS
6	s4	245	LYS
6	s4	254	ARG
7	s5	23	VAL
7	s5	25	LEU
7	s5	27	THR

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Mol	Chain	Res	Type
7	s5	31	GLU
7	s5	33	VAL
7	s5	38	THR
7	s5	41	LYS
7	s5	45	LYS
7	s5	63	GLN
7	s5	68	ILE
7	s5	76	ARG
7	s5	84	LYS
7	s5	86	GLN
7	s5	89	ILE
7	s5	92	ARG
7	s5	93	LEU
7	s5	94	THR
7	s5	99	MET
7	s5	102	ARG
7	s5	109	LYS
7	s5	112	ARG
7	s5	119	ASP
7	s5	122	ASN
7	s5	124	LEU
7	s5	125	THR
7	s5	146	THR
7	s5	147	THR
7	s5	157	ARG
7	s5	162	VAL
7	s5	163	SER
7	s5	167	ARG
7	s5	190	ILE
7	s5	194	LEU
7	s5	203	LYS
7	s5	207	THR
7	s5	216	GLU
8	s6	9	VAL
8	s6	16	PHE
8	s6	30	LYS
8	s6	31	ARG
8	s6	64	LYS
8	s6	65	GLN
8	s6	68	LEU
8	s6	71	THR
8	s6	73	ILE

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Mol	Chain	Res	Type
8	s6	76	LEU
8	s6	81	VAL
8	s6	97	VAL
8	s6	108	VAL
8	s6	109	LEU
8	s6	120	GLU
8	s6	121	LEU
8	s6	126	ASP
8	s6	127	THR
8	s6	128	THR
8	s6	129	VAL
8	s6	143	LYS
8	s6	151	ASP
8	s6	155	ASP
8	s6	157	VAL
8	s6	163	THR
8	s6	167	LYS
8	s6	168	THR
8	s6	175	ILE
8	s6	177	ARG
8	s6	179	VAL
8	s6	182	GLN
8	s6	193	LEU
8	s6	207	GLU
8	s6	215	ARG
8	s6	216	LEU
8	s6	217	SER
9	s7	5	GLN
9	s7	16	LEU
9	s7	24	PHE
9	s7	33	GLU
9	s7	49	ILE
9	s7	67	LEU
9	s7	77	LEU
9	s7	79	ARG
9	s7	81	LEU
9	s7	86	GLN
9	s7	97	ARG
9	s7	101	LYS
9	s7	114	ARG
9	s7	116	ARG
9	s7	117	THR

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Mol	Chain	Res	Type
9	s7	118	LEU
9	s7	125	ILE
9	s7	126	LEU
9	s7	129	LEU
9	s7	144	VAL
9	s7	147	ASN
9	s7	156	SER
9	s7	159	VAL
9	s7	161	GLN
9	s7	166	LEU
9	s7	185	ILE
10	s8	7	SER
10	s8	18	ARG
10	s8	20	GLN
10	s8	25	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	46	VAL
10	s8	47	ARG
10	s8	48	THR
10	s8	59	ARG
10	s8	60	ILE
10	s8	61	GLU
10	s8	62	THR
10	s8	64	ASN
10	s8	74	LYS
10	s8	76	THR
10	s8	89	GLU
10	s8	120	THR
10	s8	121	LEU
10	s8	136	SER
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER
10	s8	183	ILE
11	s9	3	ARG
11	s9	6	ARG
11	s9	7	THR
11	s9	16	LYS
11	s9	28	LEU
11	s9	40	LYS
11	s9	48	GLN

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Mol	Chain	Res	Type
11	s9	49	LEU
11	s9	78	ARG
11	s9	81	VAL
11	s9	82	ARG
11	s9	93	LEU
11	s9	101	VAL
11	s9	109	LEU
11	s9	111	THR
11	s9	113	VAL
11	s9	120	LYS
11	s9	126	ARG
11	s9	130	THR
11	s9	133	HIS
11	s9	134	ILE
11	s9	149	ARG
11	s9	154	LYS
11	s9	161	THR
11	s9	162	SER
11	s9	168	ARG
11	s9	172	VAL
11	s9	179	ARG
11	s9	180	LYS
11	s9	182	GLU
12	c0	2	LEU
12	c0	8	ARG
12	c0	15	LEU
12	c0	20	VAL
12	c0	21	VAL
12	c0	22	VAL
12	c0	27	PHE
12	c0	40	LEU
12	c0	51	SER
12	c0	55	VAL
12	c0	57	THR
12	c0	71	GLU
13	c1	4	GLU
13	c1	5	LEU
13	c1	6	THR
13	c1	10	GLU
13	c1	26	LYS
13	c1	30	ARG
13	c1	31	THR

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Mol	Chain	Res	Type
13	c1	32	LYS
13	c1	33	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	56	LYS
13	c1	60	PHE
13	c1	67	ARG
13	c1	74	THR
13	c1	80	MET
13	c1	83	THR
13	c1	94	ILE
13	c1	123	VAL
13	c1	140	VAL
14	c2	30	VAL
14	c2	38	HIS
14	c2	39	ASP
14	c2	45	LEU
14	c2	46	ARG
14	c2	53	THR
14	c2	58	LEU
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	86	VAL
14	c2	89	ILE
14	c2	103	LEU
14	c2	120	VAL
14	c2	121	VAL
14	c2	126	TRP
14	c2	132	GLU
14	c2	137	MET
14	c2	138	GLU
14	c2	140	PHE
15	c3	16	ILE
15	c3	21	ASN
15	c3	27	LYS
15	c3	39	LYS
15	c3	66	ILE

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Mol	Chain	Res	Type
15	c3	70	LYS
15	c3	80	LEU
15	c3	84	ILE
15	c3	88	LEU
15	c3	93	LYS
15	c3	97	SER
15	c3	99	ARG
15	c3	102	LEU
15	c3	107	LYS
15	c3	114	ARG
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	134	VAL
15	c3	138	ASN
15	c3	140	LYS
16	c4	18	ARG
16	c4	52	ARG
16	c4	55	SER
16	c4	61	MET
16	c4	62	LEU
16	c4	81	VAL
16	c4	92	LYS
16	c4	102	LEU
16	c4	111	ARG
16	c4	114	ARG
16	c4	118	VAL
16	c4	119	THR
16	c4	123	SER
16	c4	133	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	12	PHE
17	c5	21	ASP
17	c5	22	LEU
17	c5	27	GLU
17	c5	36	LEU
17	c5	40	ARG
17	c5	43	ARG
17	c5	44	ARG
17	c5	49	MET
17	c5	69	GLU

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Mol	Chain	Res	Type
17	c5	71	GLU
17	c5	72	LYS
17	c5	77	ARG
17	c5	86	VAL
17	c5	89	MET
17	c5	92	SER
17	c5	102	PHE
17	c5	110	GLU
17	c5	121	ILE
17	c5	122	THR
17	c5	125	PRO
17	c5	127	ARG
18	c6	7	VAL
18	c6	23	LYS
18	c6	28	LEU
18	c6	40	GLU
18	c6	43	ILE
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	57	LEU
18	c6	67	VAL
18	c6	68	ARG
18	c6	69	VAL
18	c6	81	ILE
18	c6	83	GLN
18	c6	94	GLN
18	c6	115	THR
18	c6	137	ARG
18	c6	139	GLN
18	c6	143	ARG
19	c7	3	ARG
19	c7	4	VAL
19	c7	5	ARG
19	c7	8	THR
19	c7	14	LYS
19	c7	25	THR
19	c7	29	GLN
19	c7	34	LEU
19	c7	36	ASP
19	c7	44	LYS
19	c7	46	LEU

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Mol	Chain	Res	Type
19	c7	60	ARG
19	c7	62	GLN
19	c7	63	LYS
19	c7	69	ILE
19	c7	72	LYS
19	c7	79	GLU
19	c7	83	GLN
19	c7	85	VAL
19	c7	88	VAL
19	c7	104	ASN
19	c7	108	ASP
19	c7	113	LEU
20	c8	3	LEU
20	c8	4	VAL
20	c8	5	VAL
20	c8	6	GLN
20	c8	7	GLU
20	c8	12	GLN
20	c8	13	HIS
20	c8	15	LEU
20	c8	26	ILE
20	c8	28	ILE
20	c8	33	THR
20	c8	40	ARG
20	c8	61	LEU
20	c8	63	GLN
20	c8	85	PHE
20	c8	93	THR
20	c8	105	VAL
20	c8	110	ARG
20	c8	116	LEU
20	c8	120	ARG
20	c8	136	GLN
20	c8	138	THR
20	c8	143	ARG
20	c8	145	ARG
21	c9	6	VAL
21	c9	20	SER
21	c9	28	LEU
21	c9	34	VAL
21	c9	37	VAL
21	c9	38	LYS

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Mol	Chain	Res	Type
21	c9	51	GLU
21	c9	70	GLN
21	c9	71	VAL
21	c9	75	LYS
21	c9	84	LYS
21	c9	86	ARG
21	c9	102	ARG
21	c9	111	ILE
21	c9	116	ILE
21	c9	117	SER
21	c9	123	ARG
21	c9	131	ASP
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
22	d0	16	GLN
22	d0	21	LYS
22	d0	23	ARG
22	d0	27	THR
22	d0	31	VAL
22	d0	44	ASN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	61	LYS
22	d0	63	LEU
22	d0	66	SER
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU
22	d0	77	LYS
22	d0	81	THR
22	d0	88	LYS
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	107	THR
23	d1	2	GLU
23	d1	5	LYS
23	d1	7	GLN
23	d1	9	VAL
23	d1	10	GLU

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Mol	Chain	Res	Type
23	d1	11	LEU
23	d1	12	TYR
23	d1	32	VAL
23	d1	41	GLU
23	d1	44	ARG
23	d1	49	GLU
23	d1	52	THR
23	d1	68	SER
23	d1	69	LEU
23	d1	81	ASN
24	d2	7	LEU
24	d2	23	ARG
24	d2	25	VAL
24	d2	26	LEU
24	d2	65	LEU
24	d2	74	VAL
24	d2	93	LEU
24	d2	105	THR
24	d2	119	LYS
24	d2	121	VAL
24	d2	124	LYS
24	d2	129	VAL
25	d3	9	LEU
25	d3	14	LYS
25	d3	16	ARG
25	d3	19	ARG
25	d3	20	ARG
25	d3	23	ARG
25	d3	28	ASN
25	d3	33	LEU
25	d3	34	LEU
25	d3	36	THR
25	d3	40	SER
25	d3	73	ARG
25	d3	75	GLN
25	d3	83	VAL
25	d3	84	THR
25	d3	96	VAL
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG

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Mol	Chain	Res	Type
25	d3	133	LEU
25	d3	140	LYS
25	d3	144	ARG
26	d4	5	VAL
26	d4	13	ILE
26	d4	26	ASP
26	d4	42	GLU
26	d4	43	LYS
26	d4	49	LYS
26	d4	62	THR
26	d4	78	SER
26	d4	88	THR
26	d4	92	VAL
26	d4	102	LYS
26	d4	105	ARG
26	d4	125	LEU
26	d4	128	LYS
26	d4	133	ASN
27	d5	43	ASP
27	d5	51	LEU
27	d5	57	TYR
27	d5	60	VAL
27	d5	62	VAL
27	d5	78	ILE
27	d5	81	ARG
27	d5	83	LEU
27	d5	88	ILE
27	d5	92	ILE
27	d5	93	SER
28	d6	8	ASN
28	d6	10	ARG
28	d6	11	ASN
28	d6	24	VAL
28	d6	39	MET
28	d6	41	ILE
28	d6	53	LEU
28	d6	67	THR
28	d6	82	ARG
28	d6	85	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	34	ASP

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Mol	Chain	Res	Type
29	d7	36	LYS
29	d7	37	CYS
29	d7	43	ILE
29	d7	44	THR
29	d7	49	HIS
29	d7	52	THR
29	d7	62	ILE
29	d7	72	LYS
29	d7	77	THR
29	d7	81	ARG
30	d8	16	LEU
30	d8	19	THR
30	d8	22	ARG
30	d8	33	LEU
30	d8	40	ILE
30	d8	48	VAL
30	d8	53	ILE
30	d8	54	LEU
30	d8	58	GLU
30	d8	62	GLU
30	d8	64	ARG
30	d8	65	ARG
31	d9	10	HIS
31	d9	16	LYS
31	d9	19	ARG
31	d9	26	SER
31	d9	32	ARG
31	d9	36	LEU
31	d9	40	ARG
31	d9	54	LYS
80	e0	21	VAL
80	e0	22	GLU
80	e0	24	THR
80	e0	25	GLU
80	e0	26	LYS
80	e0	29	LYS
80	e0	31	LYS
80	e0	38	LEU
80	e0	43	ARG
80	e0	46	ASN
80	e0	49	LEU
80	e0	54	ARG

