



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:59 PM GMT

PDB ID : 4U51
Title : Crystal structure of Narciclasine bound to the yeast 80S ribosome
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on : 2014-07-24
Resolution : 3.20 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

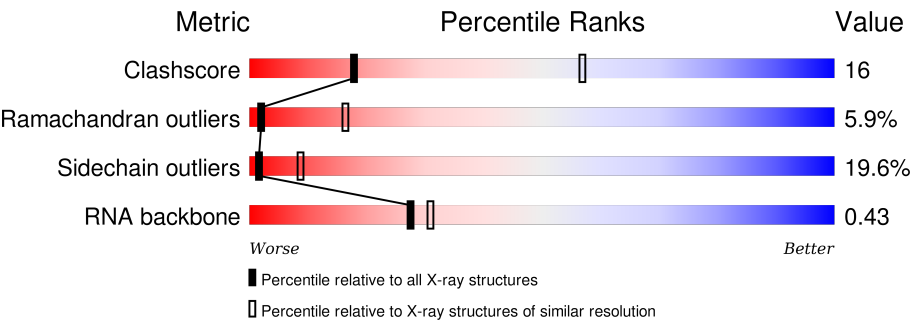
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RNA backbone	2183	1079 (3.70-2.70)

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	
1	6	1800	
2	S0	251	
2	s0	251	
3	S1	254	
3	s1	254	


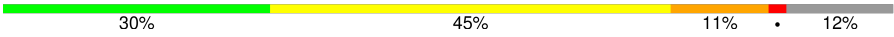



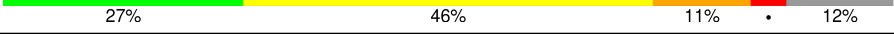

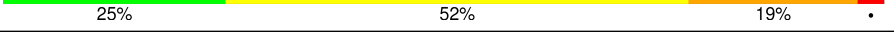
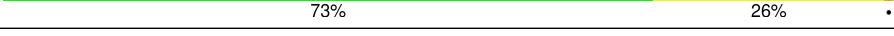

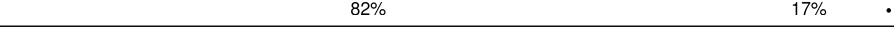
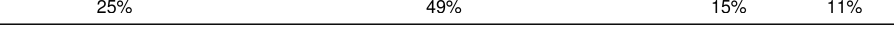

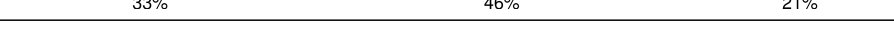


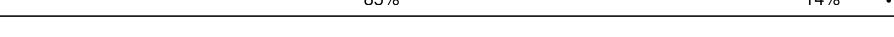

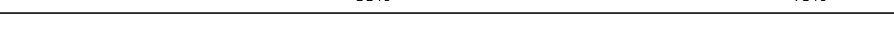






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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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



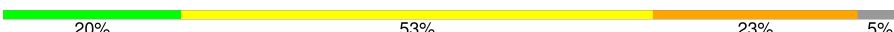

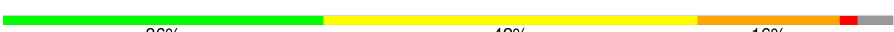







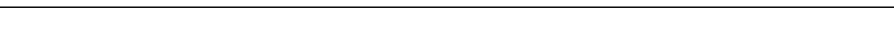

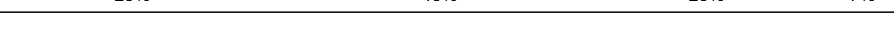
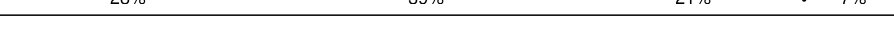
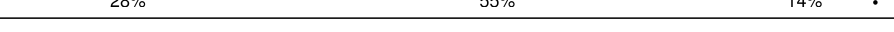

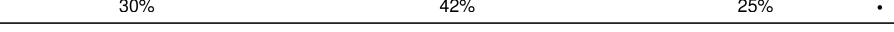





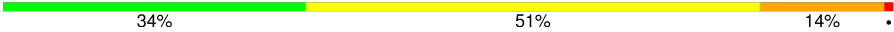
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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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



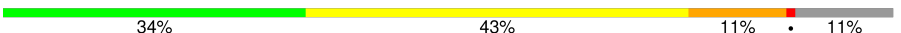



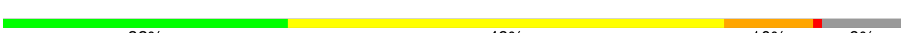


















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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253	
40	L3	386	
40	l3	386	
41	L4	361	
41	l4	361	


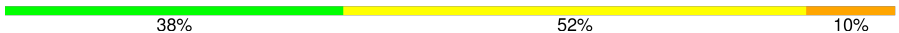



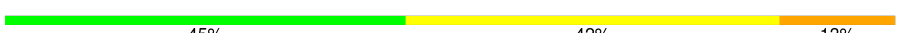





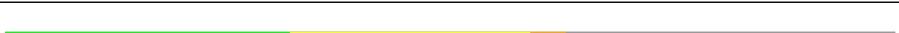













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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6	198	
52	m6	198	
53	M7	183	
53	m7	183	
54	M8	185	



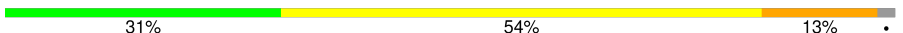



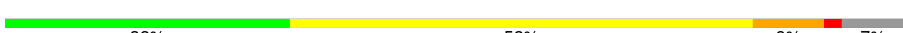








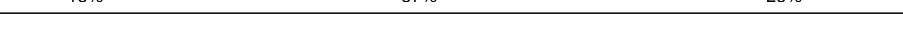





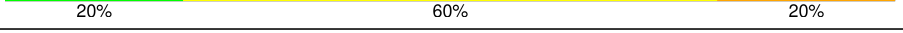



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Mol	Chain	Length	Quality of chain
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	148	
65	N9	58	
65	n9	58	
66	O0	104	
66	o0	104	

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Mol	Chain	Length	Quality of chain
67	O1	112	
67	o1	112	
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	120	
70	o4	120	
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	

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Mol	Chain	Length	Quality of chain
79	q3	91	
80	e0	62	
81	m2	160	
82	p0	311	
83	p1	47	
84	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
86	OHX	1	3937	-	-	X	-
86	OHX	1	3956	-	-	X	-
86	OHX	1	3970	-	-	X	-
86	OHX	1	4003	-	-	X	-
86	OHX	1	4032	-	-	X	-
86	OHX	1	4045	-	-	X	-
86	OHX	1	4056	-	-	X	-
86	OHX	1	4156	-	-	X	-
86	OHX	1	4172	-	-	X	-
86	OHX	1	4198	-	-	X	-
86	OHX	2	2031	-	-	X	-
86	OHX	2	2044	-	-	X	-
86	OHX	2	2075	-	-	X	-
86	OHX	2	2090	-	-	X	-
86	OHX	2	2099	-	-	X	-
86	OHX	2	2132	-	-	X	-
86	OHX	2	2147	-	-	X	-
86	OHX	2	2163	-	-	X	-
86	OHX	5	3941	-	-	X	-
86	OHX	5	3960	-	-	X	-
86	OHX	5	3975	-	-	X	-
86	OHX	5	3997	-	-	X	-
86	OHX	5	4006	-	-	X	-
86	OHX	5	4016	-	-	X	-
86	OHX	5	4051	-	-	X	-
86	OHX	5	4062	-	-	X	-
86	OHX	5	4137	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	5	4193	-	-	X	-
86	OHX	5	4194	-	-	X	-
86	OHX	5	4195	-	-	X	-
86	OHX	5	4198	-	-	X	-
86	OHX	5	4212	-	-	X	-
86	OHX	5	4229	-	-	X	-
86	OHX	6	2056	-	-	X	-
86	OHX	6	2116	-	-	X	-
86	OHX	6	2143	-	-	X	-
86	OHX	6	2167	-	-	X	-
86	OHX	8	216	-	-	X	-
86	OHX	8	226	-	-	X	-
86	OHX	8	227	-	-	X	-
86	OHX	C5	201	-	-	X	-
86	OHX	Q2	503	-	-	X	-

2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411178 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	2	1750	Total	C	N	O	P	0	0	0
			37283	16668	6591	12274	1750			
1	6	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-A.

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	C1	155	Total	C	N	O	S	0	0	0
			1213	774	230	206	3			
13	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

- 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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	c7	117	Total	C	N	O	S	0	0	0
			906	563	174	167	2			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	D6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			
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			
33	e1	76	Total	C	N	O	S	0	0	0
			608	388	117	99	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 ribosomal RNA.

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	L2	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			
39	12	252	Total	C	N	O	S	0	0	0
			1912	1190	388	333	1			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	M9	188	Total	C	N	O		0	0	0
			1521	935	326	260				
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	S	0	0	0
			796	516	131	149				
58	n2	98	Total	C	N	O	S	0	0	0
			778	505	127	146				

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
O4	121	LYS	-	expression tag	UNP P87262
o4	121	LYS	-	expression tag	UNP P87262

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 81 is a protein called unknown protein chain m2.

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

- Molecule 82 is a protein called 60S acidic ribosomal protein P0.

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

- Molecule 83 is a protein called unknown protein chain p1.

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

- Molecule 84 is a protein called unknown protein chain p2.

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

- Molecule 85 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L7	4	Total	Mg	0	0
			4	4		
85	m6	3	Total	Mg	0	0
			3	3		
85	n8	4	Total	Mg	0	0
			4	4		
85	o1	2	Total	Mg	0	0
			2	2		
85	N5	2	Total	Mg	0	0
			2	2		
85	6	144	Total	Mg	0	0
			144	144		
85	sM	2	Total	Mg	0	0
			2	2		
85	m5	3	Total	Mg	0	0
			3	3		
85	l3	2	Total	Mg	0	0
			2	2		
85	M1	1	Total	Mg	0	0
			1	1		
85	d6	1	Total	Mg	0	0
			1	1		
85	2	125	Total	Mg	0	0
			125	125		
85	n0	3	Total	Mg	0	0
			3	3		
85	L4	1	Total	Mg	0	0
			1	1		
85	l7	1	Total	Mg	0	0
			1	1		
85	M5	2	Total	Mg	0	0
			2	2		
85	o9	1	Total	Mg	0	0
			1	1		
85	S2	1	Total	Mg	0	0
			1	1		
85	L8	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	D3	1	Total 1	Mg 1	0	0
85	o4	1	Total 1	Mg 1	0	0
85	M9	1	Total 1	Mg 1	0	0
85	q0	1	Total 1	Mg 1	0	0
85	SM	1	Total 1	Mg 1	0	0
85	c8	2	Total 2	Mg 2	0	0
85	M0	2	Total 2	Mg 2	0	0
85	c1	1	Total 1	Mg 1	0	0
85	5	501	Total 501	Mg 501	0	0
85	L5	1	Total 1	Mg 1	0	0
85	O7	3	Total 3	Mg 3	0	0
85	s6	1	Total 1	Mg 1	0	0
85	l4	1	Total 1	Mg 1	0	0
85	n9	1	Total 1	Mg 1	0	0
85	1	472	Total 472	Mg 472	0	0
85	c4	1	Total 1	Mg 1	0	0
85	D0	1	Total 1	Mg 1	0	0
85	Q2	1	Total 1	Mg 1	0	0
85	l2	2	Total 2	Mg 2	0	0
85	O2	1	Total 1	Mg 1	0	0
85	q3	2	Total 2	Mg 2	0	0

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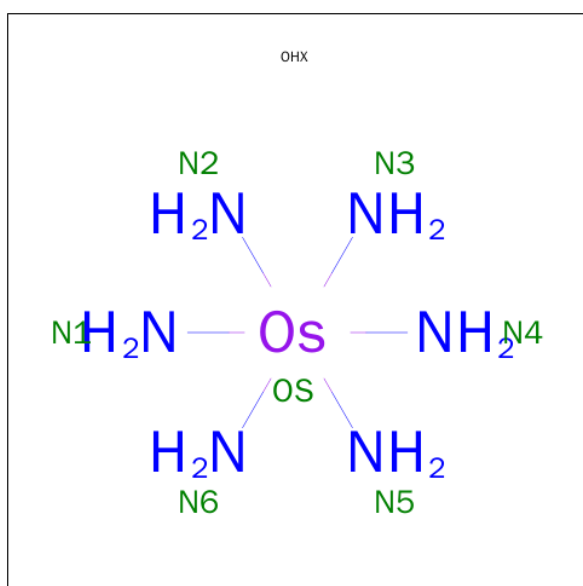
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	o3	1	Total 1	Mg 1	0	0
85	d3	2	Total 2	Mg 2	0	0
85	M3	3	Total 3	Mg 3	0	0
85	N3	3	Total 3	Mg 3	0	0
85	4	20	Total 20	Mg 20	0	0
85	n6	2	Total 2	Mg 2	0	0
85	L2	1	Total 1	Mg 1	0	0
85	o7	1	Total 1	Mg 1	0	0
85	l5	1	Total 1	Mg 1	0	0
85	m7	5	Total 5	Mg 5	0	0
85	M7	5	Total 5	Mg 5	0	0
85	N8	4	Total 4	Mg 4	0	0
85	s1	1	Total 1	Mg 1	0	0
85	l9	1	Total 1	Mg 1	0	0
85	s8	3	Total 3	Mg 3	0	0
85	c7	1	Total 1	Mg 1	0	0
85	7	17	Total 17	Mg 17	0	0
85	n3	2	Total 2	Mg 2	0	0
85	q1	1	Total 1	Mg 1	0	0
85	L3	1	Total 1	Mg 1	0	0
85	d4	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	N6	1	Total	Mg	0	0
			1	1		
85	8	13	Total	Mg	0	0
			13	13		
85	M6	2	Total	Mg	0	0
			2	2		
85	N0	1	Total	Mg	0	0
			1	1		
85	3	14	Total	Mg	0	0
			14	14		

- Molecule 86 is osmium (III) hexammine (three-letter code: OHX) (formula: $\text{H}_{12}\text{N}_6\text{Os}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	2	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	2	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	2	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	2	1	Total	N	Os	0	0
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86	2	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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86	C3	1	Total	N	Os	0	0
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86	C8	1	Total	N	Os	0	0
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86	D9	1	Total	N	Os	0	0
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86	SR	1	Total	N	Os	0	0
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86	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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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	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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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	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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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	3	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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86	L3	1	Total	N	Os	0	0
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86	L3	1	Total	N	Os	0	0
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86	L4	1	Total	N	Os	0	0
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86	M0	1	Total	N	Os	0	0
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86	M5	1	Total	N	Os	0	0
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86	M7	1	Total	N	Os	0	0
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86	M7	1	Total	N	Os	0	0
			7	6	1		
86	M8	1	Total	N	Os	0	0
			7	6	1		
86	M9	1	Total	N	Os	0	0
			7	6	1		
86	N1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	O3	1	Total	N	Os	0	0
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86	O7	1	Total	N	Os	0	0
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86	O7	1	Total	N	Os	0	0
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86	Q2	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	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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86	s8	1	Total	N	Os	0	0
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86	s9	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	c5	1	Total	N	Os	0	0
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86	c8	1	Total	N	Os	0	0
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86	d4	1	Total	N	Os	0	0
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86	sR	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	7	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	8	1	Total 7	N 6	Os 1	0	0
86	8	1	Total 7	N 6	Os 1	0	0
86	8	1	Total 7	N 6	Os 1	0	0
86	8	1	Total 7	N 6	Os 1	0	0
86	8	1	Total 7	N 6	Os 1	0	0
86	8	1	Total 7	N 6	Os 1	0	0
86	8	1	Total 7	N 6	Os 1	0	0
86	13	1	Total 7	N 6	Os 1	0	0
86	13	1	Total 7	N 6	Os 1	0	0
86	14	1	Total 7	N 6	Os 1	0	0
86	14	1	Total 7	N 6	Os 1	0	0
86	15	1	Total 7	N 6	Os 1	0	0
86	15	1	Total 7	N 6	Os 1	0	0
86	15	1	Total 7	N 6	Os 1	0	0
86	19	1	Total 7	N 6	Os 1	0	0
86	m0	1	Total 7	N 6	Os 1	0	0
86	m0	1	Total 7	N 6	Os 1	0	0
86	m1	1	Total 7	N 6	Os 1	0	0
86	m4	1	Total 7	N 6	Os 1	0	0
86	m5	1	Total 7	N 6	Os 1	0	0
86	m6	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	m7	1	Total	N	Os	0	0
			7	6	1		
86	m8	1	Total	N	Os	0	0
			7	6	1		
86	n3	1	Total	N	Os	0	0
			7	6	1		
86	n3	1	Total	N	Os	0	0
			7	6	1		
86	n5	1	Total	N	Os	0	0
			7	6	1		
86	n9	1	Total	N	Os	0	0
			7	6	1		
86	o2	1	Total	N	Os	0	0
			7	6	1		
86	o3	1	Total	N	Os	0	0
			7	6	1		
86	q1	1	Total	N	Os	0	0
			7	6	1		
86	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 87 is ZINC ION (three-letter code: ZN) (formula: Zn).

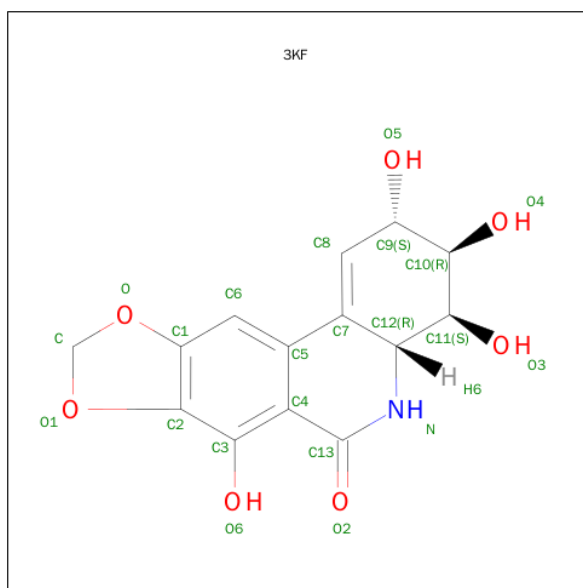
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	q0	1	Total	Zn	0	0
			1	1		
87	D6	1	Total	Zn	0	0
			1	1		
87	Q2	1	Total	Zn	0	0
			1	1		
87	e1	1	Total	Zn	0	0
			1	1		
87	Q3	1	Total	Zn	0	0
			1	1		
87	D9	1	Total	Zn	0	0
			1	1		
87	E1	1	Total	Zn	0	0
			1	1		
87	Q0	1	Total	Zn	0	0
			1	1		
87	d7	1	Total	Zn	0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

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	q3	1	Total	Zn	0	0
			1	1		
87	d9	1	Total	Zn	0	0
			1	1		
87	D7	1	Total	Zn	0	0
			1	1		
87	d6	1	Total	Zn	0	0
			1	1		
87	o7	1	Total	Zn	0	0
			1	1		
87	O7	1	Total	Zn	0	0
			1	1		
87	q2	1	Total	Zn	0	0
			1	1		

- Molecule 88 is (2S,3R,4S,4aR)-2,3,4,7-tetrahydroxy-3,4,4a,5-tetrahydro[1,3]dioxolo[4,5-j]phenanthridin-6(2H)-one (three-letter code: 3KF) (formula: C₁₄H₁₃NO₇).



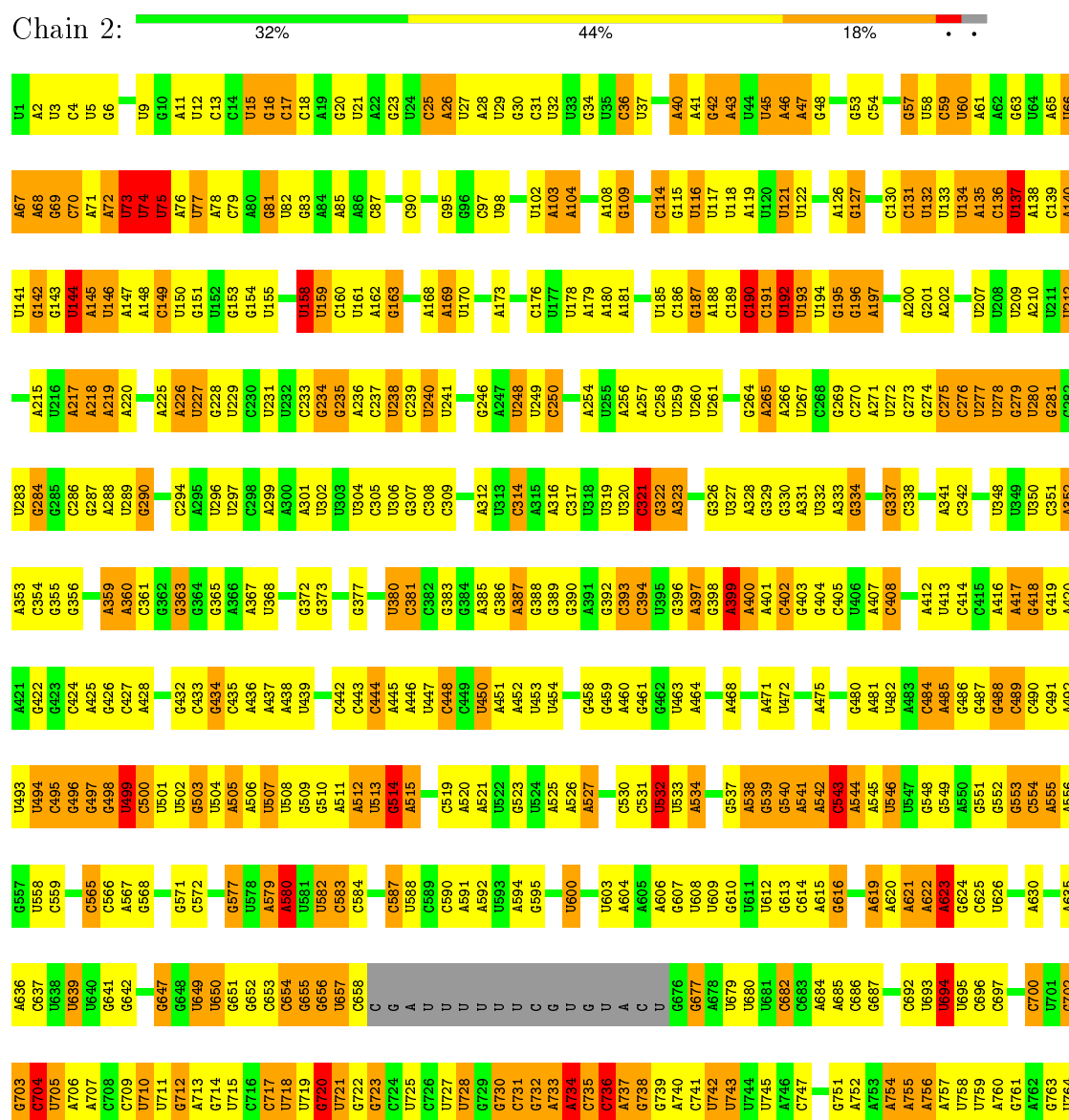
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
88	1	1	Total	C	N	O	0	0
			22	14	1	7		
88	5	1	Total	C	N	O	0	0
			22	14	1	7		

3 Residue-property plots

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

Note EDS failed to run properly.

• Molecule 1: 18S ribosomal RNA

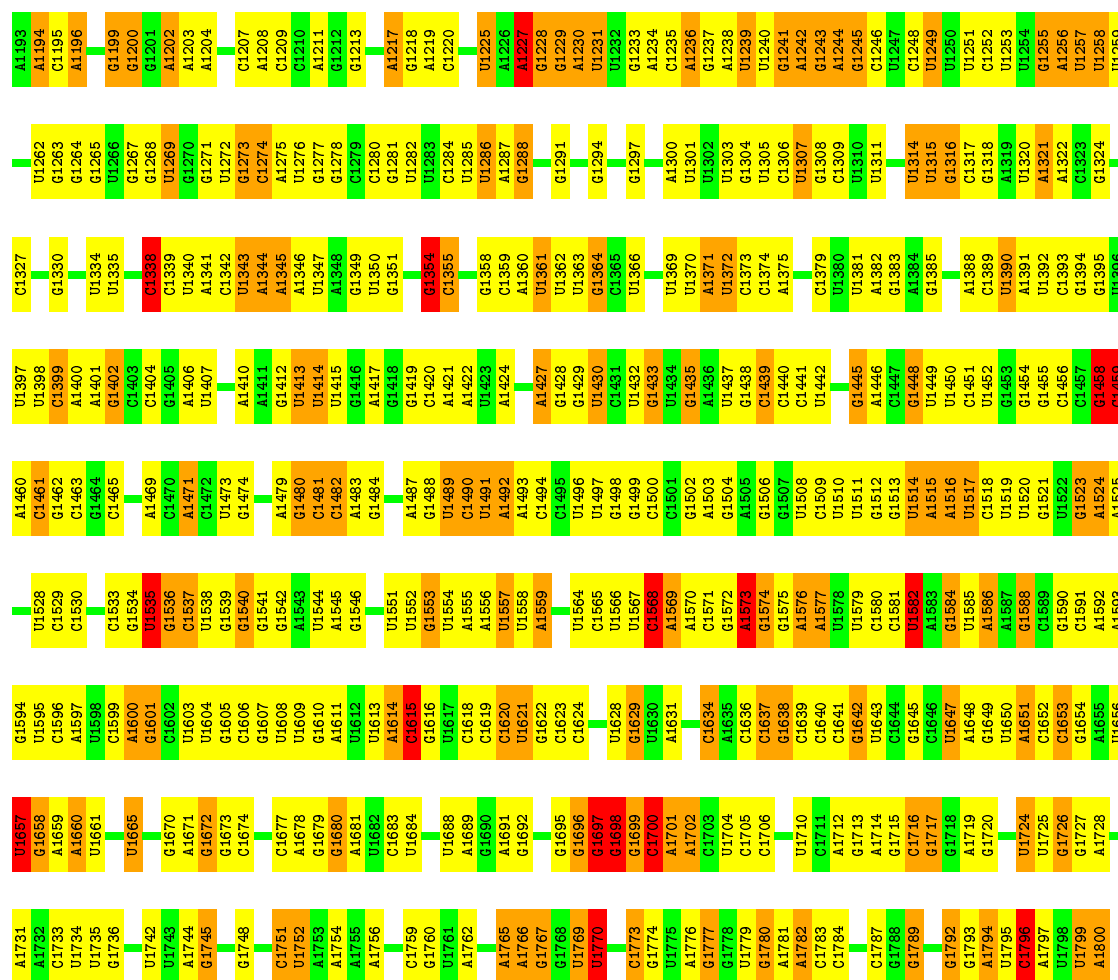


G1748	A1681	G1611	G1541	G1475	G1405	G1335	G1256	A1183	G1115	G1045	G975	G901	U832	G765
A1749	U1682	U1612	G1542	C1476	A1406	U1336	U1257	A1184	A1116	G1046	G976	G902	U833	U766
A1754	C1683	U1613	A1547	G1477	A1407	A1337	U1258	U1185	G1117	G1050	A977	U911	U834	U767
A1755	G1685	A1614	A1549	A1479	G1409	C1338	U1262	A1189	G1119	G1051	A978	U912	U835	C768
A1756	C	C1615	A1550	G1480	A1410	G1339	U1263	C1190	U1120	U1052	A979	G913	U836	A769
G1757	U	G1616	G1553	C1481	A1411	U1340	U1266	U1191	G1121	G1053	G985	G914	U839	A771
G1760	A	C1618	U1554	A1482	G1412	A1341	G1267	C1192	G1122	U1056	G986	A915	U840	G772
U1761	G	C1619	U1555	A1483	A1413	C1342	G1268	A1193	C1123	U1057	G987	U916	U841	C773
A1762	G	A1620	A1556	G1484	A1414	U1343	U1272	C1194	G1124	U1058	C990	U917	U843	A774
A1763	G	U1621	G1485	C1485	A1415	U1344	G1273	C1195	A1125	U1059	G991	U918	U844	A775
G1764	G	G1486	A1487	A1487	A1416	A1345	G1274	C1196	A1126	U1060	A992	A919	G845	G778
A1765	A	U1622	U1558	A1487	G1417	A1346	U1275	C1197	G1126	A1061	A993	U920	G846	U779
A1766	A	C1623	A1559	G1488	G1418	U1347	U1276	G1198	G1130	U1062	U996	U921	A847	U781
A1767	G	C1624	U1560	U1489	G1419	A1348	U1277	G1199	A1131	U1063	U997	G922	A848	U782
G1768	G	G1625	U1561	C1490	C1420	G1349	U1278	G1200	A1132	U1064	U998	A923	C849	U783
G1769	G	U1627	G1562	U1491	U1423	C1355	G1279	A1201	U1135	C1067	U999	A926	C850	C784
U1770	G	U1628	U1564	A1493	A1424	U1363	C1280	A1202	U1136	C1068	U999	U927	U851	U785
U1771	C	G1629	U1565	A1493	A1425	G1368	G1281	A1203	A1137	U1069	U999	U928	C852	G786
C1772	A	U1630	U1566	U1497	C1426	C1359	U1282	C1207	A1138	G1073	A1001	U929	G853	G787
C1773	A	U1631	U1567	G1498	A1427	U1360	U1283	A1208	A1139	G1074	A1002	A930	U854	A788
G1774	C	C1632	C1568	G1499	G1428	U1361	C1284	U1212	G1140	C1075	A1003	U931	A855	A789
U1775	U	C1500	C1500	C1500	G1429	U1362	U1285	G1212	U1143	C1076	A1005	U932	A856	U790
A1776	C	C1636	U1569	U1510	U1430	U1363	U1286	A1217	U1144	C1077	A1006	A933	U857	U791
G1777	C	G1637	G1572	U1511	G1431	G1364	U1287	G1218	U1145	C1078	U999	G934	G858	U792
G1780	A	G1638	A1573	G1504	A1432	U1365	U1290	A1219	U1146	U1080	C1000	U935	A859	A793
A1781	U	U1639	A1574	A1505	G1433	U1366	U1291	C1219	G1146	A1081	A1001	U936	U860	U794
A1782	C	C1641	G1575	G1506	U1434	U1367	U1292	C1220	A1147	C1082	A1002	U937	U861	U795
C1783	U	G1642	A1576	G1507	G1435	G1368	U1293	A1221	C1148	U1012	G1011	A939	U862	A796
C1784	C	U1643	A1577	U1508	U1436	U1369	G1294	C1222	G1149	G1083	U1012	A940	A863	
U1785	A	C1644	U1578	C1509	G1438	U1370	G1297	A1223	G1150	A1013	A1013	A941	U864	
G1786	G	G1645	U1579	U1510	U1439	A1371	G1298	A1226	A1151	G1084	G1014	G942	A865	A799
G1787	G	U1646	C1580	U1511	C1447	U1372	U1299	A1227	A1152	A1086	U1015	C943	G866	U800
G1788	C	A1648	G1584	G1513	G1448	C1376	U1301	G1228	G1155	A1088	C1016	U945	G867	G801
G1789	U	G1649	U1585	U1514	U1449	U1377	U1302	G1229	C1156	U1089	U1017	U946	G868	G802
A1790	A	U1650	A1586	A1515	U1450	U1378	U1303	A1230	A1157	C1090	A1018	U947	A869	
A1791	G	C1653	A1587	A1516	C1461	C1379	U1304	U1231	C1158	A1091	U1019	G948	G872	U808
G1792	A	G1654	C1588	U1517	U1462	U1379	G1304	U1232	C1159	A1092	C1022	A951	U873	A809
G1793	C	G1589	C1589	C1518	G1455	A1382	G1308	G1233	A1160	A1093	A1023	A952	C874	A811
A1794	U	U1657	G1590	G1521	G1456	G1383	C1309	A1234	C1161	U1094	U1024	A953	U882	A812
U1795	A	G1658	C1591	U1522	C1457	A1384	C1309	C1235	G1165	U1095	A1025	G953	U883	G815
C1796	C	U1659	A1592	G1523	G1458	G1385	U1314	A1238	A1166	U1096	A1026	U958	C883	G816
A1797	G	U1660	G1594	A1524	C1459	G1386	U1315	U1239	G1167	U1097	A1027	U959	A884	A817
U1798	A	U1661	A1595	A1525	A1460	G1387	G1316	U1240	U1168	G1100	C1028	U960	U885	C818
A	C	G1662	C1596	A1526	C1461	A1388	U1317	G1241	G1169	G1101	U1031	U961	U886	C819
		U1734	U1597	C1526	G1462	C1389	G1318	U1242	G1170	G1101	G1032	C962	U887	A819
		U1735	U1598	C1530	C1463	U1390	G1318	U1243	A1171	U1104	C1033	A963	U888	U820
		U1736	C1599	G1531	G1464	C1393	A1319	A1244	G1171	U1105	C1034	A963	U889	U821
		G1737	U1600	U1532	C1465	G1394	U1320	G1245	G1172	U1106	G1035	A966	A892	U822
		U1738	C1601	C1533	C1466	G1394	A1321	C1246	C1173	U1107	A1036	A967	G823	G824
		C1739	G1602	G1534	U1398	U1398	C1323	U1247	C1174	G1107	A1036	U968	U893	U825
		A1740	U1603	U1535	A1469	C1399	G1324	C1248	U1175	G1108	A1039	C969	U894	U826
			U1604	C1536	C1470	A1400	U1249	U1249	G1176	G1109	G1040	A970	G895	G827
			G1605	C1537	A1471	A1401	U1251	U1251	C1177	G1110	G1041	A971	U896	C897
			U1606	U1538	A1472	A1402	G1329	U1254	G1178	G1111	G1042	A972	C897	U828
			C1607	C1539	U1473	C1403	G1330	U1254	C1179	G1112	A1043	G972	A898	A829
			U1608	G1540	G1474	C1404	C1332	U1254	C1180	A1113	A1044	A973	G899	U830
										G1114	U1044	A974	A900	U831

● Molecule 1: 18S ribosomal RNA

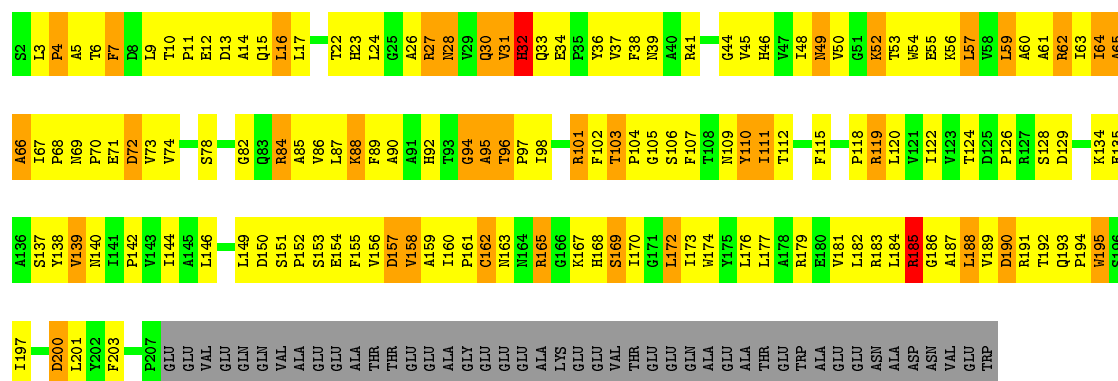
Chain 6: 32% 45% 20%

A1124	U1055	G987	A915	A844	C777	C700	G564	U493	G429	U348	G281	A213	A140	G69	U1
A1125	U1056	C990	U916	G845	G778	U701	C565	U494	G430	C351	C282	G214	U141	C70	A2
G1127	U1057	G991	U917	G846	U779	A706	C566	U495	C431	C352	U283	U215	G142	A71	U3
U1058	C1058	G992	U918	A847	U780	A707	A567	G496	G432	G353	G284	U216	G143	A72	C4
C1128	U1059	A992	U919	C848	U781	C708	G568	G497	G433	A353	G285	A217	U144	U73	U5
U1129	U1060	A993	U920	C849	U782	C709	C569	G498	G434	C354	G286	A218	U145	U74	U6
G1130	C1065	G994	U921	C852	G783	U710	A570	U499	C435	G355	C287	A219	U146	U75	G7
A1131	U1066	A995	G922	G853	C786	U711	G371	C501	A436	U358	G291	A220	A147	A76	U8
A1132	C1067	U996	A923	U854	G787	U712	C572	U501	A437	A148	U292	A221	A148	U77	U9
A1133	C1068	G997	C923	U855	U788	G714	C573	U502	U438	C359	U293	U223	C149	A78	G10
U1136	A1069	A1001	A926	A856	U789	C717	C575	U504	C443	C361	U296	C224	G151	A80	U12
A1137	C1070	G1002	U928	U857	U790	U718	G576	A505	C444	G362	U297	A225	U152	C13	U13
A1138	U1071	A1003	A929	C858	A791	U719	G577	A506	C445	G363	U298	A226	G153	U82	C14
A1139	C1072	U1004	A930	A859	U792	U720	A578	U507	A446	G364	C299	U227	U158	G83	U15
G1140	G1073	A1005	A931	C862	U793	G721	A579	U508	U447	C370	A300	G228	U159	A84	G16
G1141	C1006	G1006	U932	A863	U794	G722	G581	G509	C448	G371	A301	U229	C160	A85	C17
A1142	G1074	C1007	A933	A864	U795	G723	U581	G510	C449	G372	A302	U231	U161	A86	C18
A1143	A1076	G1008	C934	U864	C773	C724	U582	A511	U450	G373	U303	U232	A162	U89	A19
U1144	C1009	U935	U935	C869	C725	U727	C583	A512	U451	C374	A304	U233	A163	C90	A22
U1145	U1010	G936	U936	G867	U727	U728	C584	U513	U452	C383	C305	G234	A164	G91	G23
A1081	A1081	C937	G801	G868	U728	A740	A585	A514	U453	C384	U306	G235	G165	A92	U24
A1147	C1082	U938	C802	U862	G729	C741	G586	A515	U454	A385	G307	A236	C166	A93	C25
C1148	C1148	U939	A804	G871	G730	U742	C587	U516	C455	A386	G308	C237	U167	U94	A26
G1149	A1085	U1015	U805	G872	U731	U743	U588	A518	U456	A387	C309	U240	A168	G95	U27
G1150	A1086	G1016	A806	U873	U732	U744	U589	A519	U457	C388	C310	U241	A169	G96	A28
A1151	A1087	U1017	A807	U874	U733	U745	U590	C520	G458	C389	U311	U242	C176	G97	U29
G1155	C1091	U1018	U808	G876	U734	U746	U591	C521	G459	C390	A312	A244	U177	U98	G30
C1158	A1092	A1019	G809	G877	U735	U747	U592	A522	G460	A391	U313	U245	U178	C99	C31
C1159	C1093	G1021	G810	G878	U736	U748	G595	U523	G461	A392	C314	U246	A179	U101	G34
C1161	C1096	U1022	A811	G879	U737	U749	C596	G523	U462	C393	A315	U247	A181	U102	U35
C1162	U1097	A1023	A812	U880	U738	U750	U600	A527	U463	C394	A316	U248	U180	U103	G42
A1163	C1163	U1024	A813	U881	U739	U751	A601	C530	U464	A397	C317	U249	U183	A104	A43
C1164	U1098	A1025	A814	U882	U740	U752	U602	C531	U465	A398	C321	U250	U184	A105	U44
G1165	C1164	U1026	A815	U883	U741	U753	U603	U532	G466	A399	C322	U251	U185	U106	U45
A1166	U1099	A1027	A816	U884	U742	U754	U604	U533	U467	A400	A323	U252	G187	C114	A46
G1167	C1165	U1028	A817	U885	U743	U755	U605	U534	U468	A401	U324	U253	U186	A47	A47
C1172	G1172	U1029	A818	U886	U744	U756	U606	A538	U469	A402	U325	U254	U187	U48	C48
C1173	C1173	A1030	A819	U887	U745	U757	U607	U539	U470	A403	U326	U255	C189	C49	C49
C1174	U1175	U1031	U820	U888	U746	U758	U608	G540	U471	G404	U327	U256	C190	C50	C50
G1176	C1176	G1032	U821	U889	U747	U759	U609	A541	U472	U405	A328	U257	C191	A51	A51
C1177	G1177	U1033	U822	U890	U748	U760	U610	A542	U473	U406	G329	U258	U192	U52	U52
G1178	G1178	G1034	U823	U891	U749	U761	U611	C543	U474	A407	G330	U259	U193	G53	G53
C1179	C1179	U1035	G824	U892	U750	U762	U612	U544	C478	C408	U331	A266	U194	C54	C54
U1180	U1180	A1036	U825	U893	U751	U763	U613	A545	U479	A412	A332	G269	G195	A55	A55
C1181	C1181	G1037	U826	U894	U752	U764	U614	U546	U480	A413	A333	U270	U196	U56	U56
U1182	U1182	U1038	U827	U895	U753	U765	U615	A547	U481	A414	A334	C271	A197	G57	G57
C1183	C1183	A1039	U828	U896	U754	U766	A619	A550	U482	A415	C335	A272	A198	C58	C58
U1184	U1184	G1040	U829	U897	U755	U767	A620	G551	U483	A416	C336	A273	A199	C59	C59
U1185	U1185	U1041	U830	U898	U756	U768	A621	G552	C484	A417	C337	A274	A200	U60	U60
C1186	C1186	G1042	U831	U899	U757	U769	A622	G553	A485	A418	C338	A275	C192	C63	C63
U1187	U1187	U1043	U832	U900	U758	U770	A623	G554	U486	A419	C339	A276	U207	U64	U64
C1188	C1188	G1044	U833	U901	U759	U771	A624	C555	U487	A420	U340	C277	U208	A65	A65
U1189	U1189	U1045	U834	U902	U760	U772	G626	G556	U488	A421	U341	C278	U209	U66	U66
C1190	C1190	G1046	U835	U903	U761	U773	U627	U557	U489	C424	C342	C279	U210	A67	A67
U1191	U1191	U1047	U836	U904	U762	U774	U628	U558	C490	A425	U343	C280	U211	A68	A68
C1192	C1192	U1048	U837	U905	U763	U775	U629	U559	C491	A426	U344	C281	U212	C139	C139



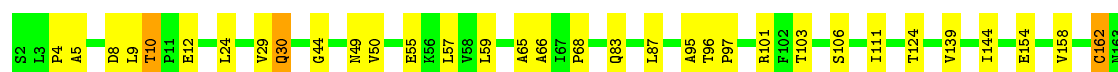
• Molecule 2: 40S ribosomal protein S0-A

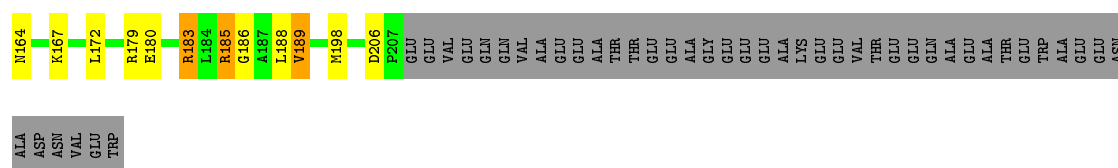
Chain S0: 24% 43% 15% 18%



• Molecule 2: 40S ribosomal protein S0-A

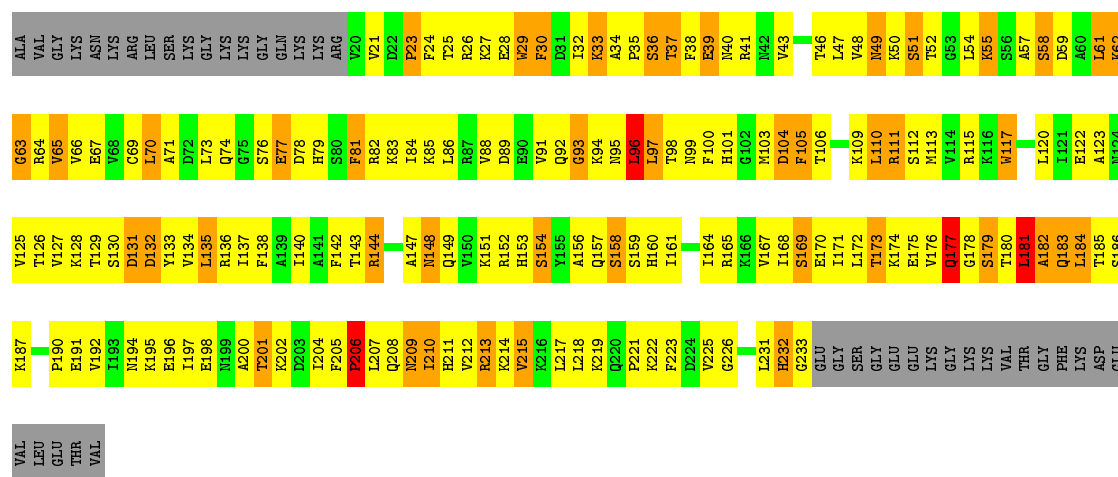
Chain s0: 64% 16% 18%





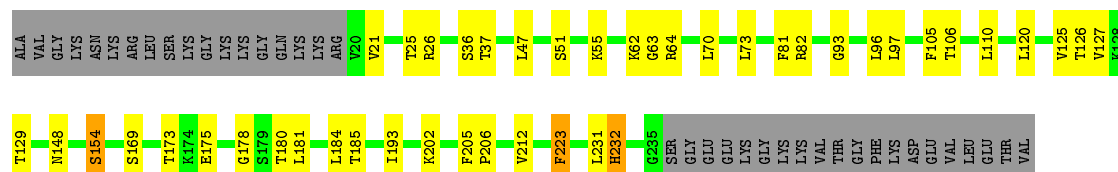
• Molecule 3: 40S ribosomal protein S1-A

Chain S1: 18% 48% 17% 16%



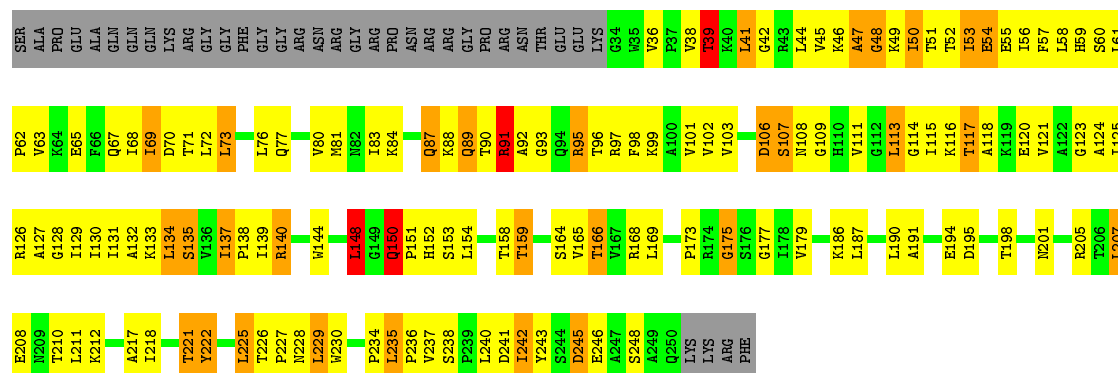
• Molecule 3: 40S ribosomal protein S1-A

Chain s1: 68% 16% 15%



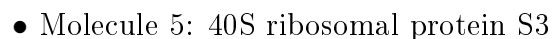
• Molecule 4: 40S ribosomal protein S2

Chain S2: 31% 41% 12% 14%

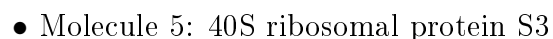


• Molecule 4: 40S ribosomal protein S2

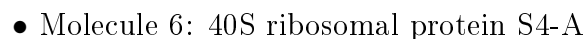
Response	Percentage
Yes	62%
No	23%
Don't know	14%



Response	Percentage
Yes	32%
No	50%
Don't know	11%
Refuse to answer	7%



Response	Percentage
Yes, the U.S. is a democracy	71%
No, the U.S. is not a democracy	21%
Don't know	7%



Response	Percentage
Yes, the U.S. should take action to protect the environment	35%
No, the U.S. should not take action to protect the environment	51%
Don't know	13%





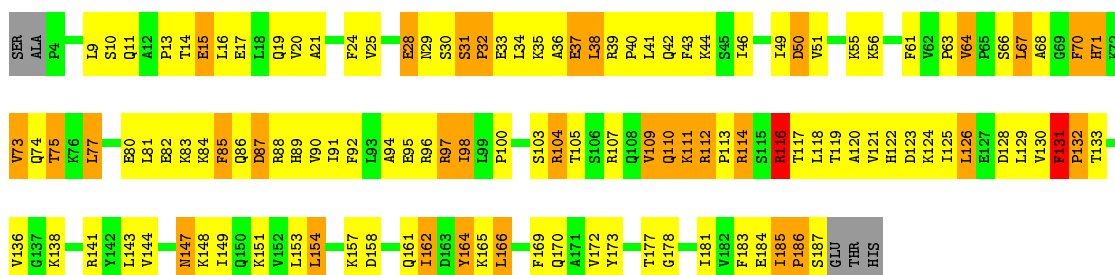
• Molecule 8: 40S ribosomal protein S6-A

Chain s6: 77% 15% 8%



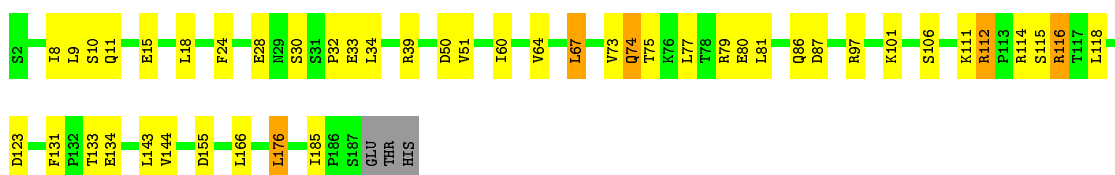
• Molecule 9: 40S ribosomal protein S7-A

Chain S7: 32% 47% 17%



• Molecule 9: 40S ribosomal protein S7-A

Chain s7: 74% 22%




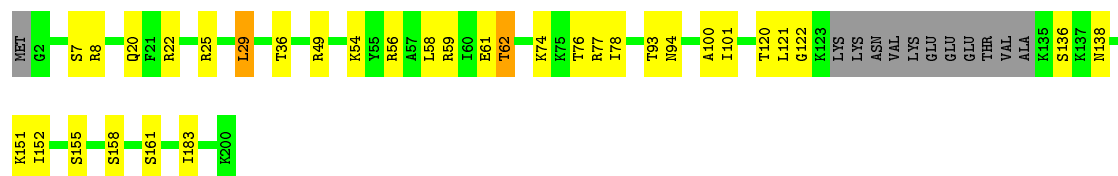
• Molecule 10: 40S ribosomal protein S8-A

Chain S8: 32% 50% 12% 6%



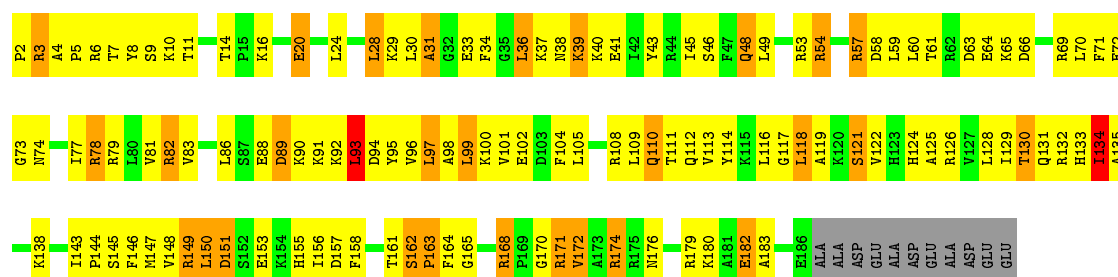
• Molecule 10: 40S ribosomal protein S8-A

Chain s8: 



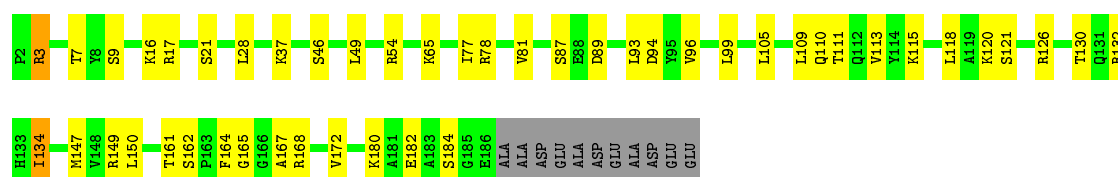
- Molecule 11: 40S ribosomal protein S9-A

Chain S9: 




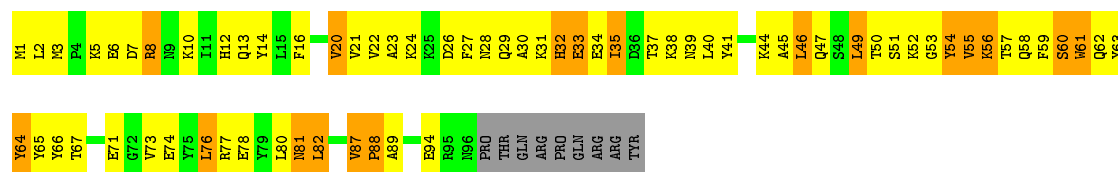
- Molecule 11: 40S ribosomal protein S9-A

Chain s9: 



- Molecule 12: 40S ribosomal protein S10-A

Chain C0: 



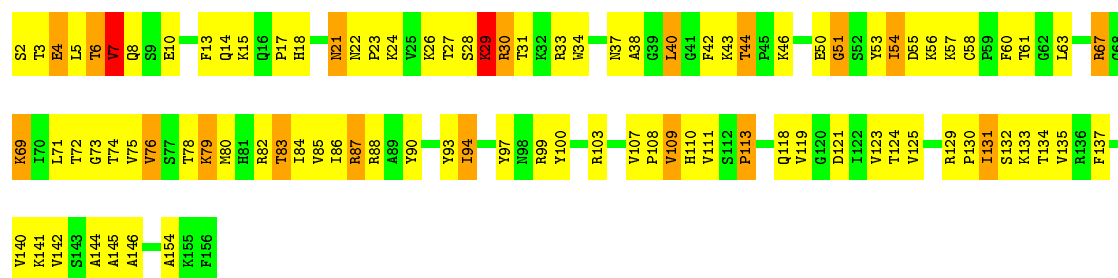
- Molecule 12: 40S ribosomal protein S10-A

Chain c0: 



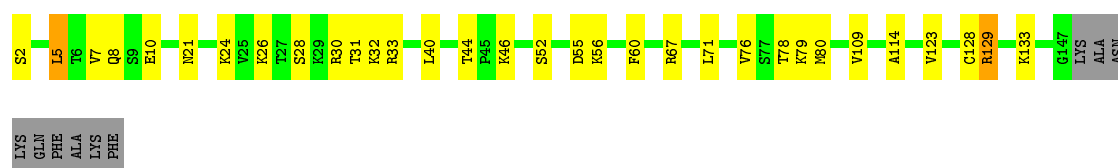
- Molecule 13: 40S ribosomal protein S11-A

Chain C1: 



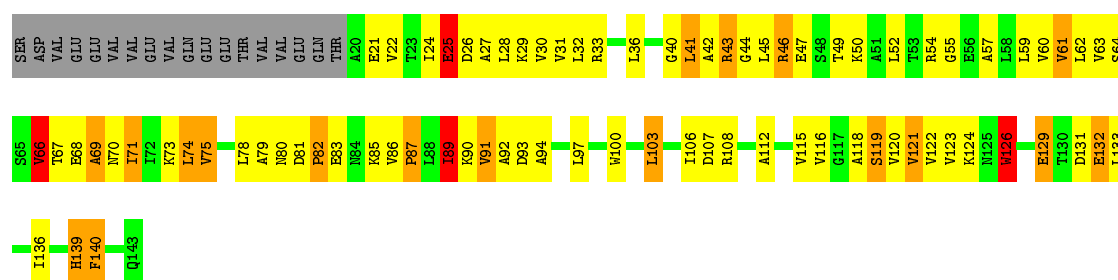
• Molecule 13: 40S ribosomal protein S11-A

Chain c1: 74% 19% 6%



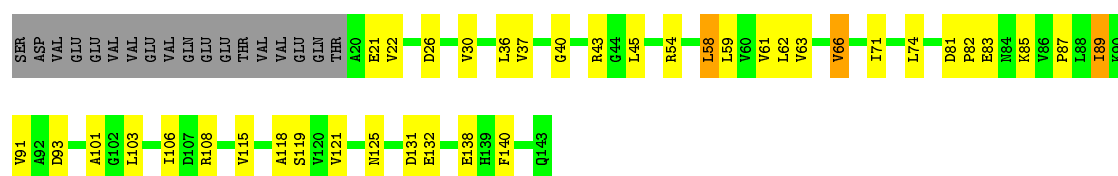
• Molecule 14: 40S ribosomal protein S12

Chain C2: 30% 42% 13% 13%



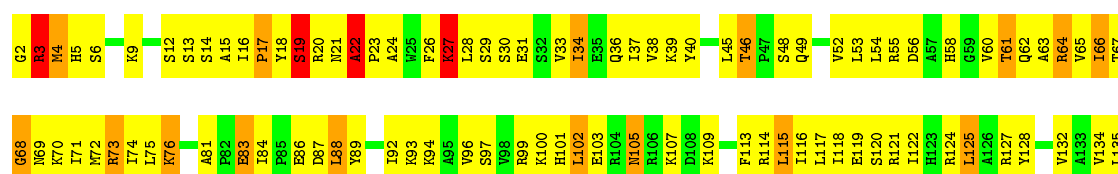
• Molecule 14: 40S ribosomal protein S12

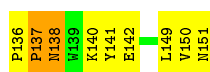
Chain c2: 60% 25% 13%



• Molecule 15: 40S ribosomal protein S13

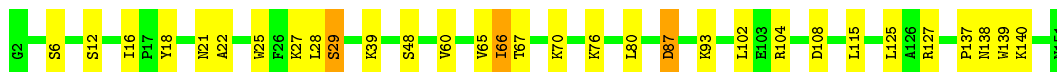
Chain C3: 30% 55% 12%





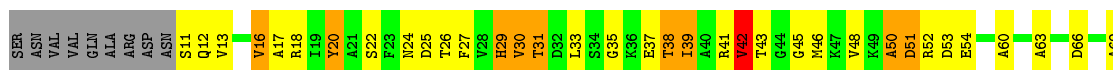
- Molecule 15: 40S ribosomal protein S13

Chain c3: 79% 19%



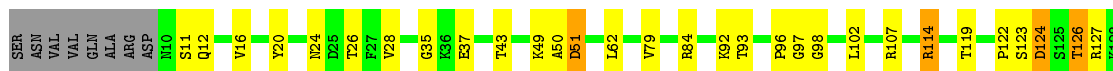
- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 38% 40% 13% 7%



- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 68% 22% 6%



- Molecule 17: 40S ribosomal protein S15

Chain C5: 30% 45% 11% 12%



- Molecule 17: 40S ribosomal protein S15

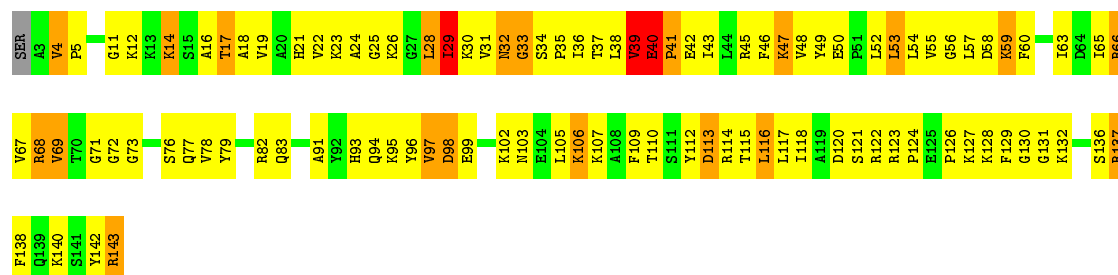
Chain c5: 71% 23%



F138
ILE
PRO
LEU
LYS

• Molecule 18: 40S ribosomal protein S16-A

Chain C6: 28% 55% 14% ..



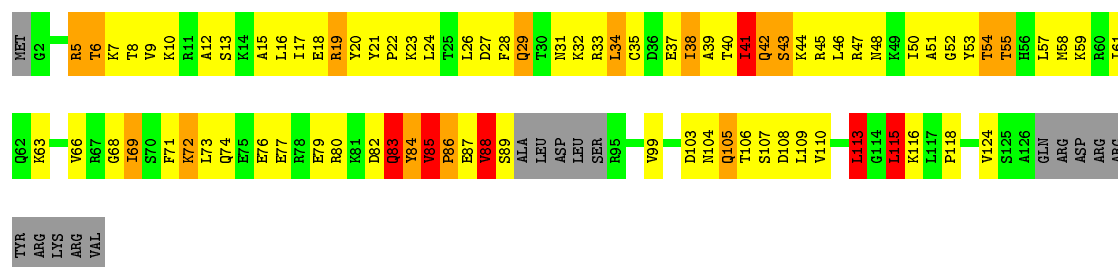
• Molecule 18: 40S ribosomal protein S16-A

Chain c6: 80% 19% .



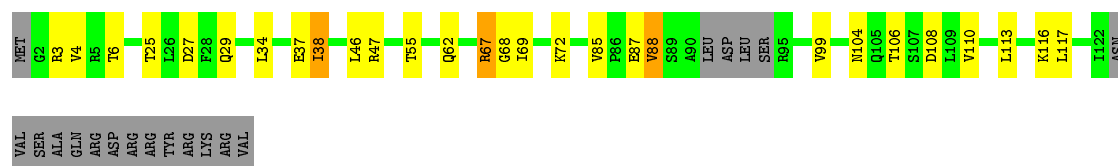
• Molecule 19: 40S ribosomal protein S17-A

Chain C7: 27% 46% 11% • 12%



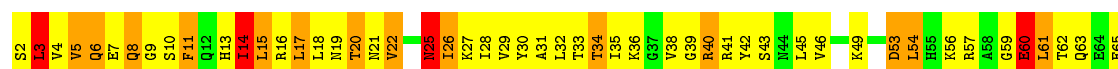
• Molecule 19: 40S ribosomal protein S17-A

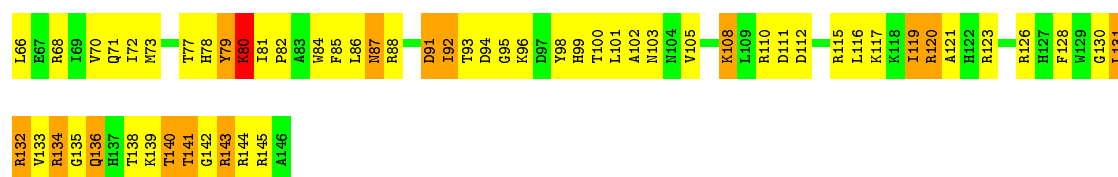
Chain c7: 65% 18% • 14%



• Molecule 20: 40S ribosomal protein S18-A

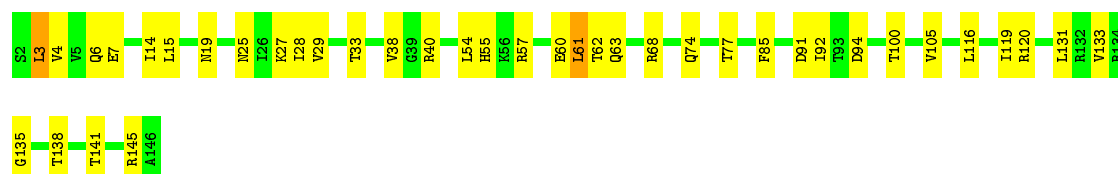
Chain C8: 25% 52% 19% .





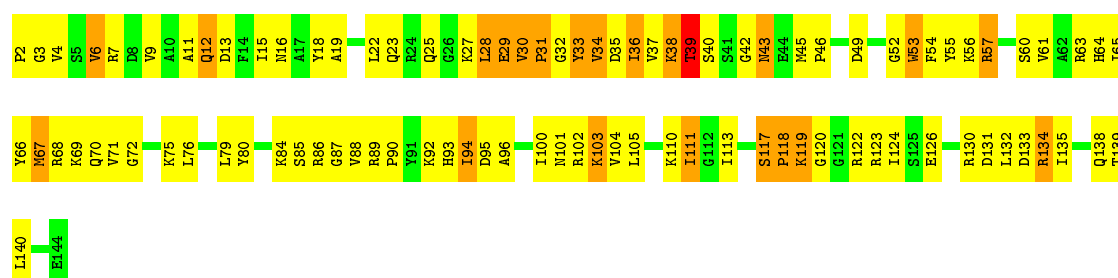
- Molecule 20: 40S ribosomal protein S18-A

Chain c8: 73% 26%



- Molecule 21: 40S ribosomal protein S19-A

Chain C9: 34% 51% 15%



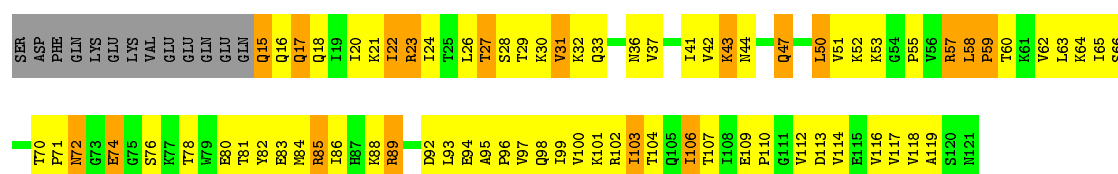
- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 82% 17%



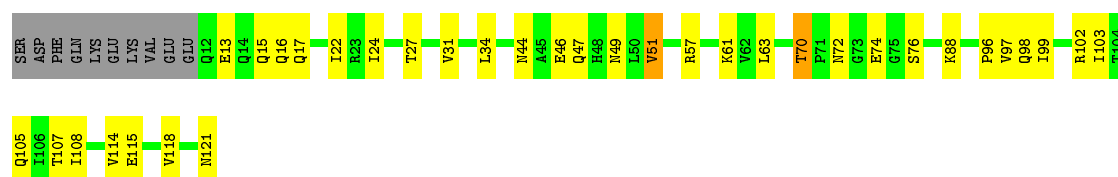
- Molecule 22: 40S ribosomal protein S20

Chain D0: 25% 49% 15% 11%

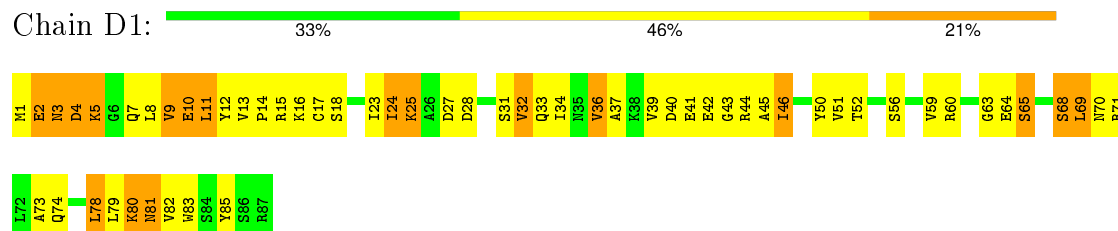


- Molecule 22: 40S ribosomal protein S20

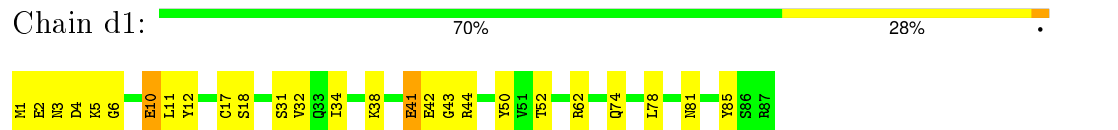
Chain d0: 63% 28% 8%



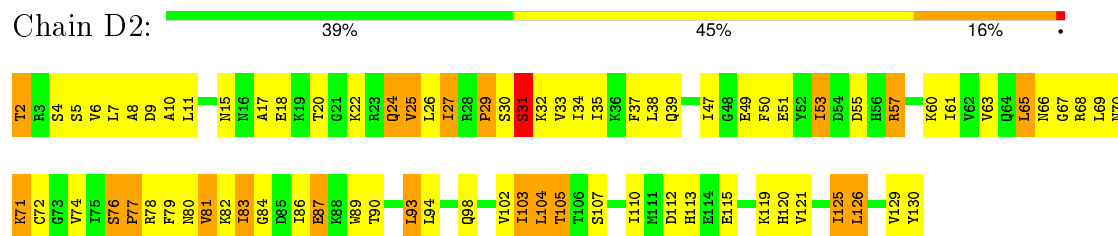
- Molecule 23: 40S ribosomal protein S21-A



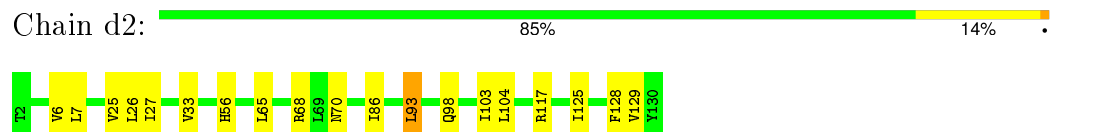
- Molecule 23: 40S ribosomal protein S21-A



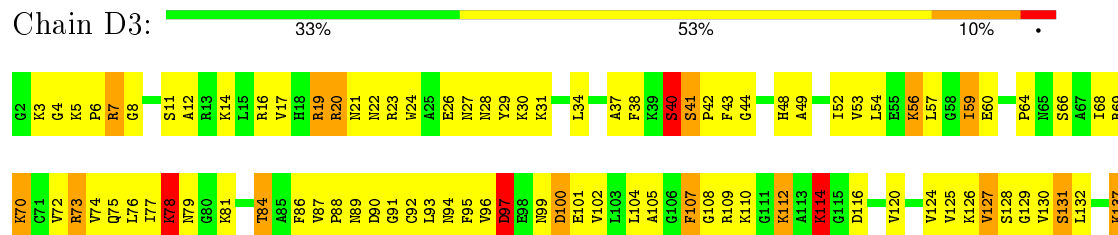
- Molecule 24: 40S ribosomal protein S22-A



- Molecule 24: 40S ribosomal protein S22-A



- Molecule 25: 40S ribosomal protein S23-A





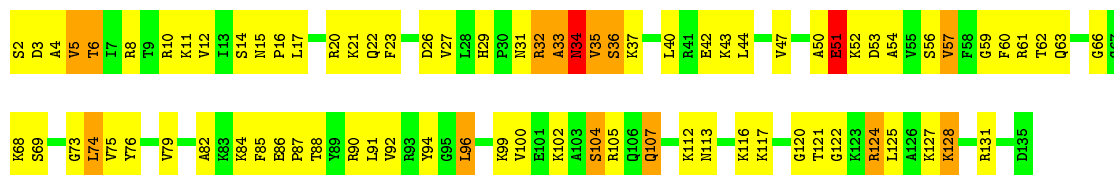
- Molecule 25: 40S ribosomal protein S23-A

Chain d3: 83% 15%



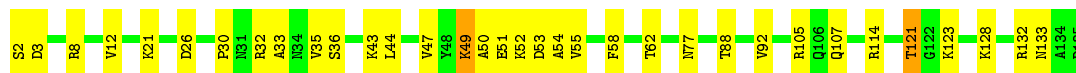
- Molecule 26: 40S ribosomal protein S24-A

Chain D4: 40% 49% 10%



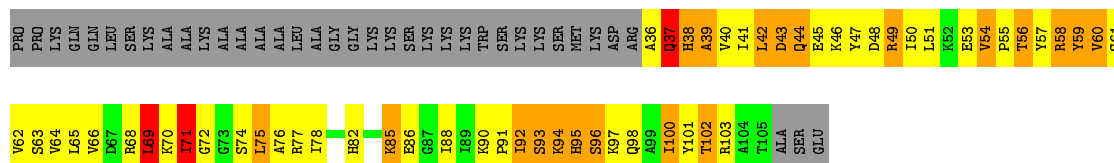
- Molecule 26: 40S ribosomal protein S24-A

Chain d4: 75% 24%



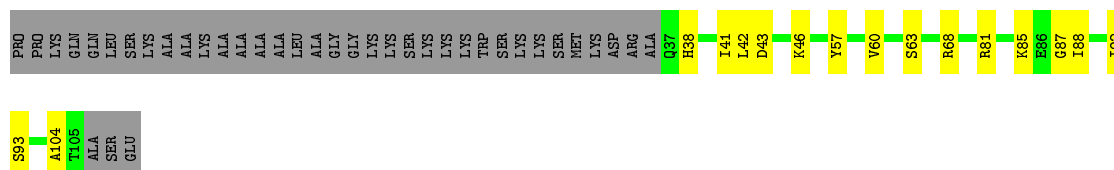
- Molecule 27: 40S ribosomal protein S25-A

Chain D5: 12% 32% 19% 35%



- Molecule 27: 40S ribosomal protein S25-A

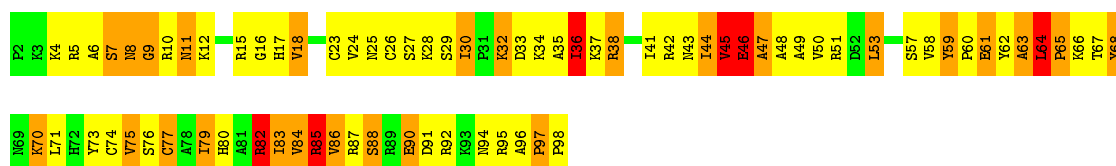
Chain d5: 50% 15% 36%



- Molecule 28: 40S ribosomal protein S26-B

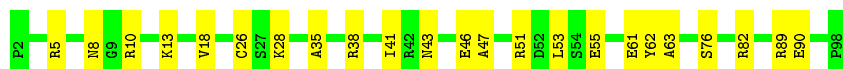
Chain D6: 22% 45% 27% 6%





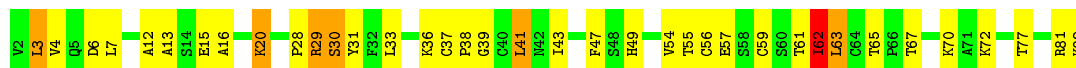
- Molecule 28: 40S ribosomal protein S26-B

Chain d6: 76% 24%



- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 54% 37% 7%



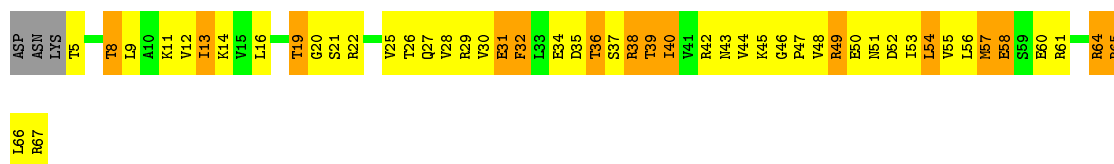
- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 77% 23%



- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 20% 53% 23% 5%



- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 74% 20% 5%



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 36% 42% 16%



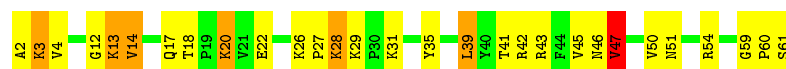
- Molecule 31: 40S ribosomal protein S29-A

Chain d9: 

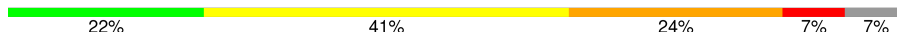


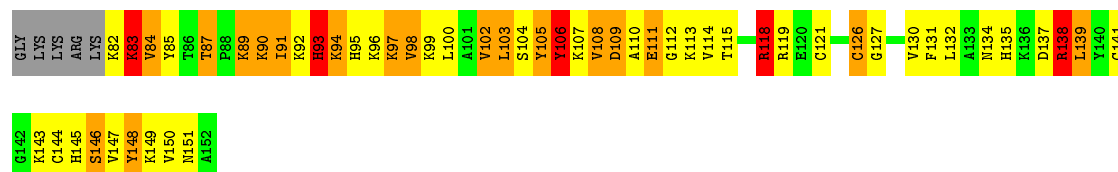
- Molecule 32: 40S ribosomal protein S30-A

Chain E0: 



- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1: 



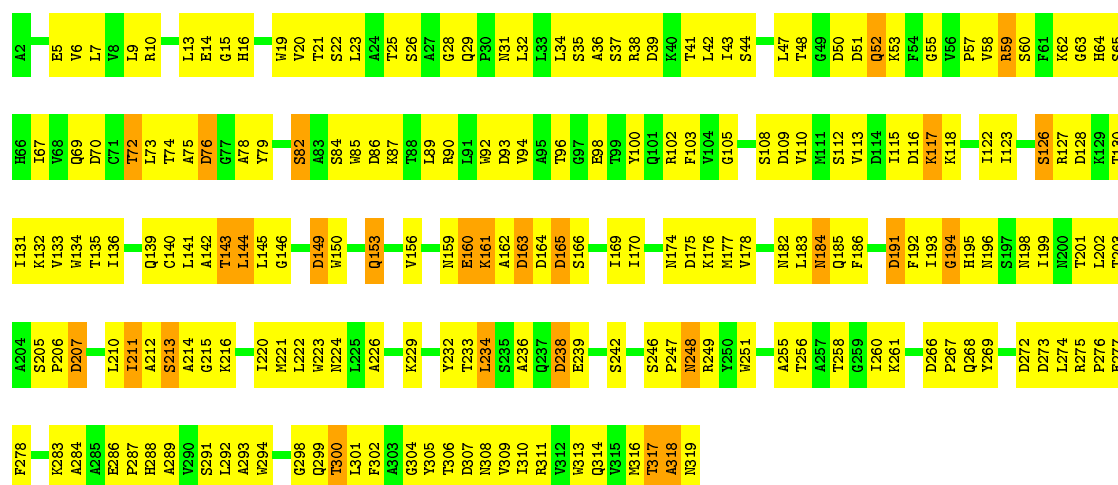
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1: 



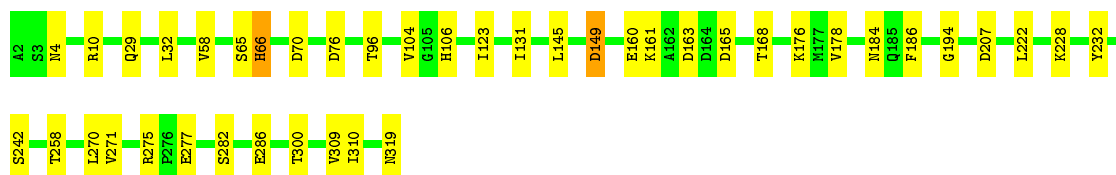
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR: 

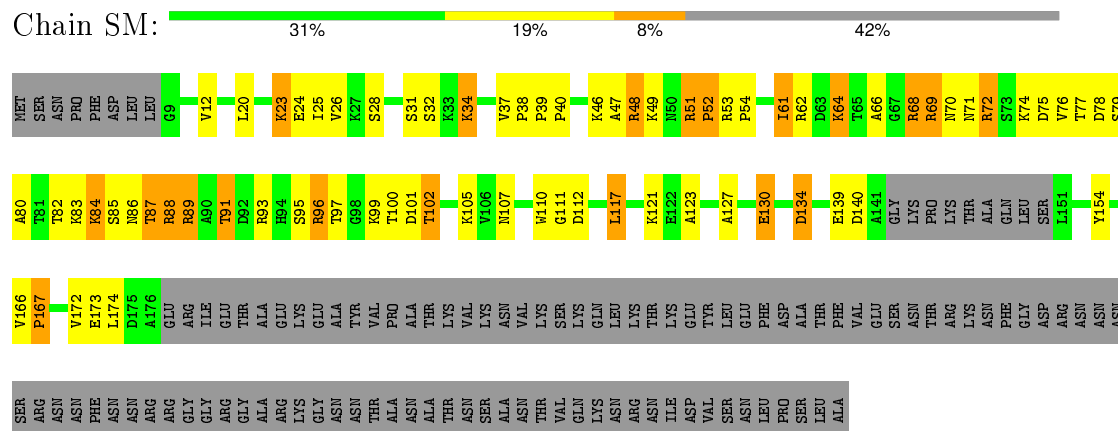


- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

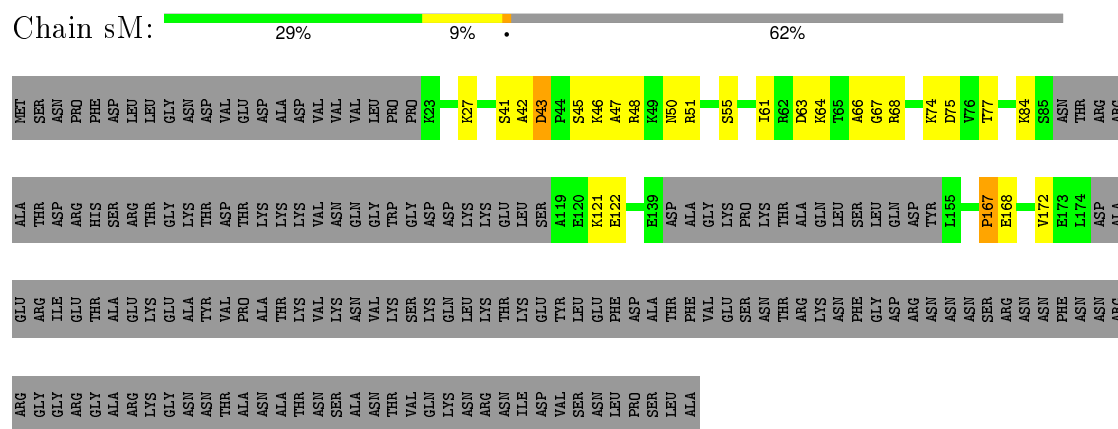
Chain sR: 



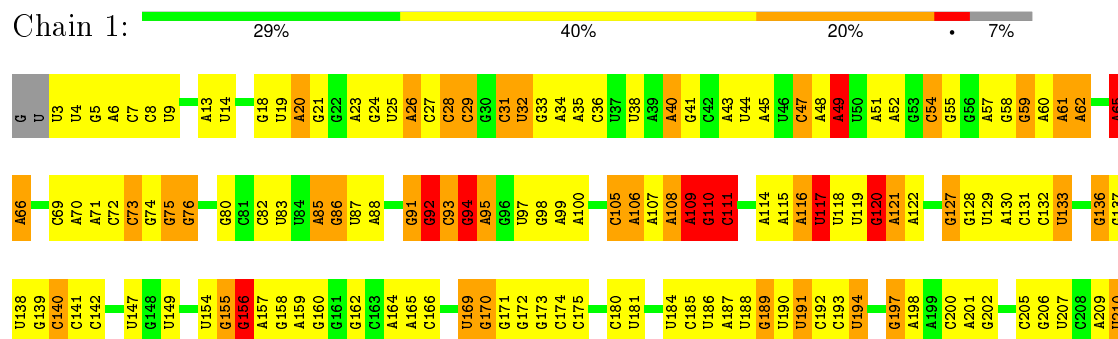
• Molecule 35: Suppressor protein STM1



• Molecule 35: Suppressor protein STM1



• Molecule 36: 25S ribosomal RNA



A1304	G1283	G1164	A1103	U1033	G964	G901	U834	C768	G624	U578	U	U413	G347	U280	A211
U1305	G1234	A1165	G1104	U1034	A965	U905	G835	G769	G625	U558	C	U414	A348	G281	G212
G1306	U1235	A1166	A1105	G1035	G968	U906	A837	G770	U626	U559	U	G419	A349	G282	A213
G1307	G1236	U1167	G	G1036	G969	A906	G838	A771	A628	A560	C	G420	A350	G283	G214
A1308	G1237	U1168	U1108	A1037	G970	G907	G839	G772	G629	C561	C	G421	A351	A284	G215
U1309	C1238	A1169	U1109	C1037	A970	G908	C839	G773	U631	C562	A	A422	A352	A285	G216
G1310	G1239	A1170	U1110	G1038	G971	G909	U846	G774	G632	U563	U	G423	G353	U286	U217
G1313	U1240	G1171	U1111	U1039	A972	G910	A847	A775	G633	U564	U	A424	U354	C287	G218
U1314	G1242	G1172	A1112	A1040	A973	C911	A848	U776	C634	U565	U	G425	A355	G288	A219
U1315	U1173	G1173	G1113	U1041	G974	A912	A849	U777	U635	U566	U	G426	C356	A289	G220
G1316	G1243	U1174	U1114	U1042	C975	A913	C849	C700	G636	G567	C	G430	A357	G290	A221
A1317	A1244	C1175	G1115	C1043	U976	A914	U850	A780	U637	U567	A	U430	G358	C291	A222
G1318	U1245	C1176	G1116	A1046	G977	A915	C851	G781	C638	C573	U	U431	A361	U282	U223
A1319	G1246	G1177	G1117	A1047	G978	G916	U852	A784	G639	U574	G	G432	U362	C293	C224
G1320	U1247	A1178	C1118	A1048	U979	A917	G853	U704	U641	U575	U	G435	U363	U294	C225
U1321	G1249	U1179	A1119	C1049	U981	U919	U855	A786	C642	A578	C	A436	G364	U298	G229
G1322	U1181	A1180	U1120	G1050	G982	A920	G856	G787	U643	C580	C	G437	A365	G299	U230
U1324	A1182	U1122	U1123	U1051	A983	A921	G857	G788	U644	U581	C	A438	A366	G300	G231
U1325	C1185	U1124	U1125	U1052	G984	U922	A858	A789	C645	U582	C	G439	A367	U	G232
A1326	C1255	G1186	U1126	A1054	U986	A925	G860	U790	A646	G583	C	A440	A368	G304	G239
U1329	G1258	U1187	U1127	U1056	G993	C928	C863	G793	C648	A585	C	U	A369	U305	U240
A1330	U1259	C1188	G1128	A1057	G994	A929	C864	U794	U649	C586	C	U	A370	A306	G241
U1331	A1260	A1189	A1129	A1057	U995	A930	G865	C803	C650	U587	C	U	A372	A307	C242
G1332	G1261	U1191	A1130	G1063	U996	U930	U866	U797	G651	G588	C	U	A374	A308	G243
U1334	C1262	C1192	G1131	A1064	A997	C931	A866	G798	G652	A589	C	U	A375	U310	U245
G1335	A1263	A1193	A1132	A1065	U998	U932	G867	G799	A653	G590	C	U	G376	U	G
U1336	G1264	G1194	A1133	G1066	G999	A933	C868	G800	C654	G591	C	U	A377	A313	U249
G1337	U1265	A1195	U1134	U1067	C1000	G934	G869	A801	C655	A592	C	U	A378	C315	G
U1340	G1266	C1196	A1135	C1068	G1001	U935	G870	C802	A656	C593	C	U	G379	C316	U250
U1341	U1267	A1197	A1136	C1069	A1002	U936	U871	G803	A657	U594	C	U	A385	U316	G251
G1344	G1268	C1198	C1137	U1070	U1003	C937	C872	A806	G658	G595	C	U	A386	A317	U252
G1345	U1269	C1199	U1138	U1071	U1004	C938	U873	A807	G659	C596	C	U	A387	A318	A253
U1346	A1270	A1200	G1139	G1072	G1005	U939	G874	C729	A660	G597	C	U	A387	A319	A254
U1347	C1272	G1201	C1141	U1073	A1006	G940	U875	A808	G661	C598	C	U	G390	C321	A255
U1348	A1273	A1204	G1142	U1074	U1009	G941	G878	G809	U662	C599	C	U	U	U	G256
A1350	G1274	A1205	A1143	C1076	G1010	U942	U879	A810	C663	G600	C	U	A391	U322	C259
U1351	U1275	G1206	U1144	U1077	A1011	U943	G880	U811	U664	U601	C	U	U392	A323	C260
G1352	G1279	U1208	G1145	U1078	G1012	C944	C881	G812	A665	A602	C	U	U393	A324	G
U1353	C1280	G1209	G1146	U1081	G1013	U945	A882	G813	A666	A603	C	U	A394	A325	U261
G1354	U1281	U1210	C1147	U1082	U1014	G946	A883	U814	C667	G604	C	U	A395	U326	U262
A1355	G1285	U1211	G1148	U1083	U1015	C948	A884	A816	G668	U605	C	U	A397	U328	C263
U1356	A1286	A1212	U1149	C1086	C1017	C949	U885	A817	C670	A607	C	U	A398	U329	G264
G1357	G1287	G1213	U1151	U1087	C1016	A951	G887	U819	A672	G609	C	U	A399	G330	A265
U1358	U1292	C1216	G1152	G1087	G1019	A952	A888	A820	U676	G610	C	U	G400	G331	G267
C1360	U1293	A1217	A1153	U1089	G1020	G953	U889	U821	A677	A611	C	U	A402	C332	A268
U1361	A1294	C1155	A1154	A1093	G1021	U954	C890	C824	G678	U612	C	U	C403	A334	U270
G1362	G1295	U1095	C1156	U1094	U1022	U955	C893	U825	U679	U613	C	U	G404	G335	C271
A1363	C1296	G1221	G1157	U1096	C1023	U956	G894	G826	C680	C614	C	U	U405	U	G272
G1364	C1297	A1158	A1158	G1097	G1024	C957	A895	U827	U681	G547	C	U	A406	C339	A273
G1365	C1298	C1227	A1159	A1098	A1026	C958	A896	A828	U682	C618	C	U	A407	A342	G274
A1366	A1301	G1230	C1160	A1099	A1027	U960	U897	U829	U683	A619	C	U	A408	U343	U275
U1367	U1368	A1231	G1161	U1100	U1028	U961	U898	A830	G684	U620	C	U	A409	U344	U276
U1369	A1303	C1232	A1163	A1102	A1030	G963	G900	G833	U687	A621	C	U	U410	A345	U277
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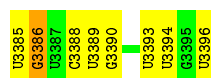




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G1142	U1078	A1011	U946	A882	G809	G737	U669	G604	U541	G	U413	C350	U279	U210	C139	C73
A1143	A1078	G1012	A883	A884	A810	A738	G670	U605	G542	G	U414	A351	G281	A211	C140	G74
U1144	U1080	G1013	C948	A887	G812	G739	U671	G606	G543	A	G415	A352	G282	G212	C141	G75
U1081	U1014	G1014	C949	G887	G811	G740	A672	A607	C546	U	A416	A353	G283	A213	G76	G76
C1146	U1082	U1015	G950	A888	G813	U741	U673	A608	C547	U	A417	G356	G284	G214	A144	A77
G1147	G1083	C1017	A951	A889	A816	G742	A677	G610	G548	C	A418	C357	G285	G215	U146	C82
G1148	A1084	G1018	U952	C890	A817	C743	G678	A611	G549	U	G419	A358	A284	G216	U147	C82
A1150	U1088	G1019	U953	C891	G817	A744	U679	U612	U548	C	G420	G359	A285	U217	U148	U84
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G1152	A1091	G1021	U955	C893	G681	U746	U681	C614	A551	C	A422	G360	G287	A219	U149	G86
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C1155	A1093	G1023	C958	A895	U683	G750	U683	C616	U553	U	G424	G364	U292	A221	U87	U87
C1156	U1094	G1024	C959	A896	A619	A751	G684	A619	U554	U	G425	A365	U293	A222	G156	A88
G1157	U1095	A1025	U960	C897	U620	C752	G685	U621	U555	U	G426	A366	U294	U223	A157	A89
A1158	G1097	A1026	C961	U998	G686	C753	G686	A622	U556	C	G427	A367	A295	C224	G158	C90
C1159	A1098	U1027	A962	U999	U687	U756	U687	A622	A557	A	U429	G368	G299	G222	G160	G92
G1160	U1028	G1028	G963	G900	U688	U757	G688	U623	U558	U	G432	A369	G300	U228	G161	G93
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G1164	A1103	C1032	C967	A904	C692	C765	A693	U630	C496	U	C435	A373	G304	A235	U169	U97
A1165	G1104	U1033	C968	A905	C693	U766	C694	U631	C497	U	A436	A374	U305	G236	G170	G98
G1166	A1105	U1034	C969	A906	C695	U767	C695	G632	A498	U	G437	A375	U306	G237	G171	A99
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C1176	U1109	U1039	A972	G908	U697	G769	U698	G635	A501	U	U440	A378	G320	G239	C174	G110
G1177	U1110	A1040	C973	G910	U698	G770	U698	C636	U502	U	U441	C379	G321	U240	G174	G104
U1178	U1111	U1042	U976	A913	A847	U772	G701	C637	C503	U	G442	U380	U322	G241	C175	C105
A1179	A1112	G1043	C977	A914	U848	U776	C702	G638	A504	U	U443	U381	U323	A244	U177	A106
U1181	U1113	U1044	C978	A915	C849	U777	G703	U640	G505	U	U	U382	A318	U245	U178	A107
U1182	U1114	C1045	U979	A916	U850	U777	U704	C641	U506	U	U	A383	A319	U246	C179	A108
C1183	G1115	A1046	U980	A917	U851	U778	A705	U642	U508	U	U	A385	G321	G247	C180	G110
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U1191	U1120	U1051	U985	A922	G860	A786	U713	C648	C915	U	U	A392	U326	U252	C185	A115
C1192	U1121	U1052	U986	G923	C861	G787	U713	A649	C916	U	U	A393	A327	A253	U186	A116
U1193	U1122	U1053	U987	C924	U862	C788	C714	C650	C917	U	U	A394	U328	A254	A187	U117
A1194	U1123	A1054	U988	A925	C863	A789	A715	G651	C985	U	U	A395	U329	A255	U188	U118
C1197	A1129	A1065	A996	U930	G864	U790	A716	A652	C986	U	U	A396	G330	G256	G189	U119
U1198	U1130	G1066	A997	A933	C869	U796	A717	A653	U587	U	U	A397	U329	U257	U190	G120
C1199	G1131	U1067	A998	G934	U870	U797	G726	G654	A521	U	U	A398	U329	G258	U191	A121
A1200	A1132	C1068	G999	U935	U871	U797	G727	A657	A522	U	U	A399	G333	C259	C192	A122
C1201	A1133	C1069	A1000	G937	U872	G800	G728	G658	U523	U	U	A400	A336	C263	U194	U126
A1202	G1134	U1070	G1001	C938	G873	A801	G728	A660	U524	U	U	A401	G337	G264	G127	G128
A1203	A1135	U1071	C939	C938	C874	C802	C729	G661	C525	U	U	A402	C339	A267	G129	U129
A1204	A1136	G1072	A1002	U939	U874	A803	C730	G662	U526	U	U	A403	C340	G268	A130	A130
G1205	U1137	U1073	U1004	G940	G875	C803	C730	C663	G531	U	U	A404	G341	G269	A131	C131
A1206	U1138	U1074	U942	G941	U731	C804	U731	A664	A532	U	U	A405	G342	U270	C200	C132
G1207	G1139	A1075	U1008	U943	C734	A806	C734	A665	U533	U	U	A406	U843	C271	A201	U133
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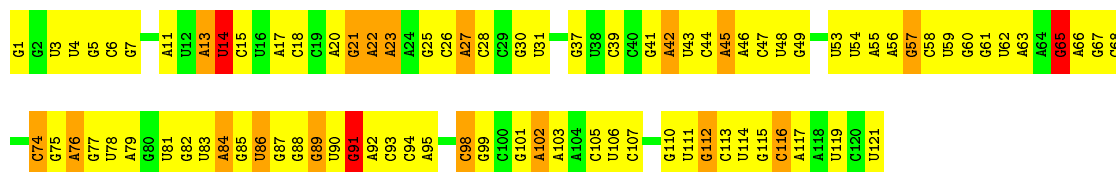
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A2244	U2103	G2179	A1852	G1786	G1712	A1637	A1567	C1497	C1432	G1362	C1298	G1210
C2245	U2104	U1920	U1853	A1787		A1638	U1568	A1498	A1433		U1299	U1211
	G2105	A1921	G1854	C1788	A1715	C1639	U1570	G1499	G1434	G1365	G1300	A1212
C2248	A2106		U1855		U1716		U1571	A1435	U1436	A1366	A1301	G1213
G2249	A2107	C	C1856	C1782	U1717		U1572	U1501	U1437	G1367	A1302	
	C2108	G	C1857	C1794	G1718	A1642	U1573	C1502	C1437	U1368	A1303	A1221
A2252	U2109	U	A1858	G1794	G1719	A1643	G1573	U1503	U1438	A1369	A1304	G1222
G2253	G2110	G	A1859	U1795	U1720	C1644	C1574	A1504	U1439	G1370	U1305	A1223
U2254	G2111	A	G1796	U1721	U1721	U1645	A1575	G1440	G1440	G1371	G1306	
A2255	U2112	A	A1797	A1722	U1722	G1652	G1576	A1506	U1441	C1372	G1307	G1226
A2256	A2113	U	U1862	U1723	A1723	G1653	G1577	U1507	U1442	A1373	A1308	G1227
C2257	U2130	C		A1798			C1578	C1508	G1443	G1374	U1309	
U2258	U1931	G	A1865	C1803	U1724	G1654	C1579		G1444		G1310	G1230
	U1932	G	C1866	A1804	C1725	A1654	A1580		U1513	U1378	A1231	A1231
G2261	A1933	U	A1867	A1805	C1726	A1655	A1581	G1514	U1445	G1379	G1312	C1232
A2262	G1934	C	A1868	A1806		A1656	C1582		A1447	G1380	G1313	G1233
C2263	G1935	C	C1869	A1807	A1729	G1658	A1583		U1448	A1381	C1314	G1234
	A1936	U		G1807			U1584		U1449	G1382	U1315	U1235
C2197	U1937	U	U1873	G1808	G1733	U1659	C1585		U1450	G1383	G1316	G1236
A2198	U1938	G	A1874	A1809	G1734	C1660	C1586		C1451	U1384	A1317	G1237
G2199	G1939	U	G1875	G1810	G1735	G1661	A1587		A1452	C1385	G1318	C1238
U2200	G1940	A	U1876	A1811	G1736	C1662	A1588		U1523	A1386	G1319	C1239
G2201	C1941	U	U1877	G1812		C1663	A1589		A1453	G1387	G1320	A1240
U2268	U1942	G	A1878	A1813	U1740	G1664	G1590		U1454	U1388	G1321	U1241
C2202	C1943	G	A1879	A1814	A1741	C1665	G1591		U1455		U1322	G1242
U2203	G1944	U	U1880	U1815			G1592		A1456		G1323	
C2204	U1945	C	A1881	A1816	G1742	C1669	A1592		U1459		U1324	A1245
U2205	A1946	U	G1882	G1817	G1743	C1670	A1593		A1460			G1246
G2206	U1947	G	A1883	U1818	A1749		A1594		U1461			
A2207	G1948	U	A1884	U1819	A1750	G1677	U1595		U1530		U1329	
U2208	G1949	C	U1885	U1820	G1751		C1596		G1464	A1394	A1330	G1249
G2209	U1950	U	A1886	U1821	A1752	G1680	C1597		A1465	G1395	G1331	G1250
C2210	G1951	U	A1887	A1822	G1753	U1681	G1598		A1466	C1396	A1332	A1251
U2211	G1952	A	U1888	A1823	G1754	U1682	A1599		A1467	C1397	C1333	A1252
C2212	G1953	G	G1889	U1824	C1755	A1683	U1600		A1468		U1334	
A2213	G1963	C	U1890	G1825	C1756	U1684	C1469		C1469	U1399	C1335	G1255
G2214	U2140	C	U1891	C1826	A1757	C1685	U1549		U1470	G1400	U1336	G1256
A2215	U	C	A1892	C1827	G1758	U1686	G1611		U1471		A1337	G1257
G2216	U	U	G1893	A1828	G1759	U1687	A1612		U1472	C1403	C1338	U1258
U2217	G	G	A1894		U1760	U1688	C1613		G1473	G1404	C1339	
G2218	C	C	U1895	U1831	G1761	U1689	C1614		A1474	U1405	G1340	G1261
A2219	U	U	A1896	G1832	C1762	C1608	U1607		A1475	A1406	U1341	G1262
G2220	G	G	G1897	G1833	U1763	C1609	C1609		G1476	A1407	C1342	A1263
C2221	C	C	U1898	U1834	U1764	C1692	G1610		A1477	G1408	A1343	G1264
U2222	G	G	G1899	C1835	C1765	C1693	G1611			G1409	G1344	U1265
A2223	U	U	A1901	A1836	U1766	U1694	A1612		G1480		G1345	G1266
U2224	C	C	G1902	U1837	G1767	U1695	A1613		A1481		G1346	
A2225	U	U	U1903	G1838	C1767	A1696	C1614		A1482	G1414	U1347	G1277
	A	A	C1904	A1839	U1768		C1615		U1553	G1417	U1348	A1278
	U	C	G1905	U1840	G1769	A1699	U1616		U1554	A1418	G1349	
	G	G	G1906	A1841	G1770	G1700	U1617		U1555	A1419	A1350	G1281
	U	U	C1907	A1842	U1771	C1701	G1617		G1485	G1484	U1351	
	C	C	A1908	U1772	U1772	U1702	A1557		G1486	C1420	A1352	C1284
	U	U	U1909	C1843		U1703	A1558				U1353	G1285
	G	G	A1910	G1844	G1773	A1704	A1559		A1489	C1424	U1354	
	A	A	U1911	U1845	C1779	U1705	G1560		U1490	U1425	G1354	
	C	C	A1914	C1846	G1780	C1706	G1561		A1491	C1426	A1355	C1292
	U	U		A1847	U1781	C1707	C1562		G1492	U1427	U1356	U1293
	G	G		U1848	U1782	C1708	C1563		G1493	A1428	A1294	
	C	C		C1849	U1783	C1709	U1564		U1494	G1429	G1357	G1295





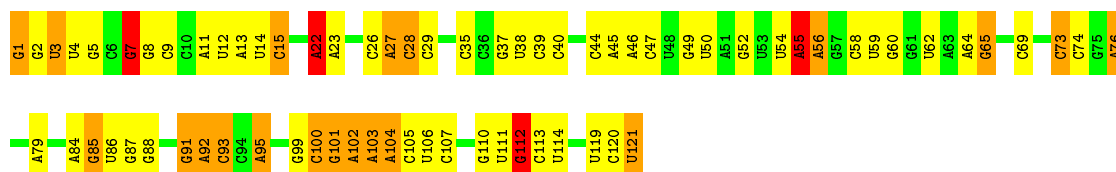
• Molecule 37: 5S ribosomal RNA

Chain 3: 28% 55% 14%



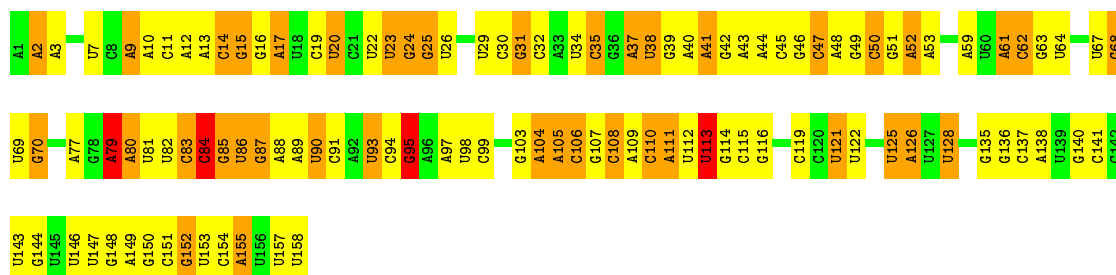
• Molecule 37: 5S ribosomal RNA

Chain 7: 41% 39% 17%



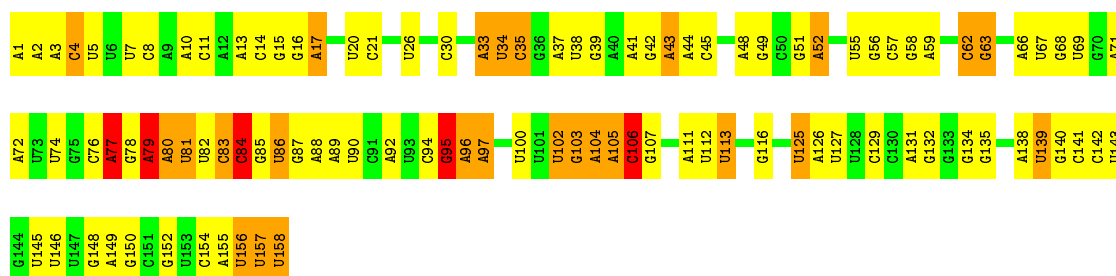
• Molecule 38: 5.8S ribosomal RNA

Chain 4: 30% 42% 25%



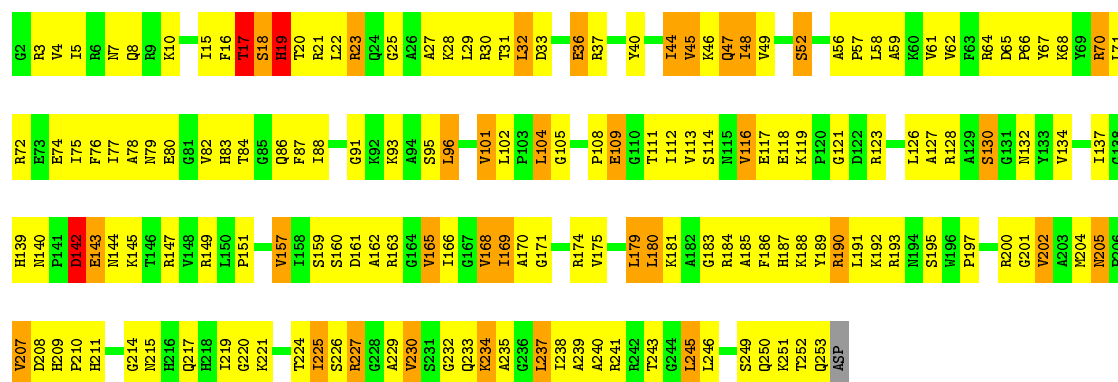
• Molecule 38: 5.8S ribosomal RNA

Chain 8: 35% 46% 16%

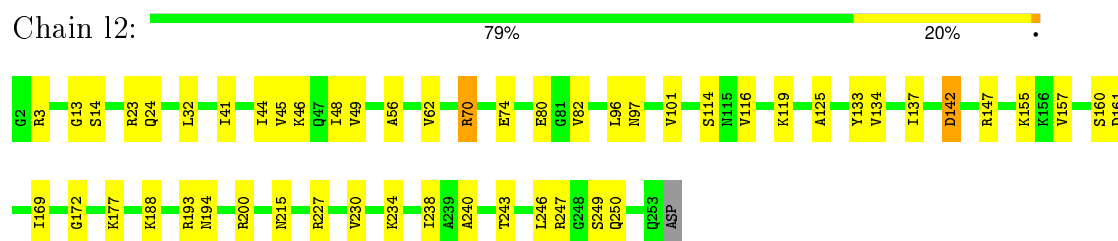


• Molecule 39: 60S ribosomal protein L2-A

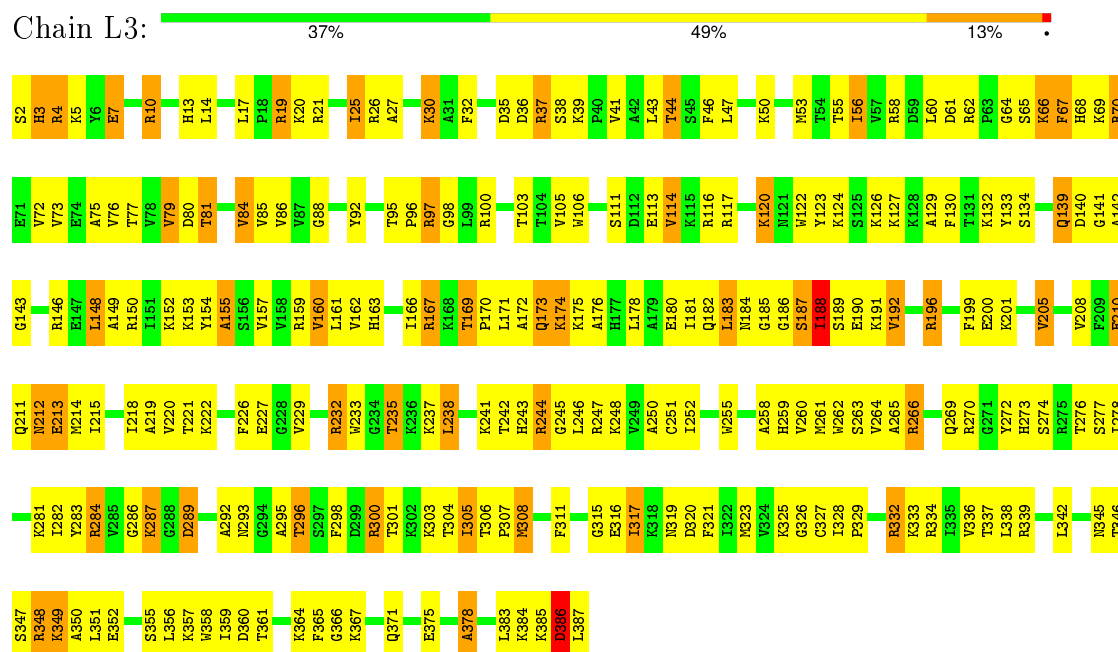
Chain L2: 34% 51% 13%



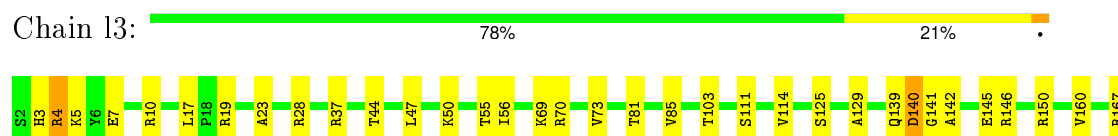
• Molecule 39: 60S ribosomal protein L2-A

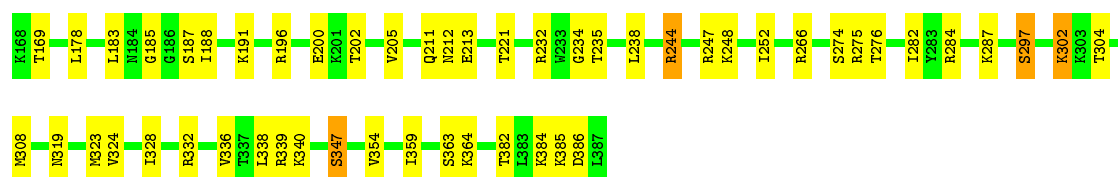


• Molecule 40: 60S ribosomal protein L3

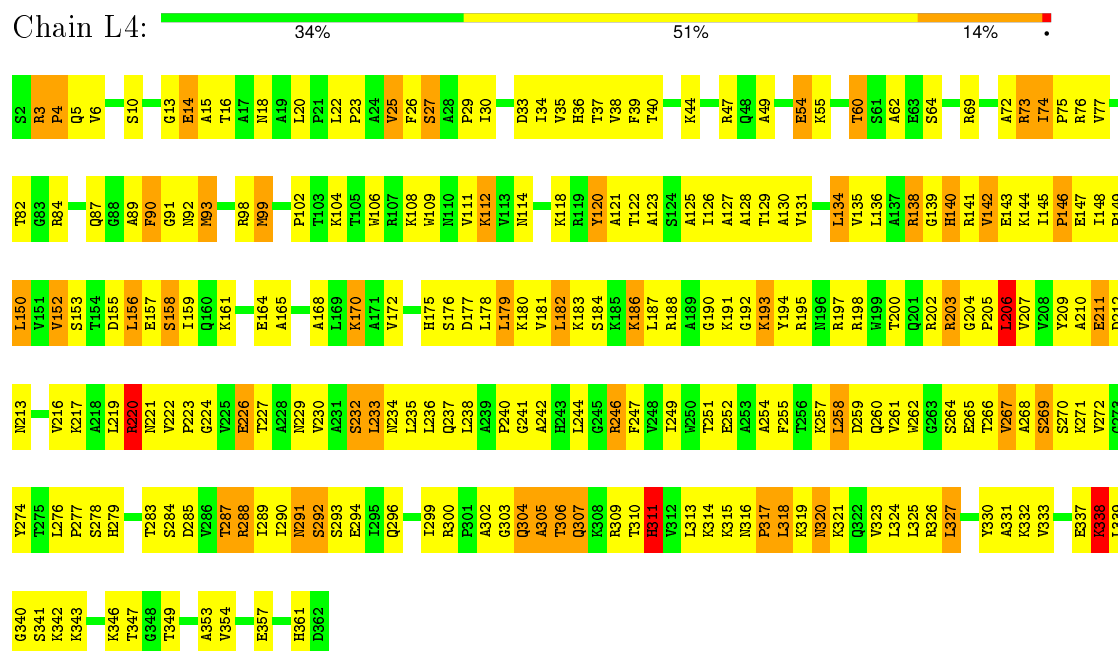


• Molecule 40: 60S ribosomal protein L3

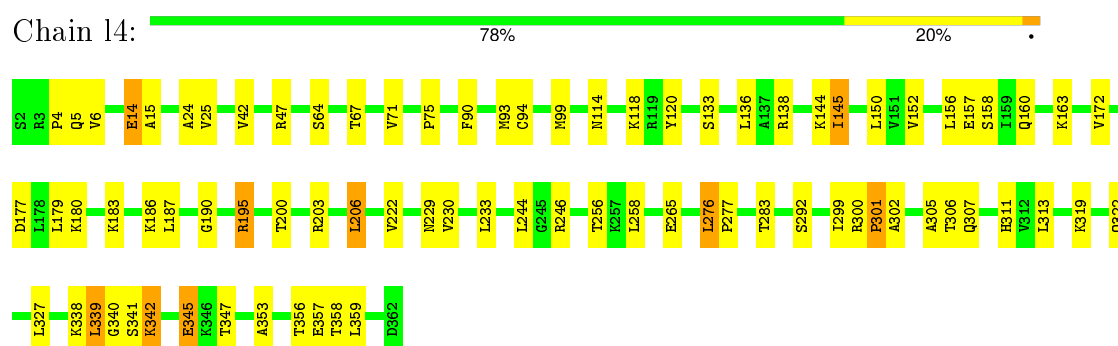




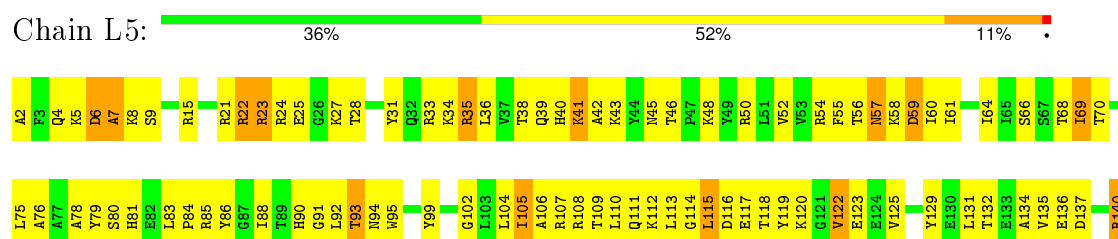
• Molecule 41: 60S ribosomal protein L4-A

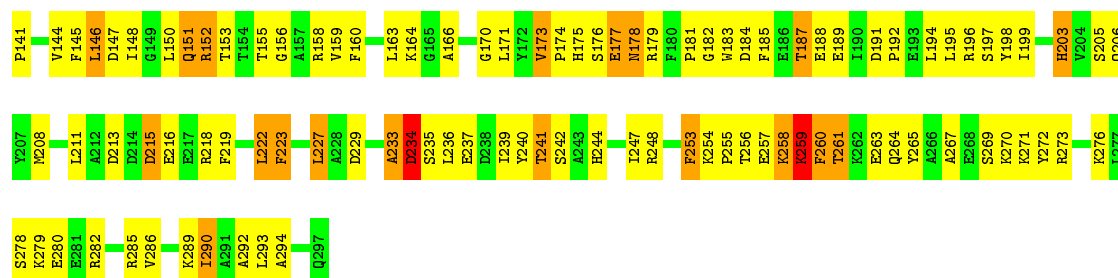


• Molecule 41: 60S ribosomal protein L4-A



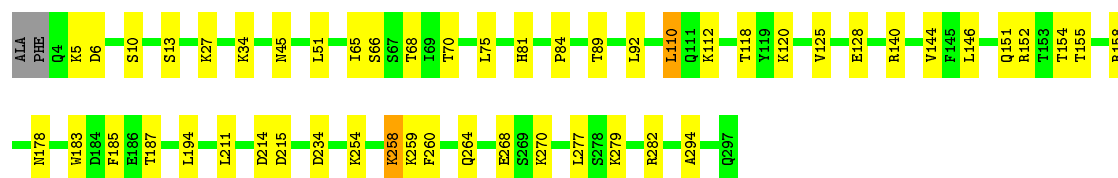
• Molecule 42: 60S ribosomal protein L5





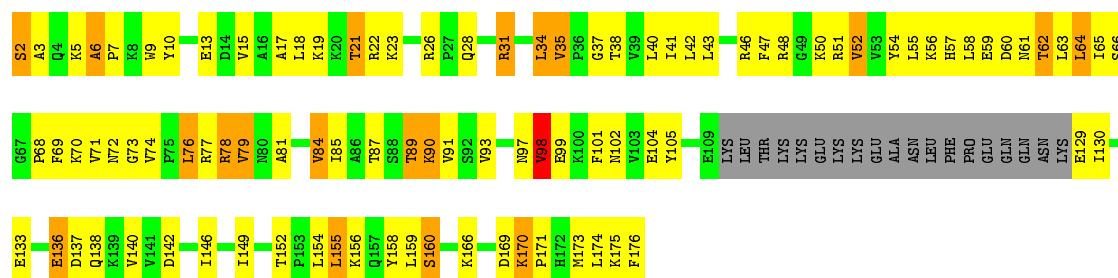
• Molecule 42: 60S ribosomal protein L5

Chain L5: 82% 17% ..



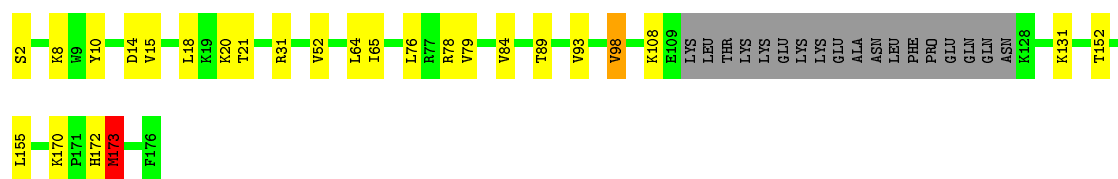
• Molecule 43: 60S ribosomal protein L6-A

Chain L6: 34% 43% 11% • 11%



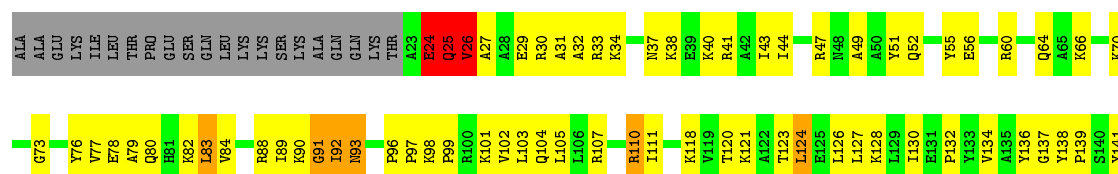
• Molecule 43: 60S ribosomal protein L6-A

Chain L6: 75% 14% •• 10%



• Molecule 44: 60S ribosomal protein L7-A

Chain L7: 35% 49% 7% • 9%





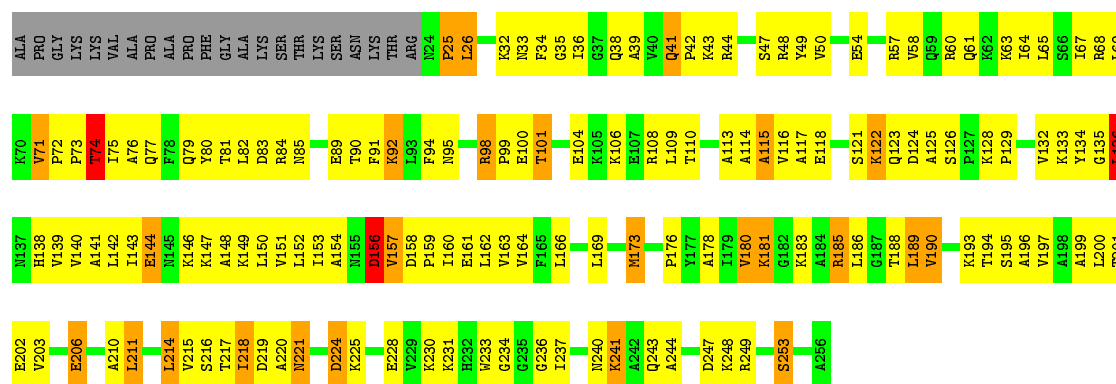
• Molecule 44: 60S ribosomal protein L7-A

Chain 17: 78% 12% 8%



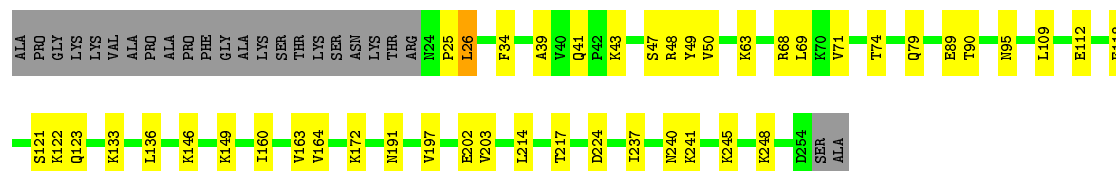
• Molecule 45: 60S ribosomal protein L8-A

Chain L8: 32% 49% 10% 9%



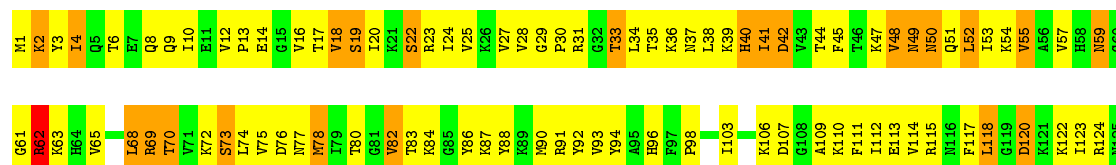
• Molecule 45: 60S ribosomal protein L8-A

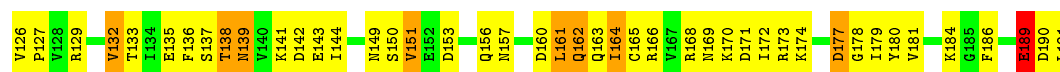
Chain l8: 73% 17% 9%



• Molecule 46: 60S ribosomal protein L9-A

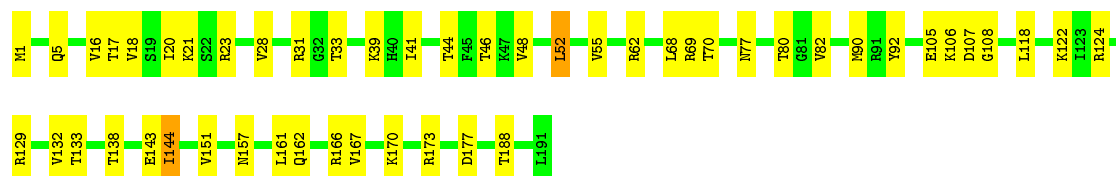
Chain L9: 29% 54% 16%





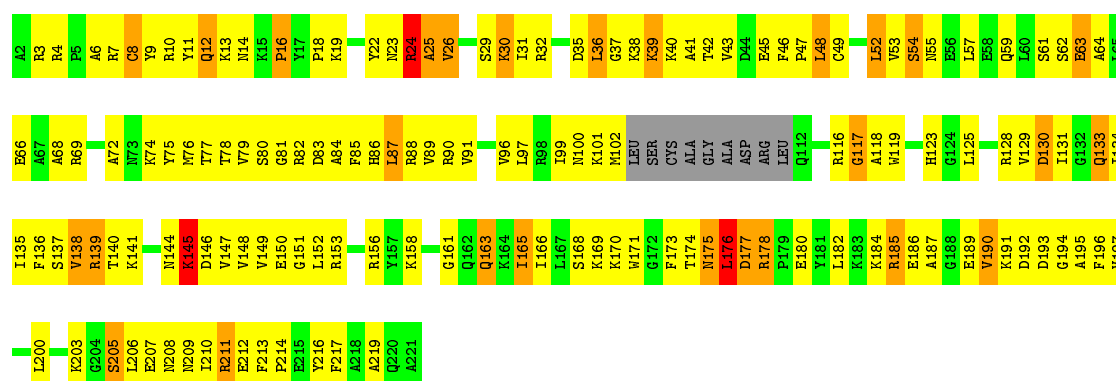
• Molecule 46: 60S ribosomal protein L9-A

Chain l9: 74% 25%



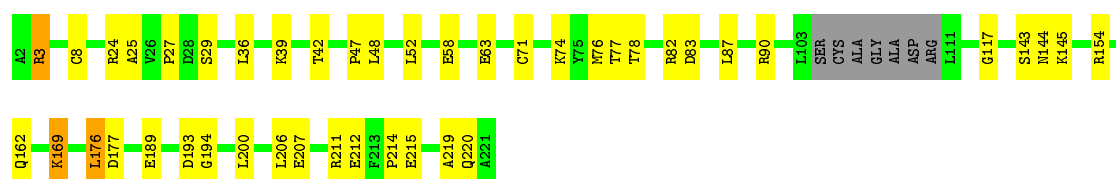
• Molecule 47: 60S ribosomal protein L10

Chain M0: 28% 55% 12%



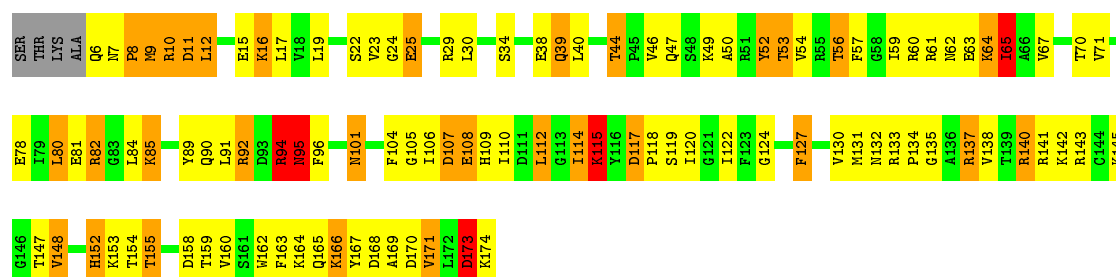
• Molecule 47: 60S ribosomal protein L10

Chain m0: 77% 19%

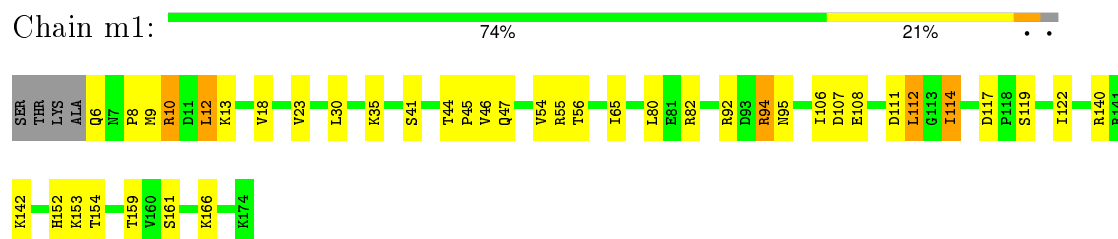


• Molecule 48: 60S ribosomal protein L11-B

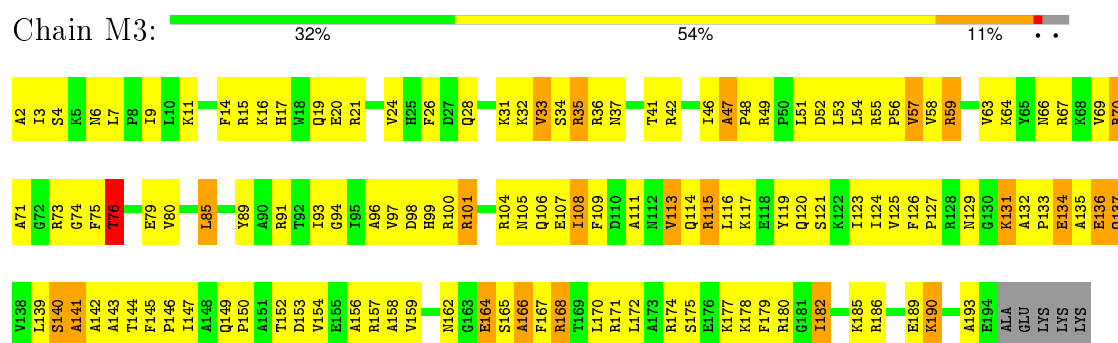
Chain M1: 36% 40% 18%



- Molecule 48: 60S ribosomal protein L11-B



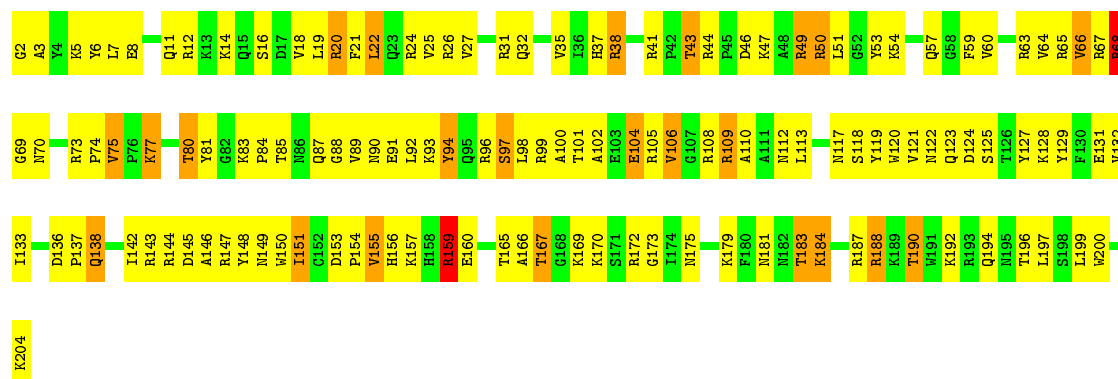
- Molecule 49: 60S ribosomal protein L13-A





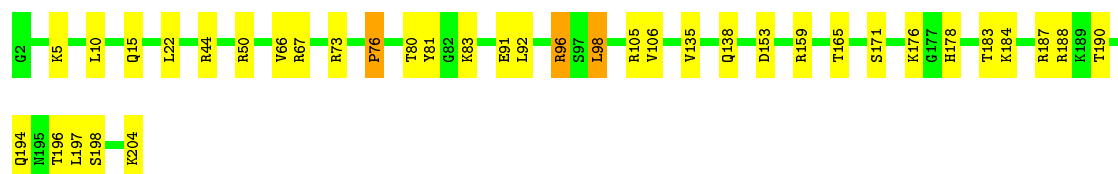
• Molecule 51: 60S ribosomal protein L15-A

Chain M5: 34% 54% 11%



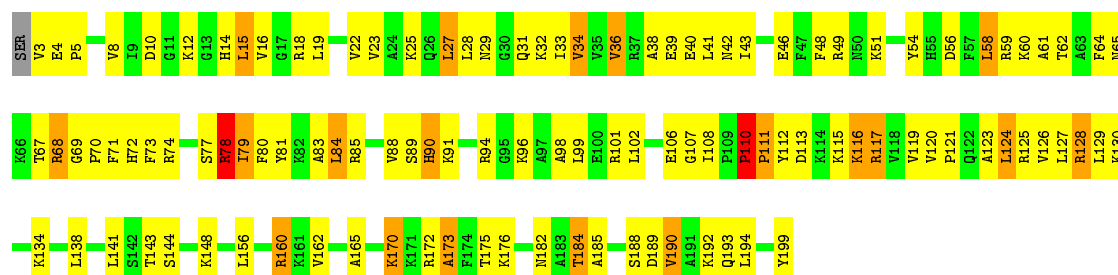
• Molecule 51: 60S ribosomal protein L15-A

Chain m5: 82% 17%



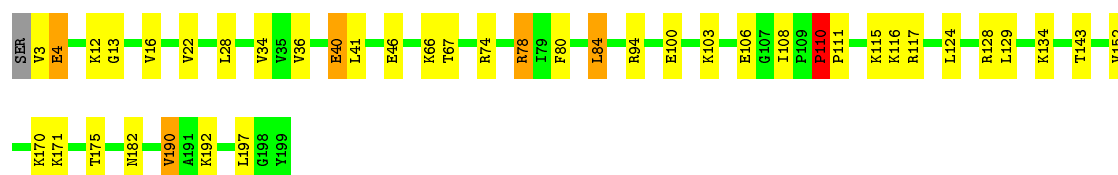
• Molecule 52: 60S ribosomal protein L16-A

Chain M6: 42% 46% 10%

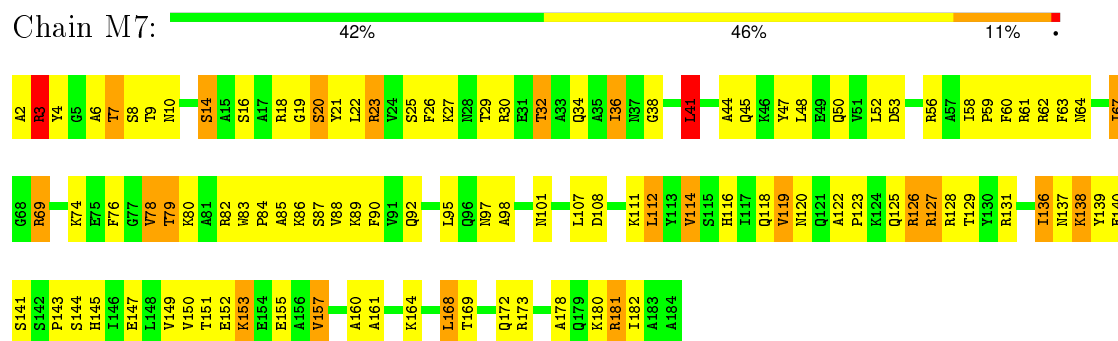


• Molecule 52: 60S ribosomal protein L16-A

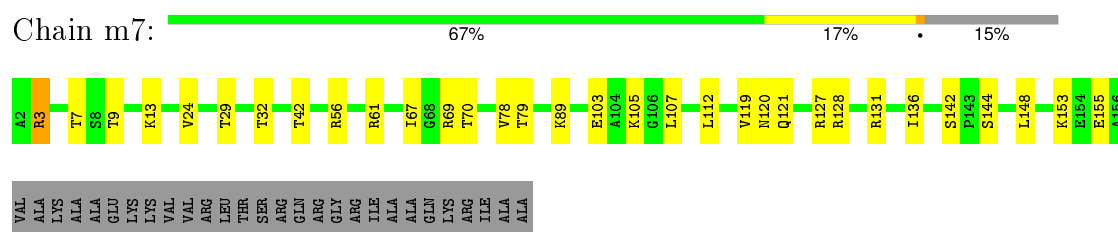
Chain m6: 79% 18%



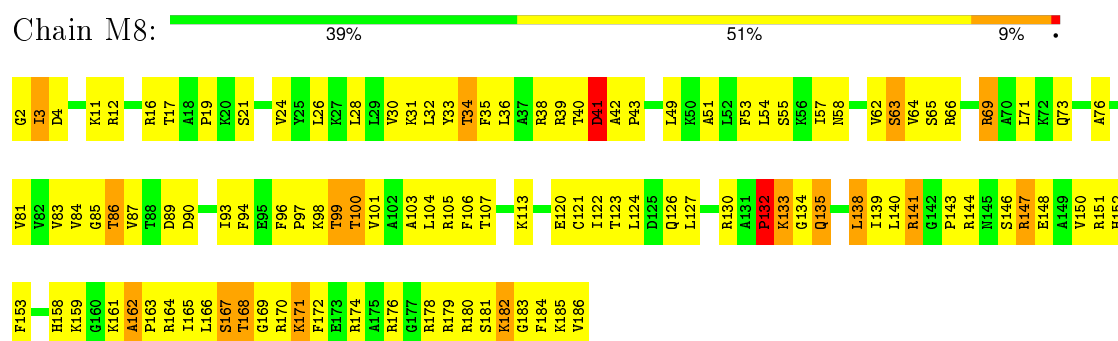
- Molecule 53: 60S ribosomal protein L17-A



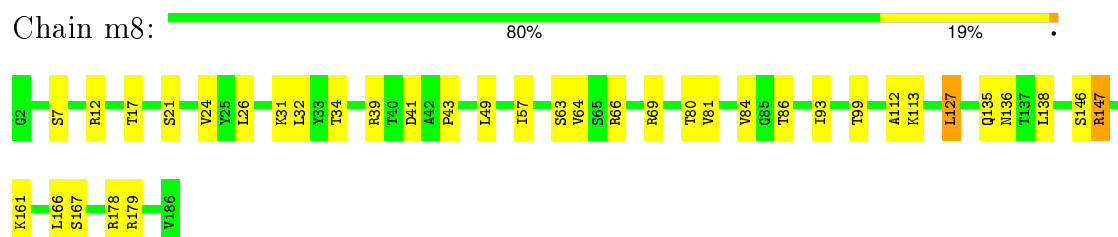
- Molecule 53: 60S ribosomal protein L17-A



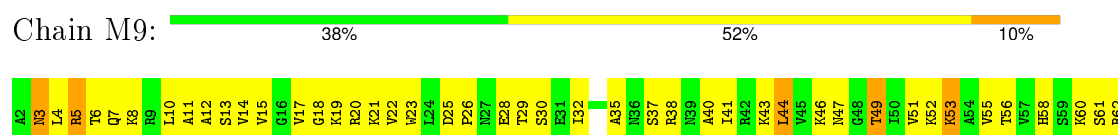
- Molecule 54: 60S ribosomal protein L18-A

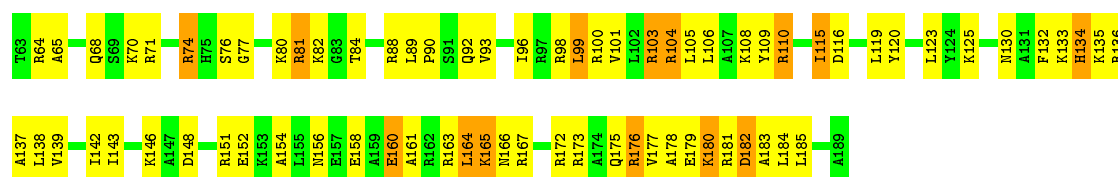


- Molecule 54: 60S ribosomal protein L18-A



- Molecule 55: 60S ribosomal protein L19-A





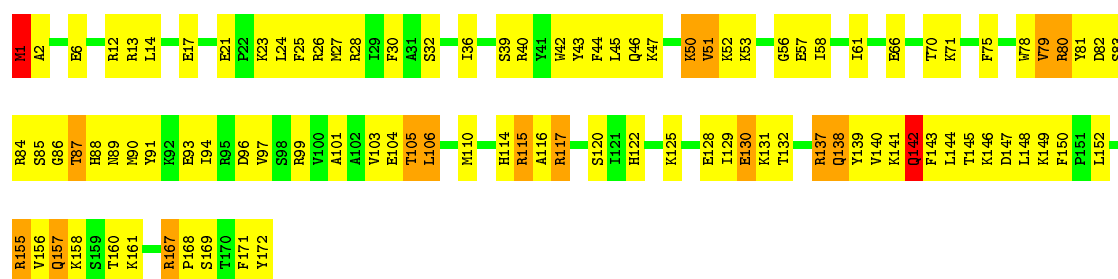
- Molecule 55: 60S ribosomal protein L19-A

Chain m9: 85% 14%



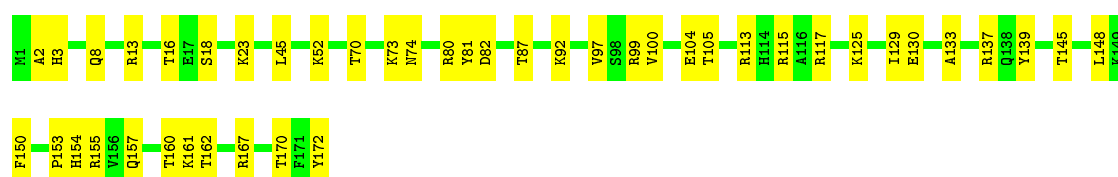
- Molecule 56: 60S ribosomal protein L20-A

Chain N0: 42% 48% 9%



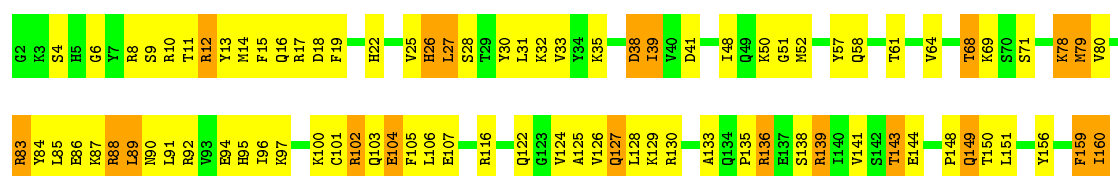
- Molecule 56: 60S ribosomal protein L20-A

Chain n0: 74% 26%



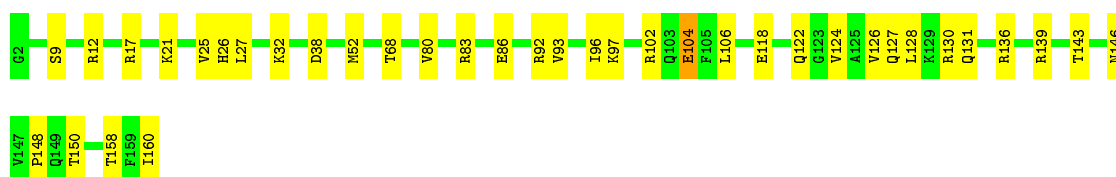
- Molecule 57: 60S ribosomal protein L21-A

Chain N1: 45% 42% 13%

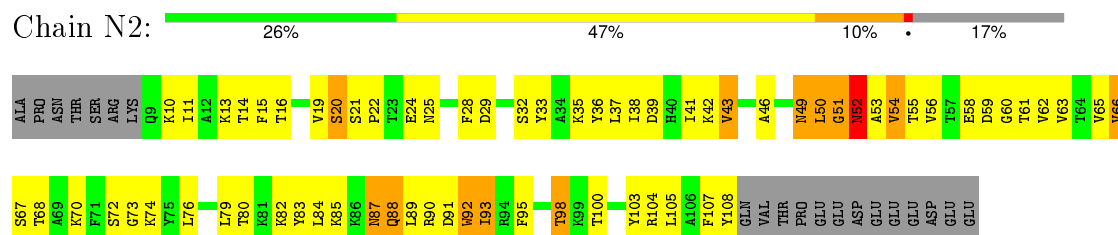


- Molecule 57: 60S ribosomal protein L21-A

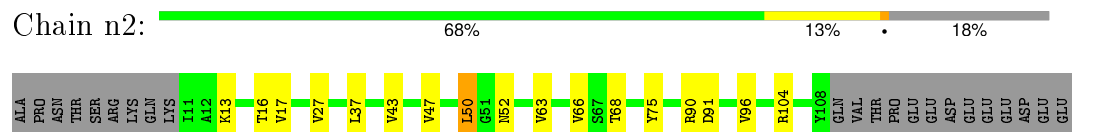
Chain n1: 77% 23%



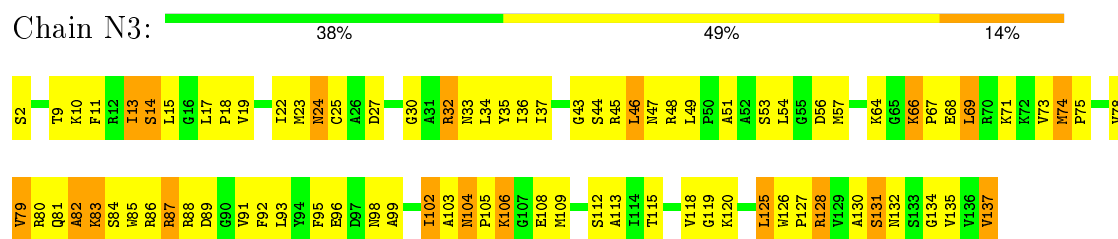
- Molecule 58: 60S ribosomal protein L22-A



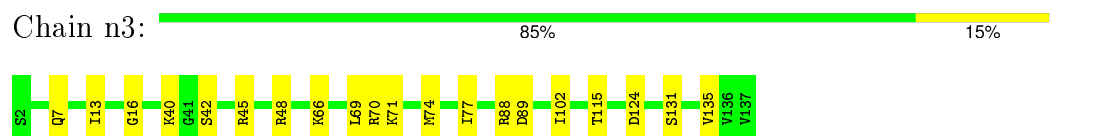
- Molecule 58: 60S ribosomal protein L22-A



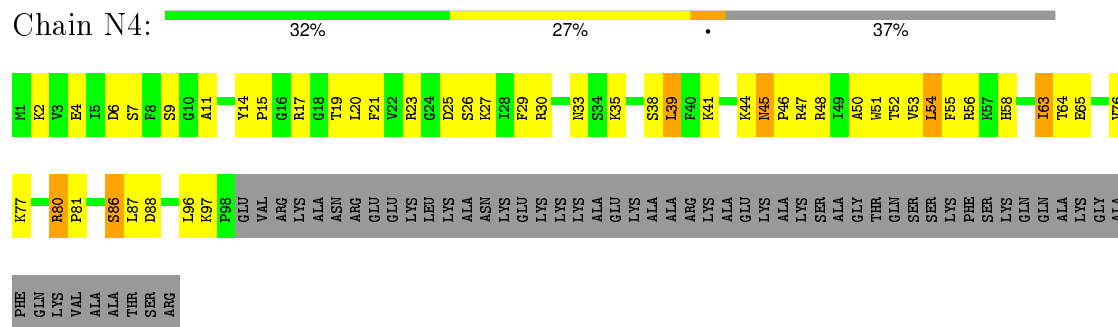
- Molecule 59: 60S ribosomal protein L23-A



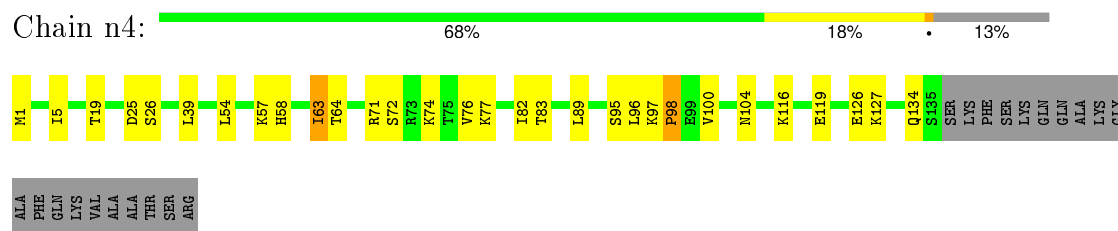
- Molecule 59: 60S ribosomal protein L23-A



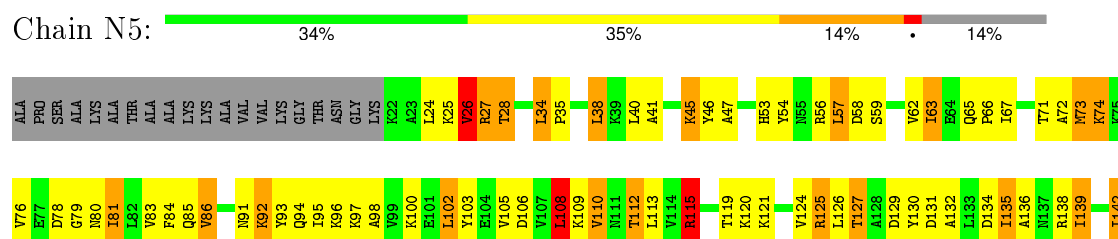
- Molecule 60: 60S ribosomal protein L24-A



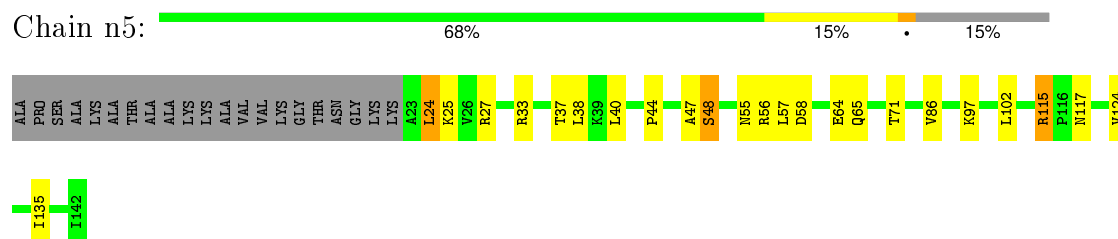
- Molecule 60: 60S ribosomal protein L24-A



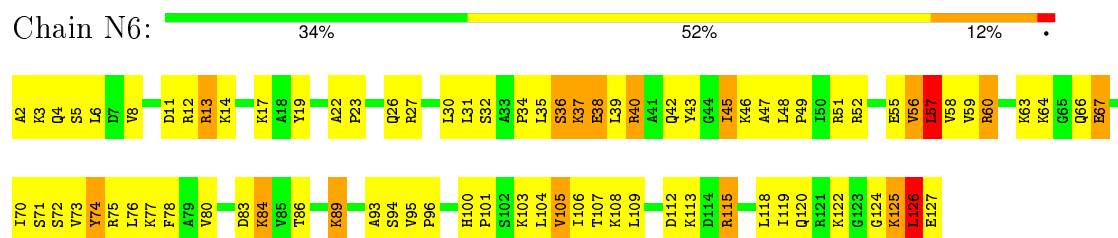
- Molecule 61: 60S ribosomal protein L25



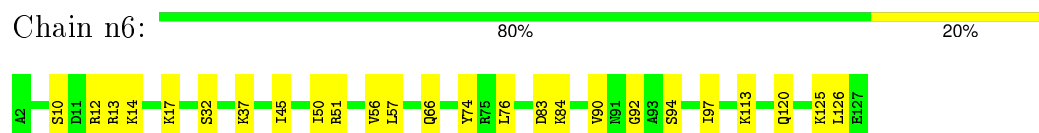
- Molecule 61: 60S ribosomal protein L25



- Molecule 62: 60S ribosomal protein L26-A

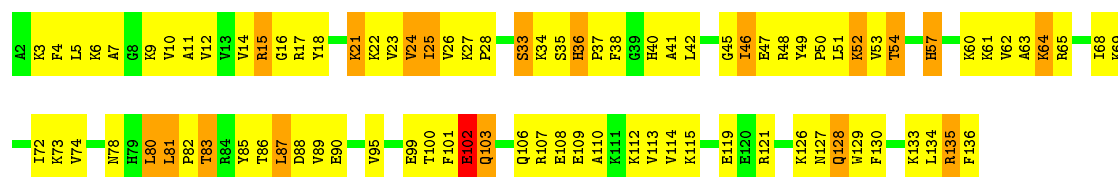


- Molecule 62: 60S ribosomal protein L26-A



- Molecule 63: 60S ribosomal protein L27-A

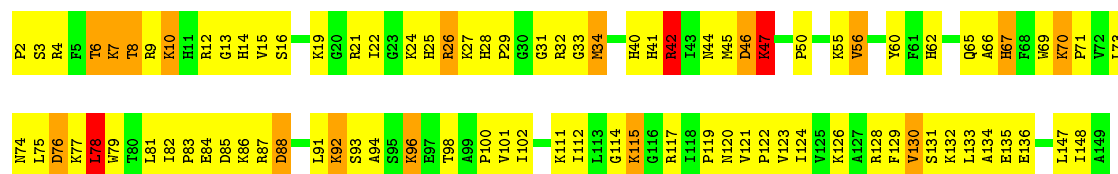




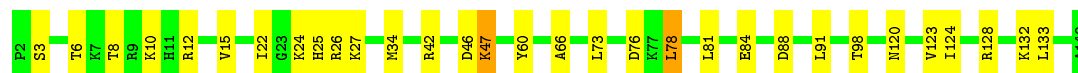
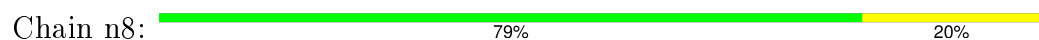
• Molecule 63: 60S ribosomal protein L27-A



• Molecule 64: 60S ribosomal protein L28



• Molecule 64: 60S ribosomal protein L28



• Molecule 65: 60S ribosomal protein L29

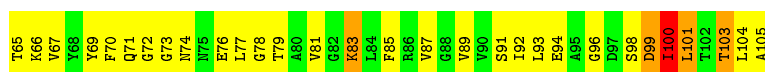


• Molecule 65: 60S ribosomal protein L29



• Molecule 66: 60S ribosomal protein L30





- Molecule 66: 60S ribosomal protein L30

Chain o0: 78% 18%



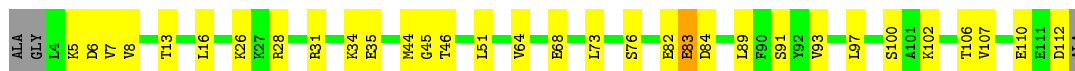
- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 40% 44% 13%



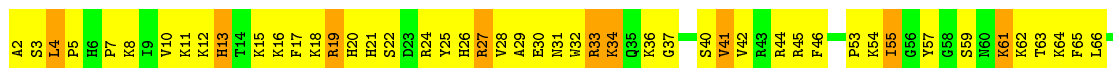
- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 69% 28%



- Molecule 68: 60S ribosomal protein L32

Chain O2: 31% 54% 13%



- Molecule 68: 60S ribosomal protein L32

Chain o2: 78% 19%



- Molecule 69: 60S ribosomal protein L33-A

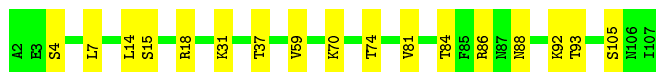
Chain O3: 36% 54% 9%





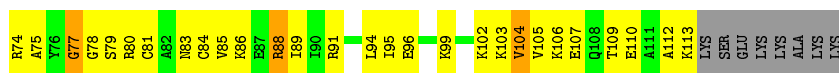
- Molecule 69: 60S ribosomal protein L33-A

Chain o3: 84% 16%



- Molecule 70: 60S ribosomal protein L34-A

Chain O4: 32% 52% 8% 7%



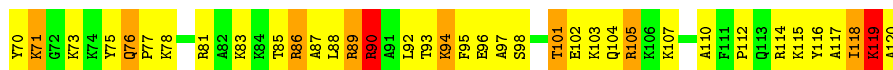
- Molecule 70: 60S ribosomal protein L34-A

Chain o4: 77% 17% 7%



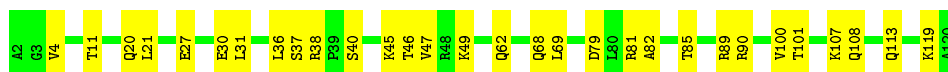
- Molecule 71: 60S ribosomal protein L35-A

Chain O5: 34% 55% 10%



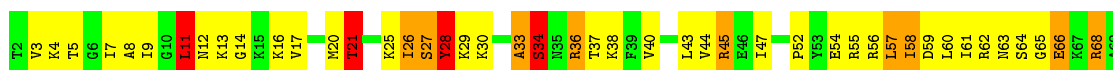
- Molecule 71: 60S ribosomal protein L35-A

Chain o5: 75% 25%



- Molecule 72: 60S ribosomal protein L36-A

Chain O6: 34% 49% 12%





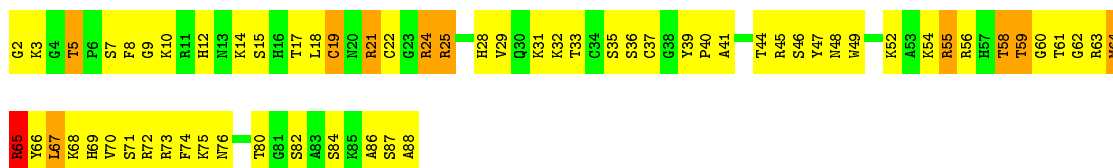
- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 74% 25%



- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 28% 60% 11%



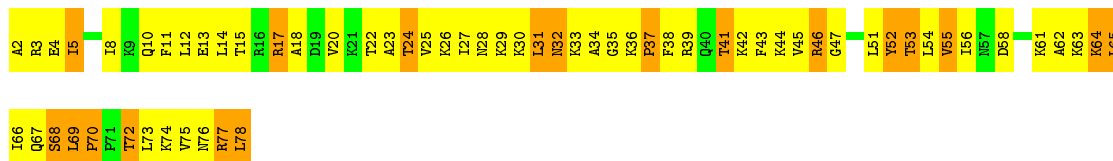
- Molecule 73: 60S ribosomal protein L37-A

Chain o7: 87% 13%



- Molecule 74: 60S ribosomal protein L38

Chain O8: 18% 57% 25%



- Molecule 74: 60S ribosomal protein L38

Chain o8: 79% 18%




- Molecule 75: 60S ribosomal protein L39

Chain O9: 36% 50% 14%



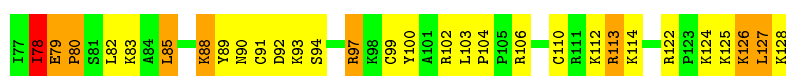
- Molecule 75: 60S ribosomal protein L39

Chain o9:  76% 24%




- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:  42% 40% 15%



- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0:  75% 21%



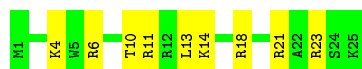
- Molecule 77: 60S ribosomal protein L41-A

Chain Q1:  20% 60% 20%



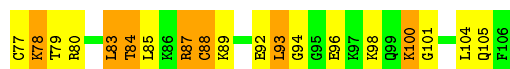
- Molecule 77: 60S ribosomal protein L41-A

Chain q1:  64% 36%




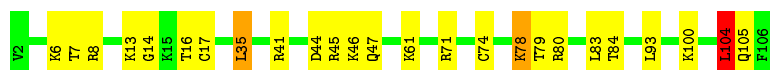
- Molecule 78: 60S ribosomal protein L42-A

Chain Q2:  43% 43% 13%

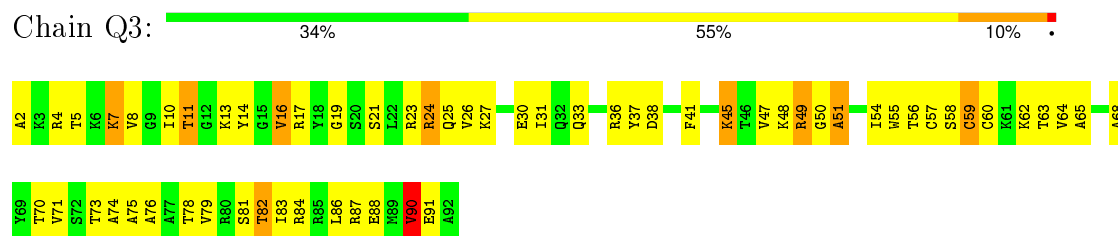


- Molecule 78: 60S ribosomal protein L42-A

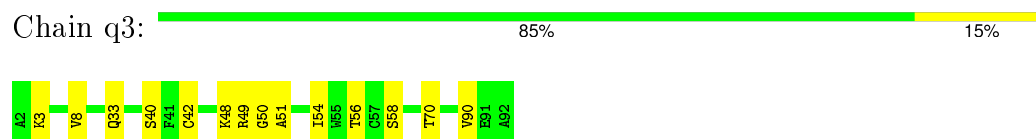
Chain q2:  76% 21%



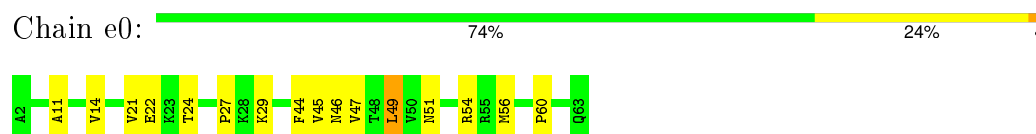
- Molecule 79: 60S ribosomal protein L43-A



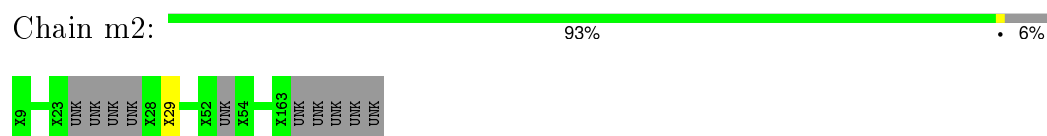
- Molecule 79: 60S ribosomal protein L43-A



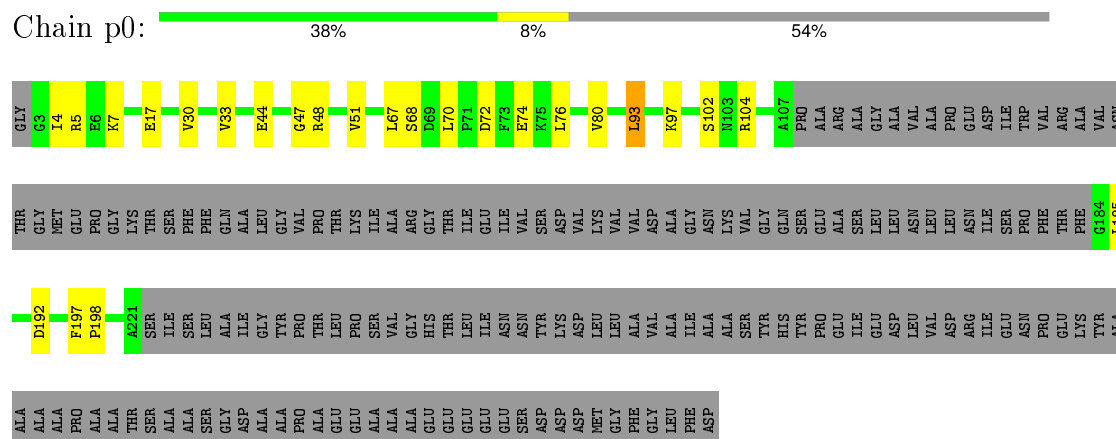
- Molecule 80: 40S ribosomal protein S30-A



- Molecule 81: unknown protein chain m2



- Molecule 82: 60S acidic ribosomal protein P0



- Molecule 83: unknown protein chain p1



There are no outlier residues recorded for this chain.

- Molecule 84: unknown protein chain 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	435.34Å 287.00Å 303.36Å 90.00° 98.98° 90.00°	Depositor
Resolution (Å)	49.18 – 3.20	Depositor
% Data completeness (in resolution range)	99.9 (49.18-3.20)	Depositor
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.29 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.204 , 0.253	Depositor
Wilson B-factor (Å ²)	80.8	Xtriage
Anisotropy	0.212	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.30$	Xtriage
Outliers	0 of 1205567 reflections	Xtriage
Total number of atoms	411178	wwPDB-VP
Average B, all atoms (Å ²)	77.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.53% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, 3KF, 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	0.71	5/41698 (0.0%)	1.31	312/64972 (0.5%)
1	6	0.78	12/42765 (0.0%)	1.35	404/66634 (0.6%)
2	S0	0.44	0/1617	0.66	0/2215
2	s0	0.44	0/1623	0.65	0/2222
3	S1	0.39	0/1735	0.66	2/2335 (0.1%)
3	s1	0.49	0/1748	0.68	0/2352
4	S2	0.51	1/1665 (0.1%)	0.66	0/2263
4	s2	0.56	0/1665	0.75	1/2263 (0.0%)
5	S3	0.49	0/1759	0.68	0/2368
5	s3	0.41	0/1759	0.60	0/2368
6	S4	0.47	0/2109	0.72	2/2839 (0.1%)
6	s4	0.49	0/2109	0.72	0/2839
7	S5	0.38	0/1629	0.60	0/2202
7	s5	0.41	0/1629	0.61	0/2202
8	S6	0.47	0/1823	0.66	0/2439
8	s6	0.53	0/1779	0.69	0/2379
9	S7	0.43	0/1506	0.64	0/2028
9	s7	0.44	0/1516	0.63	0/2043
10	S8	0.54	0/1514	0.70	0/2021
10	s8	0.59	0/1514	0.75	3/2021 (0.1%)
11	S9	0.49	0/1519	0.69	1/2035 (0.0%)
11	s9	0.52	0/1519	0.72	2/2035 (0.1%)
12	C0	0.45	0/790	0.71	1/1069 (0.1%)
12	c0	0.36	0/777	0.64	3/1049 (0.3%)
13	C1	0.56	0/1239	0.66	0/1673
13	c1	0.57	0/1194	0.74	1/1610 (0.1%)
14	C2	0.37	0/900	0.66	0/1224
14	c2	0.31	0/900	0.58	0/1224
15	C3	0.50	0/1215	0.66	2/1638 (0.1%)
15	c3	0.53	0/1215	0.70	0/1638
16	C4	0.40	0/901	0.66	0/1217
16	c4	0.51	0/960	0.73	0/1290

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.46	0/998	0.66	0/1341
17	c5	0.47	0/1060	0.69	0/1426
18	C6	0.44	0/1125	0.68	2/1510 (0.1%)
18	c6	0.44	0/1131	0.65	0/1518
19	C7	0.43	0/935	0.65	0/1254
19	c7	0.45	0/914	0.68	0/1224
20	C8	0.43	0/1211	0.65	1/1628 (0.1%)
20	c8	0.45	0/1211	0.66	1/1628 (0.1%)
21	C9	0.41	0/1130	0.60	0/1517
21	c9	0.46	0/1130	0.66	0/1517
22	D0	0.43	0/865	0.65	0/1169
22	d0	0.43	0/892	0.65	0/1205
23	D1	0.42	0/693	0.63	0/935
23	d1	0.50	0/693	0.70	0/935
24	D2	0.53	0/1038	0.72	0/1395
24	d2	0.56	0/1038	0.73	1/1395 (0.1%)
25	D3	0.60	0/1139	0.77	0/1518
25	d3	0.66	0/1139	0.81	2/1518 (0.1%)
26	D4	0.45	0/1087	0.61	0/1449
26	d4	0.51	0/1087	0.71	0/1449
27	D5	0.39	0/571	0.72	0/768
27	d5	0.41	0/566	0.65	0/761
28	D6	0.46	0/782	0.71	0/1047
28	d6	0.57	0/782	0.73	0/1047
29	D7	0.44	0/620	0.66	0/838
29	d7	0.47	0/620	0.74	0/838
30	D8	0.37	0/499	0.60	0/670
30	d8	0.40	0/499	0.64	0/670
31	D9	0.53	0/452	0.70	1/600 (0.2%)
31	d9	0.46	0/452	0.61	0/600
32	E0	0.47	0/483	0.62	0/643
33	E1	0.47	0/577	0.79	0/770
33	e1	0.39	0/619	0.71	0/822
34	SR	0.36	0/2494	0.57	0/3393
34	sR	0.35	0/2495	0.56	0/3395
35	SM	0.51	0/1113	0.71	2/1502 (0.1%)
35	sM	0.46	0/683	0.68	1/923 (0.1%)
36	1	1.08	102/75394 (0.1%)	1.68	1977/117545 (1.7%)
36	5	1.10	107/75414 (0.1%)	1.70	2076/117575 (1.8%)
37	3	0.91	3/2883 (0.1%)	1.45	38/4491 (0.8%)
37	7	1.04	3/2883 (0.1%)	1.64	63/4491 (1.4%)
38	4	1.03	0/3746	1.64	78/5832 (1.3%)
38	8	0.95	0/3746	1.54	62/5832 (1.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	L2	0.70	0/1948	0.84	1/2617 (0.0%)
39	l2	0.65	0/1946	0.85	1/2614 (0.0%)
40	L3	0.72	1/3146 (0.0%)	0.80	0/4228
40	l3	0.78	0/3146	0.86	2/4228 (0.0%)
41	L4	0.76	0/2800	0.90	3/3790 (0.1%)
41	l4	0.75	1/2800 (0.0%)	0.92	5/3790 (0.1%)
42	L5	0.56	0/2425	0.69	0/3271
42	l5	0.70	0/2408	0.80	1/3248 (0.0%)
43	L6	0.72	0/1260	0.81	1/1694 (0.1%)
43	l6	0.77	0/1269	0.82	2/1705 (0.1%)
44	L7	0.79	0/1821	0.87	2/2451 (0.1%)
44	l7	0.83	0/1828	0.91	4/2461 (0.2%)
45	L8	0.54	0/1836	0.68	0/2481
45	l8	0.49	0/1795	0.65	0/2429
46	L9	0.68	0/1539	0.79	0/2073
46	l9	0.77	0/1539	0.83	1/2073 (0.0%)
47	M0	0.71	1/1741 (0.1%)	0.84	3/2335 (0.1%)
47	m0	0.72	1/1758 (0.1%)	0.81	1/2358 (0.0%)
48	M1	0.50	0/1374	0.72	0/1842
48	m1	0.63	0/1374	0.80	2/1842 (0.1%)
49	M3	0.74	0/1568	0.84	0/2106
49	m3	0.69	0/1573	0.79	0/2113
50	M4	0.74	0/1068	0.83	0/1438
50	m4	0.78	0/1074	0.81	1/1446 (0.1%)
51	M5	0.73	0/1757	0.90	2/2354 (0.1%)
51	m5	0.65	0/1757	0.83	3/2354 (0.1%)
52	M6	0.84	0/1585	0.88	3/2128 (0.1%)
52	m6	0.95	2/1585 (0.1%)	0.94	4/2128 (0.2%)
53	M7	0.77	0/1443	0.86	2/1944 (0.1%)
53	m7	0.91	0/1250	0.88	0/1683
54	M8	0.75	0/1465	0.88	1/1965 (0.1%)
54	m8	0.75	0/1465	0.88	1/1965 (0.1%)
55	M9	0.56	0/1538	0.65	0/2050
55	m9	0.56	0/1538	0.67	0/2050
56	N0	0.75	0/1481	0.81	0/1990
56	n0	0.86	0/1481	0.89	1/1990 (0.1%)
57	N1	0.72	0/1300	0.78	0/1743
57	n1	0.79	1/1300 (0.1%)	0.84	1/1743 (0.1%)
58	N2	0.45	0/812	0.59	0/1099
58	n2	0.46	0/794	0.69	0/1076
59	N3	0.69	0/1018	0.82	0/1369
59	n3	0.78	0/1018	0.85	1/1369 (0.1%)
60	N4	0.56	0/712	0.68	0/958

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
60	n4	0.62	0/1052	0.73	0/1398
61	N5	0.65	0/979	0.82	1/1321 (0.1%)
61	n5	0.64	0/974	0.80	1/1314 (0.1%)
62	N6	0.68	0/1004	0.87	1/1341 (0.1%)
62	n6	0.67	0/1004	0.84	0/1341
63	N7	0.53	0/1118	0.65	0/1497
63	n7	0.53	0/1118	0.68	0/1497
64	N8	0.76	0/1204	0.90	2/1612 (0.1%)
64	n8	0.77	0/1204	0.86	1/1612 (0.1%)
65	N9	0.66	0/473	0.75	0/629
65	n9	0.71	0/473	0.96	1/629 (0.2%)
66	O0	0.50	0/751	0.69	0/1008
66	o0	0.49	0/775	0.66	0/1040
67	O1	0.63	0/890	0.72	0/1196
67	o1	0.73	0/897	0.86	0/1205
68	O2	0.82	0/1041	0.90	0/1394
68	o2	0.81	0/1041	0.90	1/1394 (0.1%)
69	O3	0.87	0/868	0.94	2/1168 (0.2%)
69	o3	0.87	0/868	0.91	2/1168 (0.2%)
70	O4	0.60	0/890	0.77	2/1189 (0.2%)
70	o4	0.58	0/890	0.79	0/1189
71	O5	0.71	0/978	0.81	1/1301 (0.1%)
71	o5	0.58	0/974	0.72	1/1297 (0.1%)
72	O6	0.63	0/778	0.77	0/1034
72	o6	0.56	0/777	0.68	0/1033
73	O7	0.76	0/696	0.95	2/923 (0.2%)
73	o7	0.68	0/696	0.84	0/923
74	O8	0.55	0/618	0.67	0/826
74	o8	0.53	0/614	0.66	0/822
75	O9	0.77	0/443	0.91	0/588
75	o9	0.67	0/443	0.85	0/588
76	Q0	0.72	0/423	0.82	0/562
76	q0	0.86	0/423	0.93	0/562
77	Q1	0.62	0/234	0.81	0/300
77	q1	0.80	0/234	1.02	0/300
78	Q2	0.80	1/860 (0.1%)	0.84	2/1136 (0.2%)
78	q2	0.75	1/860 (0.1%)	0.82	2/1136 (0.2%)
79	Q3	0.70	0/701	0.80	0/934
79	q3	0.70	0/701	0.82	1/934 (0.1%)
80	e0	0.53	0/499	0.74	0/665
82	p0	0.45	0/1091	0.60	0/1472
All	All	0.84	242/430072 (0.1%)	1.32	5111/631360 (0.8%)

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
5	s3	0	1
7	s5	0	2
9	S7	0	1
10	S8	0	1
11	s9	0	1
16	C4	0	2
18	c6	0	1
19	C7	0	1
19	c7	0	1
22	d0	0	1
25	D3	0	1
27	D5	0	2
33	E1	0	1
39	L2	0	2
40	l3	0	1
41	L4	0	1
44	l7	0	2
45	L8	0	1
48	M1	0	1
50	m4	0	1
52	M6	0	1
52	m6	0	1
56	N0	0	1
56	n0	0	3
64	n8	0	1
65	N9	0	1
69	o3	0	1
72	O6	0	1
75	O9	0	1
81	m2	0	1
All	All	0	37

All (242) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	12.79	2.04	1.82
36	5	1152	G	N9-C4	-11.94	1.28	1.38
36	1	3181	C	N3-C4	-9.75	1.27	1.33
36	1	895	A	C5-C6	-9.41	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	q2	17	CYS	CB-SG	9.34	1.98	1.82
36	1	2404	A	N7-C5	9.31	1.44	1.39
36	5	2411	U	C2-N3	-8.15	1.32	1.37
36	5	924	G	N3-C4	-8.00	1.29	1.35
36	1	1394	A	N9-C4	-7.92	1.33	1.37
36	1	2406	C	N1-C6	-7.89	1.32	1.37
36	5	2971	A	N9-C4	7.87	1.42	1.37
36	1	1116	G	N3-C4	-7.61	1.30	1.35
36	5	945	C	N1-C6	-7.60	1.32	1.37
36	1	925	A	N3-C4	-7.48	1.30	1.34
36	5	2726	C	N3-C4	-7.43	1.28	1.33
36	5	1152	G	N9-C8	7.35	1.43	1.37
36	5	996	A	N9-C4	-7.27	1.33	1.37
36	5	2903	A	N9-C4	-7.18	1.33	1.37
36	1	1891	A	N9-C4	-7.13	1.33	1.37
36	5	1366	A	N3-C4	-6.98	1.30	1.34
36	5	2943	G	N7-C5	-6.97	1.35	1.39
36	5	2358	A	N9-C4	-6.92	1.33	1.37
52	m6	40	GLU	CG-CD	6.91	1.62	1.51
36	1	1148	G	N7-C5	-6.87	1.35	1.39
36	5	2372	A	N7-C5	-6.73	1.35	1.39
36	1	2401	A	C6-N1	6.69	1.40	1.35
1	6	623	A	N9-C4	-6.56	1.33	1.37
36	5	1148	G	N9-C8	-6.56	1.33	1.37
36	1	653	A	C5-C6	-6.53	1.35	1.41
36	1	1103	A	N9-C4	6.51	1.41	1.37
36	1	2983	C	N3-C4	-6.50	1.29	1.33
36	1	2404	A	C5-C6	6.44	1.46	1.41
47	m0	8	CYS	CB-SG	-6.40	1.71	1.82
36	5	1148	G	N7-C5	-6.40	1.35	1.39
36	1	716	A	N9-C4	-6.39	1.34	1.37
36	5	609	G	C2-N3	-6.35	1.27	1.32
36	5	1136	A	N9-C4	-6.34	1.34	1.37
36	1	2147	A	N9-C4	-6.32	1.34	1.37
36	5	94	G	C6-N1	-6.27	1.35	1.39
36	1	952	A	N9-C4	-6.26	1.34	1.37
36	1	884	A	N7-C5	-6.26	1.35	1.39
36	5	3008	A	N9-C4	-6.26	1.34	1.37
36	5	883	A	N3-C4	-6.25	1.31	1.34
36	5	2385	G	N9-C4	-6.20	1.32	1.38
36	5	960	U	N1-C2	6.18	1.44	1.38
36	5	1143	A	N9-C4	-6.18	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2147	A	C5-C6	-6.18	1.35	1.41
36	5	2399	A	N9-C4	-6.16	1.34	1.37
36	1	2326	A	N9-C4	-6.16	1.34	1.37
36	5	1152	G	C2-N3	-6.12	1.27	1.32
36	1	367	A	N9-C4	-6.12	1.34	1.37
36	1	2601	A	N9-C4	-6.11	1.34	1.37
36	5	2619	G	C5-C4	-6.10	1.34	1.38
36	1	884	A	N9-C4	-6.10	1.34	1.37
36	5	2637	A	N9-C4	-6.08	1.34	1.37
36	1	936	A	N9-C4	-6.08	1.34	1.37
36	5	1152	G	N3-C4	-6.07	1.31	1.35
36	5	61	A	N3-C4	-6.06	1.31	1.34
1	6	1131	A	N3-C4	-5.99	1.31	1.34
36	1	2409	G	C5-C4	-5.99	1.34	1.38
36	5	3209	A	C5-C4	5.99	1.43	1.38
36	1	2333	C	N3-C4	-5.98	1.29	1.33
57	n1	104	GLU	CB-CG	5.98	1.63	1.52
36	5	1897	G	N3-C4	-5.97	1.31	1.35
36	1	952	A	N3-C4	-5.92	1.31	1.34
36	1	92	G	N1-C2	-5.92	1.33	1.37
36	1	2198	A	N3-C4	-5.91	1.31	1.34
36	5	2640	A	N9-C4	-5.90	1.34	1.37
36	1	2147	A	C5-C4	-5.90	1.34	1.38
36	1	585	A	N9-C4	-5.89	1.34	1.37
36	1	653	A	C6-N1	-5.89	1.31	1.35
36	1	962	A	N7-C5	-5.89	1.35	1.39
36	1	2640	A	N9-C4	-5.89	1.34	1.37
41	l4	94	CYS	CB-SG	-5.88	1.72	1.81
1	2	992	A	N9-C4	-5.87	1.34	1.37
36	1	92	G	C5-C4	-5.87	1.34	1.38
37	3	86	U	C2-N3	-5.87	1.33	1.37
36	5	955	U	C2-N3	-5.87	1.33	1.37
4	S2	120	GLU	CG-CD	5.86	1.60	1.51
36	1	343	U	N1-C6	-5.85	1.32	1.38
37	3	88	G	C6-N1	-5.84	1.35	1.39
36	5	2892	A	C5-C6	-5.84	1.35	1.41
36	5	2139	A	N3-C4	-5.84	1.31	1.34
36	1	3209	A	C5-C4	5.83	1.42	1.38
36	5	1432	C	N3-C4	-5.82	1.29	1.33
1	6	1137	A	N9-C4	-5.82	1.34	1.37
36	1	2333	C	N1-C6	-5.80	1.33	1.37
1	2	334	G	N9-C4	-5.80	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	651	G	C6-N1	-5.80	1.35	1.39
36	5	2397	A	N9-C4	-5.79	1.34	1.37
36	1	2363	A	C6-N1	-5.78	1.31	1.35
36	5	924	G	C6-N1	-5.78	1.35	1.39
36	5	2970	C	N1-C6	-5.77	1.33	1.37
36	5	2243	A	N3-C4	-5.77	1.31	1.34
36	1	1429	G	N9-C8	-5.76	1.33	1.37
36	5	884	A	N9-C4	-5.76	1.34	1.37
36	5	3362	A	N3-C4	-5.75	1.31	1.34
36	1	35	A	C5-C6	-5.75	1.35	1.41
36	5	941	G	C6-N1	-5.73	1.35	1.39
1	6	1137	A	C5-C4	-5.71	1.34	1.38
36	1	895	A	N7-C5	-5.71	1.35	1.39
37	7	102	A	N9-C4	-5.67	1.34	1.37
36	5	428	A	N7-C5	-5.66	1.35	1.39
36	1	2626	A	N3-C4	-5.66	1.31	1.34
36	1	2931	C	N1-C6	-5.64	1.33	1.37
36	1	1379	G	C6-N1	-5.64	1.35	1.39
36	1	2138	A	N9-C4	-5.63	1.34	1.37
36	5	924	G	C2-N3	-5.61	1.28	1.32
37	7	88	G	C6-N1	-5.61	1.35	1.39
36	1	2617	U	C4-C5	5.61	1.48	1.43
1	6	163	G	N9-C4	-5.61	1.33	1.38
36	5	924	G	N9-C4	-5.60	1.33	1.38
36	1	744	A	N9-C4	-5.60	1.34	1.37
36	1	422	A	N7-C5	-5.57	1.35	1.39
36	5	2813	A	N7-C5	-5.57	1.35	1.39
36	1	659	G	C5-C4	-5.56	1.34	1.38
36	5	2138	A	N7-C5	-5.55	1.35	1.39
36	1	1099	A	N9-C4	-5.55	1.34	1.37
36	1	3173	G	C8-N7	-5.54	1.27	1.30
47	M0	8	CYS	CB-SG	-5.53	1.72	1.81
36	5	1587	A	N9-C4	-5.53	1.34	1.37
36	5	1454	A	N9-C4	-5.53	1.34	1.37
36	1	1100	U	C2-N3	-5.52	1.33	1.37
36	5	2132	C	N3-C4	-5.51	1.30	1.33
36	5	1868	G	N7-C5	-5.50	1.35	1.39
36	1	3130	A	N7-C5	-5.50	1.35	1.39
36	1	1103	A	N7-C5	5.49	1.42	1.39
36	5	1149	G	C2-N3	5.49	1.37	1.32
36	5	1152	G	N1-C2	5.47	1.42	1.37
36	1	3142	A	N3-C4	-5.45	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	645	A	C5-C6	5.45	1.46	1.41
1	2	1291	G	N3-C4	-5.44	1.31	1.35
36	5	3033	A	N9-C4	-5.44	1.34	1.37
36	1	1391	C	N1-C6	-5.44	1.33	1.37
36	5	2896	A	N9-C4	-5.44	1.34	1.37
36	1	1394	A	N3-C4	-5.43	1.31	1.34
36	5	1868	G	C5-C6	-5.43	1.36	1.42
40	L3	200	GLU	CG-CD	5.41	1.60	1.51
36	5	2643	A	N9-C4	-5.40	1.34	1.37
36	1	402	A	N9-C4	-5.38	1.34	1.37
36	1	2341	A	N3-C4	-5.38	1.31	1.34
36	1	3306	U	N3-C4	-5.38	1.33	1.38
36	5	345	G	N9-C8	-5.37	1.34	1.37
36	1	1547	G	C5-C4	-5.37	1.34	1.38
36	1	49	A	N9-C4	-5.36	1.34	1.37
36	5	367	A	N9-C4	-5.34	1.34	1.37
36	5	883	A	C6-N1	-5.33	1.31	1.35
36	1	92	G	C6-N1	-5.33	1.35	1.39
36	1	1304	A	N9-C4	-5.33	1.34	1.37
36	5	953	G	N7-C5	-5.33	1.36	1.39
36	1	1116	G	N7-C5	-5.32	1.36	1.39
36	1	3006	A	N9-C4	-5.31	1.34	1.37
36	1	402	A	C5-C4	-5.31	1.35	1.38
36	1	1320	C	N1-C6	-5.31	1.33	1.37
36	5	1116	G	N3-C4	-5.30	1.31	1.35
36	5	3033	A	N7-C5	-5.29	1.36	1.39
1	6	1659	A	N9-C4	-5.29	1.34	1.37
36	5	2392	C	C2-N3	-5.29	1.31	1.35
36	1	658	G	C8-N7	-5.29	1.27	1.30
1	2	1730	A	N9-C4	-5.28	1.34	1.37
36	5	1456	A	N9-C4	-5.28	1.34	1.37
36	1	2868	U	C4-O4	5.28	1.27	1.23
36	1	585	A	N3-C4	-5.26	1.31	1.34
36	5	2878	G	C6-O6	-5.26	1.19	1.24
36	5	1177	G	C6-N1	-5.25	1.35	1.39
36	1	924	G	C8-N7	-5.25	1.27	1.30
36	5	585	A	N9-C4	-5.25	1.34	1.37
36	5	922	U	N1-C2	5.24	1.43	1.38
36	1	699	A	N9-C4	-5.24	1.34	1.37
1	6	1137	A	N3-C4	-5.24	1.31	1.34
36	1	422	A	C5-C4	-5.23	1.35	1.38
36	1	2910	A	N9-C4	-5.23	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	34	A	N9-C4	-5.22	1.34	1.37
36	5	706	A	N9-C4	-5.22	1.34	1.37
36	5	3087	A	N7-C5	-5.22	1.36	1.39
36	1	655	C	N3-C4	-5.22	1.30	1.33
36	1	1153	A	C5-C6	-5.22	1.36	1.41
36	5	808	A	N3-C4	-5.22	1.31	1.34
36	1	609	G	C5-C4	-5.21	1.34	1.38
36	5	1332	A	N9-C4	-5.21	1.34	1.37
36	1	887	G	N9-C8	-5.20	1.34	1.37
36	5	2954	U	N1-C2	5.20	1.43	1.38
36	1	1154	A	N7-C5	-5.20	1.36	1.39
36	5	3362	A	N9-C4	-5.19	1.34	1.37
36	5	1406	A	N3-C4	-5.18	1.31	1.34
36	5	822	G	C2-N3	-5.17	1.28	1.32
36	5	948	C	N1-C6	-5.16	1.34	1.37
36	1	649	A	N9-C4	-5.16	1.34	1.37
36	5	947	G	C6-N1	-5.16	1.35	1.39
36	1	1140	G	C6-N1	-5.15	1.35	1.39
36	5	1310	G	N9-C8	-5.14	1.34	1.37
36	1	1157	G	C6-N1	-5.13	1.35	1.39
36	5	2291	A	N9-C4	-5.13	1.34	1.37
36	5	2419	A	P-O5'	5.13	1.64	1.59
1	2	1749	A	N9-C4	-5.12	1.34	1.37
36	1	1116	G	C6-N1	-5.12	1.35	1.39
52	m6	80	PHE	CB-CG	-5.12	1.42	1.51
36	1	2146	C	N3-C4	-5.12	1.30	1.33
36	1	3273	A	N3-C4	-5.12	1.31	1.34
36	5	421	G	C6-N1	-5.12	1.35	1.39
36	1	282	G	C6-N1	-5.12	1.35	1.39
36	5	2983	C	N3-C4	-5.12	1.30	1.33
36	5	1454	A	C5-C6	-5.11	1.36	1.41
36	5	646	A	C6-N1	-5.11	1.31	1.35
36	5	2404	A	C6-N6	5.11	1.38	1.33
36	5	636	C	N3-C4	-5.10	1.30	1.33
36	5	1152	G	C5-C6	-5.10	1.37	1.42
1	6	337	G	C2-N3	5.09	1.36	1.32
36	1	1308	A	C6-N1	-5.09	1.31	1.35
36	5	416	A	N7-C5	-5.08	1.36	1.39
37	3	66	A	N9-C4	-5.08	1.34	1.37
36	1	189	G	C5-C4	-5.08	1.34	1.38
1	6	417	A	N9-C4	5.07	1.40	1.37
36	5	375	A	N9-C4	-5.07	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2916	U	C2-O2	5.07	1.26	1.22
36	5	2375	G	C6-N1	-5.07	1.36	1.39
36	5	2636	A	C6-N1	-5.06	1.32	1.35
36	1	1589	A	N9-C4	-5.06	1.34	1.37
36	1	951	A	N9-C4	-5.05	1.34	1.37
36	5	2399	A	N3-C4	-5.05	1.31	1.34
36	1	206	G	C5-C4	-5.04	1.34	1.38
36	1	421	G	N1-C2	-5.04	1.33	1.37
36	1	913	A	N7-C5	-5.04	1.36	1.39
36	5	2627	C	N1-C6	-5.04	1.34	1.37
36	5	426	G	C5-C4	-5.04	1.34	1.38
36	5	3136	G	C6-N1	-5.04	1.36	1.39
36	5	2983	C	N1-C6	-5.04	1.34	1.37
1	6	1113	A	N3-C4	-5.03	1.31	1.34
36	5	1592	G	C6-O6	5.03	1.28	1.24
36	1	1326	A	N9-C4	-5.03	1.34	1.37
36	1	984	G	N7-C5	-5.03	1.36	1.39
1	6	923	A	N9-C4	-5.02	1.34	1.37
36	5	1905	G	C5-C4	-5.02	1.34	1.38
36	5	2878	G	C6-N1	-5.02	1.36	1.39
36	1	2401	A	N3-C4	5.01	1.37	1.34
36	5	428	A	N9-C8	-5.01	1.33	1.37
36	5	519	A	N9-C4	-5.01	1.34	1.37
36	5	1303	A	N9-C4	-5.01	1.34	1.37
36	1	2409	G	N7-C5	-5.00	1.36	1.39
1	6	541	A	N9-C4	5.00	1.40	1.37
37	7	56	A	N9-C4	-5.00	1.34	1.37
36	1	1495	U	N1-C2	-5.00	1.34	1.38