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Mol	Chain	Res	Type
80	e0	62	VAL
81	e1	84	VAL
81	e1	90	LYS
81	e1	96	LYS
81	e1	97	LYS
81	e1	102	VAL
81	e1	106	TYR
81	e1	107	LYS
81	e1	109	ASP
81	e1	113	LYS
81	e1	115	THR
81	e1	116	LYS
81	e1	125	THR
81	e1	135	HIS
81	e1	147	VAL
34	sR	21	THR
34	sR	25	THR
34	sR	29	GLN
34	sR	58	VAL
34	sR	59	ARG
34	sR	65	SER
34	sR	66	HIS
34	sR	76	ASP
34	sR	96	THR
34	sR	108	SER
34	sR	118	LYS
34	sR	123	ILE
34	sR	145	LEU
34	sR	159	ASN
34	sR	166	SER
34	sR	176	LYS
34	sR	202	LEU
34	sR	210	LEU
34	sR	222	LEU
34	sR	228	LYS
34	sR	275	ARG
34	sR	283	LYS
34	sR	286	GLU
34	sR	297	ASP
34	sR	309	VAL
34	sR	314	GLN
34	sR	317	THR

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Mol	Chain	Res	Type
35	sM	23	LYS
35	sM	29	ASN
35	sM	41	SER
35	sM	43	ASP
35	sM	45	SER
35	sM	53	ARG
35	sM	61	ILE
35	sM	68	ARG
35	sM	74	LYS
35	sM	75	ASP
35	sM	78	ASP
39	l2	10	LYS
39	l2	15	ILE
39	l2	23	ARG
39	l2	32	LEU
39	l2	41	ILE
39	l2	44	ILE
39	l2	45	VAL
39	l2	48	ILE
39	l2	61	VAL
39	l2	62	VAL
39	l2	70	ARG
39	l2	71	LEU
39	l2	74	GLU
39	l2	77	ILE
39	l2	96	LEU
39	l2	101	VAL
39	l2	112	ILE
39	l2	114	SER
39	l2	119	LYS
39	l2	128	ARG
39	l2	134	VAL
39	l2	137	ILE
39	l2	142	ASP
39	l2	147	ARG
39	l2	155	LYS
39	l2	157	VAL
39	l2	158	ILE
39	l2	179	LEU
39	l2	180	LEU
39	l2	181	LYS
39	l2	188	LYS

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Mol	Chain	Res	Type
39	12	193	ARG
39	12	200	ARG
39	12	207	VAL
39	12	227	ARG
39	12	230	VAL
39	12	241	ARG
39	12	243	THR
39	12	246	LEU
40	13	4	ARG
40	13	10	ARG
40	13	17	LEU
40	13	19	ARG
40	13	20	LYS
40	13	34	LYS
40	13	37	ARG
40	13	44	THR
40	13	50	LYS
40	13	56	ILE
40	13	66	LYS
40	13	69	LYS
40	13	73	VAL
40	13	79	VAL
40	13	84	VAL
40	13	85	VAL
40	13	103	THR
40	13	114	VAL
40	13	134	SER
40	13	139	GLN
40	13	145	GLU
40	13	148	LEU
40	13	150	ARG
40	13	153	LYS
40	13	156	SER
40	13	157	VAL
40	13	166	ILE
40	13	167	ARG
40	13	169	THR
40	13	192	VAL
40	13	196	ARG
40	13	197	GLU
40	13	201	LYS
40	13	202	THR

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Mol	Chain	Res	Type
40	l3	205	VAL
40	l3	215	ILE
40	l3	221	THR
40	l3	232	ARG
40	l3	235	THR
40	l3	238	LEU
40	l3	242	THR
40	l3	248	LYS
40	l3	249	VAL
40	l3	252	ILE
40	l3	266	ARG
40	l3	284	ARG
40	l3	297	SER
40	l3	304	THR
40	l3	308	MET
40	l3	317	ILE
40	l3	320	ASP
40	l3	324	VAL
40	l3	328	ILE
40	l3	332	ARG
40	l3	335	ILE
40	l3	338	LEU
40	l3	347	SER
40	l3	355	SER
40	l3	361	THR
40	l3	364	LYS
40	l3	376	LYS
41	l4	3	ARG
41	l4	14	GLU
41	l4	20	LEU
41	l4	25	VAL
41	l4	35	VAL
41	l4	48	GLN
41	l4	52	VAL
41	l4	55	LYS
41	l4	60	THR
41	l4	64	SER
41	l4	69	ARG
41	l4	90	PHE
41	l4	93	MET
41	l4	99	MET
41	l4	144	LYS

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Mol	Chain	Res	Type
41	14	150	LEU
41	14	152	VAL
41	14	156	LEU
41	14	158	SER
41	14	159	ILE
41	14	163	LYS
41	14	170	LYS
41	14	179	LEU
41	14	182	LEU
41	14	183	LYS
41	14	184	SER
41	14	186	LYS
41	14	187	LEU
41	14	191	LYS
41	14	200	THR
41	14	203	ARG
41	14	206	LEU
41	14	215	ILE
41	14	220	ARG
41	14	222	VAL
41	14	226	GLU
41	14	229	ASN
41	14	230	VAL
41	14	246	ARG
41	14	258	LEU
41	14	259	ASP
41	14	283	THR
41	14	287	THR
41	14	290	ILE
41	14	300	ARG
41	14	301	PRO
41	14	306	THR
41	14	307	GLN
41	14	310	THR
41	14	313	LEU
41	14	319	LYS
41	14	322	GLN
41	14	323	VAL
41	14	327	LEU
41	14	333	VAL
41	14	342	LYS
41	14	358	THR

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Mol	Chain	Res	Type
42	15	4	GLN
42	15	9	SER
42	15	10	SER
42	15	13	SER
42	15	35	ARG
42	15	51	LEU
42	15	65	ILE
42	15	68	THR
42	15	70	THR
42	15	74	VAL
42	15	75	LEU
42	15	89	THR
42	15	93	THR
42	15	110	LEU
42	15	112	LYS
42	15	113	LEU
42	15	115	LEU
42	15	118	THR
42	15	131	LEU
42	15	132	THR
42	15	133	GLU
42	15	135	VAL
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	148	ILE
42	15	152	ARG
42	15	155	THR
42	15	158	ARG
42	15	185	PHE
42	15	189	GLU
42	15	190	ILE
42	15	194	LEU
42	15	196	ARG
42	15	209	GLU
42	15	211	LEU
42	15	218	ARG
42	15	227	LEU
42	15	241	THR
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS

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Mol	Chain	Res	Type
42	15	261	THR
42	15	268	GLU
42	15	271	LYS
42	15	275	THR
42	15	279	LYS
42	15	281	GLU
42	15	282	ARG
42	15	293	LEU
42	15	297	GLN
43	16	12	SER
43	16	14	ASP
43	16	15	VAL
43	16	21	THR
43	16	28	GLN
43	16	31	ARG
43	16	46	ARG
43	16	64	LEU
43	16	65	ILE
43	16	78	ARG
43	16	82	ARG
43	16	88	SER
43	16	89	THR
43	16	98	VAL
43	16	108	LYS
43	16	109	GLU
43	16	131	LYS
43	16	152	THR
43	16	155	LEU
43	16	160	SER
43	16	162	SER
43	16	170	LYS
44	17	26	VAL
44	17	30	ARG
44	17	41	ARG
44	17	45	LEU
44	17	60	ARG
44	17	77	VAL
44	17	82	LYS
44	17	83	LEU
44	17	88	ARG
44	17	90	LYS
44	17	98	LYS

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Mol	Chain	Res	Type
44	17	110	ARG
44	17	121	LYS
44	17	124	LEU
44	17	130	ILE
44	17	142	SER
44	17	158	LYS
44	17	159	GLN
44	17	173	LEU
44	17	175	LYS
44	17	178	ILE
44	17	179	LEU
44	17	181	ILE
44	17	184	LEU
44	17	199	ASN
44	17	206	LYS
44	17	219	LYS
44	17	229	PHE
44	17	234	GLU
44	17	239	LEU
45	18	26	LEU
45	18	33	ASN
45	18	41	GLN
45	18	63	LYS
45	18	65	LEU
45	18	68	ARG
45	18	69	LEU
45	18	71	VAL
45	18	74	THR
45	18	77	GLN
45	18	79	GLN
45	18	81	THR
45	18	89	GLU
45	18	109	LEU
45	18	110	THR
45	18	111	LYS
45	18	128	LYS
45	18	136	LEU
45	18	146	LYS
45	18	147	LYS
45	18	149	LYS
45	18	150	LEU
45	18	160	ILE

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Mol	Chain	Res	Type
45	18	163	VAL
45	18	164	VAL
45	18	169	LEU
45	18	172	LYS
45	18	183	LYS
45	18	200	LEU
45	18	211	LEU
45	18	217	THR
45	18	230	LYS
45	18	238	LEU
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	5	GLN
46	19	6	THR
46	19	18	VAL
46	19	19	SER
46	19	31	ARG
46	19	33	THR
46	19	34	LEU
46	19	39	LYS
46	19	43	VAL
46	19	44	THR
46	19	52	LEU
46	19	55	VAL
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	80	THR
46	19	82	VAL
46	19	92	TYR
46	19	105	GLU
46	19	107	ASP
46	19	120	ASP
46	19	129	ARG
46	19	133	THR
46	19	144	ILE
46	19	151	VAL
46	19	157	ASN
46	19	161	LEU
46	19	162	GLN
46	19	163	GLN

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Mol	Chain	Res	Type
46	l9	166	ARG
46	l9	170	LYS
46	l9	179	ILE
46	l9	187	ILE
47	m0	21	ARG
47	m0	24	ARG
47	m0	33	ILE
47	m0	35	ASP
47	m0	36	LEU
47	m0	42	THR
47	m0	48	LEU
47	m0	52	LEU
47	m0	63	GLU
47	m0	74	LYS
47	m0	87	LEU
47	m0	99	ILE
47	m0	103	LEU
47	m0	130	ASP
47	m0	139	ARG
47	m0	145	LYS
47	m0	156	ARG
47	m0	167	LEU
47	m0	169	LYS
47	m0	176	LEU
47	m0	177	ASP
47	m0	182	LEU
47	m0	185	ARG
47	m0	186	GLU
47	m0	197	VAL
47	m0	205	SER
47	m0	206	LEU
47	m0	211	ARG
47	m0	212	GLU
47	m0	217	PHE
48	m1	10	ARG
48	m1	11	ASP
48	m1	13	LYS
48	m1	16	LYS
48	m1	30	LEU
48	m1	37	LEU
48	m1	44	THR
48	m1	46	VAL

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Mol	Chain	Res	Type
48	m1	56	THR
48	m1	59	ILE
48	m1	71	VAL
48	m1	80	LEU
48	m1	82	ARG
48	m1	85	LYS
48	m1	94	ARG
48	m1	106	ILE
48	m1	107	ASP
48	m1	112	LEU
48	m1	115	LYS
48	m1	119	SER
48	m1	129	VAL
48	m1	133	ARG
48	m1	137	ARG
48	m1	140	ARG
48	m1	142	LYS
48	m1	145	LYS
48	m1	153	LYS
48	m1	159	THR
48	m1	171	VAL
49	m3	28	GLN
49	m3	45	LYS
49	m3	58	VAL
49	m3	59	ARG
49	m3	62	THR
49	m3	63	VAL
49	m3	67	ARG
49	m3	85	LEU
49	m3	103	ASN
49	m3	107	GLU
49	m3	121	SER
49	m3	128	ARG
49	m3	149	GLN
49	m3	150	PRO
49	m3	152	THR
49	m3	164	GLU
49	m3	165	SER
49	m3	168	ARG
49	m3	184	GLU
49	m3	194	GLU
50	m4	2	SER