All (5111) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-N9	-26.30	110.22	126.00
36	5	1152	G	N3-C4-C5	25.75	141.47	128.60
36	5	1152	G	C2-N3-C4	-18.79	102.51	111.90
36	5	929	A	O5'-P-OP2	-14.22	92.90	105.70
36	1	2420	C	O5'-P-OP1	-13.73	93.34	105.70
36	5	2400	G	N1-C6-O6	13.63	128.08	119.90
36	5	218	G	O5'-P-OP2	-13.42	93.62	105.70
36	5	963	G	O5'-P-OP2	-13.37	93.67	105.70
36	5	1152	G	C8-N9-C1'	13.34	144.34	127.00
36	1	2617	U	N1-C2-N3	13.19	122.81	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2283	G	O5'-P-OP2	-12.91	94.08	105.70
36	1	1377	G	C5-C6-O6	-12.71	120.97	128.60
36	1	282	G	O5'-P-OP1	-12.69	94.28	105.70
36	1	895	A	N1-C6-N6	12.69	126.22	118.60
36	1	1175	C	C6-N1-C2	12.60	125.34	120.30
36	1	802	C	O5'-P-OP1	-12.58	94.38	105.70
36	5	2818	U	O5'-P-OP1	-12.52	94.44	105.70
36	5	2857	C	N3-C4-C5	12.51	126.90	121.90
36	1	895	A	C2-N3-C4	-12.48	104.36	110.60
36	1	2617	U	N3-C2-O2	-12.43	113.50	122.20
36	5	1869	C	C6-N1-C2	12.33	125.23	120.30
36	1	1450	G	O5'-P-OP1	-12.32	94.61	105.70
36	1	435	C	C6-N1-C2	12.29	125.22	120.30
36	5	3050	U	C5-C4-O4	12.21	133.22	125.90
36	1	3269	U	O5'-P-OP2	-12.03	94.88	105.70
36	1	2355	G	N1-C6-O6	11.85	127.01	119.90
36	5	222	A	O5'-P-OP2	-11.85	95.03	105.70
36	1	1495	U	C5-C6-N1	-11.83	116.78	122.70
36	5	922	U	N3-C2-O2	-11.82	113.93	122.20
36	5	1316	C	N3-C4-N4	11.81	126.27	118.00
38	8	80	A	C8-N9-C4	-11.74	101.10	105.80
1	2	1200	G	N1-C6-O6	11.74	126.94	119.90
36	5	640	U	N1-C2-O2	-11.73	114.59	122.80
36	1	1896	A	O5'-P-OP1	-11.63	95.24	105.70
36	1	2874	G	C5-C6-N1	-11.62	105.69	111.50
36	1	2617	U	C5-C4-O4	11.59	132.85	125.90
36	5	1152	G	C5-N7-C8	-11.53	98.53	104.30
36	1	942	U	O5'-P-OP2	-11.48	95.36	105.70
38	4	94	C	C6-N1-C2	11.48	124.89	120.30
36	5	1897	G	N1-C6-O6	11.45	126.77	119.90
36	5	2186	U	O5'-P-OP2	-11.42	95.42	105.70
1	6	144	U	N3-C2-O2	-11.40	114.22	122.20
36	5	2117	A	N1-C6-N6	-11.35	111.79	118.60
36	1	3278	C	N1-C2-O2	11.31	125.69	118.90
36	5	1152	G	C4-N9-C1'	-11.30	111.81	126.50
37	7	92	A	N1-C6-N6	11.29	125.37	118.60
1	2	553	G	N1-C6-O6	11.28	126.67	119.90
36	1	3306	U	C5-C4-O4	11.28	132.66	125.90
36	1	3181	C	C5-C4-N4	11.25	128.08	120.20
36	1	1153	A	N1-C6-N6	11.17	125.30	118.60
36	5	3218	A	N1-C6-N6	11.06	125.24	118.60
36	1	304	G	N9-C4-C5	11.04	109.81	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2372	A	C8-N9-C4	-10.99	101.40	105.80
36	1	2281	A	O5'-P-OP2	-10.98	95.82	105.70
36	5	1426	C	C6-N1-C2	10.96	124.68	120.30
36	5	2943	G	C6-C5-N7	-10.92	123.85	130.40
36	1	3306	U	N3-C4-O4	-10.91	111.76	119.40
36	1	2371	G	O5'-P-OP2	-10.85	95.93	105.70
36	1	895	A	C6-C5-N7	-10.75	124.78	132.30
1	6	1773	C	N3-C4-C5	-10.71	117.61	121.90
36	5	2379	U	C5-C6-N1	-10.67	117.36	122.70
36	5	640	U	C5-C4-O4	-10.62	119.53	125.90
36	5	2400	G	C5-C6-O6	-10.59	122.24	128.60
36	1	2617	U	C4-C5-C6	10.58	126.05	119.70
36	5	1316	C	N3-C4-C5	-10.58	117.67	121.90
36	5	2822	U	N3-C4-O4	-10.58	111.99	119.40
36	5	2283	G	N1-C6-O6	10.56	126.24	119.90
36	1	1308	A	C8-N9-C4	-10.54	101.58	105.80
36	1	86	G	O5'-P-OP2	-10.50	96.25	105.70
36	1	2874	G	C2-N3-C4	-10.48	106.66	111.90
36	1	3181	C	N3-C4-N4	-10.46	110.68	118.00
36	1	1308	A	O5'-P-OP2	-10.46	96.29	105.70
36	5	3092	C	N1-C2-O2	10.46	125.17	118.90
36	1	2827	U	N1-C2-N3	10.44	121.17	114.90
36	5	3245	A	C2-N3-C4	-10.44	105.38	110.60
36	5	424	G	C5-C6-O6	-10.43	122.34	128.60
44	17	232	ARG	NE-CZ-NH1	-10.43	115.08	120.30
1	2	623	A	O5'-P-OP1	-10.42	96.32	105.70
36	5	2309	A	N1-C6-N6	-10.42	112.35	118.60
36	1	1377	G	N1-C6-O6	10.39	126.14	119.90
36	1	1367	G	N1-C6-O6	10.38	126.12	119.90
36	1	2819	A	O5'-P-OP2	-10.37	96.37	105.70
36	1	304	G	C4-C5-N7	-10.37	106.65	110.80
36	5	2819	A	O5'-P-OP2	-10.28	96.45	105.70
36	5	683	U	O5'-P-OP2	-10.27	96.46	105.70
36	5	2147	A	N1-C6-N6	10.27	124.76	118.60
36	5	2943	G	N1-C6-O6	10.24	126.05	119.90
36	5	2283	G	C5-C6-O6	-10.21	122.47	128.60
36	5	1445	U	N1-C2-O2	-10.18	115.67	122.80
36	5	2822	U	C5-C4-O4	10.14	131.99	125.90
36	5	1303	A	N1-C6-N6	10.14	124.69	118.60
36	5	922	U	N1-C2-O2	10.14	129.90	122.80
1	6	163	G	N3-C4-N9	-10.09	119.95	126.00
36	1	2714	G	N3-C4-N9	-10.09	119.95	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2714	G	N3-C4-C5	10.07	133.63	128.60
36	1	2868	U	N3-C2-O2	-10.04	115.17	122.20
1	2	334	G	N3-C4-C5	10.03	133.62	128.60
36	1	2920	U	C5-C6-N1	-10.00	117.70	122.70
36	1	2619	G	O5'-P-OP1	-9.98	96.72	105.70
36	5	587	U	C6-N1-C2	9.98	126.99	121.00
36	1	1377	G	C4-C5-N7	9.96	114.78	110.80
36	1	1381	A	N1-C6-N6	9.94	124.56	118.60
36	1	2401	A	N1-C6-N6	9.94	124.56	118.60
36	5	1868	G	C6-C5-N7	-9.93	124.44	130.40
36	1	699	A	O5'-P-OP2	-9.87	96.81	105.70
36	1	611	A	O5'-P-OP2	-9.87	96.82	105.70
36	5	640	U	N3-C4-O4	9.86	126.30	119.40
36	5	1390	A	N1-C6-N6	-9.84	112.70	118.60
36	1	637	C	N1-C2-O2	9.84	124.80	118.90
36	1	2374	C	N3-C2-O2	-9.83	115.02	121.90
36	1	2767	U	O5'-P-OP2	-9.80	96.88	105.70
1	6	426	G	O5'-P-OP2	-9.79	96.89	105.70
36	1	2827	U	C5-C4-O4	9.79	131.77	125.90
36	5	869	G	N1-C6-O6	-9.79	114.03	119.90
36	5	1306	G	C5-C6-O6	-9.78	122.73	128.60
1	2	1560	U	N3-C2-O2	-9.77	115.36	122.20
36	5	636	C	C6-N1-C2	9.73	124.19	120.30
36	5	1142	G	O5'-P-OP2	-9.73	96.94	105.70
36	1	895	A	C4-C5-N7	9.72	115.56	110.70
1	6	352	A	N1-C6-N6	-9.72	112.77	118.60
36	5	861	C	C6-N1-C2	9.71	124.19	120.30
1	6	1137	A	C8-N9-C4	9.71	109.68	105.80
38	8	26	U	N1-C2-O2	9.70	129.59	122.80
36	5	2799	A	O5'-P-OP2	-9.70	96.97	105.70
1	2	334	G	C2-N3-C4	-9.68	107.06	111.90
36	5	2983	C	O5'-P-OP1	-9.68	96.98	105.70
36	5	1437	C	C6-N1-C2	-9.68	116.43	120.30
36	5	2857	C	C6-N1-C2	9.68	124.17	120.30
36	5	834	U	C6-N1-C2	9.68	126.81	121.00
36	5	1390	A	C8-N9-C4	-9.68	101.93	105.80
36	5	1303	A	N9-C4-C5	-9.67	101.93	105.80
1	6	163	G	N3-C4-C5	9.67	133.43	128.60
36	1	1379	G	C2-N3-C4	-9.66	107.07	111.90
36	5	1316	C	N1-C2-O2	-9.65	113.11	118.90
36	1	1403	C	C6-N1-C2	9.63	124.15	120.30
36	1	2606	G	C6-C5-N7	-9.63	124.62	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2363	A	N1-C6-N6	-9.61	112.83	118.60
36	1	914	A	N1-C6-N6	-9.61	112.84	118.60
36	5	2872	A	O5'-P-OP1	9.61	122.22	110.70
36	1	948	C	N1-C2-O2	-9.60	113.14	118.90
36	5	1192	C	N1-C2-O2	9.60	124.66	118.90
36	1	2996	U	C2-N1-C1'	9.60	129.21	117.70
36	1	2942	C	N3-C4-C5	9.59	125.74	121.90
36	5	3050	U	N3-C2-O2	-9.56	115.51	122.20
36	5	3140	G	C4-C5-N7	9.55	114.62	110.80
36	1	1142	G	O5'-P-OP2	-9.52	97.13	105.70
1	2	553	G	C5-C6-O6	-9.51	122.89	128.60
36	5	1793	C	O5'-P-OP1	-9.50	97.15	105.70
36	1	1509	A	C8-N9-C4	9.48	109.59	105.80
36	1	2870	C	C2-N1-C1'	-9.48	108.37	118.80
1	2	73	U	O4'-C1'-N1	9.46	115.77	108.20
36	5	3137	C	C6-N1-C2	9.45	124.08	120.30
36	5	1152	G	N3-C2-N2	-9.45	113.29	119.90
1	2	1745	G	N3-C4-N9	9.44	131.66	126.00
36	5	2726	C	N3-C4-N4	-9.41	111.42	118.00
36	1	1495	U	C2-N1-C1'	-9.40	106.42	117.70
38	8	80	A	N7-C8-N9	9.39	118.50	113.80
36	5	2872	A	O5'-P-OP2	-9.39	97.25	105.70
36	1	406	G	O4'-C1'-N9	9.38	115.71	108.20
36	1	704	U	N3-C4-O4	9.38	125.97	119.40
36	1	282	G	C8-N9-C4	-9.37	102.65	106.40
36	1	2361	A	O5'-P-OP1	-9.36	97.28	105.70
36	1	2865	U	C5-C4-O4	-9.36	120.29	125.90
36	1	1367	G	N9-C4-C5	-9.35	101.66	105.40
36	5	2892	A	N1-C6-N6	9.35	124.21	118.60
36	1	3306	U	N3-C2-O2	-9.34	115.66	122.20
36	5	2245	C	C6-N1-C2	-9.32	116.57	120.30
36	1	2726	C	N3-C4-N4	-9.32	111.48	118.00
36	1	2636	A	C8-N9-C4	-9.31	102.08	105.80
36	1	922	U	N1-C2-O2	9.29	129.30	122.80
36	1	933	A	N1-C2-N3	9.29	133.94	129.30
36	5	2333	C	C6-N1-C2	9.27	124.01	120.30
36	1	188	U	N1-C2-O2	-9.27	116.31	122.80
36	1	2147	A	C8-N9-C4	9.26	109.50	105.80
36	1	1428	A	N1-C6-N6	9.25	124.15	118.60
36	1	3212	C	C6-N1-C2	9.24	124.00	120.30
36	5	1331	U	C5-C6-N1	-9.23	118.08	122.70
36	5	2971	A	C2-N3-C4	9.23	115.22	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2644	C	O5'-P-OP1	-9.22	97.40	105.70
36	1	218	G	O5'-P-OP2	-9.22	97.40	105.70
36	5	2572	C	N1-C2-O2	9.22	124.43	118.90
36	5	2978	U	C5-C6-N1	-9.21	118.09	122.70
36	5	2978	U	C4-C5-C6	9.21	125.23	119.70
36	5	2406	C	C6-N1-C2	9.21	123.98	120.30
36	5	1313	G	O5'-P-OP2	-9.19	97.43	105.70
36	1	2643	A	O5'-P-OP1	-9.19	97.43	105.70
36	5	41	G	C5-C6-O6	-9.19	123.09	128.60
36	1	1100	U	C5-C6-N1	-9.18	118.11	122.70
36	1	346	C	N1-C2-O2	-9.16	113.40	118.90
36	5	2245	C	N3-C4-C5	-9.15	118.24	121.90
36	5	2403	G	O5'-P-OP2	-9.15	97.47	105.70
36	5	2726	C	C5-C4-N4	9.13	126.59	120.20
36	5	1119	C	N3-C4-C5	9.12	125.55	121.90
36	5	776	U	N3-C2-O2	-9.09	115.84	122.20
36	5	2147	A	C5-C6-N6	-9.09	116.43	123.70
36	5	3188	G	N1-C6-O6	-9.08	114.45	119.90
36	1	363	G	N1-C6-O6	9.08	125.35	119.90
36	1	1428	A	C5-C6-N6	-9.08	116.44	123.70
36	5	1303	A	C5-C6-N6	-9.07	116.44	123.70
36	5	1151	U	N1-C2-O2	-9.07	116.45	122.80
36	1	2621	G	N1-C6-O6	9.05	125.33	119.90
36	5	1481	A	C8-N9-C4	-9.04	102.18	105.80
36	5	974	G	N3-C4-C5	-9.04	124.08	128.60
36	5	3154	C	C2-N1-C1'	9.04	128.74	118.80
36	5	1885	U	C5-C6-N1	-9.03	118.19	122.70
36	5	514	G	C5-C6-O6	-9.02	123.19	128.60
36	5	660	A	N1-C6-N6	-9.01	113.19	118.60
36	1	3143	C	N1-C2-O2	-8.99	113.50	118.90
36	1	2885	C	C6-N1-C2	8.99	123.89	120.30
36	1	1192	C	N1-C2-O2	8.98	124.29	118.90
36	1	2643	A	C8-N9-C4	8.98	109.39	105.80
36	1	2812	C	O5'-P-OP2	8.98	121.47	110.70
36	1	363	G	C5-C6-O6	-8.97	123.22	128.60
36	5	1303	A	C8-N9-C4	8.95	109.38	105.80
36	1	1001	G	N9-C4-C5	-8.93	101.83	105.40
36	5	2343	C	C6-N1-C2	8.92	123.87	120.30
36	1	2413	A	C8-N9-C4	8.91	109.37	105.80
36	5	3078	U	N3-C2-O2	-8.90	115.97	122.20
36	1	2617	U	C5-C6-N1	-8.90	118.25	122.70
36	5	2334	U	N1-C2-N3	8.89	120.24	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1507	G	N1-C6-O6	8.89	125.23	119.90
36	1	2410	U	N3-C2-O2	8.88	128.41	122.20
36	1	881	C	N1-C2-O2	8.87	124.22	118.90
36	5	3093	C	N1-C2-O2	-8.87	113.58	118.90
36	1	1367	G	C8-N9-C4	8.87	109.95	106.40
36	5	933	A	C4-C5-C6	8.85	121.42	117.00
38	8	34	U	C5-C6-N1	-8.85	118.28	122.70
36	5	2808	A	C8-N9-C4	8.84	109.34	105.80
36	1	1386	A	N1-C6-N6	8.83	123.90	118.60
36	1	1429	G	N3-C4-N9	8.83	131.30	126.00
36	1	2243	A	O5'-P-OP2	-8.83	97.75	105.70
36	5	1430	U	C6-N1-C2	8.83	126.30	121.00
38	8	26	U	N3-C2-O2	-8.83	116.02	122.20
36	1	1157	G	C8-N9-C4	-8.82	102.87	106.40
36	5	2860	U	O5'-P-OP2	-8.82	97.76	105.70
36	1	304	G	C6-C5-N7	8.82	135.69	130.40
36	5	1137	C	C6-N1-C2	8.81	123.83	120.30
36	1	2811	A	N1-C6-N6	-8.81	113.31	118.60
36	5	3137	C	C5-C6-N1	-8.81	116.60	121.00
36	5	3245	A	N7-C8-N9	8.79	118.19	113.80
36	1	3362	A	O4'-C1'-N9	8.77	115.21	108.20
36	5	2937	G	C8-N9-C4	8.77	109.91	106.40
36	5	504	A	C8-N9-C4	8.76	109.31	105.80
1	6	1773	C	N3-C4-N4	8.76	124.13	118.00
36	1	776	U	C4-C5-C6	8.74	124.95	119.70
36	5	3211	C	C6-N1-C2	8.74	123.80	120.30
36	1	1365	G	N3-C4-C5	-8.74	124.23	128.60
1	2	389	G	C5-C6-O6	-8.73	123.36	128.60
36	5	1390	A	N9-C4-C5	8.73	109.29	105.80
36	5	2866	U	N1-C2-O2	8.73	128.91	122.80
36	1	1001	G	N1-C6-O6	8.72	125.13	119.90
36	5	640	U	N3-C2-O2	8.72	128.30	122.20
37	7	92	A	N9-C4-C5	-8.71	102.32	105.80
36	1	372	A	O5'-P-OP2	-8.70	97.87	105.70
36	5	966	U	N3-C2-O2	-8.68	116.12	122.20
36	5	3154	C	N1-C2-O2	8.68	124.11	118.90
1	2	75	U	N1-C2-O2	8.66	128.86	122.80
73	O7	65	ARG	NE-CZ-NH1	8.66	124.63	120.30
36	1	884	A	N1-C6-N6	8.65	123.79	118.60
36	5	1598	G	N1-C6-O6	-8.63	114.72	119.90
1	6	453	U	C2-N1-C1'	8.63	128.06	117.70
36	1	2944	U	N1-C2-O2	8.62	128.84	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1329	U	C2-N1-C1'	8.62	128.04	117.70
36	1	1179	A	O5'-P-OP1	-8.61	97.95	105.70
36	1	2808	A	N1-C6-N6	8.61	123.76	118.60
36	1	1405	U	C5-C6-N1	-8.61	118.40	122.70
36	1	933	A	C4-C5-C6	8.60	121.30	117.00
36	5	1389	G	C4-C5-N7	8.60	114.24	110.80
38	4	94	C	N3-C4-C5	8.56	125.32	121.90
36	5	1152	G	C5-C6-N1	-8.56	107.22	111.50
36	5	3014	U	C5-C4-O4	-8.56	120.77	125.90
36	1	2884	C	C6-N1-C2	8.56	123.72	120.30
36	5	1149	G	N3-C4-N9	8.54	131.13	126.00
36	5	971	G	C8-N9-C4	8.54	109.82	106.40
36	5	2342	U	C5-C6-N1	-8.54	118.43	122.70
36	5	1151	U	N3-C4-O4	8.54	125.38	119.40
36	5	1110	U	N1-C2-O2	8.54	128.78	122.80
36	5	2704	A	O5'-P-OP1	-8.53	98.02	105.70
36	5	960	U	C5-C4-O4	-8.53	120.78	125.90
36	5	2797	C	N1-C2-O2	-8.53	113.78	118.90
36	5	2848	G	C6-C5-N7	-8.53	125.28	130.40
36	5	2411	U	C5-C6-N1	-8.53	118.44	122.70
36	5	2683	U	C5-C6-N1	8.53	126.96	122.70
36	5	3204	C	C6-N1-C2	8.53	123.71	120.30
1	2	1039	A	O4'-C1'-N9	8.52	115.02	108.20
36	1	3310	A	C8-N9-C4	8.52	109.21	105.80
36	1	2314	U	C5-C4-O4	-8.51	120.79	125.90
36	1	304	G	N1-C6-O6	-8.50	114.80	119.90
1	2	15	U	C6-N1-C2	-8.49	115.90	121.00
36	1	1534	A	N1-C6-N6	8.49	123.70	118.60
36	5	969	C	C5-C6-N1	-8.49	116.76	121.00
36	5	1313	G	C8-N9-C4	8.48	109.79	106.40
36	5	650	C	N1-C2-O2	-8.47	113.81	118.90
36	5	411	U	C5-C6-N1	-8.46	118.47	122.70
36	1	1182	A	C8-N9-C4	8.46	109.19	105.80
36	5	2621	G	N3-C2-N2	-8.46	113.98	119.90
36	5	612	U	O5'-P-OP1	-8.45	98.09	105.70
36	5	2402	A	N9-C4-C5	8.45	109.18	105.80
36	5	2402	A	N1-C6-N6	-8.44	113.53	118.60
1	2	553	G	C6-C5-N7	-8.44	125.34	130.40
36	5	960	U	C6-N1-C1'	-8.44	109.39	121.20
36	5	2383	C	C6-N1-C2	-8.43	116.93	120.30
36	1	2833	A	C8-N9-C4	8.43	109.17	105.80
36	1	1414	G	N1-C6-O6	8.43	124.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2726	C	C6-N1-C2	-8.42	116.93	120.30
38	8	96	A	C8-N9-C4	8.42	109.17	105.80
36	1	1076	C	C6-N1-C2	8.41	123.67	120.30
36	5	3137	C	C2-N3-C4	-8.41	115.69	119.90
36	5	2870	C	N3-C4-C5	8.41	125.26	121.90
36	1	1791	C	N1-C2-O2	-8.40	113.86	118.90
36	5	2832	C	C6-N1-C2	8.39	123.66	120.30
36	1	1585	C	C6-N1-C2	8.39	123.66	120.30
36	5	2524	A	O4'-C1'-N9	8.39	114.91	108.20
36	5	3245	A	N1-C2-N3	8.39	133.49	129.30
36	1	2606	G	C4-C5-N7	8.37	114.15	110.80
36	5	2398	A	C5-C6-N1	8.37	121.89	117.70
36	5	1187	C	C6-N1-C2	8.37	123.65	120.30
36	5	3145	C	C6-N1-C2	8.36	123.64	120.30
36	1	1495	U	N1-C2-O2	-8.36	116.95	122.80
36	1	304	G	N3-C2-N2	-8.34	114.06	119.90
36	5	963	G	O5'-P-OP1	8.34	120.71	110.70
36	5	727	G	O5'-P-OP1	-8.34	98.20	105.70
36	5	2983	C	C4-C5-C6	8.33	121.56	117.40
36	1	54	C	C6-N1-C2	8.33	123.63	120.30
36	1	92	G	C5-C6-N1	8.33	115.66	111.50
36	1	1308	A	N7-C8-N9	8.32	117.96	113.80
36	5	217	U	C5-C6-N1	-8.31	118.54	122.70
36	1	2795	U	O5'-P-OP1	-8.31	98.22	105.70
36	1	1367	G	C5-C6-O6	-8.30	123.62	128.60
36	1	1379	G	N1-C2-N3	8.30	128.88	123.90
36	1	2333	C	C5-C6-N1	-8.29	116.85	121.00
37	7	93	C	N3-C2-O2	-8.29	116.09	121.90
36	5	2978	U	N3-C2-O2	-8.28	116.40	122.20
36	5	2354	C	N3-C4-C5	-8.28	118.59	121.90
36	1	2758	A	N7-C8-N9	-8.28	109.66	113.80
36	1	2343	C	C6-N1-C2	8.27	123.61	120.30
36	1	1346	G	O5'-P-OP2	-8.27	98.26	105.70
36	5	1380	G	C8-N9-C4	8.27	109.71	106.40
36	5	2811	A	O5'-P-OP1	-8.27	98.26	105.70
36	1	282	G	N1-C6-O6	-8.27	114.94	119.90
36	5	1389	G	C5-C6-O6	-8.27	123.64	128.60
36	1	1556	C	N3-C2-O2	-8.26	116.12	121.90
1	2	577	G	N1-C6-O6	8.25	124.85	119.90
36	5	1124	U	N3-C4-O4	-8.25	113.62	119.40
36	1	2408	U	O5'-P-OP1	-8.25	98.27	105.70
36	5	1165	A	N1-C6-N6	8.25	123.55	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2983	C	N3-C4-N4	-8.24	112.23	118.00
36	5	3245	A	C5-N7-C8	-8.24	99.78	103.90
36	1	2867	C	C2-N3-C4	-8.24	115.78	119.90
36	5	1155	C	O5'-P-OP1	-8.24	98.29	105.70
36	1	3278	C	N3-C2-O2	-8.23	116.14	121.90
36	1	2139	A	C5-C6-N1	8.23	121.81	117.70
36	1	3344	A	C5-N7-C8	-8.23	99.78	103.90
36	1	2209	U	C5-C6-N1	8.22	126.81	122.70
1	6	437	A	N1-C6-N6	-8.22	113.67	118.60
36	1	2139	A	C6-N1-C2	-8.22	113.67	118.60
36	5	1592	G	C5-C6-N1	-8.22	107.39	111.50
36	1	1175	C	C5-C6-N1	-8.21	116.89	121.00
36	1	2846	U	N3-C2-O2	-8.21	116.45	122.20
36	5	216	G	N1-C6-O6	8.21	124.83	119.90
36	5	1513	G	C8-N9-C4	-8.20	103.12	106.40
36	5	2852	C	C6-N1-C2	8.21	123.58	120.30
1	2	1212	G	C5-C6-O6	-8.20	123.68	128.60
1	6	1634	C	C6-N1-C2	-8.19	117.03	120.30
36	1	3217	C	C6-N1-C2	-8.16	117.03	120.30
37	3	98	C	N1-C2-O2	-8.16	114.00	118.90
36	5	1924	U	C6-N1-C2	8.16	125.90	121.00
36	1	2802	A	OP2-P-O3'	8.15	123.14	105.20
37	3	88	G	N1-C6-O6	-8.15	115.01	119.90
36	5	895	A	N1-C2-N3	8.15	133.38	129.30
36	1	2886	U	N3-C4-O4	8.15	125.11	119.40
44	17	229	PHE	CB-CG-CD1	8.15	126.51	120.80
36	1	1116	G	N9-C4-C5	8.15	108.66	105.40
36	1	282	G	C5-C6-O6	8.14	133.49	128.60
36	1	35	A	N1-C6-N6	8.14	123.48	118.60
36	5	2764	C	N3-C4-C5	8.13	125.15	121.90
36	5	784	A	N1-C6-N6	8.13	123.48	118.60
36	5	1129	A	O5'-P-OP2	-8.13	98.39	105.70
36	1	639	G	N1-C6-O6	8.11	124.77	119.90
36	5	1897	G	N3-C2-N2	-8.11	114.22	119.90
36	5	3154	C	C5-C6-N1	8.10	125.05	121.00
36	5	2333	C	N3-C4-C5	8.10	125.14	121.90
36	1	1429	G	N3-C4-C5	-8.09	124.56	128.60
1	6	1568	C	P-O3'-C3'	8.09	129.41	119.70
36	5	2797	C	N3-C4-C5	-8.09	118.67	121.90
36	1	2983	C	C5-C4-N4	8.07	125.85	120.20
36	1	2364	G	C4-C5-N7	-8.07	107.57	110.80
36	5	329	U	N3-C2-O2	-8.07	116.55	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	28	C	C6-N1-C2	8.06	123.53	120.30
36	1	901	G	N1-C6-O6	8.06	124.74	119.90
36	5	1316	C	N3-C2-O2	8.06	127.54	121.90
1	2	334	G	C8-N9-C4	8.04	109.62	106.40
36	1	1157	G	N1-C2-N3	8.04	128.73	123.90
36	1	55	G	C8-N9-C4	8.03	109.61	106.40
36	1	2376	G	C8-N9-C4	-8.03	103.19	106.40
38	8	4	C	N3-C2-O2	-8.03	116.28	121.90
36	5	510	G	C5-C6-O6	8.03	133.42	128.60
1	6	1748	G	C8-N9-C4	8.02	109.61	106.40
36	5	2234	G	C5-C6-O6	-8.02	123.79	128.60
1	2	1600	A	C2-N3-C4	-8.02	106.59	110.60
36	1	635	G	C5-C6-O6	-8.02	123.79	128.60
36	5	1119	C	C2-N3-C4	-8.01	115.89	119.90
38	8	33	A	N1-C6-N6	8.01	123.40	118.60
36	1	3311	C	C6-N1-C2	8.00	123.50	120.30
36	1	2827	U	N3-C4-O4	-8.00	113.80	119.40
36	1	3217	C	C2-N1-C1'	8.00	127.60	118.80
1	6	453	U	N3-C2-O2	-8.00	116.60	122.20
44	17	232	ARG	NE-CZ-NH2	8.00	124.30	120.30
36	1	2726	C	N3-C2-O2	-7.99	116.31	121.90
36	5	1151	U	N3-C2-O2	7.99	127.79	122.20
36	5	1907	C	O5'-P-OP2	-7.99	98.51	105.70
36	1	28	C	N3-C4-C5	7.98	125.09	121.90
36	1	2726	C	C5-C4-N4	7.98	125.79	120.20
36	1	2121	G	N3-C2-N2	7.98	125.48	119.90
36	5	2988	C	N3-C4-N4	-7.98	112.42	118.00
36	5	41	G	C4-C5-N7	7.97	113.99	110.80
36	5	1192	C	N3-C2-O2	-7.97	116.32	121.90
36	5	2393	G	C8-N9-C4	7.97	109.59	106.40
36	5	3218	A	C6-C5-N7	-7.96	126.73	132.30
1	6	610	G	C8-N9-C1'	-7.96	116.65	127.00
36	1	54	C	N3-C4-C5	7.96	125.08	121.90
36	1	2623	G	N9-C4-C5	-7.96	102.22	105.40
36	1	836	A	O5'-P-OP2	-7.96	98.54	105.70
36	1	435	C	C5-C6-N1	-7.95	117.02	121.00
36	1	62	A	O5'-P-OP2	-7.94	98.55	105.70
36	1	58	G	N1-C6-O6	7.94	124.66	119.90
36	1	699	A	C2-N3-C4	-7.94	106.63	110.60
36	1	1136	A	N1-C6-N6	7.94	123.36	118.60
36	5	343	U	O5'-P-OP1	-7.93	98.56	105.70
1	2	389	G	N3-C4-N9	7.93	130.76	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1274	C	C6-N1-C2	-7.93	117.13	120.30
36	5	664	U	N3-C4-C5	-7.93	109.84	114.60
36	5	644	G	C4-C5-N7	-7.92	107.63	110.80
1	2	1280	C	N3-C4-C5	-7.91	118.73	121.90
36	5	706	A	C8-N9-C4	7.91	108.97	105.80
36	1	2987	A	C4-C5-C6	7.91	120.95	117.00
36	5	3123	A	C8-N9-C4	7.91	108.96	105.80
36	5	2572	C	C2-N1-C1'	7.91	127.50	118.80
36	5	53	G	C8-N9-C4	7.90	109.56	106.40
36	5	348	A	O5'-P-OP1	-7.90	98.59	105.70
36	5	3154	C	C6-N1-C2	-7.90	117.14	120.30
36	5	2796	G	O5'-P-OP2	-7.89	98.59	105.70
36	1	131	C	C6-N1-C2	-7.89	117.14	120.30
1	6	1110	G	C5-C6-O6	7.89	133.33	128.60
36	5	1905	G	C5-C6-O6	-7.88	123.87	128.60
1	6	383	G	C8-N9-C4	-7.88	103.25	106.40
36	1	1165	A	C8-N9-C4	7.87	108.95	105.80
1	2	1212	G	N1-C6-O6	7.87	124.62	119.90
36	1	3181	C	N3-C2-O2	-7.86	116.39	121.90
36	1	1433	A	O5'-P-OP1	-7.86	98.63	105.70
36	1	1316	C	N1-C2-O2	-7.86	114.19	118.90
36	1	3079	U	C2-N1-C1'	-7.86	108.27	117.70
1	6	558	U	N1-C2-O2	7.86	128.30	122.80
36	5	1837	U	N1-C2-O2	-7.85	117.31	122.80
1	6	1745	G	N9-C4-C5	-7.84	102.26	105.40
1	2	453	U	C2-N1-C1'	7.83	127.10	117.70
1	2	1124	A	O5'-P-OP1	-7.83	98.65	105.70
36	1	1204	A	O5'-P-OP1	-7.83	98.65	105.70
1	2	1096	C	N1-C2-O2	7.83	123.60	118.90
36	5	2823	G	O5'-P-OP2	-7.83	98.66	105.70
36	5	2991	A	N1-C6-N6	-7.83	113.91	118.60
36	5	195	U	O5'-P-OP2	-7.82	98.66	105.70
36	5	1116	G	O5'-P-OP1	-7.82	98.66	105.70
36	5	3140	G	C5-C6-O6	-7.82	123.91	128.60
36	1	1313	G	C5-C6-O6	-7.81	123.91	128.60
36	1	1205	A	C8-N9-C4	7.81	108.92	105.80
1	6	1125	A	C2-N3-C4	-7.81	106.70	110.60
36	5	2849	C	N1-C2-O2	-7.80	114.22	118.90
37	7	87	G	N3-C2-N2	-7.80	114.44	119.90
37	7	84	A	OP1-P-O3'	7.80	122.36	105.20
1	6	435	C	N1-C2-O2	7.80	123.58	118.90
36	1	2283	G	N1-C6-O6	7.80	124.58	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1300	G	N9-C4-C5	-7.79	102.28	105.40
36	1	2815	G	C8-N9-C4	7.79	109.52	106.40
36	5	2411	U	N3-C4-O4	-7.79	113.95	119.40
1	2	1773	C	N1-C2-O2	-7.78	114.23	118.90
36	1	2885	C	C5-C6-N1	-7.78	117.11	121.00
36	1	2836	C	C4-C5-C6	7.78	121.29	117.40
36	1	2756	C	N1-C2-O2	-7.78	114.23	118.90
36	5	410	U	N3-C4-C5	-7.78	109.93	114.60
36	5	3306	U	C5-C4-O4	-7.78	121.23	125.90
1	6	19	A	N1-C6-N6	7.77	123.26	118.60
36	5	2961	G	C5-C6-N1	-7.76	107.62	111.50
1	2	1200	G	C6-C5-N7	-7.76	125.75	130.40
36	1	320	G	C5-C6-O6	-7.75	123.95	128.60
36	1	2661	G	C5-C6-O6	-7.75	123.95	128.60
36	1	69	C	N1-C2-O2	-7.75	114.25	118.90
36	1	1001	G	C5-C6-O6	-7.75	123.95	128.60
36	5	706	A	N1-C6-N6	7.75	123.25	118.60
36	5	1869	C	C5-C6-N1	-7.75	117.12	121.00
36	5	1885	U	C6-N1-C2	7.75	125.65	121.00
36	1	2942	C	C6-N1-C2	7.75	123.40	120.30
36	1	2114	C	O5'-P-OP2	-7.74	98.74	105.70
36	1	218	G	C5-C6-O6	-7.74	123.96	128.60
36	1	922	U	C5-C4-O4	7.74	130.54	125.90
36	1	282	G	N9-C4-C5	7.73	108.49	105.40
36	1	221	A	O5'-P-OP2	-7.73	98.74	105.70
36	1	1414	G	C5-C6-O6	-7.73	123.96	128.60
36	1	2416	U	O5'-P-OP1	-7.73	98.74	105.70
36	1	142	C	C6-N1-C2	-7.73	117.21	120.30
36	5	2957	G	O5'-P-OP1	-7.72	98.75	105.70
36	5	1389	G	N9-C4-C5	-7.72	102.31	105.40
36	1	1547	G	N7-C8-N9	-7.72	109.24	113.10
38	8	7	U	O5'-P-OP2	-7.71	98.76	105.70
36	1	2870	C	C6-N1-C1'	7.71	130.05	120.80
36	1	2572	C	N1-C2-O2	7.71	123.53	118.90
36	5	609	G	N3-C2-N2	-7.71	114.50	119.90
36	5	1308	A	N1-C6-N6	-7.71	113.97	118.60
36	1	1882	G	N1-C6-O6	7.71	124.52	119.90
36	5	205	C	N3-C4-C5	7.71	124.98	121.90
36	1	2996	U	C6-N1-C1'	-7.70	110.42	121.20
36	5	2147	A	C6-C5-N7	-7.70	126.91	132.30
36	1	2355	G	C6-C5-N7	-7.69	125.78	130.40
1	6	1121	C	C6-N1-C2	7.69	123.38	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1149	G	N3-C4-C5	-7.69	124.75	128.60
36	5	2923	U	O5'-P-OP1	-7.69	98.78	105.70
36	5	1113	G	C2-N3-C4	-7.68	108.06	111.90
36	1	1906	G	N1-C6-O6	7.68	124.51	119.90
1	2	75	U	N3-C2-O2	-7.67	116.83	122.20
37	7	84	A	N1-C6-N6	7.67	123.20	118.60
36	5	2870	C	C2-N1-C1'	-7.67	110.36	118.80
1	6	622	A	O5'-P-OP1	-7.67	98.80	105.70
1	6	1137	A	N7-C8-N9	-7.67	109.97	113.80
36	5	2425	G	N3-C2-N2	-7.67	114.53	119.90
36	5	3140	G	C6-C5-N7	-7.67	125.80	130.40
36	1	1303	A	C8-N9-C4	7.67	108.87	105.80
36	5	3382	U	C5-C6-N1	7.66	126.53	122.70
36	1	2363	A	C5-C6-N6	7.66	129.83	123.70
36	5	2400	G	C8-N9-C4	7.65	109.46	106.40
36	5	776	U	C5-C6-N1	-7.65	118.87	122.70
36	5	1292	C	C6-N1-C2	7.65	123.36	120.30
36	5	3140	G	N1-C6-O6	7.64	124.49	119.90
36	5	940	G	O5'-P-OP1	-7.64	98.82	105.70
1	6	305	C	N1-C2-O2	-7.64	114.31	118.90
36	5	2892	A	C6-C5-N7	-7.64	126.95	132.30
36	1	1138	U	C5-C6-N1	-7.64	118.88	122.70
36	5	2385	G	N1-C6-O6	7.64	124.48	119.90
36	1	922	U	N3-C2-O2	-7.64	116.85	122.20
36	1	2814	G	O5'-P-OP2	7.64	119.86	110.70
36	1	2860	U	N3-C4-O4	-7.63	114.06	119.40
36	1	2869	U	O5'-P-OP1	-7.63	98.83	105.70
36	5	3145	C	C5-C6-N1	-7.63	117.19	121.00
36	5	3245	A	C8-N9-C4	-7.63	102.75	105.80
36	5	942	U	N1-C2-O2	-7.62	117.46	122.80
36	5	3004	C	C6-N1-C2	7.62	123.35	120.30
36	1	798	G	C8-N9-C4	-7.62	103.35	106.40
36	1	1379	G	N1-C2-N2	-7.62	109.34	116.20
36	1	2661	G	N1-C6-O6	7.62	124.47	119.90
36	5	2893	C	N1-C2-O2	-7.62	114.33	118.90
36	1	676	G	C6-C5-N7	-7.62	125.83	130.40
36	1	1094	U	C5-C6-N1	7.62	126.51	122.70
36	1	3217	C	N3-C2-O2	-7.61	116.57	121.90
1	2	864	U	N3-C2-O2	-7.61	116.87	122.20
36	1	2893	C	C2-N3-C4	-7.61	116.09	119.90
36	5	2295	A	C5-C6-N1	7.61	121.51	117.70
1	6	101	U	N3-C2-O2	-7.61	116.88	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2978	U	O4'-C1'-N1	7.61	114.28	108.20
36	5	2309	A	N9-C4-C5	7.61	108.84	105.80
36	5	2820	A	C8-N9-C4	-7.61	102.76	105.80
38	8	84	C	C6-N1-C2	-7.61	117.26	120.30
36	1	1421	G	OP2-P-O3'	7.60	121.93	105.20
36	5	1116	G	N9-C4-C5	7.60	108.44	105.40
36	5	1119	C	C5-C6-N1	-7.60	117.20	121.00
36	1	2963	C	C5-C6-N1	-7.59	117.20	121.00
36	5	1052	U	O5'-P-OP2	-7.59	98.87	105.70
36	1	924	G	C4-C5-N7	7.59	113.84	110.80
36	1	1386	A	C4-C5-C6	7.59	120.79	117.00
36	5	190	U	N3-C2-O2	-7.58	116.89	122.20
36	1	2821	C	C6-N1-C2	-7.58	117.27	120.30
36	1	1313	G	C4-C5-N7	7.58	113.83	110.80
36	1	3362	A	N7-C8-N9	7.58	117.59	113.80
36	1	608	A	N1-C6-N6	7.57	123.14	118.60
36	5	636	C	C5-C6-N1	-7.57	117.21	121.00
36	5	503	C	C6-N1-C2	7.57	123.33	120.30
36	5	2921	U	N1-C2-O2	-7.57	117.50	122.80
36	1	2298	U	C5-C4-O4	7.57	130.44	125.90
36	1	2777	G	C5-C6-O6	7.57	133.14	128.60
36	1	2850	G	C4-C5-N7	7.56	113.83	110.80
36	5	694	C	N3-C2-O2	-7.56	116.61	121.90
1	6	1141	G	C5-C6-O6	-7.56	124.07	128.60
36	5	510	G	N1-C6-O6	-7.56	115.36	119.90
1	6	1177	C	C6-N1-C2	7.55	123.32	120.30
36	5	812	G	C5-N7-C8	7.55	108.08	104.30
36	5	2881	C	C6-N1-C2	7.55	123.32	120.30
36	5	3214	U	N3-C2-O2	-7.55	116.92	122.20
36	5	2943	G	C4-C5-N7	7.55	113.82	110.80
1	2	830	U	N1-C2-O2	7.55	128.08	122.80
36	1	718	G	C4-C5-N7	7.54	113.82	110.80
36	5	2727	A	C8-N9-C4	-7.54	102.78	105.80
36	1	2814	G	O5'-P-OP1	-7.54	98.91	105.70
1	6	1537	C	C6-N1-C2	-7.54	117.28	120.30
36	5	2315	G	O5'-P-OP1	-7.54	98.91	105.70
36	1	1405	U	C2-N3-C4	-7.54	122.48	127.00
36	1	2121	G	N1-C2-N2	-7.54	109.42	116.20
36	5	2305	G	C6-C5-N7	-7.54	125.88	130.40
36	5	2899	C	C2-N3-C4	-7.54	116.13	119.90
1	2	36	C	C6-N1-C2	7.53	123.31	120.30
1	6	1119	G	O5'-P-OP2	-7.53	98.92	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2385	G	N3-C4-C5	7.53	132.37	128.60
36	1	940	G	O5'-P-OP1	-7.53	98.92	105.70
36	1	2342	U	C2-N1-C1'	-7.53	108.67	117.70
36	1	961	C	C2-N3-C4	-7.53	116.14	119.90
36	5	2885	C	C5-C4-N4	-7.53	114.93	120.20
36	1	2860	U	C5-C4-O4	7.52	130.41	125.90
36	5	3218	A	C4-C5-N7	7.52	114.46	110.70
36	1	1433	A	C8-N9-C4	-7.51	102.79	105.80
38	4	136	G	N1-C6-O6	7.51	124.41	119.90
36	5	2400	G	N3-C4-C5	7.51	132.36	128.60
36	1	1386	A	C5-C6-N6	-7.51	117.69	123.70
36	5	1311	G	O5'-P-OP2	-7.51	98.94	105.70
1	2	1762	A	C2-N3-C4	-7.51	106.85	110.60
36	5	2906	C	O5'-P-OP1	7.51	119.71	110.70
36	1	1146	C	N3-C4-C5	7.50	124.90	121.90
36	5	1838	G	N1-C6-O6	7.50	124.40	119.90
36	1	886	C	N1-C2-O2	-7.50	114.40	118.90
36	1	24	G	C8-N9-C1'	-7.50	117.25	127.00
36	5	871	U	C5-C4-O4	7.50	130.40	125.90
36	1	645	A	C6-N1-C2	-7.50	114.10	118.60
36	1	650	C	OP2-P-O3'	7.50	121.69	105.20
36	1	661	G	C8-N9-C4	-7.50	103.40	106.40
36	5	1340	G	C8-N9-C4	7.49	109.40	106.40
36	1	1547	G	C5-N7-C8	7.49	108.05	104.30
36	5	2699	G	N9-C4-C5	-7.49	102.41	105.40
36	1	2634	U	C2-N3-C4	-7.49	122.51	127.00
36	1	59	G	C6-C5-N7	-7.48	125.91	130.40
36	1	2572	C	C2-N1-C1'	7.48	127.02	118.80
36	1	2147	A	N7-C8-N9	-7.48	110.06	113.80
36	1	974	G	N3-C4-N9	7.47	130.48	126.00
36	1	776	U	N1-C2-N3	7.47	119.38	114.90
36	5	3136	G	N1-C2-N3	7.47	128.38	123.90
36	1	2924	U	C6-N1-C2	7.47	125.48	121.00
36	1	2121	G	N3-C4-C5	-7.47	124.87	128.60
36	1	2867	C	C5-C6-N1	-7.47	117.27	121.00
38	4	107	G	N1-C6-O6	-7.46	115.42	119.90
36	1	1606	U	N3-C2-O2	7.46	127.42	122.20
36	5	2309	A	C5-C6-N6	7.46	129.67	123.70
36	1	857	G	C5-C6-N1	-7.46	107.77	111.50
36	5	2412	G	N3-C4-C5	-7.45	124.87	128.60
37	7	88	G	O5'-P-OP1	-7.45	98.99	105.70
36	1	1269	U	C2-N1-C1'	7.45	126.64	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2868	U	N1-C2-O2	7.44	128.01	122.80
1	6	371	G	C6-C5-N7	-7.44	125.93	130.40
36	1	369	A	C2-N3-C4	7.44	114.32	110.60
1	6	1085	G	N1-C6-O6	-7.44	115.44	119.90
36	5	3185	U	C5-C6-N1	-7.44	118.98	122.70
36	1	801	A	O4'-C1'-N9	-7.44	102.25	108.20
36	1	1741	A	C2-N3-C4	-7.44	106.88	110.60
36	1	2192	C	O5'-P-OP2	-7.44	99.01	105.70
36	1	2402	A	O5'-P-OP2	-7.43	99.02	105.70
36	5	1438	U	N3-C4-O4	7.43	124.60	119.40
36	5	1127	G	O5'-P-OP2	-7.42	99.03	105.70
36	5	2333	C	C5-C6-N1	-7.41	117.30	121.00
36	1	2689	A	N1-C6-N6	-7.41	114.16	118.60
36	1	3025	C	C6-N1-C2	7.41	123.26	120.30
36	5	664	U	C4-C5-C6	7.41	124.14	119.70
36	5	2856	G	N1-C6-O6	7.41	124.34	119.90
37	7	73	C	C6-N1-C2	-7.41	117.34	120.30
36	5	2699	G	C8-N9-C4	7.40	109.36	106.40
36	5	3084	C	C6-N1-C2	7.40	123.26	120.30
36	1	2335	G	N1-C6-O6	-7.40	115.46	119.90
36	1	621	A	C8-N9-C4	-7.40	102.84	105.80
36	1	3208	G	N3-C4-C5	-7.40	124.90	128.60
37	7	101	G	N1-C6-O6	7.40	124.34	119.90
1	2	830	U	N3-C2-O2	-7.39	117.02	122.20
36	1	1192	C	C2-N1-C1'	7.39	126.94	118.80
36	1	2944	U	N3-C4-C5	7.39	119.04	114.60
1	6	144	U	C2-N1-C1'	7.39	126.57	117.70
36	5	995	U	O5'-P-OP1	-7.39	99.05	105.70
36	1	1332	A	O5'-P-OP1	-7.39	99.05	105.70
36	5	2329	C	C2-N3-C4	-7.38	116.21	119.90
36	1	1376	C	C4-C5-C6	7.38	121.09	117.40
36	5	1119	C	C6-N1-C2	7.38	123.25	120.30
36	5	1158	A	C2-N3-C4	-7.38	106.91	110.60
36	1	504	A	C5-C6-N6	-7.37	117.80	123.70
36	1	1386	A	C6-C5-N7	-7.37	127.14	132.30
36	1	3001	C	C6-N1-C2	7.37	123.25	120.30
36	1	2374	C	N1-C2-O2	7.37	123.32	118.90
36	5	1132	C	O5'-P-OP1	-7.37	99.07	105.70
36	1	908	G	O4'-C1'-N9	-7.37	102.31	108.20
36	1	1904	C	C6-N1-C2	-7.37	117.35	120.30
1	6	194	U	C2-N1-C1'	7.37	126.54	117.70
36	5	960	U	C2-N1-C1'	7.36	126.54	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	90	C	C6-N1-C2	-7.36	117.36	120.30
36	5	1004	U	N3-C2-O2	-7.36	117.05	122.20
36	5	644	G	C5-C6-O6	7.36	133.02	128.60
36	5	3271	G	N1-C6-O6	-7.36	115.48	119.90
36	5	644	G	N9-C4-C5	7.35	108.34	105.40
38	4	25	G	C5-C6-O6	7.35	133.01	128.60
36	5	2938	G	C5-C6-N1	7.35	115.17	111.50
36	5	712	G	O5'-P-OP2	-7.35	99.09	105.70
37	3	119	U	C5-C4-O4	7.34	130.31	125.90
36	5	1303	A	C4-C5-N7	7.34	114.37	110.70
1	2	1100	G	C6-C5-N7	-7.34	125.99	130.40
1	6	1200	G	N1-C6-O6	7.34	124.30	119.90
36	5	2941	A	O4'-C1'-N9	-7.34	102.33	108.20
48	m1	112	LEU	CA-CB-CG	7.34	132.18	115.30
36	1	2197	C	C6-N1-C2	7.34	123.23	120.30
36	5	1931	U	C2-N1-C1'	-7.33	108.90	117.70
36	1	267	G	N1-C6-O6	7.33	124.30	119.90
36	1	1199	C	N1-C2-O2	7.32	123.29	118.90
1	6	973	A	O5'-P-OP2	-7.32	99.11	105.70
36	1	3344	A	C2-N3-C4	-7.32	106.94	110.60
38	4	136	G	C6-C5-N7	-7.32	126.01	130.40
1	2	1200	G	C5-C6-O6	-7.32	124.21	128.60
38	8	33	A	N9-C4-C5	-7.31	102.87	105.80
36	1	802	C	O5'-P-OP2	7.31	119.47	110.70
36	1	2811	A	C5-C6-N1	7.31	121.36	117.70
36	5	665	A	C5-C6-N6	-7.31	117.85	123.70
36	5	3362	A	C2-N3-C4	-7.31	106.94	110.60
36	5	3103	A	O5'-P-OP2	-7.31	99.12	105.70
36	1	3214	U	N3-C2-O2	-7.30	117.09	122.20
36	1	1849	C	C5-C4-N4	-7.30	115.09	120.20
36	5	182	U	C5-C6-N1	7.30	126.35	122.70
36	1	2718	U	C5-C6-N1	-7.30	119.05	122.70
1	6	144	U	N1-C2-O2	7.29	127.91	122.80
36	1	2969	A	N1-C6-N6	7.29	122.97	118.60
36	1	883	A	C6-N1-C2	-7.29	114.23	118.60
36	1	1160	C	O5'-P-OP1	-7.29	99.14	105.70
36	1	1495	U	C4-C5-C6	7.29	124.07	119.70
38	4	38	U	N3-C2-O2	-7.29	117.10	122.20
36	5	2777	G	C5-C6-N1	-7.29	107.86	111.50
36	5	1101	G	C8-N9-C4	7.28	109.31	106.40
36	5	2857	C	C2-N3-C4	-7.28	116.26	119.90
36	1	3275	U	C5-C6-N1	7.28	126.34	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	17	C	N1-C2-O2	7.27	123.26	118.90
36	5	1152	G	N9-C4-C5	7.27	108.31	105.40
36	5	938	C	C5-C4-N4	-7.26	115.11	120.20
36	5	2572	C	N3-C2-O2	-7.26	116.81	121.90
36	5	2400	G	C4-C5-N7	7.26	113.70	110.80
36	1	997	A	C8-N9-C4	-7.26	102.90	105.80
36	5	1116	G	N1-C2-N3	7.26	128.25	123.90
36	1	2830	G	N3-C2-N2	-7.25	114.82	119.90
36	5	1888	U	C5-C6-N1	-7.25	119.07	122.70
37	7	92	A	C5-C6-N6	-7.25	117.90	123.70
37	7	101	G	C6-C5-N7	-7.25	126.05	130.40
36	5	2980	U	N3-C2-O2	-7.25	117.13	122.20
36	1	2996	U	N1-C2-O2	7.25	127.87	122.80
1	2	1176	G	C6-C5-N7	-7.24	126.05	130.40
36	1	1434	G	N3-C2-N2	-7.24	114.83	119.90
1	6	116	U	C6-N1-C2	-7.24	116.66	121.00
36	5	2400	G	N9-C4-C5	-7.24	102.50	105.40
1	6	610	G	C8-N9-C4	7.24	109.30	106.40
36	5	2707	C	C6-N1-C2	7.24	123.19	120.30
36	5	2808	A	N9-C4-C5	-7.24	102.91	105.80
36	1	2400	G	C2-N3-C4	-7.24	108.28	111.90
36	5	971	G	N1-C2-N3	7.24	128.24	123.90
36	5	665	A	N1-C6-N6	7.23	122.94	118.60
36	1	432	G	C2-N3-C4	-7.23	108.28	111.90
36	1	2973	G	N1-C6-O6	7.23	124.24	119.90
36	1	3101	G	N1-C6-O6	-7.23	115.56	119.90
36	1	197	G	C5-C6-O6	-7.23	124.26	128.60
36	1	1838	G	N1-C6-O6	7.23	124.24	119.90
36	1	2916	U	N1-C2-N3	-7.23	110.56	114.90
36	5	1403	C	C2-N3-C4	-7.23	116.29	119.90
36	1	2169	G	N1-C6-O6	-7.23	115.56	119.90
36	1	2144	A	C5-C6-N1	7.22	121.31	117.70
36	5	105	C	C6-N1-C2	7.22	123.19	120.30
36	5	834	U	N3-C4-C5	7.22	118.93	114.60
36	1	609	G	C2-N3-C4	7.22	115.51	111.90
36	5	2816	G	C5-C6-O6	-7.22	124.27	128.60
36	5	3055	U	C5-C4-O4	-7.22	121.57	125.90
1	6	1465	C	C6-N1-C2	-7.22	117.41	120.30
38	8	79	A	C8-N9-C4	-7.22	102.91	105.80
36	1	1192	C	C5-C6-N1	7.21	124.61	121.00
36	5	2345	A	C8-N9-C4	7.21	108.69	105.80
37	7	40	C	C6-N1-C2	7.21	123.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	24	G	N1-C2-N2	-7.21	109.71	116.20
1	6	1141	G	O5'-P-OP1	-7.21	99.21	105.70
36	5	776	U	N1-C2-N3	7.21	119.22	114.90
36	1	1492	G	N3-C2-N2	7.21	124.94	119.90
36	1	1724	U	O5'-P-OP2	-7.21	99.21	105.70
36	1	883	A	C5-C6-N1	7.21	121.30	117.70
1	2	389	G	N1-C6-O6	7.20	124.22	119.90
36	1	1210	U	C5-C6-N1	-7.20	119.10	122.70
37	7	92	A	C6-C5-N7	-7.20	127.26	132.30
36	5	578	A	N1-C6-N6	7.20	122.92	118.60
36	5	3010	U	N3-C2-O2	-7.20	117.16	122.20
36	5	2134	G	C5-C6-O6	7.19	132.92	128.60
41	14	313	LEU	CA-CB-CG	7.19	131.85	115.30
36	1	2621	G	C2-N3-C4	-7.19	108.30	111.90
36	1	3212	C	C5-C6-N1	-7.19	117.40	121.00
36	5	1308	A	OP1-P-OP2	-7.19	108.81	119.60
36	1	3379	C	C6-N1-C2	7.19	123.18	120.30
36	5	516	A	C8-N9-C4	7.19	108.67	105.80
36	5	280	U	O5'-P-OP2	-7.19	99.23	105.70
1	6	1187	U	C5-C6-N1	7.18	126.29	122.70
36	5	937	G	O5'-P-OP1	-7.18	99.24	105.70
36	5	2329	C	C5-C6-N1	-7.18	117.41	121.00
36	5	2899	C	N1-C2-N3	7.18	124.22	119.20
1	6	95	G	N9-C4-C5	7.17	108.27	105.40
36	1	776	U	C5-C6-N1	-7.17	119.11	122.70
37	7	73	C	C5-C6-N1	7.17	124.58	121.00
36	5	2892	A	C5-C6-N6	-7.16	117.97	123.70
36	5	3137	C	N3-C4-C5	7.16	124.77	121.90
36	1	2874	G	N1-C6-O6	7.16	124.20	119.90
36	1	2995	A	C8-N9-C4	7.16	108.66	105.80
36	1	1149	G	N1-C6-O6	7.16	124.19	119.90
36	1	3362	A	C6-C5-N7	-7.16	127.29	132.30
36	5	2621	G	N1-C6-O6	7.16	124.19	119.90
36	1	919	U	O5'-P-OP1	7.16	119.29	110.70
36	1	2901	G	N1-C6-O6	7.16	124.19	119.90
36	5	3140	G	N9-C4-C5	-7.16	102.54	105.40
36	5	3096	C	C6-N1-C2	7.15	123.16	120.30
1	2	1082	C	C2-N1-C1'	7.15	126.67	118.80
36	1	1001	G	C4-C5-N7	7.15	113.66	110.80
36	1	2606	G	N9-C4-C5	-7.15	102.54	105.40
36	1	1403	C	N3-C4-C5	7.15	124.76	121.90
36	1	2634	U	C5-C6-N1	-7.15	119.12	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	100	U	C2-N1-C1'	7.15	126.28	117.70
36	5	1868	G	N1-C6-O6	7.15	124.19	119.90
1	6	116	U	N1-C2-N3	7.14	119.19	114.90
36	5	3374	U	N3-C4-O4	-7.14	114.40	119.40
37	7	14	U	C5-C6-N1	-7.14	119.13	122.70
36	1	1175	C	N3-C4-C5	7.14	124.76	121.90
36	1	2852	C	C6-N1-C2	7.14	123.16	120.30
36	5	2395	G	C5-C6-O6	-7.14	124.32	128.60
1	2	1761	U	P-O3'-C3'	7.14	128.27	119.70
36	1	2333	C	C6-N1-C2	7.14	123.16	120.30
1	2	577	G	C4-C5-N7	7.14	113.66	110.80
36	1	2121	G	N3-C4-N9	7.14	130.28	126.00
36	5	2978	U	O4'-C1'-N1	7.14	113.91	108.20
12	C0	88	PRO	N-CA-CB	7.13	111.86	103.30
36	5	2825	C	C6-N1-C2	7.13	123.15	120.30
36	5	1868	G	C4-C5-N7	7.13	113.65	110.80
36	5	1885	U	O5'-P-OP2	-7.13	99.28	105.70
36	1	895	A	C5-N7-C8	-7.13	100.33	103.90
36	1	1507	G	C6-C5-N7	-7.13	126.12	130.40
36	1	3344	A	N7-C8-N9	7.13	117.36	113.80
36	5	3042	U	C5-C6-N1	-7.13	119.14	122.70
36	5	389	A	O5'-P-OP1	-7.13	99.29	105.70
1	2	16	G	N3-C4-N9	7.12	130.27	126.00
1	6	994	G	C6-C5-N7	-7.12	126.13	130.40
36	5	2880	U	C6-N1-C2	-7.12	116.73	121.00
36	1	2550	U	C5-C4-O4	7.11	130.17	125.90
36	1	3043	C	N3-C4-C5	7.11	124.74	121.90
36	1	1372	C	C5-C6-N1	-7.10	117.45	121.00
36	5	1308	A	C5-C6-N6	7.10	129.38	123.70
36	1	3004	C	O5'-P-OP1	-7.10	99.31	105.70
52	m6	28	LEU	CA-CB-CG	-7.10	98.97	115.30
36	1	659	G	C5-C6-N1	7.10	115.05	111.50
36	5	645	A	N1-C6-N6	-7.10	114.34	118.60
36	5	868	C	C6-N1-C2	7.10	123.14	120.30
36	5	970	A	C8-N9-C4	7.10	108.64	105.80
36	1	1329	U	N3-C2-O2	-7.10	117.23	122.20
36	5	1323	G	N1-C2-N2	-7.10	109.81	116.20
36	1	347	G	C4-C5-N7	7.10	113.64	110.80
36	1	1151	U	C6-N1-C2	-7.09	116.74	121.00
36	5	1852	G	C8-N9-C4	-7.09	103.56	106.40
36	1	2621	G	C5-C6-N1	-7.09	107.95	111.50
36	5	3000	A	C8-N9-C4	7.09	108.64	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1560	U	C5-C4-O4	7.09	130.16	125.90
36	5	812	G	N7-C8-N9	-7.09	109.56	113.10
36	5	382	U	N1-C2-N3	7.09	119.15	114.90
36	1	1790	G	N1-C6-O6	7.09	124.15	119.90
36	1	29	C	C5-C4-N4	-7.08	115.24	120.20
1	6	337	G	C4-N9-C1'	7.08	135.71	126.50
36	5	2152	A	N1-C6-N6	7.08	122.85	118.60
36	5	1879	A	C8-N9-C4	-7.08	102.97	105.80
36	1	1381	A	O5'-P-OP2	7.08	119.19	110.70
36	1	1547	G	C6-C5-N7	7.07	134.64	130.40
1	6	13	C	C6-N1-C2	-7.07	117.47	120.30
36	1	1116	G	C8-N9-C4	-7.07	103.57	106.40
36	1	2649	A	C5-C6-N1	7.07	121.24	117.70
36	5	2192	C	N3-C2-O2	-7.07	116.95	121.90
36	1	970	A	C6-N1-C2	-7.07	114.36	118.60
36	1	3278	C	C2-N1-C1'	7.07	126.57	118.80
1	2	389	G	C6-C5-N7	-7.06	126.16	130.40
36	5	3177	G	C8-N9-C4	7.06	109.22	106.40
36	5	3209	A	N7-C8-N9	7.06	117.33	113.80
36	5	504	A	N9-C4-C5	-7.06	102.98	105.80
36	1	1906	G	C5-C6-O6	-7.06	124.36	128.60
36	1	1846	C	N1-C2-O2	-7.06	114.67	118.90
36	5	2272	G	O4'-C1'-N9	7.05	113.84	108.20
36	5	41	G	N1-C6-O6	7.05	124.13	119.90
36	1	2886	U	C5-C4-O4	-7.05	121.67	125.90
36	1	52	A	O5'-P-OP2	-7.05	99.36	105.70
36	1	951	A	N1-C6-N6	7.05	122.83	118.60
36	1	968	G	C5-C6-O6	-7.05	124.37	128.60
36	1	2400	G	N1-C6-O6	7.04	124.13	119.90
37	7	44	C	N3-C4-C5	-7.04	119.08	121.90
1	2	1600	A	C5-C6-N1	-7.04	114.18	117.70
36	5	673	U	C5-C6-N1	-7.04	119.18	122.70
36	1	948	C	N3-C2-O2	7.04	126.83	121.90
36	5	2805	G	N1-C6-O6	7.04	124.12	119.90
38	8	13	A	O5'-P-OP2	-7.04	99.37	105.70
36	5	2993	G	C4-C5-N7	7.04	113.61	110.80
36	1	2889	C	N3-C2-O2	-7.04	116.98	121.90
36	5	2643	A	C8-N9-C4	7.04	108.61	105.80
36	1	292	U	C5-C6-N1	-7.03	119.18	122.70
36	5	2857	C	C5-C4-N4	-7.03	115.28	120.20
36	1	1795	U	O5'-P-OP1	-7.03	99.38	105.70
36	1	3310	A	N9-C4-C5	-7.03	102.99	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2192	C	N1-C2-O2	7.03	123.11	118.90
36	5	3182	G	O5'-P-OP2	7.03	119.13	110.70
36	1	2406	C	N3-C4-N4	7.02	122.92	118.00
36	1	2623	G	C8-N9-C4	7.02	109.21	106.40
1	2	499	U	P-O3'-C3'	7.02	128.13	119.70
36	5	3234	A	C8-N9-C4	7.02	108.61	105.80
37	7	40	C	N3-C4-C5	7.02	124.71	121.90
36	1	1834	U	N3-C4-C5	-7.02	110.39	114.60
1	6	19	A	C8-N9-C4	7.02	108.61	105.80
36	5	2376	G	N3-C2-N2	-7.02	114.99	119.90
36	1	286	U	N3-C2-O2	-7.02	117.29	122.20
36	1	972	A	C8-N9-C4	7.02	108.61	105.80
36	5	2840	C	C6-N1-C2	7.02	123.11	120.30
18	C6	40	GLU	C-N-CD	-7.01	105.17	120.60
36	1	2758	A	N1-C6-N6	-7.01	114.39	118.60
36	1	66	A	O5'-P-OP1	-7.01	99.39	105.70
36	1	695	C	N3-C4-N4	-7.01	113.09	118.00
36	1	304	G	C5-C6-O6	7.01	132.81	128.60
36	5	1909	A	C8-N9-C4	7.01	108.60	105.80
36	5	2134	G	N1-C6-O6	-7.01	115.69	119.90
36	5	906	A	N3-C4-C5	-7.01	121.89	126.80
36	5	2183	A	N1-C6-N6	7.01	122.80	118.60
36	1	2400	G	C6-C5-N7	-7.00	126.20	130.40
1	6	1700	C	C2-N1-C1'	7.00	126.50	118.80
36	1	659	G	C4-C5-N7	7.00	113.60	110.80
36	5	2871	G	O5'-P-OP2	-7.00	99.40	105.70
36	5	1878	G	C4-N9-C1'	6.99	135.59	126.50
36	1	934	G	C8-N9-C1'	-6.99	117.91	127.00
36	1	1376	C	C5-C6-N1	-6.99	117.50	121.00
36	5	3000	A	N1-C6-N6	6.99	122.80	118.60
36	5	3218	A	C5-N7-C8	-6.99	100.40	103.90
36	1	2305	G	C6-C5-N7	-6.99	126.21	130.40
36	5	2942	C	N3-C4-N4	6.99	122.89	118.00
1	6	609	U	C5-C6-N1	-6.99	119.21	122.70
36	5	1380	G	N9-C4-C5	-6.99	102.60	105.40
36	5	1837	U	N3-C4-O4	6.99	124.29	119.40
36	5	1198	C	C5-C4-N4	6.98	125.09	120.20
36	1	637	C	N3-C4-N4	-6.98	113.11	118.00
1	6	1111	G	C4-C5-N7	6.98	113.59	110.80
36	5	1121	U	N1-C2-N3	6.98	119.09	114.90
36	5	2372	A	P-O3'-C3'	6.98	128.08	119.70
36	5	1848	G	C5-C6-O6	-6.98	124.41	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2409	G	N9-C4-C5	6.98	108.19	105.40
36	1	97	U	OP1-P-OP2	-6.97	109.14	119.60
36	1	2376	G	N9-C4-C5	6.97	108.19	105.40
36	5	2905	U	C5-C6-N1	-6.97	119.21	122.70
36	5	906	A	C6-N1-C2	-6.97	114.42	118.60
36	1	938	C	C5-C4-N4	-6.97	115.32	120.20
36	1	2314	U	N1-C2-N3	-6.97	110.72	114.90
1	6	619	A	N1-C6-N6	-6.97	114.42	118.60
36	5	648	C	O5'-P-OP1	-6.97	99.43	105.70
36	5	2953	U	N3-C4-O4	6.97	124.28	119.40
36	5	2805	G	C5-C6-O6	-6.97	124.42	128.60
36	1	984	G	N3-C4-N9	6.97	130.18	126.00
36	1	1124	U	N3-C2-O2	-6.97	117.32	122.20
36	5	94	G	N1-C6-O6	-6.97	115.72	119.90
36	5	1450	G	C5-C6-O6	-6.97	124.42	128.60
36	5	1187	C	C5-C6-N1	-6.96	117.52	121.00
36	5	1884	A	C2-N3-C4	-6.96	107.12	110.60
36	1	833	G	C8-N9-C4	6.96	109.19	106.40
36	5	1403	C	C6-N1-C2	6.96	123.08	120.30
1	6	1700	C	N1-C2-O2	6.96	123.08	118.90
36	5	1158	A	C4-C5-C6	6.96	120.48	117.00
36	5	1841	A	O5'-P-OP1	-6.96	99.44	105.70
36	1	2821	C	N3-C2-O2	-6.96	117.03	121.90
36	1	957	C	N1-C2-O2	-6.96	114.73	118.90
36	5	2748	A	C8-N9-C4	6.96	108.58	105.80
36	5	587	U	N1-C2-N3	-6.95	110.73	114.90
36	5	2295	A	C6-N1-C2	-6.95	114.43	118.60
36	5	3245	A	C5-C6-N1	-6.95	114.22	117.70
36	1	718	G	C5-N7-C8	-6.95	100.82	104.30
36	1	1320	C	N3-C4-C5	-6.95	119.12	121.90
36	1	3177	G	C5-C6-O6	-6.95	124.43	128.60
36	5	655	C	C6-N1-C2	-6.95	117.52	120.30
36	1	1105	A	C8-N9-C4	6.95	108.58	105.80
37	7	84	A	C5-C6-N6	-6.95	118.14	123.70
36	1	586	C	C6-N1-C2	6.94	123.08	120.30
36	1	919	U	N3-C4-O4	-6.94	114.54	119.40
1	6	1641	C	N1-C2-O2	-6.94	114.73	118.90
36	5	1403	C	C5-C6-N1	-6.94	117.53	121.00
36	5	1305	U	N3-C4-O4	6.94	124.26	119.40
36	1	646	A	C4-C5-C6	6.94	120.47	117.00
36	5	953	G	C4-C5-N7	6.94	113.58	110.80
36	1	884	A	C6-C5-N7	-6.94	127.44	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2342	U	C5-C6-N1	-6.94	119.23	122.70
36	5	2937	G	N7-C8-N9	-6.94	109.63	113.10
36	5	2425	G	N3-C4-N9	-6.94	121.84	126.00
36	1	504	A	N1-C6-N6	6.93	122.76	118.60
36	5	1869	C	N3-C4-C5	6.93	124.67	121.90
36	1	307	A	O5'-P-OP2	-6.93	99.46	105.70
36	1	335	G	C5-C6-N1	6.93	114.96	111.50
36	1	363	G	C6-C5-N7	-6.93	126.24	130.40
36	1	1607	U	P-O3'-C3'	6.93	128.01	119.70
36	1	1489	A	N1-C6-N6	6.92	122.75	118.60
36	1	2607	G	N1-C6-O6	-6.92	115.75	119.90
36	5	2199	G	C5-N7-C8	-6.92	100.84	104.30
1	6	158	U	P-O3'-C3'	6.92	128.00	119.70
36	1	58	G	C5-C6-O6	-6.92	124.45	128.60
1	2	704	C	C2-N1-C1'	6.92	126.41	118.80
36	5	2333	C	C2-N3-C4	-6.92	116.44	119.90
36	1	335	G	C5-C6-O6	-6.91	124.45	128.60
36	1	2823	G	N3-C4-C5	-6.91	125.14	128.60
36	1	1124	U	N3-C4-O4	-6.91	114.56	119.40
36	5	2726	C	N3-C2-O2	-6.91	117.06	121.90
36	1	513	G	O5'-P-OP1	-6.91	99.48	105.70
36	1	2636	A	N9-C4-C5	6.91	108.56	105.80
36	1	1136	A	C5-C6-N6	-6.91	118.18	123.70
36	1	790	U	N1-C2-N3	6.90	119.04	114.90
36	1	1509	A	C2-N3-C4	-6.90	107.15	110.60
36	1	2376	G	N1-C6-O6	-6.90	115.76	119.90
36	5	434	U	O5'-P-OP2	-6.90	99.49	105.70
36	5	2379	U	C2-N3-C4	-6.90	122.86	127.00
36	1	432	G	C5-C6-N1	-6.90	108.05	111.50
1	2	942	G	N1-C6-O6	-6.89	115.77	119.90
36	1	2423	U	N3-C2-O2	6.89	127.03	122.20
36	1	2758	A	C5-N7-C8	6.89	107.35	103.90
36	5	2197	C	C6-N1-C2	6.89	123.06	120.30
36	1	2874	G	C6-C5-N7	-6.89	126.27	130.40
1	6	610	G	N9-C4-C5	-6.89	102.64	105.40
36	1	2606	G	N3-C4-N9	6.88	130.13	126.00
36	5	2418	G	C5-C6-O6	-6.88	124.47	128.60
36	1	1118	C	C6-N1-C2	-6.88	117.55	120.30
36	1	410	U	C6-N1-C2	-6.88	116.87	121.00
1	6	1745	G	N3-C4-N9	6.88	130.13	126.00
36	1	880	G	N1-C6-O6	-6.88	115.77	119.90
36	1	1304	A	C5-C6-N6	-6.88	118.20	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	38	U	C6-N1-C2	6.88	125.13	121.00
36	5	2376	G	C5-C6-O6	-6.88	124.47	128.60
36	1	1414	G	C6-C5-N7	-6.87	126.28	130.40
36	1	3209	A	C5-C6-N1	-6.87	114.26	117.70
36	5	1307	G	P-O3'-C3'	6.87	127.95	119.70
36	5	947	G	N1-C6-O6	-6.87	115.78	119.90
36	5	3054	U	N3-C4-C5	-6.87	110.48	114.60
36	5	1828	A	N1-C6-N6	6.87	122.72	118.60
36	1	111	C	C6-N1-C2	6.87	123.05	120.30
36	1	1434	G	C5-C6-O6	-6.87	124.48	128.60
1	2	408	C	O5'-P-OP2	-6.86	99.52	105.70
1	6	1600	A	O4'-C1'-N9	6.86	113.69	108.20
36	5	2409	G	O5'-P-OP2	-6.86	99.52	105.70
36	5	2727	A	N9-C4-C5	6.86	108.55	105.80
36	5	2989	U	O5'-P-OP2	6.86	118.94	110.70
36	5	39	A	C2-N3-C4	-6.86	107.17	110.60
36	5	2512	C	N1-C2-O2	-6.86	114.78	118.90
36	5	2137	U	C6-N1-C2	6.86	125.11	121.00
36	1	2279	A	N9-C4-C5	-6.86	103.06	105.80
36	1	2409	G	N3-C4-N9	6.86	130.11	126.00
36	5	1628	C	C6-N1-C2	-6.86	117.56	120.30
36	5	3227	A	N1-C6-N6	6.86	122.71	118.60
36	1	2368	A	N1-C2-N3	6.85	132.73	129.30
36	5	2874	G	C5-C6-O6	6.85	132.71	128.60
36	5	2147	A	C4-C5-N7	6.85	114.12	110.70
36	1	65	A	P-O3'-C3'	6.84	127.91	119.70
36	1	1377	G	N9-C4-C5	-6.84	102.66	105.40
36	1	2404	A	N1-C6-N6	-6.84	114.50	118.60
36	5	3382	U	C2-N1-C1'	6.84	125.91	117.70
36	5	1374	G	O5'-P-OP2	-6.84	99.54	105.70
36	5	2350	C	OP1-P-OP2	-6.84	109.34	119.60
36	1	1116	G	N3-C4-C5	-6.84	125.18	128.60
36	1	1405	U	O5'-P-OP2	-6.84	99.55	105.70
36	5	2137	U	N3-C4-C5	6.83	118.70	114.60
1	2	1176	G	N1-C6-O6	6.83	124.00	119.90
36	1	1295	G	N1-C6-O6	-6.83	115.80	119.90
36	1	2827	U	C5-C6-N1	-6.83	119.28	122.70
36	1	2983	C	C5-C6-N1	-6.83	117.58	121.00
36	5	205	C	O5'-P-OP1	-6.83	99.55	105.70
36	1	1820	U	P-O3'-C3'	6.83	127.89	119.70
36	5	64	G	C8-N9-C4	-6.83	103.67	106.40
36	5	197	G	C6-C5-N7	-6.83	126.30	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1158	A	N1-C2-N3	6.83	132.71	129.30
25	d3	132	LEU	CA-CB-CG	-6.83	99.60	115.30
36	1	2679	A	O4'-C1'-N9	6.83	113.66	108.20
36	5	1844	C	C6-N1-C2	-6.83	117.57	120.30
36	5	2893	C	N3-C4-N4	6.83	122.78	118.00
1	6	453	U	N1-C2-O2	6.82	127.58	122.80
36	5	1454	A	N1-C6-N6	6.82	122.69	118.60
36	5	889	U	C5-C6-N1	-6.82	119.29	122.70
36	5	2871	G	N3-C4-C5	-6.82	125.19	128.60
1	2	1456	C	O4'-C1'-N1	6.82	113.66	108.20
36	5	2860	U	C5-C4-O4	6.82	129.99	125.90
1	2	321	C	C6-N1-C2	-6.82	117.57	120.30
36	1	1458	U	C5-C6-N1	-6.81	119.29	122.70
36	5	585	A	O5'-P-OP2	-6.81	99.57	105.70
36	5	907	G	N9-C4-C5	-6.81	102.67	105.40
36	5	2772	C	P-O3'-C3'	6.81	127.87	119.70
36	1	857	G	N1-C6-O6	6.81	123.99	119.90
36	1	86	G	O5'-P-OP1	6.81	118.87	110.70
38	4	79	A	C8-N9-C4	-6.81	103.08	105.80
36	5	504	A	N1-C6-N6	6.81	122.69	118.60
36	5	888	A	N1-C6-N6	6.81	122.69	118.60
36	5	2856	G	C5-C6-O6	-6.81	124.51	128.60
36	1	614	C	N3-C4-C5	6.81	124.62	121.90
36	1	637	C	N3-C4-C5	6.81	124.62	121.90
36	1	937	G	O5'-P-OP2	-6.81	99.57	105.70
36	1	1874	A	O5'-P-OP1	-6.81	99.57	105.70
36	5	411	U	C6-N1-C2	6.81	125.08	121.00
36	5	776	U	C5-C4-O4	6.81	129.99	125.90
36	1	905	U	O5'-P-OP2	-6.81	99.57	105.70
36	1	353	G	N1-C6-O6	6.80	123.98	119.90
36	5	2817	A	C5-C6-N6	-6.80	118.26	123.70
36	1	1189	C	N1-C2-O2	-6.80	114.82	118.90
36	1	2884	C	N3-C4-C5	6.80	124.62	121.90
36	5	1116	G	C4-C5-N7	-6.80	108.08	110.80
36	1	933	A	C6-N1-C2	-6.80	114.52	118.60
36	1	1094	U	C6-N1-C2	-6.80	116.92	121.00
36	5	3143	C	N3-C4-C5	-6.80	119.18	121.90
36	1	3096	C	N3-C4-C5	-6.80	119.18	121.90
36	1	3344	A	C4-C5-N7	6.80	114.10	110.70
36	5	2425	G	N1-C2-N2	6.80	122.32	116.20
36	1	1411	C	C5-C6-N1	-6.79	117.60	121.00
36	1	1547	G	C4-C5-N7	-6.79	108.08	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2816	G	N1-C6-O6	6.79	123.98	119.90
41	14	276	LEU	CA-CB-CG	6.79	130.93	115.30
36	5	2191	U	N3-C2-O2	-6.79	117.45	122.20
36	5	329	U	N1-C2-O2	6.79	127.55	122.80
38	4	136	G	C5-C6-O6	-6.79	124.53	128.60
36	1	2760	C	N1-C2-O2	-6.78	114.83	118.90
36	5	3177	G	N9-C4-C5	-6.78	102.69	105.40
38	8	51	G	C8-N9-C4	-6.78	103.69	106.40
37	3	75	G	O5'-P-OP1	-6.78	99.60	105.70
36	5	2980	U	N1-C2-N3	6.78	118.97	114.90
36	5	3204	C	C5-C6-N1	-6.78	117.61	121.00
36	1	394	G	N9-C4-C5	6.78	108.11	105.40
36	1	3209	A	N1-C6-N6	6.78	122.67	118.60
36	5	1803	C	C6-N1-C2	6.78	123.01	120.30
36	1	2979	U	C5-C6-N1	-6.77	119.31	122.70
36	5	2884	C	N3-C4-N4	6.77	122.74	118.00
36	1	2964	G	O5'-P-OP2	-6.77	99.60	105.70
36	5	1417	G	N3-C4-C5	-6.77	125.22	128.60
36	5	806	A	N1-C6-N6	-6.77	114.54	118.60
36	5	2913	C	N3-C4-C5	-6.77	119.19	121.90
36	1	1176	C	C5-C4-N4	-6.77	115.46	120.20
36	1	699	A	O5'-P-OP1	6.76	118.82	110.70
36	1	1741	A	N1-C2-N3	6.76	132.68	129.30
36	1	3201	C	N3-C4-C5	-6.76	119.19	121.90
36	5	2392	C	C6-N1-C2	6.76	123.00	120.30
36	1	3209	A	O5'-P-OP1	-6.76	99.61	105.70
36	1	2636	A	N1-C6-N6	-6.76	114.55	118.60
38	4	44	A	O5'-P-OP2	6.76	118.81	110.70
36	1	1898	G	N1-C6-O6	6.76	123.95	119.90
36	1	1153	A	N9-C4-C5	-6.75	103.10	105.80
36	5	2345	A	N1-C6-N6	6.75	122.65	118.60
36	1	2661	G	C6-C5-N7	-6.75	126.35	130.40
36	5	2948	C	C6-N1-C2	6.75	123.00	120.30
36	1	2864	A	O5'-P-OP1	-6.75	99.62	105.70
36	1	695	C	N3-C4-C5	6.75	124.60	121.90
36	5	421	G	OP1-P-O3'	6.75	120.05	105.20
36	5	1549	U	C5-C6-N1	-6.75	119.33	122.70
1	2	75	U	C2-N1-C1'	6.75	125.80	117.70
1	2	1560	U	N3-C4-O4	-6.75	114.68	119.40
36	1	2624	G	N1-C6-O6	6.75	123.95	119.90
36	5	1149	G	C5-C6-O6	-6.75	124.55	128.60
36	5	3362	A	N1-C2-N3	6.75	132.67	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	994	G	N1-C2-N2	-6.74	110.13	116.20
36	5	607	A	N1-C6-N6	-6.74	114.56	118.60
36	5	1437	C	C2-N1-C1'	6.74	126.22	118.80
36	5	1116	G	OP2-P-O3'	6.74	120.03	105.20
36	1	1053	A	C8-N9-C4	6.74	108.50	105.80
36	5	1208	U	N3-C2-O2	-6.74	117.48	122.20
36	1	2639	G	C6-C5-N7	-6.74	126.36	130.40
36	1	2643	A	O5'-P-OP2	6.74	118.78	110.70
36	5	2385	G	C2-N3-C4	-6.74	108.53	111.90
36	5	2409	G	C8-N9-C4	-6.74	103.71	106.40
36	5	2822	U	N1-C2-O2	6.74	127.51	122.80
36	5	2994	A	C6-N1-C2	-6.74	114.56	118.60
36	1	2873	U	N1-C2-O2	-6.73	118.09	122.80
36	5	1710	C	C6-N1-C2	6.73	122.99	120.30
1	2	16	G	N3-C4-C5	-6.73	125.23	128.60
36	1	3143	C	N3-C2-O2	6.73	126.61	121.90
36	5	2369	G	C8-N9-C4	6.73	109.09	106.40
38	8	52	A	O5'-P-OP1	-6.73	99.64	105.70
36	5	2136	C	C5-C6-N1	-6.73	117.64	121.00
1	2	453	U	N3-C2-O2	-6.73	117.49	122.20
37	3	86	U	N3-C4-O4	-6.73	114.69	119.40
36	5	784	A	C5-C6-N6	-6.73	118.32	123.70
36	5	2977	G	C5-C6-N1	6.73	114.86	111.50
36	1	1344	G	N1-C6-O6	6.73	123.94	119.90
36	5	1476	G	N1-C6-O6	-6.73	115.86	119.90
36	5	3092	C	N3-C2-O2	-6.73	117.19	121.90
36	1	2917	G	C5-C6-O6	-6.72	124.56	128.60
36	1	637	C	P-O3'-C3'	6.72	127.77	119.70
1	6	163	G	C2-N3-C4	-6.72	108.54	111.90
36	1	1152	G	O4'-C1'-N9	6.72	113.58	108.20
36	1	1492	G	N3-C4-N9	6.72	130.03	126.00
41	L4	182	LEU	CA-CB-CG	6.72	130.75	115.30
1	2	1280	C	C6-N1-C2	-6.71	117.61	120.30
36	1	344	A	N1-C6-N6	-6.71	114.57	118.60
36	5	3287	U	N1-C2-O2	6.71	127.50	122.80
36	5	718	G	C4-N9-C1'	6.71	135.23	126.50
36	1	1149	G	C4-C5-C6	6.71	122.83	118.80
36	1	2847	A	N1-C6-N6	6.71	122.63	118.60
36	1	640	U	N3-C4-O4	6.71	124.09	119.40
36	5	3197	G	N3-C4-N9	-6.70	121.98	126.00
36	1	2679	A	C2-N3-C4	-6.70	107.25	110.60
36	5	2342	U	C2-N3-C4	-6.70	122.98	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1745	G	C4-C5-N7	6.70	113.48	110.80
36	5	1875	G	C8-N9-C4	6.70	109.08	106.40
36	5	2345	A	C5-C6-N6	-6.70	118.34	123.70
36	5	2944	U	N1-C2-O2	6.70	127.49	122.80
36	1	3361	G	N3-C4-N9	6.70	130.02	126.00
38	4	84	C	C6-N1-C2	6.70	122.98	120.30
36	5	43	A	N1-C6-N6	6.70	122.62	118.60
36	5	1885	U	C2-N1-C1'	-6.70	109.66	117.70
36	1	2889	C	N1-C2-O2	6.70	122.92	118.90
36	5	1481	A	N7-C8-N9	6.69	117.15	113.80
36	1	621	A	N7-C8-N9	6.69	117.15	113.80
36	1	810	A	C5-C6-N1	6.69	121.05	117.70
36	5	424	G	C5-C6-N1	6.69	114.85	111.50
36	5	609	G	N1-C2-N2	6.69	122.22	116.20
36	5	2404	A	C8-N9-C4	6.69	108.47	105.80
1	2	323	A	C8-N9-C4	-6.68	103.13	105.80
1	2	507	U	N1-C2-O2	6.68	127.48	122.80
36	5	1924	U	N3-C2-O2	6.68	126.88	122.20
36	5	3351	U	N3-C2-O2	-6.68	117.52	122.20
36	1	212	G	N3-C4-N9	6.68	130.01	126.00
36	1	2554	A	C8-N9-C4	6.68	108.47	105.80
36	1	2688	U	N1-C2-N3	-6.68	110.89	114.90
36	5	2392	C	C5-C6-N1	-6.68	117.66	121.00
36	1	1304	A	N1-C6-N6	6.68	122.61	118.60
36	1	1515	A	N1-C6-N6	6.68	122.61	118.60
36	1	2313	A	O5'-P-OP1	-6.68	99.69	105.70
36	5	1589	A	C5-C6-N6	-6.68	118.36	123.70
36	1	801	A	N9-C4-C5	-6.68	103.13	105.80
36	5	1152	G	C4-C5-N7	6.68	113.47	110.80
36	5	2939	G	C6-C5-N7	6.68	134.41	130.40
1	2	1112	G	C6-C5-N7	-6.67	126.39	130.40
36	1	1279	C	C6-N1-C2	-6.67	117.63	120.30
36	1	585	A	O5'-P-OP2	-6.67	99.69	105.70
36	1	3107	U	C5-C6-N1	-6.67	119.36	122.70
36	5	2710	C	N3-C2-O2	6.67	126.57	121.90
36	5	2823	G	OP1-P-OP2	6.67	129.61	119.60
36	5	2939	G	C4-C5-N7	-6.67	108.13	110.80
1	2	577	G	C5-C6-O6	-6.67	124.60	128.60
36	5	2889	C	N3-C2-O2	-6.67	117.23	121.90
36	1	900	G	C4-C5-N7	-6.67	108.13	110.80
36	5	2950	G	O4'-C1'-N9	6.67	113.53	108.20
36	1	641	C	N1-C2-O2	-6.67	114.90	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	95	A	N1-C6-N6	6.67	122.60	118.60
36	5	216	G	C6-C5-N7	-6.67	126.40	130.40
36	5	2917	G	C6-C5-N7	-6.66	126.40	130.40
36	5	3388	C	C5-C6-N1	-6.66	117.67	121.00
1	2	1761	U	N1-C2-N3	6.66	118.90	114.90
36	1	2130	G	N9-C4-C5	6.66	108.06	105.40
36	1	1119	C	C6-N1-C2	6.66	122.97	120.30
36	1	1307	G	P-O3'-C3'	6.66	127.69	119.70
36	5	2944	U	N3-C2-O2	-6.66	117.54	122.20
1	2	1241	G	C4-C5-N7	6.66	113.46	110.80
36	1	106	A	C8-N9-C4	6.66	108.46	105.80
36	1	426	G	N3-C4-N9	6.66	130.00	126.00
36	5	2989	U	O5'-P-OP1	-6.66	99.71	105.70
36	1	205	C	C6-N1-C2	6.66	122.96	120.30
36	1	1445	U	C5-C6-N1	-6.66	119.37	122.70
37	3	88	G	C5-C6-O6	6.66	132.59	128.60
36	5	1407	A	C8-N9-C4	6.66	108.46	105.80
36	5	2307	G	N3-C2-N2	6.66	124.56	119.90
36	5	2383	C	N1-C2-O2	-6.66	114.91	118.90
36	5	2421	U	N3-C2-O2	-6.66	117.54	122.20
36	5	2718	U	O5'-P-OP2	-6.66	99.71	105.70
1	6	638	U	N3-C2-O2	-6.65	117.54	122.20
35	SM	167	PRO	N-CA-CB	6.65	111.28	103.30
36	1	35	A	C4-C5-N7	6.65	114.02	110.70
36	5	996	A	C2-N3-C4	-6.65	107.28	110.60
36	5	2653	C	N3-C2-O2	-6.65	117.25	121.90
36	1	2961	G	C4-C5-N7	6.64	113.46	110.80
36	1	914	A	C5-C6-N6	6.64	129.01	123.70
36	1	1507	G	C5-C6-O6	-6.64	124.61	128.60
36	5	669	U	C5-C6-N1	-6.64	119.38	122.70
36	5	1499	C	C2-N1-C1'	-6.64	111.49	118.80
1	2	992	A	C2-N3-C4	-6.64	107.28	110.60
1	2	1082	C	C6-N1-C2	-6.64	117.65	120.30
36	1	2130	G	C4-C5-N7	-6.63	108.15	110.80
38	4	20	U	O5'-P-OP2	-6.63	99.73	105.70
1	6	1648	A	C8-N9-C4	6.63	108.45	105.80
36	1	1160	C	N1-C2-O2	6.63	122.88	118.90
36	5	326	U	N3-C2-O2	6.63	126.84	122.20
36	5	1394	A	C5-C6-N6	-6.63	118.40	123.70
36	1	3008	A	N1-C6-N6	-6.63	114.62	118.60
36	5	1101	G	N9-C4-C5	-6.63	102.75	105.40
36	5	2808	A	N1-C6-N6	6.63	122.58	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1151	U	N3-C4-C5	-6.62	110.63	114.60
36	1	1367	G	C6-C5-N7	-6.62	126.43	130.40
38	4	22	U	C5-C6-N1	-6.62	119.39	122.70
36	5	826	G	N1-C6-O6	6.62	123.87	119.90
38	8	33	A	C5-C6-N6	-6.62	118.40	123.70
36	1	651	G	N1-C2-N2	-6.62	110.24	116.20
37	7	15	C	C6-N1-C2	6.62	122.95	120.30
1	2	577	G	C6-C5-N7	-6.62	126.43	130.40
36	1	1157	G	N9-C4-C5	6.62	108.05	105.40
36	1	1489	A	N9-C4-C5	-6.62	103.15	105.80
36	1	1881	A	C8-N9-C4	6.62	108.45	105.80
36	1	2406	C	C4-C5-C6	6.62	120.71	117.40
38	4	24	G	C5-C6-O6	-6.62	124.63	128.60
1	2	393	C	N3-C4-C5	6.61	124.55	121.90
36	1	1381	A	C5-C6-N6	-6.61	118.41	123.70
1	6	965	U	N1-C2-O2	6.61	127.43	122.80
36	1	2412	G	C5-C6-O6	-6.61	124.63	128.60
36	5	1484	U	C6-N1-C2	6.61	124.97	121.00
36	1	2827	U	O5'-P-OP2	-6.60	99.76	105.70
36	5	2814	G	N3-C2-N2	6.60	124.52	119.90
36	1	2900	A	C8-N9-C4	6.60	108.44	105.80
36	5	2405	C	N3-C4-C5	6.60	124.54	121.90
36	1	159	A	C8-N9-C4	6.60	108.44	105.80
36	5	1203	A	N1-C6-N6	6.60	122.56	118.60
36	5	2813	A	C4-C5-C6	6.60	120.30	117.00
36	1	3135	U	C5-C6-N1	-6.59	119.40	122.70
37	3	116	C	C6-N1-C2	-6.59	117.66	120.30
36	5	56	G	N1-C6-O6	-6.59	115.94	119.90
36	1	398	A	C8-N9-C4	6.59	108.44	105.80
36	1	1081	U	C5-C6-N1	6.59	126.00	122.70
36	5	2904	U	C5-C6-N1	-6.59	119.40	122.70
36	1	1330	A	C2-N3-C4	-6.59	107.31	110.60
36	1	2403	G	C6-C5-N7	-6.59	126.45	130.40
1	6	1	U	C2-N1-C1'	6.59	125.60	117.70
36	5	2870	C	C2-N3-C4	-6.58	116.61	119.90
36	1	1516	C	N1-C2-O2	-6.58	114.95	118.90
36	5	907	G	O5'-P-OP1	-6.58	99.78	105.70
36	5	1897	G	C5-C6-O6	-6.58	124.65	128.60
36	5	2307	G	N1-C6-O6	-6.58	115.95	119.90
36	5	902	G	N9-C4-C5	-6.58	102.77	105.40
36	1	1153	A	C6-C5-N7	-6.58	127.69	132.30
36	1	2355	G	C5-C6-O6	-6.58	124.65	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2409	G	C5-C6-O6	-6.58	124.65	128.60
36	1	2949	U	C6-N1-C2	6.58	124.95	121.00
1	6	1082	C	N3-C4-C5	-6.58	119.27	121.90
36	5	816	A	N9-C4-C5	6.58	108.43	105.80
1	2	1100	G	N3-C4-N9	6.57	129.94	126.00
36	1	410	U	N1-C2-N3	6.57	118.84	114.90
36	1	2364	G	N9-C4-C5	6.57	108.03	105.40
37	3	82	G	N3-C4-C5	-6.57	125.31	128.60
36	5	651	G	OP2-P-O3'	6.57	119.66	105.20
36	5	1848	G	C4-C5-N7	6.57	113.43	110.80
36	1	2827	U	N3-C2-O2	-6.57	117.60	122.20
36	5	2885	C	N3-C4-C5	6.57	124.53	121.90
36	5	2849	C	N3-C4-C5	-6.57	119.27	121.90
37	7	102	A	C8-N9-C4	6.57	108.43	105.80
36	5	2876	C	N3-C4-N4	-6.56	113.41	118.00
36	1	765	C	N1-C2-O2	6.56	122.84	118.90
36	5	1495	U	N3-C4-C5	-6.56	110.66	114.60
36	5	1837	U	C5-C4-O4	-6.56	121.96	125.90
36	1	2144	A	C6-N1-C2	-6.56	114.66	118.60
36	5	1454	A	C2-N3-C4	-6.56	107.32	110.60
38	8	86	U	C5-C6-N1	6.56	125.98	122.70
36	5	2389	C	N1-C2-O2	6.55	122.83	118.90
36	1	2651	G	C4-C5-N7	-6.55	108.18	110.80
1	2	1560	U	N1-C2-O2	6.55	127.39	122.80
36	1	1849	C	N3-C4-N4	6.55	122.58	118.00
38	8	95	G	C4-N9-C1'	-6.55	117.98	126.50
36	1	968	G	C6-N1-C2	-6.55	121.17	125.10
36	1	1468	A	O5'-P-OP1	-6.55	99.81	105.70
36	1	1294	A	O4'-C1'-N9	6.55	113.44	108.20
36	1	1365	G	N3-C4-N9	6.55	129.93	126.00
36	5	1445	U	C2-N1-C1'	-6.55	109.84	117.70
36	5	1372	C	C6-N1-C2	6.54	122.92	120.30
36	5	2320	A	C2-N3-C4	-6.54	107.33	110.60
36	1	2121	G	N1-C6-O6	-6.54	115.97	119.90
36	5	344	A	C5-C6-N1	-6.54	114.43	117.70
36	5	1300	G	C6-C5-N7	-6.54	126.47	130.40
36	1	2823	G	C6-N1-C2	-6.54	121.17	125.10
36	1	3361	G	N3-C2-N2	6.54	124.48	119.90
36	5	3127	A	C6-N1-C2	-6.54	114.68	118.60
1	2	507	U	N3-C2-O2	-6.54	117.62	122.20
1	6	101	U	N1-C2-O2	6.54	127.38	122.80
1	6	338	C	C6-N1-C2	-6.54	117.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1348	U	C6-N1-C2	-6.54	117.08	121.00
36	5	1407	A	C2-N3-C4	-6.54	107.33	110.60
38	4	91	C	C6-N1-C2	-6.54	117.69	120.30
1	6	1023	A	N1-C6-N6	6.54	122.52	118.60
36	1	1495	U	C6-N1-C1'	6.54	130.35	121.20
37	7	105	C	C6-N1-C2	-6.54	117.69	120.30
36	1	671	U	N1-C2-O2	-6.53	118.23	122.80
38	4	93	U	O5'-P-OP2	-6.53	99.82	105.70
36	5	2142	A	N1-C6-N6	-6.53	114.68	118.60
36	5	510	G	N3-C4-C5	-6.53	125.33	128.60
38	8	33	A	C8-N9-C4	6.53	108.41	105.80
15	C3	22	ALA	C-N-CD	-6.53	106.24	120.60
36	5	3078	U	N1-C2-O2	6.53	127.37	122.80
36	1	3362	A	C5-N7-C8	-6.53	100.64	103.90
36	5	1896	A	O5'-P-OP1	-6.53	99.83	105.70
36	5	2278	C	N1-C2-O2	6.52	122.81	118.90
36	5	2917	G	N3-C4-N9	6.52	129.91	126.00
36	1	401	U	N3-C2-O2	-6.52	117.63	122.20
36	1	2247	G	N1-C6-O6	6.52	123.81	119.90
36	5	960	U	N1-C2-O2	6.52	127.36	122.80
1	6	452	A	N1-C6-N6	6.52	122.51	118.60
1	6	1782	A	C8-N9-C4	-6.52	103.19	105.80
36	5	1298	C	O5'-P-OP1	-6.52	99.83	105.70
56	n0	113	ARG	NE-CZ-NH1	-6.52	117.04	120.30
1	2	1082	C	N3-C2-O2	-6.52	117.34	121.90
36	5	1481	A	P-O3'-C3'	6.52	127.52	119.70
1	2	334	G	N3-C4-N9	-6.52	122.09	126.00
36	1	3248	C	C6-N1-C2	-6.52	117.69	120.30
36	1	1433	A	C5-C6-N1	6.51	120.96	117.70
36	1	2937	G	C8-N9-C4	6.51	109.00	106.40
1	6	337	G	N3-C4-N9	6.51	129.91	126.00
1	6	1581	C	N3-C4-C5	6.51	124.50	121.90
36	1	936	A	O5'-P-OP2	-6.51	99.84	105.70
36	5	914	A	C2-N3-C4	-6.51	107.34	110.60
36	5	1008	U	C5-C6-N1	-6.51	119.44	122.70
36	5	2805	G	N9-C4-C5	-6.51	102.80	105.40
36	1	2410	U	C6-N1-C2	6.51	124.91	121.00
36	1	2698	G	C4-C5-N7	-6.51	108.20	110.80
36	5	2299	A	C8-N9-C4	6.51	108.40	105.80
37	7	69	C	C6-N1-C2	6.51	122.90	120.30
1	2	1730	A	C8-N9-C4	6.51	108.40	105.80
1	6	1150	G	N3-C4-C5	6.51	131.85	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1202	A	N1-C6-N6	-6.51	114.70	118.60
36	1	2823	G	C4-C5-N7	-6.51	108.20	110.80
36	1	2372	A	C4-C5-C6	6.50	120.25	117.00
1	2	1761	U	C6-N1-C2	-6.50	117.10	121.00
36	1	2813	A	C4-C5-C6	6.50	120.25	117.00
36	1	2610	G	N1-C6-O6	6.50	123.80	119.90
36	5	568	G	C5-C6-O6	-6.50	124.70	128.60
37	7	93	C	C6-N1-C2	-6.50	117.70	120.30
36	1	1269	U	N1-C2-O2	6.50	127.35	122.80
36	5	1158	A	N1-C6-N6	6.50	122.50	118.60
36	1	1108	U	C6-N1-C2	6.49	124.90	121.00
52	M6	78	ARG	NE-CZ-NH1	6.49	123.55	120.30
1	6	558	U	C2-N1-C1'	6.49	125.49	117.70
36	1	948	C	N3-C4-N4	6.49	122.54	118.00
1	2	1745	G	N9-C4-C5	-6.49	102.80	105.40
36	5	633	C	N1-C2-O2	-6.49	115.01	118.90
36	5	971	G	C6-N1-C2	-6.49	121.21	125.10
36	5	2143	A	C8-N9-C4	-6.49	103.20	105.80
36	1	1351	U	N1-C2-O2	6.49	127.34	122.80
36	1	1380	G	O5'-P-OP1	6.49	118.49	110.70
36	5	1335	C	N1-C2-O2	-6.49	115.01	118.90
36	5	2727	A	N1-C6-N6	-6.49	114.71	118.60
36	1	47	C	C6-N1-C2	6.49	122.89	120.30
36	1	51	A	C2-N3-C4	6.49	113.84	110.60
36	1	2772	C	C2-N1-C1'	6.49	125.94	118.80
36	5	610	G	C8-N9-C4	-6.49	103.81	106.40
36	5	1166	G	C8-N9-C4	6.49	108.99	106.40
36	5	1848	G	N9-C4-C5	-6.49	102.81	105.40
36	1	666	A	C8-N9-C4	6.48	108.39	105.80
36	1	2624	G	N7-C8-N9	6.48	116.34	113.10
36	1	2813	A	C5-C6-N1	-6.48	114.46	117.70
36	5	119	U	C5-C6-N1	-6.48	119.46	122.70
36	5	2978	U	N1-C2-N3	6.48	118.79	114.90
36	5	510	G	C8-N9-C4	-6.48	103.81	106.40
36	1	1445	U	C2-N1-C1'	-6.48	109.93	117.70
36	1	803	C	O5'-P-OP2	-6.47	99.87	105.70
36	1	2142	A	C6-N1-C2	-6.47	114.72	118.60
36	1	2356	A	C4-C5-N7	6.47	113.94	110.70
36	5	1496	C	C2-N1-C1'	6.47	125.92	118.80
1	6	1581	C	C6-N1-C2	6.47	122.89	120.30
36	5	680	G	N3-C4-C5	6.47	131.84	128.60
36	5	718	G	O4'-C1'-N9	6.47	113.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	704	C	N1-C2-O2	6.47	122.78	118.90
36	5	1426	C	N3-C4-C5	6.47	124.49	121.90
36	1	1406	A	C5-C6-N6	-6.47	118.53	123.70
37	3	91	G	N1-C6-O6	6.47	123.78	119.90
38	4	9	A	N1-C6-N6	-6.47	114.72	118.60
37	7	11	A	N1-C6-N6	6.47	122.48	118.60
36	5	787	G	C2-N3-C4	-6.47	108.67	111.90
1	6	305	C	N3-C2-O2	6.46	126.43	121.90
36	5	1848	G	C8-N9-C4	6.46	108.99	106.40
36	5	2988	C	N3-C4-C5	6.46	124.48	121.90
36	5	1152	G	C8-N9-C4	-6.46	103.81	106.40
36	5	2700	G	C5-C6-O6	-6.46	124.72	128.60
36	5	1495	U	C2-N1-C1'	6.46	125.45	117.70
36	5	2430	A	C2-N3-C4	-6.46	107.37	110.60
1	6	1111	G	C6-C5-N7	-6.46	126.52	130.40
36	1	1405	U	C6-N1-C2	6.46	124.88	121.00
36	1	2649	A	C2-N3-C4	6.46	113.83	110.60
36	5	2797	C	C4-C5-C6	6.46	120.63	117.40
36	5	2884	C	C5-C4-N4	-6.46	115.68	120.20
52	m6	94	ARG	NE-CZ-NH1	-6.46	117.07	120.30
36	5	933	A	N1-C2-N3	6.45	132.53	129.30
36	5	945	C	N1-C2-O2	6.45	122.77	118.90
36	5	3310	A	C8-N9-C4	6.45	108.38	105.80
1	2	553	G	C4-C5-N7	6.45	113.38	110.80
36	1	98	G	C8-N9-C4	6.45	108.98	106.40
36	1	934	G	C4-N9-C1'	6.45	134.89	126.50
36	1	2249	G	N3-C4-C5	-6.45	125.37	128.60
36	5	2375	G	N1-C6-O6	-6.45	116.03	119.90
36	1	1453	A	C8-N9-C4	-6.45	103.22	105.80
1	6	901	G	C4-C5-N7	6.45	113.38	110.80
36	5	2948	C	N3-C4-C5	6.45	124.48	121.90
36	1	2385	G	C5-C6-O6	-6.45	124.73	128.60
36	5	883	A	N1-C6-N6	-6.45	114.73	118.60
1	2	1180	C	N1-C2-O2	6.45	122.77	118.90
36	5	866	A	N1-C6-N6	6.45	122.47	118.60
36	5	1617	G	C8-N9-C4	6.45	108.98	106.40
36	1	1124	U	OP1-P-O3'	6.44	119.38	105.20
36	1	1138	U	C2-N3-C4	-6.44	123.13	127.00
36	5	1119	C	C5-C4-N4	-6.44	115.69	120.20
36	5	1875	G	N1-C6-O6	-6.44	116.03	119.90
36	5	2866	U	N3-C2-O2	-6.44	117.69	122.20
36	5	2876	C	OP1-P-OP2	6.44	129.26	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	424	G	C4-C5-N7	6.44	113.38	110.80
1	6	542	A	O4'-C1'-N9	6.44	113.35	108.20
36	5	1907	C	N1-C2-O2	-6.44	115.04	118.90
1	2	1773	C	N3-C4-C5	-6.44	119.33	121.90
36	1	392	G	C5-C6-O6	-6.44	124.74	128.60
36	5	1206	G	C8-N9-C4	-6.44	103.83	106.40
36	1	1365	G	C8-N9-C4	-6.43	103.83	106.40
36	5	3219	G	N3-C2-N2	6.43	124.40	119.90
36	5	1060	U	N3-C4-O4	-6.43	114.90	119.40
1	6	864	U	C2-N1-C1'	6.43	125.42	117.70
1	6	1274	C	N3-C4-C5	-6.43	119.33	121.90
36	5	3033	A	N1-C6-N6	6.43	122.46	118.60
36	5	2896	A	N1-C6-N6	-6.43	114.74	118.60
1	2	190	C	O4'-C1'-N1	6.43	113.34	108.20
36	5	1306	G	C4-C5-N7	6.43	113.37	110.80
36	5	2831	G	C6-N1-C2	-6.42	121.25	125.10
36	5	3362	A	O4'-C1'-N9	6.42	113.34	108.20
38	8	14	C	O5'-P-OP2	-6.42	99.92	105.70
1	2	1100	G	C5-C6-O6	-6.42	124.75	128.60
36	1	589	A	C5-N7-C8	6.42	107.11	103.90
1	6	1765	A	C8-N9-C4	6.42	108.37	105.80
36	5	1149	G	C5-C6-N1	6.42	114.71	111.50
36	1	33	G	N3-C2-N2	-6.42	115.41	119.90
36	1	958	C	N3-C2-O2	-6.42	117.41	121.90
36	5	1903	U	N3-C4-C5	-6.42	110.75	114.60
36	5	3218	A	N9-C4-C5	-6.42	103.23	105.80
36	5	1392	G	C5-C6-O6	-6.41	124.75	128.60
36	5	2754	G	N1-C6-O6	-6.41	116.05	119.90
36	1	801	A	N1-C2-N3	-6.41	126.09	129.30
36	1	2828	G	N3-C2-N2	6.41	124.39	119.90
36	1	2859	U	C5-C6-N1	-6.41	119.50	122.70
1	2	1773	C	C6-N1-C2	-6.41	117.74	120.30
36	1	881	C	C2-N3-C4	6.41	123.10	119.90
36	1	25	U	O5'-P-OP2	6.41	118.39	110.70
36	5	1891	A	N1-C6-N6	6.41	122.44	118.60
36	5	2334	U	N3-C2-O2	-6.41	117.72	122.20
36	1	1001	G	C6-C5-N7	-6.40	126.56	130.40
36	1	2343	C	C5-C4-N4	-6.40	115.72	120.20
36	5	586	C	C5-C6-N1	-6.40	117.80	121.00
36	1	1419	A	C5'-C4'-O4'	6.40	116.78	109.10
36	1	1425	U	N1-C2-N3	6.40	118.74	114.90
36	1	2282	U	O5'-P-OP1	6.40	118.38	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1153	A	C5-C6-N1	6.40	120.90	117.70
36	1	2891	U	O5'-P-OP1	6.40	118.38	110.70
36	1	860	G	N1-C6-O6	6.40	123.74	119.90
36	5	2138	A	C2-N3-C4	-6.40	107.40	110.60
36	1	498	A	C8-N9-C4	-6.40	103.24	105.80
36	1	775	A	N1-C6-N6	6.40	122.44	118.60
36	5	718	G	N3-C4-C5	-6.40	125.40	128.60
1	2	1596	C	N3-C2-O2	-6.39	117.42	121.90
36	1	984	G	N3-C4-C5	-6.39	125.40	128.60
36	1	2643	A	N9-C4-C5	-6.39	103.24	105.80
36	5	2211	U	C4-C5-C6	6.39	123.54	119.70
36	1	1041	U	O5'-P-OP2	-6.39	99.95	105.70
36	1	3316	A	N1-C6-N6	6.39	122.44	118.60
38	4	25	G	N1-C6-O6	-6.39	116.06	119.90
36	5	969	C	N3-C4-N4	-6.39	113.53	118.00
36	5	1685	C	N1-C2-O2	6.39	122.74	118.90
36	5	2889	C	C2-N3-C4	-6.39	116.70	119.90
36	1	2426	U	C5-C4-O4	6.39	129.74	125.90
1	2	934	C	C2-N1-C1'	6.39	125.83	118.80
36	1	1407	A	C8-N9-C4	6.39	108.36	105.80
36	5	1513	G	N3-C4-C5	-6.39	125.41	128.60
36	5	1587	A	C8-N9-C4	6.39	108.36	105.80
36	5	1851	G	C6-C5-N7	-6.39	126.57	130.40
36	5	3136	G	C2-N3-C4	-6.39	108.70	111.90
36	5	587	U	C5-C4-O4	-6.39	122.07	125.90
36	5	1126	G	C8-N9-C4	-6.39	103.85	106.40
36	5	1853	U	C5-C4-O4	6.39	129.73	125.90
36	5	1911	A	C2-N3-C4	-6.39	107.41	110.60
36	1	2993	G	N3-C2-N2	6.38	124.37	119.90
36	5	2376	G	N1-C6-O6	6.38	123.73	119.90
36	5	3039	C	C4-C5-C6	6.38	120.59	117.40
36	1	1450	G	O5'-P-OP2	6.38	118.36	110.70
36	5	1116	G	C5-C6-N1	-6.38	108.31	111.50
1	2	144	U	N3-C2-O2	-6.38	117.73	122.20
36	1	2870	C	N1-C2-O2	-6.38	115.07	118.90
10	s8	8	ARG	NE-CZ-NH1	6.38	123.49	120.30
36	5	2405	C	O5'-P-OP2	-6.38	99.96	105.70
36	1	1905	G	N3-C2-N2	-6.38	115.44	119.90
36	1	2418	G	OP1-P-O3'	6.38	119.23	105.20
36	5	2434	U	C5-C4-O4	6.38	129.73	125.90
36	1	25	U	N3-C4-O4	6.37	123.86	119.40
36	1	2409	G	C5-C6-N1	6.37	114.69	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	353	G	C4-N9-C1'	-6.37	118.22	126.50
1	6	19	A	N9-C4-C5	-6.37	103.25	105.80
36	5	2935	U	O5'-P-OP2	-6.37	99.97	105.70
1	2	453	U	N1-C2-O2	6.37	127.26	122.80
36	5	2991	A	N9-C4-C5	6.37	108.35	105.80
36	1	3362	A	C8-N9-C4	-6.37	103.25	105.80
1	6	1131	A	N1-C2-N3	6.37	132.48	129.30
36	5	2982	A	C2-N3-C4	6.37	113.78	110.60
36	5	2608	G	OP2-P-O3'	6.37	119.21	105.20
36	1	628	A	N1-C6-N6	6.36	122.42	118.60
36	5	3270	U	O5'-P-OP1	-6.36	99.97	105.70
54	m8	127	LEU	CA-CB-CG	6.36	129.93	115.30
36	1	229	G	N1-C6-O6	6.36	123.72	119.90
36	1	712	G	O5'-P-OP1	-6.36	99.97	105.70
36	1	1377	G	C6-C5-N7	-6.36	126.58	130.40
36	1	2257	C	O4'-C1'-N1	6.36	113.29	108.20
36	1	2874	G	N3-C4-C5	6.36	131.78	128.60
1	6	426	G	C8-N9-C4	-6.36	103.86	106.40
36	5	2215	A	C2-N3-C4	-6.36	107.42	110.60
36	5	3218	A	P-O3'-C3'	6.36	127.33	119.70
36	1	2200	U	C4-C5-C6	6.36	123.52	119.70
36	5	1475	A	N1-C6-N6	6.36	122.42	118.60
1	2	1189	A	C8-N9-C4	6.36	108.34	105.80
36	1	3101	G	C5-C6-N1	6.36	114.68	111.50
1	6	1745	G	C5-C6-O6	-6.36	124.79	128.60
36	5	1906	G	N9-C4-C5	-6.36	102.86	105.40
36	5	2831	G	C5-C6-O6	-6.35	124.79	128.60
36	5	3190	C	C6-N1-C2	-6.35	117.76	120.30
1	6	317	C	C2-N3-C4	-6.35	116.72	119.90
36	5	1847	A	C8-N9-C4	6.35	108.34	105.80
37	7	91	G	C6-N1-C2	-6.35	121.29	125.10
1	2	1600	A	N9-C4-C5	-6.35	103.26	105.80
36	1	24	G	C4-N9-C1'	6.35	134.76	126.50
36	1	680	G	C8-N9-C4	6.35	108.94	106.40
36	1	1116	G	C4-C5-C6	6.35	122.61	118.80
1	6	1651	A	N1-C6-N6	6.35	122.41	118.60
36	5	2411	U	C2-N3-C4	-6.35	123.19	127.00
36	1	984	G	N1-C2-N2	-6.35	110.49	116.20
36	5	644	G	C8-N9-C4	-6.35	103.86	106.40
1	6	1361	U	C2-N1-C1'	6.34	125.31	117.70
36	1	1495	U	N1-C2-N3	6.34	118.71	114.90
36	1	2622	C	C6-N1-C2	-6.34	117.76	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	941	G	C5-C6-N1	6.34	114.67	111.50
36	1	972	A	N7-C8-N9	-6.34	110.63	113.80
1	6	543	C	C6-N1-C2	-6.34	117.76	120.30
36	1	1156	C	C5-C6-N1	-6.34	117.83	121.00
1	6	965	U	N3-C2-O2	-6.34	117.76	122.20
36	5	756	U	C5-C6-N1	-6.34	119.53	122.70
36	5	2887	A	N1-C6-N6	6.34	122.40	118.60
1	2	600	U	C6-N1-C2	-6.34	117.20	121.00
36	5	2999	U	C5-C6-N1	-6.34	119.53	122.70
36	5	3209	A	O4'-C1'-N9	6.34	113.27	108.20
36	1	363	G	N9-C4-C5	-6.34	102.86	105.40
36	1	631	U	C5-C4-O4	-6.34	122.10	125.90
36	1	3214	U	C5-C4-O4	6.34	129.70	125.90
36	1	58	G	C6-C5-N7	-6.33	126.60	130.40
36	1	878	G	C2-N3-C4	-6.33	108.73	111.90
35	sM	167	PRO	N-CA-CB	6.33	110.90	103.30
36	5	1143	A	C2-N3-C4	-6.33	107.43	110.60
36	1	2355	G	C5-C6-N1	-6.33	108.33	111.50
36	1	3052	G	N1-C6-O6	6.33	123.70	119.90
36	5	751	A	O5'-P-OP2	-6.33	100.00	105.70
36	5	2404	A	C5-C6-N1	-6.33	114.53	117.70
36	5	1184	A	N1-C6-N6	-6.33	114.80	118.60
36	1	2596	U	C6-N1-C2	6.33	124.80	121.00
36	5	1114	U	OP1-P-O3'	6.33	119.12	105.20
36	1	285	A	N1-C6-N6	6.33	122.39	118.60
1	2	1082	C	N1-C2-O2	6.32	122.69	118.90
36	5	419	G	N3-C4-N9	6.32	129.79	126.00
36	5	2994	A	C5-C6-N6	-6.32	118.64	123.70
36	1	1433	A	C2-N3-C4	6.32	113.76	110.60
1	6	782	U	N3-C2-O2	-6.32	117.78	122.20
36	1	2661	G	O5'-P-OP1	-6.32	100.01	105.70
36	5	2762	A	O5'-P-OP2	-6.32	100.01	105.70
36	1	1112	A	N9-C4-C5	-6.32	103.27	105.80
36	1	2136	C	N1-C2-O2	-6.32	115.11	118.90
36	1	2405	C	N3-C4-C5	-6.32	119.37	121.90
36	5	358	G	N1-C6-O6	6.32	123.69	119.90
1	2	600	U	N3-C2-O2	-6.32	117.78	122.20
36	5	1158	A	C6-C5-N7	-6.32	127.88	132.30
36	5	2849	C	N3-C4-N4	6.32	122.42	118.00
36	5	1888	U	C2-N3-C4	-6.31	123.21	127.00
36	1	2898	G	O4'-C1'-N9	-6.31	103.15	108.20
36	5	1128	U	N1-C2-N3	6.31	118.69	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1390	A	C5-C6-N6	6.31	128.75	123.70
36	5	1837	U	N3-C2-O2	6.31	126.62	122.20
36	1	2706	G	C5-C6-O6	-6.31	124.81	128.60
36	1	611	A	N1-C6-N6	6.31	122.39	118.60
36	1	1103	A	C2-N3-C4	6.31	113.75	110.60
36	1	2831	G	C5-C6-O6	-6.31	124.81	128.60
36	5	328	U	C5-C4-O4	6.31	129.69	125.90
36	5	1301	A	N1-C6-N6	6.31	122.39	118.60
36	5	2903	A	C8-N9-C4	6.31	108.32	105.80
36	1	649	A	C2-N3-C4	-6.31	107.45	110.60
36	1	2973	G	C5-C6-O6	-6.31	124.81	128.60
1	6	1582	U	C5-C6-N1	-6.31	119.55	122.70
12	c0	83	PRO	N-CA-CB	6.31	110.87	103.30
36	1	3306	U	N1-C2-N3	6.31	118.68	114.90
1	6	1150	G	C2-N3-C4	-6.31	108.75	111.90
36	5	2764	C	C6-N1-C2	6.31	122.82	120.30
37	7	93	C	N1-C2-O2	6.31	122.68	118.90
36	1	878	G	N1-C2-N3	6.30	127.68	123.90
36	1	2343	C	C2-N3-C4	-6.30	116.75	119.90
36	5	1010	G	O5'-P-OP2	-6.30	100.03	105.70
36	5	1194	G	C4-C5-N7	-6.30	108.28	110.80
36	1	672	A	N1-C6-N6	6.30	122.38	118.60
36	5	2314	U	C2-N1-C1'	6.30	125.26	117.70
36	1	716	A	C2-N3-C4	-6.30	107.45	110.60
36	5	2140	U	C4-C5-C6	6.30	123.48	119.70
38	8	30	C	N1-C2-O2	-6.30	115.12	118.90
1	2	32	U	N3-C2-O2	-6.30	117.79	122.20
41	14	340	GLY	N-CA-C	-6.30	97.35	113.10
36	1	369	A	C8-N9-C4	-6.30	103.28	105.80
36	1	1581	C	C6-N1-C2	-6.30	117.78	120.30
36	5	1157	G	O5'-P-OP1	-6.30	100.03	105.70
36	5	1367	G	C5-C6-N1	-6.30	108.35	111.50
36	5	1494	U	C6-N1-C2	6.30	124.78	121.00
36	5	3199	G	N1-C6-O6	-6.30	116.12	119.90
1	2	959	U	N3-C2-O2	-6.29	117.79	122.20
36	5	1178	G	C4-C5-N7	6.29	113.32	110.80
36	5	2942	C	C5-C4-N4	-6.29	115.79	120.20
1	2	95	G	C5-C6-O6	6.29	132.38	128.60
36	5	1937	U	C5-C6-N1	-6.29	119.55	122.70
36	5	2836	C	O5'-P-OP2	-6.29	100.04	105.70
36	5	3215	A	N1-C6-N6	6.29	122.38	118.60
36	1	2400	G	N9-C4-C5	-6.29	102.88	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2857	C	N3-C4-C5	6.29	124.42	121.90
36	1	3201	C	C4-C5-C6	6.29	120.55	117.40
36	1	3208	G	C4-C5-C6	6.29	122.57	118.80
36	5	720	A	N1-C6-N6	6.29	122.37	118.60
36	5	2211	U	N1-C2-N3	6.29	118.67	114.90
1	2	1170	G	N1-C6-O6	6.29	123.67	119.90
36	1	1175	C	C2-N3-C4	-6.29	116.75	119.90
1	6	1599	C	N1-C2-O2	6.29	122.67	118.90
36	5	368	G	C5-C6-O6	6.29	132.37	128.60
36	5	586	C	C6-N1-C2	6.29	122.82	120.30
38	8	17	A	N1-C6-N6	6.29	122.37	118.60
36	1	518	G	O4'-C1'-N9	6.29	113.23	108.20
36	1	651	G	N3-C4-C5	-6.29	125.46	128.60
36	5	2116	G	N1-C6-O6	6.29	123.67	119.90
36	1	155	G	N3-C4-N9	6.28	129.77	126.00
36	1	2758	A	C6-C5-N7	6.28	136.70	132.30
38	4	99	C	C6-N1-C2	6.28	122.81	120.30
36	5	587	U	N3-C2-O2	6.28	126.60	122.20
36	5	942	U	N1-C2-N3	6.28	118.67	114.90
36	5	1429	G	N1-C2-N3	6.28	127.67	123.90
36	1	3208	G	C6-C5-N7	-6.28	126.63	130.40
36	5	2298	U	C5-C6-N1	-6.28	119.56	122.70
36	1	212	G	C5-C6-O6	-6.28	124.83	128.60
36	1	875	G	N3-C4-C5	-6.28	125.46	128.60
36	1	1116	G	OP2-P-O3'	6.28	119.02	105.20
1	2	1744	A	O5'-P-OP1	-6.28	100.05	105.70
36	5	1476	G	C5-C6-O6	6.28	132.37	128.60
52	m6	78	ARG	NE-CZ-NH1	6.28	123.44	120.30
36	1	2249	G	N9-C1'-C2'	-6.28	105.09	112.00
36	1	2822	U	N3-C4-O4	-6.28	115.01	119.40
36	5	2939	G	C5-N7-C8	6.28	107.44	104.30
36	5	3027	A	N1-C2-N3	6.28	132.44	129.30
36	1	2827	U	C6-N1-C1'	6.28	129.99	121.20
36	5	636	C	N1-C2-O2	6.28	122.67	118.90
36	5	3050	U	N3-C4-O4	-6.28	115.01	119.40
1	2	412	A	O5'-P-OP1	6.27	118.23	110.70
37	3	87	G	O5'-P-OP1	-6.27	100.06	105.70
36	5	1885	U	C2-N3-C4	-6.27	123.24	127.00
36	5	2819	A	OP2-P-O3'	6.27	119.00	105.20
38	8	139	U	N3-C2-O2	-6.27	117.81	122.20
1	6	1273	G	O4'-C1'-N9	6.27	113.22	108.20
36	5	398	A	O5'-P-OP2	-6.27	100.06	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	747	A	O5'-P-OP2	-6.27	100.06	105.70
36	5	3110	C	C6-N1-C2	6.27	122.81	120.30
36	1	969	C	N1-C2-O2	-6.27	115.14	118.90
1	2	616	G	N1-C6-O6	-6.27	116.14	119.90
36	1	2996	U	C5-C6-N1	6.27	125.83	122.70
36	5	969	C	C6-N1-C2	6.27	122.81	120.30
1	2	74	U	O5'-P-OP1	-6.26	100.06	105.70
36	1	2395	G	C5-C6-O6	-6.26	124.84	128.60
36	1	3310	A	N1-C6-N6	6.26	122.36	118.60
38	4	53	A	C2-N3-C4	6.26	113.73	110.60
1	6	56	U	C5-C6-N1	-6.26	119.57	122.70
1	2	438	A	O5'-P-OP1	-6.26	100.06	105.70
36	1	1116	G	O5'-P-OP1	-6.26	100.06	105.70
36	5	104	G	N1-C6-O6	6.26	123.66	119.90
36	5	666	A	C8-N9-C4	6.26	108.30	105.80
36	5	1099	A	N1-C6-N6	6.26	122.36	118.60
36	5	2187	G	C6-C5-N7	-6.26	126.64	130.40
36	1	785	G	C2-N3-C4	6.26	115.03	111.90
36	1	2301	U	O5'-P-OP2	-6.26	100.07	105.70
1	2	1052	U	C2-N1-C1'	6.26	125.21	117.70
36	5	1193	A	C2-N3-C4	-6.26	107.47	110.60
36	1	1150	A	N1-C6-N6	-6.25	114.85	118.60
36	1	58	G	C4-C5-N7	6.25	113.30	110.80
36	1	1142	G	O5'-P-OP1	6.25	118.20	110.70
36	1	1793	C	C2-N3-C4	-6.25	116.77	119.90
36	1	1911	A	N1-C6-N6	6.25	122.35	118.60
1	6	1340	U	N3-C2-O2	-6.25	117.82	122.20
36	5	1080	A	N7-C8-N9	-6.25	110.67	113.80
1	2	587	C	N3-C4-C5	-6.25	119.40	121.90
1	2	830	U	C2-N1-C1'	6.25	125.20	117.70
1	6	800	U	C6-N1-C2	-6.25	117.25	121.00
1	6	1643	U	C2-N3-C4	-6.25	123.25	127.00
36	5	190	U	N1-C2-O2	6.25	127.17	122.80
37	7	103	A	C5-C6-N1	6.25	120.83	117.70
36	1	1104	G	O5'-P-OP1	-6.25	100.08	105.70
36	1	411	U	O5'-P-OP1	-6.25	100.08	105.70
36	5	51	A	N1-C6-N6	6.25	122.35	118.60
36	5	939	U	C5-C4-O4	-6.25	122.15	125.90
36	5	1481	A	O5'-P-OP2	-6.25	100.08	105.70
36	5	39	A	N1-C6-N6	6.25	122.35	118.60
36	1	1326	A	C8-N9-C4	6.24	108.30	105.80
1	6	1586	A	C8-N9-C4	6.24	108.30	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1399	A	N1-C6-N6	6.24	122.34	118.60
43	16	18	LEU	CA-CB-CG	-6.24	100.94	115.30
36	1	334	A	C8-N9-C4	-6.24	103.30	105.80
36	1	1495	U	C5-C4-O4	6.24	129.64	125.90
36	5	1875	G	N7-C8-N9	-6.24	109.98	113.10
36	1	2371	G	N3-C2-N2	6.24	124.27	119.90
1	6	982	U	C6-N1-C2	6.24	124.74	121.00
36	5	48	A	C8-N9-C4	-6.24	103.31	105.80
36	5	826	G	C4-C5-N7	6.24	113.29	110.80
36	5	1373	A	N1-C6-N6	6.24	122.34	118.60
52	m6	84	LEU	CA-CB-CG	-6.23	100.96	115.30
1	2	619	A	N1-C6-N6	-6.23	114.86	118.60
36	5	340	C	C5-C6-N1	-6.23	117.88	121.00
36	5	1301	A	C6-C5-N7	-6.23	127.94	132.30
36	5	1452	A	C4-C5-N7	6.23	113.82	110.70
1	6	163	G	C8-N9-C1'	6.23	135.10	127.00
36	1	1269	U	N3-C2-O2	-6.23	117.84	122.20
36	5	514	G	C4-C5-N7	6.23	113.29	110.80
36	5	971	G	C5-C6-O6	-6.23	124.86	128.60
36	5	1429	G	N1-C2-N2	-6.23	110.60	116.20
36	5	3131	U	C6-N1-C2	6.23	124.74	121.00
36	1	1167	U	O5'-P-OP1	6.23	118.17	110.70
36	5	739	G	O5'-P-OP1	-6.22	100.10	105.70
36	1	225	C	N3-C4-C5	-6.22	119.41	121.90
36	1	2188	A	C8-N9-C4	6.22	108.29	105.80
1	6	1654	G	C4-C5-N7	6.22	113.29	110.80
36	1	2692	A	C5-C6-N6	-6.22	118.72	123.70
36	5	1110	U	N3-C2-O2	-6.22	117.84	122.20
36	1	35	A	O5'-P-OP1	6.22	118.16	110.70
1	6	92	A	N1-C6-N6	6.22	122.33	118.60
1	2	577	G	C5-N7-C8	-6.22	101.19	104.30
36	5	1115	G	C4-N9-C1'	6.22	134.58	126.50
1	2	1176	G	C4-C5-N7	6.22	113.29	110.80
36	1	3057	U	N1-C2-N3	6.22	118.63	114.90
36	5	2402	A	C5-C6-N6	6.22	128.67	123.70
36	1	49	A	C8-N9-C4	6.21	108.29	105.80
36	1	369	A	N3-C4-C5	-6.21	122.45	126.80
36	1	1351	U	N3-C2-O2	-6.21	117.85	122.20
38	4	68	G	N1-C6-O6	6.21	123.63	119.90
36	1	397	A	N1-C6-N6	-6.21	114.87	118.60
36	5	1725	C	N1-C2-O2	-6.21	115.17	118.90
1	2	554	C	N1-C2-O2	6.21	122.63	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2718	U	C2-N3-C4	-6.21	123.27	127.00
36	5	644	G	N3-C4-C5	-6.21	125.49	128.60
1	2	1761	U	C5-C4-O4	6.21	129.63	125.90
36	5	2395	G	C4-C5-N7	6.21	113.28	110.80
38	8	81	U	P-O3'-C3'	6.21	127.15	119.70
36	1	3216	G	N9-C4-C5	6.21	107.88	105.40
36	5	1495	U	C6-N1-C2	-6.21	117.28	121.00
36	1	2585	G	N3-C4-C5	-6.21	125.50	128.60
36	5	2379	U	C4-C5-C6	6.21	123.42	119.70
36	1	2861	U	N3-C2-O2	-6.21	117.86	122.20
36	5	333	G	N1-C2-N3	6.21	127.62	123.90
36	5	660	A	C6-C5-N7	6.21	136.64	132.30
36	5	2211	U	N3-C2-O2	-6.21	117.86	122.20
1	2	394	C	C6-N1-C2	-6.20	117.82	120.30
36	1	2298	U	N3-C4-O4	-6.20	115.06	119.40
1	2	1596	C	N1-C2-O2	6.20	122.62	118.90
36	1	668	G	N7-C8-N9	-6.20	110.00	113.10
36	1	1838	G	C6-C5-N7	-6.20	126.68	130.40
36	1	3050	U	N1-C2-O2	6.20	127.14	122.80
1	2	380	U	N3-C2-O2	-6.20	117.86	122.20
36	1	2729	U	N1-C2-O2	6.19	127.14	122.80
36	5	1338	C	C4-C5-C6	6.19	120.50	117.40
36	1	1369	A	O5'-P-OP1	-6.19	100.13	105.70
36	1	2607	G	C5-C6-O6	6.19	132.32	128.60
1	6	398	G	C5-C6-O6	6.19	132.31	128.60
36	1	2867	C	N3-C2-O2	-6.19	117.57	121.90
36	5	1426	C	O5'-P-OP2	-6.19	100.13	105.70
36	5	2282	U	C5-C6-N1	-6.19	119.61	122.70
36	5	3047	U	C5-C6-N1	-6.19	119.61	122.70
36	1	1434	G	N1-C6-O6	6.19	123.61	119.90
36	5	2211	U	C5-C4-O4	6.19	129.61	125.90
36	1	2111	G	O5'-P-OP1	-6.18	100.14	105.70
36	1	1589	A	O5'-P-OP2	-6.18	100.14	105.70
36	1	2393	G	C5-C6-O6	-6.18	124.89	128.60
36	5	269	G	N1-C6-O6	6.18	123.61	119.90
36	5	364	G	C2-N3-C4	-6.18	108.81	111.90
36	5	1300	G	N3-C4-N9	6.18	129.71	126.00
36	1	933	A	N3-C4-C5	-6.18	122.47	126.80
36	5	1156	C	N1-C2-O2	-6.18	115.19	118.90
36	1	1154	A	C8-N9-C4	-6.18	103.33	105.80
36	5	2199	G	N7-C8-N9	6.18	116.19	113.10
36	5	2531	C	N1-C2-O2	6.18	122.61	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2710	C	C6-N1-C2	6.18	122.77	120.30
1	2	1241	G	O4'-C1'-N9	6.18	113.14	108.20
36	1	2572	C	N3-C2-O2	-6.18	117.58	121.90
1	2	1762	A	O5'-P-OP1	-6.18	100.14	105.70
36	5	953	G	C5-C6-O6	-6.18	124.89	128.60
36	5	1389	G	C6-C5-N7	-6.18	126.69	130.40
36	5	2351	U	N3-C2-O2	-6.18	117.88	122.20
36	5	2871	G	N3-C4-N9	6.18	129.71	126.00
36	5	3154	C	N3-C2-O2	-6.18	117.58	121.90
36	1	908	G	C4-N9-C1'	6.17	134.53	126.50
36	1	2343	C	C5-C6-N1	-6.17	117.91	121.00
36	1	2758	A	C4-C5-N7	-6.17	107.61	110.70
38	4	30	C	C2-N1-C1'	-6.17	112.01	118.80
36	5	3377	G	C2-N3-C4	6.17	114.99	111.90
36	1	229	G	N3-C2-N2	-6.17	115.58	119.90
36	1	937	G	N1-C6-O6	6.17	123.60	119.90
36	1	2130	G	C5-C6-O6	6.17	132.30	128.60
36	1	2385	G	N1-C6-O6	6.17	123.60	119.90
36	5	2862	U	N3-C4-O4	-6.17	115.08	119.40
36	5	2117	A	C5-C6-N6	6.17	128.64	123.70
36	5	2183	A	C5-C6-N6	-6.17	118.76	123.70
1	6	119	A	C2-N3-C4	-6.17	107.52	110.60
36	1	790	U	N3-C2-O2	-6.17	117.88	122.20
36	1	1793	C	O5'-P-OP1	-6.17	100.15	105.70
36	5	1534	A	C4-C5-C6	6.17	120.08	117.00
1	2	1568	C	P-O3'-C3'	6.17	127.10	119.70
36	1	1140	G	N1-C2-N2	-6.17	110.65	116.20
1	6	308	C	C5-C4-N4	6.17	124.52	120.20
1	2	736	C	C5-C6-N1	6.17	124.08	121.00
1	6	337	G	N3-C4-C5	-6.17	125.52	128.60
36	5	1152	G	N1-C2-N2	6.17	121.75	116.20
36	1	2808	A	C5-N7-C8	-6.16	100.82	103.90
36	5	283	G	O4'-C1'-N9	-6.16	103.27	108.20
36	5	217	U	OP1-P-O3'	6.16	118.75	105.20
36	1	941	G	OP1-P-O3'	6.16	118.75	105.20
36	1	1141	C	C2-N3-C4	-6.16	116.82	119.90
36	1	1182	A	N1-C6-N6	6.16	122.30	118.60
36	1	1909	A	C2-N3-C4	-6.16	107.52	110.60
1	2	1258	U	N3-C2-O2	-6.16	117.89	122.20
36	1	14	U	C5-C6-N1	-6.16	119.62	122.70
36	1	557	A	C8-N9-C4	6.16	108.26	105.80
36	1	3344	A	N1-C6-N6	6.16	122.30	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	875	G	N3-C4-C5	-6.16	125.52	128.60
36	5	2627	C	C4-C5-C6	6.16	120.48	117.40
36	1	29	C	N3-C4-N4	6.16	122.31	118.00
1	6	364	G	C8-N9-C1'	-6.16	119.00	127.00
36	5	339	C	C6-N1-C2	-6.16	117.84	120.30
36	5	974	G	C8-N9-C4	-6.16	103.94	106.40
36	5	1101	G	N3-C2-N2	6.16	124.21	119.90
36	5	3028	G	N1-C2-N2	-6.16	110.66	116.20
36	5	1452	A	C5-C6-N6	-6.15	118.78	123.70
36	5	3200	G	N1-C6-O6	6.15	123.59	119.90
1	2	1745	G	N3-C4-C5	-6.15	125.52	128.60
36	1	2768	U	O5'-P-OP2	-6.15	100.16	105.70
1	6	194	U	N1-C2-O2	6.15	127.11	122.80
36	5	1392	G	C8-N9-C4	6.15	108.86	106.40
36	5	2288	G	O5'-P-OP1	-6.15	100.16	105.70
36	1	2636	A	N7-C8-N9	6.15	116.88	113.80
36	1	2867	C	C4-C5-C6	6.15	120.47	117.40
1	6	1097	U	P-O3'-C3'	6.15	127.08	119.70
36	5	906	A	C2-N3-C4	6.15	113.67	110.60
36	5	2996	U	N1-C2-O2	6.15	127.11	122.80
36	5	3120	C	C6-N1-C2	-6.15	117.84	120.30
36	1	1296	C	N3-C4-C5	-6.15	119.44	121.90
36	5	706	A	N9-C4-C5	-6.15	103.34	105.80
36	5	1588	A	O5'-P-OP1	-6.15	100.17	105.70
36	5	2364	G	N9-C4-C5	6.15	107.86	105.40
36	5	3050	U	N1-C2-O2	6.15	127.10	122.80
36	1	188	U	C6-N1-C1'	6.14	129.80	121.20
36	1	1725	C	C6-N1-C2	6.14	122.76	120.30
36	5	30	G	O5'-P-OP2	6.14	118.07	110.70
36	5	924	G	N3-C4-N9	-6.14	122.31	126.00
36	5	2125	A	C5-C6-N6	-6.14	118.78	123.70
36	1	1216	C	O5'-P-OP2	-6.14	100.17	105.70
36	1	2313	A	N1-C6-N6	-6.14	114.92	118.60
36	5	2968	G	C4-C5-N7	-6.14	108.34	110.80
36	1	573	C	N3-C2-O2	-6.14	117.60	121.90
36	5	1444	G	O5'-P-OP2	6.14	118.06	110.70
36	1	2368	A	C6-N1-C2	-6.14	114.92	118.60
36	1	2762	A	N1-C6-N6	-6.14	114.92	118.60
1	6	364	G	N1-C6-O6	6.14	123.58	119.90
36	1	878	G	C5-C6-N1	-6.13	108.43	111.50
36	1	2404	A	C6-C5-N7	6.13	136.59	132.30
36	1	3046	A	O5'-P-OP1	-6.13	100.18	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1438	U	C4-C5-C6	6.13	123.38	119.70
36	5	2402	A	C8-N9-C4	-6.13	103.35	105.80
36	5	3362	A	C5-N7-C8	-6.13	100.83	103.90
36	1	2401	A	C5-C6-N6	-6.13	118.79	123.70
36	1	2836	C	N1-C2-N3	6.13	123.49	119.20
36	5	693	A	O5'-P-OP1	-6.13	100.18	105.70
36	1	347	G	N9-C4-C5	-6.13	102.95	105.40
36	1	1849	C	O5'-P-OP1	-6.13	100.18	105.70
37	3	82	G	N1-C2-N3	6.13	127.58	123.90
36	5	2379	U	N1-C2-N3	6.13	118.58	114.90
1	6	957	G	N1-C6-O6	6.13	123.58	119.90
1	2	1745	G	C8-N9-C1'	-6.13	119.04	127.00
36	5	518	G	C5-C6-N1	6.13	114.56	111.50
37	7	103	A	C2-N3-C4	6.13	113.66	110.60
36	1	2150	G	C6-C5-N7	-6.12	126.72	130.40
36	5	929	A	O5'-P-OP1	6.12	118.05	110.70
36	1	636	C	C5-C6-N1	-6.12	117.94	121.00
36	1	2372	A	C6-C5-N7	-6.12	128.01	132.30
36	5	1308	A	N9-C4-C5	6.12	108.25	105.80
36	5	1362	G	N1-C6-O6	-6.12	116.23	119.90
36	5	1483	G	O4'-C1'-N9	6.12	113.10	108.20
36	1	1304	A	N9-C4-C5	-6.12	103.35	105.80
36	1	2855	U	C5-C6-N1	-6.12	119.64	122.70
1	6	362	G	N3-C4-C5	-6.12	125.54	128.60
1	6	1463	C	C6-N1-C2	6.12	122.75	120.30
36	1	1100	U	C6-N1-C2	6.12	124.67	121.00
36	1	1114	U	C4-C5-C6	-6.12	116.03	119.70
36	5	1670	C	C6-N1-C2	6.12	122.75	120.30
36	5	2911	A	C8-N9-C4	-6.12	103.35	105.80
36	5	3314	A	C8-N9-C4	6.12	108.25	105.80
36	1	310	U	C5-C6-N1	-6.12	119.64	122.70
36	1	1057	A	C8-N9-C4	6.12	108.25	105.80
36	1	2808	A	C4-C5-N7	6.12	113.76	110.70
36	1	590	G	C4-C5-N7	6.12	113.25	110.80
36	1	2406	C	C6-N1-C2	6.12	122.75	120.30
36	5	3033	A	C2-N3-C4	-6.12	107.54	110.60
36	1	948	C	C6-N1-C2	6.11	122.75	120.30
36	1	2200	U	N3-C4-C5	-6.11	110.93	114.60
36	1	648	C	C2-N1-C1'	6.11	125.52	118.80
1	6	14	C	C6-N1-C2	-6.11	117.86	120.30
36	5	947	G	C6-N1-C2	-6.11	121.43	125.10
36	5	3141	A	N1-C2-N3	6.11	132.36	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2249	G	C5-C6-N1	6.11	114.56	111.50
1	6	372	G	C5-C6-O6	-6.11	124.93	128.60
10	s8	8	ARG	NE-CZ-NH2	-6.11	117.25	120.30
36	5	878	G	C4-C5-N7	6.11	113.24	110.80
36	5	2411	U	N3-C4-C5	6.11	118.27	114.60
36	1	94	G	O4'-C1'-N9	6.11	113.09	108.20
36	1	2345	A	C5-C6-N6	-6.11	118.81	123.70
36	5	2353	G	N3-C2-N2	-6.11	115.62	119.90
36	5	686	G	C8-N9-C4	6.11	108.84	106.40
36	1	1178	G	C6-C5-N7	-6.11	126.74	130.40
36	5	1152	G	C4-C5-C6	-6.11	115.14	118.80
36	5	2400	G	C2-N3-C4	-6.11	108.85	111.90
38	8	34	U	N1-C2-N3	6.11	118.56	114.90
38	8	139	U	C5-C4-O4	6.11	129.56	125.90
36	5	417	A	C8-N9-C4	6.10	108.24	105.80
36	1	2846	U	C5-C4-O4	6.10	129.56	125.90
36	5	1496	C	C5-C6-N1	6.10	124.05	121.00
36	5	2892	A	C4-C5-C6	6.10	120.05	117.00
36	5	2953	U	N3-C2-O2	6.10	126.47	122.20
36	1	1381	A	N9-C4-C5	-6.10	103.36	105.80
36	5	92	G	N1-C6-O6	-6.10	116.24	119.90
36	5	952	A	O5'-P-OP2	-6.10	100.21	105.70
36	1	658	G	C8-N9-C1'	-6.10	119.07	127.00
36	1	1365	G	C4-N9-C1'	6.10	134.43	126.50
36	1	2986	U	N1-C2-O2	-6.10	118.53	122.80
36	5	1360	C	N1-C2-O2	-6.10	115.24	118.90
36	1	654	C	C6-N1-C2	6.10	122.74	120.30
36	1	1351	U	C2-N1-C1'	6.10	125.02	117.70
36	1	2406	C	C5-C6-N1	-6.10	117.95	121.00
36	1	2617	U	C2-N3-C4	-6.10	123.34	127.00
38	4	115	C	C5-C6-N1	-6.10	117.95	121.00
1	6	1745	G	C6-C5-N7	-6.10	126.74	130.40
36	5	41	G	N9-C4-C5	-6.10	102.96	105.40
36	5	881	C	N1-C2-O2	6.10	122.56	118.90
36	5	2422	C	C5-C6-N1	-6.10	117.95	121.00
36	5	2849	C	N3-C2-O2	6.10	126.17	121.90
36	1	658	G	N1-C6-O6	6.10	123.56	119.90
36	1	694	C	N3-C4-C5	6.10	124.34	121.90
1	6	308	C	C6-N1-C1'	6.10	128.12	120.80
36	5	3215	A	C2-N3-C4	-6.10	107.55	110.60
36	1	938	C	C2-N1-C1'	6.09	125.50	118.80
1	6	418	G	O5'-P-OP1	-6.09	100.22	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2341	A	C8-N9-C4	6.09	108.24	105.80
37	3	82	G	N3-C4-N9	6.09	129.66	126.00
36	1	1434	G	N1-C2-N2	6.09	121.68	116.20
1	6	136	C	C2-N1-C1'	6.09	125.50	118.80
36	5	1149	G	C6-N1-C2	-6.09	121.45	125.10
1	6	1297	G	O5'-P-OP2	-6.09	100.22	105.70
36	5	2345	A	N9-C4-C5	-6.09	103.36	105.80
36	5	2920	U	C2-N3-C4	-6.09	123.35	127.00
36	5	3245	A	C6-C5-N7	-6.09	128.04	132.30
36	1	978	G	C4-C5-N7	6.09	113.23	110.80
36	1	1513	G	C5-C6-O6	-6.09	124.95	128.60
36	5	698	U	C4-C5-C6	6.09	123.35	119.70
36	5	1382	G	C8-N9-C4	6.09	108.83	106.40
78	Q2	93	LEU	CA-CB-CG	6.08	129.29	115.30
36	1	636	C	C2-N3-C4	-6.08	116.86	119.90
36	5	417	A	N7-C8-N9	-6.08	110.76	113.80
36	5	1140	G	OP1-P-O3'	6.08	118.58	105.20
36	5	1833	G	N1-C6-O6	-6.08	116.25	119.90
36	5	2244	A	O5'-P-OP2	-6.08	100.22	105.70
37	7	37	G	C5-C6-O6	-6.08	124.95	128.60
1	2	1599	C	N1-C2-O2	-6.08	115.25	118.90
36	1	24	G	C6-C5-N7	-6.08	126.75	130.40
36	1	1153	A	C8-N9-C4	6.08	108.23	105.80
36	5	1851	G	N1-C6-O6	6.08	123.55	119.90
36	5	3171	U	N3-C4-O4	-6.08	115.14	119.40
37	7	87	G	N1-C6-O6	6.08	123.55	119.90
36	1	1163	A	OP1-P-OP2	6.08	128.72	119.60
36	5	1292	C	OP1-P-OP2	6.08	128.72	119.60
36	1	586	C	N3-C2-O2	6.08	126.16	121.90
36	1	587	U	C2-N3-C4	-6.08	123.35	127.00
36	1	666	A	O5'-P-OP1	-6.08	100.23	105.70
1	6	1665	U	C5-C4-O4	-6.08	122.25	125.90
36	5	2890	A	O5'-P-OP2	6.08	117.99	110.70
64	N8	42	ARG	NE-CZ-NH1	6.08	123.34	120.30
24	d2	93	LEU	CA-CB-CG	6.08	129.28	115.30
36	5	364	G	N3-C4-C5	6.08	131.64	128.60
38	8	55	U	C5-C6-N1	6.08	125.74	122.70
36	1	1407	A	N7-C8-N9	-6.08	110.76	113.80
36	1	1894	U	C5-C6-N1	-6.08	119.66	122.70
36	1	2945	G	C6-C5-N7	-6.08	126.75	130.40
38	4	32	C	O5'-P-OP2	-6.08	100.23	105.70
36	5	1331	U	C2-N3-C4	-6.08	123.36	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	953	G	OP1-P-O3'	6.07	118.56	105.20
36	5	1448	U	N1-C2-O2	6.07	127.05	122.80
36	1	1846	C	O5'-P-OP1	-6.07	100.23	105.70
36	1	1907	C	N3-C2-O2	-6.07	117.65	121.90
36	1	2412	G	C6-C5-N7	-6.07	126.76	130.40
36	1	2944	U	C4-C5-C6	-6.07	116.06	119.70
36	1	3003	G	C8-N9-C4	6.07	108.83	106.40
36	1	590	G	N9-C4-C5	-6.07	102.97	105.40
36	1	984	G	C6-C5-N7	-6.07	126.76	130.40
36	5	356	C	N3-C4-N4	-6.07	113.75	118.00
36	5	378	A	C8-N9-C4	6.07	108.23	105.80
36	5	397	A	N1-C6-N6	-6.07	114.96	118.60
1	2	1196	A	P-O3'-C3'	6.07	126.98	119.70
36	1	919	U	C5-C4-O4	6.07	129.54	125.90
36	1	2627	C	C5-C6-N1	-6.07	117.97	121.00
36	5	664	U	N1-C2-N3	6.07	118.54	114.90
36	5	2295	A	C5-C6-N6	-6.07	118.84	123.70
36	1	1606	U	N1-C2-O2	-6.07	118.55	122.80
37	3	14	U	C6-N1-C2	6.07	124.64	121.00
36	5	31	C	N3-C4-C5	6.07	124.33	121.90
36	5	3109	G	C8-N9-C4	-6.07	103.97	106.40
36	1	939	U	C5-C4-O4	-6.07	122.26	125.90
36	5	2943	G	C5-N7-C8	-6.07	101.27	104.30
36	5	410	U	C6-N1-C2	-6.06	117.36	121.00
36	1	964	G	C5-C6-O6	-6.06	124.96	128.60
36	5	940	G	N1-C6-O6	-6.06	116.26	119.90
36	5	2943	G	C5-C6-O6	-6.06	124.96	128.60
36	5	3351	U	N1-C2-O2	6.06	127.04	122.80
36	1	3217	C	N1-C2-O2	6.06	122.54	118.90
36	5	1450	G	N1-C2-N2	6.06	121.66	116.20
36	5	1842	A	N9-C4-C5	-6.06	103.38	105.80
36	5	406	G	O4'-C1'-N9	6.06	113.05	108.20
36	5	3287	U	N3-C2-O2	-6.06	117.96	122.20
36	5	803	C	OP1-P-OP2	-6.06	110.51	119.60
36	5	890	C	O5'-P-OP2	-6.06	100.25	105.70
36	5	1321	G	N1-C6-O6	6.06	123.53	119.90
36	5	2954	U	N3-C2-O2	-6.06	117.96	122.20
36	1	325	A	OP2-P-O3'	6.05	118.52	105.20
1	6	447	U	N1-C2-N3	6.05	118.53	114.90
36	5	1331	U	C6-N1-C2	6.05	124.63	121.00
36	1	948	C	O5'-P-OP1	6.05	117.96	110.70
37	3	21	G	C8-N9-C4	6.05	108.82	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1773	C	N1-C2-O2	-6.05	115.27	118.90
36	5	1047	A	N1-C6-N6	6.05	122.23	118.60
36	5	1403	C	N3-C4-C5	6.05	124.32	121.90
36	5	2902	A	N1-C6-N6	6.05	122.23	118.60
36	5	3041	U	N3-C4-O4	-6.05	115.17	119.40
36	5	3190	C	N3-C4-C5	-6.05	119.48	121.90
38	8	20	U	N1-C2-N3	6.05	118.53	114.90
36	1	2727	A	O5'-P-OP1	-6.05	100.25	105.70
36	1	2831	G	N1-C6-O6	6.05	123.53	119.90
36	5	974	G	C6-N1-C2	-6.05	121.47	125.10
36	5	2117	A	C4-C5-N7	-6.05	107.67	110.70
36	5	3343	G	N3-C4-N9	6.05	129.63	126.00
38	4	13	A	O5'-P-OP1	-6.05	100.26	105.70
36	1	1100	U	N3-C4-O4	-6.05	115.17	119.40
36	1	2361	A	N1-C6-N6	-6.05	114.97	118.60
36	1	2371	G	N1-C2-N2	-6.04	110.76	116.20
36	1	651	G	N3-C4-N9	6.04	129.63	126.00
36	5	680	G	C8-N9-C4	6.04	108.82	106.40
36	5	2878	G	C8-N9-C4	6.04	108.82	106.40
36	1	386	A	C5-C6-N1	-6.04	114.68	117.70
36	1	3205	G	C8-N9-C4	6.04	108.82	106.40
36	5	957	C	N3-C2-O2	-6.04	117.67	121.90
36	5	2943	G	C4-N9-C1'	6.04	134.35	126.50
36	5	3382	U	C6-N1-C2	-6.04	117.38	121.00
36	1	3362	A	N1-C6-N6	6.04	122.22	118.60
1	2	571	G	C4-C5-N7	-6.04	108.39	110.80
36	1	31	C	C6-N1-C2	6.04	122.72	120.30
36	1	2606	G	C8-N9-C1'	-6.04	119.15	127.00
36	5	804	C	N3-C4-C5	-6.04	119.48	121.90
1	2	1773	C	N3-C4-N4	6.04	122.22	118.00
36	5	37	U	N1-C2-N3	6.04	118.52	114.90
36	5	3143	C	N1-C2-O2	-6.04	115.28	118.90
36	1	939	U	N1-C2-O2	-6.03	118.58	122.80
36	5	637	C	O5'-P-OP1	-6.03	100.27	105.70
36	5	1494	U	C5-C6-N1	-6.03	119.68	122.70
1	2	1490	C	C6-N1-C2	-6.03	117.89	120.30
36	1	2993	G	N1-C6-O6	-6.03	116.28	119.90
36	1	798	G	N9-C4-C5	6.03	107.81	105.40
36	1	2550	U	N3-C2-O2	-6.03	117.98	122.20
36	1	2918	G	C6-C5-N7	-6.03	126.78	130.40
1	6	402	C	O5'-P-OP2	-6.03	100.27	105.70
1	6	1653	C	C4-C5-C6	6.03	120.42	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1124	U	C5-C4-O4	6.03	129.52	125.90
36	1	2402	A	C6-N1-C2	-6.03	114.98	118.60
36	5	1081	U	C5-C6-N1	6.03	125.72	122.70
36	5	1389	G	N1-C6-O6	6.03	123.52	119.90
36	5	2891	U	C2-N3-C4	-6.03	123.38	127.00
38	4	97	A	O5'-P-OP2	-6.03	100.28	105.70
36	5	1049	C	N1-C2-O2	6.03	122.52	118.90
36	5	1294	A	O4'-C1'-N9	6.03	113.02	108.20
36	5	2814	G	N1-C2-N2	-6.03	110.78	116.20
36	1	2305	G	N1-C6-O6	6.02	123.52	119.90
36	5	2882	U	O5'-P-OP2	-6.02	100.28	105.70
1	2	192	U	C2-N1-C1'	6.02	124.93	117.70
36	5	1447	G	C4-C5-N7	-6.02	108.39	110.80
36	5	2833	A	C6-N1-C2	-6.02	114.99	118.60
36	5	2891	U	N3-C4-C5	6.02	118.21	114.60
36	1	1520	G	N7-C8-N9	-6.02	110.09	113.10
36	5	1499	C	N3-C4-N4	-6.02	113.79	118.00
36	1	1381	A	OP1-P-O3'	6.02	118.44	105.20
36	5	2140	U	N1-C2-N3	6.02	118.51	114.90
36	5	3218	A	C2-N3-C4	-6.02	107.59	110.60
36	1	1169	A	OP2-P-O3'	6.02	118.44	105.20
36	1	2372	A	N1-C6-N6	6.02	122.21	118.60
36	1	2993	G	N3-C4-N9	6.02	129.61	126.00
36	1	289	A	C8-N9-C4	6.01	108.21	105.80
36	1	1392	G	N3-C4-C5	-6.01	125.59	128.60
36	1	1852	G	C5-C6-O6	-6.01	124.99	128.60
1	6	144	U	C6-N1-C2	-6.01	117.39	121.00
36	1	865	U	C5-C6-N1	-6.01	119.69	122.70
36	1	1386	A	C6-N1-C2	-6.01	114.99	118.60
36	5	2584	G	C8-N9-C4	-6.01	104.00	106.40
36	1	1296	C	C4-C5-C6	6.01	120.41	117.40
36	1	1443	G	C8-N9-C4	-6.01	104.00	106.40
36	5	889	U	C6-N1-C2	6.01	124.61	121.00
36	5	1442	U	OP1-P-O3'	6.01	118.43	105.20
36	5	1842	A	O5'-P-OP2	-6.01	100.29	105.70
1	2	163	G	C8-N9-C4	-6.01	104.00	106.40
1	2	1777	G	C6-C5-N7	-6.01	126.79	130.40
36	1	1199	C	N3-C2-O2	-6.01	117.69	121.90
36	1	2987	A	N1-C2-N3	6.01	132.31	129.30
1	6	565	C	C5-C6-N1	-6.01	118.00	121.00
36	5	1152	G	C6-N1-C2	6.01	128.71	125.10
36	5	2693	C	C2-N3-C4	-6.01	116.90	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	961	C	C5-C6-N1	-6.01	118.00	121.00
36	1	2374	C	C4-C5-C6	6.01	120.40	117.40
36	1	2873	U	O5'-P-OP2	-6.01	100.30	105.70
36	5	1369	A	N1-C6-N6	6.01	122.20	118.60
36	5	2899	C	C4-C5-C6	6.00	120.40	117.40
36	1	2850	G	C5-C6-O6	-6.00	125.00	128.60
36	5	1454	A	C4-C5-N7	6.00	113.70	110.70
36	1	880	G	C4-C5-N7	-6.00	108.40	110.80
36	1	1152	G	O5'-P-OP1	-6.00	100.30	105.70
36	5	1884	A	OP2-P-O3'	6.00	118.40	105.20
36	1	925	A	N1-C2-N3	6.00	132.30	129.30
36	5	776	U	N3-C4-O4	-6.00	115.20	119.40
36	1	2622	C	O5'-P-OP1	6.00	117.90	110.70
36	5	35	A	C5-C6-N6	-6.00	118.90	123.70
1	6	404	G	N3-C2-N2	-6.00	115.70	119.90
36	5	217	U	C6-N1-C2	6.00	124.60	121.00
36	5	345	G	N1-C6-O6	6.00	123.50	119.90
36	5	1426	C	C5-C4-N4	-6.00	116.00	120.20
36	5	2871	G	N3-C2-N2	6.00	124.10	119.90
36	1	1552	G	N1-C6-O6	6.00	123.50	119.90
36	1	3052	G	C5-C6-O6	-6.00	125.00	128.60
36	1	1386	A	N3-C4-N9	5.99	132.19	127.40
1	6	308	C	N1-C2-N3	5.99	123.39	119.20
1	6	542	A	O5'-P-OP1	-5.99	100.31	105.70
36	1	504	A	C8-N9-C4	5.99	108.20	105.80
36	1	229	G	C5-C6-O6	-5.99	125.01	128.60
1	6	1085	G	C5-C6-O6	5.99	132.19	128.60
36	5	1549	U	C6-N1-C2	5.99	124.59	121.00
69	O3	89	LEU	CB-CG-CD2	-5.99	100.82	111.00
36	1	994	G	N3-C2-N2	5.99	124.09	119.90
36	1	2276	G	N3-C2-N2	-5.99	115.71	119.90
41	L4	313	LEU	CA-CB-CG	5.99	129.07	115.30
1	6	1773	C	C6-N1-C2	-5.99	117.91	120.30
36	1	423	A	C4-C5-C6	5.98	119.99	117.00
36	5	35	A	N1-C6-N6	5.98	122.19	118.60
36	5	2962	U	C6-N1-C2	-5.98	117.41	121.00
36	1	646	A	N1-C2-N3	5.98	132.29	129.30
36	1	1429	G	N1-C2-N2	-5.98	110.82	116.20
36	1	1436	U	OP1-P-OP2	-5.98	110.62	119.60
36	1	1620	U	O5'-P-OP2	-5.98	100.32	105.70
36	1	2138	A	C2-N3-C4	-5.98	107.61	110.60
37	3	81	U	C5-C6-N1	-5.98	119.71	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1274	C	C6-N1-C2	-5.98	117.91	120.30
36	1	1419	A	O5'-P-OP1	5.98	117.88	110.70
36	5	220	G	O5'-P-OP2	-5.98	100.32	105.70
36	1	3361	G	N3-C4-C5	-5.98	125.61	128.60
1	6	1600	A	N9-C1'-C2'	5.98	121.77	114.00
36	5	1337	A	N1-C6-N6	5.98	122.19	118.60
36	1	636	C	C5-C4-N4	-5.97	116.02	120.20
36	1	2385	G	N3-C4-C5	5.97	131.59	128.60
36	1	2897	A	C8-N9-C4	5.97	108.19	105.80
1	6	1200	G	N3-C2-N2	-5.97	115.72	119.90
36	5	1115	G	C8-N9-C1'	-5.97	119.23	127.00
1	2	971	A	C4-C5-C6	5.97	119.99	117.00
36	1	659	G	C6-C5-N7	-5.97	126.82	130.40
36	1	937	G	C5-C6-O6	-5.97	125.02	128.60
36	1	2369	G	N3-C2-N2	-5.97	115.72	119.90
36	5	726	G	N1-C6-O6	5.97	123.48	119.90
36	5	2372	A	N7-C8-N9	5.97	116.79	113.80
36	1	95	A	C2-N3-C4	-5.97	107.61	110.60
36	1	1429	G	C8-N9-C1'	-5.97	119.24	127.00
36	5	40	A	O5'-P-OP1	-5.97	100.33	105.70
36	1	2699	G	C6-C5-N7	-5.97	126.82	130.40
70	O4	51	LEU	CA-CB-CG	5.97	129.03	115.30
1	6	564	G	C8-N9-C4	-5.97	104.01	106.40
36	5	823	C	C6-N1-C2	5.97	122.69	120.30
36	5	694	C	N1-C2-O2	5.97	122.48	118.90
36	1	1329	U	C6-N1-C2	-5.97	117.42	121.00
20	c8	15	LEU	CA-CB-CG	5.97	129.02	115.30
36	5	908	G	C5-C6-O6	-5.97	125.02	128.60
36	5	1528	G	C6-C5-N7	-5.97	126.82	130.40
36	5	2186	U	O5'-P-OP1	5.97	117.86	110.70
36	5	2395	G	C5-C6-N1	5.97	114.48	111.50
36	5	2758	A	O4'-C1'-N9	5.97	112.97	108.20
36	1	1002	A	C8-N9-C4	5.96	108.19	105.80
36	5	812	G	C4-C5-N7	-5.96	108.41	110.80
36	5	3211	C	C5-C6-N1	-5.96	118.02	121.00
36	1	1205	A	N9-C4-C5	-5.96	103.42	105.80
36	5	974	G	C5-C6-N1	5.96	114.48	111.50
36	5	994	G	OP1-P-O3'	5.96	118.32	105.20
36	5	2853	A	C8-N9-C4	5.96	108.19	105.80
36	1	2417	U	C5-C6-N1	-5.96	119.72	122.70
36	5	1392	G	N1-C6-O6	5.96	123.48	119.90
36	1	895	A	C5-C6-N6	-5.96	118.93	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	803	C	C6-N1-C2	-5.96	117.92	120.30
36	5	2852	C	N3-C2-O2	5.96	126.07	121.90
36	1	2364	G	C5-N7-C8	5.96	107.28	104.30
36	5	1302	A	O5'-P-OP2	5.96	117.85	110.70
36	1	3269	U	N3-C2-O2	-5.96	118.03	122.20
36	5	3178	A	C2-N3-C4	-5.96	107.62	110.60
36	1	2632	G	OP1-P-O3'	5.96	118.30	105.20
36	5	2400	G	C6-C5-N7	-5.96	126.83	130.40
36	1	55	G	N7-C8-N9	-5.95	110.12	113.10
36	5	1146	C	C6-N1-C2	5.95	122.68	120.30
36	5	1136	A	C2-N3-C4	-5.95	107.62	110.60
1	2	572	C	O5'-P-OP1	-5.95	100.34	105.70
36	1	1520	G	C8-N9-C4	5.95	108.78	106.40
36	1	2963	C	C2-N3-C4	-5.95	116.92	119.90
61	N5	115	ARG	NE-CZ-NH1	5.95	123.28	120.30
1	6	458	G	C8-N9-C4	-5.95	104.02	106.40
36	5	1165	A	N9-C4-C5	-5.95	103.42	105.80
36	5	2306	C	O5'-P-OP2	-5.95	100.34	105.70
36	5	2685	C	C2-N3-C4	-5.95	116.92	119.90
1	2	73	U	OP1-P-O3'	5.95	118.29	105.20
52	M6	110	PRO	C-N-CD	-5.95	107.52	120.60
36	5	834	U	N3-C4-O4	-5.95	115.24	119.40
36	1	608	A	C6-C5-N7	-5.95	128.14	132.30
36	1	3274	A	C8-N9-C4	-5.95	103.42	105.80
36	1	2300	G	O5'-P-OP1	-5.95	100.35	105.70
36	1	2920	U	C2-N3-C4	-5.94	123.43	127.00
36	1	3075	G	N1-C6-O6	5.94	123.47	119.90
36	1	339	C	N3-C4-N4	-5.94	113.84	118.00
36	1	353	G	C5-C6-O6	-5.94	125.03	128.60
36	5	2834	G	N1-C6-O6	5.94	123.47	119.90
36	5	2848	G	N1-C6-O6	5.94	123.47	119.90
36	5	3288	G	C5-C6-N1	5.94	114.47	111.50
1	6	1634	C	N3-C2-O2	-5.94	117.74	121.90
36	1	110	G	O4'-C1'-N9	5.94	112.95	108.20
36	1	2758	A	C8-N9-C4	5.94	108.18	105.80
36	5	666	A	N7-C8-N9	-5.94	110.83	113.80
36	5	875	G	N1-C2-N3	5.94	127.46	123.90
36	5	2297	U	C5-C4-O4	5.94	129.46	125.90
1	2	70	C	C6-N1-C2	5.94	122.67	120.30
36	1	895	A	N9-C4-C5	-5.94	103.42	105.80
36	1	2356	A	C5-N7-C8	-5.94	100.93	103.90
1	6	1007	C	C6-N1-C2	5.94	122.67	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1121	U	C5-C6-N1	-5.94	119.73	122.70
36	5	2339	C	OP1-P-O3'	5.94	118.26	105.20
36	1	3001	C	C2-N1-C1'	-5.94	112.27	118.80
38	8	92	A	N1-C6-N6	5.94	122.16	118.60
1	2	1796	C	C4-C5-C6	5.93	120.37	117.40
1	6	1121	C	C5-C6-N1	-5.93	118.03	121.00
1	6	1141	G	N1-C6-O6	5.93	123.46	119.90
36	5	2907	G	C8-N9-C4	-5.93	104.03	106.40
36	5	3269	U	P-O3'-C3'	5.93	126.82	119.70
36	5	2320	A	C5-C6-N6	5.93	128.45	123.70
36	5	2364	G	N1-C6-O6	-5.93	116.34	119.90
36	1	1931	U	C2-N1-C1'	-5.93	110.58	117.70
36	1	2130	G	N1-C2-N3	5.93	127.46	123.90
36	1	2379	U	N1-C2-O2	-5.93	118.65	122.80
36	1	3207	U	C2-N1-C1'	-5.93	110.58	117.70
1	6	1164	G	C5-C6-O6	-5.93	125.04	128.60
36	5	945	C	C6-N1-C1'	-5.93	113.68	120.80
36	5	1395	G	OP2-P-O3'	5.93	118.25	105.20
36	5	2943	G	C8-N9-C1'	-5.93	119.29	127.00
36	5	3107	U	C5-C4-O4	-5.93	122.34	125.90
36	5	1211	U	O5'-P-OP2	-5.93	100.36	105.70
36	5	1417	G	N3-C4-N9	5.93	129.56	126.00
36	1	431	U	C5-C4-O4	-5.93	122.34	125.90
36	1	1487	G	O5'-P-OP1	-5.93	100.37	105.70
1	6	1765	A	N1-C6-N6	-5.93	115.04	118.60
36	5	43	A	C2-N3-C4	-5.93	107.64	110.60
36	5	2728	G	O5'-P-OP2	-5.93	100.37	105.70
36	1	2159	U	C6-N1-C2	5.92	124.56	121.00
36	1	2620	G	C8-N9-C4	5.92	108.77	106.40
36	5	2357	A	O5'-P-OP1	-5.92	100.37	105.70
36	5	2902	A	C5-C6-N6	-5.92	118.96	123.70
36	5	1306	G	C5-C6-N1	5.92	114.46	111.50
1	2	458	G	C5-C6-N1	-5.92	108.54	111.50
1	2	1300	A	N1-C6-N6	-5.92	115.05	118.60
36	5	744	A	N1-C6-N6	5.92	122.15	118.60
36	5	3014	U	C2-N3-C4	-5.92	123.45	127.00
36	1	945	C	C2-N3-C4	-5.92	116.94	119.90
36	5	1911	A	N1-C2-N3	5.92	132.26	129.30
36	1	1128	U	N3-C4-C5	5.92	118.15	114.60
36	1	2136	C	N3-C2-O2	5.92	126.04	121.90
36	1	3203	U	C5-C4-O4	5.92	129.45	125.90
1	2	1600	A	N1-C6-N6	5.92	122.15	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	88	G	N3-C4-C5	-5.92	125.64	128.60
36	5	3028	G	N3-C2-N2	5.92	124.04	119.90
36	1	3079	U	C6-N1-C1'	5.92	129.48	121.20
36	5	979	U	C6-N1-C2	-5.92	117.45	121.00
36	5	1433	A	O5'-P-OP2	5.92	117.80	110.70
36	1	908	G	C8-N9-C1'	-5.91	119.31	127.00
36	5	834	U	C5-C6-N1	-5.91	119.74	122.70
36	5	1048	A	C8-N9-C4	5.91	108.17	105.80
36	5	2389	C	O5'-P-OP1	-5.91	100.38	105.70
36	5	2643	A	N9-C4-C5	-5.91	103.44	105.80
36	5	1130	A	C8-N9-C4	5.91	108.17	105.80
36	5	3209	A	C5-N7-C8	-5.91	100.94	103.90
36	1	960	U	C6-N1-C2	5.91	124.55	121.00
36	1	984	G	N3-C2-N2	5.91	124.04	119.90
1	6	512	A	P-O3'-C3'	5.91	126.79	119.70
1	2	1089	U	N3-C2-O2	-5.91	118.06	122.20
36	1	2706	G	C6-C5-N7	-5.91	126.86	130.40
36	1	2949	U	N3-C2-O2	5.91	126.33	122.20
1	6	795	U	N3-C2-O2	-5.91	118.06	122.20
36	5	1316	C	C5-C4-N4	-5.91	116.06	120.20
36	1	2924	U	N3-C2-O2	5.91	126.33	122.20
36	1	3344	A	C6-C5-N7	-5.91	128.17	132.30
36	1	1324	U	C5-C6-N1	-5.90	119.75	122.70
1	2	720	G	OP1-P-O3'	5.90	118.18	105.20
36	1	1909	A	N1-C6-N6	5.90	122.14	118.60
1	6	333	A	N1-C2-N3	5.90	132.25	129.30
1	6	371	G	C4-N9-C1'	5.90	134.17	126.50
38	8	103	G	N3-C4-N9	5.90	129.54	126.00
36	5	42	C	N1-C2-O2	5.90	122.44	118.90
36	5	2775	U	C5-C6-N1	-5.90	119.75	122.70
38	8	79	A	N7-C8-N9	5.90	116.75	113.80
36	1	666	A	N7-C8-N9	-5.90	110.85	113.80
36	1	2871	G	O5'-P-OP2	-5.90	100.39	105.70
36	5	971	G	N1-C6-O6	5.90	123.44	119.90
36	5	2707	C	N3-C4-C5	5.90	124.26	121.90
36	1	2314	U	N3-C4-C5	5.90	118.14	114.60
36	1	3001	C	C5-C6-N1	-5.89	118.05	121.00
38	4	7	U	C5-C6-N1	-5.89	119.75	122.70
36	5	140	C	N1-C2-O2	-5.89	115.36	118.90
36	5	2396	G	N3-C2-N2	-5.89	115.77	119.90
36	5	3093	C	C5-C6-N1	-5.89	118.05	121.00
1	2	582	U	C2-N1-C1'	5.89	124.77	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1241	G	C6-C5-N7	-5.89	126.86	130.40
36	1	909	G	N1-C6-O6	-5.89	116.36	119.90
36	1	1344	G	C4-C5-N7	5.89	113.16	110.80
36	1	1585	C	N3-C4-C5	5.89	124.26	121.90
38	4	108	C	N3-C4-C5	-5.89	119.54	121.90
36	5	718	G	N3-C4-N9	5.89	129.54	126.00
36	5	1339	C	C6-N1-C2	-5.89	117.94	120.30
36	5	1445	U	N1-C2-N3	5.89	118.44	114.90
36	5	2385	G	C8-N9-C4	5.89	108.76	106.40
36	5	2943	G	C4-C5-C6	5.89	122.33	118.80
36	1	111	C	N3-C4-C5	5.89	124.26	121.90
1	6	337	G	C8-N9-C1'	-5.89	119.34	127.00
36	5	504	A	C5-C6-N6	-5.89	118.99	123.70
36	5	1394	A	C5-C6-N1	5.89	120.64	117.70
36	1	49	A	O5'-P-OP1	-5.89	100.40	105.70
36	1	716	A	N3-C4-C5	5.89	130.92	126.80
36	1	1609	C	O5'-P-OP1	-5.89	100.40	105.70
36	5	2870	C	C6-N1-C1'	5.89	127.87	120.80
36	1	1199	C	C6-N1-C2	5.89	122.65	120.30
36	1	1405	U	OP1-P-OP2	5.89	128.43	119.60
36	5	1100	U	C5-C6-N1	-5.89	119.76	122.70
36	5	2191	U	N1-C2-O2	5.89	126.92	122.80
36	1	2351	U	N3-C4-O4	-5.88	115.28	119.40
36	1	2935	U	OP2-P-O3'	5.88	118.14	105.20
36	1	1047	A	O5'-P-OP1	5.88	117.76	110.70
1	6	1012	U	N3-C4-O4	-5.88	115.28	119.40
36	5	1152	G	N1-C6-O6	5.88	123.43	119.90
1	6	1537	C	C6-N1-C1'	5.88	127.86	120.80
36	5	589	A	O4'-C1'-N9	-5.88	103.50	108.20
36	5	2404	A	N1-C6-N6	5.88	122.13	118.60
36	1	82	C	C6-N1-C2	5.88	122.65	120.30
1	6	116	U	N3-C4-C5	-5.88	111.07	114.60
36	5	187	A	C6-N1-C2	-5.88	115.07	118.60
36	5	1513	G	OP1-P-O3'	5.88	118.13	105.20
1	2	48	G	O5'-P-OP2	-5.88	100.41	105.70
36	1	861	C	O5'-P-OP1	5.88	117.75	110.70
36	5	895	A	C6-N1-C2	-5.88	115.07	118.60
36	5	2709	C	C6-N1-C2	5.88	122.65	120.30
36	5	2927	C	OP2-P-O3'	5.88	118.13	105.20
37	7	28	C	C4-C5-C6	5.88	120.34	117.40
36	1	716	A	C4-C5-N7	5.88	113.64	110.70
1	2	1456	C	C2-N1-C1'	5.87	125.26	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2723	U	C5-C6-N1	-5.87	119.76	122.70
36	5	2158	A	C5-C6-N1	5.87	120.64	117.70
36	5	2424	A	N1-C6-N6	5.87	122.12	118.60
1	2	1370	U	P-O3'-C3'	5.87	126.75	119.70
36	5	641	C	C2-N3-C4	-5.87	116.96	119.90
36	5	2145	A	C6-N1-C2	-5.87	115.08	118.60
37	7	27	A	N1-C6-N6	5.87	122.12	118.60
38	4	29	U	C5-C4-O4	-5.87	122.38	125.90
1	2	81	G	N1-C6-O6	5.87	123.42	119.90
1	2	831	U	C5-C6-N1	5.87	125.64	122.70
1	2	1761	U	N3-C2-O2	-5.87	118.09	122.20
36	1	2371	G	OP2-P-O3'	5.87	118.11	105.20
1	6	352	A	C6-C5-N7	5.87	136.41	132.30
36	5	1162	U	OP1-P-OP2	5.87	128.40	119.60
1	2	1110	G	N3-C4-C5	5.87	131.53	128.60
36	1	1177	G	O5'-P-OP1	-5.87	100.42	105.70
36	1	2910	A	C2-N3-C4	-5.87	107.67	110.60
36	1	3079	U	N1-C2-O2	-5.87	118.69	122.80
36	1	3110	C	C6-N1-C2	-5.87	117.95	120.30
36	1	92	G	N1-C6-O6	-5.87	116.38	119.90
36	1	676	G	C4-N9-C1'	5.87	134.12	126.50
36	1	959	C	C6-N1-C2	5.87	122.65	120.30
36	1	2305	G	C5-C6-O6	-5.87	125.08	128.60
36	1	3125	U	C6-N1-C2	5.87	124.52	121.00
36	5	813	G	N9-C4-C5	-5.87	103.05	105.40
1	2	587	C	C6-N1-C2	-5.86	117.95	120.30
36	1	2417	U	C2-N3-C4	-5.86	123.48	127.00
36	1	2606	G	N3-C2-N2	5.86	124.00	119.90
36	1	2889	C	C6-N1-C2	-5.86	117.95	120.30
1	6	1724	U	N3-C4-O4	-5.86	115.30	119.40
36	5	437	G	C8-N9-C4	-5.86	104.06	106.40
36	5	786	A	N1-C6-N6	5.86	122.12	118.60
51	M5	159	ARG	NE-CZ-NH2	-5.86	117.37	120.30
1	6	1634	C	C2-N1-C1'	5.86	125.25	118.80
36	5	668	G	N1-C6-O6	-5.86	116.38	119.90
36	1	2855	U	C2-N3-C4	-5.86	123.48	127.00
1	6	1653	C	N3-C4-C5	-5.86	119.56	121.90
36	5	218	G	OP1-P-OP2	5.86	128.39	119.60
36	5	969	C	C2-N3-C4	-5.86	116.97	119.90
36	5	1116	G	C4-C5-C6	5.86	122.32	118.80
36	5	3103	A	C5-C6-N1	5.86	120.63	117.70
36	5	3306	U	O5'-P-OP2	-5.86	100.42	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	m0	90	ARG	NE-CZ-NH1	-5.86	117.37	120.30
36	1	1601	U	C5-C6-N1	-5.86	119.77	122.70
36	1	3181	C	C6-N1-C2	-5.86	117.96	120.30
36	5	1367	G	C6-C5-N7	-5.86	126.89	130.40
36	5	1897	G	C5-C6-N1	-5.86	108.57	111.50
36	5	2953	U	OP2-P-O3'	5.86	118.09	105.20
36	1	2309	A	N1-C6-N6	5.86	122.11	118.60
36	1	2641	U	C6-N1-C2	5.86	124.51	121.00
36	5	2598	G	N1-C6-O6	5.86	123.41	119.90
36	5	3043	C	C5-C6-N1	-5.86	118.07	121.00
1	2	1100	G	N1-C6-O6	5.85	123.41	119.90
36	5	1189	C	N1-C2-O2	-5.85	115.39	118.90
36	1	2726	C	C6-N1-C2	-5.85	117.96	120.30
1	6	1440	C	C6-N1-C2	-5.85	117.96	120.30
36	5	1433	A	C8-N9-C4	-5.85	103.46	105.80
36	5	3321	C	C6-N1-C2	5.85	122.64	120.30
37	7	85	G	O5'-P-OP2	5.85	117.72	110.70
36	1	709	A	C8-N9-C4	5.85	108.14	105.80
36	1	2286	U	O5'-P-OP2	-5.85	100.44	105.70
1	6	1136	U	O5'-P-OP1	-5.85	100.44	105.70
36	5	48	A	N9-C4-C5	5.85	108.14	105.80
36	5	1134	G	O5'-P-OP2	-5.85	100.44	105.70
36	1	968	G	N3-C4-C5	-5.85	125.68	128.60
36	1	981	U	C5-C6-N1	5.85	125.62	122.70
1	2	1104	U	N3-C4-O4	-5.85	115.31	119.40
36	1	913	A	C8-N9-C4	-5.85	103.46	105.80
36	5	400	G	C8-N9-C4	-5.85	104.06	106.40
36	1	1097	G	P-O3'-C3'	5.84	126.71	119.70
36	5	2110	G	C8-N9-C4	5.84	108.74	106.40
1	2	389	G	C4-N9-C1'	5.84	134.09	126.50
1	6	1058	U	OP1-P-O3'	5.84	118.05	105.20
36	1	267	G	C2-N3-C4	-5.84	108.98	111.90
36	1	1192	C	C2-N3-C4	5.84	122.82	119.90
1	2	389	G	N3-C4-C5	-5.84	125.68	128.60
1	2	864	U	C5-C4-O4	5.84	129.40	125.90
36	1	1509	A	N7-C8-N9	-5.84	110.88	113.80
36	5	776	U	C4-C5-C6	5.84	123.20	119.70
36	5	1482	A	O5'-P-OP2	-5.84	100.44	105.70
37	3	82	G	C4-N9-C1'	5.84	134.09	126.50
36	5	3141	A	O5'-P-OP1	-5.84	100.45	105.70
36	1	362	U	C5-C6-N1	-5.83	119.78	122.70
36	1	924	G	O5'-P-OP1	-5.83	100.45	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	635	A	C2-N3-C4	-5.83	107.68	110.60
36	5	969	C	C2-N1-C1'	-5.83	112.38	118.80
36	5	1121	U	OP2-P-O3'	5.83	118.03	105.20
38	8	55	U	C6-N1-C2	-5.83	117.50	121.00
36	1	1001	G	C8-N9-C4	5.83	108.73	106.40
36	1	1503	A	P-O3'-C3'	-5.83	112.70	119.70
36	5	2350	C	N3-C4-C5	5.83	124.23	121.90
36	1	3194	C	C2-N1-C1'	-5.83	112.39	118.80
36	5	3042	U	N3-C4-O4	-5.83	115.32	119.40
1	6	1657	U	C5-C6-N1	5.83	125.61	122.70
36	1	215	G	N3-C4-C5	-5.83	125.69	128.60
36	1	3242	G	C8-N9-C4	5.83	108.73	106.40
1	6	1128	C	N1-C2-O2	-5.83	115.40	118.90
36	1	2406	C	C5-C4-N4	-5.83	116.12	120.20
37	3	89	G	C5-C6-O6	-5.83	125.11	128.60
36	5	658	G	N1-C6-O6	5.83	123.40	119.90
36	5	718	G	C8-N9-C1'	-5.83	119.43	127.00
36	5	945	C	C4-C5-C6	5.83	120.31	117.40
36	5	1340	G	N9-C4-C5	-5.83	103.07	105.40
36	5	2351	U	N1-C2-N3	5.83	118.39	114.90
36	1	120	G	N9-C4-C5	-5.82	103.07	105.40
36	1	1149	G	C6-C5-N7	-5.82	126.91	130.40
36	1	1365	G	C4-C5-C6	5.82	122.29	118.80
36	1	1898	G	C8-N9-C4	5.82	108.73	106.40
36	1	2241	U	C2-N1-C1'	-5.82	110.71	117.70
1	6	1200	G	N3-C4-C5	5.82	131.51	128.60
36	1	304	G	N3-C4-N9	-5.82	122.51	126.00
36	1	950	G	C5-C6-O6	-5.82	125.11	128.60
36	1	3078	U	C5-C6-N1	5.82	125.61	122.70
36	1	31	C	N3-C4-C5	5.82	124.23	121.90
36	1	587	U	C5-C6-N1	-5.82	119.79	122.70
36	1	922	U	N3-C4-O4	-5.82	115.33	119.40
36	5	3371	G	N1-C6-O6	5.82	123.39	119.90
36	1	2850	G	C6-C5-N7	-5.82	126.91	130.40
65	n9	23	LYS	C-N-CD	5.82	140.62	128.40
36	1	704	U	C5-C4-O4	-5.82	122.41	125.90
36	1	1132	C	O5'-P-OP1	-5.82	100.46	105.70
36	5	1712	G	C5-C6-O6	-5.82	125.11	128.60
36	5	1838	G	C5-C6-O6	-5.82	125.11	128.60
36	1	1128	U	N3-C4-O4	-5.82	115.33	119.40
47	M0	24	ARG	NE-CZ-NH1	5.82	123.21	120.30
1	6	901	G	C5-C6-O6	-5.82	125.11	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2930	A	O4'-C1'-N9	5.82	112.85	108.20
62	N6	57	LEU	CA-CB-CG	5.81	128.67	115.30
1	6	1514	U	N3-C4-O4	-5.81	115.33	119.40
1	2	1022	C	C6-N1-C2	5.81	122.62	120.30
36	1	639	G	N3-C2-N2	-5.81	115.83	119.90
36	1	2287	C	N1-C2-O2	-5.81	115.41	118.90
36	1	2953	U	N1-C2-O2	-5.81	118.73	122.80
36	5	933	A	C6-N1-C2	-5.81	115.11	118.60
36	5	1121	U	C2-N3-C4	-5.81	123.51	127.00
36	5	1669	C	C6-N1-C2	5.81	122.62	120.30
36	5	1751	G	C8-N9-C4	5.81	108.72	106.40
36	5	3307	A	C8-N9-C4	5.81	108.12	105.80
37	7	12	U	N3-C4-C5	5.81	118.09	114.60
36	1	395	A	C8-N9-C4	-5.81	103.47	105.80
1	6	941	A	C2-N3-C4	5.81	113.50	110.60
36	5	1365	G	C6-C5-N7	-5.81	126.92	130.40
36	5	2283	G	C4-C5-N7	5.81	113.12	110.80
36	1	2393	G	N3-C2-N2	-5.81	115.83	119.90
36	1	2823	G	N9-C4-C5	5.81	107.72	105.40
36	1	3065	G	N1-C6-O6	5.81	123.39	119.90
1	6	18	C	N3-C4-C5	-5.81	119.58	121.90
36	5	3288	G	N1-C6-O6	-5.81	116.42	119.90
36	1	2914	G	OP1-P-OP2	5.81	128.31	119.60
36	1	3034	C	O5'-P-OP2	-5.80	100.48	105.70
36	5	2813	A	N1-C2-N3	5.80	132.20	129.30
1	6	308	C	C2-N1-C1'	-5.80	112.42	118.80
36	5	962	A	C4-C5-C6	5.80	119.90	117.00
36	5	2125	A	N1-C6-N6	5.80	122.08	118.60
36	1	2785	A	C8-N9-C4	5.80	108.12	105.80
36	5	3172	A	C2-N3-C4	-5.80	107.70	110.60
1	6	1648	A	N9-C4-C5	-5.80	103.48	105.80
36	5	1198	C	N3-C2-O2	-5.80	117.84	121.90
36	1	661	G	N7-C8-N9	5.80	116.00	113.10
36	5	2964	G	O5'-P-OP2	-5.80	100.48	105.70
36	5	1194	G	N9-C4-C5	5.80	107.72	105.40
3	S1	96	LEU	CA-CB-CG	5.79	128.63	115.30
36	1	1907	C	C6-N1-C2	-5.79	117.98	120.30
36	5	376	G	C8-N9-C4	-5.79	104.08	106.40
1	2	137	U	O5'-P-OP1	-5.79	100.49	105.70
36	1	584	G	C5-C6-O6	5.79	132.08	128.60
36	1	1321	G	C8-N9-C4	-5.79	104.08	106.40
36	1	1329	U	C6-N1-C1'	-5.79	113.09	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2643	A	N1-C6-N6	5.79	122.08	118.60
36	5	2234	G	C8-N9-C4	5.79	108.72	106.40
36	1	24	G	N3-C4-N9	5.79	129.47	126.00
36	5	534	U	N3-C2-O2	-5.79	118.15	122.20
36	5	660	A	C4-C5-N7	-5.79	107.80	110.70
36	1	1381	A	C6-C5-N7	-5.79	128.25	132.30
36	1	3000	A	C8-N9-C4	5.79	108.12	105.80
37	3	103	A	C5-C6-N6	-5.79	119.07	123.70
36	1	951	A	C2-N3-C4	-5.79	107.70	110.60
36	1	2402	A	C5-C6-N6	-5.79	119.07	123.70
36	1	3319	U	P-O3'-C3'	5.79	126.65	119.70
1	6	90	C	N1-C2-O2	5.79	122.37	118.90
36	5	868	C	N3-C2-O2	5.79	125.95	121.90
36	5	2234	G	N9-C4-C5	-5.79	103.08	105.40
36	5	2627	C	N3-C2-O2	-5.79	117.85	121.90
1	2	1432	U	C6-N1-C2	5.79	124.47	121.00
36	1	2309	A	C5-C6-N6	-5.79	119.07	123.70
36	1	2901	G	C5-C6-O6	-5.79	125.13	128.60
36	5	1869	C	C2-N1-C1'	-5.79	112.44	118.80
36	5	2145	A	N1-C2-N3	5.79	132.19	129.30
36	5	2524	A	N9-C1'-C2'	5.79	121.52	114.00
36	5	3326	G	N9-C4-C5	-5.79	103.09	105.40
1	2	1073	G	C8-N9-C4	5.78	108.71	106.40
1	2	1280	C	N3-C4-N4	5.78	122.05	118.00
1	2	1611	A	N7-C8-N9	5.78	116.69	113.80
36	1	207	U	N1-C2-O2	-5.78	118.75	122.80
36	1	659	G	C5-C6-O6	-5.78	125.13	128.60
36	5	416	A	C4-C5-C6	5.78	119.89	117.00
36	5	2584	G	N7-C8-N9	5.78	115.99	113.10
37	3	91	G	N3-C2-N2	-5.78	115.85	119.90
36	5	2834	G	C4-C5-N7	5.78	113.11	110.80
36	1	1076	C	C5-C6-N1	-5.78	118.11	121.00
36	5	2136	C	C6-N1-C2	5.78	122.61	120.30
36	5	3000	A	N9-C4-C5	-5.78	103.49	105.80
36	5	1910	A	C8-N9-C4	5.78	108.11	105.80
36	1	212	G	N1-C6-O6	5.78	123.37	119.90
36	1	2355	G	C2-N3-C4	-5.78	109.01	111.90
36	1	3065	G	C5-C6-O6	-5.78	125.13	128.60
36	5	2239	G	C4-C5-N7	5.78	113.11	110.80
36	5	2647	A	C6-N1-C2	-5.78	115.13	118.60
36	5	3343	G	N3-C2-N2	5.78	123.94	119.90
1	2	95	G	N1-C6-O6	-5.78	116.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1202	A	C2-N3-C4	5.78	113.49	110.60
36	1	1178	G	C5-C6-O6	-5.78	125.14	128.60
36	1	2961	G	C6-C5-N7	-5.78	126.93	130.40
36	5	1499	C	C6-N1-C1'	5.78	127.73	120.80
36	1	960	U	C5-C4-O4	-5.77	122.44	125.90
36	5	1348	U	N3-C2-O2	-5.77	118.16	122.20
36	1	721	G	C6-C5-N7	-5.77	126.94	130.40
36	1	1635	G	C5-C6-O6	-5.77	125.14	128.60
36	5	945	C	N3-C2-O2	-5.77	117.86	121.90
36	5	2170	U	C5-C6-N1	-5.77	119.81	122.70
37	7	91	G	N1-C2-N3	5.77	127.36	123.90
36	1	2901	G	C6-C5-N7	-5.77	126.94	130.40
36	5	610	G	C5-C6-O6	5.77	132.06	128.60
36	5	1434	G	C5-C6-N1	5.77	114.39	111.50
1	2	580	A	C8-N9-C4	-5.77	103.49	105.80
36	1	611	A	O5'-P-OP1	5.77	117.62	110.70
36	1	1916	U	C5-C6-N1	-5.77	119.81	122.70
36	1	3269	U	C5-C4-O4	5.77	129.36	125.90
1	6	542	A	N1-C6-N6	5.77	122.06	118.60
36	5	2323	G	C8-N9-C4	-5.77	104.09	106.40
36	5	2848	G	C4-C5-C6	5.77	122.26	118.80
38	8	103	G	C5-C6-O6	-5.77	125.14	128.60
36	1	2375	G	O4'-C1'-N9	5.77	112.81	108.20
36	5	1198	C	N3-C4-N4	-5.77	113.96	118.00
36	5	2392	C	C2-N1-C1'	-5.77	112.45	118.80
36	5	2597	U	N1-C2-N3	-5.77	111.44	114.90
36	5	2634	U	C5-C4-O4	-5.77	122.44	125.90
38	8	8	C	C6-N1-C2	-5.77	117.99	120.30
36	5	1878	G	C8-N9-C1'	-5.76	119.51	127.00
1	2	580	A	N9-C4-C5	5.76	108.11	105.80
36	1	395	A	OP1-P-OP2	5.76	128.25	119.60
36	1	1330	A	C5-C6-N1	-5.76	114.82	117.70
36	1	1844	C	C6-N1-C2	5.76	122.61	120.30
36	1	2624	G	C8-N9-C4	-5.76	104.09	106.40
36	5	2351	U	C6-N1-C2	-5.76	117.54	121.00
1	2	992	A	N3-C4-C5	5.76	130.83	126.80
36	1	884	A	C5-C6-N6	-5.76	119.09	123.70
36	1	3302	U	O5'-P-OP1	-5.76	100.52	105.70
1	6	44	U	N1-C2-O2	-5.76	118.77	122.80
1	6	1094	G	N1-C6-O6	-5.76	116.44	119.90
36	5	938	C	OP1-P-O3'	5.76	117.87	105.20
36	1	120	G	C8-N9-C4	5.76	108.70	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	734	A	P-O3'-C3'	5.76	126.61	119.70
36	1	2364	G	C6-C5-N7	5.76	133.85	130.40
36	5	221	A	N1-C6-N6	-5.76	115.15	118.60
1	6	610	G	C4-N9-C1'	5.75	133.98	126.50
36	1	1367	G	O5'-P-OP1	-5.75	100.52	105.70
36	5	2662	G	N1-C6-O6	-5.75	116.45	119.90
1	2	1191	U	N3-C2-O2	-5.75	118.17	122.20
41	L4	206	LEU	CA-CB-CG	5.75	128.53	115.30
36	5	1906	G	C5-C6-O6	-5.75	125.15	128.60
36	1	2304	C	C6-N1-C2	-5.75	118.00	120.30
36	1	3214	U	N1-C2-O2	5.75	126.83	122.80
36	5	57	A	C2-N3-C4	-5.75	107.72	110.60
36	5	1138	U	C5-C6-N1	-5.75	119.83	122.70
36	5	2900	A	N1-C6-N6	-5.75	115.15	118.60
36	5	3050	U	C4-C5-C6	5.75	123.15	119.70
39	12	3	ARG	NE-CZ-NH1	-5.75	117.42	120.30
36	1	105	C	N1-C2-O2	-5.75	115.45	118.90
36	1	879	U	N3-C4-O4	-5.75	115.38	119.40
36	1	915	A	N1-C6-N6	-5.75	115.15	118.60
1	6	331	A	C8-N9-C4	5.75	108.10	105.80
1	6	558	U	N3-C2-O2	-5.75	118.18	122.20
36	5	1842	A	N1-C6-N6	5.75	122.05	118.60
36	5	2758	A	C2-N3-C4	5.75	113.47	110.60
36	1	974	G	N3-C4-C5	-5.75	125.73	128.60
36	1	1050	U	N3-C2-O2	-5.75	118.18	122.20
36	1	1329	U	N1-C2-O2	5.75	126.82	122.80
36	1	2961	G	N9-C4-C5	-5.75	103.10	105.40
36	5	645	A	C6-N1-C2	-5.75	115.15	118.60
36	5	955	U	N3-C4-O4	-5.75	115.38	119.40
37	7	1	G	N3-C4-C5	-5.75	125.73	128.60
36	1	2817	A	C6-N1-C2	-5.75	115.15	118.60
36	5	197	G	C4-C5-N7	5.75	113.10	110.80
36	5	1445	U	C5-C6-N1	-5.75	119.83	122.70
1	2	704	C	C6-N1-C1'	-5.74	113.91	120.80
36	1	925	A	C6-N1-C2	-5.74	115.15	118.60
36	1	931	C	C6-N1-C2	5.74	122.60	120.30
36	5	1138	U	N1-C2-O2	-5.74	118.78	122.80
37	7	35	C	C6-N1-C2	5.74	122.60	120.30
41	14	339	LEU	CA-CB-CG	5.74	128.51	115.30
36	1	1556	C	N1-C2-O2	5.74	122.34	118.90
36	1	2275	A	O5'-P-OP1	-5.74	100.53	105.70
37	7	79	A	N1-C6-N6	5.74	122.05	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	325	A	C5-C6-N1	5.74	120.57	117.70
36	1	2721	A	N1-C6-N6	5.74	122.04	118.60
1	6	1765	A	O5'-P-OP1	-5.74	100.53	105.70
36	5	642	U	O5'-P-OP2	-5.74	100.53	105.70
36	1	2172	A	N1-C6-N6	5.74	122.04	118.60
36	1	3341	U	C2-N1-C1'	5.74	124.59	117.70
36	5	2385	G	N3-C2-N2	-5.74	115.88	119.90
36	1	2661	G	C4-C5-N7	5.74	113.09	110.80
36	5	2891	U	C5-C6-N1	-5.74	119.83	122.70
36	1	716	A	O5'-P-OP1	-5.73	100.54	105.70
36	5	2660	G	C8-N9-C4	5.73	108.69	106.40
36	1	606	C	C6-N1-C2	5.73	122.59	120.30
36	1	1321	G	N9-C4-C5	5.73	107.69	105.40
36	1	1404	G	N1-C2-N2	-5.73	111.04	116.20
36	5	229	G	O5'-P-OP2	5.73	117.58	110.70
36	5	997	A	N1-C6-N6	-5.73	115.16	118.60
6	S4	246	LEU	CA-CB-CG	5.73	128.48	115.30
36	1	640	U	C5-C4-O4	-5.73	122.46	125.90
1	6	611	U	C2-N1-C1'	5.73	124.58	117.70
36	5	589	A	C8-N9-C4	5.73	108.09	105.80
36	5	953	G	O5'-P-OP1	5.73	117.57	110.70
36	5	1534	A	C6-N1-C2	-5.73	115.16	118.60
36	5	2978	U	OP1-P-O3'	5.73	117.80	105.20
36	5	3078	U	C2-N1-C1'	5.73	124.57	117.70
1	2	1041	G	C8-N9-C4	-5.73	104.11	106.40
36	5	2948	C	C5-C4-N4	-5.73	116.19	120.20
36	1	282	G	C2'-C3'-O3'	5.72	122.86	113.70
36	1	1645	U	N1-C2-O2	5.72	126.81	122.80
36	1	2585	G	N3-C4-N9	5.72	129.44	126.00
36	5	1313	G	N7-C8-N9	-5.72	110.24	113.10
36	5	2512	C	N3-C2-O2	5.72	125.91	121.90
36	5	3127	A	N3-C4-C5	-5.72	122.79	126.80
36	1	2549	G	N3-C4-N9	5.72	129.43	126.00
36	5	1130	A	N9-C4-C5	-5.72	103.51	105.80
36	5	2412	G	N3-C4-N9	5.72	129.43	126.00
1	2	3	U	N1-C2-O2	5.72	126.81	122.80
36	5	3234	A	N7-C8-N9	-5.72	110.94	113.80
36	1	2817	A	C5-C6-N1	5.72	120.56	117.70
36	1	3183	A	O5'-P-OP1	-5.72	100.55	105.70
36	5	984	G	C6-C5-N7	-5.72	126.97	130.40
36	5	2185	G	C2-N3-C4	-5.72	109.04	111.90
1	2	1389	C	N1-C2-O2	5.72	122.33	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1329	U	C5-C6-N1	5.72	125.56	122.70
36	1	1049	C	N1-C2-O2	5.72	122.33	118.90
36	1	1425	U	N3-C2-O2	-5.72	118.20	122.20
36	5	880	G	C4-N9-C1'	-5.72	119.07	126.50
36	5	1592	G	C5-C6-O6	5.72	132.03	128.60
36	5	2944	U	C5-C6-N1	5.72	125.56	122.70
79	q3	50	GLY	N-CA-C	-5.72	98.81	113.10
36	1	961	C	N3-C4-C5	5.71	124.19	121.90
36	5	2340	U	O5'-P-OP1	-5.71	100.56	105.70
36	5	2411	U	N3-C2-O2	-5.71	118.20	122.20
36	5	2895	G	C5-N7-C8	5.71	107.16	104.30
36	1	1419	A	N3-C4-C5	-5.71	122.80	126.80
1	2	1096	C	C2-N1-C1'	5.71	125.08	118.80
36	1	1194	G	C4-C5-N7	-5.71	108.52	110.80
36	1	1445	U	C2-N3-C4	-5.71	123.57	127.00
36	1	2658	G	C8-N9-C4	5.71	108.69	106.40
36	1	2795	U	OP1-P-OP2	5.71	128.16	119.60
36	1	1604	G	C4-N9-C1'	5.71	133.92	126.50
36	1	3341	U	C5-C6-N1	5.71	125.55	122.70
36	5	2750	U	C5-C6-N1	-5.71	119.85	122.70
36	1	1453	A	N9-C4-C5	5.71	108.08	105.80
36	1	2963	C	C4-C5-C6	5.71	120.25	117.40
38	4	70	G	N9-C4-C5	-5.71	103.12	105.40
36	5	1307	G	C2-N3-C4	5.71	114.75	111.90
36	5	1657	C	N1-C2-O2	5.71	122.32	118.90
1	2	1145	U	N3-C4-O4	5.70	123.39	119.40
36	1	304	G	N1-C2-N2	5.70	121.33	116.20
36	1	1359	C	C6-N1-C2	5.70	122.58	120.30
36	5	872	U	C5-C4-O4	-5.70	122.48	125.90
36	5	921	A	OP2-P-O3'	5.70	117.75	105.20
36	1	2321	A	C5-C6-N6	5.70	128.26	123.70
40	l3	275	ARG	NE-CZ-NH1	-5.70	117.45	120.30
1	2	388	G	C5-C6-O6	-5.70	125.18	128.60
11	S9	93	LEU	CA-CB-CG	5.70	128.41	115.30
36	1	426	G	N3-C4-C5	-5.70	125.75	128.60
36	1	883	A	N1-C6-N6	-5.70	115.18	118.60
36	5	358	G	N3-C4-C5	5.70	131.45	128.60
36	5	1000	C	N3-C4-C5	5.70	124.18	121.90
36	5	1338	C	C5-C6-N1	-5.70	118.15	121.00
1	6	65	A	C2-N3-C4	-5.70	107.75	110.60
1	6	858	G	O4'-C1'-N9	5.70	112.76	108.20
36	5	333	G	C2-N3-C4	-5.70	109.05	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2943	G	N9-C4-C5	-5.70	103.12	105.40
36	5	3374	U	N3-C4-C5	5.70	118.02	114.60
1	2	1399	C	C5-C6-N1	5.70	123.85	121.00
36	1	343	U	C4-C5-C6	5.70	123.12	119.70
36	1	895	A	C5-C6-N1	-5.70	114.85	117.70
36	1	2918	G	N1-C6-O6	5.70	123.32	119.90
38	4	113	U	C4-C5-C6	5.70	123.12	119.70
36	5	1222	G	P-O3'-C3'	5.70	126.53	119.70
36	5	2314	U	N1-C2-N3	5.70	118.32	114.90
36	5	2908	G	C5-C6-O6	-5.70	125.18	128.60
36	1	369	A	C6-N1-C2	-5.69	115.18	118.60
36	5	665	A	N3-C4-N9	5.69	131.96	127.40
1	2	606	A	N9-C4-C5	-5.69	103.52	105.80
1	2	1104	U	C5-C6-N1	-5.69	119.85	122.70
1	6	163	G	N3-C2-N2	-5.69	115.92	119.90
36	5	106	A	C8-N9-C4	5.69	108.08	105.80
36	1	770	G	O4'-C1'-N9	5.69	112.75	108.20
36	1	1552	G	C5-C6-O6	-5.69	125.19	128.60
1	6	359	A	N3-C4-N9	-5.69	122.85	127.40
36	5	610	G	N1-C6-O6	-5.69	116.49	119.90
36	5	1365	G	C4-C5-N7	5.69	113.08	110.80
36	5	1408	G	OP2-P-O3'	5.69	117.72	105.20
36	5	3055	U	C6-N1-C1'	-5.69	113.23	121.20
38	8	95	G	C8-N9-C1'	5.69	134.40	127.00
36	5	3000	A	C5-C6-N6	-5.69	119.15	123.70
36	1	35	A	C5-C6-N6	-5.69	119.15	123.70
36	1	1304	A	C8-N9-C4	5.69	108.08	105.80
36	1	3344	A	O4'-C1'-N9	5.69	112.75	108.20
36	5	915	A	OP1-P-OP2	5.69	128.13	119.60
36	5	2248	C	N1-C2-N3	5.69	123.18	119.20
36	5	3388	C	C2-N3-C4	-5.69	117.06	119.90
38	8	51	G	N7-C8-N9	5.69	115.94	113.10
36	1	1609	C	C6-N1-C2	5.68	122.57	120.30
36	1	1440	G	N3-C4-C5	5.68	131.44	128.60
36	5	2550	U	C5-C4-O4	5.68	129.31	125.90
36	5	2796	G	C4-C5-N7	-5.68	108.53	110.80
36	5	2997	G	N9-C4-C5	-5.68	103.13	105.40
36	1	2644	C	N3-C4-N4	-5.68	114.02	118.00
36	5	669	U	C2-N3-C4	-5.68	123.59	127.00
36	1	2636	A	C5-C6-N6	5.68	128.24	123.70
36	5	1838	G	C6-C5-N7	-5.68	126.99	130.40
36	5	614	C	C6-N1-C2	5.68	122.57	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2961	G	C2-N3-C4	-5.68	109.06	111.90
1	6	571	G	C8-N9-C4	-5.68	104.13	106.40
36	5	1114	U	N3-C4-C5	-5.68	111.19	114.60
36	5	1116	G	C8-N9-C4	-5.68	104.13	106.40
36	5	2329	C	O5'-P-OP1	5.68	117.51	110.70
1	2	507	U	C2-N1-C1'	5.67	124.51	117.70
18	C6	40	GLU	C-N-CA	5.67	145.83	122.00
36	1	591	G	N1-C6-O6	5.67	123.30	119.90
36	1	1852	G	N1-C6-O6	5.67	123.31	119.90
36	1	2714	G	C2-N3-C4	-5.67	109.06	111.90
36	5	3110	C	N3-C4-C5	5.67	124.17	121.90
36	1	1414	G	C4-C5-N7	5.67	113.07	110.80
36	1	1915	A	C8-N9-C4	-5.67	103.53	105.80
36	1	2808	A	N9-C4-C5	-5.67	103.53	105.80
36	5	534	U	N1-C2-O2	5.67	126.77	122.80
36	1	1194	G	C5-C6-O6	5.67	132.00	128.60
1	6	272	U	C2-N1-C1'	5.67	124.50	117.70
36	5	834	U	N1-C2-N3	-5.67	111.50	114.90
36	5	2217	U	N3-C2-O2	-5.67	118.23	122.20
36	5	2791	G	N1-C2-N3	5.67	127.30	123.90
36	5	3127	A	C2-N3-C4	5.67	113.44	110.60
36	1	716	A	C5-N7-C8	-5.67	101.06	103.90
36	1	3065	G	C8-N9-C4	5.67	108.67	106.40
36	5	1313	G	N9-C4-C5	-5.67	103.13	105.40
36	1	2615	G	C5-C6-O6	-5.67	125.20	128.60
1	6	95	G	C5-C6-O6	5.67	132.00	128.60
1	6	384	G	C8-N9-C4	5.67	108.67	106.40
1	6	576	G	N3-C4-N9	5.67	129.40	126.00
36	5	2834	G	N9-C4-C5	-5.67	103.13	105.40
36	1	2227	C	N3-C2-O2	-5.67	117.94	121.90
36	5	996	A	N3-C4-C5	5.67	130.77	126.80
36	1	1292	C	N3-C2-O2	5.66	125.86	121.90
36	1	1369	A	C2-N3-C4	-5.66	107.77	110.60
36	5	1452	A	C5-N7-C8	-5.66	101.07	103.90
37	7	84	A	C6-C5-N7	-5.66	128.34	132.30
38	8	139	U	N3-C4-O4	-5.66	115.44	119.40
36	1	1132	C	N1-C2-N3	5.66	123.16	119.20
36	1	2954	U	OP1-P-O3'	5.66	117.66	105.20
70	O4	58	ARG	NE-CZ-NH1	5.66	123.13	120.30
1	6	1697	G	N3-C4-C5	-5.66	125.77	128.60
36	5	324	A	OP1-P-O3'	5.66	117.66	105.20
36	5	434	U	O5'-P-OP1	5.66	117.50	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	871	U	N3-C2-O2	-5.66	118.24	122.20
36	5	3218	A	C5-C6-N6	-5.66	119.17	123.70
36	1	329	U	C6-N1-C2	-5.66	117.60	121.00
36	1	497	C	O5'-P-OP1	5.66	117.49	110.70
1	6	542	A	C6-C5-N7	-5.66	128.34	132.30
36	5	2398	A	C6-N1-C2	-5.66	115.20	118.60
1	2	11	A	O5'-P-OP1	-5.66	100.61	105.70
1	2	734	A	OP1-P-O3'	5.66	117.65	105.20
1	2	1022	C	N3-C4-C5	5.66	124.16	121.90
36	1	2995	A	N7-C8-N9	-5.66	110.97	113.80
1	6	935	U	N3-C4-C5	-5.66	111.20	114.60
36	1	75	G	O5'-P-OP2	-5.66	100.61	105.70
36	1	718	G	N7-C8-N9	5.66	115.93	113.10
36	1	2342	U	N1-C2-O2	-5.66	118.84	122.80
36	1	2420	C	C6-N1-C2	-5.66	118.04	120.30
39	L2	237	LEU	CA-CB-CG	-5.66	102.29	115.30
36	5	1165	A	C6-C5-N7	-5.66	128.34	132.30
36	1	1437	C	C4-C5-C6	5.65	120.23	117.40
36	1	2643	A	C2-N3-C4	-5.65	107.77	110.60
36	5	2754	G	C8-N9-C4	5.65	108.66	106.40
36	1	281	G	N9-C4-C5	5.65	107.66	105.40
36	1	2298	U	O4'-C1'-N1	5.65	112.72	108.20
36	5	2818	U	C5'-C4'-O4'	-5.65	102.32	109.10
37	7	14	U	N3-C4-O4	-5.65	115.44	119.40
36	1	584	G	C4-C5-N7	-5.65	108.54	110.80
36	1	1100	U	C2-N3-C4	-5.65	123.61	127.00
1	6	1048	G	C4-C5-N7	5.65	113.06	110.80
36	5	2757	U	C5-C6-N1	-5.65	119.87	122.70
36	1	2372	A	N1-C2-N3	5.65	132.12	129.30
36	5	971	G	N7-C8-N9	-5.65	110.28	113.10
36	1	262	U	N3-C2-O2	5.65	126.15	122.20
36	1	1115	G	N3-C2-N2	-5.65	115.95	119.90
36	1	1845	G	N1-C6-O6	-5.65	116.51	119.90
36	1	2351	U	N3-C2-O2	-5.65	118.25	122.20
36	1	2634	U	N3-C4-C5	5.65	117.99	114.60
1	6	50	C	N3-C4-C5	-5.65	119.64	121.90
36	5	893	C	N3-C4-C5	-5.65	119.64	121.90
36	5	1165	A	C4-C5-C6	5.65	119.82	117.00
36	5	2327	U	C5-C6-N1	-5.65	119.88	122.70
36	5	1052	U	C5-C6-N1	-5.65	119.88	122.70
36	5	2584	G	OP2-P-O3'	5.65	117.62	105.20
36	1	2870	C	C4-C5-C6	-5.64	114.58	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2902	A	O5'-P-OP2	-5.64	100.62	105.70
36	5	1403	C	C5-C4-N4	-5.64	116.25	120.20
36	1	286	U	N1-C2-N3	5.64	118.29	114.90
36	1	1136	A	C6-C5-N7	-5.64	128.35	132.30
1	6	1481	C	N3-C2-O2	-5.64	117.95	121.90
36	5	1116	G	C5-C6-O6	5.64	131.99	128.60
36	5	1314	C	C2-N3-C4	-5.64	117.08	119.90
36	5	2634	U	C2-N3-C4	-5.64	123.61	127.00
36	1	1173	U	C4-C5-C6	5.64	123.08	119.70
36	1	1366	A	C5-N7-C8	-5.64	101.08	103.90
54	M8	41	ASP	CB-CG-OD1	5.64	123.38	118.30
1	6	1180	C	C6-N1-C2	-5.64	118.04	120.30
36	5	2817	A	N1-C6-N6	5.64	121.98	118.60
36	5	2855	U	C2-N3-C4	-5.64	123.61	127.00
36	1	1441	G	C5-N7-C8	5.64	107.12	104.30
36	1	2651	G	C5-N7-C8	5.64	107.12	104.30
36	1	3211	C	OP1-P-O3'	5.64	117.61	105.20
38	4	24	G	C5-C6-N1	5.64	114.32	111.50
1	6	385	A	N1-C6-N6	-5.64	115.22	118.60
36	5	2374	C	C5-C4-N4	5.64	124.15	120.20
36	5	2720	G	O5'-P-OP2	-5.64	100.62	105.70
36	1	860	G	C5-C6-O6	-5.64	125.22	128.60
1	6	364	G	N3-C4-N9	5.64	129.38	126.00
36	5	1131	G	C2-N3-C4	-5.64	109.08	111.90
36	5	1665	C	N3-C2-O2	-5.64	117.95	121.90
36	1	1156	C	C2-N3-C4	-5.64	117.08	119.90
36	1	1381	A	O5'-P-OP1	-5.64	100.63	105.70
36	5	71	A	O5'-P-OP2	5.64	117.47	110.70
36	5	1300	G	C8-N9-C1'	-5.64	119.67	127.00
36	5	2816	G	C6-C5-N7	-5.64	127.02	130.40
36	5	3309	G	C4-N9-C1'	5.64	133.83	126.50
36	1	2316	G	C2-N3-C4	5.63	114.72	111.90
1	2	1748	G	C2-N3-C4	-5.63	109.08	111.90
36	1	3307	A	N1-C6-N6	5.63	121.98	118.60
36	5	3211	C	N3-C4-C5	5.63	124.15	121.90
38	8	77	A	C8-N9-C4	5.63	108.05	105.80
1	2	1745	G	N3-C2-N2	5.63	123.84	119.90
36	1	645	A	N1-C2-N3	5.63	132.12	129.30
36	1	1396	C	C6-N1-C2	5.63	122.55	120.30
1	6	194	U	C5-C6-N1	5.63	125.52	122.70
1	6	1726	G	C8-N9-C4	5.63	108.65	106.40
36	5	2727	A	C2-N3-C4	5.63	113.42	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3143	C	N3-C4-N4	5.63	121.94	118.00
36	1	2219	A	C2-N3-C4	5.63	113.42	110.60
36	1	2343	C	N3-C4-C5	5.63	124.15	121.90
36	1	794	U	C4-C5-C6	5.63	123.08	119.70
36	1	824	C	O5'-P-OP2	-5.63	100.63	105.70
36	1	1316	C	N3-C4-N4	5.63	121.94	118.00
1	6	638	U	N1-C2-O2	5.63	126.74	122.80
36	1	948	C	C5-C6-N1	-5.63	118.19	121.00
36	1	1556	C	P-O3'-C3'	5.63	126.45	119.70
36	1	2777	G	N1-C6-O6	-5.63	116.52	119.90
36	5	940	G	C6-C5-N7	5.63	133.78	130.40
36	1	948	C	C5-C4-N4	-5.62	116.26	120.20
1	6	1196	A	C8-N9-C4	5.62	108.05	105.80
36	1	589	A	N7-C8-N9	-5.62	110.99	113.80
36	5	2197	C	N3-C2-O2	5.62	125.84	121.90
36	1	1011	A	C8-N9-C4	5.62	108.05	105.80
36	1	2381	G	N1-C6-O6	5.62	123.27	119.90
1	6	352	A	OP2-P-O3'	5.62	117.57	105.20
43	16	173	MET	CB-CG-SD	-5.62	95.53	112.40
36	1	1405	U	N3-C4-C5	5.62	117.97	114.60
36	5	2169	G	N1-C6-O6	-5.62	116.53	119.90
36	1	342	A	N1-C6-N6	-5.62	115.23	118.60
36	1	1869	C	C6-N1-C2	5.62	122.55	120.30
36	5	411	U	C2-N3-C4	-5.62	123.63	127.00
36	5	3151	U	C6-N1-C2	5.62	124.37	121.00
36	5	2391	G	OP1-P-OP2	-5.62	111.17	119.60
36	1	435	C	C2-N1-C1'	-5.62	112.62	118.80
36	1	1445	U	C6-N1-C2	5.62	124.37	121.00
1	6	433	C	C5-C4-N4	-5.62	116.27	120.20
36	5	941	G	C5-C6-N1	5.62	114.31	111.50
36	1	320	G	N1-C6-O6	5.61	123.27	119.90
36	1	653	A	C2-N3-C4	-5.61	107.79	110.60
36	5	1206	G	N1-C6-O6	-5.61	116.53	119.90
36	1	1351	U	C5-C6-N1	5.61	125.51	122.70
36	1	2290	C	C6-N1-C2	5.61	122.55	120.30
36	5	105	C	N3-C4-C5	5.61	124.14	121.90
36	1	49	A	N1-C6-N6	5.61	121.97	118.60
36	1	1157	G	N3-C2-N2	-5.61	115.97	119.90
36	5	427	C	C4-C5-C6	5.61	120.20	117.40
36	5	968	G	C8-N9-C4	5.61	108.64	106.40
36	5	1154	A	C2-N3-C4	5.61	113.41	110.60
36	5	1764	U	C5-C6-N1	5.61	125.51	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2818	U	P-O3'-C3'	5.61	126.43	119.70
36	5	2860	U	N3-C4-O4	-5.61	115.47	119.40
36	5	2924	U	C2-N1-C1'	-5.61	110.97	117.70
36	5	835	G	O4'-C1'-N9	5.61	112.69	108.20
36	5	2640	A	C2-N3-C4	-5.61	107.80	110.60
36	5	3063	C	C6-N1-C2	-5.61	118.06	120.30
1	2	736	C	C2-N1-C1'	5.61	124.97	118.80
36	1	1548	C	N3-C2-O2	5.61	125.83	121.90
36	5	816	A	C8-N9-C4	-5.61	103.56	105.80
36	5	2378	C	N3-C4-C5	5.61	124.14	121.90
36	1	1415	U	C5-C6-N1	-5.61	119.90	122.70
36	1	2409	G	N3-C4-C5	-5.61	125.80	128.60
1	6	1671	A	N1-C6-N6	-5.61	115.24	118.60
36	5	664	U	N1-C2-O2	-5.61	118.88	122.80
36	5	944	C	C5-C6-N1	-5.61	118.20	121.00
36	5	2342	U	N1-C2-N3	5.61	118.26	114.90
36	5	2772	C	OP2-P-O3'	5.61	117.53	105.20
36	5	3190	C	C4-C5-C6	5.61	120.20	117.40
36	1	159	A	C2-N3-C4	-5.60	107.80	110.60
36	1	1326	A	O5'-P-OP1	5.60	117.42	110.70
1	6	1656	U	O5'-P-OP1	5.60	117.42	110.70
36	1	92	G	C6-N1-C2	-5.60	121.74	125.10
36	1	960	U	N3-C2-O2	5.60	126.12	122.20
38	4	114	G	C5-C6-O6	5.60	131.96	128.60
11	s9	3	ARG	NE-CZ-NH2	5.60	123.10	120.30
12	c0	97	PRO	N-CA-CB	5.60	110.02	103.30
37	7	1	G	N3-C4-N9	5.60	129.36	126.00
36	1	864	G	C4-C5-N7	-5.60	108.56	110.80
38	4	68	G	C5-C6-O6	-5.60	125.24	128.60
36	1	1530	U	C6-N1-C2	5.60	124.36	121.00
36	5	1166	G	N3-C4-C5	5.60	131.40	128.60
36	5	1379	G	N9-C4-C5	-5.60	103.16	105.40
36	5	1484	U	C5-C6-N1	-5.60	119.90	122.70
36	5	1879	A	N7-C8-N9	5.60	116.60	113.80
36	5	2416	U	C5-C4-O4	5.60	129.26	125.90
36	1	2828	G	N3-C4-N9	5.60	129.36	126.00
36	1	2888	U	C2-N3-C4	-5.60	123.64	127.00
1	6	364	G	C6-C5-N7	-5.60	127.04	130.40
36	5	3154	C	C6-N1-C1'	-5.60	114.08	120.80
36	1	2229	A	C5-C6-N1	5.60	120.50	117.70
36	1	2924	U	C2-N1-C1'	-5.60	110.98	117.70
36	1	1858	A	N3-C4-N9	5.59	131.88	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	376	G	C2-N3-C4	5.59	114.70	111.90
36	5	3148	U	C5-C6-N1	-5.59	119.90	122.70
38	8	106	C	C6-N1-C2	5.59	122.54	120.30
36	1	1177	G	C5-C6-O6	-5.59	125.24	128.60
36	5	34	A	OP2-P-O3'	5.59	117.50	105.20
36	5	635	G	N9-C4-C5	-5.59	103.16	105.40
36	5	2338	C	N1-C2-O2	-5.59	115.54	118.90
36	5	2373	A	O5'-P-OP2	5.59	117.41	110.70
36	1	25	U	N1-C2-O2	-5.59	118.89	122.80
36	5	1528	G	C4-C5-C6	5.59	122.16	118.80
36	5	3188	G	C5-C6-O6	5.59	131.96	128.60
41	14	206	LEU	CA-CB-CG	5.59	128.16	115.30
1	2	334	G	C4-N9-C1'	-5.59	119.23	126.50
1	2	1745	G	C6-C5-N7	-5.59	127.05	130.40
36	1	108	A	N1-C6-N6	5.59	121.95	118.60
36	1	304	G	C8-N9-C4	-5.59	104.16	106.40
36	1	1345	G	N3-C4-C5	5.59	131.40	128.60
36	1	1457	U	O5'-P-OP1	-5.59	100.67	105.70
1	6	577	G	C8-N9-C4	-5.59	104.17	106.40
36	5	813	G	N3-C4-N9	5.59	129.35	126.00
36	5	3309	G	N3-C4-C5	-5.59	125.81	128.60
1	6	1780	G	C4-C5-N7	5.59	113.03	110.80
36	5	3215	A	C5-C6-N1	-5.59	114.91	117.70
36	1	2154	U	C5-C4-O4	-5.59	122.55	125.90
36	5	3354	U	N3-C2-O2	-5.59	118.29	122.20
36	1	343	U	OP1-P-O3'	5.58	117.49	105.20
36	1	2617	U	N3-C4-O4	-5.58	115.49	119.40
36	5	1865	A	C8-N9-C4	5.58	108.03	105.80
1	2	444	C	C6-N1-C2	5.58	122.53	120.30
36	1	33	G	N1-C6-O6	5.58	123.25	119.90
36	1	614	C	C6-N1-C2	5.58	122.53	120.30
36	1	1513	G	C6-N1-C2	-5.58	121.75	125.10
36	1	2937	G	C6-C5-N7	5.58	133.75	130.40
1	6	362	G	C4-N9-C1'	5.58	133.76	126.50
1	6	864	U	O4'-C1'-N1	5.58	112.67	108.20
36	5	91	G	C8-N9-C4	5.58	108.63	106.40
36	5	632	G	C5-C6-N1	5.58	114.29	111.50
36	5	1064	A	O4'-C1'-N9	-5.58	103.73	108.20
36	5	2971	A	N3-C4-N9	5.58	131.87	127.40
36	1	905	U	N1-C2-O2	-5.58	118.89	122.80
36	1	1177	G	C6-C5-N7	-5.58	127.05	130.40
36	1	1494	U	C6-N1-C2	5.58	124.35	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2244	A	C8-N9-C4	5.58	108.03	105.80
1	6	29	U	C5-C4-O4	5.58	129.25	125.90
1	6	371	G	C4-C5-C6	5.58	122.15	118.80
36	5	802	C	C4-C5-C6	5.58	120.19	117.40
36	5	2612	U	N1-C2-N3	5.58	118.25	114.90
36	1	658	G	N3-C4-N9	5.58	129.35	126.00
36	5	568	G	N1-C6-O6	5.58	123.25	119.90
36	1	2893	C	C5-C6-N1	-5.58	118.21	121.00
1	6	363	G	C8-N9-C4	5.58	108.63	106.40
36	5	1080	A	C5-N7-C8	5.58	106.69	103.90
36	1	2653	C	N1-C2-O2	5.58	122.25	118.90
36	5	1552	G	C5-C6-O6	-5.58	125.25	128.60
36	5	1868	G	C5-C6-O6	-5.58	125.25	128.60
1	2	1653	C	N3-C4-C5	-5.58	119.67	121.90
36	1	1152	G	OP1-P-OP2	5.58	127.96	119.60
36	1	1909	A	C8-N9-C4	5.58	108.03	105.80
36	5	1894	U	C5-C6-N1	-5.58	119.91	122.70
36	1	596	C	N1-C2-O2	5.57	122.24	118.90
36	1	882	A	O5'-P-OP2	-5.57	100.68	105.70
36	1	1151	U	N1-C2-O2	-5.57	118.90	122.80
36	1	1303	A	N7-C8-N9	-5.57	111.01	113.80
36	1	1442	U	OP1-P-O3'	5.57	117.46	105.20
36	5	821	U	N3-C4-O4	-5.57	115.50	119.40
36	5	1121	U	OP1-P-O3'	-5.57	92.94	105.20
36	5	2374	C	N3-C4-N4	-5.57	114.10	118.00
36	5	1374	G	N1-C2-N2	-5.57	111.19	116.20
36	5	2278	C	C5-C6-N1	5.57	123.79	121.00
36	1	188	U	C2-N1-C1'	-5.57	111.02	117.70
37	3	89	G	N9-C4-C5	-5.57	103.17	105.40
38	4	107	G	C6-C5-N7	5.57	133.74	130.40
1	6	1698	G	C5-C6-O6	5.57	131.94	128.60
36	5	1004	U	C6-N1-C2	-5.57	117.66	121.00
36	5	2882	U	C5-C4-O4	-5.57	122.56	125.90
36	1	968	G	N3-C4-N9	5.57	129.34	126.00
1	2	1489	U	N3-C2-O2	-5.57	118.30	122.20
36	1	346	C	C5-C6-N1	-5.57	118.22	121.00
36	1	2249	G	N1-C6-O6	-5.57	116.56	119.90
36	5	574	U	C6-N1-C2	5.57	124.34	121.00
36	5	938	C	N3-C4-C5	5.57	124.13	121.90
36	5	2550	U	N3-C2-O2	-5.57	118.30	122.20
36	5	2908	G	N3-C2-N2	-5.57	116.00	119.90
6	S4	193	GLY	N-CA-C	5.57	127.02	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	582	G	N3-C4-N9	-5.57	122.66	126.00
36	1	635	G	N3-C4-N9	5.57	129.34	126.00
36	1	3304	U	C5-C6-N1	-5.57	119.92	122.70
1	6	272	U	N3-C2-O2	-5.57	118.30	122.20
36	5	119	U	C2-N1-C1'	-5.57	111.02	117.70
36	5	220	G	OP1-P-O3'	5.57	117.44	105.20
36	5	2160	G	C6-C5-N7	-5.57	127.06	130.40
36	5	2964	G	C4-C5-N7	-5.57	108.57	110.80
1	6	94	U	OP2-P-O3'	5.56	117.44	105.20
36	5	2373	A	OP1-P-OP2	-5.56	111.25	119.60
1	2	1363	U	C2-N1-C1'	5.56	124.38	117.70
36	1	2376	G	N7-C8-N9	5.56	115.88	113.10
36	1	2643	A	N3-C4-C5	5.56	130.69	126.80
1	6	405	C	C6-N1-C2	5.56	122.53	120.30
36	5	860	G	O5'-P-OP2	-5.56	100.69	105.70
36	5	1166	G	C4-C5-N7	5.56	113.03	110.80
36	5	3149	G	O5'-P-OP1	5.56	117.38	110.70
1	2	21	U	O5'-P-OP2	-5.56	100.69	105.70
36	1	2692	A	N1-C6-N6	5.56	121.94	118.60
1	2	1455	G	C4-C5-N7	-5.56	108.58	110.80
36	1	2142	A	N3-C4-C5	-5.56	122.91	126.80
36	1	2386	A	N1-C6-N6	5.56	121.94	118.60
36	5	2353	G	N1-C6-O6	5.56	123.24	119.90
36	5	3044	G	C6-C5-N7	-5.56	127.06	130.40
36	1	589	A	N1-C6-N6	-5.56	115.27	118.60
36	1	920	A	N1-C2-N3	5.56	132.08	129.30
36	5	53	G	N9-C4-C5	-5.56	103.18	105.40
36	1	2279	A	N1-C6-N6	5.56	121.93	118.60
36	5	2898	G	C8-N9-C4	5.56	108.62	106.40
61	n5	115	ARG	NE-CZ-NH1	5.56	123.08	120.30
1	2	966	A	N1-C6-N6	5.55	121.93	118.60
36	1	645	A	C5-C6-N1	5.55	120.48	117.70
36	1	1367	G	N3-C4-N9	5.55	129.33	126.00
36	1	1607	U	C5-C4-O4	5.55	129.23	125.90
36	1	3194	C	N1-C2-O2	-5.55	115.57	118.90
36	5	2825	C	N3-C2-O2	5.55	125.79	121.90
36	1	358	G	N1-C6-O6	5.55	123.23	119.90
1	2	1622	G	C8-N9-C4	5.55	108.62	106.40
36	1	1441	G	C4-C5-N7	-5.55	108.58	110.80
36	1	2638	C	C5-C4-N4	5.55	124.09	120.20
36	1	2891	U	C5-C6-N1	-5.55	119.92	122.70
1	6	1780	G	N9-C4-C5	-5.55	103.18	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	949	C	OP2-P-O3'	5.55	117.41	105.20
36	5	958	C	N1-C2-O2	5.55	122.23	118.90
36	5	1836	C	C6-N1-C2	5.55	122.52	120.30
36	5	1888	U	N1-C2-O2	-5.55	118.92	122.80
36	1	606	C	O5'-P-OP2	-5.55	100.70	105.70
36	1	2408	U	O5'-P-OP2	5.55	117.36	110.70
36	1	2420	C	O5'-P-OP2	5.55	117.36	110.70
1	6	1724	U	C5-C6-N1	-5.55	119.93	122.70
1	6	1752	U	C5-C6-N1	-5.55	119.93	122.70
36	5	693	A	O5'-P-OP2	5.55	117.36	110.70
36	5	933	A	C6-C5-N7	-5.55	128.42	132.30
36	5	2865	U	N1-C2-O2	5.55	126.68	122.80
1	2	579	A	O4'-C1'-N9	5.55	112.64	108.20
36	1	999	G	C5-C6-N1	5.55	114.27	111.50
36	1	2969	A	C6-C5-N7	-5.55	128.42	132.30
36	5	411	U	C2-N1-C1'	-5.55	111.04	117.70
1	2	43	A	C5-C6-N6	5.55	128.14	123.70
1	2	1782	A	C5-C6-N1	-5.55	114.93	117.70
1	6	542	A	P-O3'-C3'	5.55	126.36	119.70
1	6	767	U	C5-C4-O4	5.55	129.23	125.90
36	5	884	A	N1-C6-N6	-5.55	115.27	118.60
36	5	2930	A	C5-C6-N1	5.55	120.47	117.70
36	1	1784	G	C6-C5-N7	5.54	133.73	130.40
36	1	1178	G	O5'-P-OP2	-5.54	100.71	105.70
36	1	2368	A	OP1-P-OP2	5.54	127.92	119.60
36	1	2631	U	OP1-P-O3'	5.54	117.39	105.20
36	5	716	A	N9-C4-C5	-5.54	103.58	105.80
36	5	971	G	N3-C2-N2	-5.54	116.02	119.90
36	5	1317	A	C5-N7-C8	-5.54	101.13	103.90
36	5	3206	C	OP1-P-OP2	5.54	127.92	119.60
36	1	350	C	C6-N1-C2	-5.54	118.08	120.30
36	1	1153	A	C4-C5-N7	5.54	113.47	110.70
36	1	1344	G	C5-C6-O6	-5.54	125.28	128.60
36	1	2296	A	C8-N9-C4	5.54	108.02	105.80
36	1	2860	U	C2-N1-C1'	-5.54	111.05	117.70
36	5	1470	U	N3-C2-O2	-5.54	118.32	122.20
38	8	44	A	C5-C6-N6	-5.54	119.27	123.70
36	5	2832	C	C5-C6-N1	-5.54	118.23	121.00
36	1	1931	U	N3-C4-O4	-5.54	115.52	119.40
36	1	2706	G	N3-C4-N9	5.54	129.32	126.00
36	5	660	A	C5-C6-N6	5.54	128.13	123.70
36	5	1128	U	C2-N3-C4	-5.54	123.68	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	15	110	LEU	CA-CB-CG	5.54	128.04	115.30
1	6	337	G	N3-C2-N2	5.54	123.78	119.90
36	5	1868	G	N9-C4-C5	-5.54	103.19	105.40
36	5	2404	A	C4-C5-C6	5.54	119.77	117.00
36	1	2525	G	C6-C5-N7	-5.54	127.08	130.40
37	3	105	C	OP2-P-O3'	5.54	117.38	105.20
36	5	2130	G	N9-C1'-C2'	-5.54	105.91	112.00
36	5	2707	C	C5-C4-N4	-5.54	116.33	120.20
36	5	2805	G	C8-N9-C4	5.54	108.61	106.40
36	1	402	A	N1-C6-N6	-5.53	115.28	118.60
36	1	1428	A	C4-C5-N7	5.53	113.47	110.70
36	1	95	A	N1-C2-N3	5.53	132.07	129.30
36	5	119	U	N3-C4-O4	-5.53	115.53	119.40
36	5	2334	U	C4-C5-C6	5.53	123.02	119.70
36	5	865	U	N1-C2-O2	-5.53	118.93	122.80
36	5	1426	C	N3-C2-O2	5.53	125.77	121.90
36	5	1882	G	C4-C5-N7	5.53	113.01	110.80
36	5	3013	U	N1-C2-O2	5.53	126.67	122.80
36	1	790	U	C5-C4-O4	5.53	129.22	125.90
36	1	2882	U	O5'-P-OP2	-5.53	100.72	105.70
36	1	3088	G	N3-C2-N2	-5.53	116.03	119.90
36	5	383	G	N3-C4-C5	5.53	131.36	128.60
36	5	2867	C	C6-N1-C2	-5.53	118.09	120.30
36	1	1156	C	N3-C2-O2	-5.53	118.03	121.90
36	5	687	U	O5'-P-OP1	5.53	117.33	110.70
36	5	1110	U	N3-C4-C5	5.52	117.91	114.60
36	5	2117	A	C5-N7-C8	5.52	106.66	103.90
36	5	3004	C	N3-C2-O2	5.52	125.77	121.90
1	2	532	U	O5'-P-OP1	-5.52	100.73	105.70
36	1	335	G	O5'-P-OP2	5.52	117.33	110.70
36	1	711	A	C8-N9-C4	5.52	108.01	105.80
36	1	1747	G	N3-C2-N2	-5.52	116.03	119.90
1	6	1421	A	C8-N9-C4	5.52	108.01	105.80
36	5	1434	G	N1-C6-O6	-5.52	116.59	119.90
36	5	1852	G	N7-C8-N9	5.52	115.86	113.10
36	5	3362	A	N1-C6-N6	5.52	121.91	118.60
38	8	14	C	N3-C4-C5	5.52	124.11	121.90
36	1	2403	G	N1-C6-O6	5.52	123.21	119.90
36	5	2757	U	C2-N3-C4	-5.52	123.69	127.00
36	5	3181	C	N3-C4-C5	-5.52	119.69	121.90
36	1	217	U	OP1-P-O3'	5.52	117.34	105.20
36	1	2393	G	C6-N1-C2	-5.52	121.79	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1662	G	C8-N9-C4	5.52	108.61	106.40
36	5	2337	C	N3-C2-O2	-5.52	118.04	121.90
38	4	94	C	C5-C6-N1	-5.52	118.24	121.00
36	5	2917	G	C5-C6-O6	-5.52	125.29	128.60
57	n1	106	LEU	CA-CB-CG	-5.52	102.61	115.30
37	3	82	G	C8-N9-C1'	-5.52	119.83	127.00
38	4	44	A	O5'-P-OP1	-5.52	100.74	105.70
1	6	1151	A	N1-C6-N6	-5.52	115.29	118.60
1	6	1796	C	C5-C6-N1	-5.52	118.24	121.00
1	2	1575	G	N1-C6-O6	-5.51	116.59	119.90
36	1	701	G	N3-C2-N2	-5.51	116.04	119.90
36	1	1417	G	C8-N9-C4	5.51	108.61	106.40
36	1	1830	G	OP1-P-O3'	5.51	117.33	105.20
1	6	1629	G	OP2-P-O3'	5.51	117.33	105.20
36	5	424	G	N9-C4-C5	-5.51	103.19	105.40
36	5	514	G	N1-C6-O6	5.51	123.21	119.90
36	5	1152	G	N7-C8-N9	5.51	115.86	113.10
36	5	2142	A	C6-N1-C2	-5.51	115.29	118.60
36	5	2234	G	N1-C6-O6	5.51	123.21	119.90
36	5	2735	U	C5-C4-O4	5.51	129.21	125.90
36	1	1696	A	C8-N9-C4	-5.51	103.60	105.80
53	M7	3	ARG	NE-CZ-NH2	-5.51	117.54	120.30
1	6	611	U	N1-C2-O2	5.51	126.66	122.80
36	5	1398	U	C5-C4-O4	5.51	129.21	125.90
36	5	1889	G	C6-C5-N7	-5.51	127.09	130.40
36	5	2572	C	C6-N1-C1'	-5.51	114.19	120.80
1	2	1481	C	C6-N1-C2	-5.51	118.10	120.30
38	4	25	G	C4-C5-N7	-5.51	108.60	110.80
36	5	343	U	OP1-P-O3'	5.51	117.32	105.20
36	5	607	A	O5'-P-OP1	-5.51	100.74	105.70
36	5	869	G	C6-C5-N7	5.51	133.71	130.40
36	5	2352	A	C2-N3-C4	5.51	113.35	110.60
36	1	639	G	C5-C6-O6	-5.51	125.30	128.60
36	5	2191	U	N3-C4-O4	-5.51	115.54	119.40
36	5	2709	C	N3-C4-C5	5.51	124.10	121.90
1	2	600	U	C5-C4-O4	5.51	129.20	125.90
36	1	75	G	C2-N3-C4	-5.51	109.15	111.90
36	1	225	C	N1-C2-O2	-5.51	115.60	118.90
36	1	653	A	C4-C5-N7	5.51	113.45	110.70
36	1	978	G	C5-C6-O6	-5.51	125.30	128.60
36	1	2231	C	C6-N1-C2	5.51	122.50	120.30
38	4	113	U	N1-C2-N3	5.51	118.20	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	56	G	C5-C6-N1	5.51	114.25	111.50
36	5	634	C	OP2-P-O3'	5.51	117.31	105.20
36	5	1339	C	O5'-P-OP1	-5.51	100.74	105.70
36	5	3123	A	N7-C8-N9	-5.51	111.05	113.80
36	1	35	A	N9-C4-C5	-5.50	103.60	105.80
36	1	808	A	C8-N9-C4	5.50	108.00	105.80
36	1	2425	G	OP2-P-O3'	5.50	117.31	105.20
36	5	1444	G	N1-C6-O6	5.50	123.20	119.90
1	2	389	G	C8-N9-C1'	-5.50	119.85	127.00
36	1	1430	U	N3-C2-O2	5.50	126.05	122.20
36	1	1595	U	C2-N1-C1'	-5.50	111.10	117.70
36	1	2726	C	N1-C2-N3	5.50	123.05	119.20
36	5	119	U	C5-C4-O4	5.50	129.20	125.90
36	5	741	U	O5'-P-OP2	5.50	117.30	110.70
36	5	2943	G	C2-N3-C4	-5.50	109.15	111.90
36	5	3188	G	N3-C4-C5	-5.50	125.85	128.60
78	q2	35	LEU	CA-CB-CG	5.50	127.96	115.30
36	1	59	G	N1-C6-O6	5.50	123.20	119.90
36	1	928	C	N3-C4-C5	5.50	124.10	121.90
36	1	1905	G	N3-C4-N9	-5.50	122.70	126.00
36	1	3038	U	N1-C2-O2	-5.50	118.95	122.80
36	1	206	G	C5-C6-N1	5.50	114.25	111.50
36	5	400	G	N9-C4-C5	5.50	107.60	105.40
1	2	1136	U	C2-N1-C1'	-5.50	111.10	117.70
36	1	2279	A	C8-N9-C4	5.50	108.00	105.80
36	1	3248	C	C5-C6-N1	5.50	123.75	121.00
36	5	1448	U	C6-N1-C2	5.50	124.30	121.00
36	5	2425	G	N3-C4-C5	5.50	131.35	128.60
36	1	951	A	N9-C4-C5	-5.50	103.60	105.80
36	1	1643	A	C8-N9-C4	5.50	108.00	105.80
36	1	2917	G	N3-C2-N2	-5.50	116.05	119.90
1	6	552	G	C4-C5-N7	5.50	113.00	110.80
36	5	581	U	C5-C6-N1	5.50	125.45	122.70
36	5	2257	C	P-O3'-C3'	5.50	126.30	119.70
36	5	2302	G	N1-C6-O6	-5.50	116.60	119.90
36	5	919	U	C5-C6-N1	-5.50	119.95	122.70
36	5	1076	C	N1-C2-O2	-5.50	115.60	118.90
1	6	1141	G	C8-N9-C4	5.49	108.60	106.40
36	5	2339	C	OP1-P-OP2	5.49	127.84	119.60
36	1	3049	A	C8-N9-C4	5.49	108.00	105.80
37	3	27	A	N1-C6-N6	5.49	121.89	118.60
36	1	792	G	C8-N9-C4	5.49	108.60	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1602	A	C2-N3-C4	-5.49	107.86	110.60
36	1	1843	C	C2-N3-C4	-5.49	117.16	119.90
36	1	2119	A	N1-C6-N6	5.49	121.89	118.60
1	6	467	G	N3-C4-N9	5.49	129.29	126.00
36	5	3093	C	N3-C2-O2	5.49	125.74	121.90
36	5	3200	G	C4-C5-N7	5.49	113.00	110.80
36	1	189	G	N1-C6-O6	-5.49	116.61	119.90
36	1	3039	C	C2-N1-C1'	5.49	124.84	118.80
1	6	862	A	C8-N9-C4	5.49	108.00	105.80
1	6	1048	G	N3-C4-C5	5.49	131.34	128.60
1	6	1535	U	O4'-C1'-N1	5.49	112.59	108.20
36	5	653	A	C4-C5-N7	5.49	113.44	110.70
36	5	1450	G	C4-C5-N7	5.49	113.00	110.80
36	5	2687	G	N3-C4-N9	5.49	129.29	126.00
36	5	3062	G	C8-N9-C4	-5.49	104.20	106.40
36	1	2891	U	C5-C4-O4	-5.49	122.61	125.90
51	M5	68	ARG	NE-CZ-NH1	5.49	123.04	120.30
36	5	1834	U	N3-C4-C5	-5.49	111.31	114.60
36	5	1905	G	C4-C5-N7	5.49	113.00	110.80
36	1	608	A	C4-C5-C6	5.49	119.74	117.00
36	1	2142	A	C2-N3-C4	5.49	113.34	110.60
36	1	2378	C	C6-N1-C2	5.49	122.49	120.30
36	1	2414	G	N1-C2-N3	5.49	127.19	123.90
36	5	530	G	N1-C6-O6	-5.49	116.61	119.90
36	1	1503	A	C8-N9-C4	5.48	107.99	105.80
36	5	37	U	C4-C5-C6	5.48	122.99	119.70
36	5	2242	A	O5'-P-OP2	-5.48	100.77	105.70
36	5	2293	C	N1-C2-O2	5.48	122.19	118.90
36	5	2377	G	N1-C6-O6	-5.48	116.61	119.90
36	5	2803	A	C8-N9-C4	5.48	107.99	105.80
1	2	1241	G	C5-N7-C8	-5.48	101.56	104.30
36	1	1898	G	N3-C4-C5	5.48	131.34	128.60
36	1	2974	U	N1-C2-N3	5.48	118.19	114.90
36	1	3179	U	N3-C4-O4	-5.48	115.56	119.40
1	2	392	G	N1-C6-O6	5.48	123.19	119.90
36	1	1136	A	C4-C5-N7	5.48	113.44	110.70
36	1	2234	G	N1-C2-N3	5.48	127.19	123.90
36	5	2416	U	C6-N1-C2	-5.48	117.71	121.00
36	1	1903	U	N3-C4-O4	5.48	123.23	119.40
38	4	23	U	N1-C2-N3	5.48	118.19	114.90
1	6	792	U	C6-N1-C2	-5.48	117.71	121.00
10	s8	29	LEU	CA-CB-CG	5.48	127.90	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2988	C	C5-C6-N1	-5.48	118.26	121.00
36	1	2345	A	N1-C6-N6	5.48	121.89	118.60
1	2	848	C	C6-N1-C2	-5.47	118.11	120.30
36	1	1931	U	C5-C4-O4	5.47	129.19	125.90
36	1	2870	C	N3-C2-O2	5.47	125.73	121.90
37	3	84	A	N1-C6-N6	5.47	121.89	118.60
36	5	2815	G	C8-N9-C4	5.47	108.59	106.40
36	1	392	G	N9-C4-C5	-5.47	103.21	105.40
36	1	1313	G	C5-N7-C8	-5.47	101.56	104.30
36	5	718	G	N1-C2-N2	-5.47	111.28	116.20
36	5	2405	C	C2-N3-C4	-5.47	117.16	119.90
1	2	1731	A	N1-C6-N6	5.47	121.88	118.60
36	1	3210	A	N1-C6-N6	-5.47	115.32	118.60
36	5	2339	C	O5'-P-OP2	-5.47	100.78	105.70
38	8	34	U	C2-N3-C4	-5.47	123.72	127.00
36	1	1653	G	N1-C6-O6	-5.47	116.62	119.90
36	1	1795	U	O5'-P-OP2	5.47	117.26	110.70
38	4	136	G	C4-C5-N7	5.47	112.99	110.80
1	6	364	G	C5-C6-O6	-5.47	125.32	128.60
36	5	1604	G	C8-N9-C1'	-5.47	119.89	127.00
36	5	2245	C	C2-N3-C4	5.47	122.64	119.90
36	5	2871	G	N1-C6-O6	-5.47	116.62	119.90
36	1	3101	G	C8-N9-C4	5.47	108.59	106.40
36	5	3319	U	C5-C6-N1	5.47	125.43	122.70
1	6	17	C	N3-C2-O2	-5.47	118.07	121.90
1	6	1354	G	C6-C5-N7	-5.47	127.12	130.40
36	5	984	G	N3-C4-C5	-5.47	125.87	128.60
36	5	1299	U	O5'-P-OP2	-5.47	100.78	105.70
36	5	3106	A	OP1-P-O3'	5.47	117.23	105.20
36	5	3107	U	C2-N3-C4	-5.47	123.72	127.00
44	17	179	LEU	CA-CB-CG	5.47	127.87	115.30
36	1	1166	G	N3-C4-C5	5.46	131.33	128.60
36	1	1330	A	N1-C6-N6	5.46	121.88	118.60
36	1	2200	U	N3-C4-O4	5.46	123.22	119.40
36	1	2653	C	N3-C2-O2	-5.46	118.08	121.90
36	1	2699	G	N1-C6-O6	5.46	123.18	119.90
38	4	13	A	N1-C6-N6	5.46	121.88	118.60
1	6	163	G	C4-N9-C1'	-5.46	119.40	126.50
1	6	392	G	C5-C6-O6	-5.46	125.32	128.60
1	6	453	U	C6-N1-C2	-5.46	117.72	121.00
36	5	875	G	C4-N9-C1'	5.46	133.60	126.50
36	1	1443	G	N3-C2-N2	-5.46	116.08	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	95	G	C8-N9-C4	-5.46	104.22	106.40
36	5	1164	G	C8-N9-C4	5.46	108.58	106.40
36	5	2764	C	C5-C4-N4	-5.46	116.38	120.20
36	5	3075	G	N1-C6-O6	5.46	123.18	119.90
1	2	54	C	N3-C4-C5	5.46	124.08	121.90
36	1	1888	U	C2-N1-C1'	-5.46	111.15	117.70
36	1	3362	A	N1-C2-N3	5.46	132.03	129.30
1	6	426	G	N3-C4-C5	-5.46	125.87	128.60
36	5	395	A	C6-N1-C2	-5.46	115.32	118.60
36	5	1190	A	C8-N9-C4	-5.46	103.62	105.80
36	5	3060	C	C5-C4-N4	-5.46	116.38	120.20
36	1	2314	U	C6-N1-C1'	-5.46	113.56	121.20
38	4	32	C	C2-N1-C1'	-5.46	112.80	118.80
36	5	61	A	N9-C4-C5	5.46	107.98	105.80
36	5	606	C	C5-C6-N1	-5.46	118.27	121.00
36	5	2980	U	C6-N1-C2	-5.46	117.72	121.00
59	n3	89	ASP	CB-CG-OD1	-5.46	113.39	118.30
36	1	2848	G	C5-C6-O6	-5.46	125.33	128.60
37	3	95	A	C6-C5-N7	-5.46	128.48	132.30
46	19	52	LEU	CA-CB-CG	5.46	127.85	115.30
36	1	2621	G	C6-C5-N7	-5.46	127.13	130.40
1	2	1749	A	C2-N3-C4	-5.45	107.87	110.60
36	1	49	A	C2-N3-C4	-5.45	107.87	110.60
36	1	154	U	C2-N1-C1'	-5.45	111.16	117.70
36	1	827	A	N1-C6-N6	-5.45	115.33	118.60
36	1	1841	A	N3-C4-C5	-5.45	122.98	126.80
36	1	1929	G	N3-C2-N2	5.45	123.72	119.90
38	4	146	U	C5-C6-N1	-5.45	119.97	122.70
1	6	187	G	P-O3'-C3'	5.45	126.24	119.70
36	5	1446	A	OP1-P-O3'	5.45	117.20	105.20
36	5	2105	G	C5-C6-O6	-5.45	125.33	128.60
36	5	2342	U	N1-C2-O2	-5.45	118.98	122.80
36	5	2376	G	C5-N7-C8	-5.45	101.57	104.30
36	5	3214	U	N3-C4-O4	-5.45	115.58	119.40
36	5	1142	G	C6-C5-N7	-5.45	127.13	130.40
36	5	2625	C	C6-N1-C2	5.45	122.48	120.30
36	1	71	A	O5'-P-OP2	5.45	117.24	110.70
36	1	765	C	C5-C6-N1	5.45	123.73	121.00
36	1	1165	A	N7-C8-N9	-5.45	111.07	113.80
36	1	2870	C	N3-C4-C5	5.45	124.08	121.90
1	6	306	U	C5-C6-N1	-5.45	119.97	122.70
36	5	2728	G	C4-C5-N7	5.45	112.98	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2757	U	N1-C2-N3	5.45	118.17	114.90
36	1	1122	U	N3-C2-O2	-5.45	118.39	122.20
1	6	47	A	O5'-P-OP1	-5.45	100.80	105.70
36	5	1300	G	C4-C5-N7	5.45	112.98	110.80
36	5	1450	G	N1-C6-O6	5.45	123.17	119.90
36	5	3339	A	N1-C6-N6	5.45	121.87	118.60
1	2	1200	G	N3-C2-N2	-5.45	116.09	119.90
36	1	117	U	N1-C2-O2	-5.45	118.99	122.80
36	1	1001	G	N3-C4-N9	5.45	129.27	126.00
36	1	3039	C	N1-C2-O2	5.45	122.17	118.90
36	5	426	G	C8-N9-C4	5.45	108.58	106.40
36	5	1878	G	N3-C4-C5	-5.45	125.88	128.60
36	5	3014	U	N1-C2-O2	-5.45	118.99	122.80
1	2	1012	U	C2-N3-C4	5.44	130.27	127.00
36	1	949	C	C4-C5-C6	5.44	120.12	117.40
36	5	83	U	OP1-P-OP2	5.44	127.77	119.60
36	5	2820	A	O5'-P-OP2	-5.44	100.80	105.70
36	5	61	A	C5-C6-N6	5.44	128.06	123.70
36	5	970	A	N1-C6-N6	5.44	121.87	118.60
36	5	2917	G	N1-C6-O6	5.44	123.17	119.90
36	5	3104	U	O5'-P-OP2	-5.44	100.80	105.70
36	1	2688	U	C6-N1-C2	5.44	124.26	121.00
36	1	2865	U	N3-C4-C5	5.44	117.86	114.60
36	1	2966	G	N3-C2-N2	5.44	123.71	119.90
36	1	3128	G	N1-C6-O6	5.44	123.16	119.90
36	5	1604	G	C4-N9-C1'	5.44	133.57	126.50
36	5	1891	A	C5-C6-N6	-5.44	119.35	123.70
1	2	43	A	N1-C6-N6	-5.44	115.34	118.60
1	2	1150	G	C8-N9-C4	5.44	108.58	106.40
36	5	412	G	N3-C4-C5	-5.44	125.88	128.60
36	5	3115	C	C6-N1-C2	-5.44	118.12	120.30
36	1	1565	G	C8-N9-C4	-5.44	104.22	106.40
36	1	1867	A	C8-N9-C4	5.44	107.97	105.80
36	5	1378	U	C5-C6-N1	-5.44	119.98	122.70
37	7	112	G	C8-N9-C4	-5.44	104.22	106.40
36	1	225	C	C4-C5-C6	5.44	120.12	117.40
36	1	821	U	C5-C6-N1	-5.44	119.98	122.70
1	6	1765	A	N7-C8-N9	-5.44	111.08	113.80
36	5	869	G	C5-C6-N1	5.44	114.22	111.50
36	5	2148	U	C2-N1-C1'	-5.44	111.18	117.70
36	5	2273	G	C4-N9-C1'	-5.44	119.43	126.50
48	m1	12	LEU	CA-CB-CG	5.44	127.80	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1135	U	C6-N1-C2	5.43	124.26	121.00
36	1	376	G	O5'-P-OP1	-5.43	100.81	105.70
36	1	880	G	C5-C6-O6	5.43	131.86	128.60
36	1	901	G	C5-C6-O6	-5.43	125.34	128.60
36	1	1383	G	C8-N9-C4	-5.43	104.23	106.40
1	2	294	C	C6-N1-C2	5.43	122.47	120.30
36	1	3197	G	C2-N3-C4	-5.43	109.18	111.90
36	5	364	G	N3-C4-N9	-5.43	122.74	126.00
36	5	610	G	N9-C4-C5	5.43	107.57	105.40
37	3	82	G	C6-N1-C2	-5.43	121.84	125.10
1	6	1110	G	N1-C6-O6	-5.43	116.64	119.90
38	8	132	G	O5'-P-OP2	-5.43	100.81	105.70
38	4	38	U	N1-C2-O2	5.43	126.60	122.80
1	6	994	G	N1-C6-O6	5.43	123.16	119.90
36	5	215	G	O5'-P-OP2	5.43	117.22	110.70
36	5	945	C	C2-N1-C1'	5.43	124.77	118.80
36	1	1826	C	C6-N1-C2	5.43	122.47	120.30
1	6	1307	U	N3-C2-O2	-5.43	118.40	122.20
36	5	1208	U	N1-C2-N3	5.43	118.16	114.90
37	7	37	G	N9-C4-C5	-5.43	103.23	105.40
36	1	587	U	N1-C2-O2	-5.43	119.00	122.80
36	1	1509	A	N9-C4-C5	-5.43	103.63	105.80
1	6	1724	U	C5-C4-O4	5.43	129.16	125.90
36	5	1120	A	OP1-P-OP2	5.43	127.74	119.60
36	5	1340	G	N7-C8-N9	-5.43	110.39	113.10
36	5	1460	A	C5-C6-N6	-5.43	119.36	123.70
36	5	3219	G	C4-C5-N7	5.43	112.97	110.80
38	8	58	G	C8-N9-C4	5.43	108.57	106.40
1	2	1324	G	C8-N9-C1'	5.42	134.05	127.00
36	1	265	A	N1-C6-N6	5.42	121.86	118.60
36	5	2133	U	OP1-P-OP2	-5.42	111.46	119.60
36	5	2309	A	C4-C5-N7	-5.42	107.99	110.70
1	2	103	A	P-O3'-C3'	5.42	126.21	119.70
36	1	646	A	C2-N3-C4	-5.42	107.89	110.60
36	1	936	A	P-O3'-C3'	5.42	126.21	119.70
36	5	370	U	N3-C2-O2	-5.42	118.40	122.20
36	1	32	U	C2-N3-C4	-5.42	123.75	127.00
36	1	323	A	C4-C5-C6	5.42	119.71	117.00
36	1	1155	C	O5'-P-OP1	-5.42	100.82	105.70
36	5	706	A	OP2-P-O3'	5.42	117.13	105.20
36	5	902	G	C8-N9-C4	5.42	108.57	106.40
36	5	1292	C	N3-C4-C5	5.42	124.07	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2775	U	C6-N1-C2	5.42	124.25	121.00
38	8	116	G	C5-C6-O6	-5.42	125.35	128.60
36	1	1140	G	N3-C2-N2	5.42	123.69	119.90
36	1	2245	C	N3-C2-O2	-5.42	118.11	121.90
36	1	961	C	C6-N1-C2	5.42	122.47	120.30
36	1	1851	G	N1-C6-O6	5.42	123.15	119.90
36	1	2166	A	N1-C6-N6	5.42	121.85	118.60
36	1	2932	U	C5-C6-N1	-5.42	119.99	122.70
36	5	904	A	C5-C6-N1	5.42	120.41	117.70
36	5	1420	C	OP2-P-O3'	5.42	117.12	105.20
36	5	3098	G	O5'-P-OP2	-5.42	100.82	105.70
36	5	3308	C	C2-N3-C4	-5.42	117.19	119.90
51	m5	187	ARG	NE-CZ-NH1	-5.42	117.59	120.30
1	2	399	A	N1-C6-N6	-5.42	115.35	118.60
36	1	214	G	N3-C2-N2	-5.42	116.11	119.90
36	1	2867	C	N1-C2-N3	5.42	122.99	119.20
36	5	373	A	O5'-P-OP1	-5.42	100.83	105.70
36	5	1724	U	P-O3'-C3'	5.42	126.20	119.70
36	5	2393	G	N1-C6-O6	5.42	123.15	119.90
36	5	2852	C	N1-C2-O2	-5.42	115.65	118.90
36	5	3271	G	N3-C4-C5	-5.42	125.89	128.60
36	1	1834	U	C4-C5-C6	5.42	122.95	119.70
38	4	42	G	N1-C6-O6	5.42	123.15	119.90
36	5	91	G	N9-C4-C5	-5.42	103.23	105.40
36	5	1430	U	C5-C6-N1	-5.42	119.99	122.70
36	5	2315	G	OP2-P-O3'	5.42	117.11	105.20
1	6	1459	C	O5'-P-OP2	-5.41	100.83	105.70
36	5	344	A	C2-N3-C4	-5.41	107.89	110.60
36	5	631	U	C5-C6-N1	-5.41	119.99	122.70
36	5	1181	U	N1-C2-N3	5.41	118.15	114.90
36	5	1476	G	N3-C4-C5	5.41	131.31	128.60
36	5	2238	G	O5'-P-OP2	-5.41	100.83	105.70
36	5	2876	C	P-O3'-C3'	5.41	126.20	119.70
36	1	1359	C	N3-C4-C5	5.41	124.06	121.90
36	5	908	G	O5'-P-OP1	5.41	117.19	110.70
36	5	948	C	C6-N1-C2	5.41	122.47	120.30
36	5	1662	G	N1-C6-O6	5.41	123.15	119.90
36	5	2393	G	C5-C6-O6	-5.41	125.35	128.60
36	5	3303	G	C4-C5-N7	5.41	112.96	110.80
1	2	606	A	N1-C6-N6	5.41	121.84	118.60
1	6	858	G	C4-N9-C1'	5.41	133.53	126.50
36	5	1041	U	C6-N1-C2	5.41	124.25	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2726	C	N1-C2-N3	5.41	122.98	119.20
36	5	3259	U	C6-N1-C2	5.41	124.25	121.00
36	1	1411	C	N3-C2-O2	-5.41	118.11	121.90
36	1	1421	G	C8-N9-C4	5.41	108.56	106.40
36	5	2139	A	N1-C2-N3	5.41	132.00	129.30
36	5	2187	G	N1-C2-N2	-5.41	111.33	116.20
36	1	1128	U	C2-N3-C4	-5.41	123.76	127.00
1	6	558	U	C5-C6-N1	5.41	125.40	122.70
36	5	404	G	N3-C4-C5	-5.41	125.90	128.60
36	5	523	A	N1-C6-N6	-5.41	115.36	118.60
36	5	949	C	C4-C5-C6	5.41	120.10	117.40
36	5	1346	G	N3-C4-C5	5.41	131.30	128.60
36	5	2186	U	N3-C2-O2	-5.41	118.42	122.20
36	5	1561	G	O4'-C1'-N9	5.40	112.52	108.20
44	L7	183	ASP	CB-CG-OD1	-5.40	113.44	118.30
1	6	313	U	O5'-P-OP1	-5.40	100.84	105.70
1	6	439	U	C5-C6-N1	-5.40	120.00	122.70
12	c0	88	PRO	N-CA-CB	5.40	109.78	103.30
36	5	890	C	N3-C4-N4	5.40	121.78	118.00
36	5	2421	U	N1-C2-N3	5.40	118.14	114.90
1	2	1145	U	N1-C2-O2	-5.40	119.02	122.80
36	1	713	U	C5-C6-N1	-5.40	120.00	122.70
36	1	1163	A	O5'-P-OP2	-5.40	100.84	105.70
36	1	1421	G	OP1-P-OP2	-5.40	111.50	119.60
38	4	95	G	C8-N9-C1'	5.40	134.02	127.00
36	5	29	C	C6-N1-C2	5.40	122.46	120.30
36	5	283	G	C5-C6-O6	-5.40	125.36	128.60
36	5	985	U	C5-C6-N1	-5.40	120.00	122.70
36	5	1300	G	N1-C6-O6	5.40	123.14	119.90
36	5	715	A	C5-C6-N1	5.40	120.40	117.70
36	1	20	A	N1-C6-N6	-5.40	115.36	118.60
36	1	273	A	C8-N9-C4	5.40	107.96	105.80
36	1	1182	A	N9-C4-C5	-5.40	103.64	105.80
36	1	1515	A	C6-C5-N7	-5.40	128.52	132.30
1	6	163	G	C5-N7-C8	-5.40	101.60	104.30
36	1	2639	G	N1-C2-N3	5.40	127.14	123.90
1	6	923	A	C2-N3-C4	-5.40	107.90	110.60
36	5	101	G	O4'-C1'-N9	5.40	112.52	108.20
36	5	2531	C	C2-N1-C1'	5.40	124.74	118.80
1	2	394	C	N3-C2-O2	-5.39	118.12	121.90
1	2	403	G	C4-N9-C1'	5.39	133.51	126.50
36	1	283	G	O4'-C1'-N9	-5.39	103.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	421	G	C8-N9-C4	5.39	108.56	106.40
36	1	963	G	O5'-P-OP1	5.39	117.17	110.70
36	1	1427	U	C6-N1-C1'	-5.39	113.65	121.20
37	3	89	G	C8-N9-C4	5.39	108.56	106.40
38	4	23	U	C2-N1-C1'	-5.39	111.23	117.70
1	6	1036	A	O5'-P-OP2	-5.39	100.84	105.70
36	1	1372	C	N3-C4-N4	-5.39	114.22	118.00
36	5	340	C	C6-N1-C2	5.39	122.46	120.30
36	5	1365	G	N9-C4-C5	-5.39	103.24	105.40
36	5	1534	A	N1-C2-N3	5.39	132.00	129.30
36	5	2417	U	N3-C4-C5	-5.39	111.36	114.60
36	5	2994	A	C5-C6-N1	5.39	120.40	117.70
36	1	589	A	C6-C5-N7	5.39	136.07	132.30
36	1	188	U	N3-C4-C5	-5.39	111.37	114.60
38	4	116	G	C8-N9-C1'	-5.39	119.99	127.00
36	5	1536	G	N3-C2-N2	-5.39	116.13	119.90
36	5	1822	C	C6-N1-C2	5.39	122.45	120.30
36	5	1847	A	C4-C5-C6	-5.39	114.31	117.00
36	5	2415	C	N3-C4-C5	5.39	124.06	121.90
36	5	2639	G	N1-C6-O6	5.39	123.13	119.90
36	5	2625	C	N3-C2-O2	5.39	125.67	121.90
36	1	1645	U	N3-C2-O2	-5.39	118.43	122.20
36	1	1489	A	C5-C6-N6	-5.38	119.39	123.70
36	1	2508	U	C5-C6-N1	5.38	125.39	122.70
1	6	982	U	N3-C2-O2	5.38	125.97	122.20
36	5	650	C	N3-C2-O2	5.38	125.67	121.90
36	5	1004	U	C2-N1-C1'	5.38	124.16	117.70
36	5	3142	A	N1-C6-N6	5.38	121.83	118.60
36	1	2966	G	N1-C2-N2	-5.38	111.36	116.20
36	5	887	G	C2-N3-C4	-5.38	109.21	111.90
1	2	393	C	C6-N1-C2	5.38	122.45	120.30
36	1	1053	A	O5'-P-OP2	-5.38	100.86	105.70
52	M6	15	LEU	CA-CB-CG	-5.38	102.92	115.30
1	6	1458	G	C4-N9-C1'	5.38	133.50	126.50
36	5	1669	C	N3-C2-O2	5.38	125.67	121.90
36	5	1323	G	N1-C2-N3	5.38	127.13	123.90
1	2	1194	A	N1-C6-N6	5.38	121.83	118.60
36	1	392	G	N1-C6-O6	5.38	123.13	119.90
36	1	392	G	N3-C4-N9	5.38	129.23	126.00
36	1	1894	U	C2-N1-C1'	-5.38	111.25	117.70
36	1	2523	A	N1-C6-N6	5.38	121.83	118.60
36	1	2827	U	C2-N1-C1'	-5.38	111.25	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1133	A	N1-C6-N6	5.38	121.83	118.60
36	5	696	C	N3-C4-N4	5.38	121.77	118.00
36	5	1452	A	N1-C6-N6	5.38	121.83	118.60
36	5	2618	G	C6-N1-C2	-5.38	121.87	125.10
36	1	281	G	C5-C6-N1	5.38	114.19	111.50
36	1	1055	A	C8-N9-C4	5.38	107.95	105.80
36	1	1315	U	N3-C2-O2	-5.38	118.44	122.20
36	1	1406	A	N1-C6-N6	5.38	121.83	118.60
1	6	383	G	N7-C8-N9	5.38	115.79	113.10
36	5	2376	G	C6-N1-C2	-5.38	121.88	125.10
36	1	321	C	C4-C5-C6	5.38	120.09	117.40
1	6	313	U	C5-C6-N1	-5.38	120.01	122.70
36	5	3317	U	P-O3'-C3'	5.38	126.15	119.70
36	1	995	U	C5-C4-O4	-5.37	122.68	125.90
36	1	1194	G	N1-C6-O6	-5.37	116.68	119.90
1	6	1751	C	C6-N1-C2	5.37	122.45	120.30
36	5	875	G	C6-N1-C2	-5.37	121.88	125.10
36	5	1048	A	N9-C4-C5	-5.37	103.65	105.80
36	5	1438	U	N3-C4-C5	-5.37	111.38	114.60
1	2	694	U	N1-C2-O2	5.37	126.56	122.80
36	1	353	G	C6-C5-N7	-5.37	127.18	130.40
36	1	1428	A	C6-C5-N7	-5.37	128.54	132.30
1	6	794	U	C2-N1-C1'	5.37	124.14	117.70
36	5	805	G	C8-N9-C4	5.37	108.55	106.40
36	5	1445	U	C2-N3-C4	-5.37	123.78	127.00
36	5	2616	C	OP2-P-O3'	5.37	117.02	105.20
36	5	3127	A	C5-C6-N1	5.37	120.39	117.70
38	8	4	C	N3-C4-N4	-5.37	114.24	118.00
38	8	34	U	C4-C5-C6	5.37	122.92	119.70
3	S1	181	LEU	CA-CB-CG	5.37	127.65	115.30
36	1	830	A	N1-C6-N6	5.37	121.82	118.60
36	5	264	G	N9-C4-C5	-5.37	103.25	105.40
36	5	2140	U	N1-C2-O2	-5.37	119.04	122.80
36	5	2377	G	C5-C6-O6	5.37	131.82	128.60
36	5	3121	U	C5-C4-O4	5.37	129.12	125.90
37	7	27	A	C5-C6-N6	-5.37	119.40	123.70
36	1	1345	G	OP2-P-O3'	5.37	117.01	105.20
36	1	2811	A	C2-N3-C4	5.37	113.28	110.60
36	1	3302	U	OP1-P-OP2	5.37	127.65	119.60
36	5	2820	A	N9-C4-C5	5.37	107.95	105.80
36	5	3228	C	C2-N1-C1'	5.37	124.70	118.80
36	5	889	U	N3-C4-C5	5.37	117.82	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1198	C	C6-N1-C1'	5.37	127.24	120.80
1	2	1650	U	C5-C6-N1	-5.37	120.02	122.70
36	1	639	G	OP1-P-O3'	5.37	117.01	105.20
36	1	671	U	N3-C2-O2	5.37	125.96	122.20
36	1	979	U	C6-N1-C2	-5.37	117.78	121.00
36	1	1198	C	N3-C4-C5	-5.37	119.75	121.90
36	1	1377	G	C5-N7-C8	-5.37	101.62	104.30
36	1	2398	A	C8-N9-C4	5.37	107.95	105.80
36	1	3003	G	N9-C4-C5	-5.37	103.25	105.40
36	5	212	G	C8-N9-C4	-5.37	104.25	106.40
36	1	590	G	N1-C6-O6	5.36	123.12	119.90
36	1	1192	C	C6-N1-C1'	-5.36	114.36	120.80
36	1	1520	G	C5-N7-C8	5.36	106.98	104.30
36	1	2282	U	O5'-P-OP2	-5.36	100.87	105.70
36	1	2748	A	C2-N3-C4	-5.36	107.92	110.60
36	1	2836	C	N3-C4-C5	-5.36	119.75	121.90
36	1	2946	A	OP1-P-OP2	-5.36	111.56	119.60
36	5	645	A	C4-C5-N7	-5.36	108.02	110.70
36	5	907	G	C8-N9-C4	5.36	108.55	106.40
36	5	1874	A	C2-N3-C4	-5.36	107.92	110.60
36	5	2796	G	C5-C6-O6	5.36	131.82	128.60
1	2	863	A	N1-C6-N6	5.36	121.82	118.60
36	1	350	C	N3-C2-O2	-5.36	118.15	121.90
1	6	1700	C	C6-N1-C1'	-5.36	114.36	120.80
36	5	856	G	C8-N9-C4	-5.36	104.25	106.40
36	5	961	C	O5'-P-OP2	5.36	117.14	110.70
36	1	321	C	N3-C2-O2	-5.36	118.15	121.90
36	1	2278	C	N1-C2-O2	5.36	122.12	118.90
36	1	2418	G	OP2-P-O3'	-5.36	93.41	105.20
37	3	89	G	N1-C6-O6	5.36	123.12	119.90
1	6	1656	U	O5'-P-OP2	-5.36	100.88	105.70
36	5	1929	G	C2-N3-C4	-5.36	109.22	111.90
36	5	2147	A	N9-C4-C5	-5.36	103.66	105.80
36	1	3077	A	C2-N3-C4	-5.36	107.92	110.60
1	6	359	A	N3-C4-C5	5.36	130.55	126.80
36	5	3343	G	N3-C4-C5	-5.36	125.92	128.60
1	2	380	U	N1-C2-O2	5.36	126.55	122.80
1	2	1006	C	N1-C2-O2	-5.36	115.69	118.90
36	1	1837	U	OP2-P-O3'	5.36	116.98	105.20
36	5	2981	U	N3-C4-O4	5.36	123.15	119.40
1	2	543	C	N3-C2-O2	-5.35	118.15	121.90
1	2	864	U	C6-N1-C2	-5.35	117.79	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1351	U	C6-N1-C2	-5.35	117.79	121.00
36	1	2942	C	C4-C5-C6	-5.35	114.72	117.40
36	5	1317	A	N1-C6-N6	5.35	121.81	118.60
36	1	281	G	C6-N1-C2	-5.35	121.89	125.10
36	1	1434	G	C2-N3-C4	5.35	114.58	111.90
36	1	1699	A	N1-C6-N6	5.35	121.81	118.60
36	1	2790	A	O5'-P-OP2	-5.35	100.88	105.70
36	1	3112	G	C4-C5-N7	5.35	112.94	110.80
36	5	788	C	C4-C5-C6	5.35	120.08	117.40
36	5	803	C	N3-C4-N4	5.35	121.75	118.00
1	2	1120	U	C5-C4-O4	5.35	129.11	125.90
36	1	958	C	N1-C2-O2	5.35	122.11	118.90
36	1	2639	G	N3-C4-N9	5.35	129.21	126.00
36	5	807	A	O4'-C1'-N9	5.35	112.48	108.20
36	1	789	A	C2-N3-C4	-5.35	107.93	110.60
36	1	2310	U	C5-C4-O4	5.35	129.11	125.90
1	6	1119	G	N1-C2-N2	-5.35	111.39	116.20
36	1	1655	G	C8-N9-C4	5.35	108.54	106.40
36	1	2153	U	N1-C2-N3	5.35	118.11	114.90
36	1	2708	C	N1-C2-O2	5.35	122.11	118.90
36	1	2871	G	C5-C6-N1	5.35	114.17	111.50
36	1	3278	C	C6-N1-C1'	-5.35	114.38	120.80
37	3	117	A	N1-C6-N6	5.35	121.81	118.60
38	4	30	C	C6-N1-C1'	5.35	127.22	120.80
1	6	448	C	C6-N1-C2	-5.35	118.16	120.30
36	5	2774	C	N3-C4-C5	-5.35	119.76	121.90
36	1	2699	G	C4-C5-N7	5.35	112.94	110.80
1	6	1648	A	N1-C6-N6	5.35	121.81	118.60
1	2	15	U	N3-C2-O2	-5.34	118.46	122.20
36	1	24	G	N3-C2-N2	5.34	123.64	119.90
36	1	978	G	N1-C6-O6	5.34	123.11	119.90
36	1	2169	G	C2-N3-C4	5.34	114.57	111.90
36	1	3121	U	OP1-P-O3'	5.34	116.96	105.20
1	6	609	U	C4-C5-C6	5.34	122.91	119.70
1	6	622	A	O5'-P-OP2	5.34	117.11	110.70
1	6	1227	A	P-O3'-C3'	5.34	126.11	119.70
36	5	2728	G	C6-C5-N7	-5.34	127.19	130.40
36	5	3214	U	C5-C4-O4	5.34	129.11	125.90
36	1	3008	A	N9-C4-C5	5.34	107.94	105.80
36	1	3309	G	C6-C5-N7	-5.34	127.19	130.40
37	3	86	U	C5-C4-O4	5.34	129.11	125.90
36	1	821	U	C5-C4-O4	5.34	129.10	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1437	C	N3-C2-O2	-5.34	118.16	121.90
36	1	1610	G	N1-C6-O6	5.34	123.10	119.90
36	1	1784	G	N1-C6-O6	-5.34	116.69	119.90
36	5	1317	A	C4-C5-N7	5.34	113.37	110.70
36	5	2121	G	N9-C4-C5	-5.34	103.26	105.40
36	5	3382	U	N1-C2-O2	5.34	126.54	122.80
36	5	353	G	C8-N9-C1'	5.34	133.94	127.00
36	5	2245	C	N3-C2-O2	-5.34	118.16	121.90
36	5	3331	U	C6-N1-C2	5.34	124.20	121.00
36	1	655	C	C4-C5-C6	5.34	120.07	117.40
36	1	2364	G	N3-C2-N2	-5.34	116.16	119.90
36	5	2661	G	N3-C4-N9	5.34	129.20	126.00
36	1	2152	A	C5-C6-N1	5.34	120.37	117.70
1	6	1573	A	P-O3'-C3'	5.34	126.10	119.70
36	5	1716	U	P-O3'-C3'	5.34	126.10	119.70
36	5	1734	G	C8-N9-C4	5.34	108.53	106.40
36	1	100	A	C5-C6-N1	-5.33	115.03	117.70
36	1	798	G	N7-C8-N9	5.33	115.77	113.10
1	6	194	U	N3-C2-O2	-5.33	118.47	122.20
36	5	1757	A	C8-N9-C4	-5.33	103.67	105.80
36	1	638	C	N3-C2-O2	-5.33	118.17	121.90
36	1	1114	U	N1-C2-O2	5.33	126.53	122.80
36	1	1153	A	C5-C6-N1	-5.33	115.03	117.70
36	1	1429	G	C5-N7-C8	5.33	106.97	104.30
36	1	1794	G	N1-C2-N2	-5.33	111.40	116.20
36	5	875	G	N3-C4-N9	5.33	129.20	126.00
36	5	960	U	OP1-P-OP2	5.33	127.60	119.60
36	5	1170	A	N9-C4-C5	-5.33	103.67	105.80
36	5	2913	C	C5-C4-N4	5.33	123.93	120.20
36	5	3182	G	OP1-P-OP2	-5.33	111.60	119.60
36	1	945	C	C5-C6-N1	-5.33	118.33	121.00
36	1	2647	A	N9-C4-C5	5.33	107.93	105.80
36	5	950	G	N7-C8-N9	-5.33	110.43	113.10
36	5	1068	C	C2-N1-C1'	-5.33	112.94	118.80
36	5	1853	U	N1-C2-N3	5.33	118.10	114.90
36	5	2947	G	O4'-C1'-N9	5.33	112.47	108.20
36	5	2996	U	C5-C6-N1	5.33	125.37	122.70
36	1	650	C	OP1-P-O3'	-5.33	93.47	105.20
36	5	1148	G	C8-N9-C4	5.33	108.53	106.40
36	5	1450	G	C5-N7-C8	-5.33	101.64	104.30
36	1	589	A	C4-C5-N7	-5.33	108.04	110.70
36	1	631	U	C6-N1-C2	5.33	124.20	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	935	U	O5'-P-OP2	-5.33	100.91	105.70
36	1	1923	C	C5-C4-N4	-5.33	116.47	120.20
1	6	484	C	C5-C6-N1	5.33	123.67	121.00
36	5	982	C	N1-C2-O2	5.33	122.10	118.90
36	5	2935	U	C5-C6-N1	5.33	125.36	122.70
1	2	829	A	P-O3'-C3'	5.33	126.09	119.70
1	2	1339	C	P-O3'-C3'	5.33	126.09	119.70
36	1	649	A	N1-C2-N3	5.33	131.96	129.30
36	1	1838	G	C5-C6-O6	-5.33	125.41	128.60
36	1	2384	A	O5'-P-OP2	-5.33	100.91	105.70
1	6	1568	C	C6-N1-C2	-5.33	118.17	120.30
36	5	1931	U	C5-C6-N1	-5.33	120.04	122.70
36	5	2376	G	C6-C5-N7	-5.33	127.20	130.40
36	1	588	G	N3-C4-C5	-5.32	125.94	128.60
36	1	895	A	C4-C5-C6	5.32	119.66	117.00
36	1	2699	G	N9-C4-C5	-5.32	103.27	105.40
37	3	14	U	C5-C6-N1	-5.32	120.04	122.70
1	6	385	A	C5-C6-N6	5.32	127.96	123.70
37	7	92	A	C4-C5-N7	5.32	113.36	110.70
68	o2	4	LEU	C-N-CA	-5.32	99.64	122.00
36	1	2554	A	N9-C4-C5	-5.32	103.67	105.80
36	1	2816	G	C5-C6-O6	-5.32	125.41	128.60
36	5	1497	C	N1-C2-O2	-5.32	115.71	118.90
36	5	2699	G	N1-C2-N2	-5.32	111.41	116.20
36	1	3139	A	O5'-P-OP1	-5.32	100.91	105.70
1	6	687	G	N3-C4-N9	-5.32	122.81	126.00
37	7	88	G	N1-C6-O6	-5.32	116.71	119.90
1	6	777	C	C5-C6-N1	5.32	123.66	121.00
1	6	1125	A	C5-C6-N1	-5.32	115.04	117.70
36	5	706	A	C2-N3-C4	-5.32	107.94	110.60
36	5	1077	U	C6-N1-C2	5.32	124.19	121.00
36	1	430	U	C5-C6-N1	-5.32	120.04	122.70
36	1	1292	C	C6-N1-C2	5.32	122.43	120.30
36	1	2827	U	C2-N3-C4	-5.32	123.81	127.00
36	5	276	U	N3-C4-O4	5.32	123.12	119.40
36	5	1589	A	N1-C6-N6	5.32	121.79	118.60
36	1	1394	A	C2-N3-C4	-5.32	107.94	110.60
36	1	2606	G	C4-N9-C1'	5.32	133.41	126.50
36	1	3078	U	C2-N1-C1'	5.32	124.08	117.70
36	5	726	G	OP1-P-O3'	5.32	116.89	105.20
36	5	2376	G	N1-C2-N3	5.32	127.09	123.90
36	1	1366	A	N1-C2-N3	-5.31	126.64	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2420	C	N3-C2-O2	5.31	125.62	121.90
36	5	3090	U	OP2-P-O3'	5.31	116.89	105.20
1	2	1241	G	N7-C8-N9	5.31	115.76	113.10
36	1	2101	C	P-O3'-C3'	5.31	126.08	119.70
36	1	2198	A	N1-C2-N3	5.31	131.96	129.30
1	6	1614	A	O4'-C1'-N9	5.31	112.45	108.20
36	5	1444	G	C5-C6-O6	-5.31	125.41	128.60
1	2	1793	G	OP1-P-OP2	-5.31	111.63	119.60
36	5	1704	A	C8-N9-C4	5.31	107.92	105.80
38	4	14	C	O5'-P-OP2	-5.31	100.92	105.70
36	5	345	G	C8-N9-C4	5.31	108.52	106.40
36	5	890	C	C5-C4-N4	-5.31	116.48	120.20
36	5	1454	A	N3-C4-C5	5.31	130.52	126.80
1	2	1200	G	C5-C6-N1	-5.31	108.85	111.50
36	1	347	G	C8-N9-C1'	-5.31	120.10	127.00
36	1	895	A	N1-C2-N3	5.31	131.95	129.30
36	1	2388	U	C5-C4-O4	-5.31	122.72	125.90
1	6	472	U	N1-C2-N3	5.31	118.08	114.90
36	5	971	G	N9-C4-C5	-5.31	103.28	105.40
36	5	1480	G	N3-C4-C5	5.31	131.25	128.60
36	5	2631	U	OP1-P-O3'	5.31	116.88	105.20
36	1	350	C	N1-C2-O2	5.31	122.08	118.90
1	2	1749	A	C8-N9-C4	5.30	107.92	105.80
36	1	830	A	C4-C5-N7	5.30	113.35	110.70
36	1	897	U	C5-C6-N1	-5.30	120.05	122.70
36	1	1206	G	O5'-P-OP2	-5.30	100.92	105.70
36	1	3375	A	C5'-C4'-C3'	-5.30	107.51	116.00
36	5	366	A	C8-N9-C4	5.30	107.92	105.80
36	5	1373	A	C5-C6-N6	-5.30	119.46	123.70
36	5	1435	A	P-O3'-C3'	5.30	126.07	119.70
36	5	1939	G	OP2-P-O3'	5.30	116.87	105.20
36	5	2932	U	C6-N1-C2	5.30	124.18	121.00
1	6	35	U	N3-C2-O2	-5.30	118.49	122.20
36	5	586	C	C2-N3-C4	-5.30	117.25	119.90
36	5	1165	A	C5-C6-N6	-5.30	119.46	123.70
36	1	2293	C	N1-C2-O2	5.30	122.08	118.90
44	L7	163	LEU	CA-CB-CG	-5.30	103.11	115.30
1	6	1355	C	C6-N1-C2	-5.30	118.18	120.30
1	6	1672	G	C6-C5-N7	-5.30	127.22	130.40
36	5	502	U	C4-C5-C6	5.30	122.88	119.70
36	5	624	G	C8-N9-C4	5.30	108.52	106.40
36	5	813	G	C8-N9-C4	5.30	108.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1847	A	N3-C4-C5	5.30	130.51	126.80
36	1	633	C	C4-C5-C6	5.30	120.05	117.40
36	1	788	C	C5-C6-N1	-5.30	118.35	121.00
36	1	1448	U	OP2-P-O3'	5.30	116.86	105.20
36	1	2309	A	C4-C5-N7	5.30	113.35	110.70
36	5	800	G	C8-N9-C4	5.30	108.52	106.40
36	5	933	A	N3-C4-C5	-5.30	123.09	126.80
36	5	1426	C	N1-C2-N3	-5.30	115.49	119.20
36	5	1519	G	N1-C6-O6	5.30	123.08	119.90
1	2	453	U	C6-N1-C1'	-5.30	113.78	121.20
36	1	1606	U	C6-N1-C2	5.30	124.18	121.00
36	5	502	U	C5-C6-N1	-5.30	120.05	122.70
1	2	1339	C	C3'-C2'-C1'	5.30	105.74	101.50
36	1	776	U	C5-C4-O4	5.30	129.08	125.90
36	1	1601	U	N3-C4-O4	-5.30	115.69	119.40
36	1	2572	C	C6-N1-C2	-5.30	118.18	120.30
36	5	911	C	C5-C6-N1	-5.30	118.35	121.00
36	5	955	U	O5'-P-OP2	-5.30	100.93	105.70
36	5	1598	G	C5-C6-O6	5.30	131.78	128.60
36	5	2326	A	C8-N9-C4	5.30	107.92	105.80
36	5	2705	A	N9-C4-C5	-5.30	103.68	105.80
36	5	3277	U	C5-C6-N1	5.30	125.35	122.70
38	8	26	U	C2-N1-C1'	5.30	124.06	117.70
1	6	1119	G	N1-C6-O6	-5.29	116.72	119.90
36	5	3045	G	N3-C4-C5	-5.29	125.95	128.60
36	1	439	C	N1-C2-O2	5.29	122.08	118.90
36	1	2383	C	C5-C4-N4	-5.29	116.49	120.20
1	6	787	G	C8-N9-C4	-5.29	104.28	106.40
36	5	2999	U	C2-N3-C4	-5.29	123.82	127.00
36	5	3219	G	N3-C4-N9	5.29	129.18	126.00
36	1	331	G	N3-C4-C5	-5.29	125.95	128.60
36	1	346	C	C4-C5-C6	5.29	120.05	117.40
36	1	871	U	N3-C4-O4	-5.29	115.70	119.40
36	1	1587	A	N1-C6-N6	-5.29	115.42	118.60
38	4	136	G	N9-C4-C5	-5.29	103.28	105.40
1	6	767	U	N3-C2-O2	-5.29	118.50	122.20
36	5	1652	G	C8-N9-C4	5.29	108.52	106.40
37	7	7	G	N3-C4-C5	-5.29	125.95	128.60
36	1	1120	A	C5-C6-N1	5.29	120.34	117.70
1	6	312	A	OP1-P-O3'	5.29	116.84	105.20
36	5	2862	U	C5-C6-N1	-5.29	120.06	122.70
1	2	1595	U	C4-C5-C6	5.29	122.87	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	334	A	C4-C5-N7	5.29	113.34	110.70
36	1	347	G	C5-C6-O6	-5.29	125.43	128.60
36	1	637	C	N3-C2-O2	-5.29	118.20	121.90
36	1	1050	U	N1-C2-O2	5.29	126.50	122.80
38	4	98	U	C5-C4-O4	-5.29	122.73	125.90
36	5	419	G	N9-C4-C5	-5.29	103.28	105.40
36	5	3220	G	N3-C4-C5	-5.29	125.96	128.60
1	2	334	G	N1-C6-O6	5.29	123.07	119.90
36	1	2963	C	C6-N1-C2	5.29	122.42	120.30
38	4	119	C	C6-N1-C2	-5.29	118.19	120.30
36	5	2863	G	N3-C2-N2	5.29	123.60	119.90
36	1	38	U	O5'-P-OP2	5.29	117.04	110.70
36	1	947	G	C2-N3-C4	-5.29	109.26	111.90
36	1	996	A	C8-N9-C4	5.29	107.91	105.80
36	1	2356	A	C5-C6-N6	-5.29	119.47	123.70
36	1	2541	U	P-O3'-C3'	5.29	126.04	119.70
36	1	2896	A	C5'-C4'-O4'	-5.29	102.76	109.10
36	5	395	A	C5-C6-N6	-5.29	119.47	123.70
36	5	800	G	O4'-C1'-N9	-5.29	103.97	108.20
36	5	974	G	N1-C6-O6	-5.29	116.73	119.90
36	5	2950	G	OP1-P-O3'	5.29	116.83	105.20
36	5	3335	A	N1-C6-N6	5.29	121.77	118.60
36	1	682	U	C5-C6-N1	-5.28	120.06	122.70
36	1	1151	U	C5-C6-N1	5.28	125.34	122.70
1	6	49	C	C6-N1-C2	5.28	122.41	120.30
1	6	1141	G	N9-C4-C5	-5.28	103.29	105.40
1	6	1642	G	C5-C6-O6	-5.28	125.43	128.60
36	5	1847	A	O5'-P-OP2	-5.28	100.94	105.70
36	5	2959	C	OP2-P-O3'	5.28	116.82	105.20
36	5	3041	U	N3-C4-C5	5.28	117.77	114.60
1	2	647	G	N3-C4-N9	-5.28	122.83	126.00
36	1	105	C	C2-N3-C4	-5.28	117.26	119.90
36	1	3093	C	N1-C2-O2	-5.28	115.73	118.90
36	1	3361	G	N1-C6-O6	-5.28	116.73	119.90
36	5	326	U	C5-C4-O4	-5.28	122.73	125.90
36	5	2822	U	C2-N1-C1'	-5.28	111.36	117.70
36	1	879	U	C5-C4-O4	5.28	129.07	125.90
36	1	1907	C	N1-C2-O2	5.28	122.07	118.90
1	6	970	A	P-O3'-C3'	5.28	126.04	119.70
36	5	39	A	C5-N7-C8	-5.28	101.26	103.90
36	5	2415	C	C2-N3-C4	-5.28	117.26	119.90
36	1	2409	G	C2-N3-C4	5.28	114.54	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	142	G	N3-C2-N2	-5.28	116.21	119.90
1	2	1112	G	C4-C5-N7	5.28	112.91	110.80
36	1	71	A	N1-C2-N3	5.28	131.94	129.30
36	1	1130	A	C5-C6-N6	-5.28	119.48	123.70
36	5	82	C	C4-C5-C6	5.28	120.04	117.40
36	5	1200	A	OP1-P-O3'	5.28	116.81	105.20
36	5	2310	U	C6-N1-C2	-5.28	117.83	121.00
36	5	2761	G	N3-C4-N9	5.28	129.17	126.00
36	5	2812	C	C6-N1-C2	-5.28	118.19	120.30
36	5	3131	U	N1-C2-O2	5.28	126.50	122.80
36	1	859	G	C4-N9-C1'	5.28	133.36	126.50
36	1	1115	G	OP1-P-OP2	-5.28	111.69	119.60
36	1	2812	C	C6-N1-C2	5.28	122.41	120.30
36	1	2833	A	O5'-P-OP2	-5.28	100.95	105.70
43	L6	34	LEU	CA-CB-CG	-5.28	103.17	115.30
36	5	51	A	N9-C4-C5	-5.28	103.69	105.80
36	5	1662	G	C5-C6-N1	-5.28	108.86	111.50
36	1	48	A	N1-C2-N3	5.27	131.94	129.30
1	6	1465	C	N3-C4-C5	-5.27	119.79	121.90
37	7	1	G	C4-N9-C1'	5.27	133.36	126.50
1	2	863	A	C4-C5-N7	5.27	113.34	110.70
1	2	1745	G	C4-N9-C1'	5.27	133.35	126.50
36	1	915	A	O5'-P-OP1	-5.27	100.95	105.70
36	1	2146	C	C6-N1-C2	-5.27	118.19	120.30
36	5	360	G	C5-C6-O6	5.27	131.76	128.60
36	5	878	G	N3-C2-N2	5.27	123.59	119.90
36	5	3176	G	C4-N9-C1'	5.27	133.35	126.50
36	1	363	G	C4-C5-N7	5.27	112.91	110.80
36	1	1306	G	N1-C6-O6	5.27	123.06	119.90
1	6	943	C	O5'-P-OP1	-5.27	100.96	105.70
36	5	1473	G	C8-N9-C4	5.27	108.51	106.40
1	2	1274	C	N3-C2-O2	-5.27	118.21	121.90
36	1	31	C	C2-N3-C4	-5.27	117.27	119.90
36	1	931	C	C5-C4-N4	-5.27	116.51	120.20
36	1	1888	U	N1-C2-O2	-5.27	119.11	122.80
36	1	2187	G	N3-C2-N2	5.27	123.59	119.90
38	4	119	C	N3-C4-N4	5.27	121.69	118.00
36	5	1178	G	C6-C5-N7	-5.27	127.24	130.40
36	5	1445	U	N3-C2-O2	5.27	125.89	122.20
36	5	2893	C	C4-C5-C6	5.27	120.03	117.40
38	4	40	A	N1-C6-N6	5.27	121.76	118.60
36	5	1405	U	C5-C6-N1	-5.27	120.07	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1846	C	OP2-P-O3'	5.27	116.79	105.20
36	5	2231	C	O4'-C1'-N1	5.27	112.42	108.20
1	2	940	A	C8-N9-C4	-5.27	103.69	105.80
36	1	511	G	OP1-P-OP2	5.27	127.50	119.60
36	1	1315	U	C5-C6-N1	-5.27	120.07	122.70
36	5	375	A	C5-C6-N6	5.27	127.91	123.70
36	5	1150	A	O5'-P-OP2	-5.27	100.96	105.70
36	5	1335	C	N3-C4-N4	5.27	121.69	118.00
36	1	836	A	O4'-C1'-N9	-5.26	103.99	108.20
36	1	2197	C	N1-C2-N3	-5.26	115.52	119.20
36	5	1454	A	C5-N7-C8	-5.26	101.27	103.90
36	5	1851	G	C4-C5-C6	5.26	121.96	118.80
36	5	2896	A	C5'-C4'-O4'	-5.26	102.78	109.10
36	1	2330	C	N3-C4-C5	5.26	124.00	121.90
1	6	1	U	O4'-C1'-N1	5.26	112.41	108.20
36	5	963	G	N1-C6-O6	-5.26	116.74	119.90
1	2	1022	C	C2-N3-C4	-5.26	117.27	119.90
36	1	1352	A	P-O3'-C3'	5.26	126.01	119.70
36	1	2137	U	C5-C4-O4	-5.26	122.74	125.90
1	6	578	U	C5-C6-N1	-5.26	120.07	122.70
36	5	1314	C	C2-N1-C1'	5.26	124.59	118.80
36	1	109	A	OP1-P-O3'	5.26	116.77	105.20
36	1	2975	U	N1-C2-O2	5.26	126.48	122.80
1	6	1647	U	C5-C4-O4	5.26	129.06	125.90
36	5	3027	A	C6-N1-C2	-5.26	115.44	118.60
36	5	3187	A	C8-N9-C4	5.26	107.90	105.80
1	2	248	U	C2-N1-C1'	-5.26	111.39	117.70
36	1	2872	A	C8-N9-C4	-5.26	103.70	105.80
36	5	197	G	C4-N9-C1'	5.26	133.34	126.50
36	5	1124	U	OP1-P-O3'	5.26	116.77	105.20
36	5	1404	G	C8-N9-C4	5.26	108.50	106.40
36	1	728	G	OP2-P-O3'	5.26	116.76	105.20
36	1	1841	A	C4-C5-C6	5.26	119.63	117.00
36	1	2917	G	C2-N3-C4	5.26	114.53	111.90
36	1	2991	A	N1-C6-N6	-5.26	115.45	118.60
64	N8	42	ARG	NE-CZ-NH2	-5.26	117.67	120.30
36	5	2434	U	N3-C4-O4	-5.26	115.72	119.40
36	5	2526	C	N1-C2-O2	5.26	122.05	118.90
36	5	2908	G	N1-C6-O6	5.26	123.05	119.90
36	1	1419	A	O4'-C1'-N9	5.25	112.40	108.20
36	1	2747	A	N1-C6-N6	-5.25	115.45	118.60
36	5	326	U	O5'-P-OP2	-5.25	100.97	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	321	C	N3-C2-O2	-5.25	118.22	121.90
1	6	1124	A	N9-C4-C5	-5.25	103.70	105.80
36	5	717	C	N3-C4-C5	5.25	124.00	121.90
36	5	1143	A	N1-C2-N3	5.25	131.93	129.30
38	8	20	U	C5-C6-N1	-5.25	120.07	122.70
36	1	1178	G	C8-N9-C1'	-5.25	120.17	127.00
36	1	3208	G	N3-C4-N9	5.25	129.15	126.00
1	6	1023	A	OP1-P-O3'	5.25	116.75	105.20
1	6	1599	C	N3-C2-O2	-5.25	118.22	121.90
1	6	1777	G	O5'-P-OP1	-5.25	100.97	105.70
36	5	71	A	O5'-P-OP1	-5.25	100.97	105.70
36	5	578	A	C5-C6-N6	-5.25	119.50	123.70
36	5	1528	G	C4-N9-C1'	5.25	133.33	126.50
36	5	1867	A	C2-N3-C4	-5.25	107.97	110.60
36	5	2892	A	N9-C4-C5	-5.25	103.70	105.80
36	1	1507	G	C4-C5-C6	5.25	121.95	118.80
36	5	881	C	C6-N1-C2	5.25	122.40	120.30
1	2	959	U	N1-C2-O2	5.25	126.47	122.80
36	1	1445	U	N3-C4-C5	5.25	117.75	114.60
36	1	2374	C	C2-N1-C1'	5.25	124.57	118.80
38	4	32	C	N3-C4-C5	5.25	124.00	121.90
36	5	869	G	C5-C6-O6	5.25	131.75	128.60
36	5	960	U	N3-C4-C5	5.25	117.75	114.60
36	5	2621	G	C5-C6-O6	-5.25	125.45	128.60
36	5	3231	U	C5-C4-O4	5.25	129.05	125.90
37	7	22	A	N1-C6-N6	5.25	121.75	118.60
64	n8	46	ASP	CB-CG-OD1	5.25	123.02	118.30
36	1	1365	G	C6-C5-N7	-5.25	127.25	130.40
36	1	3173	G	C4-N9-C1'	5.25	133.32	126.50
36	5	2817	A	OP2-P-O3'	5.25	116.74	105.20
1	2	720	G	P-O3'-C3'	5.25	125.99	119.70
1	2	1418	G	C4-N9-C1'	5.25	133.32	126.50
36	1	1165	A	C2-N3-C4	-5.25	107.98	110.60
36	1	1313	G	C6-C5-N7	-5.25	127.25	130.40
36	1	2172	A	C4-C5-N7	5.25	113.32	110.70
36	5	273	A	C8-N9-C4	5.25	107.90	105.80
36	5	1528	G	N1-C2-N3	5.25	127.05	123.90
1	2	16	G	N1-C2-N2	-5.24	111.48	116.20
36	1	392	G	C4-C5-N7	5.24	112.90	110.80
36	1	2410	U	N1-C2-O2	-5.24	119.13	122.80
36	1	2877	G	N1-C2-N3	5.24	127.05	123.90
1	6	512	A	C2'-C3'-O3'	5.24	122.09	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2197	C	N1-C2-N3	-5.24	115.53	119.20
36	1	2525	G	C4-C5-N7	5.24	112.90	110.80
37	3	65	G	C8-N9-C1'	-5.24	120.19	127.00
1	6	199	G	O4'-C1'-N9	5.24	112.39	108.20
36	5	1293	U	N1-C2-N3	5.24	118.05	114.90
36	5	1337	A	C5-C6-N6	-5.24	119.51	123.70
36	1	2682	C	O5'-P-OP2	-5.24	100.98	105.70
36	1	2700	G	C6-C5-N7	-5.24	127.26	130.40
36	1	2931	C	C6-N1-C2	5.24	122.40	120.30
36	5	2208	A	O4'-C1'-N9	5.24	112.39	108.20
36	1	25	U	N3-C2-O2	5.24	125.87	122.20
36	1	969	C	O5'-P-OP1	-5.24	100.98	105.70
36	5	1474	A	C8-N9-C4	5.24	107.89	105.80
36	5	2815	G	C5-N7-C8	5.24	106.92	104.30
36	5	3354	U	N1-C2-O2	5.24	126.47	122.80
1	6	450	U	C6-N1-C2	5.24	124.14	121.00
36	5	1924	U	N3-C4-C5	5.24	117.74	114.60
1	2	323	A	N7-C8-N9	5.24	116.42	113.80
36	1	24	G	C4-C5-C6	5.24	121.94	118.80
36	1	646	A	C5-C6-N1	-5.24	115.08	117.70
36	5	1315	U	C5-C6-N1	-5.24	120.08	122.70
36	5	1879	A	C6-C5-N7	-5.24	128.63	132.30
36	1	2370	G	OP2-P-O3'	5.23	116.71	105.20
38	4	42	G	N9-C4-C5	-5.23	103.31	105.40
36	5	2639	G	N3-C2-N2	-5.23	116.24	119.90
36	1	857	G	C6-C5-N7	-5.23	127.26	130.40
36	1	1394	A	N3-C4-C5	5.23	130.46	126.80
36	1	2427	U	N3-C2-O2	-5.23	118.54	122.20
36	1	2941	A	O4'-C1'-N9	-5.23	104.01	108.20
36	1	3207	U	C6-N1-C1'	5.23	128.53	121.20
36	1	3213	A	C2-N3-C4	-5.23	107.98	110.60
1	6	1117	U	N1-C2-O2	-5.23	119.14	122.80
1	6	1269	U	C2-N1-C1'	5.23	123.98	117.70
36	5	302	U	N3-C4-O4	-5.23	115.74	119.40
1	2	1217	A	O4'-C1'-N9	-5.23	104.02	108.20
36	1	24	G	N9-C4-C5	-5.23	103.31	105.40
36	1	969	C	C5-C6-N1	-5.23	118.39	121.00
36	1	2098	C	C5-C6-N1	5.23	123.61	121.00
36	1	2860	U	C6-N1-C1'	5.23	128.52	121.20
36	5	899	U	N3-C2-O2	-5.23	118.54	122.20
36	5	1317	A	N1-C2-N3	-5.23	126.69	129.30
36	5	3304	U	N3-C4-O4	5.23	123.06	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2899	C	C5-C6-N1	-5.23	118.39	121.00
36	1	2346	C	N3-C4-C5	-5.23	119.81	121.90
38	4	110	C	OP2-P-O3'	5.23	116.70	105.20
1	6	13	C	C4-C5-C6	5.23	120.01	117.40
1	6	338	C	C5-C6-N1	5.23	123.61	121.00
36	1	2130	G	N1-C6-O6	-5.23	116.77	119.90
53	M7	41	LEU	CA-CB-CG	5.23	127.32	115.30
1	6	105	A	N1-C6-N6	5.23	121.73	118.60
1	6	362	G	N1-C2-N3	5.23	127.04	123.90
36	5	2584	G	C6-C5-N7	-5.23	127.26	130.40
36	5	2637	A	C8-N9-C4	5.23	107.89	105.80
71	o5	21	LEU	CA-CB-CG	5.23	127.32	115.30
1	2	973	A	C8-N9-C4	5.22	107.89	105.80
36	1	1534	A	C5-C6-N6	-5.22	119.52	123.70
36	1	2131	A	C5-C6-N1	-5.22	115.09	117.70
36	1	2762	A	C5-C6-N6	5.22	127.88	123.70
36	1	2778	G	C8-N9-C4	-5.22	104.31	106.40
1	6	614	C	C6-N1-C2	5.22	122.39	120.30
36	5	414	U	N1-C2-O2	-5.22	119.14	122.80
36	5	1060	U	N3-C4-C5	5.22	117.73	114.60
36	5	1297	C	C2-N3-C4	-5.22	117.29	119.90
36	5	1724	U	C2-N1-C1'	5.22	123.97	117.70
36	1	1367	G	C4-C5-N7	5.22	112.89	110.80
36	1	1395	G	C5-C6-N1	5.22	114.11	111.50
38	4	17	A	C8-N9-C4	5.22	107.89	105.80
1	6	1659	A	C8-N9-C4	5.22	107.89	105.80
36	5	922	U	N3-C4-O4	-5.22	115.74	119.40
1	2	416	A	C2-N3-C4	-5.22	107.99	110.60
36	5	2705	A	C8-N9-C4	5.22	107.89	105.80
1	2	1539	G	C4-N9-C1'	5.22	133.28	126.50
36	1	270	U	O5'-P-OP1	-5.22	101.00	105.70
1	6	1274	C	C5-C6-N1	5.22	123.61	121.00
36	5	308	A	O5'-P-OP1	5.22	116.96	110.70
36	5	1047	A	C6-C5-N7	-5.22	128.65	132.30
36	5	3308	C	N1-C2-N3	5.22	122.85	119.20
51	m5	96	ARG	NE-CZ-NH1	5.22	122.91	120.30
1	2	1642	G	N1-C6-O6	5.22	123.03	119.90
36	1	2835	U	C5-C6-N1	-5.22	120.09	122.70
1	6	1117	U	N3-C4-C5	-5.22	111.47	114.60
36	1	127	G	C5-C6-O6	-5.22	125.47	128.60
36	1	2339	C	OP1-P-OP2	5.22	127.43	119.60
36	5	95	A	C4-C5-C6	-5.22	114.39	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	984	G	C4-C5-C6	5.22	121.93	118.80
36	5	2648	G	N1-C6-O6	-5.22	116.77	119.90
36	5	2917	G	O5'-P-OP2	-5.22	101.00	105.70
36	1	952	A	C2-N3-C4	-5.21	107.99	110.60
36	1	1902	G	C6-C5-N7	-5.21	127.27	130.40
36	1	2118	C	C5-C4-N4	-5.21	116.55	120.20
36	1	2735	U	N3-C4-O4	-5.21	115.75	119.40
38	4	147	U	N3-C4-O4	5.21	123.05	119.40
1	6	1698	G	N1-C6-O6	-5.21	116.77	119.90
36	5	2396	G	N9-C4-C5	5.21	107.49	105.40
36	5	2704	A	OP2-P-O3'	5.21	116.67	105.20
36	1	2549	G	N1-C2-N2	-5.21	111.51	116.20
36	5	994	G	O5'-P-OP2	-5.21	101.01	105.70
36	5	1114	U	O5'-P-OP2	-5.21	101.01	105.70
36	5	1367	G	C4-C5-C6	5.21	121.93	118.80
38	8	43	A	C8-N9-C4	-5.21	103.72	105.80
1	2	1200	G	C4-C5-C6	5.21	121.93	118.80
36	1	1365	G	N1-C2-N2	-5.21	111.51	116.20
36	5	1906	G	C4-C5-N7	5.21	112.89	110.80
36	5	971	G	OP2-P-O3'	5.21	116.66	105.20
36	5	2878	G	N7-C8-N9	-5.21	110.50	113.10
36	1	184	U	C5-C4-O4	5.21	129.03	125.90
36	1	355	A	N1-C6-N6	5.21	121.72	118.60
36	1	1126	G	C6-C5-N7	-5.21	127.28	130.40
36	1	2808	A	C6-C5-N7	-5.21	128.65	132.30
36	1	3197	G	N3-C4-N9	-5.21	122.87	126.00
36	1	619	A	N1-C6-N6	5.21	121.72	118.60
36	1	923	C	C4-C5-C6	5.21	120.00	117.40
36	1	3136	G	C6-C5-N7	-5.21	127.28	130.40
37	3	78	U	C5-C4-O4	-5.21	122.78	125.90
38	4	31	G	C8-N9-C4	5.21	108.48	106.40
38	4	95	G	C4-N9-C1'	-5.21	119.73	126.50
1	6	1096	C	C6-N1-C2	5.21	122.38	120.30
36	5	1475	A	C8-N9-C4	5.21	107.88	105.80
36	5	2334	U	O5'-P-OP2	-5.21	101.01	105.70
36	1	743	C	C6-N1-C2	5.21	122.38	120.30
36	1	88	A	N1-C6-N6	5.20	121.72	118.60
36	1	1658	G	C8-N9-C4	-5.20	104.32	106.40
37	3	103	A	N1-C6-N6	5.20	121.72	118.60
36	5	665	A	C6-C5-N7	-5.20	128.66	132.30
36	5	986	U	N3-C2-O2	-5.20	118.56	122.20
36	5	3245	A	N1-C6-N6	5.20	121.72	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1331	U	C5-C6-N1	-5.20	120.10	122.70
36	1	2525	G	N9-C4-C5	-5.20	103.32	105.40
36	5	1127	G	OP1-P-OP2	5.20	127.40	119.60
36	5	2186	U	C6-N1-C2	-5.20	117.88	121.00
1	2	1100	G	C4-N9-C1'	5.20	133.26	126.50
36	1	715	A	N7-C8-N9	5.20	116.40	113.80
36	1	1120	A	C5-C6-N6	-5.20	119.54	123.70
36	1	3103	A	C2-N3-C4	-5.20	108.00	110.60
38	8	80	A	N9-C4-C5	5.20	107.88	105.80
40	13	4	ARG	NE-CZ-NH1	5.20	122.90	120.30
1	2	353	A	N9-C4-C5	-5.20	103.72	105.80
1	2	1086	A	O5'-P-OP2	-5.20	101.02	105.70
36	1	835	G	O4'-C1'-N9	5.20	112.36	108.20
36	1	2190	U	OP2-P-O3'	5.20	116.64	105.20
36	1	3096	C	N3-C4-N4	5.20	121.64	118.00
1	6	564	G	N9-C4-C5	5.20	107.48	105.40
36	5	72	C	N3-C2-O2	-5.20	118.26	121.90
37	7	88	G	C5-C6-O6	5.20	131.72	128.60
36	1	2816	G	N9-C4-C5	-5.20	103.32	105.40
36	1	586	C	N1-C2-O2	-5.20	115.78	118.90
36	1	2799	A	N1-C6-N6	-5.20	115.48	118.60
36	5	32	U	C4-C5-C6	5.20	122.82	119.70
36	5	517	G	C6-C5-N7	-5.20	127.28	130.40
36	5	902	G	C5-C6-O6	-5.20	125.48	128.60
36	5	1302	A	O5'-P-OP1	-5.20	101.03	105.70
36	5	1534	A	N3-C4-C5	-5.20	123.16	126.80
1	2	1644	C	N3-C2-O2	-5.19	118.26	121.90
36	1	2688	U	C6-N1-C1'	-5.19	113.93	121.20
36	5	1170	A	N1-C6-N6	5.19	121.72	118.60
73	O7	65	ARG	NE-CZ-NH2	-5.19	117.70	120.30
1	6	106	U	C5-C4-O4	5.19	129.01	125.90
1	6	765	G	O4'-C1'-N9	-5.19	104.05	108.20
1	6	1654	G	C5-C6-O6	-5.19	125.48	128.60
36	5	371	G	C8-N9-C4	5.19	108.48	106.40
36	5	2355	G	C2-N3-C4	-5.19	109.30	111.90
36	5	2723	U	OP1-P-OP2	5.19	127.39	119.60
36	5	3140	G	C5-N7-C8	-5.19	101.70	104.30
36	5	3151	U	N1-C2-N3	-5.19	111.78	114.90
36	1	1149	G	N3-C2-N2	-5.19	116.27	119.90
36	1	2423	U	N1-C2-O2	-5.19	119.17	122.80
36	1	2617	U	C6-N1-C2	-5.19	117.89	121.00
36	1	3362	A	C4-C5-N7	5.19	113.30	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1199	C	N3-C4-C5	-5.19	119.82	121.90
36	5	1407	A	N9-C4-C5	-5.19	103.72	105.80
36	5	2806	U	C5-C6-N1	-5.19	120.11	122.70
1	2	1052	U	N1-C2-O2	5.19	126.43	122.80
1	2	1777	G	N1-C6-O6	5.19	123.01	119.90
1	6	371	G	C8-N9-C1'	-5.19	120.25	127.00
36	1	1201	C	N3-C4-N4	5.19	121.63	118.00
36	1	2126	A	C8-N9-C4	5.19	107.88	105.80
1	6	1660	A	N1-C6-N6	-5.19	115.49	118.60
36	5	1137	C	N3-C4-C5	5.19	123.97	121.90
36	5	3217	C	N3-C4-N4	-5.19	114.37	118.00
1	2	248	U	N3-C2-O2	5.19	125.83	122.20
36	1	1489	A	C8-N9-C4	5.19	107.87	105.80
36	1	2723	U	C2-N3-C4	-5.19	123.89	127.00
36	5	1016	C	O5'-P-OP1	-5.19	101.03	105.70
36	5	1459	C	N1-C2-O2	-5.19	115.79	118.90
36	5	2271	A	N1-C2-N3	-5.19	126.71	129.30
36	5	2727	A	C6-N1-C2	-5.19	115.49	118.60
78	q2	104	LEU	CA-CB-CG	5.19	127.23	115.30
36	1	58	G	N9-C4-C5	-5.18	103.33	105.40
36	1	1592	G	N3-C4-C5	-5.18	126.01	128.60
36	1	2861	U	N1-C2-O2	5.18	126.43	122.80
47	M0	146	ASP	CB-CG-OD1	-5.18	113.63	118.30
36	5	428	A	C8-N9-C4	5.18	107.87	105.80
36	5	1468	A	C8-N9-C4	5.18	107.87	105.80
36	5	2137	U	N1-C2-N3	-5.18	111.79	114.90
36	5	2663	G	C5-C6-O6	-5.18	125.49	128.60
36	1	306	A	O5'-P-OP1	-5.18	101.03	105.70
36	1	658	G	C4-N9-C1'	5.18	133.24	126.50
36	1	1128	U	C5-C6-N1	-5.18	120.11	122.70
36	1	2183	A	N1-C2-N3	5.18	131.89	129.30
1	6	941	A	N1-C6-N6	-5.18	115.49	118.60
36	5	82	C	O5'-P-OP2	-5.18	101.03	105.70
36	5	1689	U	N1-C2-N3	5.18	118.01	114.90
36	5	3191	G	C5-C6-O6	-5.18	125.49	128.60
36	5	3318	G	N3-C4-N9	-5.18	122.89	126.00
36	5	942	U	C4-C5-C6	5.18	122.81	119.70
36	5	947	G	N3-C4-C5	-5.18	126.01	128.60
36	5	1688	U	N1-C2-O2	5.18	126.43	122.80
36	5	2375	G	O4'-C1'-N9	5.18	112.34	108.20
1	2	90	C	N3-C2-O2	-5.18	118.28	121.90
36	1	654	C	C5-C6-N1	-5.18	118.41	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	900	G	N9-C4-C5	5.18	107.47	105.40
36	1	2531	C	C2-N1-C1'	5.18	124.50	118.80
36	5	30	G	OP1-P-O3'	5.18	116.59	105.20
36	5	1633	C	C6-N1-C2	-5.18	118.23	120.30
36	5	2651	G	OP2-P-O3'	5.18	116.59	105.20
36	5	2964	G	C6-C5-N7	5.18	133.51	130.40
37	7	37	G	N3-C4-N9	5.18	129.11	126.00
37	3	74	C	C6-N1-C2	5.18	122.37	120.30
1	6	1125	A	N1-C6-N6	5.18	121.71	118.60
36	5	2406	C	N3-C2-O2	5.18	125.53	121.90
36	5	2607	G	P-O3'-C3'	5.18	125.91	119.70
1	2	551	G	C8-N9-C4	-5.18	104.33	106.40
1	2	1299	G	N3-C4-C5	-5.18	126.01	128.60
36	1	595	G	N1-C2-N2	-5.18	111.54	116.20
36	1	880	G	C6-C5-N7	5.18	133.51	130.40
36	1	910	G	C2-N3-C4	-5.18	109.31	111.90
36	1	1695	U	C6-N1-C2	5.18	124.11	121.00
36	1	2417	U	C4-C5-C6	5.18	122.81	119.70
36	1	2609	A	C8-N9-C4	5.18	107.87	105.80
1	6	794	U	C5-C6-N1	5.18	125.29	122.70
1	6	1199	G	N3-C4-C5	5.18	131.19	128.60
36	5	497	C	C6-N1-C2	-5.18	118.23	120.30
36	5	658	G	C6-C5-N7	-5.18	127.30	130.40
1	2	1324	G	N1-C2-N2	5.17	120.86	116.20
35	SM	134	ASP	CB-CG-OD2	5.17	122.96	118.30
36	1	1902	G	C8-N9-C4	-5.17	104.33	106.40
36	1	1906	G	C6-C5-N7	-5.17	127.30	130.40
36	1	3362	A	C4-N9-C1'	5.17	135.61	126.30
36	5	95	A	N1-C2-N3	-5.17	126.71	129.30
36	5	756	U	C2-N3-C4	-5.17	123.89	127.00
36	5	2144	A	OP1-P-O3'	5.17	116.58	105.20
36	1	2847	A	C4-C5-N7	5.17	113.29	110.70
36	5	304	G	N1-C6-O6	-5.17	116.80	119.90
36	1	221	A	OP1-P-OP2	5.17	127.36	119.60
36	1	888	A	N1-C6-N6	5.17	121.70	118.60
36	1	1496	C	C2-N1-C1'	5.17	124.49	118.80
36	1	2610	G	C2-N3-C4	-5.17	109.31	111.90
1	6	1698	G	P-O3'-C3'	5.17	125.91	119.70
36	5	801	A	O4'-C1'-N9	-5.17	104.06	108.20
36	5	1803	C	N3-C4-C5	5.17	123.97	121.90
36	5	2618	G	N3-C4-N9	5.17	129.10	126.00
36	1	948	C	C4-C5-C6	5.17	119.98	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1101	G	OP1-P-OP2	5.17	127.35	119.60
36	1	2818	U	O4'-C1'-N1	-5.17	104.06	108.20
1	6	359	A	C6-N1-C2	5.17	121.70	118.60
36	5	1842	A	C8-N9-C4	5.17	107.87	105.80
36	1	392	G	C6-C5-N7	-5.17	127.30	130.40
36	1	2144	A	C5-C6-N6	-5.17	119.57	123.70
36	1	2355	G	C4-C5-C6	5.17	121.90	118.80
36	1	2425	G	C5-C6-N1	5.17	114.08	111.50
1	6	351	C	O5'-P-OP1	-5.17	101.05	105.70
1	6	359	A	C4-N9-C1'	-5.17	117.00	126.30
1	6	565	C	C2-N3-C4	-5.17	117.32	119.90
1	6	1615	C	C3'-C2'-C1'	5.17	105.63	101.50
36	5	1868	G	C4-C5-C6	5.17	121.90	118.80
36	5	2134	G	N1-C2-N2	-5.17	111.55	116.20
36	5	2698	G	N1-C6-O6	5.17	123.00	119.90
36	5	3166	C	C6-N1-C2	-5.17	118.23	120.30
37	7	105	C	N3-C2-O2	-5.17	118.28	121.90
1	2	158	U	P-O3'-C3'	5.17	125.90	119.70
36	1	833	G	N3-C4-N9	5.17	129.10	126.00
36	1	3081	C	C4-C5-C6	5.17	119.98	117.40
1	6	1185	U	N1-C2-O2	5.17	126.42	122.80
38	8	33	A	O5'-P-OP1	-5.17	101.05	105.70
1	2	1085	G	C8-N9-C4	5.16	108.47	106.40
1	2	1218	G	N1-C6-O6	5.16	123.00	119.90
36	1	386	A	N1-C6-N6	5.16	121.70	118.60
36	1	410	U	C5-C4-O4	5.16	129.00	125.90
36	1	655	C	N1-C2-N3	5.16	122.81	119.20
36	1	1899	G	O5'-P-OP1	-5.16	101.05	105.70
1	6	795	U	N1-C2-O2	5.16	126.41	122.80
1	6	1274	C	C2-N3-C4	5.16	122.48	119.90
36	5	373	A	N1-C6-N6	-5.16	115.50	118.60
37	7	28	C	C5-C6-N1	-5.16	118.42	121.00
36	1	2848	G	OP2-P-O3'	5.16	116.55	105.20
1	6	1110	G	N1-C2-N2	-5.16	111.56	116.20
36	5	269	G	C8-N9-C4	5.16	108.46	106.40
36	5	813	G	C6-C5-N7	-5.16	127.30	130.40
36	5	2796	G	OP2-P-O3'	5.16	116.55	105.20
36	5	2964	G	OP1-P-OP2	5.16	127.34	119.60
38	8	100	U	C6-N1-C2	-5.16	117.90	121.00
1	2	1258	U	N1-C2-O2	5.16	126.41	122.80
36	1	363	G	OP1-P-O3'	5.16	116.55	105.20
36	1	1139	G	C5-C6-N1	-5.16	108.92	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1836	C	C2-N1-C1'	5.16	124.47	118.80
36	1	2643	A	N7-C8-N9	-5.16	111.22	113.80
36	1	2836	C	C5-C4-N4	5.16	123.81	120.20
1	6	337	G	C6-C5-N7	-5.16	127.30	130.40
36	1	2537	U	P-O3'-C3'	5.16	125.89	119.70
1	2	403	G	C8-N9-C1'	-5.16	120.30	127.00
36	1	1336	U	N3-C2-O2	-5.16	118.59	122.20
36	1	1367	G	N7-C8-N9	-5.16	110.52	113.10
36	1	2728	G	O4'-C1'-N9	5.16	112.33	108.20
36	5	315	C	N3-C4-C5	5.16	123.96	121.90
36	5	1107	C	C4-C5-C6	5.16	119.98	117.40
36	5	1751	G	N7-C8-N9	-5.16	110.52	113.10
36	5	1792	C	C5-C6-N1	-5.16	118.42	121.00
36	5	2404	A	C8-N9-C1'	-5.16	118.42	127.70
36	1	3302	U	C6-N1-C2	5.15	124.09	121.00
1	6	425	A	OP2-P-O3'	5.15	116.54	105.20
1	6	1340	U	N1-C2-O2	5.15	126.41	122.80
36	5	2777	G	C4-C5-C6	5.15	121.89	118.80
1	2	1176	G	C5-C6-O6	-5.15	125.51	128.60
1	6	147	A	O4'-C1'-N9	5.15	112.32	108.20
1	6	942	G	C8-N9-C4	-5.15	104.34	106.40
36	5	861	C	C5-C6-N1	-5.15	118.42	121.00
36	5	2418	G	N1-C6-O6	5.15	122.99	119.90
1	2	1782	A	C5-C6-N6	5.15	127.82	123.70
36	1	2813	A	N1-C2-N3	5.15	131.88	129.30
38	4	121	U	C5-C4-O4	5.15	128.99	125.90
36	5	7	C	C6-N1-C2	5.15	122.36	120.30
36	5	630	A	C8-N9-C4	5.15	107.86	105.80
69	o3	18	ARG	NE-CZ-NH1	-5.15	117.72	120.30
36	5	3058	U	C2-N1-C1'	5.15	123.88	117.70
36	1	394	G	N3-C4-N9	-5.15	122.91	126.00
36	1	717	C	N1-C2-O2	-5.15	115.81	118.90
36	1	942	U	O5'-P-OP1	5.15	116.88	110.70
38	4	20	U	C5-C6-N1	-5.15	120.13	122.70
1	6	1185	U	N3-C2-O2	-5.15	118.60	122.20
36	5	96	G	O5'-P-OP2	-5.15	101.07	105.70
36	5	1183	C	C2-N3-C4	-5.15	117.33	119.90
36	5	2347	U	C5-C4-O4	-5.15	122.81	125.90
36	1	226	C	N3-C4-N4	5.15	121.60	118.00
38	4	61	A	C5-C6-N1	5.15	120.27	117.70
36	5	3216	G	N3-C4-N9	5.15	129.09	126.00
36	1	916	G	C8-N9-C4	5.14	108.46	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1414	G	N3-C4-N9	5.14	129.09	126.00
36	1	2400	G	C8-N9-C4	5.14	108.46	106.40
36	5	2177	G	C6-C5-N7	-5.14	127.31	130.40
36	5	3028	G	N1-C6-O6	-5.14	116.81	119.90
37	7	56	A	C2-N3-C4	-5.14	108.03	110.60
1	2	53	G	N3-C4-N9	-5.14	122.92	126.00
36	1	651	G	N1-C2-N3	5.14	126.98	123.90
36	1	1404	G	N1-C6-O6	-5.14	116.81	119.90
36	1	1414	G	N9-C4-C5	-5.14	103.34	105.40
36	1	1515	A	C4-C5-C6	5.14	119.57	117.00
36	1	2335	G	C5-C6-N1	5.14	114.07	111.50
1	6	864	U	C6-N1-C1'	-5.14	114.00	121.20
1	6	1745	G	C8-N9-C4	5.14	108.46	106.40
36	5	691	A	OP1-P-O3'	5.14	116.52	105.20
36	5	1408	G	C8-N9-C1'	5.14	133.68	127.00
36	5	1905	G	N9-C4-C5	-5.14	103.34	105.40
36	5	2257	C	C6-N1-C2	-5.14	118.24	120.30
36	5	2572	C	C6-N1-C2	-5.14	118.24	120.30
36	1	51	A	C5-C6-N1	5.14	120.27	117.70
38	8	45	C	N3-C4-C5	-5.14	119.84	121.90
36	1	2127	U	O5'-P-OP1	-5.14	101.08	105.70
36	1	2226	U	N1-C2-N3	5.14	117.98	114.90
38	4	25	G	N1-C2-N3	5.14	126.98	123.90
36	5	370	U	C2-N1-C1'	5.14	123.87	117.70
36	5	813	G	C5-C6-O6	-5.14	125.52	128.60
36	5	1112	A	C6-N1-C2	-5.14	115.52	118.60
36	1	2639	G	C4-N9-C1'	5.14	133.18	126.50
36	1	325	A	C2-N3-C4	5.14	113.17	110.60
36	1	668	G	C8-N9-C4	5.14	108.45	106.40
36	1	880	G	N9-C4-C5	5.14	107.45	105.40
36	1	951	A	C5-C6-N1	-5.14	115.13	117.70
36	1	2846	U	N1-C2-O2	5.14	126.40	122.80
1	6	1	U	N3-C2-O2	-5.14	118.60	122.20
1	6	974	A	C8-N9-C4	5.14	107.86	105.80
36	5	349	A	OP2-P-O3'	5.14	116.50	105.20
36	5	1480	G	C8-N9-C4	5.14	108.45	106.40
1	2	555	A	C8-N9-C4	-5.13	103.75	105.80
36	1	156	G	C5-C6-N1	5.13	114.07	111.50
36	1	846	A	C2-N3-C4	-5.13	108.03	110.60
36	1	1362	G	OP2-P-O3'	5.13	116.50	105.20
36	1	2890	A	OP1-P-OP2	-5.13	111.90	119.60
38	4	40	A	C4-C5-N7	5.13	113.27	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	98	U	N3-C4-O4	5.13	122.99	119.40
1	6	116	U	C4-C5-C6	5.13	122.78	119.70
36	5	61	A	C5-C6-N1	-5.13	115.13	117.70
36	1	2992	U	C5-C4-O4	5.13	128.98	125.90
38	4	37	A	C5-C6-N1	5.13	120.27	117.70
38	4	42	G	N9-C1'-C2'	-5.13	106.35	112.00
36	5	1200	A	N1-C2-N3	5.13	131.87	129.30
1	2	1212	G	C4-C5-N7	5.13	112.85	110.80
36	1	707	U	C5-C4-O4	5.13	128.98	125.90
36	1	773	G	N1-C6-O6	-5.13	116.82	119.90
36	1	924	G	N3-C2-N2	5.13	123.49	119.90
36	1	1121	U	C5-C6-N1	-5.13	120.14	122.70
36	1	1481	A	O5'-P-OP1	5.13	116.86	110.70
1	6	95	G	N1-C6-O6	-5.13	116.82	119.90
36	5	1155	C	C5-C4-N4	-5.13	116.61	120.20
36	5	1528	G	N3-C4-C5	-5.13	126.03	128.60
36	5	1589	A	OP2-P-O3'	5.13	116.49	105.20
36	5	2183	A	N9-C4-C5	-5.13	103.75	105.80
36	5	2889	C	N1-C2-O2	5.13	121.98	118.90
36	1	695	C	C2-N3-C4	-5.13	117.33	119.90
36	1	2945	G	N9-C4-C5	-5.13	103.35	105.40
36	5	98	G	C8-N9-C4	5.13	108.45	106.40
36	1	232	G	N3-C4-C5	-5.13	126.04	128.60
36	1	1389	G	N3-C4-N9	5.13	129.08	126.00
36	1	2209	U	C6-N1-C2	-5.13	117.92	121.00
36	1	2572	C	C6-N1-C1'	-5.13	114.65	120.80
36	5	2864	A	C8-N9-C4	5.13	107.85	105.80
36	1	91	G	OP1-P-O3'	5.13	116.48	105.20
36	1	650	C	OP1-P-OP2	5.13	127.29	119.60
36	1	797	U	OP2-P-O3'	5.13	116.48	105.20
36	1	1314	C	C6-N1-C2	-5.13	118.25	120.30
36	1	1404	G	N3-C2-N2	5.13	123.49	119.90
11	s9	149	ARG	NE-CZ-NH1	5.13	122.86	120.30
36	5	646	A	C2-N3-C4	-5.13	108.04	110.60
36	5	2997	G	C4-C5-N7	5.13	112.85	110.80
36	5	3176	G	N1-C2-N3	5.13	126.98	123.90
1	2	863	A	C5-C6-N6	-5.12	119.60	123.70
1	6	314	C	N1-C2-O2	-5.12	115.83	118.90
1	2	394	C	N1-C2-O2	5.12	121.97	118.90
36	1	1043	C	N3-C4-C5	5.12	123.95	121.90
36	1	1154	A	C4-C5-C6	5.12	119.56	117.00
36	1	1468	A	C2-N3-C4	-5.12	108.04	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2895	G	C8-N9-C4	5.12	108.45	106.40
1	6	90	C	N3-C2-O2	-5.12	118.31	121.90
36	5	2628	A	N1-C6-N6	-5.12	115.53	118.60
36	5	2836	C	N1-C2-O2	5.12	121.97	118.90
1	2	1108	G	C8-N9-C4	-5.12	104.35	106.40
36	1	803	C	O5'-P-OP1	5.12	116.85	110.70
1	6	43	A	OP1-P-OP2	5.12	127.28	119.60
36	5	1128	U	N1-C2-O2	-5.12	119.22	122.80
36	5	1151	U	N3-C4-C5	-5.12	111.53	114.60
36	5	1888	U	C2-N1-C1'	-5.12	111.55	117.70
36	5	2350	C	O5'-P-OP1	5.12	116.85	110.70
36	5	2646	C	C6-N1-C2	5.12	122.35	120.30
36	1	404	G	C6-C5-N7	-5.12	127.33	130.40
36	1	833	G	N7-C8-N9	-5.12	110.54	113.10
36	1	1635	G	C6-C5-N7	-5.12	127.33	130.40
36	1	2917	G	C5-C6-N1	5.12	114.06	111.50
36	5	3060	C	N3-C4-N4	5.12	121.58	118.00
36	1	363	G	N3-C4-N9	5.12	129.07	126.00
36	1	2645	G	N1-C2-N3	5.12	126.97	123.90
36	1	2699	G	C5-C6-O6	-5.12	125.53	128.60
36	1	2908	G	N1-C2-N3	5.12	126.97	123.90
1	6	364	G	C4-N9-C1'	5.12	133.15	126.50
36	5	345	G	C5-C6-N1	-5.12	108.94	111.50
36	1	1390	A	N9-C4-C5	5.12	107.85	105.80
36	1	1726	C	N3-C4-C5	5.12	123.95	121.90
36	1	2410	U	C2-N1-C1'	-5.12	111.56	117.70
1	6	337	G	O4'-C1'-N9	-5.12	104.11	108.20
1	6	1048	G	C8-N9-C4	5.12	108.45	106.40
36	5	101	G	C8-N9-C4	-5.12	104.35	106.40
36	5	670	C	OP1-P-O3'	5.12	116.45	105.20
36	5	1476	G	N3-C4-N9	-5.12	122.93	126.00
36	5	1549	U	C2-N1-C1'	-5.12	111.56	117.70
36	5	1831	U	C2-N3-C4	5.12	130.07	127.00
37	7	22	A	C4-C5-C6	5.12	119.56	117.00
36	1	345	G	N3-C4-C5	-5.11	126.04	128.60
36	1	851	C	C5-C4-N4	-5.11	116.62	120.20
36	1	1483	G	C5-C6-O6	-5.11	125.53	128.60
36	1	2400	G	OP2-P-O3'	5.11	116.45	105.20
36	1	2986	U	N1-C2-N3	5.11	117.97	114.90
38	4	64	U	C6-N1-C2	-5.11	117.93	121.00
1	6	619	A	C4-C5-C6	-5.11	114.44	117.00
1	6	1596	C	N3-C2-O2	-5.11	118.32	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	966	U	C6-N1-C2	-5.11	117.93	121.00
36	5	1178	G	C5-N7-C8	-5.11	101.74	104.30
36	5	2190	U	N1-C2-N3	5.11	117.97	114.90
36	5	2314	U	C5-C4-O4	-5.11	122.83	125.90
36	5	2889	C	N3-C4-C5	5.11	123.95	121.90
36	5	2895	G	N1-C2-N2	-5.11	111.60	116.20
36	1	2966	G	N3-C4-N9	5.11	129.07	126.00
36	1	2333	C	C4-C5-C6	5.11	119.96	117.40
36	1	2549	G	C8-N9-C1'	-5.11	120.36	127.00
36	1	2742	C	C6-N1-C2	5.11	122.34	120.30
36	1	2918	G	C8-N9-C1'	-5.11	120.36	127.00
36	5	521	A	C2-N3-C4	-5.11	108.05	110.60
36	5	1080	A	C8-N9-C4	5.11	107.84	105.80
36	5	1495	U	C4-C5-C6	5.11	122.77	119.70
36	5	2354	C	N1-C2-O2	-5.11	115.83	118.90
36	1	54	C	C2-N3-C4	-5.11	117.35	119.90
36	1	1411	C	OP1-P-O3'	5.11	116.44	105.20
36	1	2434	U	C4-C5-C6	5.11	122.77	119.70
36	5	3104	U	O5'-P-OP1	5.11	116.83	110.70
36	1	1911	A	C5-C6-N6	-5.11	119.61	123.70
1	6	317	C	N1-C2-N3	5.11	122.78	119.20
36	5	2193	U	N1-C2-O2	-5.11	119.22	122.80
36	5	2694	A	C6-N1-C2	-5.11	115.54	118.60
36	5	2880	U	C5-C4-O4	5.11	128.96	125.90
36	5	3185	U	C4-C5-C6	5.11	122.77	119.70
36	5	3197	G	N9-C4-C5	5.11	107.44	105.40
36	1	155	G	N3-C4-C5	-5.11	126.05	128.60
36	1	2917	G	N1-C2-N2	5.11	120.79	116.20
38	4	39	G	N9-C4-C5	-5.11	103.36	105.40
1	6	620	A	OP2-P-O3'	5.11	116.43	105.20
36	5	2403	G	N7-C8-N9	5.11	115.65	113.10
36	5	3270	U	C5-C6-N1	-5.11	120.15	122.70
36	1	2295	A	C8-N9-C4	-5.10	103.76	105.80
1	6	371	G	C5-C6-N1	-5.10	108.95	111.50
36	5	2996	U	C2-N1-C1'	5.10	123.82	117.70
37	7	102	A	N9-C4-C5	-5.10	103.76	105.80
78	Q2	70	LEU	CA-CB-CG	5.10	127.04	115.30
1	6	359	A	C8-N9-C1'	5.10	136.88	127.70
1	6	571	G	N9-C4-C5	5.10	107.44	105.40
1	6	1588	G	N1-C6-O6	-5.10	116.84	119.90
36	5	1452	A	N9-C4-C5	-5.10	103.76	105.80
36	5	1608	C	N1-C2-O2	5.10	121.96	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2820	A	N7-C8-N9	5.10	116.35	113.80
1	6	308	C	C5-C6-N1	-5.10	118.45	121.00
36	5	1853	U	N3-C4-O4	-5.10	115.83	119.40
36	5	2607	G	OP2-P-O3'	5.10	116.42	105.20
36	5	2966	G	N3-C4-N9	5.10	129.06	126.00
36	1	158	G	C2-N3-C4	-5.10	109.35	111.90
36	1	1340	G	C6-C5-N7	-5.10	127.34	130.40
36	1	2741	C	N1-C2-O2	5.10	121.96	118.90
36	5	646	A	C5-C6-N6	5.10	127.78	123.70
36	5	2881	C	N3-C4-C5	5.10	123.94	121.90
36	1	914	A	N9-C4-C5	5.10	107.84	105.80
36	1	2300	G	N3-C4-N9	-5.10	122.94	126.00
36	1	2846	U	N3-C4-O4	-5.10	115.83	119.40
38	4	15	G	N7-C8-N9	-5.10	110.55	113.10
38	4	40	A	C5-C6-N6	-5.10	119.62	123.70
1	6	63	G	N1-C6-O6	-5.10	116.84	119.90
36	5	822	G	N3-C4-C5	5.10	131.15	128.60
36	5	2689	A	C6-C5-N7	-5.10	128.73	132.30
36	1	3007	U	O5'-P-OP2	-5.10	101.11	105.70
36	5	2792	A	C6-N1-C2	-5.10	115.54	118.60
36	5	2920	U	N1-C2-N3	5.10	117.96	114.90
38	8	43	A	C6-N1-C2	-5.10	115.54	118.60
36	1	215	G	N3-C4-N9	5.09	129.06	126.00
36	1	699	A	C5-N7-C8	-5.09	101.35	103.90
36	1	943	U	C2-N1-C1'	5.09	123.81	117.70
36	5	2514	U	O5'-P-OP1	-5.09	101.11	105.70
36	5	2836	C	C4-C5-C6	5.09	119.95	117.40
36	1	2381	G	C8-N9-C4	-5.09	104.36	106.40
36	1	3311	C	N3-C4-C5	5.09	123.94	121.90
36	1	1536	G	N1-C6-O6	5.09	122.95	119.90
1	6	812	A	N1-C6-N6	5.09	121.66	118.60
36	5	630	A	C2-N3-C4	-5.09	108.05	110.60
36	5	739	G	N1-C6-O6	-5.09	116.84	119.90
36	5	1198	C	O4'-C1'-N1	5.09	112.27	108.20
36	5	3015	G	N1-C6-O6	5.09	122.95	119.90
38	8	102	U	N1-C2-O2	-5.09	119.23	122.80
36	1	718	G	C6-C5-N7	-5.09	127.35	130.40
36	1	942	U	C4-C5-C6	5.09	122.75	119.70
36	5	221	A	C5-C6-N6	5.09	127.77	123.70
36	5	610	G	C4-C5-N7	-5.09	108.76	110.80
36	5	3181	C	C4-C5-C6	5.09	119.94	117.40
37	7	56	A	N9-C1'-C2'	-5.09	106.40	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	125	U	C2-N1-C1'	5.09	123.81	117.70
1	2	1777	G	C4-C5-N7	5.09	112.83	110.80
36	1	421	G	C5-C6-N1	5.09	114.04	111.50
1	6	606	A	N9-C4-C5	-5.09	103.77	105.80
1	6	1796	C	C2-N3-C4	-5.09	117.36	119.90
36	5	279	U	N1-C2-N3	-5.09	111.85	114.90
36	5	499	G	O5'-P-OP1	-5.09	101.12	105.70
36	5	2194	G	N1-C2-N3	5.09	126.95	123.90
36	1	188	U	N1-C2-N3	5.09	117.95	114.90
36	1	1207	G	C5-C6-O6	-5.09	125.55	128.60
36	1	2197	C	C5-C4-N4	-5.09	116.64	120.20
36	1	2714	G	C8-N9-C1'	5.09	133.61	127.00
36	5	2383	C	N3-C4-N4	5.09	121.56	118.00
36	5	2856	G	C6-C5-N7	-5.09	127.35	130.40
37	7	40	C	C2-N1-C1'	-5.09	113.20	118.80
36	1	332	C	C5-C6-N1	-5.08	118.46	121.00
36	1	2237	C	C6-N1-C2	5.08	122.33	120.30
36	5	1116	G	N3-C4-C5	-5.08	126.06	128.60
36	5	2349	U	OP1-P-O3'	5.08	116.39	105.20
36	1	590	G	C5-C6-O6	-5.08	125.55	128.60
36	1	1891	A	C8-N9-C4	5.08	107.83	105.80
38	4	23	U	C6-N1-C1'	5.08	128.32	121.20
1	6	1058	U	P-O3'-C3'	5.08	125.80	119.70
36	5	2316	G	O5'-P-OP2	-5.08	101.12	105.70
36	5	2761	G	N3-C4-C5	-5.08	126.06	128.60
36	5	3132	C	OP2-P-O3'	5.08	116.38	105.20
36	1	405	U	N3-C2-O2	5.08	125.76	122.20
69	O3	48	ARG	NE-CZ-NH1	5.08	122.84	120.30
1	6	1082	C	C6-N1-C2	-5.08	118.27	120.30
1	6	1127	G	N1-C2-N3	5.08	126.95	123.90
36	5	516	A	N9-C4-C5	-5.08	103.77	105.80
36	5	1362	G	C5-C6-O6	5.08	131.65	128.60
38	8	95	G	N1-C6-O6	-5.08	116.85	119.90
36	5	227	G	N1-C6-O6	5.08	122.95	119.90
1	2	321	C	O4'-C1'-N1	5.08	112.26	108.20
36	1	588	G	C4-C5-N7	-5.08	108.77	110.80
36	1	1141	C	C4-C5-C6	5.08	119.94	117.40
36	1	1418	A	O5'-P-OP2	-5.08	101.13	105.70
1	6	1765	A	C6-C5-N7	5.08	135.85	132.30
36	5	909	G	N1-C6-O6	-5.08	116.85	119.90
36	5	2814	G	N3-C4-N9	5.08	129.05	126.00
36	5	3008	A	C2-N3-C4	-5.08	108.06	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1403	C	C2-N3-C4	-5.08	117.36	119.90
36	1	2855	U	N3-C4-C5	5.08	117.65	114.60
36	5	653	A	C5-N7-C8	-5.08	101.36	103.90
36	5	681	U	C2-N1-C1'	5.08	123.79	117.70
36	5	1419	A	O4'-C1'-N9	5.08	112.26	108.20
36	1	2123	G	C5-C6-O6	-5.08	125.56	128.60
1	6	1	U	N1-C2-O2	5.08	126.35	122.80
36	5	109	A	O5'-P-OP2	-5.08	101.13	105.70
36	5	2609	A	O5'-P-OP2	-5.08	101.13	105.70
36	5	3227	A	C5-C6-N6	-5.08	119.64	123.70
1	2	499	U	C3'-C2'-C1'	5.07	105.56	101.50
1	2	1170	G	C6-C5-N7	-5.07	127.36	130.40
36	1	41	G	N9-C4-C5	-5.07	103.37	105.40
36	1	725	G	C8-N9-C4	5.07	108.43	106.40
36	1	1307	G	N1-C6-O6	-5.07	116.86	119.90
36	1	1437	C	N1-C2-N3	5.07	122.75	119.20
36	1	2163	C	C4-C5-C6	5.07	119.94	117.40
36	1	2314	U	C4-C5-C6	-5.07	116.66	119.70
36	5	326	U	N1-C2-O2	-5.07	119.25	122.80
36	5	383	G	C2-N3-C4	-5.07	109.36	111.90
36	5	644	G	N1-C6-O6	-5.07	116.86	119.90
36	5	3197	G	N3-C2-N2	-5.07	116.35	119.90
36	1	1349	G	N3-C4-C5	-5.07	126.06	128.60
1	6	272	U	N1-C2-O2	5.07	126.35	122.80
36	5	1158	A	O5'-P-OP2	-5.07	101.14	105.70
36	1	873	C	P-O3'-C3'	5.07	125.78	119.70
36	1	2191	U	C5-C4-O4	5.07	128.94	125.90
36	5	2760	C	C6-N1-C2	5.07	122.33	120.30
36	1	348	A	C8-N9-C4	5.07	107.83	105.80
38	4	50	C	C6-N1-C2	-5.07	118.27	120.30
36	5	1064	A	P-O3'-C3'	5.07	125.78	119.70
36	1	1116	G	N1-C2-N3	5.07	126.94	123.90
36	1	1137	C	C6-N1-C2	5.07	122.33	120.30
36	1	1438	U	N1-C2-N3	5.07	117.94	114.90
36	1	1838	G	N9-C4-C5	-5.07	103.37	105.40
36	1	2945	G	C5-C6-O6	-5.07	125.56	128.60
36	1	3266	G	N9-C4-C5	5.07	107.43	105.40
1	6	619	A	C8-N9-C1'	5.07	136.82	127.70
36	5	427	C	C2-N3-C4	-5.07	117.37	119.90
36	5	1046	A	OP2-P-O3'	5.07	116.35	105.20
36	5	2884	C	N1-C2-O2	-5.07	115.86	118.90
36	5	3227	A	C4-C5-N7	5.07	113.23	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1180	C	N3-C2-O2	-5.07	118.35	121.90
36	1	650	C	C5-C4-N4	-5.07	116.66	120.20
36	1	2363	A	N9-C4-C5	5.07	107.83	105.80
1	6	3	U	C6-N1-C2	5.07	124.04	121.00
13	c1	5	LEU	CA-CB-CG	5.07	126.95	115.30
36	5	432	G	N1-C6-O6	5.07	122.94	119.90
36	5	784	A	C4-C5-N7	5.07	113.23	110.70
36	5	891	G	N1-C6-O6	-5.07	116.86	119.90
36	5	1523	U	C5-C4-O4	5.07	128.94	125.90
36	5	2693	C	C5-C6-N1	-5.07	118.47	121.00
36	5	2843	U	C2-N1-C1'	5.07	123.78	117.70
36	1	781	G	N3-C4-C5	-5.06	126.07	128.60
36	5	660	A	C5-N7-C8	5.06	106.43	103.90
36	5	2882	U	N3-C4-C5	5.06	117.64	114.60
1	2	608	U	N1-C2-N3	5.06	117.94	114.90
36	1	637	C	C6-N1-C1'	-5.06	114.72	120.80
36	5	515	C	C6-N1-C2	5.06	122.33	120.30
36	5	892	U	C2-N1-C1'	-5.06	111.62	117.70
36	5	1200	A	C4-C5-C6	5.06	119.53	117.00
36	5	1530	U	N3-C4-O4	-5.06	115.86	119.40
36	1	2701	U	C5-C4-O4	-5.06	122.86	125.90
36	1	2726	C	OP1-P-O3'	5.06	116.33	105.20
36	5	609	G	N3-C4-N9	-5.06	122.97	126.00
36	5	925	A	C8-N9-C4	5.06	107.82	105.80
36	5	1348	U	O4'-C1'-N1	5.06	112.25	108.20
36	5	1470	U	C6-N1-C2	-5.06	117.96	121.00
36	5	3351	U	C2-N1-C1'	5.06	123.77	117.70
37	7	100	C	C6-N1-C2	5.06	122.32	120.30
1	2	694	U	N3-C2-O2	-5.06	118.66	122.20
36	1	664	U	C5-C6-N1	-5.06	120.17	122.70
36	1	2920	U	C6-N1-C2	5.06	124.03	121.00
36	1	3050	U	N3-C2-O2	-5.06	118.66	122.20
1	6	308	C	C4-C5-C6	5.06	119.93	117.40
36	5	308	A	O5'-P-OP2	-5.06	101.15	105.70
36	5	1048	A	N1-C6-N6	5.06	121.63	118.60
36	5	1408	G	N9-C4-C5	5.06	107.42	105.40
36	5	1533	U	O5'-P-OP1	-5.06	101.15	105.70
36	5	2684	C	C5-C6-N1	-5.06	118.47	121.00
36	1	57	A	C5-C6-N1	-5.06	115.17	117.70
36	1	213	A	N9-C1'-C2'	-5.06	106.44	112.00
1	2	1033	C	N3-C2-O2	-5.05	118.36	121.90
1	2	1324	G	N3-C4-N9	-5.05	122.97	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1153	A	C5-C6-N6	-5.05	119.66	123.70
36	1	1375	G	C5-N7-C8	-5.05	101.77	104.30
36	1	1900	A	C8-N9-C4	5.05	107.82	105.80
36	1	2603	G	N9-C4-C5	-5.05	103.38	105.40
36	1	2733	A	O5'-P-OP2	-5.05	101.15	105.70
1	6	769	A	N1-C6-N6	-5.05	115.57	118.60
36	5	292	U	N3-C4-C5	5.05	117.63	114.60
36	5	906	A	C4-C5-C6	5.05	119.53	117.00
36	5	1113	G	N1-C2-N3	5.05	126.93	123.90
36	1	714	G	N3-C4-N9	5.05	129.03	126.00
36	1	1139	G	C5-C6-O6	5.05	131.63	128.60
36	1	2321	A	N1-C6-N6	-5.05	115.57	118.60
36	1	2879	C	N3-C2-O2	5.05	125.44	121.90
36	5	1166	G	N9-C4-C5	-5.05	103.38	105.40
36	5	2420	C	N1-C2-O2	-5.05	115.87	118.90
36	5	2970	C	N1-C2-O2	5.05	121.93	118.90
36	1	1438	U	N3-C2-O2	-5.05	118.66	122.20
36	1	1770	G	C4-N9-C1'	5.05	133.07	126.50
36	1	2417	U	N1-C2-N3	5.05	117.93	114.90
36	1	3259	U	O4'-C1'-N1	-5.05	104.16	108.20
1	6	1724	U	C2-N1-C1'	-5.05	111.64	117.70
36	5	506	U	C4-C5-C6	5.05	122.73	119.70
36	5	937	G	OP1-P-OP2	5.05	127.18	119.60
36	5	959	C	O4'-C1'-N1	5.05	112.24	108.20
36	5	1189	C	N3-C2-O2	5.05	125.44	121.90
36	5	2696	A	C8-N9-C4	5.05	107.82	105.80
36	5	3343	G	N1-C2-N2	-5.05	111.65	116.20
1	2	728	U	C2-N1-C1'	5.05	123.76	117.70
20	C8	3	LEU	CA-CB-CG	5.05	126.91	115.30
36	1	910	G	C5-C6-N1	-5.05	108.97	111.50
36	1	2349	U	N3-C2-O2	-5.05	118.67	122.20
36	5	215	G	C8-N9-C4	-5.05	104.38	106.40
36	5	942	U	N3-C4-O4	5.05	122.94	119.40
36	5	1153	A	C6-N1-C2	-5.05	115.57	118.60
36	5	1633	C	C2-N1-C1'	5.05	124.35	118.80
36	5	2262	A	C8-N9-C4	5.05	107.82	105.80
36	1	154	U	C5-C6-N1	-5.05	120.18	122.70
36	1	404	G	C8-N9-C4	-5.05	104.38	106.40
36	1	893	C	C5-C6-N1	5.05	123.52	121.00
36	5	753	C	C5-C6-N1	-5.05	118.48	121.00
1	2	1735	U	C5-C6-N1	-5.05	120.18	122.70
36	1	788	C	C2-N1-C1'	-5.05	113.25	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	801	A	C6-N1-C2	5.05	121.63	118.60
36	1	2385	G	N1-C2-N2	5.05	120.74	116.20
36	1	3173	G	C8-N9-C1'	-5.05	120.44	127.00
25	d3	33	LEU	CA-CB-CG	-5.05	103.69	115.30
36	5	57	A	C8-N9-C4	5.05	107.82	105.80
36	5	2403	G	O5'-P-OP1	5.05	116.75	110.70
36	5	3107	U	C6-N1-C2	5.05	124.03	121.00
37	7	47	C	N1-C2-N3	5.05	122.73	119.20
69	o3	7	LEU	CB-CG-CD1	-5.05	102.42	111.00
36	1	108	A	C5-C6-N6	-5.04	119.66	123.70
36	5	1891	A	O5'-P-OP2	-5.04	101.16	105.70
36	5	2662	G	N3-C4-C5	-5.04	126.08	128.60
1	2	447	U	C6-N1-C2	-5.04	117.97	121.00
1	2	934	C	C6-N1-C1'	-5.04	114.75	120.80
1	2	1749	A	N1-C2-N3	5.04	131.82	129.30
36	1	59	G	C4-C5-N7	5.04	112.82	110.80
36	1	188	U	N3-C2-O2	5.04	125.73	122.20
36	1	692	A	N1-C6-N6	5.04	121.63	118.60
36	1	2144	A	C8-N9-C4	5.04	107.82	105.80
1	6	542	A	C4-N9-C1'	5.04	135.38	126.30
1	6	1023	A	C5-C6-N6	-5.04	119.67	123.70
1	6	1652	C	N1-C2-O2	-5.04	115.87	118.90
36	5	403	C	OP2-P-O3'	5.04	116.30	105.20
36	5	2710	C	N1-C2-O2	-5.04	115.87	118.90
36	5	3210	A	N1-C6-N6	-5.04	115.57	118.60
37	7	55	A	O5'-P-OP2	5.04	116.75	110.70
36	1	1130	A	C4-C5-N7	5.04	113.22	110.70
36	1	1205	A	N1-C6-N6	5.04	121.62	118.60
1	6	1748	G	OP2-P-O3'	5.04	116.29	105.20
36	5	1302	A	C8-N9-C4	-5.04	103.78	105.80
36	5	2327	U	C6-N1-C2	5.04	124.02	121.00
36	5	3195	U	C2-N1-C1'	5.04	123.75	117.70
51	m5	197	LEU	CA-CB-CG	-5.04	103.70	115.30
36	1	1164	G	C6-C5-N7	-5.04	127.38	130.40
36	1	1445	U	OP2-P-O3'	5.04	116.29	105.20
36	1	2122	G	N9-C4-C5	5.04	107.42	105.40
71	O5	36	LEU	CA-CB-CG	5.04	126.89	115.30
36	5	2962	U	C5-C6-N1	5.04	125.22	122.70
1	2	514	G	N1-C6-O6	-5.04	116.88	119.90
1	2	1632	C	N3-C2-O2	5.04	125.43	121.90
36	1	1120	A	C6-N1-C2	-5.04	115.58	118.60
36	1	2752	U	N3-C2-O2	-5.04	118.67	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2777	G	N9-C4-C5	5.04	107.42	105.40
36	5	2398	A	N7-C8-N9	-5.04	111.28	113.80
36	5	2404	A	N9-C4-C5	-5.04	103.78	105.80
38	8	55	U	N3-C2-O2	-5.04	118.67	122.20
1	6	362	G	N3-C4-N9	5.04	129.02	126.00
36	1	957	C	O5'-P-OP2	-5.04	101.17	105.70
36	1	1437	C	C6-N1-C2	-5.04	118.29	120.30
36	1	2772	C	N1-C1'-C2'	5.04	120.55	114.00
36	5	2895	G	N1-C2-N3	5.04	126.92	123.90
36	5	3315	G	N1-C2-N3	5.04	126.92	123.90
1	2	973	A	C2-N3-C4	-5.03	108.08	110.60
36	1	602	A	N1-C6-N6	-5.03	115.58	118.60
36	1	2836	C	N3-C2-O2	-5.03	118.38	121.90
1	6	1439	C	C5-C6-N1	5.03	123.52	121.00
36	5	1170	A	C8-N9-C4	5.03	107.81	105.80
36	1	1349	G	N3-C4-N9	5.03	129.02	126.00
36	5	1116	G	C4-N9-C1'	5.03	133.04	126.50
36	5	2345	A	C6-N1-C2	-5.03	115.58	118.60
1	2	1456	C	C6-N1-C2	-5.03	118.29	120.30
36	1	973	A	N1-C2-N3	5.03	131.81	129.30
36	1	2130	G	C8-N9-C4	-5.03	104.39	106.40
36	1	2603	G	O5'-P-OP2	-5.03	101.17	105.70
36	1	2647	A	C8-N9-C4	-5.03	103.79	105.80
36	1	2944	U	C5-C6-N1	5.03	125.22	122.70
36	1	3057	U	N3-C4-O4	-5.03	115.88	119.40
36	1	3325	G	N1-C6-O6	-5.03	116.88	119.90
36	5	216	G	C5-C6-O6	-5.03	125.58	128.60
36	5	1183	C	C5-C6-N1	-5.03	118.48	121.00
36	5	2305	G	C4-C5-C6	5.03	121.82	118.80
36	5	2685	C	N3-C4-C5	5.03	123.91	121.90
36	5	1136	A	N1-C6-N6	5.03	121.62	118.60
36	5	3176	G	N3-C4-C5	-5.03	126.09	128.60
38	8	79	A	O5'-P-OP2	-5.03	101.17	105.70
15	C3	22	ALA	C-N-CA	5.03	143.12	122.00
36	1	722	G	C6-C5-N7	-5.03	127.38	130.40
36	1	3216	G	N1-C6-O6	-5.03	116.88	119.90
47	M0	176	LEU	CA-CB-CG	5.03	126.86	115.30
1	6	1770	U	N1-C2-O2	5.03	126.32	122.80
36	5	218	G	N3-C4-N9	5.03	129.02	126.00
36	5	636	C	N3-C4-C5	5.03	123.91	121.90
36	5	1190	A	N7-C8-N9	5.03	116.31	113.80
36	5	1311	G	C8-N9-C4	5.03	108.41	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2706	G	N1-C2-N2	-5.03	111.68	116.20
36	5	3209	A	C8-N9-C4	-5.03	103.79	105.80
1	2	1291	G	C8-N9-C4	-5.03	104.39	106.40
1	2	1332	C	C6-N1-C2	-5.03	118.29	120.30
36	1	1889	G	N1-C2-N3	-5.03	120.88	123.90
36	1	1926	C	N3-C4-C5	5.03	123.91	121.90
36	1	2140	U	C5-C6-N1	-5.03	120.19	122.70
36	5	69	C	N3-C4-C5	-5.03	119.89	121.90
36	5	960	U	O4'-C1'-N1	-5.03	104.18	108.20
36	5	1590	G	OP2-P-O3'	5.03	116.26	105.20
36	5	2683	U	C2-N1-C1'	5.03	123.73	117.70
36	5	2981	U	C4-C5-C6	5.03	122.72	119.70
36	1	41	G	C5-C6-O6	-5.02	125.59	128.60
36	1	80	G	C5-C6-N1	5.02	114.01	111.50
36	1	1005	G	C5-C6-O6	5.02	131.62	128.60
36	1	1493	G	O4'-C1'-N9	5.02	112.22	108.20
36	1	3307	A	C6-C5-N7	-5.02	128.78	132.30
1	6	965	U	N3-C4-O4	-5.02	115.88	119.40
36	5	112	U	O4'-C1'-N1	5.02	112.22	108.20
36	5	2695	A	N1-C2-N3	5.02	131.81	129.30
36	5	3212	C	N1-C2-O2	-5.02	115.89	118.90
36	5	3271	G	C5-C6-O6	5.02	131.61	128.60
1	2	1622	G	N3-C4-C5	5.02	131.11	128.60
36	1	943	U	N3-C2-O2	-5.02	118.69	122.20
36	1	1495	U	C2-N3-C4	-5.02	123.99	127.00
36	1	2412	G	C4-C5-N7	5.02	112.81	110.80
36	1	3361	G	N1-C2-N2	-5.02	111.68	116.20
36	5	702	C	N3-C4-N4	-5.02	114.48	118.00
36	5	1138	U	C2-N3-C4	-5.02	123.99	127.00
36	5	1556	C	N1-C2-O2	5.02	121.91	118.90
36	5	1819	U	N1-C1'-C2'	-5.02	106.47	112.00
36	5	2943	G	C5-C6-N1	-5.02	108.99	111.50
36	5	3198	U	N1-C2-N3	-5.02	111.89	114.90
36	5	1424	C	C6-N1-C2	5.02	122.31	120.30
36	1	854	G	N1-C2-N3	5.02	126.91	123.90
36	1	1043	C	C6-N1-C2	5.02	122.31	120.30
36	1	1111	U	C5-C4-O4	-5.02	122.89	125.90
36	1	2194	G	C2-N3-C4	-5.02	109.39	111.90
36	1	2982	A	C6-N1-C2	-5.02	115.59	118.60
36	5	96	G	C2-N3-C4	-5.02	109.39	111.90
36	5	222	A	O5'-P-OP1	5.02	116.72	110.70
36	5	933	A	N1-C6-N6	5.02	121.61	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1200	A	P-O3'-C3'	5.02	125.72	119.70
36	5	1805	C	OP1-P-OP2	-5.02	112.07	119.60
36	5	1917	C	OP2-P-O3'	5.02	116.25	105.20
36	5	2136	C	C2-N3-C4	-5.02	117.39	119.90
36	5	2358	A	C8-N9-C4	5.02	107.81	105.80
36	5	2410	U	C2-N3-C4	-5.02	123.99	127.00
36	5	2660	G	OP1-P-OP2	-5.02	112.07	119.60
36	5	3131	U	C6-N1-C1'	-5.02	114.17	121.20
36	1	2973	G	C4-C5-N7	5.02	112.81	110.80
37	3	53	U	N1-C2-O2	-5.02	119.29	122.80
36	5	414	U	N3-C2-O2	5.02	125.71	122.20
36	5	1939	G	C4-N9-C1'	5.02	133.02	126.50
36	5	2836	C	N3-C2-O2	-5.02	118.39	121.90
36	5	2970	C	O5'-P-OP1	-5.02	101.19	105.70
36	5	3095	U	C5-C6-N1	-5.02	120.19	122.70
36	1	1380	G	N1-C6-O6	5.02	122.91	119.90
36	1	1794	G	N1-C6-O6	-5.02	116.89	119.90
36	1	2647	A	C6-N1-C2	-5.02	115.59	118.60
36	1	640	U	N1-C2-O2	-5.01	119.29	122.80
36	1	1838	G	C2-N3-C4	-5.01	109.39	111.90
36	1	2787	G	C5-C6-O6	-5.01	125.59	128.60
36	1	3362	A	C2-N3-C4	-5.01	108.09	110.60
1	6	1354	G	C4-N9-C1'	5.01	133.02	126.50
1	6	1782	A	N1-C6-N6	-5.01	115.59	118.60
36	5	538	G	C5-C6-N1	-5.01	108.99	111.50
36	5	3377	G	N1-C2-N3	-5.01	120.89	123.90
1	2	109	G	N1-C6-O6	5.01	122.91	119.90
36	1	1187	C	C6-N1-C2	5.01	122.31	120.30
36	1	1395	G	OP2-P-O3'	5.01	116.23	105.20
36	1	2887	A	OP2-P-O3'	5.01	116.23	105.20
1	6	1338	C	C6-N1-C2	5.01	122.31	120.30
36	5	682	U	C5-C4-O4	5.01	128.91	125.90
36	5	2385	G	N3-C4-N9	-5.01	122.99	126.00
36	5	2993	G	C5-C6-O6	-5.01	125.59	128.60
1	2	1100	G	N3-C4-C5	-5.01	126.09	128.60
36	1	2758	A	O4'-C1'-N9	5.01	112.21	108.20
1	6	542	A	N7-C8-N9	5.01	116.31	113.80
1	6	587	C	C5-C6-N1	-5.01	118.49	121.00
1	6	1697	G	C2-N3-C4	5.01	114.41	111.90
36	5	878	G	C6-C5-N7	-5.01	127.39	130.40
36	5	1466	G	C5-C6-O6	-5.01	125.59	128.60
36	5	2294	U	C5-C6-N1	-5.01	120.19	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3103	A	OP1-P-OP2	5.01	127.12	119.60
36	5	3326	G	N3-C4-N9	5.01	129.01	126.00
1	2	402	C	C6-N1-C2	5.01	122.30	120.30
36	1	205	C	N3-C4-C5	5.01	123.90	121.90
36	1	935	U	C2-N1-C1'	5.01	123.71	117.70
36	1	1199	C	C5-C6-N1	-5.01	118.50	121.00
36	1	1360	C	C6-N1-C2	5.01	122.30	120.30
36	1	2133	U	N3-C4-C5	5.01	117.61	114.60
1	6	1782	A	N9-C4-C5	5.01	107.80	105.80
36	5	35	A	N9-C4-C5	-5.01	103.80	105.80
36	5	869	G	C8-N9-C4	5.01	108.40	106.40
36	5	960	U	C2-N3-C4	-5.01	123.99	127.00
36	5	1302	A	C5-C6-N1	-5.01	115.19	117.70
36	5	1548	C	N3-C2-O2	5.01	125.41	121.90
36	5	1658	G	OP1-P-OP2	5.01	127.11	119.60
36	5	2831	G	N3-C2-N2	-5.01	116.39	119.90
36	1	910	G	N1-C2-N3	5.01	126.91	123.90
36	1	1689	U	O5'-P-OP1	-5.01	101.19	105.70
36	5	217	U	C2-N3-C4	-5.01	124.00	127.00
36	5	395	A	O5'-P-OP2	-5.01	101.19	105.70
36	5	1914	G	C4-N9-C1'	5.01	133.01	126.50
36	5	3113	A	N7-C8-N9	-5.01	111.30	113.80
36	1	194	U	OP1-P-O3'	5.01	116.22	105.20
36	1	884	A	C2-N3-C4	-5.01	108.10	110.60
36	1	1125	U	C5-C6-N1	-5.01	120.20	122.70
36	1	3266	G	C8-N9-C4	-5.01	104.40	106.40
38	4	41	A	C8-N9-C4	5.01	107.80	105.80
4	s2	229	LEU	CA-CB-CG	5.01	126.81	115.30
36	5	404	G	O5'-P-OP2	-5.01	101.19	105.70
36	5	586	C	N3-C4-C5	5.01	123.90	121.90
36	5	784	A	C6-C5-N7	-5.01	128.80	132.30
36	5	2900	A	OP2-P-O3'	5.01	116.21	105.20
36	5	3001	C	C2-N1-C1'	-5.01	113.29	118.80
37	7	3	U	C5-C6-N1	-5.01	120.20	122.70
38	8	102	U	N3-C4-O4	5.01	122.91	119.40
1	2	1052	U	N3-C2-O2	-5.00	118.70	122.20
36	1	127	G	N1-C6-O6	5.00	122.90	119.90
36	1	2623	G	N1-C6-O6	5.00	122.90	119.90
1	6	1048	G	N9-C4-C5	-5.00	103.40	105.40
36	5	2644	C	OP1-P-OP2	5.00	127.11	119.60
36	5	2693	C	N3-C4-C5	5.00	123.90	121.90
36	5	2728	G	O4'-C1'-N9	5.00	112.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2815	G	N7-C8-N9	-5.00	110.60	113.10
37	7	88	G	C2-N3-C4	-5.00	109.40	111.90
50	m4	106	ARG	NE-CZ-NH1	5.00	122.80	120.30
1	2	1773	C	N3-C2-O2	5.00	125.40	121.90
31	D9	36	LEU	CA-CB-CG	5.00	126.81	115.30
36	1	2632	G	O5'-P-OP2	-5.00	101.20	105.70
36	1	2987	A	C4-N9-C1'	5.00	135.31	126.30
1	6	1227	A	C3'-C2'-C1'	5.00	105.50	101.50
36	5	73	C	C5-C4-N4	-5.00	116.70	120.20
36	5	194	U	C5-C6-N1	-5.00	120.20	122.70
36	1	932	U	N1-C2-O2	-5.00	119.30	122.80
36	1	1434	G	C8-N9-C4	-5.00	104.40	106.40
36	1	1492	G	N1-C2-N2	-5.00	111.70	116.20
36	1	1872	C	N3-C4-N4	-5.00	114.50	118.00
36	1	2412	G	C6-N1-C2	-5.00	122.10	125.10
1	6	1754	A	N1-C6-N6	-5.00	115.60	118.60
36	5	57	A	N1-C2-N3	5.00	131.80	129.30
36	5	928	C	C5-C6-N1	-5.00	118.50	121.00
36	5	2598	G	C6-C5-N7	-5.00	127.40	130.40