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Mol	Chain	Res	Type
50	m4	3	THR
50	m4	13	ARG
50	m4	15	VAL
50	m4	20	VAL
50	m4	27	GLN
50	m4	50	LYS
50	m4	53	VAL
50	m4	62	GLN
50	m4	63	VAL
50	m4	66	THR
50	m4	72	LEU
50	m4	80	THR
50	m4	82	SER
50	m4	105	GLN
50	m4	107	GLU
50	m4	113	THR
50	m4	124	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	10	LEU
51	m5	15	GLN
51	m5	22	LEU
51	m5	43	THR
51	m5	49	ARG
51	m5	54	LYS
51	m5	66	VAL
51	m5	67	ARG
51	m5	68	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	96	ARG
51	m5	97	SER
51	m5	98	LEU
51	m5	114	ARG
51	m5	138	GLN
51	m5	153	ASP
51	m5	155	VAL
51	m5	175	ASN
51	m5	176	LYS
51	m5	188	ARG
51	m5	190	THR

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Mol	Chain	Res	Type
51	m5	192	LYS
51	m5	194	GLN
52	m6	3	VAL
52	m6	22	VAL
52	m6	25	LYS
52	m6	27	LEU
52	m6	34	VAL
52	m6	41	LEU
52	m6	46	GLU
52	m6	49	ARG
52	m6	56	ASP
52	m6	58	LEU
52	m6	59	ARG
52	m6	60	LYS
52	m6	66	LYS
52	m6	68	ARG
52	m6	74	ARG
52	m6	78	ARG
52	m6	85	ARG
52	m6	100	GLU
52	m6	106	GLU
52	m6	108	ILE
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	128	ARG
52	m6	129	LEU
52	m6	130	LYS
52	m6	134	LYS
52	m6	140	LYS
52	m6	143	THR
52	m6	166	GLU
52	m6	170	LYS
52	m6	171	LYS
52	m6	175	THR
52	m6	182	ASN
52	m6	197	LEU
53	m7	8	SER
53	m7	9	THR
53	m7	23	ARG
53	m7	24	VAL
53	m7	29	THR

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Mol	Chain	Res	Type
53	m7	31	GLU
53	m7	32	THR
53	m7	41	LEU
53	m7	52	LEU
53	m7	78	VAL
53	m7	79	THR
53	m7	80	LYS
53	m7	86	LYS
53	m7	94	LEU
53	m7	114	VAL
53	m7	118	GLN
53	m7	119	VAL
53	m7	120	ASN
53	m7	126	ARG
53	m7	138	LYS
53	m7	150	VAL
54	m8	3	ILE
54	m8	7	SER
54	m8	17	THR
54	m8	22	ASP
54	m8	24	VAL
54	m8	26	LEU
54	m8	32	LEU
54	m8	34	THR
54	m8	49	LEU
54	m8	57	ILE
54	m8	58	ASN
54	m8	63	SER
54	m8	66	ARG
54	m8	80	THR
54	m8	81	VAL
54	m8	82	VAL
54	m8	86	THR
54	m8	93	ILE
54	m8	95	GLU
54	m8	100	THR
54	m8	135	GLN
54	m8	165	ILE
54	m8	170	ARG
54	m8	178	ARG
54	m8	185	LYS
55	m9	10	LEU

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Mol	Chain	Res	Type
55	m9	17	VAL
55	m9	20	ARG
55	m9	29	THR
55	m9	36	ASN
55	m9	43	LYS
55	m9	49	THR
55	m9	52	LYS
55	m9	56	THR
55	m9	57	VAL
55	m9	63	THR
55	m9	70	LYS
55	m9	74	ARG
55	m9	76	SER
55	m9	88	ARG
55	m9	99	LEU
55	m9	106	LEU
55	m9	111	ASP
55	m9	126	GLU
55	m9	133	LYS
55	m9	138	LEU
55	m9	153	LYS
55	m9	158	GLU
55	m9	177	VAL
55	m9	180	LYS
56	n0	8	GLN
56	n0	13	ARG
56	n0	15	PRO
56	n0	21	GLU
56	n0	40	ARG
56	n0	45	LEU
56	n0	50	LYS
56	n0	52	LYS
56	n0	53	LYS
56	n0	57	GLU
56	n0	80	ARG
56	n0	87	THR
56	n0	89	ASN
56	n0	92	LYS
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	105	THR

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Mol	Chain	Res	Type
56	n0	106	LEU
56	n0	115	ARG
56	n0	117	ARG
56	n0	120	SER
56	n0	130	GLU
56	n0	132	THR
56	n0	134	ASP
56	n0	136	LYS
56	n0	145	THR
56	n0	148	LEU
56	n0	149	LYS
56	n0	157	GLN
56	n0	161	LYS
56	n0	162	THR
56	n0	166	LYS
56	n0	167	ARG
56	n0	169	SER
56	n0	172	TYR
57	n1	9	SER
57	n1	12	ARG
57	n1	16	GLN
57	n1	17	ARG
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	36	VAL
57	n1	55	LYS
57	n1	68	THR
57	n1	71	SER
57	n1	75	ILE
57	n1	78	LYS
57	n1	80	VAL
57	n1	83	ARG
57	n1	88	ARG
57	n1	89	LEU
57	n1	96	ILE
57	n1	97	LYS
57	n1	104	GLU
57	n1	126	VAL
57	n1	130	ARG
57	n1	131	GLN
57	n1	135	PRO

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Mol	Chain	Res	Type
57	n1	139	ARG
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR
57	n1	154	VAL
58	n2	13	LYS
58	n2	16	THR
58	n2	21	SER
58	n2	37	LEU
58	n2	38	ILE
58	n2	43	VAL
58	n2	50	LEU
58	n2	54	VAL
58	n2	63	VAL
58	n2	64	THR
58	n2	68	THR
58	n2	74	LYS
58	n2	90	ARG
59	n3	7	GLN
59	n3	13	ILE
59	n3	14	SER
59	n3	40	LYS
59	n3	42	SER
59	n3	48	ARG
59	n3	64	LYS
59	n3	69	LEU
59	n3	73	VAL
59	n3	83	LYS
59	n3	88	ARG
59	n3	91	VAL
59	n3	110	LYS
59	n3	115	THR
59	n3	129	VAL
60	n4	1	MET
60	n4	2	LYS
60	n4	19	THR
60	n4	26	SER
60	n4	34	SER
60	n4	39	LEU
60	n4	54	LEU
60	n4	63	ILE
60	n4	89	LEU

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Mol	Chain	Res	Type
60	n4	92	GLU
60	n4	96	LEU
60	n4	97	LYS
60	n4	119	GLU
60	n4	126	GLU
60	n4	127	LYS
60	n4	135	SER
61	n5	24	LEU
61	n5	27	ARG
61	n5	34	LEU
61	n5	36	LYS
61	n5	37	THR
61	n5	39	LYS
61	n5	45	LYS
61	n5	55	ASN
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	71	THR
61	n5	86	VAL
61	n5	92	LYS
61	n5	108	LEU
61	n5	109	LYS
61	n5	115	ARG
61	n5	121	LYS
61	n5	125	ARG
61	n5	127	THR
61	n5	133	LEU
61	n5	135	ILE
61	n5	142	ILE
62	n6	3	LYS
62	n6	8	VAL
62	n6	9	SER
62	n6	12	ARG
62	n6	13	ARG
62	n6	14	LYS
62	n6	17	LYS
62	n6	32	SER
62	n6	37	LYS
62	n6	39	LEU
62	n6	40	ARG
62	n6	45	ILE

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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	56	VAL
62	n6	57	LEU
62	n6	66	GLN
62	n6	74	TYR
62	n6	75	ARG
62	n6	76	LEU
62	n6	83	ASP
62	n6	87	LYS
62	n6	94	SER
62	n6	112	ASP
62	n6	115	ARG
62	n6	120	GLN
62	n6	127	GLU
63	n7	9	LYS
63	n7	14	VAL
63	n7	15	ARG
63	n7	17	ARG
63	n7	24	VAL
63	n7	28	PRO
63	n7	33	SER
63	n7	34	LYS
63	n7	35	SER
63	n7	46	ILE
63	n7	52	LYS
63	n7	56	LYS
63	n7	64	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	75	VAL
63	n7	81	LEU
63	n7	83	THR
63	n7	86	THR
63	n7	98	THR
63	n7	102	GLU
63	n7	103	GLN
63	n7	105	SER
63	n7	119	GLU
63	n7	132	SER

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Mol	Chain	Res	Type
63	n7	134	LEU
63	n7	135	ARG
64	n8	6	THR
64	n8	8	THR
64	n8	10	LYS
64	n8	14	HIS
64	n8	15	VAL
64	n8	16	SER
64	n8	25	HIS
64	n8	32	ARG
64	n8	42	ARG
64	n8	43	ILE
64	n8	44	ASN
64	n8	47	LYS
64	n8	56	VAL
64	n8	60	TYR
64	n8	64	GLN
64	n8	65	GLN
64	n8	78	LEU
64	n8	82	ILE
64	n8	85	ASP
64	n8	91	LEU
64	n8	97	GLU
64	n8	98	THR
64	n8	115	LYS
64	n8	128	ARG
64	n8	133	LEU
64	n8	139	ARG
65	n9	14	ARG
65	n9	22	LYS
65	n9	23	LYS
65	n9	26	THR
65	n9	28	LYS
65	n9	33	LYS
65	n9	50	THR
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	9	SER
66	o0	19	LYS
66	o0	22	LYS
66	o0	32	LYS

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Mol	Chain	Res	Type
66	o0	41	LEU
66	o0	48	THR
66	o0	55	GLU
66	o0	61	MET
66	o0	66	LYS
66	o0	71	GLN
66	o0	81	VAL
66	o0	83	LYS
66	o0	86	ARG
66	o0	87	VAL
66	o0	99	ASP
66	o0	103	THR
67	o1	6	ASP
67	o1	8	VAL
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	31	ARG
67	o1	36	ILE
67	o1	44	MET
67	o1	46	THR
67	o1	64	VAL
67	o1	76	SER
67	o1	83	GLU
67	o1	84	ASP
67	o1	90	PHE
67	o1	91	SER
67	o1	97	LEU
67	o1	100	SER
67	o1	102	LYS
67	o1	106	THR
67	o1	110	GLU
68	o2	5	PRO
68	o2	6	HIS
68	o2	16	LYS
68	o2	19	ARG
68	o2	21	HIS
68	o2	27	ARG
68	o2	31	ASN
68	o2	33	ARG
68	o2	34	LYS
68	o2	41	VAL

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Mol	Chain	Res	Type
68	o2	51	SER
68	o2	54	LYS
68	o2	61	LYS
68	o2	71	HIS
68	o2	73	THR
68	o2	75	LEU
68	o2	76	VAL
68	o2	82	LEU
68	o2	86	THR
68	o2	91	THR
68	o2	109	LEU
68	o2	123	LYS
68	o2	125	ARG
69	o3	4	SER
69	o3	20	LYS
69	o3	28	SER
69	o3	31	LYS
69	o3	33	GLU
69	o3	49	ILE
69	o3	58	GLU
69	o3	60	ARG
69	o3	70	LYS
69	o3	81	VAL
69	o3	86	ARG
69	o3	90	PRO
69	o3	98	VAL
69	o3	107	ILE
70	o4	5	VAL
70	o4	9	ARG
70	o4	16	ARG
70	o4	20	ILE
70	o4	24	LYS
70	o4	30	LEU
70	o4	31	ARG
70	o4	47	CYS
70	o4	58	ARG
70	o4	64	THR
70	o4	65	VAL
70	o4	68	THR
70	o4	71	THR
70	o4	86	LYS
70	o4	88	ARG

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Mol	Chain	Res	Type
70	o4	98	GLN
71	o5	4	VAL
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	28	LEU
71	o5	38	ARG
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL
71	o5	48	ARG
71	o5	62	GLN
71	o5	69	LEU
71	o5	79	ASP
71	o5	81	ARG
71	o5	85	THR
71	o5	100	VAL
71	o5	107	LYS
71	o5	113	GLN
71	o5	119	LYS
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	12	ASN
72	o6	21	THR
72	o6	26	ILE
72	o6	29	LYS
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR
72	o6	38	LYS
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
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	79	SER