There are no chirality outliers.

All (37) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	123	SER	Peptide
16	C4	38	THR	Peptide
19	C7	85	VAL	Peptide
25	D3	78	LYS	Peptide
27	D5	94	LYS	Peptide
27	D5	96	SER	Peptide
33	E1	138	ARG	Peptide
39	L2	142	ASP	Peptide
39	L2	19	HIS	Peptide
41	L4	129	THR	Peptide
45	L8	74	THR	Peptide
48	M1	8	PRO	Peptide
52	M6	110	PRO	Peptide
56	N0	1	MET	Peptide
65	N9	20	GLY	Peptide
72	O6	78	GLY	Peptide
75	O9	33	ASN	Peptide
9	S7	131	PHE	Peptide

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Mol	Chain	Res	Type	Group
10	S8	147	ALA	Peptide
18	c6	41	PRO	Peptide
19	c7	87	GLU	Peptide
22	d0	70	THR	Peptide
40	l3	234	GLY	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
81	m2	29	UNK	Peptide
50	m4	10	SER	Peptide
52	m6	110	PRO	Peptide
56	n0	133	ALA	Peptide
56	n0	170	THR	Peptide
56	n0	3	HIS	Peptide
64	n8	66	ALA	Peptide
69	o3	105	SER	Peptide
5	s3	203	PRO	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
11	s9	89	ASP	Peptide

5.2 Too-close contacts [i](#)

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	18758	957	0
1	6	38238	0	19241	989	0
2	S0	1577	0	1567	160	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	166	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	146	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	142	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	153	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	158	0
7	s5	1609	0	1675	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	S6	1799	0	1879	130	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	119	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	139	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	134	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	63	0
12	c0	762	0	699	0	0
13	C1	1213	0	1257	83	0
13	c1	1168	0	1233	0	0
14	C2	892	0	891	68	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	98	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	94	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	96	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	105	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	93	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	127	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	97	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	88	0
22	d0	882	0	939	0	0
23	D1	684	0	672	70	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	76	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	94	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	99	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	67	0
27	d5	558	0	598	0	0
28	D6	769	0	814	112	0
28	d6	769	0	814	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	D7	610	0	631	39	0
29	d7	610	0	632	0	0
30	D8	497	0	535	46	0
30	d8	497	0	535	0	0
31	D9	442	0	429	44	0
31	d9	442	0	428	0	0
32	E0	475	0	525	28	0
33	E1	566	0	602	59	0
33	e1	608	0	656	0	0
34	SR	2441	0	2397	176	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	62	0
35	sM	680	0	607	0	0
36	1	67355	0	33847	1358	1
36	5	67376	0	33860	1383	0
37	3	2579	0	1304	63	0
37	7	2579	0	1303	55	1
38	4	3353	0	1695	69	0
38	8	3353	0	1695	65	0
39	L2	1914	0	1981	184	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	251	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	237	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	208	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	109	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	130	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	133	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	152	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1735	155	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	99	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	141	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	97	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	158	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	125	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	111	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	125	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	133	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	97	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	107	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	52	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	90	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	38	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	78	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	90	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	82	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1214	105	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	43	0
65	n9	462	0	491	0	0
66	O0	743	0	797	66	0
66	o0	767	0	816	0	0
67	O1	876	0	912	59	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	94	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	70	0
69	o3	850	0	880	0	0
70	O4	880	0	945	73	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	79	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
71	o5	965	0	1067	0	0
72	O6	771	0	849	78	0
72	o6	770	0	846	0	0
73	O7	681	0	683	61	0
73	o7	681	0	683	0	0
74	O8	612	0	682	61	0
74	o8	608	0	671	0	0
75	O9	436	0	475	45	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	30	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	23	0
77	q1	233	0	284	0	0
78	Q2	847	0	916	53	0
78	q2	847	0	917	0	0
79	Q3	694	0	734	51	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	m2	750	0	177	0	0
82	p0	1076	0	1040	0	0
83	p1	235	0	51	0	0
84	p2	230	0	50	0	0
85	1	472	0	0	0	0
85	2	125	0	0	0	0
85	3	14	0	0	0	0
85	4	20	0	0	0	0
85	5	501	0	0	0	0
85	6	144	0	0	0	0
85	7	17	0	0	0	0
85	8	13	0	0	0	0
85	D0	1	0	0	0	0
85	D3	1	0	0	0	0
85	L2	1	0	0	0	0
85	L3	1	0	0	0	0
85	L4	1	0	0	0	0
85	L5	1	0	0	0	0
85	L7	4	0	0	0	0
85	L8	1	0	0	0	0
85	M0	2	0	0	0	0
85	M1	1	0	0	0	0
85	M3	3	0	0	0	0
85	M5	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	M6	2	0	0	0	0
85	M7	5	0	0	0	0
85	M9	1	0	0	0	0
85	N0	1	0	0	0	0
85	N3	3	0	0	0	0
85	N5	2	0	0	0	0
85	N6	1	0	0	0	0
85	N8	4	0	0	0	0
85	O2	1	0	0	0	0
85	O7	3	0	0	0	0
85	Q2	1	0	0	0	0
85	S2	1	0	0	0	0
85	SM	1	0	0	0	0
85	c1	1	0	0	0	0
85	c4	1	0	0	0	0
85	c7	1	0	0	0	0
85	c8	2	0	0	0	0
85	d3	2	0	0	0	0
85	d4	1	0	0	0	0
85	d6	1	0	0	0	0
85	l2	2	0	0	0	0
85	l3	2	0	0	0	0
85	l4	1	0	0	0	0
85	l5	1	0	0	0	0
85	l7	1	0	0	0	0
85	l9	1	0	0	0	0
85	m5	3	0	0	0	0
85	m6	3	0	0	0	0
85	m7	5	0	0	0	0
85	n0	3	0	0	0	0
85	n3	2	0	0	0	0
85	n6	2	0	0	0	0
85	n8	4	0	0	0	0
85	n9	1	0	0	0	0
85	o1	2	0	0	0	0
85	o3	1	0	0	0	0
85	o4	1	0	0	0	0
85	o7	1	0	0	0	0
85	o9	1	0	0	0	0
85	q0	1	0	0	0	0
85	q1	1	0	0	0	0
85	q3	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	s1	1	0	0	0	0
85	s6	1	0	0	0	0
85	s8	3	0	0	0	0
85	sM	2	0	0	0	0
86	1	2429	0	0	195	0
86	2	1113	0	0	109	1
86	3	84	0	0	3	0
86	4	126	0	0	12	0
86	5	2457	0	0	215	1
86	6	1106	0	0	107	0
86	7	77	0	0	4	0
86	8	119	0	0	23	0
86	C3	7	0	0	0	0
86	C5	7	0	0	4	0
86	C8	7	0	0	0	0
86	D9	7	0	0	0	0
86	L3	14	0	0	2	0
86	L4	7	0	0	2	0
86	M0	7	0	0	1	0
86	M5	7	0	0	1	0
86	M7	14	0	0	3	0
86	M8	7	0	0	0	0
86	M9	7	0	0	0	0
86	N1	7	0	0	1	0
86	N9	7	0	0	0	0
86	O3	7	0	0	1	0
86	O7	14	0	0	4	0
86	Q2	7	0	0	4	0
86	S8	7	0	0	0	0
86	SR	7	0	0	0	0
86	c3	7	0	0	0	0
86	c5	7	0	0	0	0
86	c8	7	0	0	0	0
86	d4	7	0	0	0	0
86	d9	7	0	0	0	0
86	l3	14	0	0	0	0
86	l4	14	0	0	0	0
86	l5	21	0	0	0	0
86	l9	7	0	0	0	0
86	m0	14	0	0	0	0
86	m1	7	0	0	0	0
86	m4	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	m5	7	0	0	0	0
86	m6	7	0	0	0	0
86	m7	7	0	0	0	0
86	m8	7	0	0	0	0
86	n3	14	0	0	0	0
86	n5	7	0	0	0	0
86	n9	7	0	0	0	0
86	o2	7	0	0	0	0
86	o3	7	0	0	0	0
86	q1	7	0	0	0	0
86	q2	7	0	0	0	0
86	s1	14	0	0	0	0
86	s4	7	0	0	0	0
86	s8	7	0	0	0	0
86	s9	7	0	0	0	0
86	sR	7	0	0	0	0
87	D6	1	0	0	0	0
87	D7	1	0	0	0	0
87	D9	1	0	0	0	0
87	E1	1	0	0	0	0
87	O7	1	0	0	0	0
87	Q0	1	0	0	0	0
87	Q2	1	0	0	0	0
87	Q3	1	0	0	0	0
87	d6	1	0	0	0	0
87	d7	1	0	0	0	0
87	d9	1	0	0	0	0
87	e1	1	0	0	0	0
87	o7	1	0	0	0	0
87	q0	1	0	0	0	0
87	q2	1	0	0	0	0
87	q3	1	0	0	0	0
88	1	22	0	13	2	0
88	5	22	0	12	1	0
All	All	411178	0	297319	10848	2

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 16.

All (10848) 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	2.04	1.46
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.30	1.09
36:5:2273:G:O6	86:5:4193:OHX:N5	1.92	1.02
1:2:1595:U:H3	1:2:1600:A:H2	1.07	1.00
36:5:1231:A:H5''	36:5:1232:C:H5'	1.44	0.99
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.45	0.99
73:O7:21:ARG:NH2	73:O7:41:ALA:O	1.97	0.97
36:1:2940:A:N7	40:L3:2:SER:N	2.10	0.97
36:1:1639:C:OP2	70:O4:74:ARG:NH2	1.99	0.96
43:L6:31:ARG:HH11	69:O3:107:ILE:HG22	5.10	0.96
36:1:3182:G:OP1	52:M6:160:ARG:NH2	1.99	0.96
36:1:2836:C:H5	36:1:2852:C:H42	1.13	0.95
36:5:3194:C:O2	36:5:3197:G:N2	2.00	0.95
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.31	0.95
36:1:1481:A:O2'	36:1:1858:A:N3	1.99	0.94
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.02	0.94
36:5:3274:A:H3'	36:5:3275:U:H5''	1.47	0.94
1:6:1011:G:OP2	86:6:2116:OHX:N3	2.02	0.93
1:6:1688:U:H3	1:6:1713:G:H1	1.16	0.93
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.50	0.93
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.48	0.93
50:M4:113:THR:HG22	50:M4:116:GLU:H	1.33	0.93
50:M4:24:LYS:HG3	50:M4:25:LYS:HD3	1.49	0.93
64:N8:21:ARG:NH2	36:5:640:U:OP1	181.57	0.93
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.02	0.92
46:L9:84:LYS:HE2	46:L9:191:LEU:HD13	1.50	0.92
53:M7:64:ASN:O	53:M7:80:LYS:NZ	2.84	0.92
46:L9:49:ASN:O	46:L9:51:GLN:N	2.02	0.91
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.52	0.91
36:1:3050:U:OP2	86:1:4181:OHX:N4	2.03	0.91
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.79	0.91
76:Q0:106:ARG:HH11	76:Q0:106:ARG:HB2	4.27	0.91
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	1.91	0.91
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.04	0.91
1:2:197:A:H61	10:S8:138:ASN:HD22	1.18	0.91
40:L3:152:LYS:HD3	40:L3:189:SER:HA	2.54	0.91
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.40	0.90
36:1:1951:C:H42	36:1:2095:G:H1	1.18	0.90
36:5:343:U:OP2	86:5:3923:OHX:N3	2.05	0.90
70:O4:74:ARG:NH2	36:5:1639:C:OP2	200.47	0.90
36:1:2732:G:OP2	86:1:4203:OHX:N2	2.05	0.90
41:L4:22:LEU:HD11	41:L4:26:PHE:HB2	1.54	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.47	0.90
40:L3:296:THR:HG22	40:L3:298:PHE:H	4.96	0.89
1:2:1081:A:O2'	1:2:1083:G:N7	2.05	0.89
36:1:3224:G:O6	86:1:3892:OHX:N4	2.06	0.89
1:2:399:A:OP1	10:S8:49:ARG:NH2	2.06	0.89
32:E0:13:LYS:NZ	1:6:566:C:O2	376.20	0.89
1:2:1202:A:OP1	86:2:2111:OHX:N1	2.06	0.89
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.06	0.89
40:L3:139:GLN:O	40:L3:141:GLY:N	2.05	0.88
53:M7:62:ARG:O	86:M7:206:OHX:N1	2.06	0.88
1:6:1041:G:OP1	86:6:2171:OHX:N4	2.06	0.88
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	1.76	0.88
1:2:140:A:N6	1:2:281:G:OP1	2.06	0.88
1:2:142:G:H22	1:2:173:A:H2	1.20	0.88
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.24	0.88
30:D8:21:SER:HB3	30:D8:67:ARG:HG2	5.93	0.88
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	4.48	0.88
1:2:991:G:OP2	86:2:2132:OHX:N1	2.05	0.88
1:6:1595:U:H3	1:6:1600:A:H2	1.21	0.88
36:1:2208:A:N1	86:1:4044:OHX:N2	2.22	0.88
21:C9:119:LYS:NZ	1:6:1369:U:OP1	441.78	0.87
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.56	0.87
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.56	0.87
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.06	0.87
1:6:1636:C:H4'	1:6:1637:C:H5''	1.54	0.87
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.07	0.87
36:1:3087:A:OP1	86:1:4181:OHX:N5	2.08	0.87
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	3.54	0.87
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.56	0.87
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.48	0.87
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.14	0.86
36:5:155:G:H5''	36:5:156:G:C8	2.10	0.86
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.08	0.86
62:N6:3:LYS:NZ	62:N6:5:SER:O	2.91	0.86
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.07	0.86
1:2:820:U:H2'	1:2:821:U:H4'	1.58	0.86
36:1:1947:G:H1	36:1:2101:C:H42	1.22	0.86
36:1:1898:G:OP2	86:1:3929:OHX:N4	2.08	0.86
46:L9:28:VAL:HG13	46:L9:33:THR:HB	2.21	0.86
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.09	0.86
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.35	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:272:G:OP2	86:5:4070:OHX:N6	2.07	0.86
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.76	0.85
26:D4:12:VAL:HG23	26:D4:23:PHE:HB3	3.88	0.85
46:L9:22:SER:OG	46:L9:23:ARG:N	2.08	0.85
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	3.48	0.85
72:O6:28:TYR:O	86:5:4184:OHX:N2	103.76	0.85
36:5:2836:C:H5	36:5:2852:C:H42	1.23	0.85
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.09	0.85
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.68	0.85
36:1:2443:A:N6	36:1:2504:U:O4	2.10	0.85
36:1:1740:U:H1'	36:1:1741:A:H2	1.42	0.85
10:S8:141:ARG:NH2	1:6:196:G:N7	280.41	0.84
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.59	0.84
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.74	0.84
36:5:3153:U:H4'	36:5:3154:C:H5'	1.56	0.84
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	1.58	0.84
34:SR:184:ASN:HD22	34:SR:185:GLN:H	5.51	0.84
49:M3:165:SER:O	49:M3:167:PHE:N	2.11	0.84
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.58	0.84
1:6:895:G:H1	1:6:917:U:H3	1.25	0.84
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.59	0.84
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.58	0.84
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	2.00	0.84
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.34	0.84
50:M4:132:LYS:HD3	36:5:3230:G:H4'	286.37	0.83
53:M7:69:ARG:HG2	53:M7:79:THR:HG23	4.39	0.83
69:O3:86:ARG:NH2	36:5:497:C:O3'	214.82	0.83
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	4.55	0.83
36:5:2236:G:OP1	86:5:4244:OHX:N3	2.11	0.83
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	1.69	0.83
37:7:95:A:OP2	86:7:227:OHX:N1	2.11	0.83
36:5:2818:U:H6	36:5:2818:U:H5'	1.42	0.83
39:L2:5:ILE:HG12	39:L2:8:GLN:HG2	1.57	0.83
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.10	0.83
54:M8:21:SER:OG	36:5:673:U:OP1	150.14	0.83
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.60	0.83
1:6:1230:A:H2	1:6:1255:G:H21	1.25	0.83
64:N8:6:THR:HG23	64:N8:8:THR:HG23	1.64	0.83
41:L4:317:PRO:O	41:L4:319:LYS:N	2.11	0.83
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.58	0.83
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.41	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3375:A:O2'	36:1:3378:C:OP2	1.97	0.83
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.12	0.83
56:N0:26:ARG:HB3	57:N1:150:THR:HB	4.22	0.83
36:5:1239:C:H42	36:5:1249:G:H1	1.27	0.83
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.12	0.82
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.43	0.82
1:2:1488:G:H3'	1:2:1515:A:H61	1.42	0.82
2:S0:65:ALA:O	2:S0:67:ILE:N	4.63	0.82
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.65	0.82
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.13	0.82
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	8.25	0.82
1:2:583:C:OP1	86:2:2026:OHX:N3	2.13	0.82
38:4:2:A:OP2	86:4:222:OHX:N5	2.13	0.82
1:2:320:U:H3'	1:2:321:C:H5''	1.60	0.82
7:S5:57:SER:O	7:S5:59:VAL:N	2.13	0.82
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.21	0.82
36:1:1844:C:H2'	36:1:1845:G:H5''	1.59	0.82
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.62	0.82
36:1:679:U:O4	86:1:3971:OHX:N1	2.12	0.82
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.62	0.82
52:M6:60:LYS:HE2	36:5:1307:G:H5''	250.80	0.82
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.13	0.82
38:4:79:A:H2'	38:4:80:A:H1'	1.62	0.82
36:5:1015:U:O2'	36:5:1017:C:OP1	1.98	0.82
36:5:1759:C:N4	36:5:1766:G:O6	2.13	0.81
49:M3:63:VAL:HG22	36:5:72:C:H5'	112.59	0.81
78:Q2:71:ARG:HE	78:Q2:80:ARG:HH21	1.25	0.81
1:6:158:U:O2'	1:6:160:C:OP2	1.97	0.81
9:S7:154:LEU:HD11	9:S7:183:PHE:HD1	2.39	0.81
36:1:2818:U:H6	36:1:2818:U:H5'	1.41	0.81
37:7:86:U:O2	86:7:221:OHX:N4	2.13	0.81
36:1:1565:G:N2	36:1:1574:C:O2	2.13	0.81
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.31	0.81
52:M6:3:VAL:HG13	52:M6:4:GLU:H	1.44	0.81
6:S4:117:GLU:O	6:S4:119:ALA:N	3.52	0.81
1:6:140:A:N6	1:6:281:G:OP1	2.14	0.81
55:M9:181:ARG:NH1	55:M9:182:ASP:OD1	5.40	0.81
1:6:1294:G:O6	86:6:2065:OHX:N5	2.13	0.81
48:M1:94:ARG:O	48:M1:96:PHE:N	2.17	0.81
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.45	0.81
61:N5:34:LEU:HD22	61:N5:35:PRO:HD2	3.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	2.43	0.81
20:C8:36:LYS:NZ	1:6:1568:C:OP1	334.05	0.81
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.15	0.81
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.74	0.81
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.13	0.81
51:M5:90:ASN:O	51:M5:92:LEU:N	3.70	0.81
24:D2:70:ASN:ND2	24:D2:130:TYR:O	2.12	0.81
37:7:91:G:H2'	37:7:92:A:H8	1.46	0.81
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.09	0.81
36:1:7:C:H5'	45:L8:193:LYS:HB3	1.62	0.81
36:5:789:A:H2'	36:5:790:U:H6	1.44	0.81
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	3.26	0.81
36:1:162:G:N2	36:1:259:C:O2	2.14	0.81
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	2.14	0.81
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	2.24	0.81
36:1:2548:C:OP2	39:L2:93:LYS:NZ	2.14	0.81
1:2:693:U:H5'	1:2:694:U:H5'	1.63	0.81
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.13	0.80
1:6:1097:U:H4'	1:6:1098:U:H5'	1.62	0.80
1:6:66:U:HO2'	1:6:67:A:P	2.05	0.80
36:5:1414:G:O6	86:5:4141:OHX:N1	2.14	0.80
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.63	0.80
74:O8:46:ARG:NH2	36:5:1613:A:OP2	131.62	0.80
46:L9:91:ARG:NH2	46:L9:141:LYS:O	4.79	0.80
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	4.20	0.80
55:M9:173:ARG:HH21	55:M9:177:VAL:HG21	9.06	0.80
1:6:1588:G:H1	1:6:1608:U:H3	1.30	0.80
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.57	0.80
36:1:410:U:O4	86:1:4056:OHX:N5	2.13	0.80
36:1:3316:A:OP1	36:1:3318:G:N2	2.14	0.80
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.14	0.80
57:N1:92:ARG:NH1	36:5:2736:A:OP1	234.48	0.80
36:1:309:U:OP1	72:O6:84:LYS:NZ	2.15	0.80
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.62	0.80
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.64	0.80
37:3:49:G:N7	42:L5:58:LYS:HG3	1.97	0.80
36:5:2258:U:OP2	86:5:3947:OHX:N4	2.15	0.80
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.15	0.80
8:S6:153:VAL:O	8:S6:155:ASP:N	2.75	0.80
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.14	0.80
44:L7:217:PRO:O	86:5:3997:OHX:N3	259.42	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2513:U:H3	36:5:2593:A:H62	1.31	0.80
1:6:1680:G:O6	86:6:2185:OHX:N4	2.15	0.79
15:C3:65:VAL:O	15:C3:67:THR:N	4.12	0.79
36:1:1878:G:OP1	86:1:3925:OHX:N4	2.15	0.79
1:6:1370:U:H4'	1:6:1371:A:H4'	1.64	0.79
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.45	0.79
36:1:2722:U:OP1	65:N9:33:LYS:NZ	2.16	0.79
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.64	0.79
1:6:826:U:O4	86:6:2062:OHX:N3	2.16	0.79
1:6:833:U:O4	86:6:2097:OHX:N2	2.16	0.79
36:1:3344:A:H2	36:1:3361:G:H21	1.29	0.79
36:1:2221:G:N2	36:1:2224:A:OP2	2.14	0.79
54:M8:66:ARG:NH2	36:5:744:A:OP1	165.80	0.79
36:1:2842:U:OP1	36:1:2844:C:N4	2.15	0.79
6:S4:125:LYS:HE3	6:S4:157:ASN:HA	1.64	0.79
42:L5:265:TYR:OH	37:7:121:U:OP2	311.31	0.79
72:O6:4:LYS:HE2	72:O6:14:GLY:HA3	3.83	0.79
36:1:1073:U:H1'	65:N9:50:THR:HG22	1.64	0.79
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.15	0.79
1:6:1209:C:H42	1:6:1454:G:H1	1.29	0.79
55:M9:105:LEU:HA	55:M9:108:LYS:HE3	1.65	0.79
75:O9:2:ALA:N	36:5:1492:G:N7	124.02	0.79
36:1:425:G:O6	86:1:3874:OHX:N6	2.16	0.79
36:1:1815:U:O2'	36:1:1816:A:OP2	2.00	0.79
1:2:542:A:H8	1:2:543:C:H5'	1.48	0.79
1:6:1010:C:OP2	86:6:2167:OHX:N3	2.16	0.79
1:2:1010:C:OP2	86:2:2132:OHX:N6	2.16	0.79
34:SR:293:ALA:HB3	34:SR:302:PHE:HB2	3.49	0.79
42:L5:134:ALA:HB2	42:L5:141:PRO:HD3	3.32	0.79
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.16	0.78
54:M8:40:THR:O	54:M8:42:ALA:N	2.15	0.78
43:L6:55:LEU:HD11	43:L6:66:SER:HB2	4.56	0.78
6:S4:105:VAL:HG22	6:S4:243:GLY:HA2	1.64	0.78
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	1.65	0.78
22:D0:32:LYS:O	22:D0:36:ASN:ND2	4.54	0.78
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.23	0.78
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.66	0.78
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.62	0.78
6:S4:19:LEU:HD22	1:6:788:A:H2'	389.51	0.78
2:S0:78:SER:OG	2:S0:129:ASP:OD1	3.10	0.78
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.29	0.78
39:L2:101:VAL:HB	39:L2:165:VAL:HG12	3.55	0.78
41:L4:89:ALA:O	41:L4:91:GLY:N	2.14	0.78
36:1:3273:A:OP2	43:L6:77:ARG:NH1	2.14	0.78
1:6:755:A:O2'	1:6:756:A:OP1	2.01	0.78
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	2.87	0.78
26:D4:122:GLY:O	26:D4:124:ARG:N	3.29	0.78
47:M0:77:THR:O	47:M0:81:GLY:N	2.45	0.78
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	2.76	0.78
36:5:2268:U:O4	36:5:2272:G:N1	2.17	0.78
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	1.65	0.78
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	1.66	0.78
36:5:1555:U:O4	36:5:1557:A:N6	2.17	0.78
1:6:1542:G:N2	1:6:1569:A:OP2	2.17	0.78
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.17	0.78
36:5:410:U:O4	86:5:4098:OHX:N1	2.17	0.78
86:1:3956:OHX:N6	44:L7:217:PRO:O	2.16	0.78
59:N3:53:SER:N	59:N3:56:ASP:OD2	2.38	0.78
36:1:3259:U:H6	36:1:3259:U:H5'	1.49	0.78
4:S2:84:LYS:NZ	1:6:12:U:OP1	383.36	0.78
1:2:900:A:OP1	16:C4:43:THR:OG1	2.01	0.77
3:S1:214:LYS:NZ	1:6:886:U:OP1	286.36	0.77
1:6:1050:G:N2	1:6:1068:C:O2	2.17	0.77
36:1:1603:A:H61	61:N5:71:THR:HG21	1.48	0.77
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.83	0.77
37:3:17:A:OP1	42:L5:2:ALA:N	2.17	0.77
36:1:1790:G:O6	86:1:4168:OHX:N4	2.16	0.77
1:6:486:G:H22	1:6:501:U:H3	1.32	0.77
7:S5:64:VAL:HG13	7:S5:89:ILE:HD11	4.45	0.77
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	4.21	0.77
1:6:1649:G:N7	86:6:2106:OHX:N2	2.31	0.77
62:N6:5:SER:HB3	62:N6:8:VAL:HG12	1.65	0.77
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	2.74	0.77
35:SM:72:ARG:NH1	1:6:1460:A:O2'	322.36	0.77
36:1:1095:U:H4'	36:1:1096:U:H5'	1.65	0.77
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	2.69	0.77
79:Q3:56:THR:HB	79:Q3:63:THR:HG23	1.96	0.77
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	1.82	0.77
36:5:1014:U:H3	36:5:1036:A:H61	1.33	0.77
6:S4:108:ARG:HH22	1:6:788:A:H3'	391.98	0.77
36:1:3085:G:OP2	86:1:3886:OHX:N2	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.70	0.77
37:3:4:U:H2'	37:3:5:G:C8	2.20	0.77
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.69	0.77
64:N8:14:HIS:O	64:N8:16:SER:N	2.17	0.77
36:5:1103:A:H3'	36:5:1104:G:H5'	1.67	0.77
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.90	0.77
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.67	0.77
64:N8:100:PRO:HG2	64:N8:123:VAL:HG13	1.67	0.77
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.65	0.77
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.19	0.77
70:O4:3:GLN:OE1	70:O4:30:LEU:N	2.15	0.77
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.17	0.77
52:M6:110:PRO:O	52:M6:112:TYR:N	3.15	0.77
1:2:1588:G:H1	1:2:1608:U:H3	1.33	0.77
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.17	0.77
28:D6:10:ARG:HD3	28:D6:34:LYS:HA	2.39	0.76
18:C6:58:ASP:O	18:C6:60:PHE:N	2.18	0.76
11:S9:66:ASP:HB3	11:S9:69:ARG:HB3	3.76	0.76
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.66	0.76
22:D0:44:ASN:HA	22:D0:47:GLN:HB3	2.87	0.76
1:6:991:G:OP2	86:6:2167:OHX:N2	2.18	0.76
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.50	0.76
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.18	0.76
57:N1:139:ARG:HG2	57:N1:139:ARG:HH21	4.16	0.76
56:N0:50:LYS:NZ	37:7:76:A:O2'	300.44	0.76
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.47	0.76
1:6:471:A:OP2	86:6:2099:OHX:N5	2.17	0.76
36:1:2734:A:OP1	86:1:4006:OHX:N3	2.18	0.76
8:S6:164:LYS:NZ	1:6:71:A:OP2	371.74	0.76
36:1:300:G:O6	86:1:4151:OHX:N1	2.18	0.76
38:4:70:G:O6	86:O7:105:OHX:N4	2.18	0.76
54:M8:147:ARG:NH2	36:5:670:C:OP1	163.00	0.76
38:4:62:C:O2	86:4:228:OHX:N5	2.18	0.76
39:L2:193:ARG:NH2	36:5:2181:C:OP1	197.59	0.76
36:1:1362:G:H4'	44:L7:159:GLN:O	1.84	0.76
36:1:13:A:OP2	86:4:237:OHX:N5	2.18	0.76
3:S1:157:GLN:O	3:S1:159:SER:N	2.18	0.76
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	1.50	0.76
11:S9:163:PRO:O	11:S9:165:GLY:N	2.19	0.76
36:1:2623:G:H2'	36:1:2624:G:H8	1.51	0.76
36:5:3055:U:O2'	36:5:3057:U:OP1	2.02	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:994:G:H3'	57:N1:13:TYR:HD2	1.50	0.76
36:5:863:C:OP1	86:5:3915:OHX:N3	2.17	0.76
32:E0:50:VAL:HA	32:E0:54:ARG:HA	2.91	0.76
1:2:1542:G:N2	1:2:1569:A:OP2	2.18	0.76
7:S5:123:VAL:O	27:D5:58:ARG:NH1	2.19	0.76
56:N0:42:TRP:HE1	56:N0:58:ILE:HD11	2.92	0.76
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.81	0.76
44:L7:25:GLN:HG2	44:L7:29:GLU:HB2	1.68	0.76
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	1.67	0.76
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	1.67	0.76
1:2:833:U:H5'	1:2:834:G:H5''	1.68	0.76
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	2.08	0.76
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.67	0.76
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.68	0.76
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.51	0.76
36:1:1712:G:N2	36:1:1731:A:OP2	2.15	0.76
4:S2:168:ARG:NE	1:6:1098:U:OP2	383.54	0.76
36:1:1544:G:O6	86:1:4057:OHX:N4	2.18	0.76
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.19	0.76
1:2:1508:U:O4	86:2:2031:OHX:N5	2.18	0.76
24:D2:82:LYS:O	24:D2:84:GLY:N	2.16	0.76
36:5:955:U:H2'	36:5:956:U:C6	2.20	0.76
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.19	0.76
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.68	0.76
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.67	0.76
36:5:2255:A:H5'	36:5:2261:G:H22	1.50	0.76
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.22	0.75
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.66	0.75
41:L4:152:VAL:HG23	41:L4:172:VAL:HG21	1.68	0.75
36:5:2705:A:OP2	86:5:3897:OHX:N2	2.18	0.75
20:C8:135:GLY:HA3	1:6:1559:A:H5''	365.51	0.75
36:1:544:C:H1'	36:1:548:G:H22	1.51	0.75
86:1:4080:OHX:N1	72:O6:28:TYR:O	2.20	0.75
36:5:510:G:O6	86:5:4019:OHX:N2	2.19	0.75
22:D0:83:GLU:OE1	22:D0:85:ARG:NE	2.19	0.75
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	1.69	0.75
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.19	0.75
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.62	0.75
1:2:657:U:O2	1:2:677:G:N2	2.18	0.75
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.20	0.75
17:C5:129:GLY:HA3	35:SM:74:LYS:HD2	5.56	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.68	0.75
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	4.57	0.75
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.19	0.75
1:2:1428:G:H5'	1:2:1428:G:H8	1.50	0.75
28:D6:5:ARG:NH2	1:6:1795:U:OP2	337.84	0.75
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.19	0.75
47:M0:81:GLY:O	47:M0:83:ASP:N	2.93	0.75
1:6:868:G:H1	1:6:960:U:H3	1.32	0.75
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.52	0.75
1:2:992:A:H2	1:2:1012:U:H3	1.33	0.75
1:2:850:A:H5'	55:M9:165:LYS:HG2	1.68	0.75
38:8:79:A:H3'	38:8:80:A:C8	2.22	0.75
36:5:1387:G:OP1	86:5:4195:OHX:N3	2.20	0.75
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	6.07	0.75
17:C5:37:ALA:O	17:C5:42:ARG:NH1	3.75	0.75
63:N7:128:GLN:O	63:N7:130:PHE:N	3.14	0.75
53:M7:25:SER:O	53:M7:29:THR:HG23	1.86	0.75
39:L2:207:VAL:HG21	36:5:916:G:C6	186.44	0.75
36:1:1308:A:C8	36:1:1308:A:OP2	2.40	0.75
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	5.98	0.75
36:1:439:C:H5'	36:1:440:A:C8	2.21	0.75
1:6:453:U:O4	86:6:2058:OHX:N4	2.20	0.75
56:N0:82:ASP:OD1	56:N0:87:THR:HB	1.86	0.75
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	2.25	0.75
29:D7:67:THR:O	1:6:871:G:O2'	327.77	0.75
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	4.04	0.75
36:1:1383:G:O6	86:1:3880:OHX:N3	2.19	0.75
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.12	0.75
18:C6:73:GLY:H	18:C6:76:SER:HB2	1.52	0.75
59:N3:48:ARG:NH2	36:5:3043:C:OP2	250.93	0.75
1:6:922:G:H2'	1:6:923:A:H8	1.52	0.75
36:5:2233:A:OP2	86:5:3960:OHX:N5	2.20	0.75
1:2:768:C:C2	11:S9:143:ILE:HD13	2.21	0.74
36:5:2211:U:O4	86:5:3960:OHX:N4	2.20	0.74
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.13	0.74
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	1.74	0.74
76:Q0:125:LYS:NZ	36:5:2898:G:O6	327.82	0.74
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.20	0.74
10:S8:137:LYS:NZ	1:6:192:U:O4	263.84	0.74
3:S1:129:THR:OG1	3:S1:130:SER:N	2.88	0.74
46:L9:90:MET:HE2	46:L9:179:ILE:HG22	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:13:ARG:HD3	56:N0:51:VAL:HG12	4.53	0.74
36:1:2897:A:OP2	76:Q0:124:LYS:NZ	2.18	0.74
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.20	0.74
1:2:189:C:N4	1:2:196:G:O6	2.16	0.74
72:O6:26:ILE:O	72:O6:28:TYR:N	2.20	0.74
68:O2:16:LYS:HD2	68:O2:18:LYS:HE2	3.87	0.74
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.21	0.74
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	2.06	0.74
36:1:36:C:N4	36:1:47:C:O2	2.18	0.74
36:1:3361:G:O6	86:1:4160:OHX:N6	2.21	0.74
47:M0:42:THR:HG23	47:M0:45:GLU:HB2	1.98	0.74
54:M8:34:THR:HA	54:M8:49:LEU:HD11	1.70	0.74
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.56	0.74
19:C7:15:ALA:HB1	19:C7:19:ARG:HH21	1.52	0.74
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.18	0.74
25:D3:91:GLY:O	25:D3:93:LEU:N	2.21	0.74
36:5:2249:G:OP1	86:5:4193:OHX:N6	2.20	0.74
36:5:1657:C:O2'	36:5:1797:A:OP2	2.06	0.74
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	3.06	0.74
1:2:1592:A:H2'	1:2:1593:A:C8	2.23	0.74
51:M5:98:LEU:HD23	51:M5:128:LYS:HG3	5.58	0.74
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.21	0.74
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.20	0.74
36:5:2732:G:OP2	86:5:4214:OHX:N1	2.20	0.74
64:N8:3:SER:OG	36:5:1430:U:O4	139.23	0.74
21:C9:57:ARG:NH1	1:6:1479:A:OP1	392.08	0.74
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.68	0.74
1:6:1579:U:OP1	86:6:2178:OHX:N4	2.20	0.74
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.19	0.74
64:N8:19:LYS:HD2	64:N8:25:HIS:HD2	2.08	0.74
36:1:2296:A:OP1	86:1:4148:OHX:N2	2.21	0.74
37:7:91:G:H2'	37:7:92:A:C8	2.22	0.73
42:L5:261:THR:N	42:L5:264:GLN:HG3	2.03	0.73
59:N3:13:ILE:HD12	59:N3:53:SER:HB2	3.84	0.73
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	1.70	0.73
1:6:1670:G:O6	86:6:2186:OHX:N4	2.20	0.73
36:5:789:A:H2'	36:5:790:U:C6	2.22	0.73
55:M9:20:ARG:HG2	36:5:1875:G:OP2	137.43	0.73
1:6:1051:G:N2	1:6:1067:C:O2	2.18	0.73
17:C5:69:GLU:OE1	86:C5:201:OHX:N6	2.20	0.73
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:83:LYS:HA	38:8:38:U:H5	65.49	0.73
34:SR:160:GLU:O	34:SR:162:ALA:N	2.22	0.73
53:M7:98:ALA:HA	53:M7:101:ASN:HD22	1.53	0.73
42:L5:285:ARG:NH1	37:7:62:U:O3'	340.70	0.73
36:5:1581:C:OP2	36:5:1581:C:H4'	1.87	0.73
36:1:2233:A:OP2	86:1:4044:OHX:N5	2.22	0.73
36:5:1898:G:OP2	86:5:3944:OHX:N5	2.21	0.73
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.71	0.73
5:S3:214:GLU:OE1	34:SR:176:LYS:NZ	2.16	0.73
18:C6:47:LYS:NZ	18:C6:50:GLU:OE2	2.22	0.73
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.16	0.73
41:L4:150:LEU:HD12	41:L4:249:ILE:HG12	1.71	0.73
40:L3:274:SER:OG	36:5:3139:A:OP1	228.01	0.73
64:N8:96:LYS:O	64:N8:98:THR:N	2.22	0.73
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.69	0.73
48:M1:133:ARG:NH2	48:M1:158:ASP:OD2	2.21	0.73
4:S2:179:VAL:O	4:S2:198:THR:OG1	2.05	0.73
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	3.64	0.73
23:D1:3:ASN:ND2	23:D1:7:GLN:HB3	4.63	0.73
5:S3:66:ILE:O	5:S3:70:THR:OG1	2.99	0.73
33:E1:102:VAL:O	33:E1:104:SER:N	2.22	0.73
36:5:528:U:H2'	36:5:529:A:H8	1.54	0.73
20:C8:88:ARG:NH1	20:C8:112:ASP:OD1	2.21	0.73
36:1:368:G:OP1	86:1:3883:OHX:N1	2.22	0.73
57:N1:130:ARG:NH1	36:5:1098:A:OP2	252.67	0.73
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	2.72	0.73
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.52	0.73
40:L3:346:THR:O	40:L3:348:ARG:N	2.71	0.73
36:1:2924:U:O4	86:1:4017:OHX:N1	2.21	0.73
26:D4:121:THR:OG1	1:6:149:C:OP1	335.34	0.73
44:L7:88:ARG:HD2	44:L7:90:LYS:O	1.95	0.73
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.22	0.73
36:5:1540:U:OP1	86:5:4089:OHX:N2	2.21	0.73
48:M1:23:VAL:HG13	48:M1:29:ARG:HH11	1.53	0.73
54:M8:30:VAL:O	54:M8:34:THR:HG23	4.75	0.73
36:1:3376:A:OP2	86:1:3904:OHX:N5	2.22	0.73
51:M5:138:GLN:HA	51:M5:143:ARG:HH11	1.54	0.73
26:D4:10:ARG:NH1	1:6:778:G:N7	431.34	0.73
1:2:1097:U:O4	4:S2:201:ASN:ND2	2.21	0.73
36:1:1466:G:O6	86:1:3878:OHX:N4	2.22	0.73
5:S3:64:ARG:NH1	5:S3:68:GLU:OE1	4.40	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1363:A:OP2	86:1:4045:OHX:N6	2.22	0.73
1:2:740:A:H2'	1:2:741:C:H5''	1.69	0.73
36:5:2977:G:OP1	86:5:4147:OHX:N4	2.21	0.73
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.70	0.73
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	1.71	0.72
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.22	0.72
1:2:1386:G:OP2	19:C7:44:LYS:NZ	2.16	0.72
7:S5:77:TYR:HB3	7:S5:84:LYS:HA	1.71	0.72
1:2:530:C:O2	26:D4:61:ARG:NH2	2.21	0.72
13:C1:132:SER:O	13:C1:134:THR:N	3.46	0.72
1:2:515:A:OP2	86:2:2070:OHX:N3	2.22	0.72
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	2.80	0.72
78:Q2:50:PHE:O	86:Q2:503:OHX:N2	2.22	0.72
1:6:761:G:O6	86:6:2080:OHX:N1	2.23	0.72
36:1:3166:C:H42	36:1:3284:G:H1	1.33	0.72
25:D3:56:LYS:NZ	25:D3:96:VAL:O	5.32	0.72
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.52	0.72
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.53	0.72
26:D4:12:VAL:HG12	1:6:783:G:H8	422.47	0.72
3:S1:131:ASP:O	3:S1:133:TYR:N	2.22	0.72
34:SR:249:ARG:HH22	34:SR:299:GLN:HA	4.55	0.72
36:5:604:G:N7	86:5:4162:OHX:N2	2.37	0.72
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.22	0.72
36:5:1565:G:N1	36:5:1574:C:N3	2.36	0.72
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.20	0.72
1:2:1487:A:H2'	1:2:1488:G:C8	2.25	0.72
1:2:1280:C:H2'	1:2:1281:G:C8	2.25	0.72
45:L8:33:ASN:O	45:L8:35:GLY:N	3.04	0.72
1:6:235:G:H2'	1:6:236:A:H8	1.54	0.72
34:SR:102:ARG:NH2	1:6:1341:A:O2'	458.10	0.72
36:5:3343:G:H21	36:5:3362:A:H2	1.35	0.72
36:1:2794:G:N7	86:1:3932:OHX:N2	2.37	0.72
1:2:1487:A:H2'	1:2:1488:G:H8	1.54	0.72
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	2.99	0.72
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.69	0.72
36:1:3138:U:H2'	36:1:3139:A:H5''	1.70	0.72
36:5:2434:U:H4'	36:5:2435:G:H5''	1.70	0.72
1:2:565:C:O2	86:2:2039:OHX:N5	2.23	0.72
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.31	0.72
19:C7:5:ARG:NH1	1:6:1402:G:OP2	408.61	0.72
1:6:218:A:H2'	1:6:219:A:H5''	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:118:SER:HB3	51:M5:132:VAL:HG13	2.64	0.72
36:5:864:G:OP2	86:5:3915:OHX:N4	2.22	0.72
44:L7:25:GLN:NE2	44:L7:25:GLN:O	2.23	0.72
1:2:1535:U:O2'	1:2:1536:G:N3	2.22	0.72
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	2.62	0.72
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.70	0.72
1:2:434:G:N7	86:2:2048:OHX:N4	2.38	0.72
20:C8:134:ARG:O	20:C8:136:GLN:N	3.71	0.72
36:5:3274:A:H3'	36:5:3275:U:C5'	2.19	0.72
1:2:1500:C:N4	1:2:1507:G:O6	2.15	0.72
11:S9:126:ARG:NH1	1:6:475:A:OP2	424.48	0.72
3:S1:180:THR:HG22	3:S1:181:LEU:HD22	1.72	0.72
36:1:1688:U:H2'	36:1:1689:U:C6	2.23	0.72
10:S8:81:VAL:HA	10:S8:102:VAL:HG12	2.74	0.72
36:1:1078:U:O4	86:1:3964:OHX:N2	2.23	0.72
47:M0:168:SER:OG	57:N1:160:ILE:O	2.03	0.72
11:S9:34:PHE:O	11:S9:110:GLN:NE2	4.42	0.72
62:N6:112:ASP:HB3	62:N6:115:ARG:HB2	3.40	0.72
36:1:2560:C:O2	86:1:3924:OHX:N1	2.23	0.72
1:2:1745:G:O6	86:2:2086:OHX:N6	2.23	0.72
36:5:1661:G:H2'	36:5:1662:G:C8	2.24	0.72
36:1:2274:U:OP2	86:1:3963:OHX:N4	2.23	0.72
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.23	0.72
4:S2:140:ARG:HB3	4:S2:221:THR:HB	1.72	0.72
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.70	0.72
1:2:1280:C:H2'	1:2:1281:G:H8	1.53	0.72
56:N0:155:ARG:NH1	36:5:3206:C:O2	310.50	0.72
20:C8:16:ARG:NH1	20:C8:19:ASN:O	4.32	0.72
18:C6:123:ARG:HG3	18:C6:124:PRO:HD2	1.70	0.72
36:5:1662:G:O6	86:5:3918:OHX:N1	2.23	0.71
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	1.87	0.71
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.33	0.71
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.73	0.71
21:C9:102:ARG:NH2	1:6:1502:G:N7	405.22	0.71
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	4.12	0.71
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	1.56	0.71
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.81	0.71
73:O7:66:TYR:O	73:O7:68:LYS:N	2.95	0.71
36:1:829:U:H3	36:1:895:A:N6	1.86	0.71
32:E0:18:THR:HG21	1:6:584:C:H1'	389.00	0.71
3:S1:51:SER:HA	3:S1:57:ALA:H	1.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3066:U:O4	86:5:4101:OHX:N4	2.23	0.71
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.24	0.71
1:2:499:U:O2'	1:2:500:C:OP1	2.07	0.71
55:M9:7:GLN:N	55:M9:7:GLN:OE1	2.23	0.71
48:M1:53:THR:HG23	48:M1:60:ARG:HA	1.73	0.71
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.43	0.71
36:1:847:A:H2'	36:1:848:A:C8	2.25	0.71
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.72	0.71
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.39	0.71
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.24	0.71
1:2:992:A:OP1	86:2:2035:OHX:N2	2.23	0.71
34:SR:249:ARG:NH1	34:SR:298:GLY:O	3.43	0.71
18:C6:122:ARG:HB2	1:6:1584:G:H5''	397.27	0.71
56:N0:115:ARG:NH2	36:5:1320:C:O2	288.51	0.71
57:N1:13:TYR:O	86:5:3909:OHX:N4	260.54	0.71
1:6:230:C:N3	1:6:235:G:N2	2.29	0.71
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	2.10	0.71
1:2:961:U:H5''	15:C3:71:ILE:HD13	1.72	0.71
70:O4:71:THR:HG22	70:O4:77:GLY:HA3	1.71	0.71
36:5:1464:G:O2'	86:5:3911:OHX:N5	2.24	0.71
53:M7:32:THR:HG21	53:M7:87:SER:HB3	2.37	0.71
42:L5:144:VAL:HG13	42:L5:173:VAL:HG13	1.73	0.71
75:O9:23:LEU:HD13	75:O9:24:PRO:HD2	1.72	0.71
63:N7:5:LEU:HD11	66:O0:35:ARG:HD2	3.30	0.71
1:2:1240:U:O4	17:C5:59:LYS:NZ	2.23	0.71
11:S9:143:ILE:HD13	1:6:767:U:H5	420.84	0.71
39:L2:181:LYS:NZ	36:5:860:G:OP2	214.32	0.71
3:S1:62:LYS:O	3:S1:64:ARG:N	2.24	0.71
45:L8:109:LEU:O	45:L8:113:ALA:N	2.24	0.71
1:6:1695:G:H21	1:6:1706:C:H41	1.38	0.71
53:M7:138:LYS:NZ	36:5:2356:A:OP1	146.55	0.71
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.73	0.71
36:1:2636:A:H5''	36:1:2637:A:H5'	1.71	0.71
1:2:237:C:H5''	1:2:238:U:H5'	1.72	0.71
36:5:1878:G:OP1	86:5:3955:OHX:N5	2.24	0.71
1:6:915:A:OP1	86:6:2067:OHX:N6	2.24	0.71
55:M9:44:LEU:HD13	55:M9:49:THR:HB	1.71	0.71
26:D4:52:LYS:O	26:D4:54:ALA:N	2.69	0.71
33:E1:126:CYS:HB3	33:E1:143:LYS:HG2	1.72	0.71
36:1:1413:G:N7	86:1:4122:OHX:N4	2.39	0.71
63:N7:10:VAL:HB	63:N7:83:THR:HG21	2.17	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1514:U:O2'	5:S3:5:ILE:O	2.09	0.71
3:S1:149:GLN:HE21	3:S1:151:LYS:HG2	2.72	0.71
1:2:359:A:C2	25:D3:38:PHE:HB3	2.26	0.71
69:O3:86:ARG:HH12	36:5:498:A:H5'	215.96	0.71
1:2:656:G:O2'	1:2:657:U:O4'	2.08	0.71
5:S3:143:ARG:HB2	5:S3:148:LYS:HE3	11.57	0.71
1:6:1700:C:O2'	1:6:1701:A:OP1	2.08	0.71
36:1:2255:A:OP1	86:1:3931:OHX:N3	2.23	0.71
15:C3:76:LYS:NZ	1:6:813:U:OP2	317.17	0.71
1:6:1280:C:H2'	1:6:1281:G:C8	2.26	0.71
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.73	0.71
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.73	0.70
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.27	0.70
36:5:2101:C:H2'	36:5:2102:U:H6	1.56	0.70
44:L7:70:LYS:NZ	36:5:519:A:OP2	313.50	0.70
36:1:2850:G:O6	86:1:4075:OHX:N6	2.24	0.70
15:C3:67:THR:O	15:C3:69:ASN:N	2.24	0.70
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	1.73	0.70
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	2.30	0.70
33:E1:121:CYS:HB3	33:E1:130:VAL:HG11	5.27	0.70
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.72	0.70
1:6:1699:G:H22	1:6:1701:A:H3'	1.56	0.70
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.98	0.70
41:L4:181:VAL:O	41:L4:182:LEU:HB2	1.91	0.70
19:C7:66:VAL:O	19:C7:68:GLY:N	3.64	0.70
57:N1:68:THR:OG1	57:N1:69:LYS:N	2.24	0.70
47:M0:130:ASP:OD1	47:M0:131:ILE:N	3.31	0.70
36:5:2509:U:H2'	36:5:2510:U:H5''	1.72	0.70
5:S3:94:ARG:NH1	35:SM:130:GLU:OE2	2.23	0.70
19:C7:7:LYS:N	1:6:1316:G:OP1	409.91	0.70
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.24	0.70
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	3.48	0.70
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.25	0.70
1:6:486:G:O6	1:6:488:G:N2	2.24	0.70
78:Q2:47:GLN:OE1	78:Q2:54:THR:OG1	4.30	0.70
1:6:1698:G:N2	1:6:1699:G:N7	2.38	0.70
36:5:2603:G:O6	86:5:3902:OHX:N1	2.24	0.70
16:C4:50:ALA:O	16:C4:52:ARG:N	2.23	0.70
1:6:1160:A:H2'	1:6:1161:C:C6	2.26	0.70
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.71	0.70
64:N8:19:LYS:HD2	64:N8:25:HIS:CD2	2.81	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	4.86	0.70
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.27	0.70
35:SM:34:LYS:NZ	36:1:2707:C:OP1	2.22	0.70
1:2:1776:A:H2'	1:2:1777:G:C8	2.26	0.70
1:2:651:G:N7	86:2:2104:OHX:N6	2.40	0.70
57:N1:90:ASN:HD22	36:5:2736:A:H1'	221.34	0.70
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.94	0.70
7:S5:159:ALA:HB3	7:S5:225:ARG:HB3	3.23	0.70
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.67	0.70
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.24	0.70
60:N4:23:ARG:HD3	60:N4:29:PHE:HE1	1.55	0.70
37:3:11:A:O2'	37:3:13:A:OP2	2.10	0.70
19:C7:74:GLN:HA	19:C7:77:GLU:HB2	1.73	0.70
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.47	0.70
1:6:1339:C:O2'	1:6:1341:A:N7	2.25	0.70
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	3.09	0.70
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.25	0.70
1:2:301:A:OP2	86:2:2064:OHX:N2	2.25	0.70
1:6:822:U:H2'	1:6:823:G:H5''	1.74	0.70
1:2:377:G:O6	86:2:2078:OHX:N5	2.25	0.70
41:L4:303:GLY:O	41:L4:305:ALA:N	2.25	0.70
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.27	0.70
40:L3:141:GLY:O	40:L3:143:GLY:N	3.46	0.70
20:C8:17:LEU:HD12	20:C8:18:LEU:HD23	1.73	0.70
50:M4:134:ALA:O	50:M4:136:ALA:N	3.01	0.70
2:S0:27:ARG:HG3	2:S0:44:GLY:O	1.92	0.70
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	3.28	0.70
3:S1:81:PHE:O	3:S1:106:THR:HG23	4.00	0.70
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.56	0.70
1:6:1208:A:N1	1:6:1455:G:N2	2.40	0.70
86:2:2036:OHX:N2	10:S8:17:LYS:O	2.25	0.70
1:2:1291:G:N2	1:2:1324:G:H22	1.89	0.70
36:1:1596:C:H2'	36:1:1597:C:C6	2.27	0.70
36:1:3066:U:O4	86:1:4135:OHX:N5	2.25	0.70
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	2.60	0.70
36:1:356:C:OP2	86:1:4142:OHX:N1	2.25	0.70
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.59	0.70
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.74	0.69
20:C8:145:ARG:HB2	35:SM:68:ARG:NH2	2.06	0.69
5:S3:170:THR:HG22	5:S3:187:LYS:HA	5.29	0.69
10:S8:36:THR:HB	10:S8:57:ALA:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:591:A:H2'	1:2:592:A:C8	2.27	0.69
36:5:2217:U:H2'	36:5:2218:G:H8	1.57	0.69
58:N2:37:LEU:HD23	58:N2:41:ILE:HD11	1.74	0.69
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.30	0.69
45:L8:48:ARG:HH21	45:L8:49:TYR:HE2	1.39	0.69
24:D2:15:ASN:HD21	24:D2:71:LYS:HG2	1.57	0.69
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.72	0.69
36:1:776:U:H5	36:1:2719:U:O2	1.74	0.69
78:Q2:63:LYS:HD2	78:Q2:87:ARG:NH1	2.07	0.69
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.43	0.69
1:2:144:U:HO2'	1:2:145:A:H8	1.39	0.69
36:1:1310:G:N7	86:1:4027:OHX:N5	2.41	0.69
49:M3:24:VAL:HG12	51:M5:199:LEU:HB2	1.74	0.69
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	280.29	0.69
42:L5:105:ILE:O	42:L5:109:THR:HG23	3.67	0.69
36:1:1564:U:H2'	36:1:1565:G:H8	1.56	0.69
36:5:1170:A:OP2	86:5:3997:OHX:N4	2.25	0.69
86:5:3941:OHX:N2	86:5:4229:OHX:N4	2.39	0.69
1:2:1645:G:H22	1:2:1756:A:H2	1.39	0.69
7:S5:36:ALA:HB1	7:S5:42:LEU:HD21	1.74	0.69
74:O8:41:THR:HG21	74:O8:62:ALA:HB2	1.73	0.69
39:L2:64:ARG:HH22	45:L8:38:GLN:HA	2.64	0.69
6:S4:92:LEU:HG	26:D4:17:LEU:HD21	1.74	0.69
36:1:1429:G:C5	41:L4:99:MET:HE1	2.27	0.69
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.23	0.69
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.27	0.69
1:2:916:U:H3	16:C4:41:ARG:HH22	1.38	0.69
1:6:755:A:HO2'	1:6:756:A:P	2.14	0.69
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.74	0.69
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.25	0.69
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.61	0.69
36:5:2971:A:H3'	36:5:2971:A:N3	2.07	0.69
61:N5:73:MET:HA	61:N5:73:MET:HE3	1.73	0.69
36:5:2837:A:H8	36:5:2837:A:OP2	1.75	0.69
42:L5:270:LYS:HB3	37:7:1:G:O2'	321.20	0.69
36:1:1944:U:H2'	36:1:1945:A:C8	2.28	0.69
54:M8:86:THR:HB	54:M8:105:ARG:HB2	2.21	0.69
36:1:1238:C:N4	36:1:1245:A:OP2	2.25	0.69
36:5:235:A:H2'	36:5:236:G:O4'	1.92	0.69
42:L5:8:LYS:NZ	37:7:15:C:O3'	310.76	0.69
6:S4:60:GLU:OE1	26:D4:20:ARG:NH1	2.98	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2683:U:H2'	36:1:2684:C:C6	2.27	0.69
11:S9:133:HIS:HE1	1:6:512:A:O2'	447.61	0.69
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.05	0.69
38:4:154:C:O2'	45:L8:185:ARG:HG3	1.93	0.69
36:5:1110:U:H2'	36:5:1111:U:C6	2.27	0.69
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	1.73	0.69
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.00	0.69
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.26	0.69
69:O3:86:ARG:O	86:O3:201:OHX:N1	2.26	0.69
6:S4:11:ARG:NH1	6:S4:21:ASP:OD2	3.75	0.69
59:N3:2:SER:N	59:N3:56:ASP:OD1	3.78	0.69
36:1:1662:G:O6	86:1:3885:OHX:N2	2.26	0.69
73:O7:14:LYS:HD2	75:O9:51:ILE:HD11	1.74	0.69
36:5:1502:C:N4	36:5:1513:G:N7	2.39	0.69
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.74	0.69
1:2:591:A:H2'	1:2:592:A:H8	1.57	0.69
36:5:1025:A:H3'	36:5:1026:A:H4'	1.74	0.69
86:5:3941:OHX:N5	86:5:4229:OHX:N6	2.40	0.69
36:1:2683:U:H2'	36:1:2684:C:H6	1.57	0.69
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.73	0.69
4:S2:39:THR:OG1	4:S2:65:GLU:OE2	2.11	0.69
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.83	0.69
36:1:263:C:H2'	36:1:264:G:O4'	1.92	0.69
12:C0:53:GLY:O	12:C0:55:VAL:N	2.26	0.69
14:C2:42:ALA:HB2	14:C2:124:LYS:HD2	2.14	0.69
57:N1:41:ASP:OD1	57:N1:61:THR:OG1	2.10	0.69
2:S0:126:PRO:HG3	2:S0:151:SER:HB3	2.65	0.69
36:5:314:U:H2'	36:5:315:C:C6	2.28	0.69
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.01	0.69
70:O4:9:ARG:NH2	36:5:1606:U:O4	140.31	0.69
1:6:691:C:OP1	1:6:696:C:N4	2.25	0.69
72:O6:59:ASP:O	72:O6:63:ASN:ND2	4.41	0.69
27:D5:93:SER:O	27:D5:93:SER:OG	3.07	0.69
5:S3:92:GLN:O	5:S3:92:GLN:NE2	2.26	0.69
43:L6:58:LEU:HD12	43:L6:78:ARG:HD3	1.75	0.69
36:5:2211:U:H5	36:5:2234:G:O6	1.76	0.69
21:C9:28:LEU:HD13	21:C9:30:VAL:HG22	1.75	0.69
86:5:3941:OHX:N5	86:5:4229:OHX:N3	2.41	0.69
46:L9:70:THR:HG21	36:5:3122:A:N1	324.14	0.69
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.74	0.69
36:1:371:G:O6	86:1:4180:OHX:N4	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:196:G:O2'	1:6:197:A:OP2	2.11	0.68
1:6:1650:U:H2'	1:6:1651:A:C8	2.27	0.68
2:S0:26:ALA:HB3	2:S0:149:LEU:HB2	1.91	0.68
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.41	0.68
45:L8:139:VAL:HA	45:L8:142:LEU:HD12	1.74	0.68
17:C5:115:TYR:OH	1:6:1556:A:OP1	387.00	0.68
33:E1:97:LYS:NZ	1:6:1253:U:O4	440.04	0.68
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.20	0.68
4:S2:158:THR:HG21	4:S2:221:THR:HG23	1.75	0.68
36:5:2234:G:O6	86:5:3960:OHX:N1	2.27	0.68
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.75	0.68
20:C8:120:ARG:HD3	35:SM:61:ILE:HG21	5.48	0.68
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.76	0.68
55:M9:18:GLY:HA3	36:5:1874:A:H5''	135.88	0.68
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.75	0.68
36:5:299:G:N7	86:5:4184:OHX:N1	2.41	0.68
28:D6:44:ILE:HD13	28:D6:65:PRO:HG2	4.31	0.68
36:5:658:G:OP1	86:8:223:OHX:N5	2.26	0.68
55:M9:172:ARG:HD3	55:M9:176:ARG:HH21	6.63	0.68
74:O8:17:ARG:NH2	36:5:1824:U:O3'	138.74	0.68
38:4:16:G:O6	86:4:221:OHX:N3	2.26	0.68
36:5:1345:G:N7	86:5:4062:OHX:N5	2.41	0.68
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.42	0.68
16:C4:11:SER:OG	16:C4:12:GLN:N	4.34	0.68
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.57	0.68
36:5:959:C:H5'	36:5:960:U:H5'	1.73	0.68
1:2:885:G:H21	16:C4:123:SER:HB2	1.56	0.68
36:1:718:G:C2	36:1:721:G:H1'	2.28	0.68
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.26	0.68
1:2:207:U:O2	10:S8:178:ARG:NH1	2.26	0.68
1:2:512:A:H5''	11:S9:163:PRO:HG3	1.75	0.68
36:1:3353:G:O2'	36:1:3356:G:OP2	2.09	0.68
86:2:2039:OHX:N1	25:D3:64:PRO:O	2.26	0.68
36:5:345:G:OP1	36:5:1429:G:N1	2.22	0.68
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	3.84	0.68
36:1:2790:A:OP2	54:M8:181:SER:HB3	1.92	0.68
40:L3:58:ARG:HA	40:L3:357:LYS:HG3	1.74	0.68
16:C4:38:THR:HG21	1:6:895:G:H21	262.93	0.68
42:L5:146:LEU:HB3	36:5:2746:A:H2	258.19	0.68
1:2:1481:C:O2'	1:2:1482:C:O5'	2.11	0.68
1:6:86:A:OP2	86:6:2184:OHX:N1	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.84	0.68
1:6:542:A:C8	1:6:543:C:H5'	2.29	0.68
36:1:495:G:H1	36:1:618:C:H42	1.40	0.68
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.37	0.68
6:S4:11:ARG:O	6:S4:12:LEU:HB2	1.93	0.68
36:5:2897:A:H2'	36:5:2899:C:H5''	1.75	0.68
51:M5:172:ARG:HH11	36:5:30:G:P	107.06	0.68
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.27	0.68
36:1:900:G:H1'	36:1:1589:A:N6	2.08	0.68
1:2:9:U:O4	86:2:2156:OHX:N6	2.26	0.68
24:D2:2:THR:N	1:6:1034:C:HO2'	337.34	0.68
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.29	0.68
44:L7:168:ILE:O	44:L7:172:ASN:ND2	4.83	0.68
1:6:151:G:H1	1:6:163:G:H1	1.40	0.68
1:2:1203:A:OP2	86:2:2111:OHX:N5	2.26	0.68
36:5:1238:C:O2'	36:5:1239:C:OP1	2.08	0.68
36:1:419:G:O6	86:4:222:OHX:N6	2.27	0.68
21:C9:31:PRO:HG2	21:C9:34:VAL:HG23	7.42	0.68
1:6:228:G:H1	1:6:236:A:H61	1.40	0.68
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.82	0.68
36:1:2318:U:O4	86:1:4040:OHX:N2	2.27	0.68
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.75	0.68
51:M5:16:SER:O	51:M5:20:ARG:HG2	1.94	0.68
36:5:2444:C:H42	36:5:2503:G:H1	1.41	0.68
1:2:396:G:N2	1:2:399:A:OP2	2.27	0.68
24:D2:7:LEU:HD23	24:D2:34:ILE:HG12	1.75	0.68
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.58	0.68
1:2:793:A:H5''	1:2:794:U:C5	2.29	0.68
36:5:3194:C:H2'	36:5:3195:U:H3'	1.76	0.68
51:M5:68:ARG:HG3	36:5:291:C:OP1	144.76	0.68
15:C3:101:HIS:O	15:C3:105:ASN:ND2	2.23	0.68
36:1:1110:U:H2'	36:1:1111:U:C6	2.28	0.68
57:N1:48:ILE:HG13	57:N1:94:GLU:HG2	3.03	0.68
1:6:1227:A:H4'	1:6:1228:G:H5'	1.74	0.68
1:2:144:U:H5	8:S6:137:ARG:HH12	1.42	0.68
1:2:143:G:N7	8:S6:177:ARG:NH2	2.41	0.68
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	2.40	0.68
34:SR:23:LEU:HG	34:SR:291:SER:HB2	2.88	0.68
26:D4:3:ASP:O	26:D4:5:VAL:N	2.27	0.68
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.10	0.68
76:Q0:91:CYS:O	76:Q0:126:LYS:NZ	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:149:ASN:OD1	86:M5:303:OHX:N2	2.27	0.68
36:5:1192:C:H41	36:5:1302:A:P	2.17	0.68
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.76	0.68
39:L2:128:ARG:NH1	36:5:2177:G:OP2	197.86	0.68
44:L7:166:ASN:HB3	44:L7:180:SER:HA	2.41	0.68
64:N8:21:ARG:NH1	36:5:1369:A:OP1	182.75	0.67
10:S8:138:ASN:HA	10:S8:141:ARG:HD2	2.74	0.67
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	2.11	0.67
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.27	0.67
3:S1:36:SER:O	3:S1:38:PHE:N	2.27	0.67
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.31	0.67
36:1:1211:U:H2'	36:1:1212:A:C8	2.29	0.67
10:S8:18:ARG:NH1	1:6:105:A:OP1	303.67	0.67
29:D7:36:LYS:HD3	29:D7:43:ILE:HG22	3.64	0.67
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.03	0.67
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.20	0.67
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.26	0.67
1:2:866:G:H5''	15:C3:2:GLY:HA3	1.76	0.67
39:L2:70:ARG:NH2	36:5:2522:G:O6	176.07	0.67
36:1:2120:A:OP2	86:1:4008:OHX:N2	2.27	0.67
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.23	0.67
1:2:800:U:H2'	1:2:801:G:H8	1.59	0.67
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.42	0.67
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.88	0.67
46:L9:20:ILE:HD13	46:L9:25:VAL:HG22	2.92	0.67
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.19	0.67
36:1:409:A:OP2	86:1:4056:OHX:N5	2.27	0.67
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.26	0.67
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.15	0.67
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.29	0.67
36:1:2572:C:O2'	36:1:2573:G:O4'	2.12	0.67
32:E0:2:ALA:HA	1:6:1647:U:O2	329.18	0.67
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.05	0.67
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.22	0.67
36:1:1564:U:H2'	36:1:1565:G:C8	2.30	0.67
1:2:66:U:C5	8:S6:173:PRO:HG3	2.30	0.67
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.67	0.67
86:2:2161:OHX:N5	11:S9:8:TYR:O	2.27	0.67
36:1:1441:G:O6	86:1:3923:OHX:N1	2.27	0.67
68:O2:19:ARG:HH11	68:O2:28:VAL:HG13	3.24	0.67
58:N2:49:ASN:O	58:N2:51:GLY:N	2.38	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	1.77	0.67
36:5:801:A:O2'	86:5:4024:OHX:N1	2.27	0.67
62:N6:126:LEU:HB3	62:N6:127:GLU:OE2	9.52	0.67
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.75	0.67
36:5:2836:C:H5	36:5:2852:C:N4	1.93	0.67
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	3.34	0.67
36:1:2356:A:H61	36:1:2983:C:H5	1.41	0.67
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	2.13	0.67
7:S5:121:ILE:HA	7:S5:199:ILE:HD11	1.77	0.67
74:O8:42:LYS:HG2	74:O8:55:VAL:HG13	1.76	0.67
36:5:1919:G:N7	86:5:4068:OHX:N4	2.43	0.67
36:1:287:G:OP1	51:M5:179:LYS:HD3	1.94	0.67
3:S1:71:ALA:HB3	16:C4:114:ARG:HH12	2.69	0.67
49:M3:140:SER:OG	49:M3:141:ALA:N	3.16	0.67
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.77	0.67
36:1:1951:C:N4	36:1:2095:G:H1	1.91	0.67
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.75	0.67
34:SR:115:ILE:HG13	34:SR:122:ILE:HG12	2.38	0.67
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	4.60	0.67
49:M3:73:ARG:NH2	36:5:77:A:N7	80.16	0.67
1:2:734:A:H5''	1:2:735:C:OP1	1.94	0.67
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.77	0.67
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.28	0.67
14:C2:81:ASP:O	14:C2:83:GLU:N	2.74	0.67
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.59	0.67
39:L2:52:SER:HB3	39:L2:191:LEU:HD12	7.89	0.67
52:M6:89:SER:O	52:M6:91:LYS:N	2.28	0.67
46:L9:113:GLU:OE1	46:L9:115:ARG:NE	2.98	0.67
51:M5:18:VAL:HG13	51:M5:19:LEU:HD12	4.54	0.67
41:L4:283:THR:HG21	41:L4:288:ARG:HH12	8.59	0.67
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.58	0.67
69:O3:48:ARG:HH11	69:O3:48:ARG:HG2	1.59	0.67
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.32	0.67
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.59	0.67
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	1.75	0.67
44:L7:110:ARG:CZ	54:M8:3:ILE:HD11	2.99	0.67
1:6:9:U:O4	86:6:2142:OHX:N3	2.27	0.67
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.77	0.67
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.24	0.67
26:D4:131:ARG:NH2	1:6:153:G:OP2	321.07	0.67
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:60:SER:OG	23:D1:15:ARG:NH2	2.50	0.67
36:1:1233:G:H22	36:1:1255:C:H42	1.42	0.67
22:D0:41:ILE:HD11	22:D0:107:THR:HB	1.75	0.67
36:5:1170:A:OP2	86:5:3997:OHX:N6	2.28	0.67
36:1:2108:C:H1'	36:1:3344:A:C8	2.30	0.67
36:1:541:U:O4	86:1:4193:OHX:N2	2.27	0.67
1:6:754:A:N6	1:6:793:A:N7	2.42	0.67
36:5:1724:U:H4'	36:5:1725:C:OP1	1.95	0.67
6:S4:59:ARG:NH2	1:6:445:A:OP2	382.45	0.67
36:5:3159:C:H2'	36:5:3160:U:C6	2.30	0.67
54:M8:185:LYS:HD3	54:M8:186:VAL:HG23	1.75	0.67
36:1:1108:U:H2'	36:1:1109:U:C6	2.28	0.67
36:1:2623:G:H2'	36:1:2624:G:C8	2.29	0.67
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	1.84	0.67
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.63	0.67
36:5:2841:G:OP2	86:5:4132:OHX:N1	2.28	0.67
66:O0:42:ILE:HD11	66:O0:67:VAL:HG22	1.75	0.67
3:S1:154:SER:OG	3:S1:154:SER:O	2.08	0.67
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	2.24	0.67
22:D0:71:PRO:O	22:D0:72:ASN:ND2	5.59	0.66
16:C4:51:ASP:OD1	1:6:902:G:N1	282.76	0.66
1:6:69:G:O6	1:6:82:U:N3	2.18	0.66
1:6:1488:G:H3'	1:6:1515:A:H61	1.60	0.66
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.60	0.66
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	2.10	0.66
1:2:1761:U:O2'	1:2:1762:A:OP2	2.11	0.66
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	2.27	0.66
36:1:3155:U:H3'	36:1:3156:U:H4'	1.77	0.66
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	3.45	0.66
36:1:2782:U:OP1	49:M3:185:LYS:NZ	2.28	0.66
36:1:276:U:O2	51:M5:93:LYS:NZ	2.29	0.66
36:5:2254:U:H2'	36:5:2261:G:N2	2.09	0.66
20:C8:49:LYS:HG3	20:C8:81:ILE:HD11	2.87	0.66
67:O1:88:PRO:HG2	67:O1:89:LEU:HD22	3.75	0.66
63:N7:69:LYS:NZ	36:5:1632:A:OP1	192.43	0.66
43:L6:35:VAL:O	43:L6:38:THR:OG1	2.28	0.66
1:2:1672:G:H2'	1:2:1673:G:C8	2.30	0.66
1:2:936:G:N2	1:2:943:C:O2	2.18	0.66
41:L4:269:SER:O	41:L4:271:LYS:N	2.26	0.66
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.72	0.66
39:L2:117:GLU:OE2	39:L2:121:GLY:N	2.20	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1409:G:N2	1:2:1411:A:H3'	2.10	0.66
40:L3:366:GLY:HA2	36:5:3086:A:H4'	219.24	0.66
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	1.78	0.66
1:2:1599:C:O2	86:2:2111:OHX:N3	2.29	0.66
1:2:1585:U:H3	1:2:1611:A:H2	1.43	0.66
49:M3:166:ALA:N	64:N8:135:GLU:OE1	3.38	0.66
52:M6:110:PRO:O	52:M6:113:ASP:N	5.03	0.66
44:L7:44:ILE:HD13	44:L7:180:SER:HB3	1.77	0.66
1:6:770:A:OP2	86:6:2134:OHX:N3	2.29	0.66
36:1:975:C:H2'	36:1:976:U:H6	1.61	0.66
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.32	0.66
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.02	0.66
1:2:799:A:H5''	6:S4:201:HIS:CD2	2.30	0.66
43:L6:60:ASP:OD1	43:L6:62:THR:OG1	2.12	0.66
46:L9:189:GLU:C	46:L9:191:LEU:H	1.97	0.66
36:1:837:A:OP1	79:Q3:5:THR:OG1	2.14	0.66
42:L5:158:ARG:HB2	37:7:46:A:OP1	278.05	0.66
59:N3:92:PHE:CE1	36:5:3051:U:H1'	245.83	0.66
33:E1:103:LEU:HD11	1:6:1252:C:H5'	454.84	0.66
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.76	0.66
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	1.94	0.66
36:5:2299:A:OP2	86:5:3958:OHX:N1	2.28	0.66
1:2:491:C:H42	1:2:496:G:H1	1.44	0.66
36:1:612:U:H2'	36:1:613:G:H8	1.60	0.66
10:S8:116:HIS:O	10:S8:146:ARG:NH1	2.28	0.66
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	9.37	0.66
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	2.67	0.66
3:S1:181:LEU:O	3:S1:185:THR:N	2.21	0.66
1:2:1550:A:OP2	17:C5:42:ARG:NH2	2.29	0.66
8:S6:2:LYS:HB3	8:S6:108:VAL:HG13	1.77	0.66
46:L9:9:GLN:O	46:L9:72:LYS:NZ	3.28	0.66
71:O5:101:THR:HG23	71:O5:104:GLN:HB2	3.33	0.66
44:L7:142:SER:O	44:L7:146:GLN:HG3	1.96	0.66
53:M7:88:VAL:O	53:M7:92:GLN:HG2	1.94	0.66
1:6:938:G:N7	86:6:2102:OHX:N3	2.43	0.66
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	2.83	0.66
49:M3:59:ARG:HG2	36:5:73:C:O2'	94.17	0.66
18:C6:41:PRO:HG2	18:C6:78:VAL:HG21	1.76	0.66
11:S9:9:SER:OG	1:6:771:A:OP1	390.51	0.66
28:D6:24:VAL:HG21	28:D6:71:LEU:HD12	1.76	0.66
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:33:ASP:O	41:L4:37:THR:HG23	1.96	0.66
20:C8:56:LYS:HD3	20:C8:60:GLU:HG3	1.77	0.66
39:L2:109:GLU:N	39:L2:109:GLU:OE1	4.50	0.66
68:O2:40:SER:O	68:O2:44:ARG:HG3	1.95	0.66
78:Q2:71:ARG:HE	78:Q2:80:ARG:NH2	1.92	0.66
68:O2:26:HIS:O	68:O2:28:VAL:N	2.46	0.66
51:M5:73:ARG:HB3	51:M5:89:VAL:HG13	1.78	0.66
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	1.77	0.66
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	1.96	0.66
1:2:1594:G:H5'	31:D9:33:LYS:HE3	1.77	0.66
36:1:2948:C:O2'	40:L3:242:THR:HG22	1.96	0.66
36:5:2568:C:N4	36:5:2574:G:O6	2.28	0.66
37:3:112:G:OP2	86:3:219:OHX:N1	2.28	0.66
41:L4:219:LEU:O	41:L4:221:ASN:N	2.27	0.66
86:1:4084:OHX:N4	55:M9:14:VAL:O	2.28	0.66
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.78	0.66
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.27	0.66
42:L5:270:LYS:HG3	42:L5:273:ARG:HB2	6.14	0.66
39:L2:204:MET:HG2	36:5:914:A:C2	194.94	0.66
36:1:1094:U:H1'	36:1:1096:U:H2'	1.77	0.66
26:D4:29:HIS:O	26:D4:31:ASN:N	3.70	0.66
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.78	0.66
55:M9:35:ALA:O	55:M9:37:SER:N	3.98	0.66
38:8:74:U:O2	86:8:220:OHX:N5	2.28	0.66
36:1:1524:A:O2'	36:1:1526:U:OP2	2.13	0.66
25:D3:127:VAL:O	25:D3:129:GLY:N	2.28	0.66
1:2:996:U:O2	1:2:1008:G:N2	2.27	0.66
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	2.57	0.66
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.96	0.66
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.60	0.66
86:5:3941:OHX:N2	86:5:4229:OHX:N6	2.43	0.66
45:L8:75:ILE:HG22	45:L8:76:ALA:H	1.61	0.66
1:2:383:G:N7	86:2:2131:OHX:N4	2.44	0.66
52:M6:78:ARG:HH11	52:M6:78:ARG:HG3	2.34	0.66
36:1:2426:U:O4	86:1:3866:OHX:N1	2.28	0.66
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	1.78	0.66
27:D5:46:LYS:HG2	27:D5:70:LYS:HE3	1.77	0.66
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.28	0.66
54:M8:141:ARG:HD3	36:5:743:C:O2	174.59	0.66
7:S5:63:GLN:OE1	7:S5:65:ARG:N	3.28	0.66
23:D1:9:VAL:HG22	23:D1:10:GLU:H	1.86	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:218:ILE:O	4:S2:221:THR:OG1	2.65	0.66
1:2:1795:U:O2	28:D6:10:ARG:HD2	1.95	0.66
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.28	0.66
57:N1:12:ARG:HD2	57:N1:13:TYR:CE1	2.31	0.66
3:S1:183:GLN:O	3:S1:187:LYS:N	2.25	0.66
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	2.57	0.66
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.29	0.66
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.78	0.66
36:1:1808:G:OP2	63:N7:133:LYS:NZ	2.28	0.66
36:1:562:C:H2'	36:1:563:U:H6	1.61	0.66
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	2.00	0.66
11:S9:133:HIS:CD2	11:S9:162:SER:HB2	2.84	0.65
1:2:66:U:H5'	8:S6:173:PRO:HA	1.77	0.65
18:C6:50:GLU:OE1	18:C6:114:ARG:NH1	2.29	0.65
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.14	0.65
46:L9:77:ASN:HA	46:L9:80:THR:HG23	3.22	0.65
1:2:1041:G:H2'	1:2:1042:G:C8	2.31	0.65
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.00	0.65
10:S8:161:SER:OG	36:5:3353:G:OP1	232.74	0.65
5:S3:107:PHE:HA	5:S3:110:LEU:HB2	3.21	0.65
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.67	0.65
86:5:4016:OHX:N5	86:5:4212:OHX:N1	2.44	0.65
1:6:75:U:O2'	1:6:76:A:O5'	2.13	0.65
36:1:3276:G:H5'	43:L6:48:ARG:NH2	2.10	0.65
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.29	0.65
48:M1:23:VAL:O	48:M1:25:GLU:N	2.25	0.65
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.79	0.65
86:5:3941:OHX:N1	86:5:4229:OHX:N4	2.43	0.65
53:M7:2:ALA:O	53:M7:3:ARG:HB2	2.14	0.65
36:5:2895:G:H2'	36:5:2896:A:H5''	1.77	0.65
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.61	0.65
1:6:1767:G:OP1	1:6:1770:U:H4'	1.95	0.65
62:N6:4:GLN:HB2	36:5:229:G:H5''	68.34	0.65
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.83	0.65
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.77	0.65
36:1:641:C:OP1	64:N8:21:ARG:HB3	1.97	0.65
36:5:622:A:H2'	36:5:623:U:O4'	1.96	0.65
36:5:2207:A:H62	36:5:2236:G:H1	1.44	0.65
2:S0:184:LEU:O	2:S0:186:GLY:N	2.27	0.65
65:N9:50:THR:HB	36:5:1073:U:H1'	205.87	0.65
21:C9:29:GLU:OE2	21:C9:110:LYS:NZ	2.38	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:39:THR:HB	4:S2:42:GLY:H	1.61	0.65
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.76	0.65
22:D0:104:THR:HG22	22:D0:116:VAL:HG11	3.08	0.65
36:1:70:A:N1	36:1:313:A:O2'	2.27	0.65
39:L2:144:ASN:O	39:L2:160:SER:N	2.77	0.65
49:M3:106:GLN:HB2	72:O6:20:MET:HG3	2.74	0.65
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.67	0.65
40:L3:37:ARG:HG2	40:L3:187:SER:H	3.47	0.65
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	6.16	0.65
1:2:1290:U:H2'	1:2:1291:G:C8	2.31	0.65
67:O1:84:ASP:OD1	67:O1:84:ASP:N	2.42	0.65
36:5:2730:G:OP2	86:5:3957:OHX:N4	2.29	0.65
36:1:1872:C:H5''	55:M9:56:THR:HG22	1.79	0.65
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.28	0.65
13:C1:58:CYS:SG	13:C1:61:THR:N	2.66	0.65
1:6:463:U:OP1	86:6:2200:OHX:N1	2.30	0.65
59:N3:74:MET:HG3	59:N3:102:ILE:HG23	5.59	0.65
49:M3:31:LYS:HB2	49:M3:35:ARG:HH21	1.60	0.65
36:5:1934:G:O6	86:5:3914:OHX:N2	2.29	0.65
17:C5:21:ASP:O	17:C5:24:LYS:N	2.93	0.65
36:1:73:C:C2	49:M3:59:ARG:HD3	2.31	0.65
27:D5:54:VAL:HA	27:D5:57:TYR:CE1	2.78	0.65
22:D0:17:GLN:HE22	22:D0:98:GLN:H	1.45	0.65
22:D0:64:LYS:O	31:D9:33:LYS:NZ	3.11	0.65
1:2:1015:U:OP1	86:2:2045:OHX:N3	2.29	0.65
36:1:3060:C:H1'	36:1:3332:U:H1'	1.79	0.65
27:D5:65:LEU:HB3	27:D5:71:ILE:HD12	1.77	0.65
50:M4:3:THR:O	50:M4:3:THR:OG1	2.11	0.65
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	3.32	0.65
36:1:2503:G:H1'	36:1:2504:U:H5	1.61	0.65
41:L4:255:PHE:O	41:L4:258:LEU:HB2	1.96	0.65
3:S1:33:LYS:HB3	3:S1:232:HIS:HE1	7.76	0.65
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.01	0.65
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.79	0.65
26:D4:17:LEU:H	26:D4:17:LEU:HD12	1.60	0.65
67:O1:13:THR:HG22	67:O1:72:ARG:HD3	3.68	0.65
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	1.99	0.65
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.33	0.65
36:5:1813:A:O2'	36:5:1816:A:N3	2.27	0.65
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.31	0.65
36:1:3242:G:H5'	36:1:3245:A:N3	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:59:LEU:HA	5:S3:66:ILE:HG13	1.79	0.65
1:2:1565:C:OP1	20:C8:41:ARG:HD3	1.97	0.65
86:1:4204:OHX:N4	38:4:16:G:OP1	2.29	0.65
48:M1:160:VAL:HG13	48:M1:171:VAL:HG21	2.09	0.65
21:C9:52:GLY:O	21:C9:54:PHE:N	2.24	0.65
21:C9:117:SER:OG	21:C9:118:PRO:O	2.14	0.65
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.78	0.65
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.31	0.65
19:C7:23:LYS:H	34:SR:216:LYS:HE2	1.61	0.65
41:L4:237:GLN:O	41:L4:246:ARG:HG3	1.96	0.65
36:1:1740:U:H1'	36:1:1741:A:C2	2.28	0.65
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.78	0.65
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.30	0.65
59:N3:17:LEU:HD21	59:N3:98:ASN:ND2	2.11	0.65
5:S3:90:ARG:HH22	5:S3:94:ARG:HE	9.30	0.65
36:1:618:C:H5'	53:M7:169:THR:HG22	1.79	0.65
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.62	0.65
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.29	0.65
15:C3:19:SER:O	15:C3:19:SER:OG	2.14	0.65
1:6:1799:U:H4'	1:6:1800:A:H2'	1.78	0.65
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	2.31	0.65
36:1:2108:C:O2'	36:1:3362:A:N6	2.30	0.65
64:N8:88:ASP:HA	64:N8:91:LEU:HB2	2.96	0.65
1:2:1592:A:H2'	1:2:1593:A:H8	1.60	0.65
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.78	0.65
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	3.77	0.65
36:5:339:C:OP1	36:5:1380:G:O2'	2.13	0.65
2:S0:41:ARG:HB2	2:S0:45:VAL:HB	3.90	0.65
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.29	0.65
25:D3:95:PHE:O	25:D3:142:LYS:NZ	2.22	0.65
36:1:1243:G:N2	36:1:1244:A:N7	2.45	0.65
77:Q1:6:ARG:O	77:Q1:10:THR:HG22	1.97	0.65
40:L3:41:VAL:HG22	40:L3:185:GLY:HA3	2.33	0.65
7:S5:225:ARG:NH1	30:D8:58:GLU:OE1	5.39	0.65
10:S8:116:HIS:CD2	10:S8:146:ARG:HD3	4.26	0.65
21:C9:39:THR:HA	21:C9:100:ILE:HD12	5.19	0.65
57:N1:101:CYS:HB3	36:5:990:U:H1'	250.69	0.65
36:1:1581:C:O2	36:1:1582:C:H5'	1.97	0.65
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.62	0.65
48:M1:143:ARG:NH2	37:7:5:G:OP1	291.08	0.65
11:S9:133:HIS:HD2	11:S9:162:SER:HB2	2.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:93:MET:CE	41:L4:93:MET:H	2.80	0.64
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	1.78	0.64
52:M6:12:LYS:HG2	52:M6:40:GLU:HB3	3.58	0.64
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	1.78	0.64
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.78	0.64
6:S4:146:THR:HG21	1:6:123:G:H21	340.54	0.64
5:S3:178:ARG:H	5:S3:178:ARG:HE	1.44	0.64
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.29	0.64
5:S3:42:THR:OG1	5:S3:44:THR:O	5.13	0.64
1:2:354:C:H5''	10:S8:16:ALA:HB2	1.78	0.64
6:S4:240:LYS:H	6:S4:240:LYS:HE2	1.62	0.64
36:1:1456:A:N7	67:O1:26:LYS:NZ	2.42	0.64
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.32	0.64
17:C5:98:ASN:HB2	17:C5:122:THR:HG22	1.78	0.64
67:O1:9:THR:HB	67:O1:109:VAL:HB	1.79	0.64
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	2.57	0.64
66:O0:66:LYS:HD2	66:O0:66:LYS:H	4.00	0.64
19:C7:41:ILE:HD12	19:C7:47:ARG:HG2	2.36	0.64
47:M0:76:MET:CE	47:M0:148:VAL:HA	2.84	0.64
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.79	0.64
73:O7:64:MET:HE3	73:O7:67:LEU:HB3	1.78	0.64
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.57	0.64
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	1.62	0.64
5:S3:42:THR:OG1	5:S3:45:LYS:O	2.60	0.64
57:N1:39:ILE:HD11	57:N1:102:ARG:HD3	1.80	0.64
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	4.44	0.64
36:5:3197:G:H2'	36:5:3198:U:H5''	1.78	0.64
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.31	0.64
36:1:410:U:O4	86:1:4056:OHX:N2	2.30	0.64
37:3:1:G:N2	42:L5:269:SER:OG	2.29	0.64
3:S1:137:ILE:HD12	3:S1:172:LEU:HD22	1.80	0.64
86:5:3941:OHX:N1	86:5:4229:OHX:N3	2.44	0.64
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.30	0.64
55:M9:143:ILE:HG13	36:5:2093:A:H5''	249.50	0.64
9:S7:117:THR:OG1	1:6:639:U:OP1	364.06	0.64
58:N2:56:VAL:HG22	58:N2:65:VAL:HG22	2.01	0.64
36:5:750:G:H2'	36:5:751:A:H8	1.62	0.64
44:L7:80:GLN:HB2	57:N1:135:PRO:HB2	1.79	0.64
60:N4:50:ALA:HA	60:N4:55:PHE:CG	2.69	0.64
36:5:112:U:O2'	36:5:113:C:OP2	2.13	0.64
1:6:301:A:OP2	86:6:2089:OHX:N1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:924:G:OP1	86:1:4144:OHX:N5	2.31	0.64
26:D4:10:ARG:HD2	1:6:778:G:O6	429.07	0.64
1:2:741:C:O2	9:S7:107:ARG:NH1	2.31	0.64
14:C2:43:ARG:HA	14:C2:121:VAL:HG12	2.50	0.64
5:S3:115:ILE:HD11	5:S3:138:VAL:HG21	1.78	0.64
36:1:1233:G:H22	36:1:1255:C:N4	1.95	0.64
1:2:843:U:H2'	1:2:844:A:C8	2.33	0.64
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	5.87	0.64
3:S1:152:ARG:NH2	1:6:1799:U:O2'	343.08	0.64
47:M0:19:LYS:HE2	47:M0:26:VAL:HG22	2.94	0.64
36:1:1887:A:OP1	86:1:4087:OHX:N3	2.31	0.64
1:6:1244:A:O2'	1:6:1245:G:O5'	2.14	0.64
36:5:541:U:H2'	36:5:542:G:C8	2.32	0.64
67:O1:20:LEU:O	67:O1:28:ARG:NH1	4.17	0.64
1:6:259:U:HO2'	1:6:261:U:H6	1.44	0.64
11:S9:89:ASP:HB2	11:S9:90:LYS:HE2	1.78	0.64
86:1:3967:OHX:N1	38:4:31:G:OP2	2.30	0.64
2:S0:17:LEU:HD23	2:S0:172:LEU:HD13	1.78	0.64
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.61	0.64
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.41	0.64
40:L3:171:LEU:O	86:L3:402:OHX:N6	2.29	0.64
46:L9:171:ASP:HA	36:5:2899:C:C5	322.28	0.64
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	3.08	0.64
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.63	0.64
5:S3:40:ARG:HB2	5:S3:47:GLU:HB2	1.78	0.64
36:1:2946:A:H5''	36:1:2947:G:H5'	1.80	0.64
36:1:2896:A:OP1	76:Q0:102:ARG:NE	2.17	0.64
1:2:639:U:OP1	9:S7:117:THR:OG1	2.13	0.64
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	1.89	0.64
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.85	0.64
25:D3:137:LYS:O	25:D3:139:LYS:N	4.72	0.64
30:D8:36:THR:OG1	30:D8:37:SER:N	2.29	0.64
54:M8:93:ILE:HG23	36:5:784:A:C6	149.99	0.64
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.35	0.64
15:C3:24:ALA:O	15:C3:27:LYS:HE2	7.12	0.64
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	2.49	0.64
36:5:1024:G:N2	36:5:1026:A:OP2	2.31	0.64
1:6:542:A:H8	1:6:543:C:H5'	1.61	0.64
1:2:1034:C:HO2'	24:D2:2:THR:N	1.96	0.64
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.79	0.64
39:L2:21:ARG:HD3	36:5:824:C:H5''	170.59	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:294:TRP:CZ3	34:SR:301:LEU:HB2	2.33	0.64
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.57	0.64
1:2:1358:G:H2'	1:2:1359:C:C6	2.33	0.64
11:S9:168:ARG:HD2	11:S9:174:ARG:HD2	5.91	0.64
36:1:385:A:H2'	36:1:386:A:C8	2.33	0.64
1:2:732:G:O2'	1:2:733:A:O4'	2.14	0.64
1:6:776:G:H2'	1:6:777:C:H5''	1.80	0.64
1:2:1773:C:H2'	1:2:1774:G:C8	2.32	0.64
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.25	0.64
39:L2:79:ASN:ND2	39:L2:166:ILE:O	3.00	0.64
1:6:922:G:H2'	1:6:923:A:C8	2.31	0.64
52:M6:18:ARG:NH1	36:5:1314:C:O3'	275.69	0.64
47:M0:192:ASP:HA	47:M0:197:VAL:HG23	2.63	0.64
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.80	0.64
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.79	0.64
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.80	0.64
36:5:3023:U:OP2	36:5:3031:G:N1	2.26	0.64
36:1:3195:U:O2'	36:1:3197:G:N2	2.31	0.64
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.79	0.64
48:M1:47:GLN:HG2	48:M1:67:VAL:HG12	1.79	0.64
61:N5:103:TYR:HB3	61:N5:135:ILE:HD11	2.38	0.64
61:N5:132:ALA:HA	61:N5:135:ILE:HG22	1.90	0.64
6:S4:31:PRO:HD2	6:S4:38:LEU:HD13	2.73	0.64
16:C4:131:GLY:O	16:C4:133:ARG:N	3.08	0.64
33:E1:90:LYS:HB2	33:E1:93:HIS:HE1	10.97	0.64
6:S4:176:ASP:HB2	6:S4:179:LYS:HD2	1.77	0.64
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.79	0.64
1:2:1542:G:N2	1:2:1568:C:H1'	2.13	0.64
40:L3:334:ARG:NH2	36:5:3304:U:O3'	212.81	0.64
1:2:641:G:H1	1:2:693:U:H3	1.44	0.64
66:O0:63:SER:OG	66:O0:65:THR:OG1	2.14	0.64
1:2:284:G:N7	8:S6:188:ARG:NH1	2.46	0.64
18:C6:99:GLU:O	18:C6:102:LYS:N	3.14	0.64
36:1:3233:C:H2'	36:1:3234:A:C8	2.33	0.64
30:D8:44:VAL:HG12	30:D8:54:LEU:HD21	1.80	0.64
36:1:2818:U:C6	36:1:2818:U:H5'	2.29	0.64
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.33	0.64
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	3.12	0.64
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.80	0.64
36:5:980:A:H2'	36:5:981:U:C2	2.32	0.64
36:1:2206:G:H1	36:1:2237:C:H42	1.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:55:A:H2'	37:3:56:A:O4'	1.97	0.64
1:2:326:G:OP1	13:C1:57:LYS:NZ	2.30	0.64
48:M1:117:ASP:OD2	48:M1:119:SER:OG	2.13	0.64
1:6:918:U:H2'	1:6:919:A:H8	1.61	0.64
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.30	0.64
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.30	0.63
39:L2:204:MET:HE3	39:L2:208:ASP:HB3	1.80	0.63
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.80	0.63
26:D4:14:SER:HA	26:D4:21:LYS:HG3	2.28	0.63
1:6:1395:G:O6	86:6:2085:OHX:N3	2.31	0.63
57:N1:17:ARG:HH11	57:N1:17:ARG:HB3	4.39	0.63
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.30	0.63
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.22	0.63
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.23	0.63
26:D4:88:THR:O	26:D4:92:VAL:HG22	4.25	0.63
6:S4:187:ARG:NH1	1:6:753:A:OP2	376.82	0.63
20:C8:65:GLU:HA	20:C8:68:ARG:NH1	4.43	0.63
1:6:1600:A:H4'	1:6:1601:G:OP1	1.97	0.63
36:5:1765:U:H2'	36:5:1766:G:O4'	1.98	0.63
55:M9:135:LYS:NZ	36:5:1949:G:OP2	225.36	0.63
40:L3:166:ILE:O	40:L3:169:THR:HG22	2.93	0.63
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	3.90	0.63
17:C5:119:PHE:HE1	20:C8:119:ILE:HG23	2.55	0.63
1:2:1726:G:N7	86:2:2099:OHX:N4	2.46	0.63
36:1:807:A:H61	36:1:934:G:H22	1.46	0.63
40:L3:308:MET:HE3	36:5:3329:U:H5''	221.61	0.63
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.71	0.63
1:2:197:A:N6	10:S8:138:ASN:HD22	1.94	0.63
11:S9:45:ILE:HD12	11:S9:105:LEU:HD13	5.57	0.63
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.79	0.63
2:S0:120:LEU:HD21	2:S0:144:ILE:HD11	2.25	0.63
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.47	0.63
20:C8:41:ARG:HD3	1:6:1565:C:OP1	368.80	0.63
51:M5:68:ARG:HG2	51:M5:68:ARG:HH11	1.62	0.63
7:S5:222:LYS:HG2	7:S5:225:ARG:CZ	2.29	0.63
1:2:499:U:O2'	1:2:500:C:O4'	2.16	0.63
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.79	0.63
1:2:1230:A:H2'	1:2:1258:U:H5	1.64	0.63
47:M0:19:LYS:HG3	47:M0:26:VAL:HG13	1.79	0.63
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	5.24	0.63
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:25:THR:OG1	34:SR:26:SER:N	3.70	0.63
38:8:139:U:O4	86:8:224:OHX:N5	2.31	0.63
36:1:1532:C:H2'	36:1:1533:U:C6	2.34	0.63
53:M7:155:GLU:OE2	53:M7:155:GLU:N	4.66	0.63
1:6:263:C:H4'	1:6:292:U:H5'	1.80	0.63
46:L9:49:ASN:HD21	46:L9:51:GLN:HB2	3.40	0.63
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.13	0.63
36:1:2754:G:OP2	86:1:4006:OHX:N6	2.31	0.63
1:2:471:A:OP2	86:2:2076:OHX:N4	2.32	0.63
20:C8:33:THR:HA	20:C8:38:VAL:HG22	3.68	0.63
1:2:1642:G:O6	86:2:2023:OHX:N6	2.31	0.63
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	1.79	0.63
58:N2:14:THR:HG23	58:N2:66:VAL:HG13	2.08	0.63
73:O7:55:ARG:NH1	36:5:353:G:O6	112.34	0.63
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.12	0.63
45:L8:129:PRO:HB3	36:5:121:A:C2	101.81	0.63
1:6:1392:U:H2'	1:6:1393:C:C6	2.34	0.63
36:5:1853:U:O4	86:5:4035:OHX:N4	2.31	0.63
36:5:2440:G:H2'	36:5:2441:A:C8	2.34	0.63
11:S9:146:PHE:HZ	1:6:765:G:N1	430.69	0.63
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.80	0.63
36:5:2128:C:OP1	86:5:4086:OHX:N3	2.31	0.63
7:S5:40:ILE:HG12	7:S5:41:LYS:H	2.32	0.63
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.66	0.63
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.21	0.63
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.96	0.63
37:3:77:G:N2	37:3:102:A:OP2	2.27	0.63
70:O4:85:VAL:HA	70:O4:88:ARG:HB3	4.69	0.63
63:N7:95:VAL:HG21	63:N7:113:VAL:HG21	1.81	0.63
26:D4:62:THR:HA	26:D4:69:SER:HA	1.93	0.63
36:5:374:A:N3	36:5:376:G:H5''	2.14	0.63
48:M1:110:ILE:O	48:M1:112:LEU:N	2.84	0.63
36:5:2960:C:OP1	86:5:3970:OHX:N5	2.31	0.63
43:L6:13:GLU:OE1	68:O2:90:LYS:HB2	3.22	0.63
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.34	0.63
36:1:2607:G:H5'	39:L2:232:GLY:O	1.99	0.63
36:1:1722:U:H5''	55:M9:103:ARG:HH21	1.63	0.63
34:SR:132:LYS:NZ	34:SR:143:THR:OG1	4.34	0.63
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.20	0.63
73:O7:59:THR:HG22	38:8:41:A:O2'	92.36	0.63
49:M3:140:SER:OG	49:M3:143:ALA:N	3.58	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:129:GLU:HG2	43:L6:130:ILE:N	4.82	0.63
36:1:3174:A:H2'	36:1:3175:U:H5'	1.81	0.63
65:N9:28:LYS:HG3	65:N9:29:TYR:CD1	2.33	0.63
1:6:1282:U:OP1	86:6:2133:OHX:N4	2.32	0.63
59:N3:108:GLU:HA	59:N3:128:ARG:HG3	1.80	0.63
46:L9:49:ASN:O	46:L9:49:ASN:ND2	2.30	0.63
4:S2:229:LEU:O	23:D1:16:LYS:NZ	2.31	0.63
36:1:2138:A:HO2'	73:O7:2:GLY:N	1.95	0.63
22:D0:31:VAL:HG23	22:D0:32:LYS:HD2	5.15	0.63
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.81	0.63
1:2:1564:U:H2'	1:2:1565:C:C6	2.34	0.63
1:6:1280:C:H2'	1:6:1281:G:H8	1.62	0.63
73:O7:60:GLY:N	38:8:42:G:OP1	87.48	0.63
36:5:1724:U:H1'	36:5:1725:C:C6	2.34	0.63
1:2:996:U:H3	1:2:1008:G:H1	1.45	0.63
1:6:138:A:N6	1:6:266:A:H61	1.97	0.63
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.57	0.63
69:O3:74:THR:HA	69:O3:81:VAL:HG23	1.79	0.63
36:5:2883:U:OP2	86:5:4057:OHX:N4	2.32	0.63
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.79	0.63
1:2:209:U:H2'	1:2:210:A:C8	2.33	0.63
43:L6:42:LEU:HD22	43:L6:79:VAL:HG21	2.34	0.63
45:L8:160:ILE:HD12	45:L8:164:VAL:HG13	5.51	0.63
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.63	0.63
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.12	0.63
15:C3:37:ILE:HD12	15:C3:74:ILE:HD13	1.81	0.63
14:C2:75:VAL:HG21	14:C2:120:VAL:HG21	2.30	0.63
27:D5:37:GLN:N	27:D5:70:LYS:HZ3	12.42	0.63
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.79	0.63
37:7:3:U:H2'	37:7:4:U:C6	2.34	0.63
40:L3:325:LYS:NZ	36:5:3097:C:OP1	259.16	0.63
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	3.37	0.63
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.64	0.63
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.80	0.63
4:S2:164:SER:HB3	1:6:1086:A:H5'	370.82	0.63
1:6:454:U:H5''	1:6:455:C:H5	1.63	0.63
36:5:3295:A:H2'	36:5:3296:A:C8	2.34	0.63
53:M7:69:ARG:HG2	53:M7:79:THR:CG2	3.44	0.63
76:Q0:106:ARG:NH1	76:Q0:106:ARG:HB2	4.18	0.63
51:M5:50:ARG:HH11	36:5:267:G:H4'	110.82	0.63
36:1:655:C:H2'	36:1:656:A:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:155:ARG:HB2	56:N0:172:TYR:HB2	3.41	0.63
36:5:1192:C:N4	36:5:1301:A:O3'	2.32	0.63
37:3:112:G:H2'	37:3:113:C:C6	2.33	0.63
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.80	0.63
27:D5:39:ALA:O	27:D5:72:GLY:N	2.30	0.63
36:1:3325:G:H5''	67:O1:103:GLY:HA2	1.81	0.63
36:1:956:U:OP1	86:1:4125:OHX:N1	2.32	0.63
42:L5:256:THR:OG1	42:L5:258:LYS:NZ	2.30	0.63
16:C4:132:ARG:NH2	1:6:1789:G:OP2	301.53	0.63
1:6:482:U:H3	1:6:505:A:H61	1.45	0.63
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.34	0.62
36:5:1239:C:H3'	36:5:1240:A:H8	1.63	0.62
18:C6:32:ASN:N	18:C6:67:VAL:O	2.21	0.62
72:O6:63:ASN:O	72:O6:65:GLY:N	4.71	0.62
52:M6:5:PRO:HD2	36:5:3178:A:H5'	257.88	0.62
12:C0:24:LYS:HD3	12:C0:63:TYR:CZ	3.03	0.62
45:L8:156:ASP:O	45:L8:183:LYS:HE3	7.51	0.62
10:S8:26:LYS:O	10:S8:29:LEU:HD12	4.40	0.62
36:1:2310:U:OP1	86:1:4139:OHX:N2	2.32	0.62
46:L9:49:ASN:ND2	46:L9:51:GLN:OE1	3.78	0.62
1:2:1585:U:N3	1:2:1611:A:H2	1.97	0.62
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.37	0.62
11:S9:108:ARG:HH21	11:S9:145:SER:HB2	1.65	0.62
34:SR:184:ASN:HD22	34:SR:185:GLN:N	5.60	0.62
39:L2:4:VAL:HG13	39:L2:8:GLN:HG3	1.81	0.62
6:S4:57:ASN:HB2	6:S4:60:GLU:H	2.00	0.62
62:N6:120:GLN:HG3	62:N6:126:LEU:HG	5.27	0.62
36:1:567:G:O6	86:1:4002:OHX:N1	2.32	0.62
38:4:9:A:H2'	38:4:10:A:C8	2.34	0.62
51:M5:125:SER:HB3	36:5:2433:U:H1'	160.86	0.62
36:1:3094:A:H2'	36:1:3095:U:C6	2.33	0.62
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	2.44	0.62
4:S2:101:VAL:HG22	4:S2:115:ILE:HG12	1.89	0.62
4:S2:88:LYS:HB3	4:S2:95:ARG:HD2	4.75	0.62
36:5:2526:C:H1'	36:5:2588:U:H5''	1.80	0.62
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	2.30	0.62
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.29	0.62
6:S4:3:ARG:HG2	1:6:399:A:H4'	319.94	0.62
35:SM:68:ARG:NH2	1:6:1460:A:OP2	332.35	0.62
1:2:1389:C:OP1	19:C7:48:ASN:ND2	2.32	0.62
36:1:994:G:H3'	57:N1:13:TYR:CD2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:9:MET:O	48:M1:11:ASP:N	3.58	0.62
36:5:528:U:H2'	36:5:529:A:C8	2.33	0.62
1:2:363:G:OP1	86:2:2078:OHX:N2	2.32	0.62
47:M0:99:ILE:CD1	47:M0:101:LYS:HB2	5.16	0.62
34:SR:52:GLN:HG2	34:SR:53:LYS:H	2.31	0.62
57:N1:78:LYS:HE3	36:5:2728:G:O6	217.99	0.62
24:D2:50:PHE:HB3	24:D2:63:VAL:HG22	1.98	0.62
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.48	0.62
25:D3:74:VAL:HG21	25:D3:104:LEU:HD11	1.81	0.62
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.46	0.62
1:2:856:A:H62	9:S7:97:ARG:H	1.46	0.62
63:N7:88:ASP:OD1	63:N7:89:VAL:N	2.32	0.62
62:N6:39:LEU:HD12	62:N6:43:TYR:CE2	4.74	0.62
22:D0:118:VAL:HG13	22:D0:119:ALA:H	3.00	0.62
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.41	0.62
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.82	0.62
20:C8:35:ILE:HB	20:C8:38:VAL:HG13	3.72	0.62
36:5:3364:C:OP1	86:5:3941:OHX:N1	2.32	0.62
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.77	0.62
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.80	0.62
54:M8:16:ARG:NH1	54:M8:55:SER:HB3	2.15	0.62
10:S8:6:ASP:OD1	10:S8:8:ARG:N	2.30	0.62
20:C8:29:VAL:O	20:C8:43:SER:OG	2.12	0.62
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.00	0.62
36:5:201:A:OP2	86:5:3984:OHX:N1	2.33	0.62
59:N3:75:PRO:HG2	59:N3:103:ALA:O	3.56	0.62
66:O0:26:GLY:O	66:O0:30:THR:HG23	1.98	0.62
12:C0:51:SER:OG	1:6:1219:A:N3	431.42	0.62
11:S9:172:VAL:HG22	1:6:511:A:H5''	458.25	0.62
1:6:66:U:O2'	1:6:67:A:O5'	2.12	0.62
57:N1:130:ARG:HD3	36:5:1098:A:OP2	253.96	0.62
36:5:1879:A:H2'	36:5:1879:A:N3	2.15	0.62
55:M9:61:SER:OG	55:M9:62:ARG:N	2.61	0.62
1:2:927:C:H2'	1:2:928:U:C6	2.34	0.62
1:6:373:G:N7	86:6:2182:OHX:N3	2.48	0.62
36:5:2697:A:H2'	36:5:2698:G:C8	2.34	0.62
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	3.30	0.62
41:L4:144:LYS:HG2	41:L4:145:ILE:H	5.17	0.62
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.81	0.62
75:O9:5:LYS:HD3	75:O9:13:MET:HE3	3.63	0.62
40:L3:173:GLN:O	40:L3:175:LYS:N	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.65	0.62
48:M1:10:ARG:HH21	48:M1:152:HIS:H	3.90	0.62
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.13	0.62
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.58	0.62
2:S0:84:ARG:HB3	2:S0:203:PHE:O	2.00	0.62
36:5:348:A:N3	36:5:352:A:O2'	2.32	0.62
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.41	0.62
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	2.17	0.62
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.72	0.62
51:M5:85:THR:HG23	36:5:44:U:H5''	159.54	0.62
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.81	0.62
64:N8:73:LEU:HD11	64:N8:81:LEU:HD11	4.10	0.62
34:SR:164:ASP:O	34:SR:166:SER:N	2.78	0.62
36:1:781:G:N7	86:1:3939:OHX:N5	2.46	0.62
36:1:2209:U:H6	36:1:2209:U:OP2	1.81	0.62
36:1:3276:G:H5'	43:L6:48:ARG:HH22	1.65	0.62
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	2.04	0.62
41:L4:6:VAL:N	41:L4:20:LEU:O	2.27	0.62
1:2:1777:G:O6	77:Q1:8:LYS:NZ	2.32	0.62
26:D4:15:ASN:HD22	26:D4:22:GLN:NE2	3.32	0.62
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.81	0.62
36:1:3174:A:OP1	69:O3:97:SER:OG	2.14	0.62
43:L6:52:VAL:HG11	43:L6:65:ILE:HD12	1.81	0.62
36:1:849:C:H2'	36:1:850:U:H6	1.65	0.62
18:C6:140:LYS:NZ	1:6:1192:C:O2'	361.95	0.62
1:2:1573:A:H4'	1:2:1574:G:H5'	1.80	0.62
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	3.03	0.62
36:1:873:C:H5''	36:1:874:U:O5'	2.00	0.62
38:8:112:U:O2	86:8:215:OHX:N4	2.32	0.62
36:1:1355:A:H5''	36:1:1356:U:C5	2.34	0.62
36:1:1301:A:OP1	36:1:1301:A:H8	1.81	0.62
6:S4:114:ILE:HD12	6:S4:118:GLU:HG2	2.82	0.62
1:2:144:U:H5	8:S6:137:ARG:NH1	1.97	0.62
21:C9:70:GLN:HE22	21:C9:119:LYS:HD2	3.47	0.62
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	5.14	0.62
39:L2:192:LYS:NZ	36:5:2181:C:OP1	199.39	0.62
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	3.65	0.62
26:D4:5:VAL:O	26:D4:6:THR:OG1	2.15	0.62
65:N9:16:ALA:O	65:N9:20:GLY:HA3	4.31	0.62
14:C2:40:GLY:O	14:C2:124:LYS:N	3.37	0.62
3:S1:77:GLU:OE1	16:C4:114:ARG:NH1	2.21	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4016:OHX:N6	86:5:4212:OHX:N2	2.48	0.62
63:N7:38:PHE:O	63:N7:40:HIS:ND1	2.29	0.62
36:1:3358:U:H2'	36:1:3359:A:O4'	1.99	0.62
36:5:2372:A:H5''	36:5:2373:A:H5'	1.81	0.62
1:2:1498:G:OP1	21:C9:75:LYS:HD3	2.00	0.62
36:1:601:U:H2'	36:1:602:A:O4'	2.00	0.62
1:6:709:C:O2	1:6:730:G:N2	2.33	0.62
36:5:84:U:O2'	36:5:101:G:O6	2.18	0.62
1:6:1688:U:O2	1:6:1713:G:N2	2.30	0.62
36:5:283:G:OP2	36:5:285:A:O2'	2.15	0.62
62:N6:27:ARG:NH1	62:N6:75:ARG:O	2.89	0.62
6:S4:108:ARG:NH1	1:6:788:A:OP2	396.51	0.62
36:1:1362:G:H2'	36:1:1363:A:C8	2.34	0.62
66:O0:17:VAL:HG21	66:O0:100:ILE:HD13	2.29	0.62
36:5:655:C:H2'	36:5:656:A:C8	2.34	0.62
1:6:1564:U:H2'	1:6:1565:C:C6	2.34	0.62
55:M9:19:LYS:N	36:5:1875:G:OP1	131.61	0.62
36:5:3065:G:O6	86:5:4101:OHX:N6	2.33	0.62
60:N4:23:ARG:HD3	60:N4:29:PHE:CE1	2.35	0.62
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.10	0.62
36:5:3121:U:H1'	36:5:3122:A:H5''	1.82	0.62
42:L5:219:PHE:HE1	42:L5:227:LEU:HD11	1.65	0.62
36:5:980:A:H2'	36:5:981:U:N1	2.15	0.62
57:N1:17:ARG:O	57:N1:18:ASP:HB2	1.99	0.62
10:S8:5:ARG:HD3	10:S8:29:LEU:O	2.00	0.62
36:5:1155:C:O2'	36:5:1197:A:N1	2.29	0.62
37:7:112:G:OP2	86:7:223:OHX:N2	2.32	0.62
36:1:239:G:O6	86:1:4034:OHX:N3	2.32	0.62
48:M1:114:ILE:HG22	48:M1:115:LYS:O	2.79	0.62
59:N3:30:GLY:HA3	59:N3:66:LYS:HD2	1.82	0.62
49:M3:177:LYS:HA	72:O6:11:LEU:HD13	3.81	0.62
36:1:3255:U:H2'	36:1:3256:G:C8	2.35	0.62
36:5:3276:G:OP2	36:5:3276:G:H2'	1.99	0.62
46:L9:87:LYS:NZ	46:L9:191:LEU:HD21	15.37	0.62
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.00	0.62
11:S9:108:ARG:NH1	11:S9:110:GLN:OE1	3.60	0.62
11:S9:149:ARG:O	11:S9:150:LEU:HB2	2.00	0.62
16:C4:102:LEU:HD13	28:D6:53:LEU:HD21	6.17	0.62
37:7:23:A:O2'	37:7:121:U:O3'	2.14	0.62
19:C7:32:LYS:NZ	1:6:1388:A:OP2	436.28	0.62
1:2:759:U:OP1	86:2:2161:OHX:N1	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1161:C:H2'	1:6:1162:C:H6	1.62	0.62
16:C4:125:SER:OG	16:C4:126:THR:N	2.32	0.62
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.81	0.62
1:6:52:U:H2'	1:6:53:G:C8	2.35	0.62
1:2:810:G:C5	9:S7:111:LYS:HE3	2.35	0.62
73:O7:46:SER:OG	86:5:3905:OHX:N2	111.08	0.62
46:L9:34:LEU:HD21	46:L9:149:ASN:HB2	2.90	0.62
2:S0:105:GLY:N	2:S0:135:GLU:OE2	2.44	0.62
1:2:472:U:H5''	11:S9:11:THR:HG23	1.81	0.62
36:1:361:A:H5'	73:O7:35:SER:OG	1.99	0.62
1:6:1491:U:H4'	1:6:1492:A:H5''	1.82	0.62
1:6:489:C:O2'	1:6:490:C:O4'	2.18	0.62
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.31	0.61
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.50	0.61
1:6:1207:C:H42	1:6:1456:C:H5	1.48	0.61
41:L4:64:SER:HB2	41:L4:73:ARG:O	3.87	0.61
1:2:488:G:OP1	1:2:488:G:H4'	1.99	0.61
26:D4:42:GLU:HG3	26:D4:52:LYS:HD3	1.82	0.61
14:C2:119:SER:OG	1:6:1228:G:OP1	464.27	0.61
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.65	0.61
36:1:1355:A:H4'	36:1:1356:U:O5'	2.00	0.61
1:6:689:G:H2'	1:6:690:G:O4'	1.99	0.61
56:N0:52:LYS:NZ	37:7:100:C:OP2	280.74	0.61
36:1:2376:G:H2'	36:1:2377:G:C8	2.35	0.61
30:D8:38:ARG:NH1	30:D8:60:GLU:OE2	2.31	0.61
52:M6:148:LYS:NZ	36:5:3006:A:OP2	250.42	0.61
36:1:2123:G:N7	86:1:4199:OHX:N2	2.48	0.61
1:2:1595:U:N3	1:2:1600:A:H2	1.88	0.61
1:2:641:G:H2'	1:2:642:G:H8	1.65	0.61
1:6:825:U:HO2'	1:6:826:U:H6	1.48	0.61
59:N3:2:SER:HA	59:N3:56:ASP:HA	3.27	0.61
1:2:67:A:O2'	1:2:69:G:OP1	2.12	0.61
10:S8:178:ARG:NH1	1:6:207:U:O2	288.12	0.61
62:N6:59:VAL:HG22	62:N6:103:LYS:O	5.57	0.61
30:D8:11:LYS:O	30:D8:31:GLU:N	2.82	0.61
38:4:52:A:H62	75:O9:27:ILE:HD13	1.65	0.61
45:L8:148:ALA:HA	45:L8:201:THR:HG22	2.04	0.61
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.34	0.61
36:1:1286:A:O2'	36:1:1287:A:OP2	2.14	0.61
36:1:223:U:O4	86:1:4196:OHX:N5	2.33	0.61
36:1:2960:C:OP1	86:1:4001:OHX:N4	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1573:G:N2	36:1:1574:C:O2'	2.33	0.61
57:N1:130:ARG:O	36:5:1098:A:O2'	255.84	0.61
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.88	0.61
36:1:3329:U:H5''	40:L3:308:MET:HE3	1.81	0.61
1:6:1681:A:H2	1:6:1720:G:H21	1.48	0.61
49:M3:93:ILE:HG22	49:M3:94:GLY:H	4.79	0.61
4:S2:234:PRO:O	4:S2:235:LEU:HB2	2.00	0.61
15:C3:88:LEU:O	15:C3:92:ILE:HG13	2.00	0.61
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.73	0.61
54:M8:170:ARG:O	54:M8:171:LYS:HB2	2.06	0.61
41:L4:193:LYS:NZ	38:8:21:C:OP1	108.71	0.61
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	2.00	0.61
79:Q3:75:ALA:O	79:Q3:79:VAL:HG23	2.00	0.61
8:S6:162:VAL:O	8:S6:169:TYR:N	2.26	0.61
1:6:1508:U:O4	86:6:2051:OHX:N4	2.32	0.61
37:7:2:G:O2'	37:7:23:A:N1	2.30	0.61
73:O7:87:SER:O	86:O7:105:OHX:N3	2.34	0.61
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.35	0.61
51:M5:67:ARG:O	51:M5:68:ARG:HB3	4.80	0.61
5:S3:101:GLN:HA	5:S3:104:SER:HB3	2.13	0.61
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	3.08	0.61
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.66	0.61
86:5:4016:OHX:N5	86:5:4212:OHX:N2	2.48	0.61
9:S7:118:LEU:N	1:6:639:U:OP1	366.24	0.61
36:1:3255:U:H2'	36:1:3256:G:H8	1.65	0.61
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.81	0.61
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.15	0.61
1:6:180:A:H2'	1:6:181:A:O4'	2.00	0.61
18:C6:126:PRO:O	18:C6:128:LYS:HE3	2.00	0.61
1:2:1339:C:O2'	1:2:1341:A:N7	2.32	0.61
56:N0:89:ASN:HD21	57:N1:156:TYR:H	1.47	0.61
36:1:1278:A:O2'	36:1:1279:C:O5'	2.16	0.61
16:C4:31:THR:HA	16:C4:38:THR:HA	2.94	0.61
51:M5:91:GLU:O	51:M5:93:LYS:HE3	2.01	0.61
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.16	0.61
15:C3:23:PRO:HD2	15:C3:26:PHE:HB3	1.82	0.61
56:N0:42:TRP:NE1	56:N0:58:ILE:HD11	2.90	0.61
34:SR:126:SER:OG	34:SR:127:ARG:N	2.34	0.61
36:1:1478:C:H2'	36:1:1479:U:H6	1.66	0.61
1:6:1696:G:H2'	1:6:1698:G:O6	2.01	0.61
51:M5:14:LYS:HE2	36:5:269:G:H5''	132.85	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:87:PRO:HD3	17:C5:112:LEU:HD22	1.81	0.61
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	2.89	0.61
1:2:868:G:H1	1:2:960:U:H3	1.49	0.61
40:L3:43:LEU:HD23	40:L3:181:ILE:HD12	2.32	0.61
36:1:3200:G:O6	86:1:4128:OHX:N4	2.34	0.61
48:M1:95:ASN:O	36:5:2672:G:O2'	332.56	0.61
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.66	0.61
42:L5:61:ILE:HG23	42:L5:79:TYR:HE1	2.54	0.61
1:6:193:U:C2	1:6:195:G:H1'	2.36	0.61
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.00	0.61
1:6:219:A:H2'	1:6:831:U:O2	2.01	0.61
1:2:218:A:O2'	1:2:219:A:OP1	2.16	0.61
36:1:2947:G:H4'	36:1:2947:G:OP2	2.00	0.61
1:6:74:U:H3'	1:6:75:U:H3'	1.82	0.61
1:2:851:U:H2'	1:2:852:C:C6	2.35	0.61
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.82	0.61
28:D6:58:VAL:HG22	28:D6:59:TYR:H	1.87	0.61
68:O2:85:LEU:HB2	68:O2:117:ILE:HD13	1.83	0.61
28:D6:7:SER:O	28:D6:9:GLY:N	4.24	0.61
5:S3:30:ALA:O	5:S3:32:GLU:N	2.34	0.61
37:3:22:A:H2'	37:3:23:A:C8	2.36	0.61
36:1:1495:U:H5	36:1:1835:A:N1	1.99	0.61
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.36	0.61
1:6:961:U:H2'	1:6:962:C:C6	2.36	0.61
36:1:1856:C:H2'	36:1:1857:C:H6	1.66	0.61
34:SR:22:SER:OG	34:SR:69:GLN:O	4.24	0.61
1:6:982:U:OP1	86:6:2072:OHX:N2	2.34	0.61
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.33	0.61
22:D0:15:GLN:O	22:D0:16:GLN:NE2	2.81	0.61
36:1:2768:U:H2'	36:1:2769:A:C8	2.36	0.61
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.99	0.61
13:C1:69:LYS:HG3	1:6:304:U:O2'	326.49	0.61
62:N6:3:LYS:HD2	62:N6:8:VAL:HG23	4.90	0.61
39:L2:201:GLY:HA2	39:L2:204:MET:SD	2.80	0.61
23:D1:42:GLU:O	23:D1:44:ARG:N	2.29	0.61
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.82	0.61
1:2:927:C:H2'	1:2:928:U:H6	1.66	0.61
6:S4:170:THR:OG1	6:S4:170:THR:O	3.87	0.61
36:5:1536:G:O6	86:5:3921:OHX:N2	2.33	0.61
1:6:1344:A:O2'	1:6:1345:A:OP1	2.16	0.61
1:6:315:A:O2'	86:6:2156:OHX:N1	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:105:ARG:HB2	71:O5:105:ARG:HH21	1.64	0.61
36:5:3166:C:H42	36:5:3284:G:H1	1.47	0.61
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.82	0.61
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.16	0.61
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	1.82	0.61
27:D5:57:TYR:HB3	27:D5:60:VAL:HG12	1.83	0.61
26:D4:124:ARG:HG2	26:D4:127:LYS:HD3	1.83	0.61
73:O7:88:ALA:O	86:O7:105:OHX:N1	2.34	0.61
36:1:655:C:H2'	36:1:656:A:H8	1.66	0.61
49:M3:76:THR:HG22	49:M3:101:ARG:HB3	1.83	0.61
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.31	0.61
1:6:1699:G:H22	1:6:1702:A:H5''	1.66	0.61
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.65	0.61
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.00	0.61
49:M3:57:VAL:HG12	49:M3:69:VAL:HG22	1.83	0.61
68:O2:82:LEU:HD22	68:O2:117:ILE:HD12	2.49	0.61
5:S3:208:ILE:HD12	19:C7:16:LEU:HD21	1.82	0.61
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.30	0.61
61:N5:46:TYR:CD2	71:O5:75:TYR:HB3	2.42	0.61
1:2:484:C:H42	1:2:503:G:H22	1.46	0.61
55:M9:82:LYS:HE3	36:5:2115:G:O2'	207.70	0.61
36:1:3294:A:H2'	36:1:3295:A:O4'	2.01	0.61
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	2.55	0.61
1:2:58:U:O2'	1:2:451:A:N3	2.33	0.61
86:1:3993:OHX:N5	37:3:86:U:O2	2.33	0.61
8:S6:31:ARG:HH11	8:S6:34:GLN:HE22	1.49	0.61
36:5:2311:G:OP2	86:5:4193:OHX:N1	2.34	0.61
16:C4:43:THR:OG1	1:6:900:A:OP1	278.66	0.61
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.82	0.61
36:1:2356:A:OP1	53:M7:138:LYS:NZ	2.34	0.61
36:5:3334:U:OP2	86:5:4229:OHX:N6	2.34	0.61
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.83	0.61
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.71	0.61
36:5:3316:A:H5''	36:5:3318:G:N2	2.15	0.61
24:D2:86:ILE:HD12	24:D2:87:GLU:H	1.66	0.61
36:5:186:U:OP2	86:5:3908:OHX:N4	2.34	0.61
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.00	0.61
66:O0:45:ALA:HB3	66:O0:48:THR:HG22	2.48	0.61
41:L4:128:ALA:HB1	41:L4:134:LEU:HD12	1.82	0.61
1:6:921:U:O4	86:6:2175:OHX:N3	2.34	0.61
60:N4:38:SER:HA	60:N4:41:LYS:HE3	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:106:VAL:O	51:M5:109:ARG:N	2.33	0.61
36:5:2818:U:C6	36:5:2818:U:H5'	2.30	0.60
36:5:409:A:OP2	86:5:4098:OHX:N3	2.34	0.60
19:C7:34:LEU:HD22	19:C7:38:ILE:HD12	3.60	0.60
1:2:1514:U:H1'	5:S3:6:SER:HB2	1.83	0.60
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.83	0.60
1:2:730:G:O6	86:2:2157:OHX:N4	2.34	0.60
1:2:75:U:H2'	1:2:76:A:O4'	2.01	0.60
29:D7:37:CYS:O	29:D7:39:GLY:N	2.33	0.60
46:L9:150:SER:HB3	46:L9:153:ASP:HB2	1.83	0.60
31:D9:22:ARG:HG2	31:D9:38:ILE:HG12	4.24	0.60
36:5:1409:G:O6	86:5:4156:OHX:N6	2.34	0.60
36:1:3164:C:H1'	36:1:3165:A:H5'	1.83	0.60
1:6:512:A:H2'	1:6:513:U:H6	1.66	0.60
36:5:2207:A:H2'	36:5:2208:A:O4'	2.01	0.60
36:1:917:A:OP2	86:1:4144:OHX:N2	2.34	0.60
36:5:1765:U:H4'	36:5:1765:U:OP1	2.02	0.60
36:5:2898:G:OP2	36:5:2899:C:H5'	2.01	0.60
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.34	0.60
67:O1:82:GLU:O	67:O1:84:ASP:N	2.34	0.60
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.82	0.60
63:N7:127:ASN:O	63:N7:129:TRP:N	2.34	0.60
42:L5:36:LEU:HD23	36:5:2748:A:N3	254.22	0.60
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.33	0.60
36:1:1844:C:C2'	36:1:1845:G:H5''	2.30	0.60
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.01	0.60
55:M9:101:VAL:HG13	55:M9:104:ARG:HH22	1.66	0.60
1:6:217:A:C8	1:6:218:A:C8	2.88	0.60
5:S3:168:ILE:HG22	5:S3:189:MET:HB2	2.24	0.60
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.82	0.60
10:S8:42:ARG:HB3	10:S8:59:ARG:HB2	2.46	0.60
1:6:282:C:H2'	1:6:283:U:O4'	2.01	0.60
70:O4:7:PHE:HD1	70:O4:20:ILE:HD12	4.24	0.60
51:M5:150:TRP:HZ3	51:M5:156:HIS:CD2	2.18	0.60
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.26	0.60
64:N8:77:LYS:O	64:N8:79:TRP:N	2.34	0.60
75:O9:45:ARG:NH2	36:5:1841:A:N3	129.04	0.60
36:5:1843:C:H2'	36:5:1844:C:H6	1.65	0.60
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.83	0.60
36:5:3049:A:H8	36:5:3049:A:H5'	1.66	0.60
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:221:THR:HG22	40:L3:272:TYR:N	2.62	0.60
36:1:1833:G:OP1	75:O9:10:LYS:HD3	2.02	0.60
1:2:773:C:H5'	6:S4:21:ASP:HB2	1.84	0.60
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	2.26	0.60
3:S1:34:ALA:N	3:S1:41:ARG:O	2.30	0.60
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.66	0.60
47:M0:4:ARG:NH1	36:5:2828:G:O2'	263.86	0.60
1:2:808:U:H2'	1:2:809:A:C8	2.35	0.60
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.66	0.60
36:1:2723:U:H2'	36:1:2724:U:C6	2.36	0.60
1:6:25:C:H4'	1:6:25:C:OP2	2.02	0.60
36:5:1696:A:OP2	86:5:4180:OHX:N6	2.34	0.60
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.63	0.60
71:O5:93:THR:OG1	71:O5:96:GLU:HG2	2.01	0.60
39:L2:83:HIS:HB3	79:Q3:64:VAL:HG12	1.82	0.60
18:C6:127:LYS:HE2	18:C6:132:LYS:O	5.36	0.60
21:C9:60:SER:OG	1:6:1480:G:OP1	399.08	0.60
1:2:607:G:H5'	1:2:613:G:N2	2.16	0.60
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.83	0.60
64:N8:42:ARG:NH2	36:5:2799:A:N3	192.60	0.60
2:S0:59:LEU:HD12	23:D1:79:LEU:HD21	2.38	0.60
31:D9:40:ARG:HG2	31:D9:41:GLN:OE1	2.01	0.60
1:2:1796:C:H5	28:D6:6:ALA:N	1.98	0.60
51:M5:70:ASN:ND2	51:M5:93:LYS:HE2	2.16	0.60
39:L2:193:ARG:NH1	36:5:2174:G:OP2	191.20	0.60
86:2:2031:OHX:N4	86:2:2147:OHX:N2	2.49	0.60
38:8:79:A:OP1	38:8:79:A:H4'	2.01	0.60
36:5:1564:U:H2'	36:5:1565:G:C8	2.35	0.60
17:C5:19:GLY:N	20:C8:93:THR:O	2.34	0.60
4:S2:51:THR:HG22	4:S2:52:THR:HG23	1.83	0.60
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.34	0.60
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG12	1.83	0.60
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.83	0.60
19:C7:105:GLN:CD	19:C7:105:GLN:H	2.05	0.60
36:1:2659:G:N7	86:1:3879:OHX:N5	2.48	0.60
36:1:3227:A:H2'	36:1:3228:C:H5'	1.84	0.60
36:1:2514:U:H6	36:1:2514:U:OP1	1.83	0.60
4:S2:140:ARG:HH12	23:D1:1:MET:HB3	1.66	0.60
16:C4:85:ALA:HB2	16:C4:94:PRO:HA	2.62	0.60
42:L5:261:THR:H	42:L5:264:GLN:HG3	1.66	0.60
3:S1:164:ILE:HD12	3:S1:207:LEU:HD11	2.99	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:44:TRP:CH2	75:O9:45:ARG:HG3	2.37	0.60
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.23	0.60
61:N5:86:VAL:HG11	61:N5:95:ILE:HD11	2.25	0.60
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.44	0.60
36:5:407:A:C2	38:8:17:A:H1'	2.36	0.60
39:L2:181:LYS:HB2	36:5:860:G:C5	211.73	0.60
47:M0:76:MET:HE3	47:M0:148:VAL:HA	3.73	0.60
73:O7:72:ARG:NH1	38:8:95:G:OP2	52.33	0.60
20:C8:92:ILE:HG23	20:C8:93:THR:HG23	2.50	0.60
67:O1:10:ARG:HH12	67:O1:44:MET:HG2	5.89	0.60
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	2.03	0.60
36:1:729:C:H2'	36:1:730:C:H6	1.66	0.60
36:5:601:U:H2'	36:5:602:A:O4'	2.02	0.60
1:2:1316:G:HO2'	1:2:1401:A:HO2'	1.49	0.60
78:Q2:83:LEU:HD22	78:Q2:84:THR:H	2.10	0.60
57:N1:14:MET:SD	57:N1:58:GLN:HG2	2.42	0.60
40:L3:66:LYS:HE2	40:L3:70:ARG:NH2	2.16	0.60
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.46	0.60
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.34	0.60
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	2.07	0.60
72:O6:74:LYS:HG3	72:O6:80:PHE:HA	1.84	0.60
38:4:140:G:OP1	86:4:237:OHX:N4	2.35	0.60
2:S0:163:ASN:HD21	2:S0:165:ARG:HG3	1.66	0.60
1:6:1391:A:H2'	1:6:1392:U:C6	2.36	0.60
1:6:647:G:N2	1:6:687:G:H22	2.00	0.60
36:1:2416:U:H2'	36:1:2417:U:C6	2.37	0.60
5:S3:159:HIS:CD2	1:6:1422:A:H4'	408.01	0.60
36:1:582:G:O6	86:1:4172:OHX:N2	2.35	0.60
37:3:60:G:OP2	86:3:225:OHX:N3	2.35	0.60
1:6:615:A:O2'	1:6:621:A:N1	2.27	0.60
36:1:1234:G:H1	36:1:1254:C:H42	1.50	0.60
39:L2:116:VAL:HG22	39:L2:126:LEU:HB2	1.84	0.60
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.68	0.60
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.59	0.60
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.31	0.60
36:1:105:C:O2'	36:1:684:G:O2'	2.16	0.60
71:O5:30:GLU:O	71:O5:34:GLN:HG3	2.43	0.60
41:L4:206:LEU:HD23	41:L4:226:GLU:HB3	1.84	0.60
36:1:2392:C:H5''	36:1:2393:G:OP2	2.01	0.60
36:5:314:U:O4	86:5:4186:OHX:N5	2.35	0.60
64:N8:3:SER:O	64:N8:6:THR:HB	2.46	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.14	0.60
55:M9:175:GLN:HA	55:M9:178:ALA:HB3	1.84	0.60
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	3.69	0.60
36:5:956:U:H2'	36:5:957:C:H6	1.67	0.60
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	1.94	0.60
21:C9:25:GLN:O	21:C9:27:LYS:N	3.54	0.60
36:1:1245:A:H3'	36:1:1246:G:H5''	1.83	0.60
36:1:612:U:H2'	36:1:613:G:C8	2.37	0.60
61:N5:92:LYS:HD2	61:N5:112:THR:HG23	1.81	0.60
1:6:73:U:H2'	1:6:74:U:C6	2.37	0.60
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.51	0.60
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.83	0.60
59:N3:22:ILE:HG12	59:N3:35:TYR:HA	1.81	0.60
36:5:3089:C:H2'	36:5:3090:U:O4'	2.02	0.60
36:5:1781:C:H2'	36:5:1782:U:C6	2.37	0.60
1:2:825:U:H2'	1:2:826:U:C6	2.37	0.60
1:6:833:U:O4	86:6:2097:OHX:N5	2.35	0.60
1:2:1550:A:P	17:C5:42:ARG:HH22	2.24	0.60
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.46	0.60
40:L3:227:GLU:HG3	40:L3:270:ARG:NE	4.20	0.60
36:5:2101:C:H2'	36:5:2102:U:C6	2.37	0.60
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.38	0.60
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.10	0.60
86:5:4016:OHX:N3	86:5:4212:OHX:N1	2.50	0.60
36:1:1581:C:C2	36:1:1582:C:H5'	2.36	0.60
36:1:2357:A:H2'	36:1:2358:A:H8	1.66	0.60
1:2:652:G:H1	1:2:682:C:H42	1.49	0.60
49:M3:179:PHE:HD1	49:M3:182:ILE:HD12	6.00	0.60
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.67	0.60
64:N8:74:ASN:HB3	64:N8:76:ASP:HB2	1.83	0.60
41:L4:330:TYR:CZ	44:L7:49:ALA:HA	2.52	0.60
1:6:1397:U:C4	1:6:1399:C:H1'	2.37	0.60
46:L9:84:LYS:NZ	46:L9:191:LEU:HD22	2.17	0.59
1:6:197:A:H2'	1:6:198:A:C8	2.37	0.59
22:D0:71:PRO:HB3	31:D9:41:GLN:HG2	3.34	0.59
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.37	0.59
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	1.83	0.59
17:C5:77:ARG:NH1	1:6:1241:G:OP2	382.36	0.59
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	1.84	0.59
36:1:1798:A:H2'	36:1:1799:A:C8	2.37	0.59
1:6:1350:U:H2'	1:6:1351:G:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:67:GLU:CD	3:S1:83:LYS:HE3	3.30	0.59
55:M9:175:GLN:O	55:M9:179:GLU:N	2.32	0.59
55:M9:101:VAL:HG22	55:M9:104:ARG:NH1	2.28	0.59
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.12	0.59
33:E1:90:LYS:HB2	33:E1:93:HIS:CE1	10.77	0.59
36:5:979:U:H1'	36:5:980:A:C4	2.37	0.59
42:L5:257:GLU:O	42:L5:258:LYS:HB2	2.01	0.59
36:1:595:G:N1	36:1:609:G:H5"	2.17	0.59
49:M3:2:ALA:N	64:N8:33:GLY:O	4.30	0.59
1:2:1483:A:H2'	1:2:1484:G:C8	2.37	0.59
52:M6:85:ARG:HD3	52:M6:90:HIS:CD2	2.79	0.59
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.84	0.59
36:1:1720:U:P	55:M9:110:ARG:HH12	2.26	0.59
36:5:3074:G:OP1	86:5:4113:OHX:N4	2.36	0.59
36:5:595:G:H1	36:5:609:G:H5"	1.67	0.59
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.79	0.59
36:1:2771:U:O2'	36:1:2772:C:O4'	2.20	0.59
42:L5:218:ARG:HH21	42:L5:222:LEU:HD21	1.67	0.59
50:M4:14:LEU:H	50:M4:19:ARG:HH11	2.01	0.59
7:S5:185:ARG:NH1	1:6:1471:A:OP1	333.13	0.59
1:6:500:C:O2'	1:6:501:U:O4'	2.21	0.59
36:1:1306:G:C6	52:M6:62:THR:HA	2.37	0.59
18:C6:37:THR:O	18:C6:45:ARG:NH1	3.13	0.59
1:6:454:U:H5"	1:6:455:C:C5	2.37	0.59
51:M5:102:ALA:O	51:M5:106:VAL:HG13	2.02	0.59
86:1:4003:OHX:N3	86:1:4172:OHX:N5	2.50	0.59
61:N5:57:LEU:HD23	61:N5:62:VAL:HG22	1.84	0.59
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.06	0.59
36:1:1222:G:O2'	36:1:1285:G:N1	2.33	0.59
1:6:97:C:O2	1:6:425:A:O2'	2.18	0.59
36:1:1696:A:OP2	86:1:4158:OHX:N3	2.34	0.59
54:M8:81:VAL:HG23	54:M8:101:VAL:HG13	1.83	0.59
66:O0:52:ARG:HG3	66:O0:56:LEU:HD12	2.62	0.59
45:L8:126:SER:O	36:5:120:G:N2	94.11	0.59
36:5:2718:U:H2'	36:5:2719:U:C6	2.37	0.59
1:2:116:U:H2'	1:2:117:U:C6	2.37	0.59
35:SM:76:VAL:HG11	1:6:1461:C:H1'	328.06	0.59
16:C4:54:GLU:CD	1:6:901:G:H22	282.45	0.59
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.84	0.59
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.35	0.59
36:1:2181:C:OP1	39:L2:192:LYS:NZ	2.23	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:235:G:H2'	1:6:236:A:C8	2.37	0.59
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.01	0.59
14:C2:62:LEU:HB3	14:C2:75:VAL:HG11	1.84	0.59
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.17	0.59
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.02	0.59
21:C9:54:PHE:CE2	21:C9:104:VAL:HG22	2.37	0.59
47:M0:214:PRO:O	47:M0:216:TYR:N	3.39	0.59
86:5:3903:OHX:N5	38:8:1:A:OP1	2.35	0.59
2:S0:112:THR:HG22	2:S0:115:PHE:HB2	3.12	0.59
36:5:240:U:O2'	36:5:241:G:H8	1.84	0.59
36:1:1151:U:O4	36:1:1200:A:N6	2.35	0.59
58:N2:33:TYR:HE2	58:N2:63:VAL:HG21	1.67	0.59
1:2:975:C:H5''	15:C3:109:LYS:HE3	1.84	0.59
49:M3:9:ILE:HG23	64:N8:34:MET:HE3	3.39	0.59
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.01	0.59
1:2:15:U:H2'	1:2:16:G:O4'	2.02	0.59
36:1:2988:C:O2'	40:L3:266:ARG:HD3	2.03	0.59
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.67	0.59
3:S1:51:SER:HB3	3:S1:57:ALA:H	2.84	0.59
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.02	0.59
36:5:2533:G:N2	36:5:2546:C:O2	2.31	0.59
53:M7:7:THR:OG1	53:M7:8:SER:N	2.32	0.59
36:5:499:G:H2'	36:5:500:C:H6	1.66	0.59
36:5:2169:G:O6	86:5:3952:OHX:N5	2.36	0.59
2:S0:154:GLU:HA	23:D1:63:GLY:HA2	1.85	0.59
1:6:700:C:H2'	1:6:701:U:C6	2.38	0.59
36:1:1605:A:O2'	36:1:1607:U:OP2	2.13	0.59
36:5:2767:U:H2'	36:5:2768:U:C6	2.37	0.59
1:6:1727:G:H2'	1:6:1728:A:C8	2.37	0.59
21:C9:117:SER:HB2	21:C9:123:ARG:HE	1.70	0.59
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.66	0.59
36:1:2960:C:H2'	36:1:2961:G:H8	1.67	0.59
31:D9:24:CYS:HB3	31:D9:42:CYS:SG	3.19	0.59
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	1.85	0.59
36:1:437:G:H2'	36:1:438:A:O4'	2.02	0.59
1:2:1266:U:H2'	1:2:1267:G:C8	2.37	0.59
36:1:1207:G:N7	86:1:4062:OHX:N2	2.51	0.59
1:2:264:G:N7	86:2:2034:OHX:N1	2.50	0.59
4:S2:121:VAL:HG11	35:SM:117:LEU:HD12	1.84	0.59
36:1:1769:G:O6	86:1:4169:OHX:N4	2.35	0.59
78:Q2:25:VAL:HG22	78:Q2:72:LEU:HD22	1.89	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1600:A:H4'	1:2:1601:G:OP1	2.03	0.59
1:2:566:C:OP2	25:D3:66:SER:OG	2.21	0.59
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	1.84	0.59
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.85	0.59
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.18	0.59
36:1:1310:G:O6	86:1:4027:OHX:N1	2.35	0.59
67:O1:41:LYS:O	67:O1:45:GLY:HA2	3.08	0.59
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.41	0.59
1:2:800:U:H2'	1:2:801:G:C8	2.37	0.59
36:1:209:A:OP1	41:L4:161:LYS:NZ	2.34	0.59
57:N1:17:ARG:HG3	36:5:2700:G:H5''	265.43	0.59
36:1:874:U:N3	36:1:2978:U:OP1	2.29	0.59
19:C7:105:GLN:O	19:C7:109:LEU:N	2.50	0.59
36:1:621:A:H8	36:1:623:U:O4	1.85	0.59
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.41	0.59
26:D4:53:ASP:HB3	26:D4:96:LEU:HD21	3.54	0.59
48:M1:44:THR:O	37:7:39:C:O2'	298.83	0.59
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	1.85	0.59
40:L3:97:ARG:NH1	36:5:3244:A:N1	244.88	0.59
3:S1:128:LYS:HG3	3:S1:134:VAL:HG22	1.84	0.59
34:SR:161:LYS:O	34:SR:161:LYS:HG2	2.03	0.59
44:L7:93:ASN:N	44:L7:93:ASN:OD1	2.47	0.59
26:D4:12:VAL:HG12	1:6:783:G:C8	422.87	0.59
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.03	0.59
11:S9:133:HIS:NE2	1:6:513:U:OP1	447.14	0.59
14:C2:47:GLU:HG3	1:6:1229:G:H1	459.85	0.59
37:3:62:U:O4	37:3:63:A:N6	2.36	0.59
86:2:2031:OHX:N3	86:2:2147:OHX:N5	2.50	0.59
21:C9:31:PRO:HG3	21:C9:103:LYS:HG2	1.84	0.59
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.85	0.59
1:6:1585:U:H2'	1:6:1586:A:H8	1.67	0.59
36:5:2801:A:O2'	36:5:2802:A:H2'	2.02	0.59
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.11	0.59
67:O1:43:HIS:O	67:O1:44:MET:HE2	3.20	0.59
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.36	0.59
36:5:990:U:O4	86:5:4179:OHX:N6	2.36	0.59
44:L7:132:PRO:HA	44:L7:229:PHE:CD2	2.79	0.59
36:5:3132:C:H2'	36:5:3133:C:C6	2.38	0.59
18:C6:22:VAL:HG13	18:C6:65:ILE:HG12	1.84	0.59
61:N5:110:VAL:HG22	61:N5:124:VAL:HG13	3.78	0.59
14:C2:60:VAL:HG13	14:C2:122:VAL:HG22	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.85	0.59
34:SR:131:ILE:HB	34:SR:144:LEU:HB2	1.85	0.59
1:6:1267:G:H2'	1:6:1268:G:H8	1.67	0.59
36:5:549:U:H2'	36:5:550:A:C8	2.38	0.59
54:M8:83:VAL:O	54:M8:85:GLY:N	2.67	0.59
39:L2:243:THR:OG1	36:5:2244:A:H5''	227.58	0.59
38:8:16:G:O6	86:8:214:OHX:N6	2.36	0.59
78:Q2:45:ARG:NH2	36:5:283:G:OP2	146.52	0.59
46:L9:23:ARG:NH2	46:L9:39:LYS:O	2.36	0.59
11:S9:149:ARG:HD2	1:6:765:G:N7	427.64	0.59
36:1:72:C:H5'	49:M3:63:VAL:HG22	1.85	0.59
42:L5:56:THR:O	42:L5:58:LYS:N	2.32	0.59
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.02	0.59
36:1:367:A:OP1	86:1:3883:OHX:N2	2.36	0.59
73:O7:25:ARG:HG3	75:O9:51:ILE:HD12	3.89	0.59
42:L5:43:LYS:O	42:L5:46:THR:OG1	3.19	0.59
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.03	0.59
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	5.94	0.59
36:1:1144:U:H1'	36:1:1145:G:C8	2.38	0.59
9:S7:117:THR:HG23	9:S7:120:ALA:H	1.66	0.59
11:S9:90:LYS:HG2	11:S9:95:TYR:CD1	4.35	0.59
1:6:1311:U:O4	86:6:2180:OHX:N4	2.36	0.59
69:O3:75:HIS:HB3	69:O3:80:VAL:HB	1.84	0.59
36:5:1701:C:H2'	36:5:1702:U:O4'	2.03	0.59
6:S4:126:VAL:HG22	6:S4:156:VAL:HA	2.24	0.59
26:D4:37:LYS:HE3	1:6:523:G:OP2	413.18	0.59
26:D4:105:ARG:HB2	1:6:443:C:OP2	371.80	0.59
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.23	0.59
36:1:1296:C:OP1	56:N0:84:ARG:NH2	2.33	0.59
36:1:432:G:OP1	69:O3:65:ARG:NH2	2.34	0.59
1:6:104:A:H61	1:6:308:C:H5'	1.68	0.59
39:L2:181:LYS:HB2	36:5:860:G:C6	212.68	0.59
48:M1:92:ARG:NH2	48:M1:94:ARG:HH11	5.91	0.59
1:2:1300:A:OP1	4:S2:99:LYS:NZ	2.36	0.59
86:2:2031:OHX:N6	86:2:2147:OHX:N5	2.50	0.59
55:M9:101:VAL:HG22	55:M9:104:ARG:HH12	1.81	0.59
18:C6:47:LYS:NZ	18:C6:114:ARG:HD3	3.95	0.59
1:2:304:U:H2'	1:2:305:C:C6	2.38	0.59
43:L6:54:TYR:CE2	43:L6:63:LEU:HD22	2.60	0.59
1:2:332:U:P	10:S8:56:ARG:HH22	2.26	0.59
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:50:LYS:HG2	43:L6:74:VAL:HG21	1.84	0.59
36:5:2762:A:OP2	86:5:3986:OHX:N5	2.36	0.59
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	2.01	0.59
36:1:627:U:H2'	36:1:628:A:C8	2.38	0.59
57:N1:83:ARG:HD2	57:N1:85:LEU:HD21	2.14	0.59
52:M6:188:SER:O	52:M6:192:LYS:HD3	4.63	0.59
40:L3:81:THR:HG22	40:L3:321:PHE:HA	4.97	0.59
39:L2:30:ARG:NH2	39:L2:33:ASP:OD1	3.27	0.58
28:D6:44:ILE:HD12	28:D6:45:VAL:H	1.67	0.58
29:D7:47:PHE:HE1	29:D7:49:HIS:HB2	1.68	0.58
26:D4:122:GLY:C	26:D4:124:ARG:H	2.73	0.58
38:4:38:U:C4	71:O5:89:ARG:HD2	2.38	0.58
1:2:1291:G:H8	1:2:1291:G:O5'	1.86	0.58
86:5:4016:OHX:N6	86:5:4212:OHX:N4	2.51	0.58
38:4:52:A:H4'	75:O9:19:GLN:HA	1.84	0.58
1:6:1776:A:H2'	1:6:1777:G:C8	2.38	0.58
36:1:1933:A:OP2	86:1:3884:OHX:N6	2.35	0.58
13:C1:33:ARG:NH2	13:C1:51:GLY:O	2.86	0.58
1:2:985:G:O6	86:2:2024:OHX:N4	2.36	0.58
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.35	0.58
1:2:277:U:H6	1:2:279:G:H22	1.50	0.58
33:E1:119:ARG:HH11	33:E1:139:LEU:HD21	1.68	0.58
72:O6:54:GLU:O	72:O6:58:ILE:HG23	2.03	0.58
36:5:956:U:H2'	36:5:957:C:C6	2.38	0.58
1:2:705:U:H2'	1:2:706:A:C8	2.38	0.58
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	4.22	0.58
1:2:580:A:H5''	5:S3:143:ARG:HH12	1.68	0.58
86:5:4016:OHX:N3	86:5:4212:OHX:N4	2.51	0.58
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.21	0.58
1:6:52:U:H2'	1:6:53:G:H8	1.68	0.58
36:1:3280:U:O2'	36:1:3281:U:H5''	2.02	0.58
1:2:1620:C:OP2	86:2:2167:OHX:N6	2.37	0.58
1:6:1265:G:N7	86:6:2190:OHX:N6	2.51	0.58
36:5:1543:G:O6	86:5:4196:OHX:N1	2.36	0.58
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	1.84	0.58
36:1:3128:G:OP2	86:1:4167:OHX:N2	2.36	0.58
8:S6:148:SER:O	8:S6:150:GLU:N	2.36	0.58
36:1:965:A:H5''	49:M3:4:SER:HB3	1.85	0.58
18:C6:57:LEU:H	18:C6:57:LEU:HD12	3.73	0.58
36:1:1445:U:H5''	36:1:1446:A:OP2	2.02	0.58
1:2:158:U:O2'	1:2:160:C:OP2	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.68	0.58
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.03	0.58
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.24	0.58
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.65	0.58
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.17	0.58
11:S9:143:ILE:HD13	1:6:767:U:C5	420.71	0.58
38:4:79:A:O3'	38:4:80:A:H4'	2.04	0.58
42:L5:56:THR:OG1	42:L5:59:ASP:HB3	2.04	0.58
22:D0:30:LYS:HD3	22:D0:33:GLN:NE2	2.18	0.58
44:L7:157:ASN:O	44:L7:159:GLN:N	3.01	0.58
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.03	0.58
59:N3:48:ARG:HG2	36:5:2339:C:P	246.65	0.58
36:5:1567:U:H2'	36:5:1568:U:H4'	1.84	0.58
59:N3:104:ASN:ND2	59:N3:106:LYS:H	2.01	0.58
58:N2:33:TYR:CE1	58:N2:80:THR:HG23	4.27	0.58
36:5:2402:A:OP2	86:5:4104:OHX:N3	2.37	0.58
50:M4:127:LYS:O	50:M4:131:VAL:HG23	2.87	0.58
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.85	0.58
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.82	0.58
36:5:1706:C:H2'	36:5:1707:A:O4'	2.03	0.58
1:2:97:C:H2'	1:2:98:U:C6	2.37	0.58
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.03	0.58
36:5:1610:G:H2'	36:5:1611:G:C8	2.38	0.58
52:M6:56:ASP:O	52:M6:59:ARG:HG2	4.45	0.58
1:2:918:U:H2'	1:2:919:A:C8	2.38	0.58
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	2.07	0.58
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	2.03	0.58
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.86	0.58
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.62	0.58
1:2:826:U:H2'	1:2:827:C:C6	2.38	0.58
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.36	0.58
1:2:1490:C:H4'	1:2:1491:U:OP1	2.03	0.58
6:S4:178:GLY:H	6:S4:195:ILE:HB	2.19	0.58
39:L2:17:THR:OG1	39:L2:17:THR:O	2.20	0.58
36:1:1817:G:OP1	86:1:4090:OHX:N1	2.37	0.58
36:5:1223:A:OP2	36:5:1285:G:N2	2.34	0.58
71:O5:95:PHE:CG	36:5:136:G:H5'	61.68	0.58
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	3.61	0.58
39:L2:4:VAL:CG1	39:L2:8:GLN:HG3	2.34	0.58
2:S0:183:ARG:HA	2:S0:188:LEU:HB2	2.88	0.58
42:L5:261:THR:HG23	42:L5:264:GLN:NE2	2.56	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:265:TYR:HE1	37:7:121:U:H5''	315.41	0.58
17:C5:122:THR:OG1	1:6:1454:G:O3'	368.26	0.58
34:SR:248:ASN:HD21	34:SR:298:GLY:HA3	3.16	0.58
63:N7:25:ILE:HG23	63:N7:41:ALA:HB1	1.93	0.58
14:C2:94:ALA:HB1	14:C2:119:SER:H	1.68	0.58
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.56	0.58
63:N7:88:ASP:O	63:N7:121:ARG:NH2	3.11	0.58
1:2:918:U:H2'	1:2:919:A:H8	1.69	0.58
40:L3:167:ARG:O	86:L3:403:OHX:N5	39.99	0.58
36:1:3246:G:O6	86:1:4107:OHX:N4	2.36	0.58
1:2:480:G:N2	1:2:509:G:H1'	2.18	0.58
36:5:1432:C:O2'	36:5:1433:A:H3'	2.03	0.58
38:8:68:G:OP1	86:8:216:OHX:N3	2.36	0.58
1:2:1534:G:OP2	27:D5:74:SER:OG	2.20	0.58
1:2:1681:A:H61	1:2:1720:G:H1'	1.68	0.58
36:5:1277:C:H2'	36:5:1278:A:H8	1.68	0.58
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.84	0.58
50:M4:85:TRP:CD1	50:M4:90:VAL:HG13	2.38	0.58
28:D6:44:ILE:HD11	28:D6:65:PRO:HD2	1.86	0.58
36:1:2747:A:H2'	36:1:2748:A:C8	2.39	0.58
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.39	0.58
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	2.42	0.58
86:2:2031:OHX:N3	86:2:2147:OHX:N1	2.52	0.58
40:L3:247:ARG:NH2	36:5:2341:A:OP1	218.26	0.58
66:O0:9:SER:OG	66:O0:12:GLN:HB3	5.38	0.58
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.85	0.58
1:2:704:C:N4	1:2:734:A:N3	2.52	0.58
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.83	0.58
1:6:1202:A:OP1	86:6:2126:OHX:N2	2.36	0.58
1:2:1625:C:OP1	4:S2:91:ARG:NH2	2.36	0.58
57:N1:78:LYS:HE2	36:5:2724:U:OP1	222.70	0.58
36:5:2696:A:H2'	36:5:2697:A:C8	2.38	0.58
56:N0:89:ASN:HD21	57:N1:156:TYR:N	2.01	0.58
86:1:4003:OHX:N6	86:1:4172:OHX:N1	2.52	0.58
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.71	0.58
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.19	0.58
42:L5:140:ARG:HD3	36:5:1080:A:OP1	225.52	0.58
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	5.93	0.58
1:6:58:U:O2'	1:6:451:A:N3	2.34	0.58
57:N1:38:ASP:OD1	57:N1:38:ASP:N	2.34	0.58
1:2:700:C:H42	1:2:738:G:H1	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:75:VAL:O	28:D6:79:ILE:N	2.26	0.58
1:2:1449:U:H2'	1:2:1450:U:C6	2.38	0.58
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.03	0.58
36:5:501:A:H2'	36:5:502:U:C6	2.39	0.58
2:S0:119:ARG:NH1	4:S2:241:ASP:OD1	3.35	0.58
78:Q2:77:CYS:O	78:Q2:78:LYS:HD3	3.68	0.58