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Mol	Chain	Res	Type
72	o6	81	THR
72	o6	94	ILE
72	o6	98	ARG
73	o7	17	THR
73	o7	25	ARG
73	o7	33	THR
73	o7	36	SER
73	o7	44	THR
73	o7	58	THR
73	o7	59	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	71	SER
73	o7	72	ARG
73	o7	75	LYS
73	o7	80	THR
73	o7	84	SER
74	o8	5	ILE
74	o8	6	THR
74	o8	12	LEU
74	o8	13	GLU
74	o8	17	ARG
74	o8	24	THR
74	o8	41	THR
74	o8	49	SER
74	o8	53	THR
74	o8	61	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	67	GLN
74	o8	72	THR
75	o9	4	GLN
75	o9	5	LYS
75	o9	11	GLN
75	o9	17	LYS
75	o9	21	ARG
75	o9	23	LEU
75	o9	29	LEU
75	o9	45	ARG
75	o9	47	THR
75	o9	48	LYS
76	q0	77	ILE

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Mol	Chain	Res	Type
76	q0	78	ILE
76	q0	79	GLU
76	q0	85	LEU
76	q0	87	SER
76	q0	88	LYS
76	q0	97	ARG
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
76	q0	128	LYS
77	q1	6	ARG
77	q1	9	ARG
77	q1	12	ARG
77	q1	13	LEU
77	q1	16	LYS
77	q1	21	ARG
77	q1	23	ARG
77	q1	24	SER
78	q2	2	VAL
78	q2	7	THR
78	q2	8	ARG
78	q2	16	THR
78	q2	17	CYS
78	q2	26	THR
78	q2	32	LYS
78	q2	61	LYS
78	q2	71	ARG
78	q2	74	CYS
78	q2	76	LYS
78	q2	78	LYS
78	q2	79	THR
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	93	LEU
78	q2	100	LYS
78	q2	104	LEU
78	q2	105	GLN
78	q2	106	PHE
79	q3	38	ASP
79	q3	39	CYS

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Mol	Chain	Res	Type
79	q3	40	SER
79	q3	42	CYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	64	VAL
79	q3	73	THR
79	q3	89	MET
83	p0	5	ARG
83	p0	15	LEU
83	p0	42	ARG
83	p0	43	LYS
83	p0	48	ARG
83	p0	52	LEU
83	p0	55	LYS
83	p0	70	LEU
83	p0	76	LEU
83	p0	93	LEU
83	p0	97	LYS
83	p0	101	VAL
83	p0	103	ASN
83	p0	104	ARG
83	p0	185	LEU
83	p0	192	ASP
83	p0	193	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (43) such sidechains are listed below:

Mol	Chain	Res	Type
2	S0	32	HIS
2	S0	168	HIS
3	S1	209	ASN
3	S1	232	HIS
7	S5	63	GLN
10	S8	32	GLN
12	C0	12	HIS
19	C7	83	GLN
21	C9	25	GLN
22	D0	47	GLN
27	D5	95	HIS
29	D7	26	GLN
29	D7	49	HIS

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Mol	Chain	Res	Type
34	SR	159	ASN
39	L2	209	HIS
40	L3	3	HIS
47	M0	12	GLN
47	M0	144	ASN
48	M1	7	ASN
58	N2	49	ASN
59	N3	98	ASN
63	N7	57	HIS
63	N7	127	ASN
7	s5	224	ASN
9	s7	71	HIS
18	c6	83	GLN
19	c7	31	ASN
20	c8	13	HIS
20	c8	103	ASN
24	d2	56	HIS
26	d4	22	GLN
31	d9	48	ASN
31	d9	53	ASN
39	l2	205	ASN
39	l2	218	HIS
39	l2	250	GLN
53	m7	34	GLN
59	n3	33	ASN
60	n4	104	ASN
62	n6	120	GLN
64	n8	25	HIS
64	n8	44	ASN
67	o1	57	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	451 (25%)	52 (2%)
1	6	1792/1800 (99%)	445 (24%)	46 (2%)
36	1	3145/3396 (92%)	661 (21%)	86 (2%)
36	5	3145/3396 (92%)	639 (20%)	90 (2%)
37	3	120/121 (99%)	14 (11%)	2 (1%)
37	7	120/121 (99%)	21 (17%)	1 (0%)
38	4	157/158 (99%)	34 (21%)	5 (3%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
38	8	157/158 (99%)	35 (22%)	2 (1%)
All	All	10383/10950 (94%)	2300 (22%)	284 (2%)

All (2300) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	8	U
1	2	17	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	45	U
1	2	46	A
1	2	47	A
1	2	50	C
1	2	57	G
1	2	60	U
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	97	C
1	2	104	A
1	2	105	A
1	2	114	C
1	2	121	U
1	2	127	G
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
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	158	U
1	2	159	U
1	2	170	U
1	2	178	U
1	2	179	A
1	2	185	U
1	2	186	C
1	2	187	G
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	200	A
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	226	A
1	2	227	U
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U
1	2	249	U
1	2	250	C
1	2	260	U
1	2	261	U
1	2	265	A

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Mol	Chain	Res	Type
1	2	266	A
1	2	271	A
1	2	272	U
1	2	274	G
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	308	C
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	322	G
1	2	337	G
1	2	338	C
1	2	342	C
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	378	A
1	2	381	C
1	2	387	A
1	2	390	G
1	2	397	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	403	G
1	2	404	G
1	2	418	G
1	2	423	G
1	2	424	C
1	2	425	A
1	2	426	G

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Mol	Chain	Res	Type
1	2	428	A
1	2	434	G
1	2	439	U
1	2	444	C
1	2	445	A
1	2	448	C
1	2	454	U
1	2	469	C
1	2	484	C
1	2	485	A
1	2	488	G
1	2	493	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	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	508	U
1	2	510	G
1	2	511	A
1	2	513	U
1	2	515	A
1	2	516	G
1	2	519	C
1	2	520	A
1	2	527	A
1	2	536	C
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	546	U

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Mol	Chain	Res	Type
1	2	547	U
1	2	548	G
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	566	C
1	2	579	A
1	2	580	A
1	2	582	U
1	2	584	C
1	2	594	A
1	2	595	G
1	2	609	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	639	U
1	2	640	U
1	2	650	U
1	2	653	C
1	2	656	G
1	2	658	C
1	2	677	G
1	2	680	U
1	2	682	C
1	2	684	A
1	2	685	A
1	2	686	C
1	2	693	U
1	2	694	U
1	2	696	C
1	2	697	C
1	2	700	C
1	2	702	G
1	2	703	G
1	2	704	C
1	2	705	U

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Mol	Chain	Res	Type
1	2	707	A
1	2	708	C
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	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	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	744	U
1	2	753	A
1	2	754	A
1	2	755	A
1	2	756	A
1	2	758	U
1	2	765	G
1	2	766	U
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

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Mol	Chain	Res	Type
1	2	787	G
1	2	789	A
1	2	794	U
1	2	803	A
1	2	811	A
1	2	812	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	822	U
1	2	823	G
1	2	824	G
1	2	830	U
1	2	831	U
1	2	833	U
1	2	837	G
1	2	841	U
1	2	846	G
1	2	854	U
1	2	856	A
1	2	858	G
1	2	863	A
1	2	864	U
1	2	865	A
1	2	886	U
1	2	896	U
1	2	898	A
1	2	911	U
1	2	912	U
1	2	913	G
1	2	914	G
1	2	916	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	944	A
1	2	951	A
1	2	959	U
1	2	960	U

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Mol	Chain	Res	Type
1	2	966	A
1	2	971	A
1	2	988	A
1	2	992	A
1	2	993	A
1	2	997	G
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1020	A
1	2	1021	C
1	2	1026	A
1	2	1028	C
1	2	1029	U
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1074	G
1	2	1079	U
1	2	1080	U
1	2	1082	C
1	2	1087	A
1	2	1091	A
1	2	1092	A
1	2	1096	C
1	2	1097	U
1	2	1098	U
1	2	1100	G
1	2	1111	G
1	2	1138	A
1	2	1150	G
1	2	1151	A
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1161	C
1	2	1163	A

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Mol	Chain	Res	Type
1	2	1167	G
1	2	1168	U
1	2	1176	G
1	2	1185	U
1	2	1191	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1207	C
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1229	G
1	2	1241	G
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1251	U
1	2	1257	U
1	2	1258	U
1	2	1272	U
1	2	1286	U
1	2	1303	U
1	2	1314	U
1	2	1315	U
1	2	1320	U
1	2	1321	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	1354	G
1	2	1361	U
1	2	1363	U
1	2	1364	G
1	2	1370	U

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Mol	Chain	Res	Type
1	2	1371	A
1	2	1379	C
1	2	1386	G
1	2	1388	A
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1412	G
1	2	1413	U
1	2	1415	U
1	2	1420	C
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1446	A
1	2	1448	G
1	2	1458	G
1	2	1459	C
1	2	1460	A
1	2	1461	C
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1477	G
1	2	1478	G
1	2	1482	C
1	2	1486	G
1	2	1488	G
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1506	G
1	2	1516	A
1	2	1517	U
1	2	1518	C
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1535	U
1	2	1536	G

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Mol	Chain	Res	Type
1	2	1537	C
1	2	1538	U
1	2	1542	G
1	2	1549	C
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1573	A
1	2	1574	G
1	2	1584	G
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1631	A
1	2	1637	C
1	2	1657	U
1	2	1658	G
1	2	1680	G
1	2	1683	C
1	2	1684	U
1	2	1731	A
1	2	1736	G
1	2	1747	G
1	2	1756	A
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1769	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	16	A
36	1	26	A
36	1	40	A
36	1	43	A
36	1	44	U

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Mol	Chain	Res	Type
36	1	45	A
36	1	49	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	73	C
36	1	74	G
36	1	76	G
36	1	83	U
36	1	85	A
36	1	92	G
36	1	93	C
36	1	94	G
36	1	99	A
36	1	102	C
36	1	109	A
36	1	110	G
36	1	121	A
36	1	122	A
36	1	133	U
36	1	135	C
36	1	136	G
36	1	143	G
36	1	146	U
36	1	147	U
36	1	156	G
36	1	157	A
36	1	160	G
36	1	166	C
36	1	173	G
36	1	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	200	C
36	1	207	U
36	1	210	U
36	1	211	A
36	1	218	G
36	1	219	A
36	1	224	C

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Mol	Chain	Res	Type
36	1	234	G
36	1	237	G
36	1	239	G
36	1	240	U
36	1	241	G
36	1	243	G
36	1	244	G
36	1	245	U
36	1	248	U
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	265	A
36	1	269	G
36	1	282	G
36	1	283	G
36	1	286	U
36	1	295	A
36	1	298	U
36	1	323	A
36	1	329	U
36	1	349	A
36	1	350	C
36	1	351	A
36	1	370	U
36	1	374	A
36	1	375	A
36	1	376	G
36	1	395	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	421	G
36	1	422	A
36	1	427	C
36	1	438	A
36	1	440	A
36	1	495	G

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Mol	Chain	Res	Type
36	1	496	C
36	1	520	U
36	1	521	A
36	1	535	G
36	1	544	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	551	A
36	1	552	G
36	1	556	U
36	1	557	A
36	1	558	U
36	1	559	A
36	1	560	G
36	1	568	G
36	1	578	A
36	1	579	G
36	1	585	A
36	1	592	A
36	1	602	A
36	1	604	G
36	1	608	A
36	1	609	G
36	1	611	A
36	1	620	U
36	1	621	A
36	1	624	G
36	1	636	C
36	1	642	U
36	1	643	U
36	1	644	G
36	1	649	A
36	1	656	A
36	1	660	A
36	1	661	G
36	1	662	U
36	1	677	A
36	1	681	U
36	1	684	G
36	1	691	A
36	1	705	A

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Mol	Chain	Res	Type
36	1	712	G
36	1	715	A
36	1	716	A
36	1	719	U
36	1	720	A
36	1	725	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	776	U
36	1	777	U
36	1	781	G
36	1	785	G
36	1	786	A
36	1	804	C
36	1	806	A
36	1	817	A
36	1	830	A
36	1	849	C
36	1	861	C
36	1	874	U
36	1	879	U
36	1	891	G
36	1	896	A
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	923	C
36	1	924	G
36	1	937	G
36	1	943	U
36	1	944	C
36	1	959	C
36	1	960	U
36	1	962	A
36	1	963	G
36	1	974	G
36	1	979	U
36	1	980	A

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Mol	Chain	Res	Type
36	1	981	U
36	1	982	C
36	1	994	G
36	1	1001	G
36	1	1002	A
36	1	1003	A
36	1	1006	A
36	1	1010	G
36	1	1015	U
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1034	U
36	1	1037	C
36	1	1047	A
36	1	1049	C
36	1	1052	U
36	1	1063	G
36	1	1064	A
36	1	1065	A
36	1	1072	G
36	1	1075	A
36	1	1079	A
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1087	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1096	U
36	1	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1116	G
36	1	1117	G
36	1	1121	U
36	1	1131	G

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Mol	Chain	Res	Type
36	1	1153	A
36	1	1159	A
36	1	1160	C
36	1	1168	U
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1191	U
36	1	1192	C
36	1	1201	C
36	1	1209	G
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1221	A
36	1	1222	G
36	1	1227	C
36	1	1232	C
36	1	1236	G
36	1	1237	G
36	1	1241	U
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1258	U
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A
36	1	1278	A
36	1	1279	C
36	1	1280	C
36	1	1285	G
36	1	1286	A
36	1	1287	A

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Mol	Chain	Res	Type
36	1	1293	U
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1329	U
36	1	1330	A
36	1	1331	U
36	1	1333	C
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	1355	A
36	1	1356	U
36	1	1357	G
36	1	1379	G
36	1	1386	A
36	1	1399	A
36	1	1400	G
36	1	1412	G
36	1	1414	G
36	1	1419	A
36	1	1425	U
36	1	1429	G
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1446	A
36	1	1450	G
36	1	1454	A
36	1	1455	U
36	1	1477	A
36	1	1481	A
36	1	1482	A
36	1	1484	U
36	1	1485	G
36	1	1490	A
36	1	1496	C

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Mol	Chain	Res	Type
36	1	1498	A
36	1	1508	C
36	1	1522	U
36	1	1525	G
36	1	1526	U
36	1	1527	C
36	1	1528	G
36	1	1533	U
36	1	1536	G
36	1	1549	U
36	1	1555	U
36	1	1556	C
36	1	1560	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1572	U
36	1	1576	G
36	1	1578	C
36	1	1579	C
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	1607	U
36	1	1619	A
36	1	1620	U
36	1	1621	A
36	1	1629	U
36	1	1639	C
36	1	1643	A
36	1	1645	U
36	1	1646	G
36	1	1657	C
36	1	1683	A
36	1	1687	U
36	1	1716	U

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Mol	Chain	Res	Type
36	1	1717	U
36	1	1724	U
36	1	1735	G
36	1	1736	G
36	1	1741	A
36	1	1750	A
36	1	1751	G
36	1	1760	A
36	1	1761	C
36	1	1762	C
36	1	1763	U
36	1	1764	U
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1770	G
36	1	1776	G
36	1	1780	G
36	1	1797	A
36	1	1809	A
36	1	1810	A
36	1	1814	A
36	1	1815	U
36	1	1816	A
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1839	A
36	1	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1855	U
36	1	1866	C
36	1	1871	U
36	1	1879	A
36	1	1886	A
36	1	1906	G
36	1	1937	U
36	1	1951	C
36	1	1952	G

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Mol	Chain	Res	Type
36	1	1954	G
36	1	2094	C
36	1	2101	C
36	1	2102	U
36	1	2105	G
36	1	2106	A
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2116	G
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2139	A
36	1	2140	U
36	1	2158	A
36	1	2164	A
36	1	2169	G
36	1	2170	U
36	1	2177	G
36	1	2187	G
36	1	2188	A
36	1	2195	C
36	1	2205	U
36	1	2206	G
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2222	A
36	1	2223	A
36	1	2244	A
36	1	2249	G
36	1	2250	G
36	1	2252	A
36	1	2254	U
36	1	2255	A
36	1	2256	A
36	1	2268	U
36	1	2272	G
36	1	2273	G
36	1	2279	A
36	1	2281	A

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Mol	Chain	Res	Type
36	1	2282	U
36	1	2284	C
36	1	2298	U
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2330	C
36	1	2336	U
36	1	2362	C
36	1	2366	C
36	1	2372	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2393	G
36	1	2397	A
36	1	2402	A
36	1	2403	G
36	1	2404	A
36	1	2405	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2435	G
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2507	C
36	1	2509	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	2529	A
36	1	2532	U
36	1	2533	G

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Mol	Chain	Res	Type
36	1	2534	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	2549	G
36	1	2551	U
36	1	2552	C
36	1	2554	A
36	1	2555	G
36	1	2561	A
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	2585	G
36	1	2586	G
36	1	2589	G
36	1	2593	A
36	1	2594	C
36	1	2600	C
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2637	A
36	1	2652	U
36	1	2653	C
36	1	2655	U
36	1	2656	A
36	1	2674	A
36	1	2677	G
36	1	2681	U
36	1	2689	A
36	1	2694	A
36	1	2696	A
36	1	2699	G

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Mol	Chain	Res	Type
36	1	2705	A
36	1	2707	C
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2749	G
36	1	2752	U
36	1	2753	G
36	1	2762	A
36	1	2771	U
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2783	U
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2810	C
36	1	2816	G
36	1	2817	A
36	1	2818	U
36	1	2819	A
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	2849	C
36	1	2860	U
36	1	2871	G
36	1	2872	A
36	1	2874	G
36	1	2875	U
36	1	2876	C
36	1	2886	U
36	1	2887	A
36	1	2889	C
36	1	2896	A

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Mol	Chain	Res	Type
36	1	2898	G
36	1	2899	C
36	1	2914	G
36	1	2923	U
36	1	2927	C
36	1	2935	U
36	1	2936	A
36	1	2941	A
36	1	2942	C
36	1	2945	G
36	1	2946	A
36	1	2947	G
36	1	2971	A
36	1	2974	U
36	1	2979	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3006	A
36	1	3012	A
36	1	3025	C
36	1	3030	G
36	1	3056	U
36	1	3057	U
36	1	3059	G
36	1	3078	U
36	1	3079	U
36	1	3080	G
36	1	3086	A
36	1	3092	C
36	1	3113	A
36	1	3119	U
36	1	3122	A
36	1	3130	A
36	1	3131	U
36	1	3142	A
36	1	3143	C
36	1	3151	U
36	1	3152	U
36	1	3154	C

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Mol	Chain	Res	Type
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3158	G
36	1	3164	C
36	1	3165	A
36	1	3166	C
36	1	3168	A
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3181	C
36	1	3187	A
36	1	3195	U
36	1	3196	U
36	1	3198	U
36	1	3207	U
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3228	C
36	1	3229	G
36	1	3235	C
36	1	3243	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3270	U
36	1	3272	C
36	1	3273	A
36	1	3276	G
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3288	G
36	1	3289	G
36	1	3294	A
36	1	3295	A
36	1	3304	U

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Mol	Chain	Res	Type
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	3330	A
36	1	3341	U
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	3360	C
36	1	3369	G
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3386	G
36	1	3389	U
36	1	3390	G
37	3	13	A
37	3	14	U
37	3	21	G
37	3	22	A
37	3	42	A
37	3	54	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	91	G
37	3	102	A
37	3	106	U
37	3	112	G
37	3	121	U
38	4	2	A
38	4	21	C

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Mol	Chain	Res	Type
38	4	22	U
38	4	26	U
38	4	34	U
38	4	35	C
38	4	48	A
38	4	52	A
38	4	58	G
38	4	59	A
38	4	62	C
38	4	63	G
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C
38	4	86	U
38	4	87	G
38	4	90	U
38	4	95	G
38	4	96	A
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	127	U
38	4	128	U
38	4	138	A
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	17	C
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	47	A
1	6	57	G
1	6	60	U

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Mol	Chain	Res	Type
1	6	61	A
1	6	67	A
1	6	68	A
1	6	69	G
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	103	A
1	6	104	A
1	6	114	C
1	6	116	U
1	6	126	A
1	6	127	G
1	6	129	U
1	6	132	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	158	U
1	6	159	U
1	6	178	U
1	6	179	A
1	6	181	A
1	6	182	A
1	6	185	U
1	6	187	G
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	195	G
1	6	197	A
1	6	200	A
1	6	215	A

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Mol	Chain	Res	Type
1	6	216	U
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	240	U
1	6	241	U
1	6	248	U
1	6	249	U
1	6	250	C
1	6	261	U
1	6	265	A
1	6	266	A
1	6	271	A
1	6	272	U
1	6	275	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	285	G
1	6	287	G
1	6	299	A
1	6	304	U
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	335	U
1	6	337	G
1	6	338	C
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C
1	6	381	C

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Mol	Chain	Res	Type
1	6	393	C
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	416	A
1	6	417	A
1	6	418	G
1	6	424	C
1	6	425	A
1	6	426	G
1	6	434	G
1	6	439	U
1	6	444	C
1	6	445	A
1	6	448	C
1	6	464	A
1	6	468	A
1	6	469	C
1	6	470	A
1	6	477	A
1	6	480	G
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	492	A
1	6	493	U
1	6	494	U
1	6	495	C
1	6	496	G
1	6	497	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

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Mol	Chain	Res	Type
1	6	510	G
1	6	511	A
1	6	512	A
1	6	513	U
1	6	519	C
1	6	527	A
1	6	536	C
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	548	G
1	6	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	597	G
1	6	609	U
1	6	610	G
1	6	611	U
1	6	617	U
1	6	619	A
1	6	620	A
1	6	621	A
1	6	622	A
1	6	623	A
1	6	637	C
1	6	639	U
1	6	640	U
1	6	645	C

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Mol	Chain	Res	Type
1	6	650	U
1	6	652	G
1	6	653	C
1	6	658	C
1	6	659	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U
1	6	669	G
1	6	670	U
1	6	676	G
1	6	679	U
1	6	680	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	699	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	723	G
1	6	730	G
1	6	739	G
1	6	742	U
1	6	743	U
1	6	751	G
1	6	754	A
1	6	755	A
1	6	756	A
1	6	765	G
1	6	766	U
1	6	774	A

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Mol	Chain	Res	Type
1	6	775	G
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	792	U
1	6	793	A
1	6	795	U
1	6	806	A
1	6	811	A
1	6	812	A
1	6	813	U
1	6	814	A
1	6	815	G
1	6	816	G
1	6	821	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	846	G
1	6	847	A
1	6	856	A
1	6	863	A
1	6	864	U
1	6	898	A
1	6	906	A
1	6	912	U
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U
1	6	942	G

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Mol	Chain	Res	Type
1	6	959	U
1	6	960	U
1	6	966	A
1	6	970	A
1	6	971	A
1	6	983	A
1	6	989	U
1	6	991	G
1	6	992	A
1	6	993	A
1	6	997	G
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1020	A
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
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	1072	C
1	6	1082	C
1	6	1091	A
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1109	G
1	6	1138	A
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C

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Mol	Chain	Res	Type
1	6	1160	A
1	6	1162	C
1	6	1167	G
1	6	1185	U
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1203	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1226	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
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	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1259	U
1	6	1285	U
1	6	1286	U
1	6	1288	G
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1330	G
1	6	1331	A
1	6	1337	A
1	6	1338	C
1	6	1344	A

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Mol	Chain	Res	Type
1	6	1345	A
1	6	1346	A
1	6	1347	U
1	6	1354	G
1	6	1361	U
1	6	1363	U
1	6	1364	G
1	6	1370	U
1	6	1371	A
1	6	1372	U
1	6	1383	G
1	6	1388	A
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	1413	U
1	6	1414	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1447	C
1	6	1448	G
1	6	1454	G
1	6	1458	G
1	6	1459	C
1	6	1461	C
1	6	1471	A
1	6	1481	C
1	6	1482	C
1	6	1483	A
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1496	U
1	6	1506	G

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Mol	Chain	Res	Type
1	6	1513	G
1	6	1514	U
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1584	G
1	6	1601	G
1	6	1616	G
1	6	1619	C
1	6	1620	C
1	6	1621	U
1	6	1634	C
1	6	1656	U
1	6	1657	U
1	6	1658	G
1	6	1681	A
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1703	C
1	6	1710	U
1	6	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1731	A
1	6	1736	G
1	6	1755	A