1:2:189:C:H2'	1:2:190:C:H5'	1.86	0.58
1:2:1542:G:H22	1:2:1568:C:H1'	1.68	0.58
1:2:1796:C:C6	28:D6:5:ARG:HG2	2.38	0.58
36:1:2747:A:OP1	42:L5:176:SER:OG	2.19	0.58
36:1:2407:C:H1'	36:1:2818:U:O2	2.04	0.58
36:1:1171:G:O6	86:1:3956:OHX:N2	2.36	0.58
1:6:488:G:N2	1:6:499:U:H3	2.02	0.58
71:O5:83:LYS:HA	38:8:38:U:C5	66.29	0.58
1:6:228:G:N2	1:6:237:C:N3	2.52	0.58
62:N6:40:ARG:HG2	62:N6:45:ILE:O	2.02	0.58
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.39	0.58
36:5:1818:U:H2'	36:5:1819:U:C6	2.39	0.58
36:5:1530:U:OP1	86:8:215:OHX:N1	2.37	0.58
61:N5:46:TYR:HD2	71:O5:75:TYR:HB3	1.69	0.58
1:2:1450:U:H2'	1:2:1451:C:C6	2.38	0.58
72:O6:33:ALA:O	72:O6:34:SER:HB3	2.03	0.58
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.39	0.58
36:1:2254:U:H2'	36:1:2261:G:N2	2.18	0.58
41:L4:304:GLN:O	41:L4:306:THR:N	2.30	0.58
56:N0:1:MET:HE1	56:N0:32:SER:H	1.69	0.58
36:5:651:G:O2'	36:5:1435:A:OP1	2.17	0.58
36:1:2927:C:H2'	36:1:2928:C:C6	2.39	0.58
36:5:59:G:H4'	36:5:60:A:H4'	1.84	0.58
1:2:280:U:O2'	1:2:281:G:OP2	2.19	0.58
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.86	0.58
51:M5:172:ARG:NH1	36:5:29:C:O3'	105.22	0.58
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.86	0.58
7:S5:43:PHE:N	7:S5:46:TRP:O	2.78	0.58
36:1:1944:U:H2'	36:1:1945:A:H8	1.69	0.58
10:S8:12:SER:O	10:S8:15:GLY:N	2.34	0.58
43:L6:60:ASP:O	43:L6:61:ASN:HB2	2.32	0.58
9:S7:122:HIS:CE1	9:S7:177:THR:HB	2.72	0.58
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	2.58	0.58
27:D5:71:ILE:HG22	27:D5:75:LEU:HB2	1.85	0.58
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.38	0.58
36:1:1230:G:H1	36:1:1279:C:H42	1.51	0.58
36:5:3316:A:H5''	36:5:3318:G:H22	1.67	0.58
20:C8:143:ARG:NH2	1:6:1462:G:N7	338.13	0.58
50:M4:88:ALA:O	50:M4:93:LYS:NZ	2.37	0.58
71:O5:85:THR:HG22	71:O5:87:ALA:H	1.68	0.58
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.39	0.58
46:L9:92:TYR:HB2	46:L9:142:ASP:HB3	1.86	0.58
49:M3:80:VAL:HG13	49:M3:85:LEU:O	2.83	0.58
36:1:116:A:OP1	72:O6:36:ARG:NH1	2.36	0.58
28:D6:44:ILE:HD12	28:D6:45:VAL:HG22	1.86	0.58
1:2:320:U:H3'	1:2:321:C:C5'	2.32	0.58
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	2.59	0.58
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.39	0.58
36:1:2960:C:H2'	36:1:2961:G:C8	2.38	0.58
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.50	0.58
1:2:623:A:OP1	86:2:2158:OHX:N2	2.36	0.58
36:1:2278:C:OP1	86:1:3955:OHX:N3	2.37	0.58
41:L4:197:ARG:NH1	36:5:1381:A:OP1	108.76	0.58
36:1:1724:U:H1'	36:1:1725:C:C6	2.39	0.58
46:L9:17:THR:O	46:L9:17:THR:OG1	2.61	0.58
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.70	0.58
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.37	0.58
46:L9:70:THR:HA	46:L9:73:SER:HB2	1.84	0.58
17:C5:43:ARG:NH2	1:6:1552:U:OP2	402.42	0.58
1:2:1783:C:H2'	1:2:1784:C:H6	1.69	0.58
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.18	0.58
25:D3:31:LYS:HE2	1:6:1133:A:OP1	328.74	0.58
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.86	0.58
51:M5:21:PHE:HD2	51:M5:22:LEU:HD13	2.22	0.58
1:2:1067:C:H2'	1:2:1068:C:H6	1.68	0.58
11:S9:112:GLN:HG3	11:S9:148:VAL:HG21	1.85	0.58
74:O8:64:LYS:O	74:O8:68:SER:OG	3.83	0.58
36:5:1944:U:H3	36:5:2104:A:H61	1.52	0.58
40:L3:219:ALA:HB2	40:L3:336:VAL:HG13	1.86	0.58
28:D6:87:ARG:NH2	28:D6:91:ASP:O	2.93	0.57
11:S9:124:HIS:HD2	1:6:478:A:O2'	449.33	0.57
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	2.21	0.57
8:S6:154:ARG:HD3	1:6:78:A:C8	339.75	0.57
37:3:3:U:H2'	37:3:4:U:C6	2.39	0.57
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3121:U:H1'	36:1:3122:A:H5''	1.86	0.57
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	1.85	0.57
17:C5:25:LEU:HA	17:C5:28:MET:SD	2.81	0.57
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	1.86	0.57
36:1:437:G:H1	36:1:622:A:H61	1.52	0.57
28:D6:84:VAL:O	28:D6:86:VAL:N	2.34	0.57
36:1:2278:C:C2'	36:1:2279:A:H5''	2.34	0.57
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.86	0.57
40:L3:88:GLY:O	40:L3:161:LEU:N	2.41	0.57
36:1:3384:U:H2'	36:1:3385:U:H6	1.69	0.57
13:C1:79:LYS:HB2	1:6:346:G:H5'	282.51	0.57
1:2:953:G:OP2	15:C3:94:LYS:NZ	2.37	0.57
17:C5:30:THR:HG23	17:C5:86:VAL:HG21	1.85	0.57
1:6:909:U:H2'	1:6:910:C:C6	2.39	0.57
1:2:882:U:H2'	1:2:883:C:C6	2.38	0.57
5:S3:141:LYS:HE3	5:S3:179:GLN:HG3	1.85	0.57
4:S2:128:GLY:O	4:S2:132:ALA:N	2.57	0.57
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	2.61	0.57
1:2:1283:U:OP1	86:2:2115:OHX:N2	2.37	0.57
53:M7:79:THR:HG22	53:M7:80:LYS:HG3	6.20	0.57
49:M3:46:ILE:HG23	49:M3:49:ARG:CZ	2.93	0.57
1:2:1796:C:C5	28:D6:6:ALA:N	2.72	0.57
42:L5:177:GLU:O	42:L5:179:ARG:N	2.63	0.57
72:O6:70:ARG:HD3	72:O6:84:LYS:HG2	2.74	0.57
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.04	0.57
1:6:230:C:H42	1:6:235:G:H1	1.51	0.57
1:6:696:C:H4'	1:6:697:C:C6	2.39	0.57
6:S4:18:TRP:HE3	6:S4:20:LEU:HD11	1.69	0.57
50:M4:121:MET:HG3	36:5:3214:U:C4	281.69	0.57
68:O2:11:LYS:NZ	36:5:1404:G:OP2	182.16	0.57
68:O2:33:ARG:NH1	36:5:944:C:H4'	161.07	0.57
18:C6:127:LYS:NZ	18:C6:131:GLY:O	2.37	0.57
1:2:1199:G:H1	31:D9:31:ILE:HG12	1.68	0.57
39:L2:25:GLY:HA3	39:L2:75:ILE:HD13	3.64	0.57
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.53	0.57
1:2:104:A:OP2	1:2:308:C:N4	2.38	0.57
1:2:855:A:C2	1:2:857:U:H1'	2.39	0.57
36:1:2533:G:H2'	36:1:2534:G:O4'	2.04	0.57
10:S8:89:GLU:O	10:S8:93:THR:OG1	2.40	0.57
36:5:2123:G:N7	86:5:4095:OHX:N1	2.51	0.57
36:5:1032:C:H5'	36:5:1033:U:OP2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2993:G:H2'	36:5:3142:A:N6	2.19	0.57
56:N0:86:GLY:O	56:N0:88:HIS:NE2	2.38	0.57
1:2:552:G:C6	1:2:553:G:C6	2.92	0.57
40:L3:296:THR:HG21	40:L3:357:LYS:O	4.29	0.57
16:C4:42:VAL:HA	16:C4:46:MET:SD	2.45	0.57
42:L5:56:THR:HG21	37:7:26:C:H5''	294.79	0.57
86:2:2031:OHX:N4	86:2:2147:OHX:N1	2.52	0.57
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.54	0.57
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.76	0.57
13:C1:99:ARG:HD3	25:D3:8:GLY:O	2.03	0.57
1:6:1203:A:OP2	86:6:2126:OHX:N4	2.36	0.57
1:2:304:U:H2'	1:2:305:C:H6	1.69	0.57
67:O1:44:MET:O	67:O1:46:THR:N	3.03	0.57
13:C1:72:THR:O	13:C1:88:ARG:HD2	2.22	0.57
49:M3:3:ILE:HG21	64:N8:45:MET:HE3	5.43	0.57
10:S8:48:THR:HG21	10:S8:54:LYS:HD3	4.62	0.57
74:O8:23:ALA:HB3	74:O8:75:VAL:HG22	1.86	0.57
36:1:3384:U:H2'	36:1:3385:U:C6	2.40	0.57
36:1:1770:G:H5'	36:1:1771:C:OP2	2.05	0.57
1:6:800:U:H2'	1:6:801:G:H8	1.68	0.57
53:M7:116:HIS:NE2	53:M7:147:GLU:OE2	2.57	0.57
36:5:2198:A:OP2	86:5:4187:OHX:N4	2.38	0.57
73:O7:15:SER:HG	36:5:817:A:H8	141.28	0.57
36:1:1193:A:P	52:M6:49:ARG:HH22	2.27	0.57
36:5:953:G:H1'	36:5:1115:G:H5''	1.86	0.57
41:L4:326:ARG:O	44:L7:41:ARG:NH2	3.56	0.57
4:S2:140:ARG:HH21	4:S2:229:LEU:HD22	1.69	0.57
1:2:1537:C:N4	1:2:1572:G:H1	2.03	0.57
17:C5:122:THR:HG21	1:6:1455:G:OP1	368.94	0.57
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.48	0.57
26:D4:124:ARG:HA	26:D4:127:LYS:HG2	1.85	0.57
72:O6:55:ARG:O	72:O6:58:ILE:HD13	2.04	0.57
52:M6:110:PRO:O	52:M6:111:PRO:C	3.56	0.57
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.31	0.57
3:S1:165:ARG:O	3:S1:169:SER:OG	2.22	0.57
1:6:1695:G:H21	1:6:1706:C:N4	2.02	0.57
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.42	0.57
1:2:1228:G:H1	14:C2:67:THR:HB	1.70	0.57
36:1:975:C:H2'	36:1:976:U:C6	2.39	0.57
47:M0:97:LEU:O	47:M0:123:HIS:N	2.72	0.57
36:1:825:U:OP1	39:L2:21:ARG:NH1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:595:G:OP2	44:L7:30:ARG:NH2	2.37	0.57
36:1:3103:A:OP2	86:1:4167:OHX:N1	2.37	0.57
36:1:1675:G:H2'	36:1:1676:A:C8	2.40	0.57
36:1:1821:U:N3	70:O4:67:LYS:HD3	2.19	0.57
1:6:417:A:H4'	1:6:418:G:O5'	2.03	0.57
1:6:1657:U:H4'	1:6:1658:G:OP2	2.03	0.57
41:L4:29:PRO:HG3	41:L4:279:HIS:CE1	3.14	0.57
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.22	0.57
1:6:1175:U:H2'	1:6:1176:G:C8	2.40	0.57
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.93	0.57
50:M4:55:ARG:HD3	56:N0:70:THR:HB	1.85	0.57
36:1:670:C:P	54:M8:147:ARG:HH21	2.27	0.57
36:5:2513:U:OP2	86:5:3963:OHX:N3	2.38	0.57
42:L5:270:LYS:HD2	42:L5:272:TYR:HB2	9.29	0.57
36:5:2510:U:O2'	36:5:2511:A:H5''	2.05	0.57
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	1.87	0.57
2:S0:88:LYS:O	2:S0:92:HIS:ND1	3.39	0.57
1:2:1450:U:H2'	1:2:1451:C:H6	1.69	0.57
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.87	0.57
1:6:312:A:H4'	1:6:313:U:H5''	1.85	0.57
1:6:976:G:O6	86:6:2076:OHX:N6	2.37	0.57
36:1:643:U:OP1	36:1:1116:G:O2'	2.08	0.57
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	2.33	0.57
73:O7:62:GLY:O	86:8:217:OHX:N3	82.96	0.57
1:6:996:U:H2'	1:6:997:G:H8	1.70	0.57
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.86	0.57
42:L5:15:ARG:NH2	36:5:1003:A:H1'	288.31	0.57
10:S8:122:GLY:N	10:S8:157:GLU:OE2	2.31	0.57
1:2:715:U:H3	1:2:723:G:H1	1.52	0.57
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.54	0.57
41:L4:23:PRO:O	41:L4:25:VAL:N	2.36	0.57
36:5:300:G:O6	86:5:4186:OHX:N2	2.37	0.57
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.86	0.57
1:6:1679:G:N7	86:6:2185:OHX:N3	2.51	0.57
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.44	0.57
51:M5:68:ARG:HD2	51:M5:128:LYS:HG2	4.36	0.57
36:1:1856:C:H2'	36:1:1857:C:C6	2.39	0.57
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.87	0.57
36:1:2254:U:H2'	36:1:2261:G:H22	1.70	0.57
7:S5:220:VAL:HA	7:S5:223:SER:HB3	1.86	0.57
8:S6:207:GLU:HA	8:S6:210:GLN:OE1	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:128:ARG:HB3	72:O6:8:ALA:CB	3.60	0.57
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.06	0.57
49:M3:132:ALA:O	49:M3:134:GLU:N	2.98	0.57
78:Q2:74:CYS:CB	78:Q2:77:CYS:SG	2.92	0.57
10:S8:138:ASN:HB3	10:S8:141:ARG:HH11	1.69	0.57
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	3.67	0.57
36:5:1241:U:O2'	36:5:1242:G:O5'	2.23	0.57
15:C3:30:SER:HB2	15:C3:67:THR:HA	5.16	0.57
72:O6:56:ARG:O	72:O6:60:LEU:HD22	5.59	0.57
25:D3:130:VAL:O	25:D3:131:SER:HB3	2.05	0.57
1:6:1267:G:H2'	1:6:1268:G:C8	2.40	0.57
1:2:127:G:N7	8:S6:202:ARG:NH2	2.53	0.57
65:N9:12:GLN:OE1	65:N9:15:LYS:NZ	3.73	0.57
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	4.85	0.57
54:M8:73:GLN:HB3	54:M8:76:ALA:HB3	1.87	0.57
1:6:550:A:OP2	86:6:2046:OHX:N2	2.37	0.57
50:M4:21:VAL:HG12	50:M4:65:LEU:HD23	1.86	0.57
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	1.85	0.57
36:1:3136:G:OP2	86:1:4099:OHX:N6	2.37	0.57
24:D2:37:PHE:CD2	24:D2:103:ILE:HD11	3.37	0.57
46:L9:4:ILE:HG22	56:N0:142:GLN:OE1	2.37	0.57
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.05	0.57
42:L5:155:THR:HB	42:L5:179:ARG:HH11	1.69	0.57
78:Q2:71:ARG:NE	78:Q2:80:ARG:HH21	1.99	0.57
3:S1:38:PHE:HA	3:S1:74:GLN:HE22	1.69	0.57
64:N8:65:GLN:O	64:N8:66:ALA:HB3	2.04	0.57
16:C4:127:ARG:HH11	16:C4:127:ARG:HG2	4.04	0.57
66:O0:30:THR:HG22	66:O0:91:SER:HB2	2.91	0.57
15:C3:114:ARG:HD3	15:C3:117:LEU:HD12	3.10	0.57
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.86	0.57
1:2:1017:U:H2'	1:2:1018:U:C6	2.40	0.57
61:N5:113:LEU:HD22	36:5:1522:U:H3'	101.47	0.57
36:1:863:C:OP1	86:1:3882:OHX:N5	2.37	0.57
20:C8:26:ILE:HG12	20:C8:31:ALA:HB2	1.87	0.57
62:N6:74:TYR:CE2	62:N6:77:LYS:HD2	5.20	0.57
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.59	0.57
1:6:1186:U:H2'	1:6:1187:U:O4'	2.04	0.57
36:1:3278:C:H2'	36:1:3278:C:O2	2.03	0.57
39:L2:132:ASN:HD22	39:L2:151:PRO:HB3	1.70	0.57
36:1:3160:U:H2'	36:1:3161:C:C6	2.40	0.57
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.69	0.57
1:2:992:A:H2	1:2:1012:U:N3	2.03	0.57
36:1:1942:U:O2'	36:1:3345:G:O2'	2.20	0.57
1:2:1291:G:H2'	1:2:1292:G:H8	1.69	0.57
1:2:1323:C:H2'	1:2:1324:G:O4'	2.04	0.57
14:C2:50:LYS:HE2	33:E1:103:LEU:HD11	1.87	0.57
26:D4:35:VAL:O	26:D4:36:SER:HB3	2.66	0.57
36:1:1108:U:H2'	36:1:1109:U:H6	1.67	0.57
41:L4:30:ILE:HD13	41:L4:128:ALA:HB2	1.86	0.57
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	3.14	0.57
1:2:45:U:O2'	1:2:46:A:H2'	2.05	0.57
36:1:1397:C:C2'	36:1:1398:U:H5'	2.34	0.57
1:2:647:G:N2	1:2:687:G:H22	2.02	0.57
36:1:272:G:OP2	86:1:4030:OHX:N3	2.38	0.57
36:1:1620:U:H2'	36:1:1621:A:C8	2.40	0.57
1:2:248:U:OP1	86:2:2093:OHX:N6	2.38	0.57
1:6:737:A:H2'	1:6:738:G:C8	2.39	0.57
56:N0:71:LYS:NZ	36:5:563:U:OP1	341.14	0.57
28:D6:90:GLU:CD	28:D6:90:GLU:H	3.89	0.57
19:C7:41:ILE:HD12	19:C7:47:ARG:HA	1.85	0.57
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.95	0.57
24:D2:15:ASN:ND2	24:D2:72:CYS:O	3.54	0.57
4:S2:159:THR:HG21	1:6:1097:U:O3'	383.31	0.57
45:L8:101:THR:N	45:L8:104:GLU:OE2	2.38	0.57
1:6:453:U:O2	1:6:453:U:H3'	2.05	0.57
55:M9:20:ARG:HD3	55:M9:21:LYS:HZ3	4.08	0.57
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.86	0.57
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.04	0.57
36:1:1631:C:OP2	63:N7:48:ARG:NH2	2.38	0.57
22:D0:63:LEU:HB2	22:D0:84:MET:HB3	2.27	0.57
27:D5:43:ASP:O	27:D5:46:LYS:N	2.36	0.57
17:C5:63:ALA:HB1	17:C5:74:ALA:HB3	2.36	0.57
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.69	0.57
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.38	0.57
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.48	0.57
36:5:1070:U:C4	36:5:1071:U:C4	2.92	0.57
62:N6:71:SER:HB3	62:N6:83:ASP:HB2	1.87	0.57
26:D4:66:GLY:HA2	1:6:532:U:H4'	432.08	0.57
9:S7:141:ARG:HB2	9:S7:149:ILE:HG13	4.24	0.57
36:1:2373:A:H3'	36:1:2373:A:OP2	2.05	0.57
26:D4:112:LYS:NZ	26:D4:113:ASN:OD1	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N4:6:ASP:HB3	60:N4:11:ALA:H	1.68	0.57
63:N7:17:ARG:H	70:O4:74:ARG:HG3	4.68	0.56
11:S9:125:ALA:HA	11:S9:128:LEU:HD12	3.22	0.56
19:C7:41:ILE:HD13	19:C7:50:ILE:HD12	1.85	0.56
36:5:1239:C:N4	36:5:1249:G:H1	2.01	0.56
5:S3:57:ASP:O	5:S3:65:ARG:HG2	5.64	0.56
36:1:2339:C:OP2	59:N3:48:ARG:HG3	2.05	0.56
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	4.67	0.56
34:SR:90:ARG:HH21	34:SR:102:ARG:HE	2.85	0.56
1:2:800:U:O4	86:2:2054:OHX:N5	2.37	0.56
48:M1:164:LYS:HE3	48:M1:171:VAL:HB	1.87	0.56
70:O4:88:ARG:NH1	36:5:2556:C:OP1	200.37	0.56
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.19	0.56
19:C7:51:ALA:O	19:C7:55:THR:HG23	4.61	0.56
1:2:1105:C:H41	25:D3:4:GLY:HA2	1.69	0.56
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.40	0.56
36:5:1176:C:H2'	36:5:1177:G:N2	2.19	0.56
45:L8:221:ASN:HA	45:L8:225:LYS:HE3	5.03	0.56
36:1:970:A:OP2	65:N9:19:ASN:ND2	2.37	0.56
58:N2:20:SER:OG	58:N2:21:SER:N	2.38	0.56
36:1:2299:A:OP1	86:1:3944:OHX:N1	2.38	0.56
36:1:2561:A:O2'	36:1:2562:A:H5''	2.05	0.56
1:2:1748:G:O6	86:2:2105:OHX:N4	2.38	0.56
2:S0:55:GLU:HG2	23:D1:79:LEU:HD23	1.87	0.56
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.72	0.56
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.69	0.56
23:D1:32:VAL:HB	23:D1:60:ARG:HD3	1.86	0.56
72:O6:70:ARG:HH11	72:O6:84:LYS:HG2	1.69	0.56
43:L6:43:LEU:HD21	43:L6:85:ILE:HG13	1.87	0.56
86:1:3937:OHX:N5	86:1:4198:OHX:N6	2.53	0.56
1:2:397:A:O3'	10:S8:50:GLY:HA2	2.05	0.56
3:S1:92:GLN:HG2	3:S1:97:LEU:HD21	6.42	0.56
36:5:1404:G:N2	36:5:1407:A:OP2	2.34	0.56
36:1:643:U:O4	36:1:644:G:C6	2.58	0.56
7:S5:189:THR:OG1	27:D5:98:GLN:OE1	2.16	0.56
1:6:1058:U:H4'	1:6:1059:U:OP1	2.05	0.56
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	283.89	0.56
36:1:1781:C:H2'	36:1:1782:U:C6	2.39	0.56
1:2:615:A:O2'	1:2:621:A:N1	2.33	0.56
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.41	0.56
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.56	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:22:ASN:OD1	13:C1:24:LYS:HB2	2.05	0.56
1:2:1335:U:H3	1:2:1416:G:H1	1.53	0.56
36:5:213:A:N6	36:5:227:G:O2'	2.36	0.56
23:D1:74:GLN:HG3	23:D1:79:LEU:HB2	3.47	0.56
49:M3:46:ILE:HD12	49:M3:49:ARG:NH1	2.23	0.56
41:L4:146:PRO:O	86:L4:402:OHX:N5	2.38	0.56
36:1:304:G:N3	36:1:304:G:H5'	2.20	0.56
36:5:1249:G:H2'	36:5:1250:G:H8	1.70	0.56
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.30	0.56
20:C8:42:TYR:CE2	20:C8:73:MET:HG3	4.96	0.56
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.05	0.56
20:C8:87:ASN:OD1	20:C8:88:ARG:N	2.26	0.56
36:1:3138:U:C2'	36:1:3139:A:H5''	2.34	0.56
25:D3:64:PRO:O	86:6:2155:OHX:N2	359.80	0.56
1:6:1545:A:H2'	1:6:1546:G:H8	1.69	0.56
18:C6:34:SER:OG	21:C9:7:ARG:O	3.01	0.56
10:S8:61:GLU:HG3	10:S8:62:THR:HG23	1.87	0.56
16:C4:13:VAL:HG13	16:C4:77:THR:H	1.71	0.56
45:L8:71:VAL:HG13	45:L8:234:GLY:HA3	1.88	0.56
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.87	0.56
29:D7:59:CYS:O	29:D7:61:THR:N	2.85	0.56
73:O7:52:LYS:HA	73:O7:55:ARG:HD2	1.87	0.56
34:SR:164:ASP:OD2	34:SR:166:SER:HB3	2.05	0.56
1:2:74:U:O2'	1:2:75:U:OP2	2.23	0.56
68:O2:12:LYS:HD3	68:O2:57:TYR:HA	1.98	0.56
36:1:581:U:O4	86:1:4172:OHX:N4	2.38	0.56
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.38	0.56
49:M3:15:ARG:NH2	36:5:96:G:OP1	153.42	0.56
36:5:59:G:H2'	38:8:33:A:O2'	2.04	0.56
1:2:1067:C:H2'	1:2:1068:C:C6	2.40	0.56
33:E1:82:LYS:O	33:E1:84:VAL:N	5.05	0.56
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	1.88	0.56
36:1:3134:A:OP1	86:1:3900:OHX:N4	2.38	0.56
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.87	0.56
62:N6:106:ILE:HG21	62:N6:109:LEU:HD23	2.45	0.56
36:1:2689:A:N3	36:1:2689:A:H2'	2.19	0.56
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.32	0.56
36:5:3241:G:H2'	36:5:3245:A:C8	2.39	0.56
36:5:3255:U:H2'	36:5:3256:G:C8	2.39	0.56
1:6:558:U:O2	1:6:558:U:H2'	2.03	0.56
1:6:355:G:OP1	86:6:2063:OHX:N5	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1103:A:OP2	36:1:1103:A:H4'	2.04	0.56
36:5:975:C:H2'	36:5:976:U:H6	1.71	0.56
1:6:221:A:C2'	1:6:222:A:H5'	2.35	0.56
36:5:3393:U:H2'	36:5:3394:U:H6	1.70	0.56
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.41	0.56
63:N7:115:LYS:O	63:N7:119:GLU:HB2	2.65	0.56
51:M5:165:THR:OG1	51:M5:166:ALA:N	3.26	0.56
36:1:651:G:O2'	36:1:1435:A:OP1	2.20	0.56
37:3:93:C:O2'	37:3:94:C:H5'	2.05	0.56
47:M0:119:TRP:HZ3	36:5:1126:G:H5''	256.36	0.56
1:2:1426:C:H5''	35:SM:93:ARG:HH12	1.70	0.56
50:M4:120:VAL:O	50:M4:124:ARG:HB2	3.06	0.56
79:Q3:21:SER:OG	36:5:2189:U:O3'	244.20	0.56
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.05	0.56
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.20	0.56
1:2:1537:C:O2'	1:2:1540:G:O6	2.21	0.56
6:S4:248:ILE:HD12	1:6:789:A:H2	399.16	0.56
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.06	0.56
78:Q2:48:SER:O	86:Q2:503:OHX:N6	2.39	0.56
36:5:1877:U:H5''	36:5:1878:G:H5'	1.88	0.56
1:6:1696:G:O2'	1:6:1698:G:N7	2.31	0.56
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.46	0.56
6:S4:26:CYS:HB2	11:S9:3:ARG:HA	1.87	0.56
39:L2:10:LYS:HA	39:L2:16:PHE:CE2	2.41	0.56
36:5:2882:U:H2'	36:5:2883:U:C6	2.40	0.56
47:M0:210:ILE:HD13	47:M0:217:PHE:CD2	4.43	0.56
39:L2:130:SER:HG	36:5:2179:C:HO2'	216.16	0.56
1:6:412:A:H2	1:6:421:A:H61	1.54	0.56
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.87	0.56
1:2:539:G:OP2	1:2:539:G:H8	1.88	0.56
1:2:811:A:H5'	1:2:816:G:O2'	2.06	0.56
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.71	0.56
66:O0:33:SER:HB2	66:O0:93:LEU:HD21	1.86	0.56
62:N6:100:HIS:CD2	62:N6:101:PRO:HD2	2.95	0.56
36:1:1014:U:H2'	36:1:1015:U:H5''	1.87	0.56
36:5:2425:G:H2'	36:5:2426:U:O4'	2.05	0.56
58:N2:33:TYR:CE2	58:N2:63:VAL:HG21	2.39	0.56
34:SR:159:ASN:O	34:SR:161:LYS:N	4.21	0.56
36:1:2534:G:O6	86:1:3996:OHX:N6	2.39	0.56
1:2:138:A:N6	1:2:266:A:H61	2.04	0.56
1:2:25:C:O2	86:2:2084:OHX:N3	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:484:C:H42	1:6:503:G:H1	1.53	0.56
36:5:1317:A:OP1	86:5:4093:OHX:N1	2.38	0.56
10:S8:142:LYS:NZ	1:6:187:G:N7	275.78	0.56
1:2:142:G:N2	1:2:173:A:H2	1.97	0.56
36:5:917:A:OP2	86:5:4219:OHX:N3	2.39	0.56
1:6:1209:C:N4	1:6:1454:G:H1	2.01	0.56
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	2.35	0.56
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	2.35	0.56
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	3.33	0.56
36:1:3166:C:N4	36:1:3284:G:H1	2.03	0.56
62:N6:112:ASP:HB2	62:N6:115:ARG:H	1.71	0.56
4:S2:38:VAL:N	4:S2:65:GLU:OE1	3.16	0.56
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.40	0.56
1:6:1350:U:H2'	1:6:1351:G:C8	2.40	0.56
34:SR:305:TYR:CD2	34:SR:311:ARG:HD2	3.15	0.56
53:M7:4:TYR:OH	53:M7:18:ARG:HG3	2.05	0.56
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.41	0.56
63:N7:3:LYS:HE2	66:O0:36:GLN:HG3	1.87	0.56
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.41	0.56
19:C7:71:PHE:O	19:C7:73:LEU:N	2.36	0.56
86:6:2116:OHX:N2	86:6:2167:OHX:N1	2.53	0.56
1:6:67:A:O2'	1:6:69:G:OP1	2.17	0.56
1:2:1297:G:N2	1:2:1300:A:OP2	2.32	0.56
34:SR:89:LEU:HD21	34:SR:110:VAL:HG11	1.88	0.56
36:5:2434:U:C4'	36:5:2435:G:H5''	2.36	0.56
5:S3:94:ARG:NH2	35:SM:134:ASP:OD1	2.38	0.56
36:1:3067:C:H5''	55:M9:58:HIS:CD2	2.41	0.56
26:D4:20:ARG:HE	26:D4:22:GLN:NE2	3.96	0.56
1:6:1769:U:OP2	86:6:2140:OHX:N2	2.38	0.56
36:5:2584:G:H5'	36:5:2585:G:OP2	2.06	0.56
9:S7:131:PHE:O	9:S7:133:THR:N	2.39	0.56
1:6:489:C:O2'	1:6:490:C:O5'	2.23	0.56
1:6:27:U:H2'	1:6:28:A:C8	2.40	0.56
1:6:116:U:O2'	1:6:333:A:N3	2.34	0.56
36:5:1596:C:H2'	36:5:1597:C:C6	2.41	0.56
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.71	0.56
14:C2:57:ALA:HB3	14:C2:85:LYS:HZ1	1.70	0.56
10:S8:103:GLN:HB3	10:S8:164:ARG:HG2	1.88	0.56
62:N6:12:ARG:HD3	36:5:215:G:H5''	87.17	0.56
36:1:1481:A:N1	70:O4:2:ALA:HA	2.21	0.56
86:6:2116:OHX:N2	86:6:2167:OHX:N5	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:27:LYS:NZ	36:5:1447:G:OP2	160.78	0.56
7:S5:117:THR:HG21	7:S5:194:LEU:HD13	1.87	0.56
36:1:2735:U:H2'	36:1:2736:A:C8	2.41	0.56
52:M6:3:VAL:HG13	52:M6:4:GLU:HG3	1.86	0.56
16:C4:84:ARG:HA	16:C4:119:THR:HG22	3.02	0.56
13:C1:109:VAL:HA	13:C1:135:VAL:HG13	1.88	0.56
36:5:3362:A:C2	36:5:3363:U:C2	2.94	0.56
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.38	0.56
36:1:2945:G:O2'	36:1:2948:C:OP2	2.16	0.56
8:S6:87:ARG:N	8:S6:91:GLU:OE1	2.30	0.56
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.61	0.56
1:6:454:U:H3'	1:6:455:C:C6	2.41	0.56
36:5:1597:C:H42	36:5:1610:G:H1	1.54	0.56
70:O4:109:THR:HA	70:O4:112:ALA:HB3	4.19	0.56
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.05	0.56
1:2:407:A:H2'	1:2:408:C:C6	2.41	0.56
40:L3:304:THR:HG23	40:L3:306:THR:H	5.27	0.56
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.05	0.56
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.40	0.56
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.06	0.56
6:S4:3:ARG:HB3	1:6:93:A:H1'	325.92	0.56
11:S9:102:GLU:CD	11:S9:102:GLU:H	2.46	0.56
36:1:317:A:C2	36:1:318:A:C4	2.94	0.56
1:2:1786:G:OP1	16:C4:136:ARG:NH2	2.38	0.56
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.21	0.56
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.05	0.56
1:2:927:C:H1'	16:C4:125:SER:HB2	1.88	0.56
36:1:2768:U:H2'	36:1:2769:A:H8	1.71	0.56
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.37	0.56
76:Q0:79:GLU:HG3	76:Q0:82:LEU:HG	1.88	0.56
71:O5:119:LYS:HZ3	71:O5:120:ALA:HB2	1.70	0.56
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.88	0.56
36:1:591:G:H1'	43:L6:19:LYS:HG3	1.87	0.56
36:1:1802:C:H2'	36:1:1803:C:C6	2.41	0.56
36:5:742:G:N7	86:5:3998:OHX:N4	2.54	0.56
36:5:662:U:H2'	36:5:663:C:C6	2.40	0.56
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.65	0.56
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.05	0.56
36:5:3192:U:O4	86:5:4138:OHX:N6	2.38	0.56
1:6:811:A:C2	1:6:858:G:H1'	2.41	0.56
1:2:1170:G:H1	1:2:1469:A:H61	1.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.23	0.56
47:M0:177:ASP:OD2	47:M0:177:ASP:N	2.49	0.56
40:L3:21:ARG:NH2	36:5:3309:G:O6	198.57	0.56
41:L4:141:ARG:N	41:L4:177:ASP:OD1	2.82	0.56
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	3.55	0.56
1:2:641:G:H2'	1:2:642:G:C8	2.41	0.56
36:5:1614:C:H2'	36:5:1615:C:H6	1.71	0.56
41:L4:93:MET:HE1	41:L4:93:MET:H	3.35	0.56
59:N3:10:LYS:HB2	59:N3:125:LEU:HD21	1.88	0.56
66:O0:13:LYS:NZ	66:O0:99:ASP:OD2	2.34	0.56
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.71	0.56
22:D0:57:ARG:HD2	22:D0:89:ARG:HD3	1.87	0.56
14:C2:45:LEU:HB2	1:6:1228:G:OP1	463.17	0.56
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.39	0.56
36:1:1211:U:H2'	36:1:1212:A:H8	1.69	0.56
36:5:2288:G:OP1	86:5:3958:OHX:N3	2.39	0.56
36:1:3074:G:OP1	86:1:4039:OHX:N1	2.39	0.56
8:S6:162:VAL:HG21	8:S6:171:LYS:HD3	4.88	0.56
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.41	0.56
59:N3:22:ILE:HG12	59:N3:35:TYR:HD1	2.66	0.56
53:M7:4:TYR:CE1	53:M7:16:SER:HB2	3.05	0.56
24:D2:104:LEU:HB2	24:D2:125:ILE:HA	1.88	0.56
41:L4:338:LYS:O	41:L4:340:GLY:N	2.99	0.56
1:6:1324:G:N7	86:6:2100:OHX:N2	2.54	0.56
25:D3:78:LYS:HG3	25:D3:79:ASN:HB2	1.88	0.56
16:C4:91:THR:O	16:C4:93:THR:N	2.32	0.56
1:6:845:G:H2'	1:6:846:G:H8	1.71	0.56
59:N3:96:GLU:HB3	60:N4:21:PHE:HE1	1.71	0.56
1:6:1031:U:H4'	1:6:1032:G:OP2	2.06	0.56
36:1:1752:A:OP2	86:1:4047:OHX:N5	2.39	0.56
53:M7:168:LEU:HB2	53:M7:172:GLN:HB3	1.88	0.55
1:2:1773:C:H2'	1:2:1774:G:H8	1.69	0.55
39:L2:5:ILE:HD13	39:L2:232:GLY:HA2	1.87	0.55
1:2:582:U:H3'	1:2:583:C:C6	2.41	0.55
1:6:340:U:H2'	1:6:341:A:C8	2.41	0.55
36:5:247:C:C2	36:5:248:U:H1'	2.41	0.55
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.44	0.55
36:1:1240:A:H61	36:1:1244:A:H5''	1.71	0.55
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.24	0.55
7:S5:26:ALA:HB3	18:C6:28:LEU:N	2.59	0.55
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2241:U:O2'	39:L2:243:THR:HG22	2.06	0.55
34:SR:14:GLU:HG2	34:SR:309:VAL:HG13	4.89	0.55
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	1.88	0.55
1:2:1122:G:N2	1:2:1125:A:OP2	2.38	0.55
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.64	0.55
35:SM:52:PRO:O	35:SM:54:PRO:HD3	4.97	0.55
71:O5:94:LYS:O	71:O5:98:SER:OG	3.06	0.55
37:3:89:G:N2	37:3:92:A:OP2	2.39	0.55
1:2:986:G:H2'	1:2:987:G:O4'	2.05	0.55
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.06	0.55
30:D8:25:VAL:HG11	30:D8:66:LEU:HD12	1.88	0.55
29:D7:41:LEU:H	29:D7:41:LEU:HD23	3.44	0.55
10:S8:27:PHE:HB3	10:S8:49:ARG:NH2	2.20	0.55
36:1:662:U:OP1	64:N8:8:THR:HG21	2.06	0.55
55:M9:43:LYS:HZ3	36:5:1765:U:H5'	92.67	0.55
44:L7:232:ARG:O	44:L7:235:PHE:HB2	2.06	0.55
2:S0:163:ASN:ND2	2:S0:165:ARG:HG3	2.22	0.55
20:C8:35:ILE:HB	20:C8:38:VAL:CG1	3.99	0.55
14:C2:119:SER:OG	14:C2:120:VAL:N	2.39	0.55
69:O3:48:ARG:HG2	69:O3:104:PRO:HD3	4.05	0.55
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.88	0.55
1:2:494:U:O2'	1:2:495:C:O5'	2.24	0.55
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.52	0.55
10:S8:16:ALA:HB2	1:6:354:C:H5''	297.63	0.55
4:S2:90:THR:N	4:S2:93:GLY:O	2.39	0.55
1:6:729:G:O2'	1:6:730:G:O5'	2.24	0.55
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.40	0.55
36:5:595:G:N1	36:5:609:G:H5''	2.20	0.55
36:5:1114:U:O2'	36:5:1115:G:H5'	2.07	0.55
58:N2:22:PRO:HB3	58:N2:93:ILE:HG21	1.88	0.55
51:M5:49:ARG:HD3	36:5:115:A:OP1	103.65	0.55
1:6:607:G:H5'	1:6:613:G:N2	2.22	0.55
1:6:1623:C:H2'	1:6:1624:C:C6	2.41	0.55
41:L4:292:SER:OG	41:L4:293:SER:N	2.39	0.55
57:N1:8:ARG:O	57:N1:11:THR:OG1	2.26	0.55
38:8:43:A:OP1	86:8:227:OHX:N3	2.40	0.55
36:5:3078:U:H4'	36:5:3079:U:O5'	2.06	0.55
36:5:845:G:O6	86:5:4033:OHX:N6	2.39	0.55
1:2:1615:C:O2'	1:2:1616:G:OP2	2.24	0.55
25:D3:17:VAL:HG22	25:D3:20:ARG:HH22	2.50	0.55
54:M8:165:ILE:HD11	54:M8:172:PHE:HB3	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:28:SER:OG	37:7:9:C:OP1	266.14	0.55
36:5:3047:U:O2'	36:5:3048:A:H5'	2.07	0.55
47:M0:177:ASP:O	47:M0:180:GLU:N	2.75	0.55
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.06	0.55
61:N5:67:ILE:CD1	61:N5:121:LYS:HG3	2.45	0.55
8:S6:179:VAL:HG21	1:6:140:A:H1'	327.25	0.55
72:O6:30:LYS:HD3	36:5:316:U:O2'	103.21	0.55
57:N1:12:ARG:HD3	57:N1:13:TYR:CZ	4.54	0.55
1:2:1564:U:H2'	1:2:1565:C:H6	1.71	0.55
21:C9:27:LYS:HB3	21:C9:111:ILE:HD11	1.87	0.55
18:C6:46:PHE:HA	18:C6:49:TYR:HB2	1.91	0.55
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.73	0.55
4:S2:125:ILE:HG22	4:S2:129:ILE:HD11	2.90	0.55
34:SR:255:ALA:HB2	34:SR:292:LEU:HD22	1.88	0.55
15:C3:114:ARG:HG3	1:6:952:A:O2'	298.52	0.55
1:6:909:U:H2'	1:6:910:C:H6	1.71	0.55
60:N4:6:ASP:HA	60:N4:30:ARG:O	2.05	0.55
36:1:49:A:OP1	49:M3:16:LYS:NZ	2.34	0.55
6:S4:94:ALA:O	6:S4:96:ASN:N	2.39	0.55
40:L3:252:ILE:O	40:L3:264:VAL:HG11	2.91	0.55
1:6:518:A:O2'	1:6:534:A:N6	2.39	0.55
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.45	0.55
48:M1:105:GLY:HA3	36:5:2674:A:H5''	333.00	0.55
1:6:604:A:OP2	86:6:2147:OHX:N4	2.39	0.55
36:1:2778:G:H2'	36:1:2779:A:H5'	1.88	0.55
63:N7:27:LYS:HD2	63:N7:28:PRO:HD2	1.88	0.55
46:L9:13:PRO:O	46:L9:16:VAL:HG13	4.14	0.55
1:2:1173:C:H2'	1:2:1174:C:H6	1.72	0.55
5:S3:61:GLU:O	5:S3:63:GLY:N	2.40	0.55
29:D7:81:ARG:HG2	29:D7:82:LYS:N	4.17	0.55
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.19	0.55
20:C8:136:GLN:NE2	1:6:1544:U:OP1	354.74	0.55
41:L4:181:VAL:HG11	41:L4:224:GLY:CA	3.13	0.55
3:S1:39:GLU:HG3	3:S1:40:ASN:N	2.21	0.55
10:S8:105:ASP:O	10:S8:107:THR:N	2.39	0.55
47:M0:89:VAL:HG13	47:M0:136:PHE:CE1	2.42	0.55
1:6:150:U:H2'	1:6:151:G:O4'	2.06	0.55
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.72	0.55
16:C4:136:ARG:HD2	1:6:1769:U:O2	302.76	0.55
2:S0:200:ASP:HA	2:S0:203:PHE:CD1	2.71	0.55
36:5:1819:U:H2'	36:5:1820:U:H5'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:639:U:H1'	1:6:640:U:C5	2.42	0.55
56:N0:89:ASN:ND2	57:N1:156:TYR:H	2.04	0.55
18:C6:22:VAL:HG22	18:C6:65:ILE:HG23	1.87	0.55
26:D4:112:LYS:HE2	26:D4:116:LYS:HD2	1.87	0.55
1:2:1475:A:H2'	1:2:1476:C:O4'	2.06	0.55
44:L7:138:TYR:O	44:L7:237:ASN:ND2	2.39	0.55
36:5:2209:U:H4'	36:5:2210:G:OP1	2.07	0.55
36:1:2280:A:H5''	36:1:2281:A:OP2	2.07	0.55
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.68	0.55
1:6:1665:U:O4	86:6:2119:OHX:N6	2.39	0.55
1:2:1558:U:H6	1:2:1558:U:H5'	1.70	0.55
1:2:1217:A:H8	1:2:1217:A:H5'	1.71	0.55
71:O5:21:LEU:CD1	71:O5:25:LYS:HE3	2.37	0.55
36:1:2314:U:O2'	36:1:2315:G:OP1	2.24	0.55
16:C4:20:TYR:CG	16:C4:84:ARG:HD3	2.61	0.55
23:D1:60:ARG:HG2	23:D1:65:SER:OG	2.62	0.55
15:C3:62:GLN:HB2	15:C3:65:VAL:HG23	1.88	0.55
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.76	0.55
1:6:1699:G:N1	1:6:1701:A:H5''	2.21	0.55
10:S8:12:SER:HA	10:S8:18:ARG:HH12	1.71	0.55
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.88	0.55
54:M8:185:LYS:HG2	54:M8:186:VAL:HG23	3.62	0.55
86:2:2044:OHX:N1	86:2:2099:OHX:N3	2.54	0.55
36:5:2697:A:H2'	36:5:2698:G:H8	1.71	0.55
1:6:710:U:H1'	1:6:729:G:H1	1.70	0.55
64:N8:42:ARG:HH21	36:5:2799:A:H1'	191.93	0.55
34:SR:64:HIS:CE1	34:SR:84:SER:HB3	2.71	0.55
1:2:159:U:H5'	26:D4:117:LYS:HB3	1.88	0.55
36:5:3191:G:O6	86:5:4138:OHX:N6	2.40	0.55
38:4:137:C:OP2	86:4:233:OHX:N5	2.40	0.55
70:O4:81:CYS:O	70:O4:83:ASN:N	2.39	0.55
36:1:2902:A:OP1	46:L9:170:LYS:HE3	2.06	0.55
1:6:1273:G:H4'	1:6:1274:C:H5''	1.88	0.55
36:5:847:A:H2'	36:5:848:A:C8	2.42	0.55
9:S7:184:GLU:HG2	9:S7:185:ILE:H	3.71	0.55
68:O2:41:VAL:HG12	68:O2:46:PHE:HB2	2.04	0.55
6:S4:88:ASP:OD1	6:S4:122:LYS:NZ	2.39	0.55
1:2:142:G:O6	8:S6:177:ARG:NH1	2.39	0.55
36:1:73:C:N3	49:M3:59:ARG:NH1	2.55	0.55
26:D4:56:SER:HB3	26:D4:74:LEU:HB2	3.96	0.55
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:562:C:H2'	36:1:563:U:C6	2.40	0.55
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.87	0.55
66:O0:24:THR:HG22	66:O0:91:SER:HB3	2.31	0.55
36:1:1505:C:OP1	53:M7:127:ARG:HD2	2.07	0.55
64:N8:79:TRP:HE3	64:N8:87:ARG:HG2	2.93	0.55
43:L6:158:TYR:OH	50:M4:114:ASP:OD2	2.18	0.55
3:S1:32:ILE:HG22	3:S1:43:VAL:HB	1.88	0.55
36:5:3103:A:OP2	86:5:4153:OHX:N4	2.39	0.55
3:S1:167:VAL:HG11	3:S1:200:ALA:HB1	2.59	0.55
27:D5:36:ALA:O	27:D5:38:HIS:N	2.35	0.55
35:SM:23:LYS:HG3	35:SM:24:GLU:N	4.66	0.55
1:2:1114:G:O6	86:2:2074:OHX:N5	2.40	0.55
47:M0:30:LYS:H	47:M0:62:SER:HB2	1.96	0.55
36:1:603:A:C5	36:1:604:G:H1'	2.41	0.55
36:1:1423:C:H2'	36:1:1424:C:H6	1.71	0.55
36:1:1344:G:H1	36:1:1360:C:H42	1.53	0.55
36:5:308:A:H5'	36:5:2223:A:O2'	2.07	0.55
1:6:383:G:N7	86:6:2145:OHX:N5	2.55	0.55
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.42	0.55
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.06	0.55
1:6:168:A:H2'	1:6:169:A:C8	2.41	0.55
1:2:542:A:C8	1:2:543:C:H3'	2.42	0.55
36:1:2735:U:H2'	36:1:2736:A:H8	1.71	0.55
1:2:549:G:OP2	86:2:2026:OHX:N2	2.39	0.55
86:1:3956:OHX:N4	44:L7:217:PRO:HA	2.22	0.55
74:O8:26:LYS:NZ	74:O8:27:ILE:O	3.64	0.55
22:D0:62:VAL:HG22	22:D0:85:ARG:HG3	1.89	0.55
36:1:514:G:N3	41:L4:341:SER:OG	2.40	0.55
34:SR:176:LYS:HB3	34:SR:195:HIS:O	2.06	0.55
32:E0:17:GLN:OE1	1:6:563:U:H4'	382.84	0.55
5:S3:113:LEU:HD21	5:S3:117:ARG:CZ	2.37	0.55
1:6:1309:C:O2'	1:6:1401:A:N1	2.33	0.55
10:S8:87:ASN:ND2	1:6:341:A:H4'	256.98	0.55
36:5:2217:U:H2'	36:5:2218:G:C8	2.39	0.55
42:L5:34:LYS:HA	57:N1:27:LEU:HD21	1.89	0.55
34:SR:16:HIS:NE2	34:SR:35:SER:OG	2.35	0.55
57:N1:102:ARG:NH2	36:5:1061:A:O3'	237.21	0.55
1:6:27:U:OP1	86:6:2104:OHX:N3	2.39	0.55
6:S4:128:LYS:HA	6:S4:156:VAL:HG22	1.87	0.55
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	3.08	0.55
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.40	0.55
1:6:1417:A:OP1	86:6:2083:OHX:N4	2.40	0.55
12:C0:61:TRP:H	12:C0:61:TRP:HD1	1.52	0.55
11:S9:117:GLY:O	11:S9:119:ALA:N	2.62	0.55
44:L7:33:ARG:O	44:L7:37:ASN:N	2.40	0.55
1:2:1477:G:H1	1:2:1530:C:H42	1.53	0.55
36:5:850:U:H2'	36:5:851:C:C6	2.41	0.55
36:5:1786:G:H2'	36:5:1787:A:C8	2.41	0.55
69:O3:59:VAL:HG23	69:O3:60:ARG:H	1.98	0.55
61:N5:115:ARG:NH1	61:N5:115:ARG:HG3	2.33	0.55
1:6:1255:G:O2'	1:6:1256:A:O5'	2.22	0.55
40:L3:221:THR:HG22	40:L3:272:TYR:H	1.88	0.55
36:5:2211:U:OP2	86:5:4218:OHX:N1	2.40	0.55
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.47	0.55
26:D4:20:ARG:HD2	26:D4:74:LEU:HD22	3.27	0.55
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.87	0.55
31:D9:34:TYR:OH	1:6:1487:A:OP1	418.74	0.55
36:1:743:C:O2	54:M8:141:ARG:HD3	2.07	0.55
19:C7:51:ALA:O	19:C7:55:THR:OG1	2.24	0.55
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.42	0.55
1:2:1119:G:O6	86:2:2149:OHX:N1	2.40	0.55
36:1:1667:A:H2'	36:1:1668:G:C8	2.41	0.55
41:L4:159:ILE:HD13	41:L4:164:GLU:HG2	2.86	0.55
1:2:770:A:OP2	86:2:2139:OHX:N6	2.39	0.55
62:N6:55:GLU:HB2	62:N6:108:LYS:HB3	4.04	0.55
43:L6:97:ASN:OD1	43:L6:99:GLU:HG2	2.06	0.55
1:2:947:U:H2'	1:2:948:G:C8	2.42	0.55
34:SR:5:GLU:HA	34:SR:317:THR:HA	3.06	0.55
54:M8:124:LEU:O	54:M8:127:LEU:HB3	2.29	0.55
7:S5:162:VAL:HB	30:D8:45:LYS:HB3	1.88	0.55
18:C6:71:GLY:O	18:C6:77:GLN:NE2	2.32	0.55
36:5:756:U:H2'	36:5:757:C:C6	2.41	0.55
1:2:1157:A:H2'	1:2:1160:A:N7	2.21	0.55
58:N2:19:VAL:HG12	58:N2:105:LEU:HD22	4.64	0.55
63:N7:18:TYR:HA	63:N7:21:LYS:HD2	3.42	0.55
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.19	0.55
1:2:192:U:O2'	1:2:193:U:O4'	2.25	0.55
36:5:284:A:H4'	36:5:285:A:C2	2.41	0.55
7:S5:143:ARG:HA	7:S5:167:ARG:HD3	1.88	0.55
5:S3:30:ALA:C	5:S3:32:GLU:H	2.08	0.55
72:O6:70:ARG:O	72:O6:74:LYS:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:122:THR:CG2	1:6:1558:U:H3	366.34	0.55
75:O9:3:ALA:O	75:O9:5:LYS:HE3	4.40	0.55
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.07	0.55
36:5:1750:A:H4'	36:5:1751:G:H5'	1.89	0.55
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.99	0.55
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.07	0.55
19:C7:5:ARG:O	19:C7:10:LYS:HE3	2.07	0.55
62:N6:112:ASP:HB2	62:N6:115:ARG:HB2	1.89	0.55
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.06	0.55
1:6:542:A:OP1	1:6:544:A:C5	2.60	0.55
1:6:27:U:H2'	1:6:28:A:H8	1.72	0.55
74:O8:73:LEU:O	74:O8:75:VAL:N	2.40	0.55
1:6:683:C:H3'	1:6:684:A:H5''	1.89	0.55
52:M6:31:GLN:HG3	52:M6:33:ILE:CD1	2.37	0.55
13:C1:4:GLU:HG3	13:C1:5:LEU:HG	1.89	0.55
5:S3:172:THR:HB	5:S3:185:LYS:HG2	4.15	0.55
36:1:1415:U:H2'	36:1:1416:C:O4'	2.06	0.55
1:6:1166:A:H2'	1:6:1167:G:O4'	2.07	0.55
1:6:808:U:H2'	1:6:809:A:C8	2.41	0.55
36:1:250:U:H5	36:1:251:G:N7	2.04	0.55
1:6:569:C:H2'	1:6:570:A:O4'	2.07	0.55
53:M7:112:LEU:HG	53:M7:150:VAL:HB	2.41	0.55
68:O2:103:LYS:O	68:O2:106:VAL:HG22	4.98	0.55
1:2:1274:C:H5	35:SM:96:ARG:H	1.55	0.55
36:1:3087:A:P	86:1:4181:OHX:N5	2.80	0.55
1:6:1542:G:N2	1:6:1568:C:H1'	2.22	0.55
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.72	0.55
7:S5:73:THR:HA	18:C6:114:ARG:HD3	1.88	0.55
36:5:3279:A:H2'	36:5:3280:U:H5'	1.89	0.55
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.41	0.55
72:O6:60:LEU:HD22	72:O6:64:SER:HB2	1.89	0.55
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.20	0.55
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.42	0.55
41:L4:192:GLY:O	41:L4:195:ARG:N	2.70	0.55
54:M8:65:SER:HA	54:M8:93:ILE:HD13	1.89	0.55
1:2:97:C:H2'	1:2:98:U:H6	1.72	0.55
86:8:216:OHX:N2	86:8:226:OHX:N1	2.55	0.55
24:D2:103:ILE:HD11	24:D2:126:LEU:HD13	1.88	0.55
1:2:1469:A:H2'	1:2:1470:C:C6	2.42	0.55
57:N1:10:ARG:NH1	36:5:2640:A:OP2	236.85	0.55
35:SM:49:LYS:N	36:1:1019:G:OP1	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:132:ASN:HA	48:M1:154:THR:HG21	1.89	0.55
52:M6:141:LEU:O	52:M6:144:SER:HB3	2.07	0.55
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	1.89	0.55
12:C0:31:LYS:H	12:C0:38:LYS:HA	4.39	0.55
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.06	0.55
36:1:1715:A:H4'	36:1:1716:U:OP1	2.07	0.55
44:L7:196:LYS:HE2	36:5:1100:U:OP2	245.34	0.55
40:L3:289:ASP:N	40:L3:289:ASP:OD1	2.40	0.55
2:S0:57:LEU:HD23	2:S0:160:ILE:HD13	4.91	0.55
86:6:2116:OHX:N6	86:6:2167:OHX:N5	2.55	0.54
41:L4:23:PRO:O	41:L4:25:VAL:HG23	2.08	0.54
36:1:2698:G:O2'	57:N1:12:ARG:HG2	2.07	0.54
86:1:3937:OHX:N1	86:1:4198:OHX:N2	2.54	0.54
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.40	0.54
1:2:795:U:C5	1:2:796:A:C8	2.96	0.54
1:2:417:A:H4'	1:2:418:G:O5'	2.06	0.54
1:2:1338:C:H1'	1:2:1410:A:C4	2.42	0.54
27:D5:42:LEU:O	27:D5:46:LYS:HB2	2.06	0.54
6:S4:15:PRO:HG2	6:S4:18:TRP:CD2	2.42	0.54
16:C4:126:THR:HG21	1:6:888:U:H1'	274.50	0.54
36:1:2278:C:O2'	36:1:2279:A:H5''	2.06	0.54
28:D6:11:ASN:HB3	1:6:934:C:H6	333.02	0.54
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	4.08	0.54
36:5:679:U:O4	86:5:4010:OHX:N2	2.40	0.54
36:1:1750:A:H4'	36:1:1751:G:H5'	1.88	0.54
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.47	0.54
36:1:3276:G:H1	69:O3:60:ARG:HH22	1.53	0.54
78:Q2:71:ARG:NE	78:Q2:80:ARG:HE	2.04	0.54
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	1.88	0.54
5:S3:58:VAL:HG12	5:S3:66:ILE:HG12	1.89	0.54
57:N1:104:GLU:OE1	57:N1:130:ARG:NH1	2.39	0.54
36:1:2341:A:P	40:L3:247:ARG:HH22	2.30	0.54
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.42	0.54
50:M4:68:LEU:HD13	50:M4:94:TRP:HB2	1.89	0.54
15:C3:63:ALA:HB3	15:C3:71:ILE:HD11	1.90	0.54
36:5:1470:U:OP1	86:5:3955:OHX:N6	2.40	0.54
12:C0:50:THR:O	12:C0:53:GLY:N	2.40	0.54
36:5:174:C:H42	36:5:244:G:H1	1.54	0.54
1:2:1043:A:H2'	1:2:1044:U:O4'	2.08	0.54
36:5:2960:C:H2'	36:5:2961:G:C8	2.41	0.54
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:927:C:H1'	16:C4:125:SER:CB	2.38	0.54
1:2:1720:G:O6	86:2:2082:OHX:N5	2.40	0.54
1:2:647:G:H22	1:2:687:G:H1	1.53	0.54
42:L5:69:ILE:HG22	57:N1:31:LEU:HB2	1.90	0.54
36:1:2987:A:O2'	40:L3:259:HIS:HB3	2.07	0.54
46:L9:174:LYS:HB2	76:Q0:127:LEU:HD11	1.89	0.54
1:6:146:U:OP2	86:6:2166:OHX:N6	2.39	0.54
49:M3:162:ASN:ND2	49:M3:164:GLU:HB2	2.78	0.54
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	2.06	0.54
71:O5:10:ARG:NH1	71:O5:60:GLU:OE2	2.40	0.54
36:1:1511:U:H3'	36:1:1512:U:H6	1.72	0.54
36:5:2771:U:O2'	36:5:2772:C:O4'	2.16	0.54
43:L6:69:PHE:CZ	36:5:3267:A:H2'	259.18	0.54
36:5:1020:G:H2'	36:5:1021:G:O4'	2.07	0.54
36:1:2861:U:H2'	36:1:2862:U:O4'	2.07	0.54
1:2:635:A:H2'	1:2:636:A:H8	1.71	0.54
36:5:2248:C:OP2	86:5:3975:OHX:N6	2.40	0.54
36:1:2853:A:O3'	47:M0:64:ALA:HB2	2.07	0.54
86:6:2116:OHX:N4	86:6:2167:OHX:N3	2.55	0.54
1:6:1230:A:C8	1:6:1258:U:C4	2.95	0.54
7:S5:143:ARG:NH1	7:S5:218:GLU:OE2	3.10	0.54
43:L6:78:ARG:NH1	36:5:3272:C:OP2	247.00	0.54
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.83	0.54
43:L6:41:ILE:HD12	43:L6:87:THR:HG22	3.87	0.54
41:L4:342:LYS:HE2	44:L7:56:GLU:OE2	2.53	0.54
15:C3:52:VAL:HG23	1:6:960:U:H1'	328.21	0.54
38:8:79:A:H2'	38:8:80:A:O4'	2.06	0.54
5:S3:94:ARG:O	5:S3:101:GLN:NE2	3.50	0.54
26:D4:56:SER:O	26:D4:74:LEU:N	2.52	0.54
1:2:1226:A:O2'	1:2:1227:A:OP1	2.23	0.54
86:2:2044:OHX:N1	86:2:2099:OHX:N5	2.56	0.54
36:1:671:U:OP2	54:M8:57:ILE:HD12	2.07	0.54
1:6:1720:G:O6	86:6:2090:OHX:N4	2.41	0.54
36:1:595:G:H1	36:1:609:G:H5''	1.72	0.54
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.93	0.54
18:C6:29:ILE:HG22	18:C6:65:ILE:HB	1.90	0.54
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.40	0.54
1:6:1592:A:H2'	1:6:1593:A:C8	2.42	0.54
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.06	0.54
38:8:2:A:H3'	38:8:3:A:H8	1.72	0.54
47:M0:182:LEU:HD22	47:M0:186:GLU:OE2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:233:ALA:O	42:L5:235:SER:N	2.39	0.54
39:L2:142:ASP:N	39:L2:142:ASP:OD2	2.40	0.54
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.89	0.54
45:L8:73:PRO:HD3	45:L8:233:TRP:CG	3.61	0.54
24:D2:77:PRO:O	24:D2:79:PHE:N	2.40	0.54
36:1:2413:A:H2'	36:1:2414:G:H8	1.71	0.54
36:5:1190:A:C8	36:5:1193:A:H1'	2.42	0.54
8:S6:3:LEU:HD22	8:S6:109:LEU:HB2	1.89	0.54
1:2:603:U:H2'	1:2:604:A:C8	2.42	0.54
36:1:559:A:O3'	50:M4:84:LYS:NZ	2.41	0.54
57:N1:86:GLU:OE1	57:N1:88:ARG:NH1	2.40	0.54
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	2.13	0.54
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.22	0.54
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	2.07	0.54
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.41	0.54
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.39	0.54
36:1:2339:C:P	59:N3:48:ARG:HG3	2.48	0.54
48:M1:63:GLU:HB3	48:M1:65:ILE:HD12	1.89	0.54
36:1:2636:A:H5''	36:1:2637:A:C5'	2.36	0.54
86:2:2135:OHX:N6	10:S8:52:ASN:OD1	2.40	0.54
36:1:3066:U:H2'	36:1:3067:C:C6	2.43	0.54
56:N0:90:MET:HG3	36:5:1213:G:H4'	317.58	0.54
74:O8:14:LEU:O	74:O8:17:ARG:HB2	2.07	0.54
1:6:74:U:C4	1:6:76:A:H5'	2.43	0.54
2:S0:185:ARG:H	23:D1:45:ALA:H	2.51	0.54
41:L4:44:LYS:HD3	41:L4:111:VAL:HG21	1.89	0.54
1:2:883:C:H2'	1:2:884:A:H8	1.70	0.54
56:N0:148:LEU:HD22	56:N0:149:LYS:N	5.22	0.54
51:M5:160:GLU:HA	51:M5:165:THR:HG22	3.58	0.54
51:M5:165:THR:O	51:M5:169:LYS:HG3	2.06	0.54
36:1:2185:G:O2'	36:1:2314:U:OP2	2.26	0.54
13:C1:6:THR:O	13:C1:7:VAL:HG12	2.08	0.54
17:C5:29:SER:HB2	17:C5:32:ASP:H	4.14	0.54
70:O4:57:LEU:HB3	70:O4:61:GLN:HB2	1.90	0.54
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.29	0.54
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	3.36	0.54
36:5:3053:G:O6	86:5:4167:OHX:N6	2.40	0.54
44:L7:239:LEU:O	44:L7:242:SER:N	2.39	0.54
42:L5:22:ARG:HB3	42:L5:28:THR:HB	1.89	0.54
48:M1:104:PHE:O	48:M1:127:PHE:HB2	2.67	0.54
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2213:A:H2'	36:1:2214:A:C8	2.42	0.54
36:5:129:U:H2'	36:5:130:A:C8	2.42	0.54
36:1:73:C:O2	49:M3:59:ARG:HD3	2.08	0.54
75:O9:5:LYS:HD3	75:O9:13:MET:CE	2.95	0.54
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.07	0.54
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.07	0.54
1:6:1515:A:O2'	1:6:1517:U:OP2	2.12	0.54
18:C6:39:VAL:O	18:C6:45:ARG:NE	5.78	0.54
67:O1:23:VAL:H	67:O1:28:ARG:NH1	3.97	0.54
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	1.90	0.54
36:1:2357:A:H2'	36:1:2358:A:C8	2.41	0.54
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	2.53	0.54
15:C3:48:SER:OG	15:C3:86:GLU:OE1	2.99	0.54
1:6:1524:A:H2'	1:6:1525:A:C8	2.43	0.54
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.83	0.54
36:1:27:C:H1'	36:1:328:U:H1'	1.89	0.54
36:5:3358:U:H2'	36:5:3359:A:H8	1.71	0.54
36:1:2202:C:O2'	39:L2:240:ALA:O	2.15	0.54
13:C1:83:THR:HB	13:C1:110:HIS:HA	1.90	0.54
36:5:1858:A:O2'	36:5:1859:A:OP2	2.24	0.54
40:L3:296:THR:HG22	40:L3:298:PHE:N	5.62	0.54
51:M5:94:TYR:OH	51:M5:96:ARG:HD3	2.20	0.54
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.15	0.54
18:C6:58:ASP:OD2	18:C6:59:LYS:N	2.37	0.54
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.37	0.54
1:2:649:U:O2'	1:2:650:U:O5'	2.20	0.54
86:1:3937:OHX:N3	86:1:4198:OHX:N4	2.56	0.54
1:6:823:G:H2'	1:6:824:G:O4'	2.07	0.54
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.43	0.54
36:1:1014:U:C2'	36:1:1015:U:H5''	2.38	0.54
61:N5:103:TYR:HE1	61:N5:139:ILE:HD12	1.72	0.54
64:N8:112:ILE:HB	64:N8:130:VAL:HG12	1.88	0.54
69:O3:13:HIS:O	69:O3:95:GLY:N	2.51	0.54
1:2:57:G:OP1	26:D4:112:LYS:HE3	2.08	0.54
21:C9:6:VAL:HG11	21:C9:132:LEU:HD23	1.90	0.54
37:7:64:A:H5'	37:7:65:G:H5''	1.88	0.54
7:S5:129:PRO:O	7:S5:133:VAL:HG23	2.08	0.54
1:6:1092:A:O2'	1:6:1093:A:H3'	2.06	0.54
36:1:1178:G:O6	69:O3:20:LYS:HD3	2.07	0.54
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.43	0.54
40:L3:129:ALA:O	36:5:3150:A:H5'	211.59	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2436:U:H6	36:5:2436:U:OP2	1.91	0.54
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.77	0.54
1:2:1250:U:O2'	1:2:1251:U:OP1	2.24	0.54
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.89	0.54
26:D4:61:ARG:NH2	1:6:530:C:O2	409.61	0.54
18:C6:120:ASP:OD1	18:C6:122:ARG:HG2	4.34	0.54
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.43	0.54
38:8:102:U:H2'	38:8:103:G:C8	2.43	0.54
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.89	0.54
14:C2:71:ILE:O	14:C2:75:VAL:HG23	2.07	0.54
42:L5:219:PHE:CE1	42:L5:227:LEU:HD11	2.58	0.54
1:2:1641:C:H42	1:2:1760:G:H1	1.54	0.54
67:O1:82:GLU:C	67:O1:84:ASP:H	2.10	0.54
25:D3:89:ASN:HB2	25:D3:92:CYS:SG	2.92	0.54
36:1:1240:A:H3'	36:1:1241:U:C5'	2.38	0.54
45:L8:63:LYS:O	45:L8:67:ILE:HG13	2.08	0.54
1:2:348:U:O4	86:2:2128:OHX:N5	2.40	0.54
43:L6:73:GLY:O	36:5:3267:A:O2'	257.25	0.54
36:5:1066:G:OP1	86:5:4223:OHX:N2	2.41	0.54
36:5:1716:U:H6	36:5:1716:U:H5'	1.71	0.54
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.89	0.54
38:4:83:C:H1'	38:4:85:G:N2	2.22	0.54
1:6:432:G:H2'	1:6:433:C:O4'	2.08	0.54
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	2.41	0.54
79:Q3:19:GLY:HA2	36:5:1925:U:O2	239.43	0.54
6:S4:25:GLY:HA3	1:6:447:U:O2'	374.85	0.54
39:L2:204:MET:HE3	39:L2:208:ASP:CB	2.36	0.54
72:O6:57:LEU:HD11	72:O6:73:ALA:HB2	2.47	0.54
59:N3:81:GLN:HG2	59:N3:83:LYS:O	2.08	0.54
3:S1:48:VAL:HG11	3:S1:57:ALA:HB1	1.89	0.54
34:SR:116:ASP:HA	34:SR:156:VAL:HG11	2.39	0.54
62:N6:45:ILE:HD11	62:N6:122:LYS:HB2	1.89	0.54
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	1.88	0.54
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.19	0.54
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.26	0.54
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.73	0.54
1:6:1241:G:O2'	1:6:1242:A:OP1	2.24	0.54
1:2:485:A:H2'	1:2:486:G:O4'	2.07	0.54
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.89	0.54
1:2:1339:C:O2'	1:2:1340:U:OP1	2.26	0.54
47:M0:117:GLY:O	86:M0:303:OHX:N3	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:81:THR:CG2	40:L3:321:PHE:HA	4.24	0.54
49:M3:85:LEU:HD22	49:M3:120:GLN:OE1	2.08	0.54
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	5.32	0.54
46:L9:162:GLN:HG3	46:L9:163:GLN:HG2	3.42	0.54
1:6:1318:G:N7	86:6:2161:OHX:N5	2.55	0.54
10:S8:82:VAL:CG1	10:S8:101:ILE:HG22	5.68	0.54
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.57	0.54
54:M8:120:GLU:CD	54:M8:122:ILE:HD11	2.28	0.54
51:M5:12:ARG:HG2	36:5:268:A:C4	128.04	0.54
36:1:2676:A:N1	48:M1:22:SER:OG	2.36	0.54
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.25	0.54
36:1:1804:A:H2'	36:1:1805:C:C6	2.43	0.54
1:2:720:G:H1'	1:2:721:U:H5''	1.90	0.54
1:6:1726:G:N7	86:6:2143:OHX:N5	2.55	0.54
41:L4:300:ARG:O	41:L4:300:ARG:HG2	3.69	0.54
62:N6:73:VAL:HG12	62:N6:75:ARG:HG2	3.53	0.54
1:2:911:U:O2'	1:2:915:A:H1'	2.08	0.54
44:L7:217:PRO:HA	86:5:3997:OHX:N5	262.40	0.54
6:S4:180:LEU:HB3	6:S4:228:ILE:HG13	1.90	0.54
72:O6:57:LEU:HD21	72:O6:73:ALA:HB2	1.89	0.54
86:1:3937:OHX:N5	86:1:4198:OHX:N2	2.56	0.54
1:2:885:G:N2	16:C4:123:SER:HB2	2.22	0.54
32:E0:28:LYS:HZ1	1:6:542:A:H61	427.91	0.54
1:6:152:U:O2	1:6:163:G:N2	2.41	0.54
1:2:1597:A:H2'	1:2:1598:U:H6	1.72	0.54
36:5:2444:C:N4	36:5:2503:G:H1	2.05	0.54
67:O1:13:THR:HG22	67:O1:72:ARG:NH1	2.23	0.54
36:5:171:G:H1	36:5:247:C:H42	1.54	0.54
2:S0:167:LYS:HE3	2:S0:168:HIS:CD2	3.67	0.54
1:2:830:U:O2'	1:2:831:U:H6	1.91	0.54
47:M0:190:VAL:HG12	47:M0:197:VAL:HG21	3.63	0.54
21:C9:52:GLY:C	21:C9:54:PHE:H	2.11	0.54
36:1:1555:U:O2'	36:1:2169:G:N2	2.41	0.54
9:S7:98:ILE:HD11	9:S7:121:VAL:HG11	1.89	0.54
43:L6:63:LEU:HB2	43:L6:79:VAL:HG12	1.90	0.54
36:1:3227:A:C2'	36:1:3228:C:H5'	2.37	0.54
18:C6:22:VAL:HG22	18:C6:65:ILE:HD12	4.31	0.54
25:D3:44:GLY:HA3	25:D3:78:LYS:HZ2	1.72	0.54
42:L5:135:VAL:HG12	42:L5:136:GLU:O	6.24	0.54
36:5:1528:G:H2'	36:5:1529:A:O4'	2.08	0.54
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:208:ASN:HB3	47:M0:211:ARG:HH11	1.92	0.54
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	1.89	0.54
36:5:370:U:OP1	86:5:4160:OHX:N1	2.41	0.54
1:6:363:G:OP1	86:6:2108:OHX:N1	2.40	0.54
36:5:566:G:N7	86:5:4125:OHX:N5	2.55	0.54
3:S1:158:SER:HA	3:S1:161:ILE:HD12	2.16	0.54
36:1:678:G:O6	86:1:3971:OHX:N4	2.41	0.54
48:M1:101:ASN:OD1	48:M1:130:VAL:HG23	2.24	0.54
1:2:1132:A:OP1	25:D3:30:LYS:HE2	2.08	0.54
20:C8:126:ARG:HD2	20:C8:131:LEU:HD12	3.04	0.54
19:C7:20:TYR:CD1	19:C7:38:ILE:HD11	2.43	0.54
86:1:3937:OHX:N1	86:1:4198:OHX:N4	2.55	0.54
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.45	0.54
46:L9:70:THR:HB	36:5:3112:G:O2'	328.97	0.54
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	2.46	0.54
19:C7:33:ARG:HD2	34:SR:109:ASP:OD2	2.09	0.54
2:S0:154:GLU:N	2:S0:154:GLU:OE1	4.14	0.54
36:1:1752:A:OP2	86:1:4047:OHX:N3	2.41	0.54
9:S7:153:LEU:HD22	9:S7:184:GLU:HB2	1.89	0.54
36:1:1129:A:OP1	47:M0:13:LYS:NZ	2.30	0.54
36:1:2523:A:H61	45:L8:57:ARG:HD3	1.72	0.54
1:6:15:U:H2'	1:6:16:G:O4'	2.09	0.54
36:1:3013:U:H2'	36:1:3014:U:C6	2.42	0.54
36:1:2539:C:H5'	36:1:2541:U:O4	2.08	0.54
1:6:1354:G:H5'	1:6:1355:C:OP2	2.08	0.54
51:M5:57:GLN:HG2	38:8:143:U:O3'	99.72	0.54
36:1:1352:A:H4'	36:1:1353:U:OP1	2.08	0.54
5:S3:162:GLN:N	5:S3:163:PRO:HD2	2.71	0.54
36:1:2651:G:H4'	36:1:2652:U:OP2	2.08	0.54
38:4:77:A:OP2	86:4:226:OHX:N2	2.41	0.54
18:C6:91:ALA:O	18:C6:94:GLN:HB3	2.08	0.54
36:1:3248:C:O5'	36:1:3248:C:H6	1.90	0.54
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.08	0.54
1:2:1367:G:N7	86:2:2109:OHX:N6	2.56	0.54
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.89	0.54
86:6:2116:OHX:N6	86:6:2167:OHX:N3	2.55	0.53
36:1:1947:G:H1	36:1:2101:C:N4	1.98	0.53
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.89	0.53
78:Q2:71:ARG:HE	78:Q2:80:ARG:HE	1.56	0.53
27:D5:59:TYR:HD2	27:D5:60:VAL:N	2.06	0.53
20:C8:39:GLY:H	1:6:1566:U:H5''	353.03	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.41	0.53
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.75	0.53
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	1.88	0.53
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	4.66	0.53
57:N1:17:ARG:HG2	57:N1:22:HIS:HA	1.89	0.53
36:1:2273:G:N2	36:1:2311:G:H2'	2.23	0.53
1:2:888:U:H1'	16:C4:126:THR:HG21	1.90	0.53
36:1:849:C:H2'	36:1:850:U:C6	2.43	0.53
1:6:1482:C:OP2	1:6:1521:G:N1	2.40	0.53
1:2:73:U:H4'	1:2:74:U:OP1	2.08	0.53
47:M0:206:LEU:O	47:M0:210:ILE:HG13	2.09	0.53
86:1:4003:OHX:N6	86:1:4172:OHX:N5	2.55	0.53
1:2:1018:U:O4	1:2:1019:A:N6	2.41	0.53
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.33	0.53
1:2:147:A:H2'	1:2:148:A:O4'	2.08	0.53
1:6:1631:A:OP2	86:6:2164:OHX:N3	2.41	0.53
59:N3:89:ASP:OD1	59:N3:91:VAL:HG12	3.46	0.53
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.53	0.53
1:6:1248:C:H2'	1:6:1249:U:C6	2.42	0.53
1:2:1056:U:H1'	3:S1:202:LYS:HZ3	1.72	0.53
36:5:3155:U:H4'	36:5:3156:U:OP2	2.08	0.53
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	2.17	0.53
37:3:39:C:N3	48:M1:70:THR:HG23	2.23	0.53
64:N8:83:PRO:HG2	64:N8:86:LYS:HD2	5.66	0.53
36:5:650:C:O5'	36:5:650:C:H6	1.91	0.53
36:5:1135:A:C2	36:5:1136:A:C8	2.96	0.53
41:L4:300:ARG:NH1	41:L4:300:ARG:HG2	3.86	0.53
15:C3:33:VAL:O	15:C3:37:ILE:HG12	3.86	0.53
64:N8:88:ASP:O	64:N8:92:LYS:HG3	2.08	0.53
1:2:1428:G:C8	1:2:1428:G:H5'	2.39	0.53
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.90	0.53
18:C6:31:VAL:N	18:C6:34:SER:O	2.41	0.53
18:C6:40:GLU:HA	18:C6:42:GLU:H	1.73	0.53
5:S3:5:ILE:HG22	5:S3:6:SER:H	1.73	0.53
41:L4:182:LEU:HD12	41:L4:223:PRO:HB2	1.90	0.53
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.21	0.53
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	4.01	0.53
21:C9:118:PRO:HD2	21:C9:123:ARG:HH21	1.72	0.53
4:S2:103:VAL:HG22	4:S2:113:LEU:HD23	1.90	0.53
34:SR:28:GLY:HA3	34:SR:76:ASP:O	2.08	0.53
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:250:U:C5	36:1:251:G:N7	2.77	0.53
42:L5:22:ARG:HD3	42:L5:28:THR:OG1	2.09	0.53
36:5:1768:U:H2'	36:5:1769:G:O4'	2.08	0.53
36:5:1255:C:H2'	36:5:1256:G:H8	1.74	0.53
15:C3:127:ARG:NH2	1:6:629:U:OP1	307.49	0.53
36:5:3035:A:OP2	86:5:4047:OHX:N5	2.42	0.53
4:S2:177:GLY:HA2	4:S2:194:GLU:O	2.89	0.53
7:S5:197:GLU:OE1	7:S5:209:TYR:N	2.40	0.53
1:2:1317:C:H2'	1:2:1318:G:O4'	2.08	0.53
34:SR:319:ASN:N	34:SR:319:ASN:OD1	3.12	0.53
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.73	0.53
36:1:283:G:O6	36:1:304:G:H1'	2.08	0.53
1:2:1796:C:H5	28:D6:6:ALA:H	1.55	0.53
54:M8:66:ARG:NH2	54:M8:143:PRO:HG3	2.24	0.53
47:M0:85:PHE:HA	47:M0:140:THR:HG22	2.41	0.53
1:6:12:U:H2'	1:6:13:C:C6	2.44	0.53
29:D7:67:THR:OG1	29:D7:70:LYS:O	2.26	0.53
36:5:1541:G:OP2	86:5:4089:OHX:N4	2.41	0.53
37:3:11:A:H4'	37:3:13:A:C8	2.43	0.53
10:S8:87:ASN:HB3	10:S8:90:LEU:HG	1.90	0.53
1:2:1756:A:O5'	1:2:1756:A:H8	1.91	0.53
51:M5:146:ALA:HA	51:M5:149:ASN:ND2	2.22	0.53
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	3.68	0.53
46:L9:114:VAL:HB	46:L9:124:ARG:HB2	1.90	0.53
14:C2:54:ARG:O	14:C2:85:LYS:NZ	2.28	0.53
36:1:870:G:O6	86:1:3919:OHX:N4	2.42	0.53
1:6:1239:U:O4	86:6:2093:OHX:N5	2.41	0.53
42:L5:78:ALA:HB1	42:L5:104:LEU:HD23	1.99	0.53
64:N8:22:ILE:HG12	36:5:642:U:OP1	192.44	0.53
36:1:1699:A:H2'	36:1:1700:G:C8	2.42	0.53
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.08	0.53
1:6:1182:U:H3	1:6:1185:U:H5''	1.73	0.53
38:4:143:U:P	51:M5:38:ARG:HH22	2.32	0.53
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	2.11	0.53
69:O3:14:LEU:HD21	69:O3:31:LYS:HB3	2.44	0.53
36:5:1232:C:H2'	36:5:1233:G:H8	1.73	0.53
10:S8:136:SER:OG	10:S8:137:LYS:N	2.40	0.53
1:2:169:A:OP1	8:S6:137:ARG:HG3	2.09	0.53
1:6:1595:U:N3	1:6:1600:A:H2	1.97	0.53
28:D6:95:ARG:HG2	1:6:1797:A:H5'	343.17	0.53
72:O6:25:LYS:O	72:O6:28:TYR:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:26:ILE:O	72:O6:29:LYS:N	2.52	0.53
42:L5:148:ILE:HG12	42:L5:159:VAL:HG21	1.90	0.53
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.08	0.53
7:S5:184:PHE:CE1	7:S5:185:ARG:HG3	3.32	0.53
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.42	0.53
41:L4:64:SER:HA	41:L4:75:PRO:HA	2.03	0.53
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.89	0.53
36:5:656:A:H2'	36:5:657:A:C8	2.43	0.53
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.41	0.53
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.09	0.53
1:6:542:A:H2'	1:6:542:A:OP1	2.08	0.53
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.43	0.53
69:O3:48:ARG:NH1	69:O3:48:ARG:HG2	2.23	0.53
59:N3:104:ASN:HD21	59:N3:106:LYS:HB2	1.72	0.53
1:6:1672:G:H2'	1:6:1673:G:C8	2.44	0.53
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.73	0.53
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	2.06	0.53
49:M3:153:ASP:OD2	49:M3:154:VAL:N	2.34	0.53
17:C5:51:SER:C	17:C5:53:PRO:HD2	4.56	0.53
52:M6:80:PHE:HE2	52:M6:84:LEU:HD12	3.36	0.53
36:5:2298:U:O4	36:5:2923:U:H5	1.91	0.53
36:1:3107:U:OP1	76:Q0:114:LYS:NZ	2.39	0.53
36:1:1069:C:H2'	36:1:1070:U:C6	2.44	0.53
40:L3:60:LEU:HD12	40:L3:61:ASP:H	2.57	0.53
36:1:801:A:O2'	86:1:3979:OHX:N2	2.41	0.53
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.09	0.53
86:5:3975:OHX:N4	86:5:4193:OHX:N3	2.57	0.53
40:L3:187:SER:OG	40:L3:190:GLU:HG3	2.08	0.53
62:N6:5:SER:HB3	62:N6:8:VAL:CG1	2.36	0.53
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.90	0.53
19:C7:43:SER:OG	19:C7:46:LEU:N	2.40	0.53
1:6:1371:A:H5'	1:6:1372:U:OP2	2.09	0.53
86:2:2031:OHX:N6	86:2:2147:OHX:N2	2.55	0.53
3:S1:59:ASP:HA	3:S1:62:LYS:NZ	2.24	0.53
49:M3:75:PHE:HA	49:M3:101:ARG:HH12	1.72	0.53
18:C6:30:LYS:HA	18:C6:35:PRO:HA	1.90	0.53
5:S3:52:ALA:O	5:S3:90:ARG:HA	2.08	0.53
1:6:491:C:H42	1:6:497:G:H21	1.57	0.53
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	1.90	0.53
4:S2:54:GLU:HA	4:S2:57:PHE:HD2	1.73	0.53
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:9:TYR:O	47:M0:59:GLN:NE2	2.42	0.53
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.61	0.53
61:N5:97:LYS:O	61:N5:100:LYS:N	3.28	0.53
49:M3:3:ILE:HG12	64:N8:34:MET:HE2	1.90	0.53
34:SR:307:ASP:OD2	34:SR:311:ARG:NH1	2.35	0.53
1:6:484:C:N4	1:6:503:G:H1	2.06	0.53
42:L5:132:THR:HG21	42:L5:170:GLY:HA2	2.24	0.53
33:E1:109:ASP:HB2	33:E1:113:LYS:HG3	1.91	0.53
5:S3:166:ASP:O	5:S3:190:ARG:NH2	3.78	0.53
36:1:314:U:H2'	36:1:315:C:C6	2.43	0.53
36:1:3011:A:C5	40:L3:13:HIS:CD2	2.97	0.53
1:6:1535:U:O2'	1:6:1536:G:O5'	2.26	0.53
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.08	0.53
36:1:1819:U:O4	86:1:4041:OHX:N4	2.42	0.53
40:L3:122:TRP:CH2	40:L3:127:LYS:HD2	2.43	0.53
60:N4:33:ASN:OD1	60:N4:35:LYS:HB3	2.08	0.53
28:D6:43:ASN:N	28:D6:43:ASN:OD1	3.31	0.53
50:M4:41:GLN:HG2	56:N0:143:PHE:HZ	1.73	0.53
53:M7:62:ARG:NH1	36:5:412:G:OP1	158.99	0.53
28:D6:8:ASN:O	28:D6:10:ARG:N	2.42	0.53
61:N5:34:LEU:HD23	36:5:1558:A:H1'	139.25	0.53
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.89	0.53
36:1:1170:A:OP2	86:1:3956:OHX:N5	2.42	0.53
59:N3:86:ARG:HD2	59:N3:92:PHE:CZ	2.44	0.53
44:L7:77:VAL:HG13	57:N1:139:ARG:HG3	5.28	0.53
1:6:871:G:H2'	1:6:872:G:C8	2.44	0.53
48:M1:148:VAL:O	48:M1:153:LYS:HE2	2.09	0.53
3:S1:177:GLN:O	3:S1:179:SER:N	4.14	0.53
18:C6:31:VAL:O	18:C6:33:GLY:N	2.39	0.53
18:C6:14:LYS:HE3	1:6:1584:G:N7	395.32	0.53
1:2:218:A:N1	1:2:843:U:O2'	2.42	0.53
36:1:2895:G:H2'	36:1:2896:A:H5''	1.89	0.53
62:N6:89:LYS:HB2	62:N6:93:ALA:O	2.09	0.53
54:M8:151:ARG:HB2	54:M8:152:HIS:CD2	2.44	0.53
30:D8:13:ILE:HG12	30:D8:31:GLU:HB2	4.08	0.53
34:SR:64:HIS:ND1	34:SR:84:SER:HB3	2.67	0.53
41:L4:217:LYS:HA	41:L4:220:ARG:HG2	1.90	0.53
69:O3:13:HIS:ND1	69:O3:93:THR:HB	2.24	0.53
36:5:850:U:H2'	36:5:851:C:H6	1.71	0.53
1:2:1274:C:C5	35:SM:95:SER:HA	2.44	0.53
50:M4:17:VAL:HA	50:M4:35:ILE:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:53:ILE:HB	24:D2:60:LYS:HB2	4.50	0.53
15:C3:64:ARG:O	15:C3:68:GLY:HA2	2.43	0.53
38:4:24:G:OP2	62:N6:13:ARG:NH1	2.30	0.53
14:C2:80:ASN:HA	14:C2:86:VAL:HG12	1.91	0.53
8:S6:133:LEU:HD13	1:6:166:C:O2	327.17	0.53
27:D5:47:TYR:CE2	27:D5:51:LEU:HD11	2.89	0.53
36:5:188:U:H1'	36:5:208:C:H1'	1.90	0.53
1:6:1015:U:OP1	86:6:2052:OHX:N3	2.41	0.53
40:L3:46:PHE:CD2	40:L3:205:VAL:HG13	2.92	0.53
7:S5:160:VAL:HB	30:D8:43:ASN:O	2.99	0.53
8:S6:25:ARG:HA	8:S6:28:PHE:CD2	3.70	0.53
36:1:174:C:H2'	36:1:175:C:C6	2.43	0.53
1:2:1370:U:O4	86:2:2121:OHX:N1	2.42	0.53
36:5:2352:A:H2'	36:5:2353:G:C8	2.44	0.53
1:2:187:G:OP2	10:S8:142:LYS:NZ	2.39	0.53
1:2:1234:A:O2'	33:E1:146:SER:HB3	2.09	0.53
40:L3:221:THR:HB	40:L3:273:HIS:O	2.34	0.53
36:5:1013:G:C2	36:5:1014:U:H1'	2.44	0.53
55:M9:43:LYS:NZ	36:5:1765:U:H5'	93.29	0.53
36:5:1525:G:O2'	36:5:1594:A:N1	2.37	0.53
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.27	0.53
41:L4:138:ARG:HG3	41:L4:244:LEU:O	2.08	0.53
66:O0:9:SER:OG	66:O0:10:ILE:N	2.41	0.53
36:5:655:C:H2'	36:5:656:A:H8	1.73	0.53
54:M8:38:ARG:NH2	36:5:1348:U:OP2	187.03	0.53
18:C6:42:GLU:HG3	18:C6:43:ILE:HD13	4.68	0.53
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.24	0.53
36:1:743:C:N3	54:M8:141:ARG:NH1	2.57	0.53
50:M4:54:PRO:O	50:M4:56:GLN:HG2	2.27	0.53
1:6:1213:G:O2'	1:6:1244:A:N6	2.41	0.53
17:C5:63:ALA:HA	17:C5:66:ALA:HB3	3.21	0.53
62:N6:52:ARG:HA	62:N6:70:ILE:CG2	2.86	0.53
36:5:499:G:H2'	36:5:500:C:C6	2.44	0.53
28:D6:82:ARG:HB2	28:D6:85:ARG:HE	8.29	0.53
1:2:1118:G:P	77:Q1:21:ARG:HH12	2.31	0.53
36:1:1488:G:H5''	36:1:1838:G:O6	2.08	0.53
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.90	0.53
76:Q0:103:LEU:HD11	76:Q0:110:CYS:HA	1.90	0.53
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.77	0.53
9:S7:123:ASP:OD1	9:S7:138:LYS:NZ	3.45	0.53
36:1:242:C:HO2'	36:1:243:G:H8	1.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.52	0.53
33:E1:151:ASN:O	33:E1:151:ASN:ND2	2.42	0.53
36:5:2309:A:H4'	86:5:4193:OHX:N4	2.24	0.53
8:S6:177:ARG:NH2	1:6:143:G:N7	311.52	0.53
41:L4:300:ARG:CG	41:L4:300:ARG:HH11	2.64	0.53
42:L5:64:ILE:HD12	42:L5:144:VAL:HG21	4.37	0.53
48:M1:147:THR:HG22	48:M1:148:VAL:H	1.74	0.53
36:1:3242:G:C2	36:1:3245:A:C8	2.97	0.53
56:N0:1:MET:SD	56:N0:36:ILE:HG21	2.49	0.53
8:S6:163:THR:HA	8:S6:168:THR:HA	1.90	0.53
54:M8:122:ILE:HG22	54:M8:123:THR:O	2.71	0.53
36:5:3152:U:O2	86:5:4221:OHX:N5	2.42	0.53
40:L3:84:VAL:HG13	40:L3:162:VAL:HB	1.90	0.53
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.73	0.53
38:8:83:C:H4'	38:8:85:G:C2	2.44	0.53
5:S3:34:TYR:HE2	5:S3:37:VAL:HG22	3.50	0.53
1:6:273:G:H2'	1:6:274:G:O4'	2.08	0.53
39:L2:200:ARG:NH1	36:5:2146:C:OP1	213.18	0.53
1:6:1394:G:H1	1:6:1404:C:H42	1.56	0.53
48:M1:155:THR:O	48:M1:159:THR:HG23	5.52	0.53
59:N3:127:PRO:O	59:N3:130:ALA:HB3	2.08	0.53
55:M9:20:ARG:NH1	36:5:1873:U:OP2	147.61	0.53
36:5:2971:A:H5''	36:5:2972:G:O5'	2.09	0.53
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.56	0.53
46:L9:48:VAL:HG11	46:L9:52:LEU:HD13	1.90	0.53
36:5:2947:G:H4'	36:5:2947:G:OP2	2.09	0.53
17:C5:85:ILE:HG22	17:C5:112:LEU:HD23	2.30	0.53
23:D1:40:ASP:OD1	23:D1:41:GLU:N	2.93	0.53
6:S4:194:THR:OG1	6:S4:211:LYS:O	2.21	0.53
66:O0:24:THR:HG23	66:O0:30:THR:HG22	1.91	0.53
64:N8:12:ARG:O	36:5:944:C:H5'	161.98	0.53
36:1:799:G:O6	86:1:3979:OHX:N5	2.42	0.53
36:5:495:G:H2'	36:5:496:C:O4'	2.09	0.53
36:5:434:U:H2'	36:5:435:C:C6	2.44	0.53
36:1:132:C:H2'	36:1:133:U:H5''	1.90	0.53
36:5:132:C:H2'	36:5:133:U:H5''	1.90	0.53
69:O3:59:VAL:O	69:O3:61:GLY:N	2.99	0.53
1:2:1556:A:C5	1:2:1560:U:C2	2.96	0.53
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.73	0.53
46:L9:24:ILE:CD1	46:L9:37:ASN:HD22	2.22	0.53
11:S9:116:LEU:O	11:S9:118:LEU:HD12	3.83	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:13:SER:HA	19:C7:54:THR:HG22	2.10	0.53
7:S5:61:TYR:CD2	7:S5:164:PRO:HB2	3.50	0.53
36:5:1613:A:H2'	36:5:1614:C:C6	2.44	0.53
1:2:12:U:H2'	1:2:13:C:C6	2.44	0.53
58:N2:49:ASN:O	58:N2:49:ASN:ND2	2.41	0.53
10:S8:51:GLY:N	1:6:397:A:H5''	312.65	0.53
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	3.07	0.53
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.14	0.53
1:6:76:A:H2'	1:6:76:A:N3	2.24	0.53
9:S7:44:LYS:NZ	9:S7:95:GLU:HG2	2.24	0.53
36:1:955:U:H2'	36:1:956:U:C6	2.44	0.53
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	1.91	0.53
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.09	0.53
70:O4:7:PHE:CD1	70:O4:20:ILE:HD12	5.02	0.53
40:L3:97:ARG:NH1	36:5:3244:A:C2	243.97	0.53
10:S8:56:ARG:HH22	1:6:332:U:P	287.21	0.53
36:1:1076:C:O3'	65:N9:38:LYS:NZ	2.38	0.53
36:5:3241:G:H2'	36:5:3245:A:H8	1.72	0.53
1:6:1237:G:N2	1:6:1248:C:O2	2.41	0.53
1:6:1130:G:OP2	86:6:2109:OHX:N1	2.42	0.53
36:1:1498:A:H2'	36:1:1499:C:C6	2.43	0.53
11:S9:58:ASP:O	11:S9:61:THR:OG1	2.65	0.53
35:SM:83:LYS:NZ	1:6:1190:C:N3	341.27	0.53
36:1:1615:C:OP1	86:1:4179:OHX:N3	2.42	0.53
46:L9:136:PHE:CE1	46:L9:144:ILE:HG13	3.50	0.53
38:8:157:U:H3'	38:8:158:U:H3'	1.91	0.53
36:5:2442:G:H22	36:5:2506:U:H3	1.56	0.53
36:5:1152:G:OP2	36:5:1152:G:H8	1.92	0.53
36:5:436:A:OP2	36:5:436:A:H8	1.92	0.53
1:2:365:G:N7	86:2:2106:OHX:N5	2.56	0.53
36:1:3089:C:OP1	40:L3:222:LYS:NZ	2.31	0.52
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.08	0.52
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.09	0.52
1:6:885:G:H2'	1:6:886:U:C6	2.44	0.52
6:S4:241:GLY:O	6:S4:244:ILE:HG12	2.09	0.52
47:M0:144:ASN:O	47:M0:147:VAL:N	2.42	0.52
29:D7:81:ARG:O	29:D7:82:LYS:HG3	2.08	0.52
36:1:1478:C:H2'	36:1:1479:U:C6	2.43	0.52
1:6:1545:A:H2'	1:6:1546:G:C8	2.43	0.52
39:L2:159:SER:O	39:L2:161:ASP:N	3.04	0.52
25:D3:92:CYS:O	25:D3:95:PHE:HB2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:51:ARG:HA	6:S4:51:ARG:HE	2.05	0.52
68:O2:123:LYS:HG2	68:O2:126:LEU:HD12	3.61	0.52
36:5:408:A:H61	38:8:15:G:H1'	1.73	0.52
1:2:330:G:H2'	1:2:331:A:C8	2.44	0.52
34:SR:20:VAL:HG11	34:SR:310:ILE:HG12	1.91	0.52
56:N0:148:LEU:HD22	56:N0:149:LYS:H	4.96	0.52
20:C8:26:ILE:HG13	20:C8:27:LYS:N	2.24	0.52
36:5:3191:G:H2'	36:5:3192:U:C6	2.43	0.52
25:D3:79:ASN:HD21	25:D3:81:LYS:HD2	1.74	0.52
1:2:1130:G:OP2	86:2:2074:OHX:N2	2.42	0.52
38:8:83:C:H4'	38:8:85:G:N3	2.23	0.52
1:2:527:A:OP2	86:2:2053:OHX:N4	2.41	0.52
36:1:1317:A:OP1	86:1:4063:OHX:N2	2.42	0.52
71:O5:63:ARG:NH2	38:8:97:A:O5'	57.10	0.52
49:M3:168:ARG:O	49:M3:172:LEU:HG	2.22	0.52
36:1:979:U:H1'	36:1:980:A:C4	2.44	0.52
36:1:1746:U:O2'	74:O8:4:GLU:OE1	2.18	0.52
45:L8:195:SER:O	45:L8:197:VAL:N	2.42	0.52
5:S3:119:ALA:O	5:S3:123:VAL:HG23	2.08	0.52
1:2:1646:C:H2'	1:2:1647:U:C6	2.43	0.52
40:L3:2:SER:N	36:5:2943:G:C8	235.40	0.52
1:2:1460:A:OP2	35:SM:68:ARG:HD3	2.09	0.52
36:5:1307:G:O2'	36:5:1308:A:OP2	2.23	0.52
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.39	0.52
36:1:1662:G:N2	36:1:1788:C:O2	2.42	0.52
23:D1:5:LYS:O	23:D1:7:GLN:N	3.35	0.52
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.84	0.52
26:D4:76:TYR:OH	26:D4:86:GLU:OE2	2.40	0.52
6:S4:60:GLU:O	6:S4:64:ILE:HG13	2.10	0.52
36:1:2573:G:O6	86:1:3997:OHX:N3	2.41	0.52
39:L2:117:GLU:CD	39:L2:121:GLY:H	2.10	0.52
39:L2:105:GLY:HA2	39:L2:139:HIS:CE1	4.02	0.52
36:1:3245:A:H8	36:1:3245:A:H5'	1.73	0.52
1:2:1147:A:H2'	1:2:1148:C:H6	1.75	0.52
25:D3:68:ILE:HB	25:D3:70:LYS:HZ1	2.58	0.52
36:5:408:A:N6	38:8:15:G:H1'	2.23	0.52
38:4:106:C:O2'	86:4:233:OHX:N4	2.42	0.52
2:S0:89:PHE:HE2	2:S0:177:LEU:HB3	1.76	0.52
36:5:3358:U:H2'	36:5:3359:A:C8	2.44	0.52
39:L2:224:THR:HA	39:L2:237:LEU:O	2.47	0.52
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.83	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:156:LYS:O	43:L6:160:SER:OG	2.26	0.52
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.08	0.52
36:1:985:U:H5'	44:L7:98:LYS:HD3	1.92	0.52
38:4:103:G:O6	86:4:225:OHX:N4	2.42	0.52
1:2:1239:U:O4	86:2:2047:OHX:N2	2.42	0.52
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.59	0.52
2:S0:134:LYS:O	2:S0:137:SER:OG	2.23	0.52
52:M6:173:ALA:O	52:M6:176:LYS:HB3	2.34	0.52
36:1:2916:U:H5	36:1:2935:U:HO2'	1.58	0.52
1:6:1473:U:O2	1:6:1473:U:H2'	2.10	0.52
1:6:1489:U:H5'	1:6:1494:C:H1'	1.91	0.52
40:L3:229:VAL:HG13	40:L3:235:THR:HG21	2.14	0.52
1:6:658:C:N4	1:6:673:A:N1	2.57	0.52
23:D1:71:ARG:HB2	23:D1:83:TRP:CE2	2.45	0.52
36:1:2503:G:H1'	36:1:2504:U:C5	2.44	0.52
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.08	0.52
36:5:3171:U:H3	36:5:3279:A:H61	1.56	0.52
10:S8:11:ARG:HD3	10:S8:15:GLY:O	2.40	0.52
36:5:282:G:H2'	36:5:286:U:H5'	1.91	0.52
22:D0:24:ILE:HD12	22:D0:41:ILE:HD13	7.06	0.52
5:S3:106:LYS:O	5:S3:110:LEU:HB2	2.09	0.52
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.44	0.52
36:5:1397:C:C2'	36:5:1398:U:H5'	2.39	0.52
44:L7:27:ALA:O	44:L7:31:ALA:N	2.41	0.52
1:2:623:A:OP2	86:2:2158:OHX:N4	2.43	0.52
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	1.90	0.52
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.90	0.52
36:1:2894:C:OP1	46:L9:168:ARG:NH2	2.42	0.52
37:3:28:C:OP2	42:L5:57:ASN:ND2	2.34	0.52
25:D3:23:ARG:HB3	25:D3:29:TYR:CE1	2.90	0.52
36:1:2413:A:H2'	36:1:2414:G:C8	2.44	0.52
36:5:1717:U:H2'	36:5:1718:G:C8	2.44	0.52
1:6:1236:A:H2'	1:6:1237:G:C8	2.44	0.52
1:6:867:G:O6	86:6:2054:OHX:N1	2.42	0.52
36:1:3176:G:H1'	69:O3:3:GLU:OE1	2.09	0.52
53:M7:53:ASP:O	86:M7:207:OHX:N3	2.43	0.52
8:S6:10:ASN:HB3	8:S6:128:THR:HA	1.93	0.52
36:1:2112:U:O2	86:1:3957:OHX:N1	2.43	0.52
7:S5:51:VAL:HG22	7:S5:131:GLN:HB2	1.90	0.52
42:L5:4:GLN:OE1	42:L5:4:GLN:N	2.35	0.52
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	1.92	0.52
47:M0:63:GLU:HB2	36:5:2853:A:H5'	296.35	0.52
41:L4:145:ILE:HD11	41:L4:148:ILE:HG22	5.99	0.52
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.09	0.52
28:D6:4:LYS:HE2	28:D6:5:ARG:HH21	1.79	0.52
11:S9:113:VAL:HG12	11:S9:125:ALA:HB1	2.50	0.52
11:S9:149:ARG:HH11	11:S9:149:ARG:HG3	4.39	0.52
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.36	0.52
45:L8:240:ASN:HB3	36:5:2586:G:N7	183.42	0.52
36:5:1949:G:H1	36:5:2097:U:H3	1.58	0.52
1:6:755:A:H2'	1:6:756:A:O4'	2.08	0.52
47:M0:81:GLY:C	47:M0:83:ASP:H	2.39	0.52
36:5:1554:U:H4'	36:5:1555:U:OP1	2.09	0.52
26:D4:5:VAL:HG12	26:D4:6:THR:H	1.73	0.52
25:D3:91:GLY:O	25:D3:94:ASN:ND2	4.21	0.52
1:2:778:G:H22	26:D4:10:ARG:NH1	2.07	0.52
37:7:3:U:H2'	37:7:4:U:H6	1.73	0.52
44:L7:80:GLN:OE1	57:N1:136:ARG:HB2	4.96	0.52
4:S2:230:TRP:CE2	24:D2:68:ARG:HD3	3.08	0.52
43:L6:54:TYR:HA	43:L6:65:ILE:HD13	6.01	0.52
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.07	0.52
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.91	0.52
46:L9:29:GLY:HA3	46:L9:82:VAL:HG13	1.92	0.52
1:6:25:C:O2	86:6:2104:OHX:N5	2.42	0.52
1:6:647:G:H1	1:6:687:G:H1	1.57	0.52
36:1:1675:G:H2'	36:1:1676:A:H8	1.74	0.52
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.45	0.52
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	1.91	0.52
71:O5:40:SER:HA	38:8:49:G:O2'	54.76	0.52
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.90	0.52
1:6:1147:A:H2'	1:6:1148:C:C6	2.44	0.52
20:C8:15:LEU:HD23	20:C8:22:VAL:O	3.83	0.52
48:M1:52:TYR:HA	48:M1:61:ARG:HG3	2.52	0.52
18:C6:109:PHE:O	18:C6:113:ASP:N	2.76	0.52
1:2:1183:A:C6	1:2:1184:A:N1	2.78	0.52
1:2:1330:G:H2'	1:2:1331:A:O4'	2.09	0.52
1:6:1733:C:H2'	1:6:1734:U:H6	1.74	0.52
48:M1:108:GLU:HG2	48:M1:122:ILE:HG21	1.91	0.52
14:C2:31:VAL:HG21	14:C2:136:ILE:HD11	2.52	0.52
36:1:908:G:H4'	36:1:909:G:O5'	2.10	0.52
36:1:1004:U:C2	36:1:1005:G:C8	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3165:A:H61	36:5:3285:C:H42	1.57	0.52
36:5:1049:C:H2'	36:5:1050:U:C6	2.45	0.52
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.42	0.52
50:M4:47:ASP:OD1	50:M4:55:ARG:HB2	2.54	0.52
1:2:1202:A:N6	1:2:1457:C:H5''	2.25	0.52
36:5:283:G:O6	36:5:304:G:H1'	2.10	0.52
28:D6:53:LEU:O	28:D6:57:SER:OG	2.23	0.52
36:1:3362:A:H2'	36:1:3363:U:O4'	2.10	0.52
27:D5:55:PRO:HG3	27:D5:88:ILE:HD12	6.79	0.52
41:L4:234:ASN:ND2	36:5:693:A:O2'	100.85	0.52
36:5:2180:G:H2'	36:5:2181:C:C6	2.45	0.52
57:N1:12:ARG:O	57:N1:16:GLN:HB2	3.66	0.52
59:N3:48:ARG:HH22	36:5:3043:C:P	250.10	0.52
36:1:3166:C:N3	36:1:3284:G:N2	2.43	0.52
1:2:972:G:O2'	36:1:847:A:N1	2.35	0.52
25:D3:8:GLY:O	25:D3:11:SER:OG	3.04	0.52
59:N3:87:ARG:HH12	59:N3:137:VAL:HG21	1.75	0.52
1:6:542:A:H1'	1:6:543:C:P	2.49	0.52
41:L4:327:LEU:HA	44:L7:166:ASN:HD21	1.73	0.52
17:C5:12:PHE:O	17:C5:14:THR:OG1	7.61	0.52
40:L3:211:GLN:NE2	40:L3:283:TYR:O	2.43	0.52
41:L4:193:LYS:HA	41:L4:198:ARG:HA	1.90	0.52
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	2.49	0.52
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.99	0.52
4:S2:98:PHE:CD2	4:S2:121:VAL:HG23	4.39	0.52
43:L6:17:ALA:O	36:5:591:G:O2'	210.42	0.52
1:6:1239:U:O4	86:6:2093:OHX:N2	2.43	0.52
18:C6:21:HIS:HB2	18:C6:66:ARG:HB3	3.99	0.52
69:O3:35:VAL:HG11	69:O3:41:ALA:HB2	2.43	0.52
28:D6:23:CYS:SG	28:D6:74:CYS:HB3	2.48	0.52
13:C1:37:ASN:HA	13:C1:44:THR:HG21	1.92	0.52
36:5:2689:A:H2'	36:5:2689:A:N3	2.25	0.52
42:L5:88:ILE:HD12	42:L5:240:TYR:CE1	4.29	0.52
28:D6:30:ILE:HD11	28:D6:35:ALA:HA	1.91	0.52
1:6:1229:G:O2'	1:6:1255:G:N2	2.30	0.52
3:S1:61:LEU:O	3:S1:63:GLY:N	2.42	0.52
36:1:3043:C:P	59:N3:48:ARG:HH22	2.31	0.52
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.43	0.52
1:6:1564:U:H2'	1:6:1565:C:H6	1.75	0.52
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.24	0.52
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:26:LEU:HD12	24:D2:27:ILE:H	4.88	0.52
1:6:1698:G:O2'	1:6:1699:G:O5'	2.24	0.52
9:S7:56:LYS:HB2	9:S7:88:ARG:HD3	1.91	0.52
4:S2:53:ILE:HD12	4:S2:53:ILE:H	4.19	0.52
49:M3:35:ARG:HG2	49:M3:35:ARG:HH11	1.73	0.52
4:S2:90:THR:OG1	4:S2:91:ARG:N	4.32	0.52
34:SR:52:GLN:HG2	34:SR:53:LYS:N	2.51	0.52
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.42	0.52
50:M4:121:MET:HE1	36:5:3215:A:O5'	275.08	0.52
1:6:271:A:H5'	1:6:272:U:OP2	2.09	0.52
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.61	0.52
86:8:216:OHX:N6	86:8:226:OHX:N3	2.57	0.52
50:M4:16:GLU:HB2	56:N0:149:LYS:HG2	1.92	0.52
49:M3:126:PHE:CD2	71:O5:115:LYS:HG2	3.09	0.52
36:5:3110:C:H2'	36:5:3111:U:C6	2.45	0.52
42:L5:237:GLU:O	42:L5:241:THR:OG1	2.25	0.52
28:D6:25:ASN:HB3	28:D6:77:CYS:SG	2.49	0.52
36:1:129:U:H2'	36:1:130:A:C8	2.45	0.52
63:N7:100:THR:HA	63:N7:106:GLN:HG2	1.91	0.52
1:2:747:C:H4'	24:D2:80:ASN:ND2	2.24	0.52
36:1:1497:C:O2'	36:1:1602:A:N3	2.40	0.52
1:2:1248:C:H2'	1:2:1249:U:H6	1.74	0.52
12:C0:56:LYS:N	12:C0:67:THR:O	2.49	0.52
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	2.42	0.52
38:8:10:A:H2'	38:8:11:C:C6	2.44	0.52
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.10	0.52
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.41	0.52
46:L9:87:LYS:HZ2	46:L9:191:LEU:HD21	14.87	0.52
41:L4:142:VAL:O	41:L4:144:LYS:N	2.42	0.52
11:S9:126:ARG:O	11:S9:130:THR:HG23	2.10	0.52
35:SM:48:ARG:HA	36:5:1019:G:OP1	333.94	0.52
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.40	0.52
55:M9:38:ARG:NH2	36:5:1603:A:OP1	111.92	0.52
64:N8:88:ASP:HA	64:N8:91:LEU:HD23	1.92	0.52
40:L3:65:SER:O	40:L3:68:HIS:N	2.37	0.52
1:6:760:A:OP2	86:6:2080:OHX:N5	2.43	0.52
3:S1:178:GLY:HA3	3:S1:187:LYS:HZ2	1.75	0.52
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.21	0.52
1:2:328:A:N3	10:S8:86:SER:OG	2.34	0.52
3:S1:143:THR:HB	3:S1:205:PHE:HE1	1.74	0.52
71:O5:13:SER:OG	71:O5:16:GLN:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:37:LYS:H	62:N6:37:LYS:HE2	3.54	0.52
54:M8:54:LEU:HD13	54:M8:58:ASN:HB3	1.91	0.52
1:2:771:A:OP1	11:S9:9:SER:OG	2.27	0.52
36:1:3174:A:C6	36:1:3175:U:C4	2.98	0.52
4:S2:89:GLN:HG3	4:S2:93:GLY:O	4.97	0.52
64:N8:75:LEU:O	64:N8:77:LYS:N	2.42	0.52
36:5:419:G:N7	86:5:3903:OHX:N3	2.58	0.52
36:5:1595:U:C2	36:5:1596:C:C5	2.98	0.52
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.44	0.52
79:Q3:21:SER:HA	79:Q3:24:ARG:NH1	2.24	0.52
1:2:1474:G:H2'	1:2:1475:A:C8	2.45	0.52
1:2:603:U:H2'	1:2:604:A:H8	1.74	0.52
1:2:201:G:H2'	1:2:202:A:C8	2.45	0.52
9:S7:73:VAL:O	9:S7:75:THR:N	2.57	0.52
36:5:530:G:N7	86:5:3948:OHX:N3	2.57	0.52
41:L4:265:GLU:OE1	41:L4:265:GLU:N	2.43	0.52
53:M7:22:LEU:HD13	53:M7:90:PHE:HD2	1.91	0.52
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.09	0.52
26:D4:63:GLN:HB2	26:D4:68:LYS:HB3	1.91	0.52
42:L5:184:ASP:CG	42:L5:187:THR:HG23	2.30	0.52
1:2:1116:A:P	77:Q1:17:ARG:HH21	2.33	0.52
36:5:3225:C:H2'	36:5:3226:A:O4'	2.10	0.52
78:Q2:20:HIS:ND1	36:5:2741:C:O2'	213.99	0.52
1:6:1122:G:N2	1:6:1125:A:OP2	2.35	0.52
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	4.48	0.52
51:M5:124:ASP:OD2	51:M5:127:TYR:N	2.87	0.52
36:5:2207:A:N6	36:5:2236:G:H1	2.08	0.52
55:M9:115:ILE:HG12	55:M9:119:LEU:HD23	1.91	0.52
41:L4:91:GLY:HA3	41:L4:93:MET:HE2	1.90	0.52
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.45	0.52
55:M9:101:VAL:HG13	55:M9:104:ARG:NH2	2.25	0.52
52:M6:68:ARG:NH1	36:5:2988:C:P	215.89	0.52
9:S7:107:ARG:NH2	1:6:741:C:O2	348.45	0.52
62:N6:125:LYS:HD2	71:O5:71:LYS:HB3	53.76	0.52
49:M3:141:ALA:O	49:M3:145:PHE:N	2.37	0.52
36:1:209:A:N3	41:L4:221:ASN:ND2	2.57	0.52
17:C5:21:ASP:O	17:C5:23:GLU:N	2.80	0.52
17:C5:15:HIS:H	17:C5:22:LEU:HD22	4.88	0.52
11:S9:81:VAL:HG23	11:S9:86:LEU:HD23	1.92	0.52
63:N7:34:LYS:O	63:N7:37:PRO:HG3	4.22	0.52
54:M8:170:ARG:HA	54:M8:174:ARG:HD2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2358:A:H2'	36:1:2359:C:O4'	2.10	0.52
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	2.14	0.52
11:S9:114:TYR:HD1	11:S9:121:SER:H	2.41	0.52
1:6:1039:A:N7	1:6:1091:A:C5	2.78	0.52
54:M8:121:CYS:C	54:M8:122:ILE:HD12	2.30	0.52
1:6:1237:G:H2'	1:6:1238:A:C8	2.45	0.52
1:2:286:C:H2'	1:2:287:G:H5'	1.91	0.52
36:1:2331:C:H2'	36:1:2332:A:O4'	2.10	0.52
56:N0:25:PHE:HD1	57:N1:151:LEU:HD21	3.44	0.52
36:1:2616:C:H2'	36:1:2617:U:H5'	1.91	0.52
36:1:789:A:H2'	36:1:790:U:C6	2.45	0.52
41:L4:34:ILE:O	41:L4:38:VAL:HG23	2.10	0.52
62:N6:86:THR:HG22	62:N6:96:PRO:HA	1.91	0.52
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	2.60	0.52
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.00	0.52
36:1:791:A:OP1	41:L4:108:LYS:HE3	2.09	0.52
43:L6:102:ASN:OD1	43:L6:104:GLU:N	2.43	0.52
45:L8:26:LEU:H	45:L8:26:LEU:HD12	1.73	0.52
36:5:90:C:C2'	36:5:91:G:H5'	2.39	0.52
45:L8:241:LYS:HD3	36:5:2586:G:C8	184.09	0.52
39:L2:3:ARG:HD3	36:5:911:C:N4	178.64	0.52
1:6:1230:A:H8	1:6:1258:U:C4	2.26	0.52
36:1:1170:A:OP2	86:1:3956:OHX:N3	2.42	0.52
1:6:1557:U:O2'	1:6:1558:U:H2'	2.10	0.52
36:1:1495:U:H5	36:1:1835:A:C2	2.27	0.52
27:D5:50:ILE:O	27:D5:54:VAL:HG23	2.10	0.52
20:C8:41:ARG:NH2	21:C9:36:ILE:O	3.19	0.52
36:5:1565:G:N2	36:5:1566:A:H1'	2.25	0.52
48:M1:60:ARG:HG3	48:M1:60:ARG:HH21	4.63	0.52
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.09	0.52
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	4.02	0.52
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.57	0.52
54:M8:16:ARG:HH12	54:M8:55:SER:HB3	1.73	0.52
42:L5:290:ILE:O	42:L5:294:ALA:N	3.83	0.52
49:M3:2:ALA:N	64:N8:31:GLY:O	3.62	0.52
41:L4:310:THR:HG22	36:5:609:G:C8	225.55	0.52
30:D8:65:ARG:HG3	30:D8:66:LEU:N	2.24	0.52
39:L2:18:SER:O	39:L2:20:THR:HG23	4.81	0.52
36:5:90:C:H2'	36:5:91:G:H5'	1.91	0.52
46:L9:62:ARG:NH2	36:5:3115:C:OP1	329.96	0.52
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:81:THR:OG1	45:L8:181:LYS:HE3	4.64	0.52
37:3:115:G:H2'	37:3:116:C:H6	1.73	0.52
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.43	0.52
36:1:1908:A:H2'	36:1:1909:A:O4'	2.10	0.52
36:1:722:G:O6	86:1:4015:OHX:N6	2.43	0.52
69:O3:6:ARG:HG3	69:O3:8:TYR:CE1	2.61	0.52
8:S6:159:ARG:HG2	8:S6:172:ALA:HB2	3.16	0.52
4:S2:139:ILE:HG13	4:S2:218:ILE:HB	3.37	0.52
33:E1:135:HIS:HB2	33:E1:138:ARG:HG3	1.92	0.52
42:L5:155:THR:HA	42:L5:179:ARG:HA	2.41	0.52
41:L4:316:ASN:HD22	41:L4:319:LYS:HE3	3.39	0.52
75:O9:5:LYS:HD2	36:5:1834:U:OP1	112.16	0.52
36:5:1557:A:N7	36:5:1559:A:N6	2.57	0.52
11:S9:63:ASP:O	11:S9:69:ARG:HD3	2.09	0.52
43:L6:41:ILE:HB	43:L6:85:ILE:HB	1.92	0.52
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.48	0.52
36:1:440:A:OP1	36:1:494:G:H1'	2.10	0.52
1:2:702:G:O2'	1:2:703:G:H8	1.92	0.52
6:S4:159:THR:HB	6:S4:227:VAL:HG23	1.93	0.52
51:M5:172:ARG:NH1	36:5:30:G:OP1	106.94	0.52
30:D8:12:VAL:HG12	30:D8:50:GLU:HA	1.92	0.52
39:L2:70:ARG:NH2	36:5:2522:G:C6	175.02	0.52
1:2:1000:C:H2'	1:2:1002:G:OP2	2.10	0.52
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.91	0.52
86:1:3910:OHX:N6	51:M5:32:GLN:O	2.43	0.52
63:N7:95:VAL:HG13	63:N7:110:ALA:HA	1.91	0.52
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.66	0.52
43:L6:64:LEU:HD22	43:L6:65:ILE:H	2.67	0.52
1:2:1341:A:H1'	34:SR:65:SER:OG	2.10	0.52
28:D6:60:PRO:O	28:D6:61:GLU:HB3	2.61	0.52
71:O5:105:ARG:HB2	71:O5:105:ARG:NH2	2.25	0.52
40:L3:66:LYS:HE2	40:L3:70:ARG:HH22	1.75	0.52
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.10	0.52
28:D6:80:HIS:C	28:D6:82:ARG:H	4.16	0.52
72:O6:33:ALA:HB1	72:O6:38:LYS:HD2	4.84	0.52
71:O5:119:LYS:NZ	71:O5:120:ALA:HB2	2.25	0.52
36:1:2217:U:H2'	36:1:2218:G:H8	1.75	0.52
68:O2:24:ARG:HG2	68:O2:25:TYR:CE1	2.79	0.52
13:C1:83:THR:HG22	13:C1:110:HIS:HA	3.82	0.52
52:M6:19:LEU:HD23	52:M6:80:PHE:HE1	3.08	0.52
33:E1:109:ASP:O	33:E1:111:GLU:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:28:GLU:O	55:M9:32:ILE:HG13	2.10	0.52
36:5:2927:C:H2'	36:5:2928:C:C6	2.44	0.52
1:2:1579:U:H2'	1:2:1580:C:H6	1.74	0.52
1:6:1334:U:H2'	1:6:1335:U:O4'	2.09	0.52
2:S0:56:LYS:HZ3	2:S0:158:VAL:HG23	1.74	0.52
36:5:22:G:H1'	38:8:104:A:N3	2.24	0.52
1:6:1614:A:N1	1:6:1615:C:N4	2.58	0.52
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	1.92	0.52
1:2:779:U:OP2	1:2:780:A:H2	1.93	0.52
36:1:85:A:O2'	86:1:4141:OHX:N6	2.43	0.52
36:5:2787:G:OP2	86:5:4030:OHX:N6	2.42	0.52
12:C0:87:VAL:O	12:C0:89:ALA:N	4.39	0.52
36:1:505:G:OP1	41:L4:320:ASN:ND2	2.42	0.52
1:2:460:A:H5'	1:2:461:G:OP2	2.10	0.52
50:M4:123:LEU:HD22	52:M6:190:VAL:HG23	1.91	0.51
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.41	0.51
52:M6:38:ALA:O	52:M6:41:LEU:HB3	3.15	0.51
1:6:512:A:H2'	1:6:513:U:C6	2.44	0.51
36:1:2303:A:OP1	77:Q1:23:ARG:NH2	2.44	0.51
19:C7:35:CYS:HA	19:C7:38:ILE:HG22	1.91	0.51
43:L6:175:LYS:HG3	50:M4:111:ALA:HA	4.03	0.51
3:S1:164:ILE:HG22	3:S1:168:ILE:HD11	2.61	0.51
36:1:3119:U:H2'	36:1:3121:U:OP1	2.10	0.51
33:E1:103:LEU:HA	33:E1:105:TYR:HD2	2.89	0.51
42:L5:106:ALA:O	42:L5:110:LEU:HD22	4.19	0.51
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	2.76	0.51
59:N3:128:ARG:HB3	59:N3:128:ARG:CZ	3.65	0.51
36:5:3294:A:H2'	36:5:3295:A:O4'	2.10	0.51
68:O2:82:LEU:O	68:O2:82:LEU:HD22	2.11	0.51
19:C7:105:GLN:H	19:C7:105:GLN:NE2	2.08	0.51
46:L9:168:ARG:HD2	36:5:2894:C:OP1	305.67	0.51
49:M3:133:PRO:O	49:M3:135:ALA:N	3.46	0.51
36:1:1004:U:C4	36:1:1005:G:N7	2.78	0.51
55:M9:25:ASP:HB3	55:M9:28:GLU:HB2	2.92	0.51
36:5:1355:A:H1'	36:5:1356:U:OP2	2.10	0.51
36:1:92:G:OP2	36:1:93:C:H5''	2.10	0.51
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.09	0.51
36:5:1733:G:H2'	36:5:1734:G:H8	1.75	0.51
36:5:1194:G:OP1	86:5:4009:OHX:N6	2.43	0.51
66:O0:14:LEU:HD21	66:O0:43:ILE:HD13	1.91	0.51
1:6:1745:G:O6	86:6:2074:OHX:N4	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.25	0.51
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	2.98	0.51
1:6:853:G:H2'	1:6:854:U:C6	2.45	0.51
1:2:1165:G:C6	1:2:1166:A:C6	2.98	0.51
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.41	0.51
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.10	0.51
9:S7:39:ARG:HH22	55:M9:185:LEU:HA	1.75	0.51
36:1:7:C:H2'	36:1:8:C:C6	2.45	0.51
36:1:1877:U:OP2	86:1:3925:OHX:N2	2.43	0.51
1:6:837:G:O6	86:6:2097:OHX:N1	2.43	0.51
6:S4:108:ARG:NH2	1:6:789:A:OP1	389.60	0.51
47:M0:82:ARG:O	47:M0:82:ARG:HG2	4.09	0.51
36:1:1064:A:H4'	36:1:1065:A:O5'	2.10	0.51
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	1.92	0.51
86:1:3937:OHX:N3	86:1:4198:OHX:N6	2.58	0.51
5:S3:56:GLN:HB2	5:S3:90:ARG:HH12	1.75	0.51
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.92	0.51
26:D4:20:ARG:HB3	26:D4:76:TYR:CD2	2.91	0.51
17:C5:110:GLU:HG2	20:C8:119:ILE:HD11	3.29	0.51
1:2:754:A:H61	1:2:793:A:H2'	1.76	0.51
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.45	0.51
36:1:353:G:N7	73:O7:55:ARG:HD3	2.25	0.51
36:1:1408:G:P	68:O2:33:ARG:HH22	2.33	0.51
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.09	0.51
46:L9:92:TYR:CD2	46:L9:92:TYR:N	4.18	0.51
36:1:174:C:H2'	36:1:175:C:H6	1.75	0.51
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.25	0.51
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.10	0.51
1:2:489:C:H42	1:2:497:G:H22	1.58	0.51
6:S4:155:LYS:NZ	1:6:244:A:OP1	345.61	0.51
63:N7:64:LYS:HD2	36:5:1812:G:O6	185.82	0.51
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.42	0.51
36:5:372:A:H2'	36:5:373:A:C8	2.45	0.51
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.68	0.51
58:N2:104:ARG:NH2	36:5:1758:G:H5'	119.64	0.51
3:S1:226:GLY:HA2	36:5:2536:A:H4'	257.10	0.51
6:S4:205:PHE:HB3	6:S4:221:ARG:HD2	2.47	0.51
2:S0:49:ASN:OD1	2:S0:52:LYS:HG3	4.27	0.51
20:C8:145:ARG:HG3	35:SM:68:ARG:NH2	4.00	0.51
1:2:901:G:H22	16:C4:54:GLU:CD	2.13	0.51
1:2:1537:C:N3	86:2:2155:OHX:N3	2.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:113:VAL:HG12	39:L2:166:ILE:HD13	1.92	0.51
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.21	0.51
40:L3:347:SER:O	40:L3:348:ARG:HB2	2.10	0.51
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	1.96	0.51
3:S1:143:THR:HA	3:S1:207:LEU:HA	1.91	0.51
3:S1:97:LEU:HG	3:S1:232:HIS:CE1	2.45	0.51
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	2.67	0.51
8:S6:12:SER:C	8:S6:13:GLN:HG2	2.30	0.51
1:2:1785:U:H2'	1:2:1786:G:C8	2.45	0.51
53:M7:92:GLN:HA	53:M7:95:LEU:HD12	1.92	0.51
36:5:720:A:C2	36:5:784:A:H5'	2.45	0.51
6:S4:187:ARG:NH2	1:6:753:A:H62	374.59	0.51
6:S4:186:GLY:HA3	1:6:753:A:OP1	369.87	0.51
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.88	0.51
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	2.18	0.51
31:D9:36:LEU:O	31:D9:38:ILE:HG12	2.10	0.51
37:3:60:G:H2'	37:3:61:G:H8	1.73	0.51
60:N4:4:GLU:HG2	60:N4:30:ARG:CZ	2.40	0.51
46:L9:40:HIS:CE1	46:L9:41:ILE:HD11	6.66	0.51
36:1:2676:A:H4'	36:1:2677:G:O5'	2.10	0.51
86:6:2056:OHX:N2	86:6:2143:OHX:N4	2.59	0.51
36:1:128:G:H2'	36:1:129:U:O4'	2.10	0.51
15:C3:12:SER:HB3	1:6:956:C:OP2	334.69	0.51
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	3.32	0.51
74:O8:10:GLN:HG2	74:O8:13:GLU:OE1	5.00	0.51
1:6:1724:U:O4	86:6:2088:OHX:N5	2.43	0.51
47:M0:191:LYS:HB3	47:M0:213:PHE:HE2	1.76	0.51
4:S2:175:GLY:HA3	11:S9:53:ARG:NH2	2.47	0.51
32:E0:35:TYR:HE1	32:E0:39:LEU:HD22	4.40	0.51
36:5:2859:U:O2'	86:5:3899:OHX:N6	2.43	0.51
1:2:155:U:H4'	8:S6:59:GLN:H	1.75	0.51
36:5:392:G:O6	86:5:4063:OHX:N3	2.44	0.51
1:2:5:U:C2	1:2:20:G:N2	2.79	0.51
36:1:2859:U:H4'	36:1:2860:U:OP1	2.10	0.51
36:5:964:G:OP1	86:5:4003:OHX:N3	2.43	0.51
21:C9:89:ARG:HH11	21:C9:89:ARG:HB2	4.22	0.51
36:1:929:A:H2'	36:1:930:U:C6	2.46	0.51
40:L3:356:LEU:HD13	40:L3:359:ILE:HD11	1.92	0.51
36:5:955:U:H2'	36:5:956:U:H6	1.71	0.51
63:N7:135:ARG:HH21	63:N7:135:ARG:CB	4.12	0.51
36:1:1688:U:H2'	36:1:1689:U:H6	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	2.50	0.51
62:N6:125:LYS:O	62:N6:126:LEU:HB2	3.88	0.51
40:L3:250:ALA:HB1	36:5:2947:G:C2	219.65	0.51
13:C1:38:ALA:HB2	13:C1:60:PHE:HD1	3.35	0.51
1:6:1091:A:H4'	1:6:1092:A:O5'	2.10	0.51
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.52	0.51
5:S3:34:TYR:OH	5:S3:37:VAL:HG22	2.10	0.51
22:D0:82:TYR:HB3	31:D9:52:PHE:HB3	2.31	0.51
76:Q0:97:ARG:NH2	36:5:2846:U:C4	322.99	0.51
36:1:1580:A:H5'	36:1:2522:G:N7	2.26	0.51
30:D8:27:GLN:NE2	30:D8:64:ARG:O	2.44	0.51
36:5:1826:C:H2'	36:5:1827:C:H6	1.74	0.51
36:1:169:U:HO2'	36:1:170:G:P	2.33	0.51
71:O5:31:LEU:HD13	71:O5:47:VAL:HG11	2.59	0.51
39:L2:30:ARG:HE	39:L2:36:GLU:HG3	1.76	0.51
36:1:290:G:H2'	36:1:291:C:H6	1.76	0.51
53:M7:126:ARG:HD2	53:M7:140:GLU:OE2	2.10	0.51
17:C5:115:TYR:CZ	1:6:1556:A:H5''	383.96	0.51
45:L8:71:VAL:O	45:L8:234:GLY:N	2.43	0.51
36:5:2840:C:OP1	86:5:4132:OHX:N3	2.44	0.51
40:L3:250:ALA:HB3	36:5:2880:U:H1'	223.78	0.51
39:L2:21:ARG:NH2	39:L2:22:LEU:HD21	2.64	0.51
1:6:1491:U:H5'	1:6:1492:A:OP1	2.11	0.51
68:O2:33:ARG:HH11	36:5:944:C:H4'	161.09	0.51
66:O0:54:SER:HA	66:O0:57:GLU:OE2	2.85	0.51
20:C8:27:LYS:O	20:C8:31:ALA:N	2.67	0.51
14:C2:55:GLY:HA2	14:C2:85:LYS:HD3	1.93	0.51
21:C9:6:VAL:HG13	21:C9:66:TYR:CZ	2.83	0.51
1:6:1733:C:H2'	1:6:1734:U:C6	2.45	0.51
61:N5:108:LEU:HD12	61:N5:125:ARG:HD2	2.18	0.51
36:5:3188:G:C2	36:5:3205:G:N1	2.79	0.51
36:1:2516:U:O2'	36:1:2595:A:N6	2.38	0.51
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.11	0.51
36:5:35:A:O2'	36:5:36:C:H5'	2.11	0.51
1:2:520:A:H2'	1:2:521:A:C8	2.45	0.51
1:2:28:A:H2'	1:2:29:U:C6	2.46	0.51
51:M5:96:ARG:CG	51:M5:96:ARG:HH11	2.42	0.51
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.43	0.51
51:M5:121:VAL:HG22	51:M5:129:TYR:O	2.45	0.51
11:S9:37:LYS:HE2	1:6:594:A:OP2	411.69	0.51
34:SR:184:ASN:N	34:SR:184:ASN:OD1	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:37:GLU:HA	1:6:895:G:O2'	258.74	0.51
57:N1:105:PHE:CE2	36:5:1062:A:H4'	243.51	0.51
36:5:2704:A:OP2	86:5:3897:OHX:N5	2.43	0.51
34:SR:195:HIS:NE2	34:SR:213:SER:O	2.32	0.51
9:S7:105:THR:O	9:S7:107:ARG:N	3.89	0.51
78:Q2:46:LYS:HE2	36:5:92:G:OP1	163.36	0.51
5:S3:53:THR:HB	5:S3:94:ARG:HD3	4.28	0.51
36:5:2970:C:H4'	36:5:2971:A:N1	2.26	0.51
5:S3:222:VAL:HG23	34:SR:192:PHE:HA	4.25	0.51
67:O1:44:MET:O	67:O1:46:THR:HG22	3.88	0.51
3:S1:76:SER:OG	3:S1:77:GLU:N	3.13	0.51
36:5:172:G:H2'	36:5:173:G:H5'	1.93	0.51
36:1:1349:G:H3'	36:1:1349:G:N3	2.26	0.51
27:D5:43:ASP:O	27:D5:45:GLU:N	2.56	0.51
20:C8:68:ARG:O	20:C8:72:ILE:HG13	2.11	0.51
24:D2:25:VAL:HG23	24:D2:63:VAL:HB	1.93	0.51
1:2:926:A:H2	16:C4:125:SER:HB3	1.75	0.51
36:1:1024:G:N7	86:1:4165:OHX:N6	2.58	0.51
74:O8:65:LEU:O	74:O8:69:LEU:HD23	2.11	0.51
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.46	0.51
36:1:953:G:N2	36:1:1116:G:H2'	2.26	0.51
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.10	0.51
26:D4:112:LYS:NZ	1:6:57:G:OP1	345.98	0.51
71:O5:21:LEU:HD11	71:O5:25:LYS:HE3	1.92	0.51
1:6:1483:A:C6	1:6:1484:G:C6	2.99	0.51
1:6:809:A:C6	1:6:810:G:O6	2.64	0.51
1:2:635:A:H2'	1:2:636:A:C8	2.46	0.51
2:S0:56:LYS:NZ	2:S0:158:VAL:HA	2.79	0.51
58:N2:98:THR:HG22	58:N2:104:ARG:HH21	7.41	0.51
49:M3:53:LEU:HB3	49:M3:96:ALA:HB2	2.26	0.51
45:L8:54:GLU:O	45:L8:58:VAL:HG23	2.16	0.51
6:S4:134:LYS:O	6:S4:136:VAL:HG23	3.24	0.51
1:6:1406:A:H2'	1:6:1407:U:C6	2.45	0.51
52:M6:184:THR:OG1	52:M6:185:ALA:N	4.42	0.51
6:S4:91:THR:HG23	6:S4:98:ASN:OD1	2.10	0.51
41:L4:72:ALA:O	41:L4:76:ARG:NH1	2.44	0.51
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.29	0.51
69:O3:52:VAL:HG22	69:O3:66:VAL:HG22	2.00	0.51
39:L2:220:GLY:O	39:L2:221:LYS:HG3	2.10	0.51
36:5:770:G:N7	86:5:4092:OHX:N6	2.59	0.51
36:1:3041:U:H2'	36:1:3042:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2996:U:OP1	36:5:2996:U:H4'	2.09	0.51
54:M8:33:TYR:HA	54:M8:36:LEU:HB2	1.92	0.51
41:L4:144:LYS:HD2	41:L4:145:ILE:HG23	7.72	0.51
28:D6:4:LYS:HE2	28:D6:5:ARG:NH2	2.43	0.51
9:S7:35:LYS:O	9:S7:37:GLU:N	2.37	0.51
5:S3:64:ARG:O	5:S3:66:ILE:N	2.43	0.51
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.12	0.51
36:1:1093:A:N3	36:1:1096:U:N3	2.59	0.51
36:5:2278:C:OP1	86:5:4086:OHX:N6	2.44	0.51
50:M4:20:VAL:HG13	50:M4:68:LEU:HB2	2.77	0.51
62:N6:36:SER:O	62:N6:40:ARG:N	2.41	0.51
33:E1:103:LEU:HD23	33:E1:105:TYR:HD2	3.20	0.51
20:C8:78:HIS:C	20:C8:80:LYS:H	2.14	0.51
25:D3:126:LYS:HB3	25:D3:131:SER:H	1.90	0.51
1:2:1783:C:H2'	1:2:1784:C:C6	2.45	0.51
29:D7:61:THR:HG23	29:D7:62:ILE:N	2.26	0.51
1:6:1392:U:H2'	1:6:1393:C:H6	1.74	0.51
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.59	0.51
1:6:333:A:C6	1:6:334:G:C6	2.98	0.51
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.17	0.51
57:N1:38:ASP:O	57:N1:64:VAL:HG23	2.80	0.51
25:D3:27:ASN:OD1	25:D3:31:LYS:NZ	2.64	0.51
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.52	0.51
2:S0:62:ARG:HE	23:D1:39:VAL:HG13	1.76	0.51
1:6:1451:C:H2'	1:6:1452:U:H6	1.75	0.51
42:L5:187:THR:O	42:L5:189:GLU:N	2.43	0.51
1:2:452:A:OP2	86:2:2038:OHX:N5	2.44	0.51
36:5:2820:A:H5''	36:5:2821:C:OP2	2.10	0.51
1:2:1575:G:H2'	1:2:1576:A:C8	2.45	0.51
36:5:2924:U:H5''	36:5:2925:C:OP2	2.10	0.51
1:6:1697:G:H8	1:6:1705:C:N3	2.09	0.51
39:L2:225:ILE:HD12	39:L2:235:ALA:H	1.75	0.51
36:5:1908:A:H2'	36:5:1909:A:O4'	2.10	0.51
41:L4:184:SER:HB2	41:L4:202:ARG:HG2	1.92	0.51
1:2:1294:G:O2'	1:2:1321:A:N1	2.36	0.51
6:S4:45:ILE:HB	6:S4:80:THR:HG23	2.95	0.51
49:M3:14:PHE:CZ	36:5:665:A:H1'	131.65	0.51
20:C8:108:LYS:HA	20:C8:111:ASP:HB2	2.30	0.51
41:L4:209:TYR:CE2	41:L4:229:ASN:HB2	2.99	0.51
53:M7:69:ARG:HD3	36:5:3309:G:H1'	185.47	0.51
52:M6:127:LEU:HD21	56:N0:168:PRO:HG2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.43	0.51
36:1:860:G:C5	39:L2:181:LYS:HB2	2.46	0.51
36:5:1096:U:H4'	36:5:1097:G:O5'	2.11	0.51
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.93	0.51
51:M5:67:ARG:O	51:M5:98:LEU:HD11	2.10	0.51
3:S1:125:VAL:HG11	3:S1:173:THR:HG23	2.18	0.51
36:5:1662:G:N2	36:5:1788:C:O2	2.43	0.51
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	3.17	0.51
1:6:1700:C:HO2'	1:6:1701:A:P	2.32	0.51
17:C5:40:ARG:NH2	1:6:1551:U:O4	390.73	0.51
6:S4:141:THR:OG1	6:S4:145:ARG:HB2	2.46	0.51
8:S6:98:ARG:HD3	8:S6:99:GLY:H	1.76	0.51
39:L2:144:ASN:ND2	39:L2:161:ASP:OD1	3.59	0.51
54:M8:69:ARG:HG3	36:5:784:A:N7	157.67	0.51
1:2:472:U:OP1	11:S9:10:LYS:HA	2.11	0.51
34:SR:96:THR:HG23	34:SR:98:GLU:HB3	1.91	0.51
2:S0:195:TRP:CZ2	2:S0:197:ILE:HD12	2.46	0.51
4:S2:132:ALA:O	4:S2:135:SER:OG	2.36	0.51
10:S8:69:SER:HB2	13:C1:22:ASN:OD1	2.11	0.51
13:C1:5:LEU:O	13:C1:7:VAL:N	2.44	0.51
40:L3:46:PHE:CD1	40:L3:208:VAL:HG21	2.91	0.51
43:L6:105:TYR:OH	43:L6:137:ASP:OD2	2.52	0.51
41:L4:337:GLU:O	41:L4:339:LEU:HD23	2.11	0.51
36:1:3096:C:H1'	40:L3:327:CYS:SG	2.50	0.51
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.46	0.51
36:1:3018:C:H2'	36:1:3019:U:O4'	2.10	0.51
1:2:134:U:OP1	1:2:136:C:N4	2.43	0.51
42:L5:267:ALA:O	42:L5:271:LYS:HG2	4.25	0.51
36:5:189:G:C2	36:5:191:U:C4	2.99	0.51
43:L6:171:PRO:C	43:L6:173:MET:H	2.28	0.51
36:5:1952:G:N1	36:5:1953:G:N7	2.59	0.51
45:L8:224:ASP:N	45:L8:224:ASP:OD1	2.73	0.51
36:5:871:U:H2'	36:5:872:U:C6	2.46	0.51
86:5:3975:OHX:N2	86:5:4193:OHX:N5	2.59	0.51
46:L9:49:ASN:ND2	46:L9:51:GLN:HB2	3.50	0.51
1:6:189:C:C2'	1:6:190:C:H5'	2.41	0.51
5:S3:70:THR:O	5:S3:74:GLN:N	2.32	0.51
29:D7:28:PRO:O	29:D7:29:ARG:HG2	2.10	0.51
75:O9:2:ALA:HB1	75:O9:5:LYS:NZ	2.26	0.51
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	6.45	0.51
75:O9:21:ARG:CZ	75:O9:24:PRO:HG3	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:62:THR:HA	36:5:1306:G:C6	232.97	0.51
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.44	0.51
44:L7:127:LEU:O	44:L7:130:ILE:HG22	5.63	0.51
36:1:1464:G:OP2	86:1:4198:OHX:N5	2.44	0.51
36:1:1245:A:N6	36:1:1272:C:O2'	2.44	0.51
12:C0:47:GLN:O	12:C0:50:THR:OG1	2.21	0.51
74:O8:14:LEU:HD23	74:O8:17:ARG:HD3	1.92	0.51
36:1:495:G:H1	36:1:618:C:N4	2.09	0.51
36:5:173:G:HO2'	36:5:174:C:H6	1.59	0.51
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.91	0.51
45:L8:75:ILE:HG22	45:L8:76:ALA:N	2.26	0.51
52:M6:5:PRO:CD	36:5:3178:A:H5'	257.19	0.51
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.46	0.51
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.61	0.51
19:C7:109:LEU:O	19:C7:113:LEU:HB2	4.57	0.51
37:3:14:U:H5'	42:L5:24:ARG:NH1	2.26	0.51
66:O0:52:ARG:O	66:O0:56:LEU:HB2	3.13	0.51
68:O2:123:LYS:HA	68:O2:126:LEU:HB2	2.41	0.51
41:L4:216:VAL:HG23	41:L4:217:LYS:N	2.26	0.51
36:5:1221:A:H3'	36:5:1222:G:H5'	1.93	0.51
1:2:1718:G:H2'	1:2:1719:A:O4'	2.11	0.51
41:L4:325:LEU:O	44:L7:41:ARG:NH2	2.44	0.51
44:L7:34:LYS:HA	44:L7:37:ASN:HB2	1.93	0.51
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.10	0.51
1:2:30:G:H2'	1:2:31:C:C6	2.46	0.51
36:1:1390:A:N6	36:1:1418:A:O2'	2.44	0.51
76:Q0:113:ARG:NH1	36:5:1298:C:O3'	290.31	0.51
37:3:43:U:H4'	48:M1:140:ARG:O	2.10	0.51
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	2.40	0.51
5:S3:176:LEU:HA	5:S3:181:VAL:HG12	2.09	0.51
41:L4:179:LEU:HD22	41:L4:183:LYS:HG2	2.16	0.51
34:SR:224:ASN:HD21	34:SR:226:ALA:HB3	3.87	0.51
27:D5:92:ILE:HD11	27:D5:102:THR:OG1	5.88	0.51
15:C3:13:SER:OG	15:C3:14:SER:N	2.44	0.51
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.53	0.51
67:O1:86:LYS:H	67:O1:86:LYS:HD2	1.76	0.51
62:N6:23:PRO:HD2	62:N6:26:GLN:HB2	1.92	0.51
36:1:1454:A:OP2	86:1:4206:OHX:N6	2.44	0.51
79:Q3:8:VAL:HG22	36:5:1927:G:OP1	245.42	0.51
48:M1:89:TYR:O	48:M1:169:ALA:HB1	2.36	0.51
74:O8:46:ARG:HA	74:O8:51:LEU:HD12	2.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:108:LYS:HG2	5:S3:113:LEU:HD12	1.93	0.51
51:M5:44:ARG:HH12	36:5:269:G:P	126.35	0.51
41:L4:269:SER:OG	41:L4:269:SER:O	2.51	0.51
4:S2:59:HIS:CD2	4:S2:238:SER:HA	2.46	0.51
6:S4:212:ASP:C	6:S4:214:LEU:H	2.39	0.51
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	3.25	0.51
68:O2:4:LEU:HG	68:O2:5:PRO:HD3	4.06	0.51
1:6:708:C:H2'	1:6:709:C:O4'	2.11	0.51
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.11	0.51
2:S0:193:GLN:O	2:S0:195:TRP:N	2.43	0.51
8:S6:202:ARG:O	8:S6:205:ALA:HB3	2.11	0.51
56:N0:25:PHE:HA	57:N1:149:GLN:O	2.72	0.51
36:5:1757:A:H2'	36:5:1758:G:C8	2.46	0.51
36:5:1806:A:OP2	86:5:4020:OHX:N5	2.44	0.51
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.11	0.51
15:C3:136:PRO:O	15:C3:138:ASN:N	2.50	0.51
1:6:649:U:H2'	1:6:650:U:H5	1.75	0.51
56:N0:78:TRP:CE3	56:N0:125:LYS:HG3	4.78	0.51
44:L7:186:HIS:O	44:L7:190:THR:HG23	2.10	0.51
1:2:23:G:O2'	1:2:368:U:OP1	2.29	0.51
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.26	0.51
28:D6:44:ILE:HG13	28:D6:65:PRO:O	2.10	0.50
42:L5:159:VAL:HG13	42:L5:160:PHE:CD1	2.46	0.50
46:L9:180:TYR:HD1	76:Q0:89:TYR:CD1	2.89	0.50
36:1:2107:A:H2	36:1:3344:A:C8	2.29	0.50
1:2:789:A:OP1	6:S4:108:ARG:NH2	2.43	0.50
20:C8:126:ARG:NH1	1:6:1459:C:OP1	350.44	0.50
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	1.93	0.50
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.39	0.50
1:2:1762:A:H1'	1:2:1783:C:H5'	1.93	0.50
46:L9:9:GLN:HG2	46:L9:54:LYS:HG2	3.78	0.50
36:1:1808:G:O6	86:1:3980:OHX:N3	2.45	0.50
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.93	0.50
53:M7:127:ARG:NH2	36:5:1508:C:OP1	138.02	0.50
86:1:4003:OHX:N3	86:1:4172:OHX:N3	2.58	0.50
41:L4:82:THR:HG23	41:L4:84:ARG:H	1.76	0.50
1:2:1718:G:OP2	86:2:2082:OHX:N1	2.44	0.50
52:M6:49:ARG:HG2	52:M6:49:ARG:HH11	1.75	0.50
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.21	0.50
71:O5:50:SER:O	71:O5:54:VAL:HG23	2.11	0.50
36:5:1715:A:C8	36:5:1717:U:H5''	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:717:C:H42	1:2:720:G:H22	1.58	0.50
17:C5:51:SER:OG	17:C5:52:LYS:N	4.80	0.50
36:5:1046:A:H2'	36:5:1049:C:C5	2.46	0.50
4:S2:205:ARG:HD2	1:6:6:G:OP2	378.19	0.50
21:C9:85:SER:C	21:C9:87:GLY:H	2.15	0.50
36:5:1252:A:N6	36:5:1264:G:OP1	2.44	0.50
36:5:2734:A:OP1	86:5:4042:OHX:N6	2.44	0.50
44:L7:208:SER:HB2	36:5:1334:U:H1'	241.10	0.50
36:1:230:U:H2'	36:1:231:G:O4'	2.12	0.50
15:C3:124:ARG:NH2	1:6:967:A:OP2	318.91	0.50
1:2:422:G:OP1	86:2:2042:OHX:N6	2.45	0.50
74:O8:32:ASN:ND2	74:O8:34:ALA:HB3	5.85	0.50
1:2:1061:A:H2'	1:2:1062:A:H5'	1.92	0.50
36:5:1204:A:H2'	36:5:1205:A:H5'	1.93	0.50
36:1:2369:G:H2'	36:1:2370:G:O4'	2.10	0.50
55:M9:160:GLU:HA	55:M9:163:ARG:HB2	1.93	0.50
31:D9:47:ALA:HA	31:D9:50:ILE:HD12	3.96	0.50
86:5:3975:OHX:N6	86:5:4193:OHX:N5	2.59	0.50
47:M0:169:LYS:O	47:M0:170:LYS:HD2	4.19	0.50
42:L5:178:ASN:HD21	36:5:2746:A:H5'	252.14	0.50
42:L5:105:ILE:O	42:L5:109:THR:HG22	2.11	0.50
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.46	0.50
36:5:2418:G:O6	86:5:4244:OHX:N2	2.43	0.50
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.88	0.50
2:S0:63:ILE:HG12	23:D1:36:VAL:HG22	3.31	0.50
17:C5:100:LYS:HG3	17:C5:101:ALA:N	3.49	0.50
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	2.08	0.50
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.31	0.50
3:S1:59:ASP:HA	3:S1:62:LYS:HZ1	1.76	0.50
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.75	0.50
1:6:1579:U:H2'	1:6:1580:C:C6	2.46	0.50
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.11	0.50
3:S1:113:MET:HE3	3:S1:209:ASN:HB3	5.21	0.50
1:2:1291:G:H2'	1:2:1292:G:C8	2.47	0.50
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	4.50	0.50
1:2:108:A:H2'	1:2:109:G:C8	2.45	0.50
36:1:2427:U:H2'	36:1:2428:U:C6	2.46	0.50
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.12	0.50
46:L9:106:LYS:H	46:L9:109:ALA:HB2	1.75	0.50
4:S2:164:SER:OG	1:6:14:C:OP1	374.51	0.50
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:872:U:H2'	36:1:873:C:C6	2.46	0.50
62:N6:59:VAL:C	62:N6:64:LYS:HD2	2.31	0.50
36:5:3318:G:OP2	86:5:4134:OHX:N5	2.44	0.50
26:D4:51:GLU:O	26:D4:53:ASP:N	3.11	0.50
65:N9:38:LYS:NZ	36:5:1077:U:OP1	218.00	0.50
7:S5:149:VAL:HG11	7:S5:156:ARG:HH11	1.76	0.50
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.46	0.50
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.46	0.50
36:5:1807:G:C6	36:5:1808:G:N1	2.79	0.50
36:1:210:U:C2	36:1:230:U:H4'	2.46	0.50
61:N5:53:HIS:ND1	61:N5:54:TYR:O	2.91	0.50
36:5:796:U:H2'	36:5:797:U:C6	2.46	0.50
50:M4:99:TRP:O	50:M4:103:ILE:HG13	2.14	0.50
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.49	0.50
36:1:964:G:HO2'	64:N8:41:HIS:HE2	1.57	0.50
45:L8:89:GLU:HB3	45:L8:214:LEU:HD11	2.50	0.50
37:3:106:U:H2'	37:3:107:C:C6	2.46	0.50
36:1:501:A:H2'	36:1:502:U:C6	2.46	0.50
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	1.94	0.50
49:M3:105:ASN:OD1	49:M3:107:GLU:HG3	3.66	0.50
35:SM:123:ALA:O	35:SM:127:ALA:N	3.43	0.50
1:2:1649:G:N7	86:2:2051:OHX:N1	2.59	0.50
69:O3:60:ARG:HD2	36:5:3275:U:C4	213.02	0.50
23:D1:71:ARG:HE	29:D7:4:VAL:HG11	2.25	0.50
49:M3:42:ARG:HD3	49:M3:51:LEU:HD22	3.61	0.50
4:S2:140:ARG:NH2	4:S2:229:LEU:HD22	2.27	0.50
11:S9:134:ILE:HG12	11:S9:135:ALA:N	2.26	0.50
7:S5:164:PRO:HA	7:S5:167:ARG:HB2	2.39	0.50
29:D7:29:ARG:HG3	29:D7:29:ARG:HH11	2.09	0.50
75:O9:23:LEU:HD13	75:O9:24:PRO:CD	2.42	0.50
36:5:1557:A:C5	36:5:1559:A:C6	2.99	0.50
44:L7:159:GLN:O	44:L7:160:ARG:HB3	2.11	0.50
57:N1:13:TYR:O	86:N1:201:OHX:N5	2.44	0.50
66:O0:99:ASP:HB2	66:O0:103:THR:HG23	1.93	0.50
73:O7:63:ARG:O	73:O7:68:LYS:HE2	2.11	0.50
1:2:499:U:O2'	1:2:500:C:P	2.69	0.50
5:S3:96:LEU:HA	5:S3:188:ILE:HG21	1.93	0.50
1:2:651:G:O6	86:2:2104:OHX:N4	2.44	0.50
3:S1:70:LEU:O	3:S1:74:GLN:N	2.45	0.50
73:O7:60:GLY:O	86:O7:106:OHX:N6	2.44	0.50
38:4:155:A:H4'	45:L8:185:ARG:HD3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:14:TYR:HH	1:6:1553:G:HO2'	402.64	0.50
69:O3:48:ARG:HH11	69:O3:48:ARG:CG	2.22	0.50
1:6:792:U:OP1	86:6:2189:OHX:N4	2.43	0.50
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.80	0.50
36:1:1014:U:H3	36:1:1036:A:H61	1.58	0.50
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.54	0.50
36:1:1553:U:H4'	36:1:1554:U:H5'	1.93	0.50
41:L4:47:ARG:HD2	36:5:338:A:N7	111.58	0.50
50:M4:37:GLU:HG2	50:M4:38:ILE:H	1.76	0.50
34:SR:82:SER:HG	34:SR:92:TRP:HE1	1.58	0.50
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.42	0.50
71:O5:59:ASN:O	71:O5:63:ARG:HG2	4.02	0.50
10:S8:114:GLU:HG2	10:S8:120:THR:HA	1.93	0.50
45:L8:89:GLU:HA	45:L8:92:LYS:HE2	1.94	0.50
36:5:507:U:H2'	36:5:508:U:C6	2.46	0.50
8:S6:65:GLN:HG3	8:S6:66:GLY:N	2.25	0.50
36:5:3253:G:N7	86:5:4235:OHX:N1	2.59	0.50
40:L3:14:LEU:HD13	40:L3:262:TRP:CH2	2.47	0.50
79:Q3:41:PHE:CG	79:Q3:62:LYS:HD3	2.46	0.50
34:SR:267:PRO:HD2	34:SR:269:TYR:HE1	2.90	0.50
46:L9:172:ILE:HD12	76:Q0:90:ASN:HB3	2.60	0.50
1:6:1715:G:O6	1:6:1716:C:N4	2.45	0.50
1:2:131:C:O2'	1:2:132:U:OP1	2.23	0.50
39:L2:149:ARG:NH2	39:L2:252:THR:O	4.53	0.50
36:5:1232:C:C5	36:5:1261:G:H2'	2.46	0.50
1:6:1638:G:C2	1:6:1639:C:H1'	2.46	0.50
77:Q1:2:ARG:HG3	77:Q1:4:LYS:H	2.18	0.50
36:1:2444:C:H3'	36:1:2445:A:H5''	1.93	0.50
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	5.00	0.50
36:5:917:A:OP2	86:5:4209:OHX:N1	2.45	0.50
35:SM:48:ARG:NH1	36:5:1017:C:H5''	336.88	0.50
1:2:788:A:H2'	6:S4:19:LEU:HD22	1.93	0.50
36:1:1063:G:N7	36:1:1097:G:H2'	2.27	0.50
37:3:4:U:H2'	37:3:5:G:H8	1.70	0.50
52:M6:65:ASN:HB3	52:M6:68:ARG:CD	2.69	0.50
1:6:1533:C:H4'	1:6:1539:G:N1	2.27	0.50
22:D0:70:THR:HG23	1:6:1280:C:O2'	387.94	0.50
46:L9:20:ILE:HG23	46:L9:25:VAL:HG22	2.21	0.50
41:L4:288:ARG:O	41:L4:291:ASN:N	3.11	0.50
4:S2:54:GLU:OE1	23:D1:11:LEU:HB2	3.67	0.50
21:C9:117:SER:HB3	21:C9:123:ARG:HB3	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:72:A:C2	1:2:73:U:N3	2.79	0.50
9:S7:51:VAL:HG22	9:S7:55:LYS:O	2.78	0.50
40:L3:81:THR:OG1	40:L3:321:PHE:HA	2.11	0.50
8:S6:49:VAL:HB	8:S6:115:LYS:HG3	4.89	0.50
86:8:216:OHX:N2	86:8:226:OHX:N4	2.60	0.50
86:8:216:OHX:N6	86:8:226:OHX:N4	2.59	0.50
1:6:1173:C:H2'	1:6:1174:C:H6	1.77	0.50
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	3.37	0.50
5:S3:20:GLU:OE2	5:S3:76:ARG:NH2	2.41	0.50
47:M0:191:LYS:HB3	47:M0:213:PHE:CE2	2.47	0.50
45:L8:136:LEU:HD13	51:M5:3:ALA:CB	2.41	0.50
40:L3:255:TRP:HB3	36:5:2941:A:OP1	224.86	0.50
61:N5:65:GLN:NE2	61:N5:66:PRO:O	5.87	0.50
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	3.12	0.50
45:L8:228:GLU:HA	45:L8:231:LYS:HE3	3.11	0.50
37:3:85:G:O6	86:3:215:OHX:N4	2.44	0.50
36:5:425:G:O6	86:5:3913:OHX:N3	2.45	0.50
21:C9:76:LEU:HD22	21:C9:80:TYR:CE2	2.46	0.50
21:C9:79:LEU:HD23	21:C9:80:TYR:CZ	2.66	0.50
1:2:274:G:H3'	1:2:275:C:C6	2.46	0.50
36:1:3251:U:H2'	36:1:3252:G:C8	2.47	0.50
7:S5:110:ALA:HA	7:S5:113:ILE:HD12	1.93	0.50
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.93	0.50
36:1:2881:C:H2'	36:1:2882:U:C6	2.46	0.50
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.68	0.50
1:2:195:G:H2'	1:2:196:G:H5'	1.91	0.50
36:1:277:G:OP1	86:1:3876:OHX:N5	2.44	0.50
24:D2:11:LEU:O	24:D2:15:ASN:HB2	2.55	0.50
2:S0:140:ASN:O	2:S0:142:PRO:HD3	3.17	0.50
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.37	0.50
52:M6:34:VAL:HG11	52:M6:112:TYR:CE1	2.47	0.50
1:2:1497:U:OP2	86:2:2031:OHX:N1	2.44	0.50
48:M1:7:ASN:CG	48:M1:10:ARG:HD2	2.32	0.50
18:C6:42:GLU:O	18:C6:45:ARG:N	2.65	0.50
33:E1:103:LEU:HA	33:E1:105:TYR:CD2	3.77	0.50
20:C8:45:LEU:HG	20:C8:81:ILE:HD12	4.29	0.50
1:6:542:A:H1'	1:6:543:C:OP1	2.11	0.50
32:E0:28:LYS:NZ	1:6:542:A:H61	428.24	0.50
1:6:542:A:O2'	1:6:543:C:O5'	2.26	0.50
49:M3:115:ARG:NH1	49:M3:147:ILE:HG12	2.26	0.50
1:2:1785:U:H2'	1:2:1786:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1240:A:H3'	36:1:1241:U:H5'	1.94	0.50
61:N5:105:VAL:HG13	61:N5:130:TYR:CG	2.80	0.50
6:S4:112:HIS:CD2	6:S4:114:ILE:HG22	2.92	0.50
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.45	0.50
86:1:4003:OHX:N3	86:1:4172:OHX:N1	2.59	0.50
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.21	0.50
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.20	0.50
18:C6:103:ASN:HA	18:C6:106:LYS:HB2	3.16	0.50
1:2:350:U:O2	1:2:352:A:C6	2.64	0.50
1:6:1276:U:OP2	1:6:1427:A:H2	1.95	0.50
3:S1:120:LEU:HD21	3:S1:122:GLU:HG3	1.93	0.50
56:N0:75:PHE:HB2	56:N0:94:ILE:O	2.11	0.50
36:1:550:A:N6	36:1:551:A:H62	2.09	0.50
70:O4:51:LEU:HD23	70:O4:51:LEU:H	1.77	0.50
1:6:1118:G:O6	86:6:2172:OHX:N2	2.44	0.50
46:L9:84:LYS:HD3	46:L9:191:LEU:HB3	1.93	0.50
1:6:188:A:H2'	1:6:189:C:O4'	2.11	0.50
1:2:1202:A:H62	1:2:1457:C:H5''	1.75	0.50
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	2.81	0.50
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	2.03	0.50
36:1:1764:U:H5''	55:M9:43:LYS:NZ	2.27	0.50
36:1:3353:G:O2'	36:1:3354:U:OP1	2.29	0.50
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.74	0.50
1:6:219:A:C6	1:6:843:U:H1'	2.46	0.50
42:L5:39:GLN:HG3	42:L5:40:HIS:O	2.68	0.50
5:S3:104:SER:OG	5:S3:105:MET:N	2.44	0.50
1:2:545:A:H4'	1:2:546:U:OP1	2.12	0.50
1:6:540:G:O2'	1:6:542:A:H5'	2.12	0.50
1:2:1241:G:H5''	17:C5:77:ARG:HB3	1.94	0.50
40:L3:292:ALA:HB1	40:L3:295:ALA:HB3	1.94	0.50
46:L9:109:ALA:HB1	46:L9:111:PHE:CE2	2.94	0.50
59:N3:75:PRO:HG2	59:N3:105:PRO:HD3	1.93	0.50
63:N7:36:HIS:HB2	63:N7:40:HIS:CE1	2.47	0.50
45:L8:67:ILE:HG22	45:L8:237:ILE:HB	1.93	0.50
74:O8:64:LYS:HG3	74:O8:65:LEU:N	4.65	0.50
49:M3:152:THR:O	49:M3:153:ASP:HB2	2.56	0.50
5:S3:34:TYR:CE2	5:S3:37:VAL:HG22	3.84	0.50
45:L8:181:LYS:HD3	38:8:154:C:H5''	150.25	0.50
45:L8:81:THR:HG23	45:L8:82:LEU:H	3.93	0.50
2:S0:56:LYS:NZ	2:S0:159:ALA:O	2.37	0.50
3:S1:24:PHE:C	3:S1:26:ARG:H	2.14	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1754:A:H4'	1:2:1755:A:O4'	2.10	0.50
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.94	0.50
36:1:2525:G:OP2	39:L2:37:ARG:NH1	2.44	0.50
36:5:3301:U:O4	86:5:3925:OHX:N3	2.45	0.50
36:1:3148:U:O4	86:1:4109:OHX:N2	2.44	0.50
1:2:625:C:H2'	1:2:626:U:C6	2.47	0.50
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.11	0.50
36:1:1176:C:OP1	52:M6:25:LYS:HE3	2.12	0.50
9:S7:161:GLN:O	9:S7:165:LYS:HE2	4.31	0.50
36:5:538:G:O5'	36:5:538:G:H8	1.95	0.50
36:1:3063:C:H2'	36:1:3064:U:H6	1.77	0.50
6:S4:95:THR:OG1	6:S4:97:GLU:OE2	2.92	0.50
36:5:1692:U:O4	36:5:1693:C:N4	2.45	0.50
36:5:856:G:C6	36:5:857:G:N1	2.80	0.50
1:2:1739:C:H2'	1:2:1740:A:H8	1.77	0.50
42:L5:178:ASN:O	42:L5:179:ARG:HD3	2.12	0.50
7:S5:56:ALA:O	7:S5:58:LEU:N	3.53	0.50
41:L4:112:LYS:O	36:5:790:U:H4'	122.08	0.50
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.45	0.50
48:M1:137:ARG:HD3	37:7:28:C:OP1	302.90	0.50
64:N8:94:ALA:HB1	64:N8:122:PRO:HD2	1.94	0.50
1:6:872:G:H2'	1:6:873:U:O4'	2.11	0.50
36:1:290:G:H2'	36:1:291:C:C6	2.46	0.50
42:L5:276:LYS:HG3	37:7:62:U:OP1	326.25	0.50
51:M5:137:PRO:O	51:M5:143:ARG:NH1	2.64	0.50
73:O7:45:ARG:NH2	36:5:361:A:O3'	123.25	0.50
17:C5:111:MET:HG2	17:C5:119:PHE:CE1	3.85	0.50
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.25	0.50
74:O8:11:PHE:O	74:O8:14:LEU:HB2	2.12	0.50
1:6:207:U:H2'	1:6:208:U:C6	2.47	0.50
1:6:152:U:C2	1:6:163:G:N2	2.79	0.50
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.43	0.50
54:M8:58:ASN:HB3	54:M8:144:ARG:CZ	2.95	0.50
1:2:1015:U:H5'	1:2:1016:C:OP2	2.11	0.50
9:S7:66:SER:O	9:S7:68:ALA:N	3.17	0.50
58:N2:15:PHE:HB2	58:N2:65:VAL:HB	1.93	0.50
51:M5:150:TRP:CZ3	51:M5:156:HIS:CD2	2.99	0.50
36:5:2761:G:H1'	36:5:2800:G:N2	2.26	0.50
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.52	0.50
41:L4:232:SER:HA	36:5:694:C:O2'	95.62	0.50
60:N4:9:SER:O	60:N4:53:VAL:HG23	3.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3242:G:H5''	36:5:3245:A:C8	2.47	0.50
1:2:987:G:C2	39:L2:249:SER:HB2	2.47	0.50
36:1:1069:C:H2'	36:1:1070:U:H6	1.77	0.50
50:M4:103:ILE:O	50:M4:106:ARG:HB3	4.15	0.50
45:L8:141:ALA:HA	45:L8:144:GLU:HB2	2.06	0.50
45:L8:106:LYS:O	45:L8:110:THR:HG23	2.25	0.50
37:3:45:A:H2'	37:3:46:A:H8	1.77	0.50
68:O2:61:LYS:HE3	36:5:1340:G:OP2	190.44	0.50
38:4:45:C:H2'	38:4:46:G:O4'	2.12	0.50
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.11	0.50
1:6:626:U:H2'	1:6:627:C:H6	1.77	0.50
36:5:2966:G:O2'	36:5:2967:A:H5'	2.10	0.50
13:C1:90:TYR:CZ	13:C1:103:ARG:HB2	2.46	0.50
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.28	0.50
36:1:812:G:N7	86:1:3982:OHX:N1	2.59	0.50
46:L9:112:ILE:HD13	46:L9:161:LEU:HG	1.94	0.50
41:L4:130:ALA:HA	41:L4:148:ILE:CG2	2.42	0.50
1:2:514:G:HO2'	1:2:515:A:H8	1.58	0.50
33:E1:144:CYS:O	33:E1:146:SER:N	2.45	0.50
36:5:1307:G:C2	36:5:1308:A:C2	2.99	0.50
1:6:1541:G:C6	1:6:1542:G:N1	2.80	0.50
70:O4:10:ARG:NH1	75:O9:3:ALA:HB1	2.53	0.50
1:2:788:A:C4	6:S4:19:LEU:HD13	2.47	0.50
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.29	0.50
72:O6:30:LYS:NZ	36:5:317:A:OP2	102.81	0.50
8:S6:164:LYS:HB3	8:S6:167:LYS:HB3	1.94	0.50
1:6:452:A:OP2	86:6:2058:OHX:N1	2.44	0.50
36:5:2234:G:N7	86:5:3960:OHX:N1	2.59	0.50
1:6:496:G:O6	1:6:497:G:N2	2.43	0.50
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.89	0.50
10:S8:57:ALA:HB1	10:S8:60:ILE:HD11	2.94	0.50
1:6:538:A:H2	1:6:540:G:H22	1.60	0.50
39:L2:68:LYS:HG2	39:L2:70:ARG:HG2	1.92	0.50
36:5:173:G:H1'	36:5:174:C:H5'	1.94	0.50