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Mol	Chain	Res	Type
1	6	1760	G
1	6	1762	A
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1795	U
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	11	A
36	5	26	A
36	5	33	G
36	5	40	A
36	5	43	A
36	5	49	A
36	5	60	A
36	5	62	A
36	5	65	A
36	5	66	A
36	5	73	C
36	5	76	G
36	5	83	U
36	5	92	G
36	5	99	A
36	5	109	A
36	5	110	G
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	156	G

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Mol	Chain	Res	Type
36	5	157	A
36	5	165	A
36	5	170	G
36	5	171	G
36	5	173	G
36	5	174	C
36	5	180	C
36	5	182	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	210	U
36	5	211	A
36	5	218	G
36	5	219	A
36	5	221	A
36	5	231	G
36	5	237	G
36	5	238	A
36	5	239	G
36	5	240	U
36	5	244	G
36	5	247	C
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	269	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	298	U
36	5	305	U
36	5	315	C
36	5	318	A
36	5	323	A
36	5	329	U
36	5	334	A
36	5	340	C

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Mol	Chain	Res	Type
36	5	349	A
36	5	350	C
36	5	351	A
36	5	352	A
36	5	370	U
36	5	375	A
36	5	376	G
36	5	382	U
36	5	395	A
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	407	A
36	5	421	G
36	5	422	A
36	5	425	G
36	5	436	A
36	5	437	G
36	5	438	A
36	5	439	C
36	5	440	A
36	5	441	U
36	5	442	G
36	5	492	U
36	5	495	G
36	5	521	A
36	5	531	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	553	U
36	5	555	U
36	5	557	A
36	5	559	A
36	5	578	A
36	5	579	G
36	5	592	A
36	5	600	G

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Mol	Chain	Res	Type
36	5	604	G
36	5	608	A
36	5	609	G
36	5	611	A
36	5	619	A
36	5	620	U
36	5	621	A
36	5	630	A
36	5	636	C
36	5	649	A
36	5	660	A
36	5	661	G
36	5	677	A
36	5	681	U
36	5	683	U
36	5	705	A
36	5	712	G
36	5	715	A
36	5	716	A
36	5	725	G
36	5	758	C
36	5	760	G
36	5	766	U
36	5	767	U
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	804	C
36	5	806	A
36	5	817	A
36	5	830	A
36	5	861	C
36	5	874	U
36	5	879	U
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	914	A
36	5	916	G

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Mol	Chain	Res	Type
36	5	917	A
36	5	921	A
36	5	924	G
36	5	937	G
36	5	938	C
36	5	944	C
36	5	946	U
36	5	948	C
36	5	959	C
36	5	960	U
36	5	963	G
36	5	979	U
36	5	981	U
36	5	993	G
36	5	994	G
36	5	1001	G
36	5	1002	A
36	5	1003	A
36	5	1010	G
36	5	1014	U
36	5	1015	U
36	5	1016	C
36	5	1017	C
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1027	A
36	5	1028	U
36	5	1029	G
36	5	1035	G
36	5	1047	A
36	5	1049	C
36	5	1051	U
36	5	1052	U
36	5	1064	A
36	5	1065	A
36	5	1071	U
36	5	1072	G
36	5	1079	A
36	5	1081	U
36	5	1082	U

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Mol	Chain	Res	Type
36	5	1087	G
36	5	1093	A
36	5	1094	U
36	5	1095	U
36	5	1096	U
36	5	1097	G
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1116	G
36	5	1117	G
36	5	1131	G
36	5	1149	G
36	5	1152	G
36	5	1153	A
36	5	1159	A
36	5	1160	C
36	5	1166	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1192	C
36	5	1193	A
36	5	1201	C
36	5	1209	G
36	5	1222	G
36	5	1232	C
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1243	G
36	5	1244	A
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G

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Mol	Chain	Res	Type
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1313	G
36	5	1321	G
36	5	1329	U
36	5	1330	A
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	1385	C
36	5	1386	A
36	5	1387	G
36	5	1399	A
36	5	1400	G
36	5	1403	C
36	5	1419	A
36	5	1421	G
36	5	1422	G
36	5	1431	G
36	5	1434	G
36	5	1435	A
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1460	A
36	5	1476	G
36	5	1480	G
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1495	U
36	5	1508	C
36	5	1528	G
36	5	1533	U
36	5	1536	G
36	5	1539	A

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Mol	Chain	Res	Type
36	5	1542	G
36	5	1553	U
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	1566	A
36	5	1567	U
36	5	1570	U
36	5	1571	A
36	5	1572	U
36	5	1573	G
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	1581	C
36	5	1582	C
36	5	1583	A
36	5	1587	A
36	5	1589	A
36	5	1593	A
36	5	1605	A
36	5	1620	U
36	5	1629	U
36	5	1639	C
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1658	G
36	5	1683	A
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1736	G

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Mol	Chain	Res	Type
36	5	1741	A
36	5	1750	A
36	5	1751	G
36	5	1758	G
36	5	1759	C
36	5	1760	A
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1770	G
36	5	1778	G
36	5	1780	G
36	5	1797	A
36	5	1800	A
36	5	1810	A
36	5	1813	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1821	U
36	5	1839	A
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	1847	A
36	5	1849	C
36	5	1850	A
36	5	1876	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1893	A
36	5	1895	A
36	5	1906	G
36	5	1908	A
36	5	1909	A
36	5	1914	G
36	5	1932	A
36	5	1935	G

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Mol	Chain	Res	Type
36	5	1940	G
36	5	1952	G
36	5	1953	G
36	5	2097	U
36	5	2100	A
36	5	2101	C
36	5	2102	U
36	5	2112	U
36	5	2113	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2170	U
36	5	2188	A
36	5	2192	C
36	5	2198	A
36	5	2201	G
36	5	2205	U
36	5	2210	G
36	5	2222	A
36	5	2223	A
36	5	2229	A
36	5	2244	A
36	5	2250	G
36	5	2251	G
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2258	U
36	5	2269	U
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2288	G
36	5	2298	U
36	5	2306	C
36	5	2307	G
36	5	2310	U
36	5	2313	A

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Mol	Chain	Res	Type
36	5	2315	G
36	5	2318	U
36	5	2334	U
36	5	2336	U
36	5	2366	C
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G
36	5	2388	U
36	5	2392	C
36	5	2393	G
36	5	2394	G
36	5	2397	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2411	U
36	5	2418	G
36	5	2419	A
36	5	2435	G
36	5	2438	A
36	5	2439	A
36	5	2441	A
36	5	2443	A
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2510	U
36	5	2511	A
36	5	2514	U
36	5	2515	A
36	5	2518	C
36	5	2519	A
36	5	2523	A
36	5	2524	A
36	5	2526	C
36	5	2530	G
36	5	2531	C

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Mol	Chain	Res	Type
36	5	2532	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
36	5	2544	U
36	5	2549	G
36	5	2552	C
36	5	2555	G
36	5	2560	C
36	5	2567	C
36	5	2568	C
36	5	2569	A
36	5	2571	U
36	5	2572	C
36	5	2573	G
36	5	2574	G
36	5	2585	G
36	5	2589	G
36	5	2593	A
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2615	G
36	5	2624	G
36	5	2628	A
36	5	2639	G
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2677	G
36	5	2681	U
36	5	2689	A
36	5	2690	G
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2709	C
36	5	2714	G
36	5	2720	G
36	5	2728	G
36	5	2729	U

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Mol	Chain	Res	Type
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2762	A
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
36	5	2796	G
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2829	U
36	5	2834	G
36	5	2837	A
36	5	2838	A
36	5	2839	G
36	5	2840	C
36	5	2843	U
36	5	2845	A
36	5	2847	A
36	5	2849	C
36	5	2853	A
36	5	2871	G
36	5	2872	A
36	5	2876	C
36	5	2887	A
36	5	2898	G
36	5	2899	C
36	5	2900	A
36	5	2902	A
36	5	2904	U
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2942	C

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Mol	Chain	Res	Type
36	5	2947	G
36	5	2957	G
36	5	2971	A
36	5	2972	G
36	5	2979	U
36	5	2983	C
36	5	2990	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3018	C
36	5	3028	G
36	5	3030	G
36	5	3048	A
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	3081	C
36	5	3086	A
36	5	3092	C
36	5	3102	G
36	5	3119	U
36	5	3122	A
36	5	3123	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3159	C
36	5	3164	C
36	5	3165	A
36	5	3168	A
36	5	3172	A
36	5	3173	G

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Mol	Chain	Res	Type
36	5	3174	A
36	5	3175	U
36	5	3176	G
36	5	3181	C
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3198	U
36	5	3207	U
36	5	3208	G
36	5	3216	G
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3223	A
36	5	3227	A
36	5	3228	C
36	5	3229	G
36	5	3239	G
36	5	3243	A
36	5	3244	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3260	G
36	5	3269	U
36	5	3270	U
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3280	U
36	5	3282	U
36	5	3283	U
36	5	3284	G
36	5	3285	C
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A

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Mol	Chain	Res	Type
36	5	3304	U
36	5	3307	A
36	5	3313	U
36	5	3316	A
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3332	U
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3378	C
36	5	3382	U
36	5	3383	G
36	5	3389	U
36	5	3390	G
36	5	3393	U
36	5	3396	U
37	7	22	A
37	7	25	G
37	7	27	A
37	7	33	U
37	7	38	U
37	7	51	A
37	7	52	G
37	7	54	U
37	7	55	A
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	93	C
37	7	99	G
37	7	101	G
37	7	102	A

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Mol	Chain	Res	Type
37	7	103	A
37	7	110	G
37	7	112	G
38	8	21	C
38	8	22	U
38	8	25	G
38	8	34	U
38	8	35	C
38	8	48	A
38	8	49	G
38	8	52	A
38	8	53	A
38	8	59	A
38	8	62	C
38	8	63	G
38	8	79	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	88	A
38	8	90	U
38	8	95	G
38	8	102	U
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U
38	8	124	G
38	8	125	U
38	8	126	A
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

All (284) RNA pucker outliers are listed below:

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Mol	Chain	Res	Type
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Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
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	218	A
1	2	240	U
1	2	278	U
1	2	280	U
1	2	400	A
1	2	417	A
1	2	468	A
1	2	497	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	510	G
1	2	512	A
1	2	558	U
1	2	582	U
1	2	685	A
1	2	704	C
1	2	720	G
1	2	721	U
1	2	734	A
1	2	755	A
1	2	811	A
1	2	829	A
1	2	1058	U
1	2	1081	A
1	2	1137	A
1	2	1157	A
1	2	1196	A
1	2	1226	A
1	2	1244	A
1	2	1250	U

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Mol	Chain	Res	Type
1	2	1339	C
1	2	1344	A
1	2	1370	U
1	2	1481	C
1	2	1491	U
1	2	1568	C
1	2	1572	G
1	2	1573	A
1	2	1615	C
1	2	1657	U
1	2	1761	U
36	1	40	A
36	1	43	A
36	1	65	A
36	1	93	C
36	1	217	U
36	1	223	U
36	1	239	G
36	1	264	G
36	1	282	G
36	1	397	A
36	1	398	A
36	1	547	G
36	1	588	G
36	1	594	U
36	1	715	A
36	1	763	G
36	1	816	A
36	1	873	C
36	1	874	U
36	1	896	A
36	1	916	G
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1094	U
36	1	1097	G
36	1	1103	A
36	1	1196	C
36	1	1273	A
36	1	1307	G
36	1	1329	U

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Mol	Chain	Res	Type
36	1	1331	U
36	1	1348	U
36	1	1352	A
36	1	1355	A
36	1	1481	A
36	1	1484	U
36	1	1507	G
36	1	1554	U
36	1	1562	C
36	1	1582	C
36	1	1716	U
36	1	1751	G
36	1	1815	U
36	1	1820	U
36	1	1841	A
36	1	1842	A
36	1	2101	C
36	1	2112	U
36	1	2209	U
36	1	2249	G
36	1	2281	A
36	1	2372	A
36	1	2373	A
36	1	2418	G
36	1	2523	A
36	1	2537	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2677	G
36	1	2689	A
36	1	2714	G
36	1	2728	G
36	1	2752	U
36	1	2772	C
36	1	2801	A
36	1	2818	U
36	1	2996	U
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3157	U

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Mol	Chain	Res	Type
36	1	3195	U
36	1	3207	U
36	1	3217	C
36	1	3218	A
36	1	3228	C
36	1	3242	G
36	1	3269	U
36	1	3275	U
36	1	3316	A
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
37	3	13	A
37	3	49	G
38	4	80	A
38	4	82	U
38	4	85	G
38	4	111	A
38	4	126	A
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	192	U
1	6	217	A
1	6	240	U
1	6	352	A
1	6	400	A
1	6	417	A
1	6	468	A
1	6	512	A
1	6	541	A
1	6	542	A
1	6	664	U
1	6	717	C
1	6	720	G
1	6	755	A
1	6	794	U

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Mol	Chain	Res	Type
1	6	812	A
1	6	829	A
1	6	834	G
1	6	1051	G
1	6	1058	U
1	6	1081	A
1	6	1097	U
1	6	1098	U
1	6	1137	A
1	6	1244	A
1	6	1255	G
1	6	1344	A
1	6	1346	A
1	6	1398	U
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1535	U
1	6	1572	G
1	6	1573	A
1	6	1615	C
1	6	1620	C
1	6	1657	U
1	6	1698	G
36	5	43	A
36	5	191	U
36	5	210	U
36	5	217	U
36	5	221	A
36	5	238	A
36	5	374	A
36	5	397	A
36	5	588	G
36	5	647	A
36	5	659	G
36	5	715	A
36	5	765	C
36	5	786	A
36	5	816	A
36	5	896	A
36	5	916	G
36	5	960	U

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Mol	Chain	Res	Type
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1181	U
36	5	1192	C
36	5	1236	G
36	5	1238	C
36	5	1241	U
36	5	1307	G
36	5	1317	A
36	5	1329	U
36	5	1331	U
36	5	1352	A
36	5	1355	A
36	5	1392	G
36	5	1434	G
36	5	1481	A
36	5	1507	G
36	5	1554	U
36	5	1556	C
36	5	1560	G
36	5	1572	U
36	5	1580	A
36	5	1589	A
36	5	1643	A
36	5	1716	U
36	5	1816	A
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2209	U
36	5	2249	G
36	5	2255	A
36	5	2257	C
36	5	2281	A
36	5	2373	A
36	5	2374	C

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Mol	Chain	Res	Type
36	5	2438	A
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2531	C
36	5	2539	C
36	5	2572	C
36	5	2689	A
36	5	2728	G
36	5	2772	C
36	5	2801	A
36	5	2818	U
36	5	2875	U
36	5	2887	A
36	5	2971	A
36	5	2996	U
36	5	3056	U
36	5	3078	U
36	5	3121	U
36	5	3154	C
36	5	3195	U
36	5	3207	U
36	5	3228	C
36	5	3242	G
36	5	3269	U
36	5	3275	U
36	5	3289	G
36	5	3340	G
36	5	3354	U
36	5	3357	U
37	7	49	G
38	8	84	C
38	8	111	A

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 2561 ligands modelled in this entry, 1426 are monoatomic - leaving 1135 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	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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-	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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	1	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	1	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
89	ANM	1	4218	-	19,20,20	0.83	0	22,27,27	1.39	3 (13%)
87	OHX	2	2023	-	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
87	OHX	2	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
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	3	226	-	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	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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	87	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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	87	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	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4254	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4255	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4256	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4257	-	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	4258	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	5	4259	-	0,6,6	0.00	-	0,15,15	0.00	-
89	ANM	5	4260	-	19,20,20	1.31	3 (15%)	22,27,27	1.73	5 (22%)
87	OHX	6	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	6	2049	-	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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	7	215	-	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	8	213	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	214	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	215	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	8	217	-	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	-
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	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	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	L4	402	-	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	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	M7	207	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	M8	201	-	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	N9	101	-	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	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	O3	201	-	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	503	-	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	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	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	l9	600	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m0	301	-	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	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	m5	305	-	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	m8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	n3	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	o2	201	-	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	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	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	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
87	OHX	s4	301	-	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	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
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	-	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	1	4212	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4213	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4214	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4215	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4216	-	-	0/0/0/0	0/0/0/0
87	OHX	1	4217	-	-	0/0/0/0	0/0/0/0
89	ANM	1	4218	-	-	0/10/23/23	0/2/2/2
87	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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
87	OHX	2	2181	-	-	0/0/0/0	0/0/0/0
87	OHX	3	215	-	-	0/0/0/0	0/0/0/0
87	OHX	3	216	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	3	225	-	-	0/0/0/0	0/0/0/0
87	OHX	3	226	-	-	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	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
87	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3919	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	87	-	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
87	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
87	OHX	5	3961	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4003	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4045	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4087	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4129	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4171	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4213	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	87	-	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	5	4247	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4254	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4255	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
87	OHX	5	4256	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4257	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4258	-	-	0/0/0/0	0/0/0/0
87	OHX	5	4259	-	-	0/0/0/0	0/0/0/0
89	ANM	5	4260	-	-	0/10/23/23	0/2/2/2
87	OHX	6	2044	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2045	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2046	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
87	OHX	6	2049	-	-	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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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	7	215	-	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	8	213	-	-	0/0/0/0	0/0/0/0
87	OHX	8	214	-	-	0/0/0/0	0/0/0/0
87	OHX	8	215	-	-	0/0/0/0	0/0/0/0
87	OHX	8	216	-	-	0/0/0/0	0/0/0/0
87	OHX	8	217	-	-	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
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	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	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	L4	402	-	-	0/0/0/0	0/0/0/0
87	OHX	M0	303	-	-	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	M7	207	-	-	0/0/0/0	0/0/0/0
87	OHX	M8	201	-	-	0/0/0/0	0/0/0/0
87	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
87	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
87	OHX	O1	202	-	-	0/0/0/0	0/0/0/0
87	OHX	O2	201	-	-	0/0/0/0	0/0/0/0
87	OHX	O3	201	-	-	0/0/0/0	0/0/0/0
87	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
87	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
87	OHX	c8	202	-	-	0/0/0/0	0/0/0/0
87	OHX	d4	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	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	l9	600	-	-	0/0/0/0	0/0/0/0
87	OHX	m0	301	-	-	0/0/0/0	0/0/0/0
87	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
87	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
87	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
87	OHX	m5	305	-	-	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	m8	201	-	-	0/0/0/0	0/0/0/0
87	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
87	OHX	n9	102	-	-	0/0/0/0	0/0/0/0
87	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
87	OHX	o3	202	-	-	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	q2	502	-	-	0/0/0/0	0/0/0/0
87	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
87	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
87	OHX	s4	301	-	-	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

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
89	5	4260	ANM	O1-C9	2.29	1.42	1.37
89	5	4260	ANM	C13-C1	2.80	1.43	1.38
89	5	4260	ANM	C11-C10	2.82	1.43	1.38

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
89	5	4260	ANM	O2-C2-C16	-3.40	102.23	110.42
89	5	4260	ANM	O2-C2-C3	-3.31	101.21	109.56
89	1	4218	ANM	O2-C2-C3	-3.28	101.28	109.56
89	5	4260	ANM	C13-C1-C9	-3.06	115.89	119.74
89	5	4260	ANM	C11-C10-C9	-3.04	115.91	119.74
89	1	4218	ANM	C10-C9-C1	-2.42	116.27	120.20
89	1	4218	ANM	C13-C1-C9	2.98	123.50	119.74
89	5	4260	ANM	C10-C9-C1	3.57	126.01	120.20

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

475 monomers are involved in 773 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	3868	OHX	1	0
87	1	3873	OHX	1	0
87	1	3875	OHX	1	0
87	1	3876	OHX	1	0
87	1	3878	OHX	1	0
87	1	3880	OHX	1	0
87	1	3882	OHX	1	0
87	1	3884	OHX	1	0
87	1	3885	OHX	1	0
87	1	3886	OHX	1	0
87	1	3887	OHX	2	0
87	1	3888	OHX	2	0
87	1	3890	OHX	2	0
87	1	3892	OHX	1	0
87	1	3893	OHX	1	0
87	1	3896	OHX	1	0
87	1	3897	OHX	1	0
87	1	3903	OHX	1	0
87	1	3904	OHX	1	0
87	1	3905	OHX	2	0
87	1	3910	OHX	1	0
87	1	3911	OHX	1	0
87	1	3916	OHX	1	0
87	1	3919	OHX	2	0
87	1	3920	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	3924	OHX	1	0
87	1	3925	OHX	1	0
87	1	3931	OHX	2	0
87	1	3935	OHX	2	0
87	1	3937	OHX	3	0
87	1	3938	OHX	1	0
87	1	3941	OHX	1	0
87	1	3945	OHX	1	0
87	1	3951	OHX	1	0
87	1	3954	OHX	2	0
87	1	3957	OHX	1	0
87	1	3960	OHX	2	0
87	1	3961	OHX	6	0
87	1	3962	OHX	1	0
87	1	3963	OHX	6	0
87	1	3967	OHX	2	0
87	1	3969	OHX	1	0
87	1	3972	OHX	1	0
87	1	3975	OHX	6	0
87	1	3976	OHX	1	0
87	1	3978	OHX	1	0
87	1	3979	OHX	1	0
87	1	3980	OHX	1	0
87	1	3984	OHX	1	0
87	1	3985	OHX	1	0
87	1	3986	OHX	1	0
87	1	3987	OHX	1	0
87	1	3989	OHX	1	0
87	1	3992	OHX	1	0
87	1	3994	OHX	1	0
87	1	4000	OHX	1	0
87	1	4005	OHX	2	0
87	1	4006	OHX	2	0
87	1	4007	OHX	7	0
87	1	4010	OHX	2	0
87	1	4012	OHX	1	0
87	1	4017	OHX	1	0
87	1	4019	OHX	1	0
87	1	4021	OHX	1	0
87	1	4023	OHX	5	0
87	1	4031	OHX	2	0
87	1	4032	OHX	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4034	OHX	2	0
87	1	4036	OHX	6	0
87	1	4037	OHX	2	0
87	1	4038	OHX	1	0
87	1	4039	OHX	1	0
87	1	4041	OHX	3	0
87	1	4042	OHX	2	0
87	1	4043	OHX	1	0
87	1	4044	OHX	1	0
87	1	4046	OHX	1	0
87	1	4047	OHX	4	0
87	1	4048	OHX	7	0
87	1	4049	OHX	1	0
87	1	4051	OHX	2	0
87	1	4052	OHX	1	0
87	1	4054	OHX	1	0
87	1	4056	OHX	2	0
87	1	4059	OHX	6	0
87	1	4060	OHX	4	0
87	1	4061	OHX	5	0
87	1	4064	OHX	1	0
87	1	4065	OHX	3	0
87	1	4066	OHX	1	0
87	1	4067	OHX	1	0
87	1	4070	OHX	1	0
87	1	4076	OHX	1	0
87	1	4079	OHX	1	0
87	1	4080	OHX	1	0
87	1	4082	OHX	1	0
87	1	4084	OHX	4	0
87	1	4086	OHX	1	0
87	1	4088	OHX	6	0
87	1	4089	OHX	2	0
87	1	4091	OHX	1	0
87	1	4092	OHX	1	0
87	1	4094	OHX	1	0
87	1	4098	OHX	1	0
87	1	4099	OHX	1	0
87	1	4102	OHX	1	0
87	1	4111	OHX	1	0
87	1	4113	OHX	1	0
87	1	4122	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4123	OHX	1	0
87	1	4126	OHX	1	0
87	1	4132	OHX	1	0
87	1	4135	OHX	1	0
87	1	4136	OHX	2	0
87	1	4137	OHX	1	0
87	1	4139	OHX	1	0
87	1	4142	OHX	2	0
87	1	4143	OHX	3	0
87	1	4144	OHX	5	0
87	1	4145	OHX	2	0
87	1	4146	OHX	1	0
87	1	4147	OHX	1	0
87	1	4148	OHX	2	0
87	1	4149	OHX	1	0
87	1	4151	OHX	6	0
87	1	4152	OHX	1	0
87	1	4155	OHX	3	0
87	1	4159	OHX	4	0
87	1	4160	OHX	2	0
87	1	4161	OHX	7	0
87	1	4165	OHX	1	0
87	1	4168	OHX	6	0
87	1	4169	OHX	2	0
87	1	4170	OHX	1	0
87	1	4172	OHX	3	0
87	1	4173	OHX	2	0
87	1	4174	OHX	2	0
87	1	4177	OHX	9	0
87	1	4179	OHX	2	0
87	1	4184	OHX	1	0
87	1	4185	OHX	1	0
87	1	4186	OHX	4	0
87	1	4188	OHX	1	0
87	1	4189	OHX	1	0
87	1	4198	OHX	1	0
87	1	4200	OHX	1	0
87	1	4201	OHX	1	0
87	1	4203	OHX	7	0
87	1	4204	OHX	1	0
87	1	4206	OHX	1	0
87	1	4208	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	1	4211	OHX	1	0
87	1	4213	OHX	1	0
87	2	2023	OHX	1	0
87	2	2026	OHX	1	0
87	2	2031	OHX	7	0
87	2	2033	OHX	1	0
87	2	2034	OHX	1	0
87	2	2035	OHX	1	0
87	2	2036	OHX	3	0
87	2	2038	OHX	1	0
87	2	2039	OHX	2	0
87	2	2044	OHX	7	0
87	2	2045	OHX	1	0
87	2	2047	OHX	2	0
87	2	2048	OHX	1	0
87	2	2053	OHX	1	0
87	2	2054	OHX	1	0
87	2	2057	OHX	1	0
87	2	2062	OHX	1	0
87	2	2064	OHX	1	0
87	2	2071	OHX	1	0
87	2	2072	OHX	1	0
87	2	2073	OHX	1	0
87	2	2075	OHX	6	0
87	2	2076	OHX	1	0
87	2	2078	OHX	1	0
87	2	2082	OHX	1	0
87	2	2083	OHX	2	0
87	2	2084	OHX	1	0
87	2	2085	OHX	2	0
87	2	2086	OHX	1	0
87	2	2089	OHX	4	0
87	2	2090	OHX	6	0
87	2	2092	OHX	1	0
87	2	2093	OHX	1	0
87	2	2095	OHX	6	0
87	2	2096	OHX	4	0
87	2	2097	OHX	2	0
87	2	2099	OHX	7	0
87	2	2104	OHX	1	0
87	2	2105	OHX	1	0
87	2	2106	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	2	2108	OHX	1	0
87	2	2109	OHX	8	0
87	2	2110	OHX	1	0
87	2	2111	OHX	2	0
87	2	2115	OHX	2	0
87	2	2116	OHX	4	0
87	2	2117	OHX	1	0
87	2	2119	OHX	1	0
87	2	2121	OHX	3	0
87	2	2123	OHX	1	0
87	2	2126	OHX	1	0
87	2	2127	OHX	1	0
87	2	2128	OHX	1	0
87	2	2130	OHX	2	0
87	2	2131	OHX	1	0
87	2	2132	OHX	8	0
87	2	2133	OHX	1	0
87	2	2137	OHX	2	0
87	2	2139	OHX	1	0
87	2	2141	OHX	1	0
87	2	2142	OHX	1	0
87	2	2145	OHX	1	0
87	2	2146	OHX	2	0
87	2	2147	OHX	7	0
87	2	2149	OHX	1	0
87	2	2150	OHX	1	0
87	2	2153	OHX	1	0
87	2	2155	OHX	2	0
87	2	2156	OHX	1	0
87	2	2158	OHX	2	0
87	2	2161	OHX	2	0
87	2	2163	OHX	6	0
87	2	2166	OHX	1	0
87	2	2167	OHX	2	0
87	2	2168	OHX	1	0
87	2	2170	OHX	1	0
87	3	218	OHX	2	0
87	3	221	OHX	1	0
87	3	226	OHX	1	0
87	4	224	OHX	1	0
87	4	226	OHX	1	0
87	4	230	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	4	234	OHX	3	0
87	4	238	OHX	1	0
87	5	3909	OHX	2	0
87	5	3911	OHX	2	0
87	5	3917	OHX	1	0
87	5	3920	OHX	1	0
87	5	3921	OHX	2	0
87	5	3922	OHX	2	0
87	5	3924	OHX	1	0
87	5	3927	OHX	1	0
87	5	3929	OHX	1	0
87	5	3935	OHX	1	0
87	5	3937	OHX	1	0
87	5	3941	OHX	1	0
87	5	3943	OHX	1	0
87	5	3944	OHX	1	0
87	5	3946	OHX	1	0
87	5	3947	OHX	7	0
87	5	3953	OHX	1	0
87	5	3954	OHX	1	0
87	5	3958	OHX	2	0
87	5	3959	OHX	1	0
87	5	3961	OHX	1	0
87	5	3962	OHX	3	0
87	5	3967	OHX	4	0
87	5	3969	OHX	1	0
87	5	3971	OHX	1	0
87	5	3974	OHX	1	0
87	5	3977	OHX	2	0
87	5	3978	OHX	6	0
87	5	3979	OHX	1	0
87	5	3981	OHX	1	0
87	5	3983	OHX	9	0
87	5	3988	OHX	1	0
87	5	3991	OHX	1	0
87	5	3992	OHX	1	0
87	5	3996	OHX	3	0
87	5	4000	OHX	1	0
87	5	4004	OHX	1	0
87	5	4005	OHX	6	0
87	5	4006	OHX	7	0
87	5	4007	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4008	OHX	1	0
87	5	4012	OHX	2	0
87	5	4016	OHX	6	0
87	5	4018	OHX	2	0
87	5	4019	OHX	1	0
87	5	4024	OHX	2	0
87	5	4025	OHX	1	0
87	5	4026	OHX	7	0
87	5	4029	OHX	3	0
87	5	4030	OHX	1	0
87	5	4034	OHX	1	0
87	5	4035	OHX	1	0
87	5	4036	OHX	1	0
87	5	4037	OHX	1	0
87	5	4039	OHX	1	0
87	5	4040	OHX	1	0
87	5	4041	OHX	5	0
87	5	4045	OHX	1	0
87	5	4052	OHX	1	0
87	5	4055	OHX	1	0
87	5	4056	OHX	1	0
87	5	4057	OHX	1	0
87	5	4058	OHX	1	0
87	5	4059	OHX	1	0
87	5	4061	OHX	6	0
87	5	4062	OHX	1	0
87	5	4065	OHX	1	0
87	5	4071	OHX	2	0
87	5	4072	OHX	7	0
87	5	4074	OHX	1	0
87	5	4078	OHX	1	0
87	5	4080	OHX	2	0
87	5	4086	OHX	1	0
87	5	4087	OHX	1	0
87	5	4094	OHX	1	0
87	5	4095	OHX	1	0
87	5	4096	OHX	7	0
87	5	4098	OHX	1	0
87	5	4099	OHX	2	0
87	5	4100	OHX	3	0
87	5	4101	OHX	6	0
87	5	4103	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4104	OHX	1	0
87	5	4106	OHX	1	0
87	5	4109	OHX	1	0
87	5	4112	OHX	2	0
87	5	4113	OHX	1	0
87	5	4114	OHX	1	0
87	5	4117	OHX	1	0
87	5	4118	OHX	1	0
87	5	4121	OHX	1	0
87	5	4124	OHX	1	0
87	5	4126	OHX	1	0
87	5	4137	OHX	1	0
87	5	4138	OHX	2	0
87	5	4140	OHX	1	0
87	5	4144	OHX	1	0
87	5	4145	OHX	1	0
87	5	4149	OHX	1	0
87	5	4150	OHX	6	0
87	5	4151	OHX	1	0
87	5	4154	OHX	1	0
87	5	4156	OHX	1	0
87	5	4160	OHX	1	0
87	5	4161	OHX	1	0
87	5	4166	OHX	2	0
87	5	4169	OHX	2	0
87	5	4170	OHX	1	0
87	5	4173	OHX	1	0
87	5	4175	OHX	1	0
87	5	4177	OHX	1	0
87	5	4181	OHX	1	0
87	5	4187	OHX	3	0
87	5	4188	OHX	1	0
87	5	4192	OHX	1	0
87	5	4193	OHX	1	0
87	5	4197	OHX	3	0
87	5	4199	OHX	3	0
87	5	4200	OHX	6	0
87	5	4201	OHX	1	0
87	5	4202	OHX	1	0
87	5	4203	OHX	2	0
87	5	4205	OHX	1	0
87	5	4206	OHX	11	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	5	4207	OHX	7	0
87	5	4208	OHX	7	0
87	5	4209	OHX	1	0
87	5	4211	OHX	5	0
87	5	4216	OHX	1	0
87	5	4221	OHX	4	0
87	5	4224	OHX	8	0
87	5	4228	OHX	1	0
87	5	4230	OHX	1	0
87	5	4231	OHX	4	0
87	5	4233	OHX	1	0
87	5	4234	OHX	1	0
87	5	4235	OHX	1	0
87	5	4236	OHX	1	0
87	5	4239	OHX	1	0
87	5	4241	OHX	6	0
87	5	4243	OHX	7	0
87	5	4244	OHX	1	0
87	5	4245	OHX	5	0
87	5	4247	OHX	2	0
87	5	4250	OHX	7	0
87	5	4251	OHX	1	0
87	5	4256	OHX	1	0
87	6	2047	OHX	2	0
87	6	2052	OHX	1	0
87	6	2055	OHX	1	0
87	6	2057	OHX	6	0
87	6	2058	OHX	1	0
87	6	2059	OHX	1	0
87	6	2063	OHX	1	0
87	6	2066	OHX	1	0
87	6	2068	OHX	1	0
87	6	2069	OHX	1	0
87	6	2071	OHX	2	0
87	6	2072	OHX	1	0
87	6	2073	OHX	1	0
87	6	2074	OHX	1	0
87	6	2077	OHX	1	0
87	6	2081	OHX	2	0
87	6	2086	OHX	1	0
87	6	2090	OHX	1	0
87	6	2091	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	6	2093	OHX	1	0
87	6	2094	OHX	2	0
87	6	2098	OHX	3	0
87	6	2100	OHX	2	0
87	6	2101	OHX	1	0
87	6	2103	OHX	1	0
87	6	2104	OHX	1	0
87	6	2105	OHX	2	0
87	6	2106	OHX	1	0
87	6	2107	OHX	1	0
87	6	2109	OHX	1	0
87	6	2110	OHX	1	0
87	6	2112	OHX	2	0
87	6	2117	OHX	2	0
87	6	2118	OHX	8	0
87	6	2119	OHX	1	0
87	6	2121	OHX	2	0
87	6	2122	OHX	1	0
87	6	2123	OHX	5	0
87	6	2124	OHX	3	0
87	6	2126	OHX	1	0
87	6	2128	OHX	1	0
87	6	2135	OHX	2	0
87	6	2136	OHX	1	0
87	6	2140	OHX	1	0
87	6	2141	OHX	1	0
87	6	2142	OHX	1	0
87	6	2144	OHX	1	0
87	6	2145	OHX	7	0
87	6	2147	OHX	1	0
87	6	2148	OHX	3	0
87	6	2149	OHX	1	0
87	6	2152	OHX	2	0
87	6	2153	OHX	1	0
87	6	2155	OHX	1	0
87	6	2157	OHX	3	0
87	6	2159	OHX	1	0
87	6	2160	OHX	1	0
87	6	2168	OHX	1	0
87	6	2169	OHX	8	0
87	6	2173	OHX	1	0
87	6	2176	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
87	6	2177	OHX	1	0
87	6	2181	OHX	1	0
87	6	2182	OHX	1	0
87	6	2187	OHX	2	0
87	6	2188	OHX	2	0
87	6	2189	OHX	2	0
87	6	2194	OHX	1	0
87	6	2201	OHX	1	0
87	7	217	OHX	6	0
87	7	218	OHX	3	0
87	7	224	OHX	6	0
87	8	213	OHX	1	0
87	8	214	OHX	6	0
87	8	215	OHX	1	0
87	8	217	OHX	1	0
87	8	218	OHX	2	0
87	8	221	OHX	7	0
87	8	222	OHX	6	0
87	8	223	OHX	2	0
87	8	225	OHX	1	0
87	C5	201	OHX	3	0
87	L3	403	OHX	1	0
87	L4	402	OHX	4	0
87	M5	303	OHX	1	0
87	M7	206	OHX	2	0
87	M9	202	OHX	1	0
87	O1	202	OHX	6	0
87	O3	201	OHX	1	0
87	O7	104	OHX	6	0
87	Q2	503	OHX	1	0

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

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.