1:6:791:A:H2'	1:6:792:U:O4'	2.11	0.50
36:1:2426:U:H2'	36:1:2427:U:C6	2.47	0.50
46:L9:76:ASP:O	46:L9:80:THR:HG23	2.25	0.50
21:C9:100:ILE:O	21:C9:104:VAL:HG23	2.14	0.50
36:1:2206:G:OP2	36:1:2206:G:C8	2.64	0.50
86:2:2044:OHX:N4	86:2:2099:OHX:N6	2.59	0.50
25:D3:68:ILE:HB	25:D3:70:LYS:NZ	3.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:827:C:H2'	1:2:828:U:H6	1.76	0.50
2:S0:195:TRP:NE1	2:S0:197:ILE:HD13	4.93	0.50
36:5:2386:A:OP1	86:5:4014:OHX:N1	2.44	0.50
36:5:817:A:H2'	36:5:920:A:C2	2.47	0.50
1:2:159:U:O4	26:D4:116:LYS:HE2	2.12	0.50
1:2:25:C:O2	86:2:2084:OHX:N1	2.44	0.50
2:S0:57:LEU:HD21	2:S0:177:LEU:HG	3.12	0.50
36:5:2921:U:H2'	36:5:2923:U:H5''	1.93	0.50
36:5:618:C:H2'	36:5:619:A:C8	2.47	0.50
1:6:1211:A:H61	1:6:1452:U:H3	1.60	0.50
13:C1:93:TYR:HB2	13:C1:100:TYR:HE1	3.00	0.50
36:5:144:A:H2'	36:5:145:G:O4'	2.12	0.50
36:5:897:U:H2'	36:5:898:U:C6	2.47	0.50
1:2:763:G:C6	1:2:764:U:C4	3.00	0.50
36:1:668:G:OP1	86:1:4120:OHX:N2	2.45	0.50
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	1.94	0.50
6:S4:62:LYS:HE3	6:S4:66:MET:HE3	4.82	0.50
1:6:633:U:H2'	1:6:634:G:O4'	2.12	0.50
39:L2:59:ALA:HB2	39:L2:78:ALA:HB2	1.92	0.50
67:O1:97:LEU:HD23	67:O1:97:LEU:H	2.99	0.50
5:S3:62:ASN:O	5:S3:62:ASN:ND2	4.07	0.50
36:1:40:A:N7	64:N8:29:PRO:O	2.44	0.50
66:O0:83:LYS:HG2	66:O0:85:PHE:CZ	2.59	0.50
36:1:1471:U:H2'	36:1:1472:U:C6	2.47	0.50
6:S4:193:GLY:O	6:S4:210:ILE:HG23	2.11	0.50
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.93	0.50
58:N2:87:ASN:O	58:N2:88:GLN:HB2	2.47	0.50
40:L3:238:LEU:HB2	40:L3:246:LEU:HB2	1.94	0.50
36:5:1764:U:H3'	36:5:1765:U:H5''	1.94	0.50
37:3:48:U:O4	42:L5:58:LYS:HE2	2.12	0.50
36:1:2108:C:H1'	36:1:3344:A:H8	1.75	0.50
42:L5:270:LYS:HG2	37:7:2:G:H5'	318.17	0.50
36:1:1789:G:N7	86:1:4168:OHX:N2	2.59	0.50
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.27	0.50
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.60	0.50
78:Q2:46:LYS:HG2	78:Q2:54:THR:OG1	2.11	0.50
1:2:498:G:O2'	1:2:499:U:O5'	2.15	0.50
36:5:1464:G:N2	36:5:1466:G:H3'	2.27	0.50
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.24	0.50
36:5:2971:A:H5''	36:5:2972:G:C5'	2.41	0.50
36:1:3122:A:N1	46:L9:70:THR:HG21	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:114:ARG:HE	28:D6:62:TYR:HE1	1.58	0.50
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.94	0.50
36:1:1807:G:C6	36:1:1808:G:N1	2.80	0.50
9:S7:100:PRO:HG3	1:6:695:U:H4'	366.55	0.50
61:N5:100:LYS:HG3	61:N5:105:VAL:O	2.11	0.50
86:2:2044:OHX:N2	86:2:2099:OHX:N5	2.59	0.50
1:2:1341:A:OP1	34:SR:63:GLY:HA2	2.12	0.50
1:6:920:U:H2'	1:6:921:U:O4'	2.12	0.50
36:1:1841:A:O2'	36:1:1842:A:H5''	2.12	0.50
36:5:600:G:H5'	36:5:601:U:OP2	2.11	0.50
1:6:407:A:H2'	1:6:408:C:C6	2.46	0.50
10:S8:104:ILE:O	10:S8:164:ARG:HA	2.43	0.50
51:M5:49:ARG:HH11	51:M5:49:ARG:HB2	1.77	0.50
1:2:711:U:H1'	1:2:712:G:H5'	1.93	0.50
8:S6:3:LEU:O	8:S6:15:THR:HA	2.37	0.50
1:6:595:G:H2'	1:6:596:C:C6	2.47	0.50
44:L7:198:ALA:O	44:L7:201:PHE:HB3	2.12	0.50
21:C9:65:ILE:HG23	21:C9:71:VAL:HG22	1.93	0.50
36:1:2995:A:H2'	36:1:2996:U:H5''	1.92	0.50
3:S1:50:LYS:O	3:S1:52:THR:N	2.45	0.50
1:6:1751:C:H2'	1:6:1752:U:O4'	2.12	0.50
1:2:323:A:OP2	10:S8:10:LYS:HA	2.12	0.50
75:O9:7:PHE:CE2	38:8:113:U:C4	98.49	0.50
36:1:3216:G:OP2	69:O3:2:ALA:HB2	2.10	0.50
11:S9:131:GLN:C	11:S9:132:ARG:HG2	2.76	0.50
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	2.47	0.50
36:1:2103:U:H2'	36:1:2104:A:C8	2.47	0.50
1:2:1458:G:N3	1:2:1458:G:H2'	2.27	0.50
68:O2:101:SER:HA	68:O2:125:ARG:HH21	1.77	0.50
37:7:106:U:H2'	37:7:107:C:O4'	2.12	0.50
51:M5:96:ARG:HD2	36:5:31:C:H4'	123.75	0.49
4:S2:140:ARG:HH12	23:D1:1:MET:CB	2.24	0.49
36:1:1307:G:C5	52:M6:60:LYS:HD3	2.47	0.49
36:1:1072:G:O2'	36:1:1073:U:H5'	2.12	0.49
55:M9:105:LEU:HD12	55:M9:135:LYS:HD2	1.92	0.49
55:M9:134:HIS:CE1	55:M9:136:ARG:HB3	2.78	0.49
21:C9:34:VAL:HG22	21:C9:53:TRP:CZ2	4.14	0.49
1:6:830:U:H2'	1:6:831:U:H5'	1.94	0.49
58:N2:41:ILE:HG12	58:N2:79:LEU:HD13	1.94	0.49
38:4:41:A:O2'	73:O7:59:THR:HB	2.12	0.49
39:L2:64:ARG:HH12	45:L8:38:GLN:HA	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3155:U:H3'	36:1:3156:U:C4'	2.40	0.49
27:D5:39:ALA:HB1	27:D5:71:ILE:C	2.32	0.49
4:S2:227:PRO:HA	4:S2:230:TRP:NE1	2.27	0.49
26:D4:62:THR:HG22	26:D4:69:SER:OG	2.12	0.49
36:1:239:G:O2'	36:1:240:U:OP1	2.26	0.49
59:N3:66:LYS:HG2	59:N3:68:GLU:OE1	2.12	0.49
47:M0:194:GLY:HA3	36:5:1010:G:N3	335.29	0.49
36:1:729:C:H2'	36:1:730:C:C6	2.47	0.49
1:2:25:C:H4'	1:2:25:C:OP2	2.10	0.49
36:1:2675:C:N4	48:M1:22:SER:HB3	2.27	0.49
76:Q0:97:ARG:CD	76:Q0:122:ARG:HB3	3.63	0.49
56:N0:117:ARG:NH2	36:5:1322:U:OP1	280.38	0.49
13:C1:2:SER:O	13:C1:3:THR:OG1	4.23	0.49
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.45	0.49
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.12	0.49
44:L7:150:LYS:HE2	44:L7:151:ARG:NH1	2.26	0.49
56:N0:101:ALA:O	56:N0:104:GLU:HB3	2.22	0.49
1:2:1636:C:C2	1:2:1638:G:C5	3.00	0.49
55:M9:167:ARG:HH11	55:M9:167:ARG:HB3	4.82	0.49
22:D0:66:SER:OG	22:D0:81:THR:HG22	2.53	0.49
20:C8:94:ASP:OD1	20:C8:96:LYS:HG3	3.51	0.49
47:M0:68:ALA:HA	47:M0:158:LYS:HG3	1.94	0.49
53:M7:69:ARG:NH1	36:5:3308:C:N3	189.72	0.49
36:1:3087:A:H2'	36:1:3088:G:C8	2.47	0.49
10:S8:141:ARG:NH2	1:6:195:G:O6	278.62	0.49
9:S7:14:THR:H	9:S7:17:GLU:HB2	2.66	0.49
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.13	0.49
9:S7:28:GLU:HG3	9:S7:38:LEU:HB3	3.50	0.49
43:L6:77:ARG:HG2	43:L6:78:ARG:N	2.27	0.49
1:6:82:U:H2'	1:6:83:G:O4'	2.11	0.49
5:S3:64:ARG:HG2	5:S3:65:ARG:H	2.70	0.49
1:6:1680:G:O6	86:6:2185:OHX:N1	2.44	0.49
42:L5:270:LYS:HD3	37:7:22:A:N6	321.47	0.49
36:1:1949:G:OP1	55:M9:104:ARG:CZ	2.60	0.49
26:D4:29:HIS:CE1	26:D4:34:ASN:HA	2.66	0.49
21:C9:28:LEU:HD12	21:C9:29:GLU:H	1.77	0.49
21:C9:33:TYR:O	21:C9:34:VAL:HB	4.65	0.49
20:C8:30:TYR:CE2	20:C8:40:ARG:HD2	2.48	0.49
36:1:519:A:OP2	44:L7:70:LYS:NZ	2.45	0.49
3:S1:191:GLU:HB2	3:S1:194:ASN:HB2	1.93	0.49
10:S8:62:THR:HA	10:S8:76:THR:O	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:54:LEU:HD13	54:M8:58:ASN:HB2	2.33	0.49
39:L2:159:SER:C	39:L2:161:ASP:H	2.58	0.49
28:D6:28:LYS:HD2	28:D6:29:SER:O	4.86	0.49
63:N7:33:SER:OG	63:N7:34:LYS:N	2.90	0.49
54:M8:170:ARG:HD2	64:N8:56:VAL:O	3.30	0.49
86:1:4003:OHX:N5	86:1:4172:OHX:N5	2.60	0.49
13:C1:33:ARG:HH22	13:C1:51:GLY:C	3.34	0.49
42:L5:140:ARG:HB2	42:L5:140:ARG:HH21	1.77	0.49
36:1:1511:U:H5''	36:1:1512:U:H5	1.78	0.49
7:S5:133:VAL:HA	7:S5:198:LEU:HD22	3.49	0.49
36:5:619:A:OP2	36:5:619:A:H8	1.95	0.49
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.13	0.49
51:M5:97:SER:O	51:M5:100:ALA:N	2.74	0.49
9:S7:80:GLU:HA	9:S7:83:LYS:HE2	3.62	0.49
71:O5:70:TYR:CD1	71:O5:77:PRO:HD3	2.83	0.49
1:2:1516:A:O2'	1:2:1517:U:H5'	2.12	0.49
1:6:699:U:H3	1:6:739:G:H1	1.60	0.49
1:6:46:A:H1'	1:6:48:G:C8	2.47	0.49
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	1.93	0.49
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.46	0.49
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.93	0.49
42:L5:122:VAL:CG2	42:L5:125:VAL:H	2.25	0.49
78:Q2:35:LEU:O	78:Q2:36:PHE:HB2	2.12	0.49
1:6:190:C:N4	1:6:196:G:O6	2.45	0.49
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.46	0.49
28:D6:5:ARG:HB3	1:6:1796:C:C6	341.23	0.49
46:L9:37:ASN:HD21	46:L9:39:LYS:HG3	1.75	0.49
1:2:543:C:O2	1:2:543:C:H5''	2.11	0.49
1:2:582:U:H3'	1:2:583:C:C5	2.47	0.49
51:M5:90:ASN:ND2	36:5:2424:A:OP1	165.81	0.49
42:L5:134:ALA:CB	42:L5:141:PRO:HD3	3.60	0.49
36:5:2211:U:H2'	36:5:2212:C:O4'	2.12	0.49
55:M9:21:LYS:HA	55:M9:53:LYS:HD2	3.15	0.49
36:5:1566:A:H2'	36:5:1567:U:H5'	1.94	0.49
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.75	0.49
36:1:2737:C:OP1	57:N1:69:LYS:HB3	2.12	0.49
3:S1:33:LYS:HB3	3:S1:232:HIS:CE1	7.26	0.49
7:S5:35:GLN:O	7:S5:37:GLN:N	2.93	0.49
36:1:371:G:H4'	36:1:396:A:N1	2.27	0.49
54:M8:64:VAL:HG11	54:M8:113:LYS:HD2	2.36	0.49
47:M0:99:ILE:HD12	47:M0:101:LYS:HB2	6.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:80:A:OP2	86:6:2188:OHX:N5	2.45	0.49
9:S7:96:ARG:HD2	9:S7:121:VAL:HG13	3.92	0.49
61:N5:129:ASP:HB2	61:N5:130:TYR:CD1	2.49	0.49
70:O4:84:CYS:O	70:O4:88:ARG:N	3.06	0.49
36:5:374:A:H4'	36:5:375:A:OP1	2.12	0.49
36:5:199:A:C4	36:5:201:A:C8	3.00	0.49
79:Q3:54:ILE:O	79:Q3:54:ILE:HG12	4.82	0.49
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.60	0.49
36:1:1011:A:H5'	47:M0:194:GLY:HA2	1.94	0.49
68:O2:122:PRO:O	68:O2:123:LYS:HB2	3.08	0.49
2:S0:195:TRP:CD2	2:S0:197:ILE:HB	2.95	0.49
1:2:895:G:H1	1:2:917:U:H3	1.58	0.49
1:2:1053:G:C2	1:2:1067:C:C2	3.01	0.49
26:D4:66:GLY:H	1:6:532:U:H5''	431.08	0.49
14:C2:52:LEU:HD12	14:C2:78:LEU:O	2.12	0.49
58:N2:92:TRP:O	58:N2:108:TYR:N	4.03	0.49
1:2:1114:G:O2'	1:2:1130:G:O6	2.24	0.49
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.66	0.49
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.93	0.49
36:1:1804:A:H2'	36:1:1805:C:H6	1.77	0.49
65:N9:7:HIS:O	36:5:1135:A:H5'	226.23	0.49
1:2:1648:A:H2'	1:2:1649:G:C8	2.47	0.49
69:O3:19:SER:HB3	36:5:1330:A:OP1	232.59	0.49
1:6:970:A:C6	1:6:971:A:H1'	2.47	0.49
13:C1:53:TYR:CD1	13:C1:113:PRO:HG2	2.47	0.49
36:5:629:U:H2'	36:5:630:A:C8	2.47	0.49
36:5:3179:U:H3	36:5:3210:A:H61	1.60	0.49
27:D5:77:ARG:NH2	1:6:1534:G:N7	348.72	0.49
30:D8:8:THR:HG21	30:D8:32:PHE:CE1	4.18	0.49
5:S3:204:ASP:OD1	1:6:1330:G:N2	420.00	0.49
36:1:1409:G:N7	86:1:4066:OHX:N3	2.60	0.49
36:1:1260:A:H1'	36:1:1280:C:H1'	1.94	0.49
36:5:572:A:H2'	36:5:573:C:C6	2.48	0.49
36:1:2434:U:H5	36:1:2594:C:OP2	1.94	0.49
36:1:181:U:O3'	73:O7:75:LYS:HD3	2.12	0.49
50:M4:113:THR:CG2	50:M4:116:GLU:H	2.27	0.49
34:SR:165:ASP:O	34:SR:184:ASN:ND2	2.46	0.49
48:M1:78:GLU:O	48:M1:81:GLU:HB3	2.83	0.49
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.44	0.49
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.36	0.49
3:S1:135:LEU:HD12	3:S1:137:ILE:HG23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:16:ARG:NH2	20:C8:21:ASN:OD1	3.20	0.49
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.47	0.49
65:N9:23:LYS:HD2	65:N9:24:PRO:CD	2.42	0.49
10:S8:37:LYS:H	10:S8:59:ARG:H	1.60	0.49
20:C8:117:LYS:HE2	20:C8:128:PHE:HB2	2.52	0.49
44:L7:223:PHE:HA	44:L7:227:GLY:HA2	4.75	0.49
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.93	0.49
1:6:292:U:H2'	1:6:293:U:C6	2.47	0.49
36:1:224:C:O2	62:N6:103:LYS:NZ	2.45	0.49
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.56	0.49
47:M0:119:TRP:CZ3	36:5:1126:G:H5''	256.47	0.49
1:2:25:C:H1'	1:2:26:A:OP2	2.12	0.49
3:S1:171:ILE:HD13	3:S1:196:GLU:HG2	1.93	0.49
36:5:1953:G:O6	36:5:2094:C:N4	2.45	0.49
1:6:1714:A:H2'	1:6:1715:G:O4'	2.12	0.49
36:1:171:G:H2'	36:1:172:G:O4'	2.12	0.49
36:1:2971:A:H3'	36:1:2971:A:N3	2.28	0.49
1:2:386:G:C6	1:2:387:A:N6	2.81	0.49
1:2:755:A:HO2'	1:2:756:A:P	2.36	0.49
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	2.49	0.49
69:O3:77:ASN:HB2	36:5:1180:A:OP1	263.78	0.49
47:M0:150:GLU:OE2	47:M0:153:ARG:NH2	4.34	0.49
36:1:2922:G:C2	36:1:2952:G:H1'	2.47	0.49
1:2:420:A:OP1	8:S6:96:SER:OG	2.19	0.49
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	2.11	0.49
36:1:1650:G:O6	86:1:4138:OHX:N2	2.46	0.49
36:5:873:C:H4'	36:5:874:U:OP2	2.13	0.49
40:L3:79:VAL:HG23	40:L3:80:ASP:O	2.12	0.49
58:N2:84:LEU:HD22	58:N2:89:LEU:HB2	2.02	0.49
43:L6:68:PRO:HG2	43:L6:71:VAL:CG2	3.48	0.49
46:L9:84:LYS:HZ1	46:L9:191:LEU:HD22	1.78	0.49
55:M9:43:LYS:HE2	36:5:1765:U:H6	92.79	0.49
43:L6:78:ARG:CG	43:L6:78:ARG:HH11	2.26	0.49
29:D7:30:SER:HG	29:D7:47:PHE:HE2	3.71	0.49
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.94	0.49
34:SR:110:VAL:HA	34:SR:126:SER:HB2	1.94	0.49
3:S1:62:LYS:C	3:S1:64:ARG:H	2.46	0.49
36:1:1723:A:N1	36:1:1788:C:O2'	2.36	0.49
1:2:1547:A:H5'	20:C8:112:ASP:OD2	2.12	0.49
33:E1:121:CYS:HB2	33:E1:132:LEU:HD21	2.57	0.49
3:S1:144:ARG:HG3	3:S1:206:PRO:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:35:ARG:NH1	36:5:685:G:P	82.54	0.49
21:C9:117:SER:CB	21:C9:123:ARG:HE	2.66	0.49
56:N0:89:ASN:OD1	57:N1:156:TYR:N	2.74	0.49
36:1:1278:A:HO2'	36:1:1279:C:H6	1.59	0.49
6:S4:163:ASP:OD1	6:S4:165:ALA:HB3	2.12	0.49
36:1:715:A:H5''	64:N8:114:GLY:O	2.12	0.49
14:C2:74:LEU:HD21	33:E1:106:TYR:HB3	2.04	0.49
26:D4:59:GLY:O	26:D4:60:PHE:HB2	2.12	0.49
10:S8:54:LYS:NZ	1:6:333:A:OP2	294.43	0.49
86:8:216:OHX:N5	86:8:226:OHX:N3	2.60	0.49
36:5:1277:C:H2'	36:5:1278:A:C8	2.46	0.49
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.12	0.49
36:1:2535:A:N6	36:1:2544:U:H3	2.09	0.49
41:L4:293:SER:HA	41:L4:296:GLN:HB2	2.89	0.49
36:5:3266:G:C6	36:5:3267:A:C6	3.00	0.49
45:L8:73:PRO:HD3	45:L8:233:TRP:CD2	3.28	0.49
38:4:25:G:N7	62:N6:13:ARG:NH2	2.60	0.49
38:8:37:A:H5''	38:8:39:G:O4'	2.13	0.49
1:6:1744:A:N6	1:6:1745:G:C6	2.80	0.49
1:2:1562:G:OP1	21:C9:89:ARG:NH2	2.46	0.49
13:C1:3:THR:HG1	13:C1:82:ARG:HE	1.60	0.49
36:5:2359:C:H6	36:5:2359:C:O5'	1.95	0.49
36:1:1674:G:OP2	86:1:3945:OHX:N2	2.45	0.49
2:S0:101:ARG:NH2	1:6:1321:A:OP2	400.45	0.49
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.13	0.49
1:2:1765:A:H5'	1:2:1767:G:N7	2.27	0.49
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.31	0.49
18:C6:4:VAL:CG1	18:C6:23:LYS:HB2	6.36	0.49
36:5:2664:C:O2'	36:5:2665:U:H5'	2.12	0.49
10:S8:14:THR:HG22	1:6:348:U:H4'	300.62	0.49
86:1:3970:OHX:N3	86:1:4156:OHX:N4	2.60	0.49
40:L3:113:GLU:HG2	40:L3:176:ALA:HB2	3.97	0.49
1:6:1645:G:H22	1:6:1756:A:H2	1.61	0.49
36:5:2130:G:OP1	86:5:4182:OHX:N5	2.46	0.49
41:L4:118:LYS:O	41:L4:121:ALA:HB3	2.34	0.49
43:L6:169:ASP:N	43:L6:169:ASP:OD1	2.44	0.49
31:D9:6:VAL:O	31:D9:8:PHE:N	4.39	0.49
36:5:400:G:H4'	36:5:401:U:O5'	2.12	0.49
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.93	0.49
10:S8:138:ASN:O	10:S8:142:LYS:HG3	2.12	0.49
41:L4:23:PRO:HD2	41:L4:26:PHE:CD2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:62:ARG:NH1	72:O6:98:ARG:HH21	6.83	0.49
1:6:1649:G:H2'	1:6:1650:U:C6	2.48	0.49
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.77	0.49
36:5:2261:G:O2'	36:5:2263:C:N4	2.45	0.49
19:C7:20:TYR:O	19:C7:24:LEU:HD12	2.13	0.49
21:C9:30:VAL:O	21:C9:32:GLY:N	2.45	0.49
78:Q2:47:GLN:NE2	78:Q2:53:GLN:OE1	4.50	0.49
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.31	0.49
10:S8:76:THR:HB	10:S8:105:ASP:HB3	1.93	0.49
39:L2:70:ARG:CZ	39:L2:72:ARG:HH21	6.49	0.49
4:S2:56:ILE:O	4:S2:60:SER:N	2.62	0.49
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	1.93	0.49
36:5:750:G:H2'	36:5:751:A:C8	2.46	0.49
68:O2:4:LEU:HD13	68:O2:90:LYS:HB3	2.19	0.49
16:C4:132:ARG:O	28:D6:28:LYS:HD3	5.07	0.49
4:S2:81:MET:HB2	4:S2:101:VAL:HG12	2.26	0.49
64:N8:82:ILE:HD11	64:N8:102:ILE:HD11	2.52	0.49
19:C7:107:SER:O	19:C7:110:VAL:HG23	3.16	0.49
34:SR:84:SER:OG	34:SR:85:TRP:N	2.60	0.49
36:5:3177:G:O2'	36:5:3179:U:OP1	2.31	0.49
1:2:756:A:H5''	1:2:757:A:OP2	2.13	0.49
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.47	0.49
36:1:3348:G:H1	36:1:3357:U:H3	1.60	0.49
36:1:2236:G:OP1	86:1:4118:OHX:N6	2.46	0.49
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.04	0.49
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	2.12	0.49
36:1:952:A:N3	36:1:1114:U:O2'	2.40	0.49
38:8:62:C:H4'	38:8:63:G:O5'	2.12	0.49
40:L3:67:PHE:CD1	40:L3:72:VAL:HG12	2.47	0.49
77:Q1:14:LYS:O	77:Q1:18:ARG:HB2	2.12	0.49
1:2:1525:A:H5'	21:C9:93:HIS:HB2	1.95	0.49
36:1:3152:U:O2'	36:1:3153:U:H5'	2.13	0.49
69:O3:103:TYR:HA	69:O3:105:SER:N	2.50	0.49
25:D3:60:GLU:CD	32:E0:3:LYS:HB2	2.78	0.49
70:O4:72:VAL:HG11	36:5:1639:C:H5''	192.62	0.49
41:L4:142:VAL:HG12	41:L4:145:ILE:HG12	1.94	0.49
1:2:1433:G:H2'	1:2:1434:U:C6	2.47	0.49
1:2:531:C:H2'	1:2:532:U:H5''	1.94	0.49
42:L5:178:ASN:ND2	36:5:2746:A:H5'	252.07	0.49
42:L5:151:GLN:NE2	37:7:45:A:OP1	280.00	0.49
1:2:1488:G:H5'	1:2:1489:U:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.86	0.49
36:1:277:G:H2'	36:1:278:U:C6	2.48	0.49
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.76	0.49
86:5:4006:OHX:N3	86:5:4195:OHX:N1	2.61	0.49
19:C7:20:TYR:CZ	19:C7:38:ILE:HD11	2.48	0.49
36:5:1502:C:N3	36:5:1513:G:O6	2.45	0.49
10:S8:52:ASN:OD1	86:6:2132:OHX:N3	310.25	0.49
1:2:1677:C:H2'	1:2:1678:A:O4'	2.13	0.49
3:S1:126:THR:HG21	3:S1:136:ARG:HH21	2.20	0.49
36:5:172:G:C6	36:5:247:C:N4	2.81	0.49
37:3:113:C:H2'	37:3:114:U:O4'	2.12	0.49
34:SR:22:SER:HB3	34:SR:36:ALA:HB3	1.93	0.49
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.47	0.49
2:S0:153:SER:N	2:S0:154:GLU:OE1	4.49	0.49
1:2:1681:A:H2'	1:2:1682:U:H5'	1.94	0.49
1:2:1477:G:H2'	1:2:1478:G:C8	2.47	0.49
12:C0:49:LEU:HD13	12:C0:54:TYR:HD2	1.78	0.49
1:6:1535:U:H4'	1:6:1535:U:OP1	2.10	0.49
1:2:1370:U:H4'	1:2:1371:A:H5''	1.95	0.49
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	3.12	0.49
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.45	0.49
1:2:489:C:H2'	1:2:490:C:C6	2.48	0.49
71:O5:65:ALA:O	71:O5:69:LEU:HD23	2.60	0.49
1:6:1117:U:H2'	1:6:1118:G:C8	2.47	0.49
86:1:3970:OHX:N6	86:1:4156:OHX:N4	2.61	0.49
86:1:3970:OHX:N5	86:1:4156:OHX:N1	2.61	0.49
1:2:1385:G:N7	86:2:2133:OHX:N3	2.60	0.49
1:6:1163:A:N3	1:6:1613:U:O2'	2.34	0.49
5:S3:102:ALA:HB1	5:S3:173:ARG:HG3	2.56	0.49
1:6:1441:C:N4	1:6:1442:U:O4	2.46	0.49
1:6:1358:G:H2'	1:6:1359:C:H6	1.78	0.49
68:O2:87:MET:SD	68:O2:87:MET:N	3.64	0.49
1:2:505:A:N3	1:2:505:A:H2'	2.28	0.49
24:D2:35:ILE:O	24:D2:39:GLN:HG3	2.57	0.49
36:1:742:G:N7	86:1:3973:OHX:N1	2.60	0.49
40:L3:53:MET:HB2	36:5:3049:A:H5''	233.93	0.49
40:L3:53:MET:CG	40:L3:77:THR:HG22	2.37	0.49
36:5:3307:A:C5	36:5:3308:C:C5	3.01	0.49
40:L3:37:ARG:HG3	40:L3:186:GLY:C	2.33	0.49
36:5:314:U:H2'	36:5:315:C:H6	1.76	0.49
1:2:768:C:H1'	11:S9:143:ILE:HG21	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:31:SER:HB3	24:D2:34:ILE:HG13	2.77	0.49
44:L7:219:LYS:HG2	36:5:1170:A:OP1	255.68	0.49
1:2:959:U:H5'	15:C3:15:ALA:O	2.12	0.49
42:L5:265:TYR:CE1	37:7:121:U:H5''	314.86	0.49
72:O6:4:LYS:HD2	72:O6:13:LYS:O	2.13	0.49
68:O2:18:LYS:HB3	68:O2:30:GLU:HB3	2.62	0.49
1:2:736:C:H42	1:2:737:A:N6	2.11	0.49
36:5:2437:G:H2'	36:5:2438:A:O4'	2.13	0.49
3:S1:109:LYS:O	3:S1:112:SER:OG	2.17	0.49
1:2:1291:G:N2	1:2:1324:G:N2	2.58	0.49
36:5:247:C:N3	36:5:248:U:H1'	2.27	0.49
3:S1:153:HIS:O	3:S1:154:SER:HB3	2.12	0.49
36:5:1815:U:O2'	36:5:1816:A:OP2	2.28	0.49
40:L3:292:ALA:HA	40:L3:303:LYS:H	1.77	0.49
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.60	0.49
36:5:2427:U:H2'	36:5:2428:U:C6	2.47	0.49
38:4:10:A:H2'	38:4:11:C:C6	2.48	0.49
21:C9:68:ARG:HD3	1:6:1523:G:O6	417.38	0.49
79:Q3:73:THR:HG22	79:Q3:75:ALA:N	2.27	0.49
75:O9:42:ARG:HG2	75:O9:43:ASN:H	3.28	0.49
19:C7:104:ASN:O	19:C7:107:SER:HB3	2.13	0.49
36:1:2416:U:H2'	36:1:2417:U:H6	1.77	0.49
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.40	0.49
36:5:549:U:O4	86:5:4008:OHX:N4	2.45	0.49
33:E1:87:THR:O	1:6:1445:G:N1	377.39	0.49
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.28	0.49
56:N0:83:SER:OG	56:N0:88:HIS:NE2	2.37	0.49
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.11	0.49
59:N3:18:PRO:HA	59:N3:51:ALA:HA	1.95	0.49
40:L3:245:GLY:HA3	40:L3:248:LYS:HD2	2.96	0.49
61:N5:47:ALA:HB3	71:O5:77:PRO:HG3	1.95	0.49
36:5:589:A:H62	36:5:610:G:HO2'	1.58	0.49
43:L6:76:LEU:HD12	43:L6:138:GLN:HA	1.94	0.49
35:SM:25:ILE:HG22	48:M1:46:VAL:HB	2.46	0.49
36:5:2379:U:H2'	36:5:2380:U:H6	1.78	0.49
11:S9:7:THR:HG21	1:6:758:U:OP1	381.63	0.49
35:SM:31:SER:OG	36:5:2667:A:OP1	287.99	0.49
38:4:104:A:C8	38:4:105:A:C8	3.01	0.49
60:N4:45:ASN:HD21	60:N4:47:ARG:HB2	1.78	0.49
36:1:2656:A:C8	36:1:2658:G:C8	3.01	0.49
51:M5:183:THR:O	51:M5:184:LYS:HB3	4.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.94	0.49
1:6:1257:U:O2'	1:6:1258:U:O4'	2.30	0.49
3:S1:180:THR:HG22	3:S1:181:LEU:N	2.28	0.49
72:O6:70:ARG:NH1	72:O6:84:LYS:HG2	2.28	0.49
75:O9:6:SER:OG	75:O9:9:ILE:HG12	2.12	0.49
6:S4:19:LEU:HD11	6:S4:108:ARG:HD2	2.08	0.49
36:1:1661:G:H2'	36:1:1662:G:C8	2.48	0.49
34:SR:134:TRP:CE3	34:SR:140:CYS:HB2	2.48	0.49
68:O2:19:ARG:HB2	68:O2:31:ASN:O	2.30	0.49
36:1:1875:G:OP2	55:M9:20:ARG:HD2	2.13	0.49
17:C5:68:PRO:O	86:C5:201:OHX:N1	6.96	0.49
55:M9:4:LEU:O	55:M9:7:GLN:HG2	5.14	0.49
6:S4:160:VAL:HG21	6:S4:169:ILE:HD13	1.94	0.49
36:1:1347:U:H4'	41:L4:305:ALA:HB2	1.94	0.49
1:6:542:A:C8	1:6:543:C:H2'	2.47	0.49
1:2:1226:A:HO2'	1:2:1227:A:P	2.35	0.49
49:M3:185:LYS:HE3	49:M3:189:GLU:OE2	2.53	0.49
41:L4:262:TRP:CZ3	41:L4:271:LYS:HE3	3.11	0.49
1:6:694:U:H3'	1:6:695:U:O2	2.12	0.49
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.48	0.49
2:S0:38:PHE:CD2	19:C7:109:LEU:HD13	3.65	0.49
36:5:2533:G:H2'	36:5:2534:G:C8	2.47	0.49
1:6:800:U:H2'	1:6:801:G:C8	2.47	0.49
50:M4:21:VAL:HB	50:M4:63:VAL:HG22	1.94	0.49
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.12	0.49
2:S0:62:ARG:NE	23:D1:37:ALA:O	2.45	0.49
1:2:755:A:O2'	1:2:756:A:OP1	2.30	0.49
36:1:573:C:H2'	36:1:574:U:C6	2.48	0.49
55:M9:8:LYS:HG3	55:M9:22:VAL:HG21	1.94	0.49
1:6:723:G:H5'	1:6:724:C:OP2	2.12	0.49
69:O3:62:SER:OG	69:O3:63:LYS:N	2.46	0.49
51:M5:35:VAL:HG13	51:M5:65:ARG:HB2	1.95	0.49
1:2:768:C:N1	11:S9:143:ILE:HD13	2.28	0.49
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	2.11	0.49
42:L5:152:ARG:NH1	42:L5:152:ARG:HG3	2.42	0.49
61:N5:115:ARG:HD3	61:N5:121:LYS:HE3	2.54	0.49
7:S5:170:GLN:O	7:S5:174:LEU:HG	2.58	0.49
44:L7:214:TRP:CE2	44:L7:219:LYS:HD2	2.47	0.49
1:6:825:U:O2'	1:6:826:U:H6	1.95	0.49
25:D3:24:TRP:CE3	25:D3:30:LYS:HG3	2.49	0.49
36:1:994:G:N2	36:1:995:U:O4	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:33:TYR:O	21:C9:36:ILE:HG12	2.13	0.49
48:M1:7:ASN:HD22	48:M1:7:ASN:N	2.11	0.49
1:6:1347:U:C2	1:6:1517:U:C5	3.01	0.49
7:S5:40:ILE:HG23	7:S5:42:LEU:HG	4.30	0.49
3:S1:69:CYS:SG	16:C4:114:ARG:HD3	2.52	0.49
4:S2:53:ILE:HB	4:S2:57:PHE:CE2	2.48	0.49
36:1:3060:C:OP2	86:1:4039:OHX:N6	2.46	0.49
21:C9:52:GLY:HA2	21:C9:55:TYR:CD2	2.48	0.49
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CH2	3.23	0.49
79:Q3:49:ARG:HD2	79:Q3:50:GLY:N	2.27	0.49
48:M1:109:HIS:HD2	48:M1:114:ILE:HG21	1.78	0.49
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.12	0.49
36:5:209:A:H4'	36:5:211:A:N7	2.28	0.49
28:D6:79:ILE:HA	28:D6:84:VAL:HG11	1.95	0.49
46:L9:92:TYR:CD1	46:L9:92:TYR:N	2.78	0.49
1:6:416:A:H5'	1:6:417:A:N7	2.28	0.49
39:L2:130:SER:OG	39:L2:174:ARG:NH2	2.89	0.49
73:O7:28:HIS:HB3	73:O7:31:LYS:HB2	1.94	0.49
86:6:2056:OHX:N5	86:6:2143:OHX:N6	2.61	0.49
8:S6:28:PHE:CZ	8:S6:104:PRO:HG3	2.48	0.49
19:C7:58:MET:HA	19:C7:61:ILE:HD12	1.94	0.49
30:D8:32:PHE:O	30:D8:34:GLU:N	3.62	0.49
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.13	0.49
1:6:1419:G:H2'	1:6:1420:C:O4'	2.13	0.49
36:1:138:U:H2'	36:1:139:G:C8	2.48	0.49
47:M0:6:ALA:HB3	36:5:2855:U:OP2	285.33	0.49
41:L4:36:HIS:O	41:L4:40:THR:HG23	3.67	0.49
1:2:1360:A:HO2'	21:C9:2:PRO:N	2.11	0.49
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.12	0.49
36:1:653:A:C2	36:1:1443:G:C4	3.01	0.49
13:C1:78:THR:HG23	13:C1:119:VAL:HG22	1.95	0.49
1:2:1282:U:OP1	22:D0:76:SER:OG	2.28	0.49
36:1:1481:A:H2'	36:1:1481:A:N3	2.28	0.48
1:6:990:C:OP2	86:6:2116:OHX:N2	2.46	0.48
53:M7:61:ARG:HA	53:M7:64:ASN:ND2	2.93	0.48
7:S5:102:ARG:HG3	7:S5:103:ASN:ND2	2.28	0.48
1:2:144:U:O2'	1:2:145:A:H8	1.94	0.48
40:L3:25:ILE:HG23	40:L3:272:TYR:OH	2.13	0.48
24:D2:30:SER:OG	24:D2:31:SER:N	2.45	0.48
3:S1:103:MET:HB3	3:S1:215:VAL:HG13	1.95	0.48
36:1:2107:A:H2	36:1:3344:A:H8	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:127:ALA:O	4:S2:131:ILE:HG13	2.23	0.48
36:1:36:C:OP2	51:M5:83:LYS:HE2	2.12	0.48
48:M1:62:ASN:HB3	78:Q2:101:GLY:O	2.96	0.48
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.19	0.48
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.23	0.48
36:1:2356:A:N6	36:1:2983:C:H5	2.07	0.48
9:S7:96:ARG:HH21	9:S7:124:LYS:HZ1	5.57	0.48
34:SR:26:SER:OG	34:SR:75:ALA:O	2.25	0.48
9:S7:55:LYS:HE3	9:S7:87:ASP:HA	3.71	0.48
36:5:2533:G:O6	86:5:4037:OHX:N1	2.46	0.48
26:D4:94:TYR:HB3	26:D4:96:LEU:HD12	3.77	0.48
34:SR:255:ALA:HB2	34:SR:292:LEU:HD21	2.83	0.48
5:S3:141:LYS:HD3	1:6:1275:A:O2'	388.97	0.48
36:5:3245:A:H2	36:5:3246:G:N1	2.10	0.48
46:L9:168:ARG:O	46:L9:169:ASN:HB2	2.51	0.48
1:6:1623:C:H2'	1:6:1624:C:H6	1.76	0.48
36:1:2218:G:H2'	36:1:2219:A:H8	1.78	0.48
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG2	1.94	0.48
10:S8:197:THR:C	10:S8:199:LYS:H	2.16	0.48
36:1:1488:G:C2	36:1:1489:A:C8	3.01	0.48
18:C6:143:ARG:HH22	35:SM:84:LYS:NZ	2.11	0.48
54:M8:138:LEU:HB3	54:M8:140:LEU:HD21	4.36	0.48
44:L7:206:LYS:HB3	36:5:1334:U:H5''	235.73	0.48
6:S4:97:GLU:OE1	6:S4:113:ARG:NH2	3.91	0.48
68:O2:101:SER:OG	68:O2:104:ASN:HB2	2.13	0.48
36:1:1405:U:OP2	68:O2:59:SER:OG	2.31	0.48
36:1:3003:G:P	40:L3:26:ARG:HH22	2.36	0.48
45:L8:94:PHE:HB3	45:L8:189:LEU:HD13	1.95	0.48
36:5:2112:U:O2	86:5:3973:OHX:N1	2.45	0.48
42:L5:278:SER:HB2	42:L5:280:GLU:OE1	2.14	0.48
50:M4:39:ILE:HB	50:M4:43:LYS:HB2	1.95	0.48
52:M6:172:ARG:HA	52:M6:175:THR:HG22	1.95	0.48
70:O4:38:LEU:H	70:O4:38:LEU:HD12	2.99	0.48
1:2:1559:A:OP1	1:2:1559:A:H4'	2.13	0.48
14:C2:139:HIS:ND1	14:C2:139:HIS:O	2.46	0.48
36:1:2882:U:H2'	36:1:2883:U:C6	2.48	0.48
1:2:65:A:OP1	8:S6:176:GLN:NE2	2.45	0.48
4:S2:139:ILE:CD1	4:S2:191:ALA:HB1	2.43	0.48
28:D6:36:ILE:HD12	28:D6:36:ILE:H	5.56	0.48
51:M5:119:TYR:OH	51:M5:131:GLU:OE1	2.64	0.48
11:S9:108:ARG:NH1	11:S9:110:GLN:HG2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:677:A:C8	36:1:786:A:C6	3.00	0.48
37:3:49:G:C5	42:L5:58:LYS:HG3	2.48	0.48
64:N8:94:ALA:HB1	64:N8:121:VAL:HA	1.94	0.48
39:L2:188:LYS:HD2	39:L2:189:TYR:CE2	6.39	0.48
86:1:4032:OHX:N6	86:1:4045:OHX:N3	2.62	0.48
51:M5:66:VAL:HB	51:M5:98:LEU:HD12	1.95	0.48
18:C6:82:ARG:HH22	18:C6:114:ARG:HG3	3.94	0.48
18:C6:82:ARG:HH12	18:C6:114:ARG:HB3	1.78	0.48
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.25	0.48
1:6:119:A:H1'	1:6:397:A:C4	2.47	0.48
10:S8:12:SER:HA	10:S8:18:ARG:NH1	2.28	0.48
36:5:1560:G:O2'	36:5:1561:G:OP1	2.31	0.48
49:M3:57:VAL:HG23	49:M3:115:ARG:HD2	3.49	0.48
2:S0:88:LYS:NZ	19:C7:82:ASP:OD1	3.47	0.48
10:S8:2:GLY:N	1:6:393:C:OP2	292.10	0.48
36:1:1039:U:H2'	36:1:1040:A:C8	2.48	0.48
36:1:3199:G:C2	36:1:3200:G:C8	3.02	0.48
6:S4:161:LYS:HB3	6:S4:170:THR:O	4.98	0.48
36:1:2689:A:C8	36:1:2702:A:C6	3.01	0.48
1:2:1533:C:H4'	1:2:1539:G:N1	2.28	0.48
41:L4:156:LEU:O	41:L4:158:SER:N	2.76	0.48
86:6:2056:OHX:N1	86:6:2143:OHX:N4	2.61	0.48
36:1:1003:A:C5	36:1:1004:U:C5	3.01	0.48
36:5:1049:C:H2'	36:5:1050:U:H6	1.77	0.48
39:L2:235:ALA:HB1	36:5:2184:U:OP1	199.44	0.48
36:5:1237:G:H1	36:5:1251:A:H2	1.59	0.48
56:N0:101:ALA:O	56:N0:105:THR:HG23	2.13	0.48
36:5:3298:C:H2'	36:5:3299:A:O4'	2.13	0.48
51:M5:144:ARG:O	51:M5:145:ASP:HB3	2.12	0.48
44:L7:149:TYR:CE2	44:L7:181:ILE:HD13	3.29	0.48
36:1:2190:U:C4	36:1:2191:U:C4	3.01	0.48
36:1:1237:G:H2'	36:1:1237:G:N3	2.27	0.48
58:N2:28:PHE:HE1	58:N2:83:TYR:HE2	2.18	0.48
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.13	0.48
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.78	0.48
36:1:2662:G:H2'	36:1:2663:G:C8	2.48	0.48
15:C3:34:ILE:O	15:C3:38:VAL:HG23	2.12	0.48
1:6:836:U:H2'	1:6:837:G:H8	1.78	0.48
59:N3:92:PHE:CD1	36:5:3051:U:H1'	246.06	0.48
7:S5:159:ALA:O	30:D8:61:ARG:NH2	5.97	0.48
2:S0:31:VAL:O	2:S0:33:GLN:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:138:LYS:HZ1	53:M7:140:GLU:HB2	1.78	0.48
60:N4:27:LYS:HD3	60:N4:29:PHE:CZ	5.01	0.48
10:S8:76:THR:HG23	10:S8:108:PRO:HG2	3.03	0.48
39:L2:241:ARG:HA	36:5:2203:U:H4'	220.84	0.48
86:5:4062:OHX:N1	86:5:4137:OHX:N2	2.62	0.48
1:6:542:A:H1'	1:6:543:C:H5'	1.94	0.48
36:1:269:G:P	51:M5:44:ARG:HH22	2.37	0.48
36:1:529:A:H61	36:1:563:U:H3	1.61	0.48
25:D3:86:PHE:O	25:D3:88:PRO:HD3	2.13	0.48
40:L3:301:THR:O	40:L3:303:LYS:N	3.27	0.48
1:2:825:U:H2'	1:2:826:U:H6	1.75	0.48
1:2:828:U:N3	1:2:829:A:N7	2.60	0.48
41:L4:125:ALA:HB1	41:L4:238:LEU:HB3	2.30	0.48
17:C5:86:VAL:O	17:C5:89:MET:HG3	2.13	0.48
36:1:1193:A:OP1	52:M6:49:ARG:NH2	2.46	0.48
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	3.11	0.48
8:S6:159:ARG:NH2	1:6:79:C:OP1	349.00	0.48
42:L5:25:GLU:OE1	42:L5:27:LYS:NZ	4.01	0.48
36:5:572:A:H2'	36:5:573:C:H6	1.78	0.48
41:L4:36:HIS:O	41:L4:40:THR:HG22	2.13	0.48
36:5:252:U:H4'	36:5:253:A:C5'	2.44	0.48
36:1:2611:U:H2'	36:1:2612:U:C6	2.49	0.48
36:1:3298:C:H2'	36:1:3299:A:O4'	2.13	0.48
39:L2:57:PRO:HD2	39:L2:170:ALA:HB3	1.95	0.48
5:S3:71:LEU:HB3	12:C0:20:VAL:HG11	1.94	0.48
13:C1:17:PRO:HB2	13:C1:18:HIS:ND1	4.73	0.48
4:S2:106:ASP:OD1	4:S2:107:SER:N	2.55	0.48
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.43	0.48
36:1:1119:C:OP2	86:1:3952:OHX:N1	2.47	0.48
36:1:530:G:N7	86:1:3918:OHX:N6	2.61	0.48
45:L8:162:LEU:HA	51:M5:7:LEU:HD11	1.95	0.48
36:1:378:A:H3'	36:1:379:C:C6	2.48	0.48
1:6:1120:U:H2'	1:6:1121:C:C6	2.48	0.48
39:L2:181:LYS:NZ	36:5:860:G:P	214.35	0.48
9:S7:28:GLU:HA	9:S7:34:LEU:O	3.30	0.48
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.95	0.48
1:6:826:U:H2'	1:6:827:C:C6	2.48	0.48
37:3:3:U:H2'	37:3:4:U:H6	1.76	0.48
1:2:992:A:C2	1:2:1012:U:N3	2.73	0.48
71:O5:89:ARG:HH11	71:O5:89:ARG:HG2	1.96	0.48
36:5:3279:A:C2'	36:5:3280:U:H5'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:90:ARG:NH2	34:SR:102:ARG:HE	3.41	0.48
2:S0:126:PRO:CG	2:S0:151:SER:HB3	2.80	0.48
17:C5:43:ARG:HG3	17:C5:47:ARG:HG3	3.75	0.48
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.46	0.48
41:L4:327:LEU:HA	44:L7:166:ASN:ND2	2.28	0.48
49:M3:64:LYS:HG3	64:N8:69:TRP:CD2	2.49	0.48
55:M9:143:ILE:HG23	36:5:2093:A:P	254.67	0.48
1:2:1358:G:H2'	1:2:1359:C:H6	1.78	0.48
1:2:1301:U:OP1	4:S2:88:LYS:HB2	2.14	0.48
6:S4:36:HIS:HD2	6:S4:83:PRO:O	3.09	0.48
39:L2:48:ILE:HG13	39:L2:48:ILE:O	2.11	0.48
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.29	0.48
2:S0:110:TYR:O	2:S0:112:THR:N	2.45	0.48
36:1:1724:U:H4'	36:1:1725:C:OP1	2.12	0.48
15:C3:73:ARG:HD3	1:6:859:A:C5	329.81	0.48
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.78	0.48
11:S9:20:GLU:O	11:S9:24:LEU:HD12	2.14	0.48
1:2:526:A:C6	1:2:527:A:C5	3.01	0.48
9:S7:42:GLN:HG2	9:S7:43:PHE:H	1.78	0.48
36:5:1806:A:H2'	36:5:1807:G:O4'	2.13	0.48
6:S4:95:THR:OG1	6:S4:95:THR:O	3.12	0.48
1:6:1358:G:H2'	1:6:1359:C:C6	2.48	0.48
36:1:1204:A:H2	36:1:2834:G:N3	2.11	0.48
36:5:2908:G:N7	86:5:3900:OHX:N2	2.61	0.48
62:N6:63:LYS:O	62:N6:66:GLN:HG3	2.13	0.48
75:O9:17:LYS:HG3	75:O9:18:LYS:N	4.07	0.48
53:M7:85:ALA:O	53:M7:89:LYS:HB2	2.79	0.48
36:1:2298:U:O4	36:1:2923:U:H5	1.96	0.48
36:1:1086:C:H2'	36:1:1087:G:O4'	2.14	0.48
38:4:126:A:O2'	38:4:128:U:OP1	2.31	0.48
8:S6:191:ARG:HB3	8:S6:191:ARG:HH21	4.56	0.48
12:C0:16:PHE:HD2	12:C0:76:LEU:HB3	1.77	0.48
79:Q3:13:LYS:HE3	79:Q3:14:TYR:CE2	2.49	0.48
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	3.16	0.48
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.78	0.48
36:1:860:G:C6	39:L2:181:LYS:HB2	2.48	0.48
2:S0:142:PRO:HG3	23:D1:32:VAL:HG22	2.84	0.48
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.96	0.48
59:N3:13:ILE:HG12	59:N3:53:SER:CB	2.44	0.48
1:6:12:U:H1'	1:6:1300:A:N3	2.29	0.48
44:L7:52:GLN:O	44:L7:56:GLU:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:32:LYS:O	49:M3:36:ARG:HG3	2.12	0.48
20:C8:112:ASP:O	20:C8:115:ARG:N	2.47	0.48
1:6:1529:C:H2'	1:6:1530:C:C6	2.48	0.48
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.82	0.48
14:C2:123:VAL:HG11	14:C2:126:TRP:HB3	1.94	0.48
1:6:697:C:H2'	1:6:698:U:H6	1.79	0.48
14:C2:36:LEU:HG	14:C2:41:LEU:HD12	3.94	0.48
39:L2:77:ILE:HD13	39:L2:128:ARG:HB3	1.96	0.48
51:M5:73:ARG:HG2	51:M5:75:VAL:HG13	2.61	0.48
36:5:1813:A:OP1	36:5:1817:G:H4'	2.12	0.48
42:L5:258:LYS:N	42:L5:258:LYS:HD3	3.69	0.48
46:L9:31:ARG:HB2	46:L9:82:VAL:HA	3.91	0.48
79:Q3:73:THR:HG22	79:Q3:76:ALA:H	1.78	0.48
3:S1:30:PHE:HD1	3:S1:96:LEU:HD22	1.79	0.48
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.14	0.48
52:M6:31:GLN:HG3	52:M6:33:ILE:HD11	1.95	0.48
1:2:717:C:H2'	1:2:718:U:H5''	1.96	0.48
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.14	0.48
33:E1:109:ASP:OD1	33:E1:109:ASP:N	2.47	0.48
43:L6:18:LEU:H	43:L6:18:LEU:HD22	1.78	0.48
36:1:147:U:O4	45:L8:157:VAL:HA	2.12	0.48
42:L5:122:VAL:HG23	42:L5:123:GLU:H	2.97	0.48
36:5:900:G:H1'	36:5:1589:A:N6	2.29	0.48
36:5:1709:C:H2'	36:5:1710:C:C6	2.48	0.48
11:S9:153:GLU:HA	11:S9:156:ILE:HD11	1.96	0.48
2:S0:60:ALA:O	2:S0:64:ILE:HG13	2.34	0.48
33:E1:134:ASN:H	1:6:1251:U:H4'	441.32	0.48
36:5:1821:U:H4'	36:5:1822:C:OP2	2.13	0.48
36:5:1378:U:OP1	86:5:4023:OHX:N3	2.46	0.48
36:1:1340:G:H2'	36:1:1341:U:C6	2.49	0.48
1:6:276:C:O2'	1:6:277:U:H5''	2.12	0.48
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	2.20	0.48
58:N2:42:LYS:HG2	58:N2:46:ALA:HA	3.74	0.48
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.13	0.48
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.45	0.48
46:L9:69:ARG:O	46:L9:69:ARG:HD2	2.13	0.48
50:M4:108:ARG:NH1	50:M4:112:LEU:HD23	2.27	0.48
1:6:1110:G:N2	1:6:1136:U:H1'	2.28	0.48
41:L4:227:THR:O	36:5:689:U:N3	90.15	0.48
1:6:766:U:C4	1:6:769:A:C8	3.02	0.48
36:5:1047:A:N3	36:5:2633:U:O2'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2249:G:C8	36:5:2272:G:C8	3.02	0.48
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	2.31	0.48
10:S8:135:LYS:O	10:S8:136:SER:HB2	4.04	0.48
41:L4:26:PHE:CD1	41:L4:130:ALA:HB2	3.66	0.48
20:C8:130:GLY:O	20:C8:145:ARG:NH1	2.47	0.48
22:D0:72:ASN:HD22	22:D0:74:GLU:H	1.60	0.48
36:1:2746:A:H2	42:L5:146:LEU:HB3	1.77	0.48
36:1:3375:A:O2'	36:1:3378:C:H5'	2.12	0.48
1:2:66:U:H5	8:S6:173:PRO:HG3	1.77	0.48
56:N0:46:GLN:HG2	56:N0:51:VAL:O	2.13	0.48
36:1:3166:C:H2'	36:1:3167:A:O4'	2.13	0.48
2:S0:31:VAL:O	2:S0:34:GLU:HG2	2.13	0.48
63:N7:10:VAL:HB	63:N7:83:THR:CG2	2.51	0.48
36:1:1599:G:OP1	86:1:4084:OHX:N5	2.47	0.48
17:C5:90:ILE:HD13	17:C5:109:PRO:HG3	3.06	0.48
36:5:2555:G:H5'	36:5:2556:C:OP2	2.14	0.48
1:2:888:U:H2'	1:2:889:U:C6	2.49	0.48
36:5:23:A:OP1	86:5:3905:OHX:N4	2.46	0.48
66:O0:44:ILE:HG22	66:O0:48:THR:HG21	2.91	0.48
37:3:60:G:H2'	37:3:61:G:C8	2.48	0.48
41:L4:310:THR:HG22	36:5:609:G:H8	225.58	0.48
36:5:549:U:H2'	36:5:550:A:H8	1.79	0.48
1:6:1314:U:O2'	1:6:1315:U:OP2	2.30	0.48
26:D4:57:VAL:HG23	26:D4:73:GLY:HA3	1.96	0.48
36:1:2986:U:H2'	36:1:2987:A:C8	2.49	0.48
24:D2:77:PRO:HG2	24:D2:79:PHE:CZ	2.47	0.48
36:1:1699:A:H2'	36:1:1700:G:H8	1.77	0.48
35:SM:83:LYS:HB3	35:SM:84:LYS:H	2.13	0.48
55:M9:23:TRP:CH2	55:M9:25:ASP:HA	3.06	0.48
36:5:796:U:H2'	36:5:797:U:H6	1.78	0.48
38:4:14:C:H5"	53:M7:123:PRO:HG3	1.94	0.48
11:S9:39:LYS:HB3	11:S9:43:TYR:CZ	2.48	0.48
1:6:1081:A:N3	1:6:1082:C:N4	2.60	0.48
72:O6:76:ARG:NH2	36:5:293:C:H4'	159.42	0.48
42:L5:99:TYR:CD2	42:L5:199:ILE:HG12	3.17	0.48
57:N1:26:HIS:CD2	57:N1:26:HIS:H	2.74	0.48
36:5:1128:U:H2'	36:5:1129:A:O4'	2.13	0.48
1:2:1382:A:H5"	22:D0:60:THR:HG22	1.95	0.48
36:1:2869:U:H5"	36:1:2870:C:OP2	2.12	0.48
1:2:180:A:H2'	1:2:181:A:O4'	2.14	0.48
46:L9:83:THR:OG1	46:L9:84:LYS:N	2.84	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:97:LEU:O	7:S5:99:MET:N	2.94	0.48
28:D6:5:ARG:HH12	1:6:1795:U:H3'	338.42	0.48
11:S9:146:PHE:HZ	1:6:765:G:C2	429.82	0.48
38:4:79:A:H5''	71:O5:43:LYS:NZ	2.27	0.48
42:L5:260:PHE:HB3	42:L5:264:GLN:HB2	1.96	0.48
70:O4:55:SER:O	70:O4:62:TYR:OH	2.79	0.48
1:2:1550:A:P	17:C5:42:ARG:NH2	2.87	0.48
34:SR:123:ILE:HD11	34:SR:156:VAL:HG23	2.49	0.48
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.71	0.48
36:1:1479:U:C2	36:1:1875:G:N2	2.82	0.48
2:S0:163:ASN:HB3	2:S0:169:SER:OG	3.01	0.48
53:M7:138:LYS:NZ	53:M7:140:GLU:HB2	2.28	0.48
5:S3:142:LEU:HD23	5:S3:148:LYS:HB2	6.92	0.48
36:5:2510:U:O2'	36:5:2511:A:O4'	2.30	0.48
74:O8:54:LEU:HG	74:O8:56:ILE:HD11	2.52	0.48
44:L7:110:ARG:CZ	54:M8:3:ILE:HD12	2.43	0.48
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.13	0.48
21:C9:118:PRO:O	21:C9:120:GLY:N	2.46	0.48
36:1:413:U:OP1	53:M7:34:GLN:NE2	2.47	0.48
1:6:1390:U:O2'	1:6:1391:A:H8	1.97	0.48
1:2:1145:U:O2'	4:S2:89:GLN:O	2.25	0.48
62:N6:35:LEU:HD13	62:N6:39:LEU:HB3	2.51	0.48
1:6:621:A:N3	1:6:1107:G:H1'	2.28	0.48
50:M4:50:LYS:HD3	50:M4:85:TRP:CD1	2.48	0.48
65:N9:15:LYS:HE2	36:5:968:G:O2'	206.82	0.48
9:S7:113:PRO:HD3	1:6:811:A:N6	345.81	0.48
13:C1:6:THR:OG1	13:C1:7:VAL:N	2.47	0.48
36:1:979:U:H1'	36:1:980:A:C8	2.48	0.48
36:5:191:U:H2'	36:5:192:C:H6	1.79	0.48
86:1:3970:OHX:N3	86:1:4156:OHX:N1	2.61	0.48
36:1:3083:G:H2'	36:1:3084:C:O4'	2.13	0.48
36:5:1157:G:H2'	36:5:1158:A:O4'	2.14	0.48
36:1:1786:G:H2'	36:1:1787:A:C8	2.48	0.48
16:C4:88:GLY:O	16:C4:92:LYS:NZ	8.86	0.48
79:Q3:81:SER:OG	79:Q3:82:THR:N	3.05	0.48
36:5:2186:U:H5'	36:5:2314:U:OP2	2.14	0.48
36:1:619:A:H4'	36:1:620:U:O4'	2.14	0.48
42:L5:289:LYS:O	42:L5:292:ALA:HB3	2.84	0.48
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.47	0.48
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.14	0.48
46:L9:189:GLU:C	46:L9:191:LEU:N	2.65	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:192:U:O2'	1:6:193:U:O5'	2.31	0.48
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	2.75	0.48
11:S9:149:ARG:NE	1:6:765:G:N7	428.38	0.48
42:L5:64:ILE:HG13	42:L5:105:ILE:HD12	1.96	0.48
36:1:916:G:H4'	36:1:917:A:O5'	2.13	0.48
64:N8:6:THR:CG2	64:N8:8:THR:HG23	2.41	0.48
65:N9:50:THR:O	65:N9:54:LEU:HB2	2.14	0.48
36:1:1834:U:H3'	36:1:1835:A:H5'	1.95	0.48
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.14	0.48
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.14	0.48
20:C8:99:HIS:O	20:C8:101:LEU:HG	2.14	0.48
57:N1:68:THR:HG22	57:N1:71:SER:H	4.55	0.48
42:L5:114:GLY:O	42:L5:116:ASP:N	2.41	0.48
8:S6:67:VAL:CG2	8:S6:99:GLY:HA2	2.44	0.48
43:L6:38:THR:HG23	43:L6:90:LYS:HE2	3.55	0.48
36:1:3060:C:OP1	86:1:4039:OHX:N4	2.46	0.48
62:N6:34:PRO:HG2	62:N6:105:VAL:HG23	1.95	0.48
6:S4:112:HIS:HD2	6:S4:114:ILE:HG22	3.08	0.48
46:L9:31:ARG:HD3	46:L9:149:ASN:OD1	2.99	0.48
4:S2:235:LEU:HD22	23:D1:33:GLN:HE22	1.76	0.48
1:2:16:G:H2'	1:2:17:C:C6	2.49	0.48
36:5:501:A:H2'	36:5:502:U:H6	1.78	0.48
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.46	0.48
52:M6:49:ARG:NH1	52:M6:49:ARG:HG2	2.29	0.48
36:1:3337:G:H2'	36:1:3338:C:C6	2.48	0.48
36:1:2226:U:H2'	36:1:2227:C:H6	1.79	0.48
20:C8:4:VAL:HG21	27:D5:82:HIS:CD2	4.14	0.48
36:5:1340:G:H2'	36:5:1341:U:C6	2.48	0.48
1:6:275:C:N4	1:6:276:C:H41	2.12	0.48
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.99	0.48
36:5:646:A:C2	36:5:2375:G:C2	3.02	0.48
1:6:479:C:H2'	1:6:480:G:O4'	2.14	0.48
63:N7:101:PHE:HA	63:N7:107:ARG:HE	2.48	0.48
41:L4:264:SER:OG	41:L4:267:VAL:HG12	4.15	0.48
1:2:122:U:O4	86:2:2049:OHX:N3	2.47	0.48
86:1:4132:OHX:N5	86:1:4164:OHX:N6	2.62	0.48
1:6:358:U:O2'	1:6:360:A:H5''	2.13	0.48
3:S1:147:ALA:O	3:S1:148:ASN:ND2	2.41	0.48
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.29	0.48
54:M8:132:PRO:C	54:M8:134:GLY:H	2.17	0.48
36:5:2861:U:H2'	36:5:2862:U:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3022:G:O2'	36:1:3031:G:O6	2.26	0.48
1:2:249:U:H3'	1:2:250:C:H5'	1.96	0.48
36:1:2660:G:O3'	36:1:2749:G:N2	2.47	0.48
45:L8:65:LEU:HD13	45:L8:65:LEU:O	2.66	0.48
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.06	0.48
36:1:2403:G:H5'	36:1:2872:A:C2	2.48	0.48
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.29	0.48
41:L4:206:LEU:HD23	41:L4:226:GLU:HB2	2.81	0.48
37:7:45:A:H2'	37:7:46:A:C8	2.49	0.48
1:2:959:U:C6	15:C3:61:THR:HB	2.48	0.48
42:L5:261:THR:H	42:L5:264:GLN:CD	3.22	0.48
27:D5:59:TYR:HE2	27:D5:61:SER:HB3	1.78	0.48
47:M0:76:MET:HE1	47:M0:148:VAL:HA	2.75	0.48
59:N3:125:LEU:HB3	59:N3:126:TRP:CD1	2.49	0.48
36:1:1095:U:N3	57:N1:127:GLN:HG2	2.28	0.48
64:N8:91:LEU:HA	64:N8:121:VAL:HG21	1.96	0.48
36:5:2181:C:H2'	36:5:2182:A:O4'	2.14	0.48
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.49	0.48
1:6:831:U:H6	1:6:831:U:OP2	1.97	0.48
1:6:831:U:HO2'	1:6:832:U:H6	1.61	0.48
1:2:487:G:H3'	1:2:488:G:H5''	1.96	0.48
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.38	0.48
3:S1:35:PRO:HG3	3:S1:99:ASN:HA	2.41	0.48
36:5:1024:G:N7	36:5:1027:A:N6	2.61	0.48
74:O8:41:THR:HG23	74:O8:56:ILE:O	2.13	0.48
14:C2:44:GLY:HA3	1:6:1227:A:O2'	461.14	0.48
36:5:1560:G:C6	36:5:1580:A:N6	2.82	0.48
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	4.16	0.48
36:1:1524:A:OP1	61:N5:92:LYS:NZ	2.46	0.48
13:C1:38:ALA:HB2	13:C1:60:PHE:CD1	3.82	0.48
12:C0:64:TYR:OH	1:6:1435:G:O6	425.18	0.48
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.49	0.48
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.48	0.48
41:L4:193:LYS:HE3	41:L4:193:LYS:HB3	1.55	0.48
10:S8:33:PRO:HA	1:6:331:A:H5'	276.86	0.48
39:L2:114:SER:HB2	39:L2:169:ILE:CD1	2.42	0.48
36:5:1317:A:C4	36:5:1319:G:C8	3.02	0.48
13:C1:84:ILE:HG23	13:C1:111:VAL:HG11	2.47	0.48
6:S4:134:LYS:O	6:S4:136:VAL:N	3.31	0.48
61:N5:65:GLN:O	61:N5:85:GLN:N	2.75	0.48
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:630:A:H2'	36:5:631:U:C6	2.48	0.48
50:M4:109:ARG:HG2	52:M6:199:TYR:CE2	2.62	0.48
16:C4:66:ASP:O	16:C4:69:ALA:N	3.25	0.48
1:2:1107:G:O2'	1:2:1108:G:H5'	2.13	0.48
40:L3:44:THR:HG23	40:L3:184:ASN:HB2	2.07	0.48
36:1:3173:G:N1	69:O3:92:LYS:O	2.37	0.48
36:5:811:U:H2'	36:5:812:G:C8	2.48	0.48
1:2:1402:G:H2'	1:2:1403:C:C6	2.49	0.48
1:2:1603:U:H2'	1:2:1604:U:C6	2.49	0.48
36:1:532:A:H2	36:1:560:G:H22	1.62	0.48
36:1:279:U:H2'	36:1:280:U:C6	2.49	0.48
36:5:1855:U:H2'	36:5:1856:C:H6	1.77	0.48
36:1:1389:G:O6	41:L4:186:LYS:HE2	2.14	0.48
36:5:3273:A:C2'	36:5:3274:A:H5'	2.43	0.48
23:D1:74:GLN:OE1	23:D1:83:TRP:N	3.88	0.48
1:2:191:C:O2'	1:2:192:U:O5'	2.32	0.48
1:2:1203:A:C4	1:2:1556:A:C2	3.02	0.48
48:M1:89:TYR:O	48:M1:170:ASP:N	2.31	0.48
40:L3:62:ARG:HH12	40:L3:349:LYS:NZ	2.12	0.48
2:S0:124:THR:HG22	2:S0:174:TRP:CZ2	3.02	0.48
1:2:355:G:O6	86:2:2027:OHX:N6	2.46	0.48
31:D9:14:TYR:OH	1:6:1553:G:O2'	401.88	0.48
54:M8:89:ASP:OD1	54:M8:113:LYS:HG3	4.79	0.48
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.49	0.48
36:1:1795:U:OP1	39:L2:191:LEU:HD22	2.14	0.48
51:M5:44:ARG:NH1	36:5:269:G:OP1	125.05	0.48
22:D0:24:ILE:HG12	22:D0:116:VAL:HG13	1.95	0.48
71:O5:101:THR:HG21	71:O5:103:LYS:HG2	1.95	0.48
2:S0:185:ARG:HA	23:D1:44:ARG:HA	1.96	0.48
25:D3:137:LYS:O	25:D3:138:GLU:HB2	2.13	0.48
36:5:2426:U:H2'	36:5:2427:U:C6	2.49	0.48
63:N7:136:PHE:C	36:5:2556:C:H5'	203.43	0.48
6:S4:36:HIS:CD2	6:S4:85:GLY:HA3	2.49	0.48
13:C1:72:THR:HG22	13:C1:124:THR:HA	1.96	0.48
6:S4:121:TYR:CE2	6:S4:161:LYS:HE3	2.48	0.48
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.79	0.48
36:1:2415:C:C2'	36:1:2416:U:H5'	2.44	0.48
36:1:839:C:H4'	36:1:1724:U:H2'	1.96	0.48
39:L2:130:SER:HA	39:L2:169:ILE:HG22	1.95	0.48
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	2.31	0.48
8:S6:52:ILE:HA	8:S6:111:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:6:2056:OHX:N5	86:6:2143:OHX:N3	2.62	0.48
45:L8:57:ARG:O	45:L8:61:GLN:HG3	3.01	0.48
9:S7:10:SER:HB3	9:S7:43:PHE:O	2.13	0.48
1:2:381:C:H1'	1:2:756:A:C2	2.49	0.48
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	1.96	0.48
70:O4:65:VAL:HG22	70:O4:69:HIS:ND1	2.29	0.48
1:2:398:G:P	10:S8:47:ARG:HH12	2.37	0.48
39:L2:45:VAL:HG23	39:L2:84:THR:HA	3.63	0.48
36:1:3386:G:H2'	36:1:3387:U:H6	1.78	0.48
34:SR:221:MET:HG2	34:SR:233:THR:HG23	1.96	0.48
36:1:2196:C:O2'	36:1:2270:A:N3	2.44	0.48
36:5:2694:A:C6	36:5:2695:A:C6	3.02	0.48
36:5:108:A:O2'	36:5:323:A:N1	2.41	0.48
1:2:1349:G:H1	1:2:1376:C:H42	1.62	0.48
28:D6:46:GLU:HG3	28:D6:47:ALA:HB3	3.95	0.47
28:D6:47:ALA:O	28:D6:50:VAL:HG12	2.13	0.47
2:S0:179:ARG:HD3	2:S0:183:ARG:HD2	1.96	0.47
36:5:3278:C:O2'	36:5:3279:A:OP2	2.25	0.47
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.16	0.47
36:5:1565:G:H2'	36:5:1566:A:H8	1.79	0.47
40:L3:30:LYS:O	86:5:4102:OHX:N1	249.62	0.47
3:S1:197:ILE:HG22	3:S1:210:ILE:HD13	2.97	0.47
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.19	0.47
20:C8:117:LYS:C	20:C8:119:ILE:H	2.16	0.47
36:1:495:G:N2	36:1:618:C:N3	2.50	0.47
28:D6:37:LYS:O	28:D6:38:ARG:HD3	2.14	0.47
68:O2:45:ARG:NH2	36:5:1367:G:OP1	197.41	0.47
36:5:229:G:C2	36:5:230:U:C2	3.02	0.47
20:C8:25:ASN:O	27:D5:40:VAL:HG21	3.14	0.47
39:L2:21:ARG:HH21	39:L2:22:LEU:HD11	2.93	0.47
61:N5:105:VAL:HG11	61:N5:126:LEU:HD22	1.96	0.47
46:L9:36:LYS:HD3	46:L9:38:LEU:HD21	2.88	0.47
36:1:1508:C:C6	36:1:1880:U:H1'	2.49	0.47
1:6:647:G:H22	1:6:687:G:N2	2.12	0.47
36:5:1782:U:H2'	36:5:1783:U:C6	2.49	0.47
1:2:1483:A:H61	1:2:1591:C:H1'	1.77	0.47
1:2:17:C:H2'	1:2:18:C:C6	2.49	0.47
10:S8:31:ARG:O	1:6:331:A:H4'	282.13	0.47
56:N0:1:MET:HE1	56:N0:32:SER:N	2.29	0.47
36:1:2544:U:H2'	36:1:2545:C:H6	1.79	0.47
33:E1:83:LYS:O	33:E1:84:VAL:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1668:G:C6	36:1:1669:C:C4	3.01	0.47
36:1:2808:A:H4'	36:1:2809:C:O5'	2.13	0.47
40:L3:46:PHE:HD1	40:L3:208:VAL:HG21	2.39	0.47
30:D8:16:LEU:HB3	30:D8:27:GLN:HB3	4.35	0.47
31:D9:39:CYS:O	31:D9:43:PHE:N	2.76	0.47
36:5:508:U:H2'	36:5:509:U:C6	2.49	0.47
52:M6:39:GLU:N	52:M6:39:GLU:OE1	2.32	0.47
37:7:119:U:H2'	37:7:120:C:C6	2.49	0.47
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.34	0.47
1:2:1662:G:O2'	1:2:1663:G:H5'	2.15	0.47
1:6:329:G:O6	86:6:2151:OHX:N3	2.47	0.47
72:O6:43:LEU:O	72:O6:47:ILE:HG13	2.14	0.47
1:6:892:A:H2'	1:6:893:U:O4'	2.14	0.47
36:1:1796:G:H5''	36:1:1797:A:OP1	2.14	0.47
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	2.26	0.47
36:5:1659:U:H2'	36:5:1660:C:C6	2.49	0.47
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	2.30	0.47
42:L5:45:ASN:OD1	57:N1:33:VAL:HG21	2.50	0.47
57:N1:103:GLN:O	57:N1:107:GLU:HB2	2.14	0.47
1:2:1275:A:C6	1:2:1438:G:C5	3.02	0.47
48:M1:85:LYS:HB2	48:M1:85:LYS:HE3	1.59	0.47
9:S7:126:LEU:HB2	9:S7:173:TYR:HE2	5.16	0.47
39:L2:245:LEU:HD12	39:L2:246:LEU:N	2.29	0.47
36:1:2687:G:O6	86:1:3898:OHX:N5	2.46	0.47
36:1:3:U:H2'	36:1:4:U:O4'	2.13	0.47
34:SR:31:ASN:HA	34:SR:47:LEU:HB2	2.64	0.47
1:2:1433:G:C1'	31:D9:41:GLN:HE21	2.26	0.47
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	1.96	0.47
52:M6:124:LEU:O	52:M6:128:ARG:HB2	2.45	0.47
42:L5:129:TYR:CG	42:L5:177:GLU:HG2	2.49	0.47
47:M0:16:PRO:HG3	47:M0:128:ARG:NH1	3.87	0.47
24:D2:31:SER:OG	24:D2:33:VAL:HG23	4.09	0.47
1:2:66:U:OP1	8:S6:136:LYS:NZ	2.37	0.47
1:2:79:C:H4'	8:S6:173:PRO:O	2.13	0.47
40:L3:117:ARG:CZ	40:L3:175:LYS:HD3	3.18	0.47
41:L4:73:ARG:NH1	36:5:805:G:H1'	164.73	0.47
36:5:3057:U:O2'	36:5:3059:G:OP1	2.31	0.47
34:SR:134:TRP:CZ3	34:SR:140:CYS:HB2	2.62	0.47
20:C8:18:LEU:C	20:C8:20:THR:H	2.47	0.47
1:6:1695:G:N2	1:6:1706:C:H41	2.10	0.47
47:M0:55:ASN:O	47:M0:131:ILE:HG12	3.01	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:44:ASN:OD1	7:S5:70:VAL:HG12	2.13	0.47
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.34	0.47
26:D4:14:SER:CB	26:D4:21:LYS:HE3	2.44	0.47
1:6:1553:G:N2	1:6:1555:A:H3'	2.29	0.47
31:D9:15:GLY:H	31:D9:19:ARG:HH21	3.18	0.47
36:1:398:A:C4	53:M7:3:ARG:NH2	2.82	0.47
48:M1:117:ASP:OD2	48:M1:119:SER:HB3	3.74	0.47
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.52	0.47
36:5:3317:U:H6	86:5:4134:OHX:N6	2.12	0.47
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	1.96	0.47
37:3:14:U:H5'	42:L5:24:ARG:HH11	1.79	0.47
40:L3:95:THR:O	40:L3:97:ARG:N	2.47	0.47
8:S6:94:ARG:NH1	1:6:1673:G:OP1	285.75	0.47
36:5:1610:G:H2'	36:5:1611:G:H8	1.78	0.47
69:O3:69:GLY:HA3	69:O3:85:PHE:HA	2.31	0.47
36:1:149:U:OP2	51:M5:49:ARG:NH2	2.47	0.47
36:1:2778:G:C2'	36:1:2779:A:H5'	2.44	0.47
47:M0:30:LYS:N	47:M0:62:SER:HB2	2.52	0.47
36:5:679:U:O2'	36:5:788:C:O2	2.27	0.47
1:6:1614:A:C6	1:6:1615:C:N4	2.82	0.47
43:L6:76:LEU:N	43:L6:138:GLN:OE1	2.32	0.47
36:1:294:U:OP1	72:O6:76:ARG:HD3	2.14	0.47
36:5:2906:C:H2'	36:5:2907:G:O4'	2.14	0.47
59:N3:79:VAL:HB	59:N3:118:VAL:HG13	2.44	0.47
37:3:37:G:C2	37:3:41:G:C2	3.02	0.47
25:D3:107:PHE:CE2	25:D3:114:LYS:HB2	2.49	0.47
36:1:599:C:OP1	41:L4:332:LYS:HE2	2.14	0.47
13:C1:14:GLN:HB3	13:C1:54:ILE:HG13	3.23	0.47
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.47	0.47
36:1:2552:C:H2'	66:O0:50:VAL:HG11	1.95	0.47
56:N0:114:HIS:CE1	36:5:1212:A:H1'	310.21	0.47
36:1:2389:C:H2'	36:1:2390:A:C8	2.49	0.47
1:2:1342:C:H2'	1:2:1343:U:C6	2.49	0.47
68:O2:66:LEU:HD23	68:O2:66:LEU:N	2.28	0.47
1:2:1329:A:O5'	1:2:1329:A:H8	1.97	0.47
36:1:1048:A:H2'	47:M0:22:TYR:CE1	2.48	0.47
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.16	0.47
18:C6:12:LYS:HG2	18:C6:17:THR:HA	1.94	0.47
36:1:1481:A:O2'	36:1:1858:A:C2	2.67	0.47
46:L9:87:LYS:HD2	46:L9:191:LEU:HD11	14.35	0.47
36:1:3307:A:OP1	40:L3:226:PHE:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:190:C:O2'	1:6:191:C:O5'	2.28	0.47
1:2:1473:U:H5''	7:S5:190:ILE:HG13	1.95	0.47
1:6:1773:C:H2'	1:6:1774:G:C8	2.50	0.47
36:1:2746:A:H2'	36:1:2747:A:O4'	2.14	0.47
1:2:162:A:H2'	1:2:163:G:N3	2.28	0.47
1:6:1567:U:H2'	1:6:1568:C:H5'	1.96	0.47
1:2:1537:C:C4	1:2:1572:G:N1	2.80	0.47
26:D4:122:GLY:O	26:D4:125:LEU:N	2.77	0.47
36:1:1713:G:O6	66:O0:28:LYS:HD3	2.14	0.47
26:D4:2:SER:HA	26:D4:32:ARG:HD2	6.14	0.47
49:M3:97:VAL:HG12	49:M3:98:ASP:H	1.79	0.47
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	3.24	0.47
48:M1:6:GLN:C	48:M1:7:ASN:HD22	2.18	0.47
73:O7:19:CYS:HB3	73:O7:22:CYS:H	1.78	0.47
73:O7:64:MET:HB2	73:O7:68:LYS:HG3	1.96	0.47
63:N7:4:PHE:O	63:N7:5:LEU:HB2	4.61	0.47
1:6:151:G:N2	1:6:163:G:N2	2.63	0.47
36:5:244:G:OP2	36:5:244:G:H8	1.98	0.47
36:5:1846:C:H5'	36:5:1849:C:N4	2.29	0.47
40:L3:242:THR:HG22	36:5:2948:C:O2'	214.48	0.47
1:6:72:A:H2'	1:6:73:U:C1'	2.44	0.47
27:D5:40:VAL:C	27:D5:75:LEU:HD11	2.35	0.47
31:D9:38:ILE:HG22	31:D9:42:CYS:HB3	3.41	0.47
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.53	0.47
46:L9:92:TYR:CG	46:L9:142:ASP:HB3	2.77	0.47
36:1:2534:G:H2'	36:1:2535:A:H8	1.79	0.47
36:5:1895:A:O2'	36:5:3053:G:H4'	2.14	0.47
1:2:1056:U:H1'	3:S1:202:LYS:NZ	2.29	0.47
38:4:143:U:OP1	51:M5:38:ARG:NH2	2.47	0.47
44:L7:123:THR:HA	44:L7:126:LEU:HD12	1.95	0.47
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.96	0.47
42:L5:241:THR:O	42:L5:244:HIS:HB2	2.14	0.47
43:L6:133:GLU:O	43:L6:137:ASP:N	2.69	0.47
36:5:391:A:H2'	36:5:392:G:O4'	2.15	0.47
1:6:1406:A:H2'	1:6:1407:U:H6	1.79	0.47
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.04	0.47
79:Q3:14:TYR:HE2	79:Q3:26:VAL:HG11	2.87	0.47
1:6:84:A:H2'	1:6:85:A:O4'	2.14	0.47
36:5:1338:C:H2'	36:5:1339:C:H6	1.78	0.47
53:M7:111:LYS:O	53:M7:153:LYS:N	2.40	0.47
61:N5:79:GLY:O	61:N5:81:ILE:HD12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:210:ALA:HB2	41:L4:254:ALA:HA	1.96	0.47
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.50	0.47
36:1:610:G:O6	41:L4:309:ARG:NH2	2.46	0.47
5:S3:3:ALA:O	5:S3:4:LEU:HB2	2.52	0.47
1:2:892:A:H2'	1:2:893:U:C6	2.50	0.47
55:M9:146:LYS:HA	55:M9:146:LYS:HD3	4.18	0.47
21:C9:126:GLU:OE2	21:C9:126:GLU:N	2.46	0.47
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	2.91	0.47
36:1:1886:A:O4'	36:1:3307:A:H5'	2.15	0.47
1:6:447:U:C4	1:6:448:C:C4	3.02	0.47
1:2:140:A:H61	1:2:281:G:H5''	1.78	0.47
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.15	0.47
36:1:916:G:H5'	36:1:917:A:OP1	2.14	0.47
36:1:277:G:H2'	36:1:278:U:H6	1.79	0.47
3:S1:103:MET:HG2	3:S1:104:ASP:N	2.75	0.47
15:C3:16:ILE:HD11	15:C3:62:GLN:OE1	2.13	0.47
59:N3:83:LYS:HE2	59:N3:84:SER:N	2.29	0.47
1:2:1281:G:C4	1:2:1428:G:N2	2.82	0.47
52:M6:68:ARG:HH12	36:5:2988:C:P	215.04	0.47
1:2:405:C:O2'	8:S6:92:ARG:O	2.29	0.47
20:C8:18:LEU:HD21	20:C8:70:VAL:HG13	1.97	0.47
7:S5:43:PHE:CG	7:S5:44:ASN:N	3.07	0.47
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.97	0.47
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.15	0.47
36:5:1627:U:H2'	36:5:1814:A:H62	1.79	0.47
36:1:3242:G:H21	36:1:3245:A:H5''	1.79	0.47
62:N6:56:VAL:HG22	62:N6:105:VAL:O	2.20	0.47
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.97	0.47
62:N6:38:GLU:HG3	62:N6:39:LEU:HD23	1.95	0.47
36:1:2723:U:H2'	36:1:2724:U:H6	1.78	0.47
19:C7:107:SER:OG	19:C7:108:ASP:OD1	5.65	0.47
51:M5:5:LYS:HE2	72:O6:37:THR:HG22	1.96	0.47
56:N0:148:LEU:HD12	56:N0:149:LYS:H	1.78	0.47
19:C7:71:PHE:C	19:C7:73:LEU:H	2.15	0.47
36:5:114:A:H2'	36:5:115:A:O4'	2.14	0.47
52:M6:32:LYS:O	52:M6:33:ILE:HD12	2.14	0.47
36:5:128:G:H2'	36:5:129:U:O4'	2.15	0.47
36:1:1178:G:H5'	69:O3:18:ARG:HD3	1.96	0.47
1:6:1725:U:H2'	1:6:1726:G:C8	2.50	0.47
1:2:1518:C:OP1	86:2:2121:OHX:N5	2.47	0.47
5:S3:176:LEU:HD23	1:6:1437:U:H5''	411.90	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:176:LEU:HD12	5:S3:176:LEU:H	2.13	0.47
36:1:40:A:C2	64:N8:40:HIS:CE1	3.02	0.47
55:M9:166:ASN:HD22	55:M9:167:ARG:HG2	7.41	0.47
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	3.93	0.47
36:1:761:A:N1	36:1:771:A:H1'	2.29	0.47
41:L4:191:LYS:HE3	36:5:341:G:C8	113.67	0.47
61:N5:74:LYS:NZ	61:N5:78:ASP:OD2	2.48	0.47
36:5:3227:A:H2'	36:5:3228:C:H5'	1.95	0.47
78:Q2:39:GLY:HA3	36:5:2765:C:O3'	172.66	0.47
36:1:2582:C:OP2	86:1:4149:OHX:N6	2.47	0.47
1:2:976:G:C6	1:2:1023:A:C4	3.02	0.47
36:5:929:A:H2'	36:5:930:U:C6	2.49	0.47
38:4:121:U:H2'	38:4:122:U:C6	2.50	0.47
1:6:1573:A:H4'	1:6:1574:G:H5'	1.96	0.47
53:M7:86:LYS:O	53:M7:86:LYS:HG2	2.14	0.47
21:C9:72:GLY:HA3	1:6:1498:G:H5''	420.47	0.47
19:C7:63:LYS:NZ	34:SR:284:ALA:HB2	2.29	0.47
52:M6:54:TYR:CE2	52:M6:58:LEU:HD13	3.29	0.47
40:L3:56:ILE:HG13	40:L3:356:LEU:HD22	2.18	0.47
1:2:1433:G:N7	31:D9:41:GLN:HG2	2.29	0.47
1:2:1795:U:H3'	28:D6:5:ARG:NH1	2.28	0.47
36:1:3312:U:H5''	40:L3:25:ILE:HD12	1.95	0.47
24:D2:6:VAL:HG12	24:D2:34:ILE:HD11	1.94	0.47
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.96	0.47
22:D0:33:GLN:O	22:D0:36:ASN:HB3	2.15	0.47
27:D5:55:PRO:C	27:D5:57:TYR:H	2.18	0.47
47:M0:76:MET:SD	47:M0:148:VAL:HG22	2.84	0.47
3:S1:36:SER:HA	3:S1:41:ARG:HE	3.42	0.47
74:O8:41:THR:HG21	74:O8:62:ALA:CB	2.42	0.47
45:L8:91:PHE:CE2	45:L8:185:ARG:HB3	4.13	0.47
46:L9:8:GLN:HB2	46:L9:55:VAL:HG23	2.26	0.47
52:M6:73:PHE:HA	36:5:3007:U:OP1	248.93	0.47
36:5:1627:U:H2'	36:5:1814:A:N6	2.29	0.47
1:6:639:U:H5	1:6:695:U:C5	2.32	0.47
36:1:784:A:C6	54:M8:93:ILE:HG22	2.50	0.47
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.15	0.47
1:6:130:C:H4'	1:6:176:C:OP1	2.14	0.47
1:2:1788:G:OP2	16:C4:127:ARG:NH2	2.36	0.47
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	3.88	0.47
1:6:53:G:H2'	1:6:54:C:C6	2.49	0.47
13:C1:71:LEU:HB3	13:C1:88:ARG:NH1	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:77:LEU:HD22	9:S7:92:PHE:HZ	3.50	0.47
44:L7:224:ILE:HG23	56:N0:36:ILE:HG12	2.36	0.47
1:6:221:A:H2'	1:6:222:A:H5'	1.96	0.47
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	2.57	0.47
21:C9:134:ARG:HH11	21:C9:135:ILE:HG22	1.78	0.47
1:6:804:A:H2'	1:6:805:U:C6	2.49	0.47
39:L2:59:ALA:HB3	39:L2:76:PHE:HB2	2.48	0.47
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	1.97	0.47
55:M9:167:ARG:HB3	55:M9:167:ARG:NH1	5.41	0.47
30:D8:9:LEU:HD12	30:D8:34:GLU:OE2	2.14	0.47
36:1:1482:A:H4'	36:1:1483:G:OP2	2.13	0.47
36:1:1919:G:N7	86:1:4013:OHX:N5	2.62	0.47
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.37	0.47
36:1:3322:A:H2'	36:1:3323:A:C8	2.49	0.47
1:2:1665:U:O4	86:2:2137:OHX:N4	2.47	0.47
36:1:118:U:O2	36:1:121:A:H5'	2.14	0.47
10:S8:67:TRP:HB3	10:S8:70:GLU:HB3	1.96	0.47
36:5:169:U:H4'	36:5:170:G:OP1	2.11	0.47
36:1:792:G:H2'	36:1:793:C:C6	2.49	0.47
28:D6:41:ILE:O	28:D6:42:ARG:HG3	2.15	0.47
86:1:4190:OHX:N2	38:4:3:A:OP1	2.48	0.47
36:1:2820:A:H2'	88:1:4212:3KF:O1	2.15	0.47
16:C4:97:GLY:O	16:C4:99:GLN:N	4.70	0.47
36:5:3060:C:H2'	36:5:3061:G:O4'	2.15	0.47
1:6:1349:G:O2'	1:6:1379:C:N3	2.36	0.47
40:L3:215:ILE:HD13	40:L3:282:ILE:HD11	2.23	0.47
64:N8:10:LYS:HD2	64:N8:10:LYS:HA	1.61	0.47
41:L4:114:ASN:H	41:L4:114:ASN:ND2	2.70	0.47
1:2:36:C:H2'	1:2:37:U:O4'	2.15	0.47
86:5:4031:OHX:N6	86:5:4234:OHX:N5	2.62	0.47
19:C7:45:ARG:HG3	1:6:1389:C:OP2	422.31	0.47
78:Q2:74:CYS:HB3	78:Q2:77:CYS:SG	2.54	0.47
40:L3:226:PHE:HB2	36:5:3307:A:OP1	199.73	0.47
7:S5:94:THR:OG1	7:S5:95:ASN:N	2.48	0.47
86:2:2090:OHX:N3	86:2:2132:OHX:N6	2.62	0.47
1:2:1172:G:H21	21:C9:88:VAL:CG2	2.28	0.47
23:D1:1:MET:HG2	23:D1:9:VAL:HG13	6.03	0.47
36:5:271:C:H2'	36:5:272:G:O4'	2.14	0.47
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.14	0.47
1:2:916:U:H3	16:C4:41:ARG:NH2	2.10	0.47
40:L3:25:ILE:HD11	40:L3:334:ARG:HE	7.70	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:77:GLU:HG2	19:C7:80:ARG:NH2	7.61	0.47
36:1:1845:G:N2	36:1:1851:G:C4	2.83	0.47
24:D2:30:SER:HA	24:D2:34:ILE:HD12	2.72	0.47
36:5:1613:A:H2'	36:5:1614:C:H6	1.79	0.47
26:D4:124:ARG:O	26:D4:127:LYS:HB3	4.61	0.47
47:M0:76:MET:HB3	47:M0:85:PHE:CE2	2.50	0.47
59:N3:2:SER:N	59:N3:57:MET:H	2.12	0.47
17:C5:37:ALA:O	17:C5:42:ARG:HD3	2.14	0.47
1:6:1584:G:H22	1:6:1611:A:P	2.36	0.47
15:C3:71:ILE:HD12	15:C3:71:ILE:H	1.79	0.47
77:Q1:8:LYS:HD3	77:Q1:12:ARG:HH21	1.79	0.47
3:S1:197:ILE:CG2	3:S1:210:ILE:HG21	3.18	0.47
8:S6:14:LYS:HD3	8:S6:16:PHE:CZ	2.50	0.47
41:L4:287:THR:O	41:L4:291:ASN:ND2	5.31	0.47
36:1:1145:G:O6	36:1:1158:A:H2	1.97	0.47
61:N5:105:VAL:HG21	61:N5:135:ILE:HG13	2.31	0.47
1:2:1146:G:H2'	1:2:1147:A:C8	2.50	0.47
1:2:1147:A:H2'	1:2:1148:C:C6	2.49	0.47
36:1:2209:U:H2'	36:1:2209:U:OP2	2.15	0.47
36:1:2672:G:O2'	48:M1:95:ASN:O	2.21	0.47
40:L3:95:THR:O	40:L3:98:GLY:N	2.47	0.47
36:5:406:G:H1'	38:8:16:G:N2	2.30	0.47
34:SR:305:TYR:HB2	34:SR:311:ARG:NH1	3.76	0.47
41:L4:216:VAL:HG23	41:L4:217:LYS:H	1.80	0.47
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.06	0.47
28:D6:73:TYR:CZ	28:D6:82:ARG:HD2	2.49	0.47
46:L9:4:ILE:HD11	56:N0:148:LEU:HD11	1.95	0.47
46:L9:163:GLN:O	46:L9:166:ARG:HG3	2.85	0.47
25:D3:79:ASN:ND2	25:D3:81:LYS:HB2	2.30	0.47
51:M5:46:ASP:O	51:M5:49:ARG:HB3	2.14	0.47
41:L4:289:ILE:O	41:L4:292:SER:HB3	2.14	0.47
36:1:2144:A:C4	36:1:2281:A:C6	3.03	0.47
1:2:720:G:H2'	1:2:720:G:N3	2.30	0.47
40:L3:86:VAL:HG22	40:L3:162:VAL:HG12	1.96	0.47
20:C8:4:VAL:HG11	27:D5:82:HIS:ND1	2.87	0.47
36:5:1804:A:H2'	36:5:1805:C:C6	2.49	0.47
36:1:191:U:H2'	36:1:192:C:C6	2.49	0.47
36:5:2379:U:H2'	36:5:2380:U:C6	2.49	0.47
4:S2:123:GLY:HA2	4:S2:126:ARG:NH1	2.58	0.47
13:C1:129:ARG:HG3	13:C1:130:PRO:O	2.14	0.47
1:2:296:U:H2'	1:2:297:U:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1167:G:OP1	7:S5:101:GLY:HA3	2.14	0.47
1:2:751:G:H2'	1:2:752:A:C8	2.50	0.47
34:SR:41:THR:HG21	34:SR:62:LYS:HE3	4.04	0.47
36:1:2713:U:O2'	78:Q2:8:ARG:HD2	2.14	0.47
7:S5:148:ARG:HE	30:D8:22:ARG:NH2	5.55	0.47
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.15	0.47
38:8:107:G:OP2	86:8:230:OHX:N1	2.47	0.47
39:L2:202:VAL:O	39:L2:217:GLN:HG2	2.14	0.47
1:6:1765:A:OP1	86:6:2122:OHX:N2	2.48	0.47
11:S9:6:ARG:HD2	11:S9:6:ARG:HA	1.65	0.47
36:1:2174:G:H8	36:1:2174:G:OP1	1.98	0.47
45:L8:230:LYS:O	45:L8:230:LYS:HD3	2.14	0.47
1:6:914:G:H5'	1:6:914:G:H8	1.78	0.47
1:2:540:G:O3'	1:2:541:A:H3'	2.15	0.47
36:5:1039:U:H2'	36:5:1040:A:C8	2.50	0.47
36:1:2405:C:O2	36:1:2819:A:N1	2.47	0.47
34:SR:48:THR:HG22	34:SR:55:GLY:HA2	4.37	0.47
36:1:1010:G:N2	47:M0:193:ASP:OD2	2.47	0.47
86:5:3975:OHX:N2	86:5:4193:OHX:N1	2.62	0.47
40:L3:53:MET:HE1	36:5:3047:U:O2'	236.11	0.47
50:M4:116:GLU:HA	50:M4:119:GLN:HG3	1.99	0.47
40:L3:35:ASP:OD2	40:L3:37:ARG:HD2	2.32	0.47
36:1:304:G:N3	36:1:304:G:H2'	2.30	0.47
4:S2:109:GLY:HA2	4:S2:139:ILE:HG22	3.88	0.47
52:M6:14:HIS:HE1	52:M6:119:VAL:HG12	1.79	0.47
36:5:1927:G:N2	36:5:1928:G:C8	2.83	0.47
53:M7:32:THR:HG21	53:M7:87:SER:HB2	1.96	0.47
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.95	0.47
1:2:1486:G:C8	1:2:1487:A:C8	3.03	0.47
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.87	0.47
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.97	0.47
8:S6:173:PRO:HA	1:6:66:U:O5'	339.30	0.47
3:S1:214:LYS:HE3	3:S1:214:LYS:HB2	1.72	0.47
3:S1:104:ASP:OD1	3:S1:214:LYS:HG3	3.86	0.47
5:S3:58:VAL:O	5:S3:65:ARG:HB3	2.28	0.47
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.50	0.47
40:L3:169:THR:HG23	40:L3:170:PRO:N	2.77	0.47
4:S2:116:LYS:HG3	4:S2:117:THR:N	3.09	0.47
39:L2:185:ALA:O	39:L2:189:TYR:HD2	5.94	0.47
44:L7:29:GLU:O	44:L7:32:ALA:HB3	3.01	0.47
1:2:1509:C:H2'	1:2:1510:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:34:THR:O	54:M8:38:ARG:HB2	2.77	0.47
58:N2:51:GLY:C	58:N2:53:ALA:H	2.18	0.47
40:L3:347:SER:O	40:L3:349:LYS:N	4.25	0.47
7:S5:84:LYS:HG3	7:S5:92:ARG:CZ	3.51	0.47
70:O4:58:ARG:HH12	36:5:1655:G:H4'	163.43	0.47
55:M9:40:ALA:O	55:M9:44:LEU:HG	3.30	0.47
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.50	0.47
3:S1:194:ASN:ND2	3:S1:211:HIS:HA	2.57	0.47
10:S8:42:ARG:O	10:S8:58:LEU:HD12	4.52	0.47
78:Q2:63:LYS:HD3	36:5:2795:U:OP2	212.78	0.47
7:S5:40:ILE:HG12	7:S5:41:LYS:N	2.46	0.47
36:1:1246:G:H8	36:1:1246:G:OP1	1.97	0.47
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	2.73	0.47
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.96	0.47
47:M0:190:VAL:HG12	47:M0:197:VAL:CG2	4.10	0.47
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.68	0.47
76:Q0:102:ARG:NE	36:5:2896:A:OP1	320.69	0.47
58:N2:73:GLY:HA3	58:N2:103:TYR:OH	2.14	0.47
21:C9:113:ILE:O	21:C9:124:ILE:HD12	2.15	0.47
34:SR:199:ILE:HA	34:SR:215:GLY:HA3	1.96	0.47
57:N1:102:ARG:HH21	36:5:1061:A:H4'	237.83	0.47
2:S0:17:LEU:HB3	2:S0:22:THR:OG1	2.15	0.47
6:S4:211:LYS:HA	6:S4:216:ASN:O	2.14	0.47
45:L8:47:SER:OG	36:5:2585:G:N7	172.51	0.47
62:N6:39:LEU:HD21	62:N6:107:THR:O	2.93	0.47
64:N8:73:LEU:HD23	64:N8:112:ILE:HD12	1.97	0.47
36:5:1131:G:C4	36:5:2373:A:C2	3.03	0.47
36:5:3283:U:H2'	36:5:3284:G:C8	2.49	0.47
8:S6:130:PRO:HA	60:N4:80:ARG:CB	2.44	0.47
1:6:647:G:O5'	1:6:647:G:H8	1.98	0.47
45:L8:68:ARG:HH21	45:L8:237:ILE:HG22	3.92	0.47
43:L6:22:ARG:C	43:L6:23:LYS:HG2	2.34	0.47
36:5:776:U:C5	36:5:2719:U:O2	2.67	0.47
1:6:1314:U:OP2	86:6:2180:OHX:N4	2.48	0.47
36:1:3128:G:OP2	86:1:4167:OHX:N6	2.47	0.47
86:8:216:OHX:N5	86:8:226:OHX:N1	2.62	0.47
36:1:2260:U:H2'	36:1:2261:G:C8	2.49	0.47
51:M5:22:LEU:O	51:M5:26:ARG:HG3	2.14	0.47
24:D2:18:GLU:OE1	24:D2:65:LEU:HB3	6.60	0.47
46:L9:163:GLN:O	46:L9:165:CYS:N	2.48	0.47
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1157:A:H61	1:2:1621:U:H3	1.62	0.47
52:M6:32:LYS:C	52:M6:33:ILE:HD12	2.35	0.47
36:1:2523:A:N6	45:L8:57:ARG:HD3	2.29	0.47
36:1:1593:A:N3	36:1:1615:C:O2'	2.43	0.47
1:2:5:U:H2'	1:2:6:G:H8	1.80	0.47
36:5:1826:C:H2'	36:5:1827:C:C6	2.48	0.47
39:L2:233:GLN:HG2	36:5:2607:G:H5'	193.07	0.47
36:5:1235:U:C4'	36:5:1236:G:H5'	2.45	0.47
46:L9:112:ILE:N	46:L9:126:VAL:O	2.48	0.47
36:5:1329:U:O2'	36:5:1330:A:P	2.73	0.47
36:1:2592:G:H4'	36:1:2594:C:C2	2.49	0.47
36:1:2418:G:O6	86:1:4118:OHX:N1	2.48	0.47
1:6:1441:C:C4	1:6:1442:U:C4	3.01	0.47
47:M0:193:ASP:O	47:M0:195:ALA:N	2.86	0.47
34:SR:6:VAL:HG22	34:SR:7:LEU:H	1.80	0.47
34:SR:206:PRO:HG2	34:SR:247:PRO:HA	2.92	0.47
15:C3:70:LYS:NZ	1:6:963:A:OP2	331.89	0.47
60:N4:58:HIS:ND1	60:N4:58:HIS:O	4.10	0.47
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.46	0.47
41:L4:343:LYS:HA	36:5:515:C:O3'	304.06	0.47
36:5:3084:C:H2'	36:5:3085:G:O4'	2.15	0.47
36:5:994:G:N2	36:5:995:U:O4	2.48	0.47
36:1:3098:G:H5''	40:L3:278:ILE:HD11	1.96	0.47
48:M1:38:GLU:C	48:M1:40:LEU:H	2.18	0.47
1:6:1071:U:H2'	1:6:1072:C:C6	2.50	0.47
36:5:2676:A:H4'	36:5:2677:G:O5'	2.14	0.47
36:1:1075:A:C5	65:N9:45:HIS:CD2	3.02	0.47
36:5:1939:G:C6	36:5:2110:G:O6	2.68	0.47
45:L8:152:LEU:HB3	45:L8:180:VAL:HG11	1.96	0.47
72:O6:97:SER:C	72:O6:99:ARG:H	2.18	0.47
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.97	0.47
1:6:114:C:H6	1:6:114:C:H5'	1.80	0.47
36:1:1638:A:OP2	63:N7:16:GLY:HA2	2.14	0.47
78:Q2:41:ARG:NH2	36:5:2785:A:O2'	159.72	0.47
36:1:2392:C:HO2'	40:L3:266:ARG:NH2	2.12	0.47
1:2:768:C:H2'	1:2:769:A:O4'	2.15	0.47
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	3.97	0.47
11:S9:143:ILE:HG22	11:S9:145:SER:H	3.05	0.47
11:S9:172:VAL:HG13	1:6:512:A:OP2	454.51	0.47
16:C4:81:VAL:HG13	16:C4:115:ILE:HG23	3.49	0.47
39:L2:3:ARG:HG2	39:L2:4:VAL:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1255:G:H4'	1:6:1256:A:OP1	2.15	0.47
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.50	0.47
6:S4:11:ARG:HB2	6:S4:27:TYR:C	2.56	0.47
19:C7:27:ASP:OD2	34:SR:38:ARG:NH2	2.44	0.47
1:2:67:A:O3'	1:2:68:A:H3'	2.14	0.47
50:M4:20:VAL:HG22	50:M4:66:THR:OG1	2.14	0.47
36:1:3043:C:P	59:N3:48:ARG:NH2	2.88	0.47
2:S0:124:THR:HG22	2:S0:174:TRP:HZ2	2.54	0.47
62:N6:118:LEU:O	62:N6:122:LYS:HG3	2.14	0.47
5:S3:101:GLN:HG3	5:S3:188:ILE:HD11	2.69	0.47
10:S8:42:ARG:HD2	10:S8:59:ARG:HD3	4.38	0.47
49:M3:24:VAL:HG21	49:M3:26:PHE:CE2	2.49	0.47
45:L8:91:PHE:O	45:L8:95:ASN:HB2	2.31	0.47
26:D4:36:SER:O	26:D4:40:LEU:HG	2.14	0.47
67:O1:81:GLU:O	67:O1:82:GLU:HG2	2.17	0.47
19:C7:21:TYR:O	34:SR:216:LYS:NZ	2.48	0.47
57:N1:100:LYS:HB3	36:5:990:U:H4'	258.03	0.47
1:6:1244:A:H3'	1:6:1244:A:N3	2.30	0.47
11:S9:99:LEU:O	11:S9:100:LYS:HB3	2.15	0.47
36:1:1355:A:H1'	36:1:1356:U:OP2	2.15	0.47
46:L9:75:VAL:HA	46:L9:78:MET:HG3	2.04	0.47
9:S7:91:ILE:HG12	9:S7:129:LEU:HD23	2.44	0.47
1:2:1451:C:H2'	1:2:1452:U:H6	1.80	0.47
8:S6:186:ARG:NH2	1:6:269:G:N7	348.34	0.47
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.38	0.47
58:N2:20:SER:O	58:N2:24:GLU:HG2	2.15	0.47
37:3:57:G:H3'	37:3:58:C:H6	1.80	0.47
35:SM:51:ARG:HB2	35:SM:52:PRO:HD2	1.97	0.47
86:6:2056:OHX:N2	86:6:2143:OHX:N6	2.62	0.47
42:L5:88:ILE:HD12	42:L5:240:TYR:CD1	4.28	0.47
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.15	0.47
22:D0:60:THR:HG22	1:6:1382:A:OP1	434.18	0.47
8:S6:64:LYS:HZ1	8:S6:81:VAL:HG22	1.79	0.47
36:1:28:C:O2'	36:1:61:A:N3	2.39	0.47
36:1:108:A:O2'	36:1:109:A:H2'	2.14	0.47
36:5:2541:U:H4'	36:5:2542:U:OP1	2.14	0.47
36:1:1302:A:N7	36:1:2857:C:O2'	2.47	0.47
36:1:3006:A:H2'	36:1:3007:U:O4'	2.15	0.47
36:5:2416:U:O4	86:5:4168:OHX:N5	2.48	0.47
35:SM:78:ASP:C	35:SM:80:ALA:H	2.66	0.47
40:L3:212:ASN:HB3	40:L3:281:LYS:NZ	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.13	0.47
23:D1:14:PRO:HB2	23:D1:23:ILE:HG23	2.53	0.47
36:5:65:A:H4'	36:5:66:A:O5'	2.14	0.47
36:5:2347:U:H2'	36:5:2348:A:O4'	2.15	0.47
40:L3:41:VAL:CG2	40:L3:185:GLY:HA3	2.91	0.47
36:1:2881:C:H2'	36:1:2882:U:H6	1.80	0.47
1:6:190:C:HO2'	1:6:191:C:C5'	2.27	0.47
61:N5:115:ARG:HH11	61:N5:115:ARG:CG	2.36	0.47
36:5:1307:G:H1'	36:5:1308:A:C8	2.50	0.47
20:C8:36:LYS:HZ2	1:6:1568:C:P	335.23	0.47
3:S1:104:ASP:OD2	3:S1:214:LYS:HE2	3.20	0.47
76:Q0:89:TYR:N	76:Q0:89:TYR:HD2	2.47	0.47
72:O6:74:LYS:HG3	72:O6:80:PHE:CA	2.44	0.47
15:C3:15:ALA:O	1:6:959:U:H5''	351.12	0.47
6:S4:12:LEU:HD22	1:6:756:A:N3	369.29	0.47
74:O8:43:PHE:O	74:O8:53:THR:HA	2.14	0.47
36:1:1711:C:H2'	36:1:1712:G:O4'	2.15	0.47
22:D0:26:LEU:HD21	22:D0:114:VAL:HG13	2.27	0.47
42:L5:43:LYS:HB3	42:L5:46:THR:OG1	3.49	0.47
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.14	0.47
12:C0:57:THR:HG23	12:C0:66:TYR:CE1	2.50	0.47
57:N1:41:ASP:HB2	57:N1:97:LYS:HD2	3.74	0.47
36:1:269:G:H5''	51:M5:14:LYS:HE2	1.97	0.47
63:N7:46:ILE:CD1	63:N7:49:TYR:HA	2.71	0.47
16:C4:125:SER:OG	16:C4:126:THR:HG23	4.05	0.47
8:S6:31:ARG:NH1	8:S6:34:GLN:HE22	2.13	0.47
51:M5:84:PRO:HA	51:M5:87:GLN:HB2	1.97	0.47
36:1:3228:C:H4'	36:1:3229:G:O5'	2.15	0.47
36:5:3131:U:H2'	36:5:3132:C:C6	2.50	0.47
18:C6:5:PRO:HB2	18:C6:96:TYR:CE2	2.90	0.47
1:6:996:U:H2'	1:6:997:G:C8	2.49	0.47
49:M3:131:LYS:H	49:M3:131:LYS:HD3	4.36	0.47
36:5:2505:U:H2'	36:5:2506:U:C4	2.50	0.47
36:5:1808:G:O6	86:5:4020:OHX:N3	2.48	0.47
38:4:125:U:O2'	38:4:126:A:OP2	2.31	0.47
57:N1:26:HIS:CD2	57:N1:26:HIS:N	3.11	0.47
36:1:2501:U:H4'	36:1:2502:A:OP1	2.15	0.47
10:S8:43:ILE:O	10:S8:44:HIS:HD2	1.98	0.47
27:D5:90:LYS:HG3	27:D5:91:PRO:HD2	4.52	0.47
36:1:2340:U:OP2	40:L3:237:LYS:HB2	2.15	0.47
36:1:2767:U:O4	86:1:4038:OHX:N6	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:40:ARG:HB3	65:N9:40:ARG:HE	2.29	0.47
36:5:54:C:O2'	36:5:1547:G:H1'	2.15	0.47
36:1:2944:U:H1'	40:L3:251:CYS:SG	2.55	0.47
36:1:2193:U:H5'	36:1:2194:G:H5'	1.96	0.47
36:5:3167:A:O5'	36:5:3167:A:H8	1.98	0.47
52:M6:27:LEU:H	52:M6:27:LEU:HG	1.39	0.47
40:L3:305:ILE:HD11	40:L3:317:ILE:HG21	1.96	0.47
1:2:1089:U:O2'	1:2:1090:C:H5'	2.14	0.47
39:L2:32:LEU:HD23	39:L2:163:ARG:NH1	3.12	0.47
1:2:399:A:H4'	6:S4:3:ARG:HG2	1.98	0.47
1:2:1796:C:N1	28:D6:5:ARG:HG2	2.29	0.47
28:D6:5:ARG:HH12	1:6:1796:C:P	340.76	0.47
1:2:900:A:OP2	16:C4:45:GLY:HA3	2.15	0.47
1:2:901:G:C6	1:2:902:G:C6	3.03	0.47
76:Q0:89:TYR:CD2	76:Q0:89:TYR:N	3.01	0.47
34:SR:19:TRP:CG	34:SR:38:ARG:HD2	2.50	0.47
26:D4:2:SER:N	26:D4:32:ARG:HD2	4.25	0.47
36:1:655:C:H5''	68:O2:26:HIS:HB2	1.97	0.47
36:1:1348:U:OP2	54:M8:38:ARG:NH2	2.48	0.47
48:M1:23:VAL:HG13	48:M1:29:ARG:NH1	2.27	0.47
1:2:1535:U:H4'	1:2:1535:U:OP1	2.15	0.47
1:6:1544:U:H2'	1:6:1545:A:O4'	2.15	0.47
18:C6:31:VAL:HG13	18:C6:67:VAL:HB	1.97	0.47
15:C3:76:LYS:HA	15:C3:81:ALA:HB2	1.96	0.47
22:D0:17:GLN:HA	22:D0:97:VAL:HG12	1.97	0.47
1:6:515:A:H2'	1:6:516:G:O4'	2.15	0.47
26:D4:40:LEU:O	26:D4:44:LEU:HB2	2.79	0.47
2:S0:200:ASP:HB2	19:C7:85:VAL:HG22	1.96	0.47
36:5:583:G:O6	86:5:4016:OHX:N1	2.48	0.47
67:O1:20:LEU:HD11	67:O1:32:ALA:HB2	2.13	0.47
61:N5:106:ASP:HB2	61:N5:130:TYR:CE1	2.50	0.47
61:N5:132:ALA:O	61:N5:135:ILE:HG22	2.15	0.47
1:2:1504:G:H2'	1:2:1505:A:C8	2.49	0.47
18:C6:102:LYS:HE2	18:C6:102:LYS:HB3	1.96	0.47
43:L6:13:GLU:OE2	68:O2:90:LYS:HB2	2.15	0.47
6:S4:151:ASP:H	6:S4:154:ILE:HD12	1.80	0.47
1:2:1301:U:H2'	1:2:1302:U:O4'	2.15	0.47
4:S2:90:THR:C	4:S2:92:ALA:H	2.62	0.47
64:N8:42:ARG:HD2	64:N8:46:ASP:OD2	3.14	0.47
37:3:20:A:C4	37:3:60:G:N2	2.83	0.47
9:S7:70:PHE:O	9:S7:74:GLN:HB2	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:91:ILE:HD12	9:S7:92:PHE:H	3.21	0.47
2:S0:193:GLN:C	2:S0:195:TRP:H	2.18	0.47
20:C8:27:LYS:HA	20:C8:57:ARG:HA	1.97	0.47
58:N2:21:SER:O	58:N2:25:ASN:HB2	3.39	0.47
12:C0:26:ASP:O	12:C0:39:ASN:ND2	2.48	0.47
71:O5:57:VAL:HA	71:O5:60:GLU:HG3	4.65	0.47
36:5:127:G:H2'	36:5:128:G:C8	2.49	0.47
15:C3:4:MET:HG2	15:C3:5:HIS:CD2	4.99	0.47
54:M8:122:ILE:HG23	54:M8:126:GLN:HB3	2.74	0.47
24:D2:105:THR:HG22	1:6:804:A:N3	366.04	0.47
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.50	0.47
32:E0:29:LYS:HG2	32:E0:35:TYR:HE2	3.57	0.47
43:L6:171:PRO:O	43:L6:173:MET:N	2.89	0.47
1:2:929:A:N6	1:2:930:A:C6	2.83	0.47
5:S3:202:LEU:HB3	5:S3:204:ASP:HB3	4.72	0.47
55:M9:8:LYS:HE2	55:M9:22:VAL:HG23	1.97	0.47
36:1:3386:G:H2'	36:1:3387:U:C6	2.50	0.47
7:S5:82:PHE:CD1	30:D8:49:ARG:HD2	3.82	0.47
39:L2:87:PHE:O	39:L2:88:ILE:HD13	2.15	0.47
1:2:87:C:H1'	1:2:168:A:N1	2.30	0.47
36:1:2558:U:O2'	36:1:2559:U:H5'	2.15	0.47
39:L2:108:PRO:HG2	79:Q3:86:LEU:HD22	2.03	0.47
20:C8:11:PHE:CZ	20:C8:59:GLY:HA3	4.17	0.47
64:N8:111:LYS:HA	64:N8:129:PHE:O	2.45	0.47
36:5:2224:A:N7	36:5:2225:U:H1'	2.31	0.47
41:L4:60:THR:HG23	36:5:364:G:OP1	128.43	0.47
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	2.00	0.47
1:2:1272:U:O4	1:2:1431:C:C2	2.68	0.47
36:5:1604:G:H3'	36:5:1604:G:N3	2.30	0.47
40:L3:383:LEU:HD23	40:L3:383:LEU:HA	1.84	0.47
50:M4:42:LYS:HE2	50:M4:42:LYS:HB3	3.55	0.47
36:5:2580:A:O2'	86:5:4124:OHX:N1	2.47	0.47
34:SR:191:ASP:HB3	34:SR:193:ILE:HD13	4.84	0.47
36:1:1369:A:H2'	36:1:1370:G:O4'	2.15	0.46
1:2:1560:U:C4	1:2:1561:U:C4	3.03	0.46
28:D6:95:ARG:NH1	1:6:1796:C:O2'	341.34	0.46
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.60	0.46
36:1:679:U:H2'	36:1:680:G:C8	2.50	0.46
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.50	0.46
36:1:3343:G:H21	36:1:3362:A:H2	1.61	0.46
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:486:G:N2	1:6:501:U:H3	2.08	0.46
57:N1:127:GLN:HA	36:5:1095:U:O2	257.36	0.46
18:C6:47:LYS:HZ2	18:C6:114:ARG:HD3	4.81	0.46
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.80	0.46
36:1:3138:U:OP2	40:L3:30:LYS:HE3	2.15	0.46
36:1:3066:U:H2'	36:1:3067:C:H6	1.79	0.46
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.97	0.46
7:S5:42:LEU:HD11	7:S5:45:LYS:HD3	1.96	0.46
26:D4:20:ARG:O	26:D4:21:LYS:HD2	2.16	0.46
17:C5:40:ARG:HH21	17:C5:43:ARG:HD3	1.80	0.46
4:S2:61:LEU:HG	4:S2:61:LEU:H	2.22	0.46
41:L4:219:LEU:C	41:L4:221:ASN:H	2.18	0.46
62:N6:57:LEU:HB3	62:N6:105:VAL:HG12	2.43	0.46
36:5:118:U:O2	36:5:121:A:H5'	2.16	0.46
13:C1:73:GLY:HA3	13:C1:86:ILE:HD12	1.98	0.46
1:6:1681:A:N6	1:6:1720:G:O2'	2.47	0.46
36:5:385:A:H2'	36:5:386:A:C8	2.50	0.46
36:5:2799:A:H5''	36:5:2800:G:O5'	2.14	0.46
36:5:1397:C:O2'	36:5:1398:U:H5'	2.15	0.46
1:6:1107:G:C6	1:6:1108:G:C6	3.03	0.46
1:2:1152:A:O2'	28:D6:85:ARG:HG3	2.15	0.46
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.97	0.46
18:C6:5:PRO:HG2	18:C6:24:ALA:CB	2.46	0.46
15:C3:117:LEU:O	15:C3:120:SER:HB2	2.72	0.46
1:2:711:U:H4'	1:2:712:G:OP1	2.15	0.46
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.14	0.46
14:C2:136:ILE:O	14:C2:140:PHE:HB2	2.15	0.46
39:L2:233:GLN:O	39:L2:235:ALA:N	2.48	0.46
36:1:185:C:H2'	36:1:186:U:H6	1.80	0.46
46:L9:47:LYS:NZ	50:M4:5:SER:H	2.14	0.46
86:1:3970:OHX:N5	86:1:4156:OHX:N2	2.63	0.46
86:1:3970:OHX:N6	86:1:4156:OHX:N2	2.63	0.46
48:M1:166:LYS:C	48:M1:168:ASP:H	2.91	0.46
36:1:3006:A:C2	36:1:3141:A:C4	3.03	0.46
47:M0:23:ASN:HD21	47:M0:96:VAL:HG21	2.37	0.46
1:2:1013:A:H2'	1:2:1014:G:O4'	2.15	0.46
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.88	0.46
36:5:3218:A:H4'	36:5:3219:G:O5'	2.14	0.46
65:N9:36:ASP:O	65:N9:39:PHE:HB3	2.74	0.46
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.45	0.46
36:5:2932:U:H2'	36:5:2934:A:OP2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:430:G:N2	1:6:431:C:C2	2.83	0.46
13:C1:10:GLU:HG2	1:6:327:U:O2'	270.65	0.46
75:O9:36:ARG:HB3	75:O9:37:TYR:HD2	1.80	0.46
1:2:784:C:H2'	1:2:785:U:O4'	2.16	0.46
36:1:342:A:N1	36:1:349:A:O2'	2.41	0.46
36:5:2594:C:H5''	36:5:2595:A:OP2	2.15	0.46
36:1:3035:A:OP2	86:1:4074:OHX:N4	2.48	0.46
1:2:1175:U:H2'	1:2:1176:G:C8	2.50	0.46
36:1:915:A:H2'	36:1:915:A:N3	2.31	0.46
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	1.97	0.46
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	1.79	0.46
47:M0:175:ASN:CG	47:M0:176:LEU:H	4.97	0.46
2:S0:52:LYS:HG2	2:S0:52:LYS:H	1.42	0.46
36:5:437:G:H1	36:5:622:A:H61	1.63	0.46
46:L9:24:ILE:HD11	46:L9:37:ASN:HD22	1.80	0.46
69:O3:86:ARG:HH22	36:5:498:A:P	215.54	0.46
42:L5:48:LYS:HE3	42:L5:145:PHE:HE2	1.79	0.46
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.48	0.46
1:2:150:U:H2'	1:2:151:G:O4'	2.15	0.46
6:S4:21:ASP:HB2	1:6:773:C:OP1	388.35	0.46
36:1:1659:U:H2'	36:1:1660:C:C6	2.50	0.46
66:O0:17:VAL:HG22	66:O0:98:SER:CB	3.35	0.46
44:L7:92:ILE:HA	44:L7:92:ILE:HD13	1.53	0.46
36:1:846:A:H2'	36:1:847:A:O4'	2.15	0.46
18:C6:36:ILE:HD11	18:C6:48:VAL:HG13	1.97	0.46
36:5:1501:U:O2'	36:5:1502:C:H5'	2.15	0.46
17:C5:55:GLY:O	17:C5:59:LYS:HG3	3.29	0.46
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.47	0.46
1:2:356:G:OP2	86:2:2036:OHX:N6	2.49	0.46
45:L8:95:ASN:OD1	45:L8:98:ARG:NH1	4.46	0.46
64:N8:65:GLN:C	64:N8:67:HIS:H	2.19	0.46
46:L9:20:ILE:HD12	46:L9:45:PHE:CD1	3.18	0.46
36:1:1233:G:H1	36:1:1255:C:H42	1.64	0.46
41:L4:274:TYR:HE1	41:L4:276:LEU:HG	1.79	0.46
36:5:1366:A:C2	36:5:1367:G:C4	3.03	0.46
61:N5:80:ASN:ND2	61:N5:126:LEU:HB2	2.30	0.46
36:1:412:G:C6	36:1:413:U:C4	3.02	0.46
36:5:1853:U:OP2	86:5:4052:OHX:N6	2.47	0.46
1:6:373:G:N2	1:6:603:U:O3'	2.49	0.46
68:O2:94:ALA:O	68:O2:119:VAL:HA	2.15	0.46
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:13:LEU:O	34:SR:309:VAL:HG13	2.14	0.46
13:C1:79:LYS:HG2	13:C1:79:LYS:H	2.41	0.46
15:C3:113:PHE:HA	15:C3:116:ILE:HD12	1.98	0.46
40:L3:123:TYR:CE1	40:L3:124:LYS:HG3	2.50	0.46
36:5:2147:A:H2'	36:5:2148:U:O4'	2.16	0.46
1:6:1451:C:H2'	1:6:1452:U:C6	2.50	0.46
36:5:3226:A:C2	36:5:3260:G:C6	3.04	0.46
36:1:2860:U:C2	36:1:2938:G:H4'	2.50	0.46
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	2.14	0.46
1:2:782:U:H4'	1:2:783:G:OP2	2.15	0.46
4:S2:106:ASP:OD1	4:S2:108:ASN:N	2.69	0.46
36:1:118:U:C5	36:1:119:U:C4	3.02	0.46
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.72	0.46
36:1:1394:A:H2'	36:1:1395:G:O4'	2.16	0.46
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.31	0.46
7:S5:132:VAL:HG13	7:S5:202:ALA:HB2	1.96	0.46
45:L8:215:VAL:O	45:L8:219:ASP:HB2	2.47	0.46
1:2:1025:A:H2'	1:2:1027:A:O5'	2.15	0.46
34:SR:205:SER:HB3	34:SR:210:LEU:HB2	1.98	0.46
1:6:1609:U:H2'	1:6:1610:G:O4'	2.15	0.46
24:D2:90:THR:O	24:D2:94:LEU:HB2	2.38	0.46
42:L5:33:ARG:NH2	37:7:7:G:O3'	269.65	0.46
36:5:2507:C:O2'	36:5:2508:U:OP1	2.29	0.46
36:1:2665:U:H4'	36:1:2666:C:OP1	2.15	0.46
39:L2:19:HIS:CD2	39:L2:19:HIS:N	4.31	0.46
86:6:2116:OHX:N4	86:6:2167:OHX:N1	2.62	0.46
36:1:1952:G:H3'	36:1:1953:G:H5''	1.98	0.46
41:L4:144:LYS:CG	41:L4:145:ILE:H	4.84	0.46
50:M4:78:THR:O	50:M4:81:VAL:HB	2.57	0.46
28:D6:30:ILE:CD1	28:D6:35:ALA:HA	2.45	0.46
36:1:1845:G:H5'	36:1:1845:G:H8	1.80	0.46
36:1:2107:A:C2	36:1:3344:A:H8	2.34	0.46
41:L4:93:MET:HB2	36:5:658:G:N2	145.56	0.46
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.96	0.46
57:N1:129:LYS:HB2	36:5:1098:A:O5'	251.96	0.46
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.15	0.46
29:D7:31:TYR:OH	29:D7:70:LYS:NZ	3.69	0.46
55:M9:4:LEU:O	55:M9:7:GLN:N	3.00	0.46
36:1:355:A:H2'	36:1:356:C:O4'	2.15	0.46
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.59	0.46
1:2:1594:G:H5''	31:D9:33:LYS:HG3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.26	0.46
20:C8:25:ASN:O	27:D5:40:VAL:HG11	2.15	0.46
36:5:2093:A:H2'	36:5:2093:A:N3	2.30	0.46
36:1:2206:G:OP2	36:1:2206:G:H8	1.99	0.46
36:5:2372:A:C5'	36:5:2373:A:H5'	2.45	0.46
2:S0:135:GLU:O	2:S0:138:TYR:HB2	2.26	0.46
6:S4:163:ASP:HB3	6:S4:166:SER:O	2.15	0.46
68:O2:33:ARG:NH2	36:5:1407:A:O3'	161.11	0.46
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.15	0.46
45:L8:67:ILE:CG2	45:L8:237:ILE:HD12	2.46	0.46
41:L4:29:PRO:HG3	41:L4:279:HIS:ND1	2.97	0.46
36:5:441:U:H2'	36:5:442:G:C8	2.50	0.46
36:1:2652:U:C4	36:1:2653:C:C4	3.04	0.46
53:M7:19:GLY:HA3	53:M7:22:LEU:HD11	1.96	0.46
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.15	0.46
1:2:1739:C:H2'	1:2:1740:A:C8	2.51	0.46
36:1:3158:G:H22	36:1:3292:A:H2	1.63	0.46
43:L6:138:GLN:HE21	43:L6:142:ASP:CG	2.56	0.46
1:6:1497:U:C2	1:6:1498:G:C8	3.03	0.46
4:S2:243:TYR:HD1	4:S2:246:GLU:OE1	3.45	0.46
79:Q3:37:TYR:HB2	79:Q3:47:VAL:HB	1.97	0.46
36:5:1494:U:H4'	36:5:1495:U:O5'	2.16	0.46
36:1:3239:G:O6	86:1:3966:OHX:N6	2.48	0.46
4:S2:58:LEU:HD23	4:S2:58:LEU:HA	1.64	0.46
6:S4:37:LYS:O	6:S4:41:SER:OG	3.54	0.46
36:5:3259:U:H5'	36:5:3259:U:H6	1.81	0.46
36:1:2664:C:OP2	48:M1:142:LYS:NZ	2.30	0.46
64:N8:93:SER:OG	64:N8:93:SER:O	2.33	0.46
36:1:3058:U:O4	67:O1:65:LYS:HE3	2.15	0.46
62:N6:6:LEU:HA	62:N6:6:LEU:HD23	1.68	0.46
47:M0:74:LYS:HA	47:M0:74:LYS:HD3	2.56	0.46
1:6:492:A:H2'	1:6:493:U:H5''	1.97	0.46
64:N8:21:ARG:HD2	36:5:1369:A:H5'	185.55	0.46
17:C5:128:HIS:CD2	35:SM:71:ASN:HD22	3.70	0.46
28:D6:34:LYS:O	28:D6:35:ALA:HB3	4.62	0.46
2:S0:122:ILE:HA	2:S0:144:ILE:O	2.45	0.46
36:5:1594:A:H1'	36:5:1615:C:H1'	1.98	0.46
42:L5:58:LYS:N	42:L5:58:LYS:HD3	2.30	0.46
36:5:2514:U:C6	36:5:2514:U:OP1	2.69	0.46
36:1:1495:U:C5	36:1:1835:A:N1	2.82	0.46
59:N3:23:MET:SD	59:N3:78:VAL:HG22	2.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2556:C:O2'	63:N7:135:ARG:HG2	2.15	0.46
34:SR:183:LEU:HD12	34:SR:186:PHE:CD1	6.00	0.46
17:C5:65:LEU:C	17:C5:67:ALA:H	2.19	0.46
3:S1:178:GLY:HA3	3:S1:187:LYS:NZ	2.31	0.46
7:S5:159:ALA:CB	7:S5:225:ARG:HB3	3.59	0.46
5:S3:7:LYS:HA	5:S3:10:LYS:HB3	1.97	0.46
1:2:584:C:H1'	32:E0:18:THR:HG21	1.97	0.46
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.97	0.46
3:S1:143:THR:HB	3:S1:205:PHE:CE1	2.50	0.46
3:S1:35:PRO:HB3	3:S1:231:LEU:HD21	6.09	0.46
1:2:1292:G:H2'	1:2:1293:U:C6	2.51	0.46
36:1:1245:A:C3'	36:1:1246:G:H5''	2.46	0.46
42:L5:34:LYS:CA	57:N1:27:LEU:HD21	2.46	0.46
36:5:1725:C:H2'	36:5:1726:C:H6	1.81	0.46
63:N7:46:ILE:HD13	63:N7:68:ILE:CG2	2.44	0.46
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.16	0.46
40:L3:360:ASP:OD1	40:L3:361:THR:N	2.88	0.46
1:2:732:G:O6	86:2:2130:OHX:N5	2.49	0.46
8:S6:211:LEU:O	8:S6:215:ARG:HB2	2.16	0.46
1:2:868:G:C2	1:2:869:A:C8	3.04	0.46
1:2:71:A:H2'	1:2:72:A:O4'	2.16	0.46
1:6:1107:G:C6	1:6:1108:G:O6	2.68	0.46
1:2:1483:A:C2	1:2:1607:G:H1'	2.50	0.46
36:1:2770:G:C2'	36:1:2771:U:H5'	2.45	0.46
69:O3:51:TYR:CE2	69:O3:53:TYR:HB3	2.70	0.46
1:2:480:G:H22	1:2:509:G:H1'	1.80	0.46
45:L8:221:ASN:O	45:L8:225:LYS:HD2	5.36	0.46
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	2.50	0.46
1:2:1474:G:H1	1:2:1533:C:H42	1.62	0.46
12:C0:29:GLN:HB3	12:C0:39:ASN:HB3	2.76	0.46
54:M8:122:ILE:HD11	54:M8:130:ARG:NH1	3.23	0.46
51:M5:38:ARG:NE	51:M5:60:VAL:HG13	2.30	0.46
1:2:758:U:OP1	11:S9:7:THR:HG21	2.16	0.46
36:5:2657:A:C2	36:5:2694:A:C8	3.03	0.46
28:D6:17:HIS:CE1	28:D6:18:VAL:O	2.68	0.46
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.51	0.46
1:2:481:A:H2'	1:2:482:U:O4'	2.16	0.46
34:SR:201:THR:CB	34:SR:242:SER:HA	2.45	0.46
36:5:712:G:H2'	36:5:713:U:C6	2.51	0.46
75:O9:28:ARG:HA	75:O9:33:ASN:ND2	2.30	0.46
1:6:906:A:H2'	1:6:907:A:C8	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:64:GLY:O	36:5:3038:U:H4'	288.17	0.46
36:5:3340:G:HO2'	36:5:3341:U:P	2.36	0.46
15:C3:18:TYR:O	15:C3:20:ARG:N	2.48	0.46
9:S7:15:GLU:O	9:S7:19:GLN:HG3	2.55	0.46
36:5:61:A:H2'	36:5:62:A:O4'	2.15	0.46
67:O1:54:GLU:OE2	67:O1:54:GLU:N	2.48	0.46
1:2:1086:A:H5''	1:2:1087:A:OP2	2.15	0.46
7:S5:213:LYS:HA	7:S5:213:LYS:HD3	1.73	0.46
35:SM:97:THR:HG22	35:SM:99:LYS:HB2	1.97	0.46
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.54	0.46
86:5:3975:OHX:N4	86:5:4193:OHX:N1	2.64	0.46
46:L9:189:GLU:O	46:L9:191:LEU:N	2.47	0.46
32:E0:13:LYS:HE2	32:E0:13:LYS:HB3	4.26	0.46
7:S5:64:VAL:HG22	7:S5:89:ILE:HD11	1.97	0.46
51:M5:47:LYS:HE3	51:M5:51:LEU:HD11	2.99	0.46
1:6:1542:G:H22	1:6:1568:C:H1'	1.80	0.46
75:O9:23:LEU:HD22	75:O9:23:LEU:HA	1.74	0.46
47:M0:77:THR:HG22	47:M0:82:ARG:HA	1.97	0.46
34:SR:19:TRP:CD2	34:SR:306:THR:HG22	2.51	0.46
36:5:2278:C:C2	36:5:2307:G:N2	2.83	0.46
18:C6:47:LYS:HZ1	18:C6:82:ARG:NH2	2.14	0.46
17:C5:40:ARG:NH2	17:C5:43:ARG:HD3	2.30	0.46
14:C2:67:THR:C	14:C2:69:ALA:H	2.19	0.46
4:S2:41:LEU:HD11	4:S2:56:ILE:HD12	1.97	0.46
36:1:612:U:OP1	43:L6:21:THR:HB	2.16	0.46
1:6:74:U:H5''	1:6:75:U:OP2	2.15	0.46
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.38	0.46
63:N7:36:HIS:N	63:N7:37:PRO:HD3	3.07	0.46
79:Q3:79:VAL:O	79:Q3:83:ILE:HG12	2.16	0.46
41:L4:84:ARG:O	41:L4:87:GLN:HB2	2.67	0.46
12:C0:41:TYR:O	12:C0:45:ALA:N	3.11	0.46
39:L2:140:ASN:ND2	39:L2:142:ASP:HB3	6.06	0.46
21:C9:135:ILE:HA	21:C9:138:GLN:HG3	2.32	0.46
1:6:165:G:H2'	1:6:166:C:H5''	1.97	0.46
1:6:1614:A:C6	1:6:1615:C:C4	3.03	0.46
36:5:900:G:H1'	36:5:1589:A:H61	1.81	0.46
36:1:1340:G:H2'	36:1:1341:U:H6	1.81	0.46
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.51	0.46
44:L7:236:ILE:HA	44:L7:236:ILE:HD12	1.70	0.46
36:1:1577:G:H2'	36:1:1578:C:O4'	2.15	0.46
36:5:2213:A:H2'	36:5:2214:A:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.58	0.46
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.98	0.46
11:S9:49:LEU:HD23	11:S9:104:PHE:CE2	2.51	0.46
38:4:35:C:H5'	73:O7:70:VAL:HG11	1.98	0.46
73:O7:70:VAL:HG11	38:8:35:C:H5'	70.98	0.46
55:M9:65:ALA:O	55:M9:68:GLN:HB3	2.16	0.46
1:2:226:A:H61	1:2:835:U:H3	1.63	0.46
36:1:3028:G:H2'	36:1:3029:A:C8	2.50	0.46
6:S4:103:TYR:HE2	6:S4:184:THR:HG22	2.52	0.46
38:8:149:A:H2'	38:8:150:G:C8	2.51	0.46
72:O6:21:THR:OG1	72:O6:21:THR:O	2.27	0.46
23:D1:70:ASN:N	23:D1:70:ASN:OD1	2.86	0.46
1:6:678:A:O2'	1:6:679:U:OP1	2.31	0.46
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.14	0.46
1:6:578:U:O2	86:6:2150:OHX:N3	2.48	0.46
49:M3:46:ILE:HG23	49:M3:49:ARG:NH1	3.01	0.46
21:C9:88:VAL:HG13	1:6:1601:G:C2	361.28	0.46
21:C9:70:GLN:NE2	21:C9:119:LYS:HD2	3.76	0.46
28:D6:6:ALA:N	1:6:1796:C:C5	344.18	0.46
52:M6:14:HIS:O	52:M6:41:LEU:HD12	2.45	0.46
36:1:497:C:H2'	36:1:498:A:O4'	2.15	0.46
36:1:1565:G:H2'	36:1:1566:A:C8	2.50	0.46
45:L8:193:LYS:HB3	36:5:7:C:H5''	123.23	0.46
1:6:837:G:H2'	1:6:838:G:C8	2.51	0.46
48:M1:137:ARG:NH1	37:7:28:C:OP1	300.58	0.46
1:6:1207:C:N3	1:6:1208:A:N6	2.63	0.46
36:5:1440:G:N7	86:5:3962:OHX:N6	2.64	0.46
54:M8:178:ARG:HA	54:M8:178:ARG:HD3	1.71	0.46
52:M6:8:VAL:HG13	52:M6:34:VAL:HG22	2.38	0.46
18:C6:52:LEU:HD23	18:C6:60:PHE:CZ	3.39	0.46
49:M3:48:PRO:O	49:M3:137:GLN:HB2	2.16	0.46
29:D7:31:TYR:HE2	29:D7:33:LEU:HD21	1.79	0.46
3:S1:169:SER:O	3:S1:173:THR:OG1	2.67	0.46
36:1:3139:A:H8	36:1:3139:A:C5'	2.29	0.46
7:S5:112:ARG:HD2	18:C6:43:ILE:HD12	3.32	0.46
53:M7:138:LYS:HZ3	53:M7:140:GLU:HB2	2.06	0.46
36:5:1878:G:HO2'	36:5:1879:A:P	2.37	0.46
77:Q1:8:LYS:HD3	77:Q1:12:ARG:NH2	2.30	0.46
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.89	0.46
1:2:794:U:O2'	1:2:795:U:O2	2.26	0.46
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:168:HIS:HA	2:S0:203:PHE:HE2	3.82	0.46
1:2:393:C:H2'	1:2:394:C:H6	1.81	0.46
36:1:1672:U:OP2	55:M9:60:LYS:NZ	2.35	0.46
36:1:1554:U:HO2'	36:1:1582:C:H5	1.64	0.46
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.15	0.46
36:1:565:U:H2'	36:1:566:G:C8	2.50	0.46
75:O9:27:ILE:HD13	38:8:52:A:H62	77.42	0.46
36:1:3295:A:H2'	36:1:3296:A:C8	2.51	0.46
39:L2:243:THR:HG23	36:5:2241:U:O2'	232.15	0.46
36:1:1932:A:H5'	36:1:1933:A:OP2	2.16	0.46
36:1:1934:G:O6	86:1:3884:OHX:N2	2.49	0.46
36:5:1284:C:O2'	36:5:1285:G:H5'	2.14	0.46
4:S2:173:PRO:HG2	11:S9:57:ARG:HG3	3.11	0.46
1:6:570:A:H5''	1:6:571:G:OP2	2.15	0.46
36:1:268:A:C4	51:M5:12:ARG:HG2	2.50	0.46
41:L4:265:GLU:OE2	41:L4:266:THR:HG23	2.16	0.46
1:6:1158:C:H42	1:6:1163:A:H61	1.64	0.46
36:5:252:U:H4'	36:5:253:A:H5''	1.98	0.46
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.54	0.46
4:S2:49:LYS:HA	4:S2:49:LYS:HD3	1.66	0.46
36:5:2367:A:H2'	36:5:2368:A:C8	2.51	0.46
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.80	0.46
36:1:3282:U:H2'	36:1:3283:U:O4'	2.15	0.46
61:N5:63:ILE:HD11	61:N5:84:PHE:CE1	2.51	0.46
2:S0:102:PHE:O	2:S0:103:THR:HB	2.24	0.46
45:L8:154:ALA:HB2	45:L8:186:LEU:HD12	1.97	0.46
36:1:255:A:O2'	36:1:256:G:H5'	2.15	0.46
26:D4:84:LYS:HG3	26:D4:85:PHE:N	2.31	0.46
36:5:1120:A:H2'	36:5:1121:U:C6	2.50	0.46
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.59	0.46
36:1:748:U:H2'	36:1:749:C:C6	2.51	0.46
17:C5:16:SER:HB2	17:C5:20:VAL:O	3.62	0.46
36:5:2712:U:H2'	36:5:2713:U:C6	2.51	0.46
1:2:372:G:H1'	1:2:612:U:O2	2.16	0.46
64:N8:3:SER:OG	64:N8:4:ARG:N	3.00	0.46
5:S3:32:GLU:HG2	5:S3:57:ASP:HB2	2.94	0.46
1:2:77:U:H4'	1:2:78:A:O5'	2.15	0.46
15:C3:26:PHE:CD2	15:C3:28:LEU:HB2	3.58	0.46
64:N8:16:SER:HA	36:5:942:U:C4	169.90	0.46
1:2:1588:G:OP1	86:2:2117:OHX:N3	2.49	0.46
55:M9:20:ARG:HD3	55:M9:21:LYS:NZ	4.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:72:GLU:OE2	1:6:761:G:O2'	397.52	0.46
1:6:1347:U:O2	1:6:1516:A:H5'	2.16	0.46
55:M9:6:THR:HG22	55:M9:10:LEU:HD22	2.47	0.46
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.98	0.46
86:5:4062:OHX:N3	86:5:4137:OHX:N4	2.63	0.46
31:D9:15:GLY:O	31:D9:17:GLY:N	3.70	0.46
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.69	0.46
47:M0:9:TYR:CD1	47:M0:97:LEU:HD13	2.51	0.46
12:C0:1:MET:HG2	12:C0:2:LEU:N	2.29	0.46
25:D3:87:VAL:HG22	25:D3:124:VAL:HG21	2.22	0.46
1:6:301:A:H2'	1:6:302:U:C6	2.50	0.46
47:M0:19:LYS:HG3	47:M0:26:VAL:CG1	2.48	0.46
36:1:2206:G:N2	36:1:2237:C:N3	2.50	0.46
29:D7:61:THR:OG1	29:D7:62:ILE:N	3.31	0.46
63:N7:11:ALA:O	63:N7:23:VAL:HG22	2.16	0.46
36:1:564:G:H2'	36:1:565:U:C6	2.51	0.46
36:1:566:G:N7	86:1:4002:OHX:N4	2.63	0.46
63:N7:37:PRO:HD2	63:N7:38:PHE:CD1	2.50	0.46
36:1:1841:A:N3	75:O9:45:ARG:NH2	2.63	0.46
54:M8:179:ARG:HG3	54:M8:182:LYS:HB2	2.22	0.46
36:5:407:A:O2'	36:5:1397:C:OP1	2.34	0.46
56:N0:84:ARG:HG3	36:5:1295:G:P	294.82	0.46
69:O3:89:LEU:HA	69:O3:90:PRO:HD3	1.93	0.46
60:N4:35:LYS:HE2	60:N4:51:TRP:CZ2	3.14	0.46
36:5:2689:A:C8	36:5:2702:A:N6	2.83	0.46
36:1:2616:C:C2'	36:1:2617:U:H5'	2.46	0.46
69:O3:6:ARG:HG3	69:O3:8:TYR:CD1	2.78	0.46
38:8:104:A:H3'	38:8:105:A:H5''	1.98	0.46
1:6:1582:U:C4	1:6:1614:A:C8	3.03	0.46
1:2:6:G:OP2	4:S2:205:ARG:HG2	2.16	0.46
36:1:3275:U:O4'	69:O3:66:VAL:HG21	2.16	0.46
44:L7:208:SER:OG	44:L7:209:ASN:N	2.48	0.46
37:3:45:A:H2'	37:3:46:A:C8	2.50	0.46
36:1:2656:A:O5'	78:Q2:98:LYS:HD2	2.15	0.46
13:C1:54:ILE:HD12	13:C1:54:ILE:HA	1.81	0.46
36:1:2821:C:H5''	36:1:2822:U:OP2	2.15	0.46
36:1:2320:A:OP2	86:1:4208:OHX:N5	2.48	0.46
17:C5:20:VAL:HG21	17:C5:36:LEU:HD11	1.96	0.46
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.51	0.46
1:6:90:C:C2	1:6:91:G:C8	3.04	0.46
15:C3:119:GLU:HA	15:C3:122:ILE:HD12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1503:A:H2'	1:6:1504:G:O4'	2.16	0.46
29:D7:13:ALA:O	29:D7:16:ALA:HB3	2.15	0.46
6:S4:253:ASP:O	6:S4:257:ALA:N	2.48	0.46
1:2:775:G:O6	26:D4:11:LYS:NZ	2.32	0.46
47:M0:125:LEU:HD23	47:M0:125:LEU:HA	1.65	0.46
35:SM:62:ARG:O	35:SM:64:LYS:N	3.06	0.46
36:5:668:G:OP1	86:5:4135:OHX:N1	2.48	0.46
44:L7:40:LYS:HB2	44:L7:40:LYS:HE2	3.10	0.46
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.71	0.46
36:1:999:G:N3	36:1:1002:A:N6	2.64	0.46
38:4:152:G:H2'	38:4:153:U:O4'	2.16	0.46
10:S8:187:GLU:OE2	13:C1:30:ARG:NH1	2.49	0.46
36:5:3049:A:C8	36:5:3049:A:H5'	2.47	0.46
20:C8:145:ARG:CG	35:SM:68:ARG:HH22	3.62	0.46
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.15	0.46
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.16	0.46
36:1:662:U:H2'	36:1:663:C:C6	2.51	0.46
16:C4:117:ASP:OD1	16:C4:119:THR:HG23	2.16	0.46
1:6:838:G:C6	1:6:839:U:C4	3.04	0.46
50:M4:20:VAL:HG13	50:M4:68:LEU:O	2.15	0.46
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.45	0.46
3:S1:176:VAL:HB	3:S1:177:GLN:NE2	2.30	0.46
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.51	0.46
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.15	0.46
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.15	0.46
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.50	0.46
36:5:172:G:C6	36:5:247:C:C4	3.04	0.46
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.49	0.46
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.75	0.46
61:N5:92:LYS:HG3	36:5:1831:U:P	101.08	0.46
36:1:1235:U:H4'	36:1:1236:G:H5'	1.98	0.46
36:1:1581:C:H2'	36:1:1582:C:C5'	2.46	0.46
36:1:2169:G:O6	86:1:3910:OHX:N4	2.49	0.46
8:S6:188:ARG:HD3	1:6:283:U:O5'	342.19	0.46
1:6:602:U:H2'	1:6:603:U:C6	2.51	0.46
36:1:3215:A:H8	50:M4:121:MET:HE1	1.80	0.46
36:5:599:C:H2'	36:5:600:G:O4'	2.15	0.46
36:1:1719:G:H2'	36:1:1720:U:O4'	2.15	0.46
53:M7:178:ALA:O	53:M7:182:ILE:HB	2.16	0.46
24:D2:24:GLN:N	24:D2:65:LEU:HD22	4.33	0.46
36:5:3232:G:H1	36:5:3255:U:H3	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.97	0.46
36:1:603:A:H2'	36:1:604:G:O4'	2.16	0.46
43:L6:7:PRO:HG2	43:L6:10:TYR:CZ	2.51	0.46
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.46	0.46
36:5:1152:G:OP2	36:5:1152:G:C8	2.68	0.46
36:1:1454:A:H5''	36:1:1455:U:H5'	1.97	0.46
18:C6:4:VAL:HG12	18:C6:23:LYS:HB2	6.97	0.46
36:1:750:G:P	65:N9:40:ARG:HH21	2.39	0.46
75:O9:25:GLN:OE1	75:O9:28:ARG:NE	2.48	0.46
47:M0:24:ARG:H	47:M0:24:ARG:HG3	3.39	0.46
24:D2:55:ASP:OD2	24:D2:57:ARG:HB2	3.29	0.46
3:S1:28:GLU:HG3	3:S1:29:TRP:H	1.81	0.46
36:5:3327:G:O6	86:5:3956:OHX:N1	2.48	0.46
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.51	0.46
73:O7:47:TYR:HB3	73:O7:49:TRP:NE1	2.65	0.46
54:M8:99:THR:HB	54:M8:100:THR:H	1.46	0.46
54:M8:71:LEU:HD13	54:M8:99:THR:HG21	1.96	0.46
5:S3:78:LYS:NZ	12:C0:33:GLU:HG2	2.31	0.46
36:1:1916:U:H2'	36:1:1917:C:C6	2.51	0.46
1:6:1448:G:H2'	1:6:1449:U:O4'	2.16	0.46
36:1:1895:A:N6	36:1:2335:G:O2'	2.49	0.46
1:6:22:A:OP2	86:6:2144:OHX:N6	2.49	0.46
54:M8:87:VAL:O	54:M8:107:THR:HG23	2.16	0.46
18:C6:115:THR:HA	18:C6:118:ILE:HG23	1.98	0.46
14:C2:25:GLU:O	14:C2:27:ALA:N	3.45	0.46
1:6:1194:A:H2'	1:6:1195:C:H5'	1.98	0.46
32:E0:26:LYS:HB2	32:E0:27:PRO:HD2	2.23	0.46
38:4:90:U:H5'	38:4:90:U:H6	1.81	0.46
4:S2:152:HIS:H	4:S2:152:HIS:CD2	2.34	0.46
40:L3:146:ARG:NH2	40:L3:149:ALA:HB1	2.31	0.46
10:S8:185:GLU:HG2	13:C1:23:PRO:HG2	1.97	0.46
36:5:1238:C:H2'	36:5:1239:C:O4'	2.16	0.46
36:1:3353:G:O2'	36:1:3356:G:H5'	2.16	0.46
37:3:47:C:H2'	37:3:48:U:H6	1.81	0.46
42:L5:269:SER:HB2	37:7:1:G:H21	316.37	0.46
6:S4:192:ILE:HD12	6:S4:238:LEU:HD13	1.98	0.46
39:L2:101:VAL:C	39:L2:102:LEU:HD12	2.36	0.46
47:M0:46:PHE:CD1	47:M0:140:THR:HA	2.63	0.46
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.16	0.46
56:N0:24:LEU:O	57:N1:148:PRO:HA	2.64	0.46
86:1:3946:OHX:N2	52:M6:67:THR:HG21	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:60:ARG:HD3	62:N6:60:ARG:HA	1.55	0.46
36:1:656:A:H2'	36:1:657:A:C8	2.51	0.46
18:C6:36:ILE:HD11	18:C6:48:VAL:HG22	3.29	0.46
1:2:327:U:H2'	1:2:328:A:C8	2.51	0.46
8:S6:7:TYR:HB3	8:S6:12:SER:HB2	1.98	0.46
1:6:792:U:N3	1:6:793:A:N1	2.64	0.46
1:6:794:U:H4'	1:6:795:U:OP2	2.15	0.46
19:C7:23:LYS:HG2	34:SR:198:ASN:HD21	1.80	0.46
58:N2:13:LYS:HD2	58:N2:15:PHE:CZ	5.04	0.46
11:S9:3:ARG:HB3	11:S9:4:ALA:H	2.86	0.46
1:2:1146:G:C6	1:2:1147:A:C6	3.04	0.46
36:5:1611:G:H2'	36:5:1612:A:C8	2.50	0.46
52:M6:59:ARG:HE	52:M6:59:ARG:HB3	1.27	0.46
1:2:1450:U:OP2	86:2:2062:OHX:N5	2.48	0.46
36:5:1944:U:H2'	36:5:1945:A:C8	2.51	0.46
37:3:28:C:O3'	48:M1:135:GLY:HA2	2.15	0.46
1:2:859:A:C6	15:C3:73:ARG:HD3	2.50	0.46
49:M3:127:PRO:HG2	49:M3:131:LYS:HD2	1.97	0.46
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.45	0.46
1:2:1056:U:O2	3:S1:202:LYS:NZ	2.41	0.46
8:S6:28:PHE:CZ	8:S6:104:PRO:HB3	3.40	0.46
20:C8:14:ILE:HA	20:C8:22:VAL:O	2.15	0.46
34:SR:258:THR:HB	34:SR:275:ARG:HH12	3.20	0.46
71:O5:44:ILE:O	71:O5:48:ARG:HG3	4.99	0.46
39:L2:149:ARG:HH22	39:L2:253:GLN:CB	6.78	0.46
1:6:1450:U:OP2	86:6:2124:OHX:N4	2.49	0.46
36:5:2213:A:N1	36:5:2429:G:H1'	2.31	0.46
2:S0:103:THR:O	2:S0:106:SER:OG	2.31	0.46
21:C9:86:ARG:NH1	21:C9:90:PRO:O	2.49	0.46
7:S5:215:ASP:O	7:S5:219:ARG:N	2.47	0.46
49:M3:149:GLN:HB2	49:M3:149:GLN:HE21	4.42	0.46
45:L8:122:LYS:C	45:L8:124:ASP:H	2.73	0.46
36:5:3269:U:H5'	36:5:3271:G:O4'	2.15	0.46
1:2:862:A:C2	1:2:963:A:C4	3.04	0.46
51:M5:99:ARG:NH1	51:M5:167:THR:HB	2.91	0.46
36:1:898:U:H2'	36:1:899:U:O4'	2.15	0.46
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	2.26	0.46
36:5:2405:C:O2	36:5:2819:A:N1	2.48	0.46
56:N0:161:LYS:HE2	56:N0:161:LYS:HB3	2.17	0.46
1:2:385:A:H8	1:2:385:A:O5'	1.99	0.46
1:6:1243:G:N3	1:6:1243:G:H5''	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:76:A:OP2	37:3:76:A:H3'	2.16	0.46
49:M3:125:VAL:HG13	71:O5:116:TYR:HB3	2.98	0.46
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.50	0.46
36:5:2248:C:H2'	36:5:2273:G:C8	2.51	0.46
23:D1:74:GLN:HE22	23:D1:83:TRP:H	1.62	0.46
1:6:191:C:O2'	1:6:192:U:O5'	2.28	0.46
7:S5:94:THR:HG22	7:S5:114:ILE:CG1	2.43	0.46
51:M5:123:GLN:HA	51:M5:129:TYR:HD2	2.26	0.46
64:N8:147:LEU:HD12	72:O6:7:ILE:HD11	5.33	0.46
42:L5:151:GLN:OE1	42:L5:152:ARG:N	2.49	0.46
36:1:677:A:H4'	36:1:678:G:O5'	2.15	0.46
46:L9:90:MET:HA	46:L9:180:TYR:O	2.44	0.46
27:D5:54:VAL:HG13	27:D5:57:TYR:HD1	1.81	0.46
8:S6:164:LYS:N	8:S6:167:LYS:O	2.41	0.46
45:L8:101:THR:H	45:L8:104:GLU:HB2	1.80	0.46
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.26	0.46
36:1:2310:U:OP1	86:1:4139:OHX:N1	2.49	0.46
36:1:871:U:H2'	36:1:872:U:C6	2.51	0.46
1:6:24:U:O4	1:6:26:A:N6	2.49	0.46
36:1:94:G:H2'	36:1:95:A:C8	2.51	0.46
1:2:442:C:H2'	1:2:443:C:C6	2.50	0.46
36:1:594:U:H2'	36:1:609:G:O6	2.16	0.46
36:5:1781:C:H2'	36:5:1782:U:H6	1.80	0.46
31:D9:31:ILE:HA	31:D9:31:ILE:HD13	2.14	0.46
36:5:1114:U:C2'	36:5:1115:G:H5'	2.46	0.46
36:5:1081:U:O2'	36:5:1082:U:H5''	2.15	0.46
62:N6:71:SER:OG	62:N6:72:SER:N	2.49	0.46
36:1:1802:C:H2'	36:1:1803:C:H6	1.79	0.46
44:L7:33:ARG:NH1	36:5:596:C:OP1	237.14	0.46
62:N6:108:LYS:HD3	62:N6:108:LYS:HA	2.58	0.46
36:1:1019:G:H2'	36:1:1020:G:O4'	2.16	0.46
34:SR:112:SER:HB3	34:SR:153:GLN:HA	1.97	0.46
52:M6:19:LEU:HD23	52:M6:80:PHE:CE1	3.03	0.46
36:1:789:A:H2'	36:1:790:U:H6	1.80	0.46
27:D5:92:ILE:HD12	27:D5:100:ILE:HG22	5.24	0.46
45:L8:140:VAL:HG21	51:M5:3:ALA:HB2	2.22	0.46
36:5:140:C:H2'	36:5:141:C:H6	1.80	0.46
53:M7:123:PRO:O	53:M7:143:PRO:HG2	2.16	0.46
79:Q3:87:ARG:O	79:Q3:90:VAL:HG22	4.37	0.46
43:L6:68:PRO:HG2	43:L6:71:VAL:HG21	2.97	0.46
44:L7:149:TYR:CD2	44:L7:181:ILE:HD13	3.17	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:87:GLY:HA2	16:C4:92:LYS:HD2	5.16	0.46
36:1:107:A:H2'	36:1:108:A:O4'	2.16	0.46
36:1:2767:U:OP2	86:1:4133:OHX:N2	2.49	0.46
36:1:397:A:H5'	36:1:399:A:OP1	2.16	0.46
2:S0:30:GLN:HE22	2:S0:37:VAL:HG21	1.81	0.46
1:2:170:U:H3	1:2:289:U:HO2'	1.62	0.46
36:5:428:A:H2'	36:5:429:U:C6	2.51	0.46
36:1:3279:A:N6	69:O3:54:ARG:HD3	2.30	0.46
1:2:258:C:N4	1:2:259:U:O4	2.50	0.46
36:1:962:A:N1	36:1:2814:G:O2'	2.43	0.46
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.51	0.46
1:2:1222:C:H2'	1:2:1223:A:O4'	2.16	0.46
36:1:735:A:H2'	36:1:736:A:H8	1.81	0.46
4:S2:207:LEU:HD22	4:S2:211:LEU:HG	3.48	0.46
36:5:1108:U:H2'	36:5:1109:U:C6	2.51	0.46
36:5:1230:G:OP2	86:5:4002:OHX:N6	2.49	0.46
37:7:104:A:OP2	37:7:104:A:H8	1.99	0.46
36:5:3238:G:H5''	36:5:3238:G:H8	1.81	0.46
52:M6:28:LEU:HD23	52:M6:28:LEU:HA	2.00	0.46
36:1:1194:G:H2'	36:1:1195:A:C8	2.50	0.46
36:1:2228:A:H2'	36:1:2229:A:C8	2.51	0.46
1:6:209:U:H2'	1:6:210:A:C8	2.51	0.46
40:L3:3:HIS:O	40:L3:4:ARG:C	2.80	0.45
36:1:2853:A:H4'	47:M0:63:GLU:O	2.15	0.45
1:6:994:G:N2	1:6:1010:C:O2	2.45	0.45
50:M4:123:LEU:HD23	50:M4:123:LEU:HA	1.78	0.45
11:S9:37:LYS:HB3	11:S9:41:GLU:OE1	2.16	0.45
1:2:1235:C:O2	33:E1:138:ARG:NH2	2.49	0.45
14:C2:47:GLU:N	1:6:1229:G:O6	461.66	0.45
2:S0:12:GLU:O	2:S0:16:LEU:HD12	2.16	0.45
51:M5:70:ASN:HB3	51:M5:92:LEU:O	2.23	0.45
3:S1:104:ASP:HA	3:S1:214:LYS:HE2	1.98	0.45
86:2:2162:OHX:N2	8:S6:155:ASP:OD1	2.49	0.45
57:N1:139:ARG:HH21	57:N1:139:ARG:CG	3.28	0.45
1:6:470:A:OP2	86:6:2099:OHX:N1	2.49	0.45
36:1:19:U:H3	38:4:140:G:H1	1.64	0.45
26:D4:3:ASP:HB2	26:D4:31:ASN:HB2	3.26	0.45
34:SR:123:ILE:HG21	34:SR:169:ILE:HG21	1.97	0.45
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.62	0.45
5:S3:27:ARG:HB3	12:C0:58:GLN:HE22	1.81	0.45
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:60:LEU:HD23	72:O6:60:LEU:HA	1.66	0.45
86:5:4062:OHX:N5	86:5:4137:OHX:N2	2.64	0.45
35:SM:47:ALA:HB2	36:1:2678:A:H8	1.79	0.45
41:L4:269:SER:C	41:L4:271:LYS:H	2.17	0.45
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.16	0.45
47:M0:86:HIS:O	47:M0:138:VAL:HA	2.16	0.45
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	1.99	0.45
46:L9:111:PHE:CE1	46:L9:127:PRO:HB3	2.51	0.45
1:6:482:U:H3	1:6:505:A:N6	2.12	0.45
21:C9:75:LYS:HE2	1:6:1520:U:OP2	418.15	0.45
36:5:595:G:C8	36:5:609:G:C6	3.05	0.45
36:5:2546:C:H2'	36:5:2547:A:C8	2.51	0.45
56:N0:84:ARG:HG3	36:5:1295:G:OP1	294.57	0.45
50:M4:93:LYS:HB2	50:M4:93:LYS:HE3	1.77	0.45
71:O5:88:LEU:HA	71:O5:88:LEU:HD23	1.68	0.45
19:C7:71:PHE:HD1	19:C7:73:LEU:HB3	1.80	0.45
28:D6:11:ASN:O	28:D6:33:ASP:HB2	2.32	0.45
1:6:591:A:H2'	1:6:592:A:C8	2.51	0.45
1:2:1518:C:OP2	86:2:2121:OHX:N2	2.49	0.45
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.66	0.45
36:5:3165:A:N6	36:5:3285:C:H42	2.14	0.45
36:1:129:U:O4	86:1:3889:OHX:N5	2.49	0.45
1:2:135:A:OP1	1:2:136:C:H5	1.98	0.45
59:N3:32:ARG:HB3	59:N3:64:LYS:O	2.16	0.45
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.80	0.45
15:C3:115:LEU:O	15:C3:119:GLU:HG3	2.15	0.45
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.15	0.45
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.51	0.45
1:6:1783:C:H2'	1:6:1784:C:C6	2.51	0.45
24:D2:67:GLY:O	24:D2:69:LEU:N	3.31	0.45
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.55	0.45
36:5:996:A:H2'	36:5:997:A:O4'	2.16	0.45
36:1:2529:A:H2'	36:1:2530:G:O4'	2.16	0.45
12:C0:10:LYS:HA	12:C0:13:GLN:HB2	3.88	0.45
1:2:1405:G:H2'	1:2:1406:A:C8	2.51	0.45
1:6:1263:G:H2'	1:6:1264:G:O4'	2.16	0.45
74:O8:58:ASP:OD2	74:O8:61:LYS:N	2.26	0.45
38:4:111:A:C5	73:O7:29:VAL:HG11	2.50	0.45
59:N3:33:ASN:O	59:N3:34:LEU:HD23	3.06	0.45
1:6:465:G:C5	1:6:466:U:C5	3.04	0.45
42:L5:164:LYS:O	42:L5:164:LYS:HD3	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:146:LYS:HG3	56:N0:147:ASP:N	2.31	0.45
40:L3:152:LYS:HE3	40:L3:192:VAL:HG22	3.47	0.45
7:S5:62:VAL:HG22	7:S5:89:ILE:HG21	1.99	0.45
1:6:168:A:C6	1:6:169:A:N6	2.85	0.45
36:5:304:G:N3	36:5:304:G:H5'	2.31	0.45
35:SM:76:VAL:HG13	1:6:1460:A:C5	328.09	0.45
28:D6:94:ASN:HD21	28:D6:96:ALA:HB3	1.82	0.45
11:S9:41:GLU:OE2	11:S9:126:ARG:NH2	2.99	0.45
41:L4:317:PRO:O	41:L4:324:LEU:HB2	5.45	0.45
36:1:270:U:O2'	36:1:318:A:H1'	2.16	0.45
55:M9:100:ARG:O	55:M9:104:ARG:HB3	2.16	0.45
1:2:778:G:H22	26:D4:10:ARG:HH12	1.62	0.45
25:D3:96:VAL:HG23	25:D3:97:ASP:N	2.32	0.45
1:2:301:A:C6	1:2:302:U:C4	3.04	0.45
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.30	0.45
36:1:2155:G:OP1	39:L2:241:ARG:HG2	2.15	0.45
33:E1:103:LEU:HD23	33:E1:105:TYR:CD2	4.03	0.45
1:2:1480:G:H3'	1:2:1481:C:C6	2.51	0.45
1:6:162:A:H2'	1:6:163:G:C8	2.51	0.45
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.30	0.45
1:6:75:U:O2'	1:6:76:A:O4'	2.35	0.45
4:S2:242:ILE:HA	4:S2:242:ILE:HD12	1.78	0.45
4:S2:237:VAL:HG11	4:S2:242:ILE:HD13	1.97	0.45
4:S2:225:LEU:HD21	4:S2:230:TRP:CD1	3.42	0.45
61:N5:105:VAL:CG1	61:N5:126:LEU:HD22	2.46	0.45
61:N5:127:THR:OG1	61:N5:129:ASP:OD2	2.33	0.45
38:4:11:C:H1'	53:M7:6:ALA:HB2	1.99	0.45
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.47	0.45
30:D8:13:ILE:HG13	30:D8:29:ARG:O	2.16	0.45
36:1:1505:C:OP1	53:M7:23:ARG:NH2	2.47	0.45
36:1:2763:U:H5'	54:M8:176:ARG:HG3	1.98	0.45
57:N1:14:MET:HE3	57:N1:15:PHE:CE2	2.51	0.45
36:1:1295:G:P	56:N0:84:ARG:HG3	2.56	0.45
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.53	0.45
33:E1:87:THR:HA	1:6:1445:G:C6	379.24	0.45
54:M8:122:ILE:HA	54:M8:126:GLN:OE1	2.73	0.45
35:SM:39:PRO:HB2	35:SM:40:PRO:HD2	1.97	0.45
36:5:3165:A:H61	36:5:3285:C:N4	2.14	0.45
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.15	0.45
21:C9:76:LEU:HB3	21:C9:101:ASN:ND2	3.79	0.45
7:S5:87:CYS:HA	7:S5:88:PRO:HD2	1.71	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3334:U:H4'	36:1:3335:A:H5''	1.97	0.45
36:5:612:U:H2'	36:5:613:G:H8	1.82	0.45
62:N6:113:LYS:HB2	38:8:84:C:H1'	19.45	0.45
41:L4:257:LYS:O	41:L4:260:GLN:HB2	2.16	0.45
5:S3:22:ASN:O	5:S3:26:THR:OG1	2.34	0.45
30:D8:39:THR:OG1	30:D8:40:ILE:N	2.47	0.45
39:L2:58:LEU:HD23	39:L2:58:LEU:HA	1.79	0.45
36:1:3330:A:H2'	36:1:3331:U:H6	1.81	0.45
1:6:63:G:C6	1:6:64:U:C5	3.05	0.45
67:O1:50:ARG:CZ	67:O1:90:PHE:CE2	3.79	0.45
8:S6:32:ILE:HG23	8:S6:53:SER:HA	2.59	0.45
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.45	0.45
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.95	0.45
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.16	0.45
40:L3:139:GLN:OE1	40:L3:142:ALA:HB3	2.31	0.45
23:D1:1:MET:SD	23:D1:10:GLU:HB3	2.57	0.45
1:2:1235:C:O2'	33:E1:149:LYS:HD2	2.16	0.45
33:E1:144:CYS:C	33:E1:146:SER:N	2.69	0.45
54:M8:19:PRO:HB2	54:M8:21:SER:HB3	1.97	0.45
15:C3:65:VAL:HG23	15:C3:66:ILE:HG22	4.39	0.45
36:1:3362:A:C2	36:1:3363:U:C2	3.05	0.45
42:L5:261:THR:HG23	42:L5:264:GLN:HE21	2.08	0.45
40:L3:166:ILE:HD13	40:L3:173:GLN:HG2	2.10	0.45
72:O6:54:GLU:HG2	72:O6:90:MET:HE1	2.69	0.45
41:L4:3:ARG:O	41:L4:5:GLN:N	2.94	0.45
48:M1:9:MET:HB3	48:M1:10:ARG:H	3.46	0.45
51:M5:138:GLN:HA	51:M5:143:ARG:NH1	2.26	0.45
5:S3:168:ILE:O	5:S3:168:ILE:HG13	3.42	0.45
67:O1:44:MET:HE3	67:O1:44:MET:HB2	4.57	0.45
1:2:1762:A:C1'	1:2:1783:C:H5'	2.47	0.45
1:6:393:C:H2'	1:6:394:C:C6	2.51	0.45
41:L4:262:TRP:O	41:L4:276:LEU:HD11	2.16	0.45
17:C5:15:HIS:NE2	17:C5:17:TYR:HA	2.31	0.45
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.46	0.45
38:4:11:C:H2'	38:4:12:A:O4'	2.16	0.45
4:S2:95:ARG:HD2	4:S2:95:ARG:N	2.31	0.45
48:M1:109:HIS:HD2	48:M1:114:ILE:HD12	6.08	0.45
1:2:652:G:H1	1:2:682:C:N4	2.12	0.45
36:5:608:A:H5''	36:5:609:G:OP2	2.17	0.45
74:O8:23:ALA:HB2	74:O8:73:LEU:HD21	1.99	0.45
36:5:1944:U:H2'	36:5:1945:A:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:306:THR:HA	40:L3:307:PRO:HD3	1.81	0.45
86:5:4198:OHX:N4	86:8:227:OHX:N1	2.65	0.45
36:1:2314:U:H2'	36:1:2314:U:H6	1.47	0.45
47:M0:208:ASN:HA	47:M0:211:ARG:HD2	1.97	0.45
69:O3:14:LEU:HD11	69:O3:31:LYS:CB	3.14	0.45
36:1:1838:G:H4'	36:1:1839:A:N3	2.31	0.45
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	2.02	0.45
1:2:322:G:O4'	1:2:323:A:H8	2.00	0.45
21:C9:92:LYS:HE3	21:C9:94:ILE:HD11	1.98	0.45
67:O1:19:ARG:HD3	67:O1:35:GLU:HG3	1.98	0.45
42:L5:52:VAL:HG22	42:L5:147:ASP:HB3	1.98	0.45
36:5:2516:U:O2	36:5:2594:C:N4	2.50	0.45
36:1:578:A:H5''	36:1:579:G:O5'	2.16	0.45
61:N5:59:SER:HB3	61:N5:102:LEU:HG	1.97	0.45
36:1:2510:U:O2'	36:1:2511:A:H8	1.99	0.45
36:5:2812:C:H2'	36:5:2813:A:H8	1.80	0.45
36:5:2659:G:H4'	36:5:2751:G:O2'	2.17	0.45
41:L4:361:HIS:O	56:N0:28:ARG:NH2	2.61	0.45
36:5:736:A:C5	36:5:737:G:H1'	2.51	0.45
1:6:876:G:H2'	1:6:936:G:N2	2.31	0.45
3:S1:110:LEU:HD11	3:S1:213:ARG:CD	3.20	0.45
3:S1:105:PHE:CD2	3:S1:213:ARG:HA	2.51	0.45
1:2:1140:G:OP2	86:2:2065:OHX:N6	2.49	0.45
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.53	0.45
66:O0:104:LEU:HD12	66:O0:105:ALA:N	2.32	0.45
36:1:23:A:OP1	86:1:3870:OHX:N1	2.50	0.45
1:2:1178:G:H2'	1:2:1179:G:O4'	2.16	0.45
34:SR:207:ASP:OD2	34:SR:207:ASP:N	3.07	0.45
49:M3:37:ASN:N	49:M3:37:ASN:OD1	2.92	0.45
54:M8:159:LYS:HE2	54:M8:159:LYS:HB3	1.56	0.45
8:S6:23:ARG:HD2	8:S6:41:VAL:O	3.03	0.45
59:N3:27:ASP:HA	59:N3:113:ALA:O	2.45	0.45
68:O2:83:GLU:HG3	68:O2:115:LEU:HD11	1.98	0.45
50:M4:58:ILE:HD11	50:M4:62:GLN:HG3	4.54	0.45
46:L9:84:LYS:HB3	46:L9:186:PHE:HB3	1.98	0.45
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.73	0.45
40:L3:186:GLY:O	40:L3:190:GLU:HB2	4.25	0.45
1:2:1202:A:H2'	1:2:1203:A:H5''	1.98	0.45
36:5:3153:U:H1'	36:5:3154:C:C6	2.52	0.45
3:S1:66:VAL:HG13	16:C4:33:LEU:O	2.16	0.45
5:S3:75:LYS:HE3	12:C0:14:TYR:OH	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1614:C:H2'	36:5:1615:C:C6	2.51	0.45
1:2:13:C:OP1	4:S2:84:LYS:NZ	2.49	0.45
34:SR:122:ILE:HB	34:SR:134:TRP:O	2.16	0.45
68:O2:18:LYS:HD3	68:O2:30:GLU:OE1	2.38	0.45
36:1:1686:U:O2	36:1:1688:U:H1'	2.17	0.45
5:S3:134:CYS:N	5:S3:157:LEU:HD11	2.30	0.45
41:L4:182:LEU:HD13	41:L4:182:LEU:HA	4.15	0.45
5:S3:108:LYS:O	5:S3:113:LEU:HB2	2.69	0.45
65:N9:24:PRO:HD2	65:N9:25:LYS:H	3.34	0.45
3:S1:140:ILE:O	3:S1:210:ILE:HA	2.44	0.45
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	3.03	0.45
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.96	0.45
8:S6:13:GLN:OE1	1:6:151:G:N2	311.23	0.45
14:C2:97:LEU:HD12	14:C2:118:ALA:HB3	2.73	0.45
14:C2:63:VAL:HG11	14:C2:94:ALA:HB2	1.98	0.45
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.97	0.45
2:S0:88:LYS:NZ	19:C7:82:ASP:HB3	2.31	0.45
1:6:76:A:H3'	86:6:2188:OHX:N1	2.31	0.45
46:L9:96:HIS:O	46:L9:98:PRO:HD3	2.27	0.45
40:L3:219:ALA:HB2	40:L3:336:VAL:CG2	4.13	0.45
1:2:1125:A:C5	1:2:1126:G:H1'	2.51	0.45
36:1:2523:A:C2	36:1:2587:U:C4	3.04	0.45
36:1:2542:U:N3	36:1:2543:U:O4	2.49	0.45
36:1:3106:A:H2'	36:1:3107:U:O4'	2.15	0.45
31:D9:9:SER:HA	1:6:1451:C:H5'	409.97	0.45
1:2:1248:C:H2'	1:2:1249:U:C6	2.51	0.45
32:E0:29:LYS:HG2	32:E0:35:TYR:CE2	4.45	0.45
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.76	0.45
39:L2:29:LEU:O	39:L2:123:ARG:NH2	2.87	0.45
36:5:2862:U:H2'	36:5:2863:G:O4'	2.16	0.45
19:C7:52:GLY:HA3	1:6:1389:C:O2'	422.87	0.45
1:6:8:U:O2	1:6:1138:A:H3'	2.16	0.45
86:5:4051:OHX:N1	86:5:4194:OHX:N2	2.65	0.45
36:5:703:G:O2'	36:5:787:G:H4'	2.15	0.45
1:2:1393:C:H2'	1:2:1394:G:O4'	2.16	0.45
36:5:1074:U:O2'	36:5:1075:A:H2'	2.16	0.45
36:5:158:G:N2	36:5:264:G:H1'	2.31	0.45
59:N3:43:GLY:HA3	36:5:3041:U:O2'	265.07	0.45
1:6:257:A:C2	1:6:258:C:C2	3.05	0.45
16:C4:103:ARG:HH12	28:D6:48:ALA:HB3	2.85	0.45
17:C5:60:LEU:HD23	17:C5:60:LEU:HA	3.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1407:U:H2'	1:2:1408:G:O4'	2.17	0.45
63:N7:73:LYS:HD2	63:N7:74:VAL:O	2.78	0.45
42:L5:182:GLY:HA2	42:L5:194:LEU:HD13	2.88	0.45
1:2:413:U:H2'	1:2:414:C:C6	2.51	0.45
1:2:978:A:H2'	1:2:979:A:O4'	2.16	0.45
42:L5:191:ASP:HA	42:L5:192:PRO:HD3	2.41	0.45
1:2:246:G:N3	13:C1:40:LEU:HD13	2.31	0.45
1:2:1364:G:H8	1:2:1364:G:O5'	2.00	0.45
34:SR:117:LYS:H	34:SR:117:LYS:HD2	1.81	0.45
1:6:337:G:H5''	1:6:337:G:H8	1.82	0.45
36:5:783:A:OP2	86:5:4188:OHX:N6	2.49	0.45
50:M4:113:THR:HG22	50:M4:116:GLU:HB2	2.55	0.45
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	2.27	0.45
41:L4:145:ILE:O	41:L4:145:ILE:HG13	2.21	0.45
36:5:437:G:OP2	36:5:437:G:H8	2.00	0.45
1:2:1433:G:C4	31:D9:41:GLN:HB3	2.52	0.45
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.05	0.45
28:D6:4:LYS:O	28:D6:5:ARG:HG3	2.16	0.45
41:L4:302:ALA:HB2	54:M8:39:ARG:NH1	2.31	0.45
49:M3:166:ALA:O	49:M3:170:LEU:HG	2.16	0.45
1:6:894:U:H2'	1:6:895:G:C8	2.52	0.45
3:S1:47:LEU:HD12	3:S1:47:LEU:H	2.76	0.45
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.47	0.45
7:S5:144:GLU:HB3	7:S5:161:ASP:HA	1.99	0.45
52:M6:60:LYS:CE	36:5:1307:G:H5''	250.26	0.45
1:6:1588:G:OP1	86:6:2120:OHX:N2	2.50	0.45
17:C5:100:LYS:HG3	17:C5:101:ALA:H	3.78	0.45
39:L2:204:MET:HG2	36:5:914:A:N3	195.52	0.45
36:5:1438:U:H2'	36:5:1439:U:H6	1.82	0.45
36:5:1102:A:H4'	36:5:1103:A:C5	2.52	0.45
34:SR:175:ASP:O	34:SR:177:MET:HG2	4.94	0.45
1:2:1565:C:H2'	1:2:1566:U:O4'	2.17	0.45
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.31	0.45
17:C5:67:ALA:C	17:C5:69:GLU:H	2.20	0.45
55:M9:44:LEU:HA	55:M9:47:ASN:HB3	5.35	0.45
42:L5:95:TRP:CH2	42:L5:195:LEU:HD11	2.52	0.45
65:N9:25:LYS:HB2	65:N9:25:LYS:NZ	2.30	0.45
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.97	0.45
1:6:1233:G:N2	1:6:1253:U:H1'	2.31	0.45
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.16	0.45
62:N6:37:LYS:H	62:N6:37:LYS:CE	3.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:844:A:H2'	1:2:845:G:H8	1.82	0.45
36:5:1818:U:H2'	36:5:1819:U:H6	1.77	0.45
24:D2:66:ASN:OD1	24:D2:68:ARG:HG2	3.82	0.45
10:S8:29:LEU:HG	10:S8:30:GLY:N	2.31	0.45
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.98	0.45
24:D2:115:GLU:HG2	24:D2:119:LYS:HD2	3.10	0.45
46:L9:162:GLN:HG3	46:L9:162:GLN:O	2.09	0.45
63:N7:6:LYS:HB3	63:N7:7:ALA:H	2.10	0.45
25:D3:79:ASN:HD22	25:D3:81:LYS:HB2	1.81	0.45
38:4:85:G:C2	38:4:87:G:N2	2.84	0.45
18:C6:11:GLY:HA2	18:C6:83:GLN:HE21	1.82	0.45
45:L8:25:PRO:HB2	45:L8:26:LEU:HD12	1.98	0.45
32:E0:35:TYR:CE1	32:E0:39:LEU:HD22	4.63	0.45
22:D0:66:SER:HA	22:D0:81:THR:HA	1.99	0.45
59:N3:24:ASN:OD1	59:N3:32:ARG:NH1	11.55	0.45
55:M9:12:ALA:N	55:M9:22:VAL:HG11	2.32	0.45
1:6:1381:U:O4	1:6:1382:A:N6	2.50	0.45
45:L8:176:PRO:HB3	45:L8:215:VAL:HG13	2.61	0.45
14:C2:25:GLU:C	14:C2:27:ALA:H	2.89	0.45
36:5:1107:C:H2'	36:5:1108:U:H6	1.81	0.45
9:S7:103:SER:OG	9:S7:104:ARG:N	2.53	0.45
64:N8:28:HIS:CE1	64:N8:32:ARG:CZ	3.00	0.45
36:1:308:A:H5'	36:1:2223:A:O2'	2.16	0.45
76:Q0:85:LEU:O	76:Q0:88:LYS:HB2	2.47	0.45
36:1:3370:A:H5'	40:L3:384:LYS:HD2	1.99	0.45
1:6:1432:U:H4'	1:6:1433:G:H5''	1.98	0.45
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.82	0.45
36:1:1421:G:C2	36:1:1422:G:C8	3.04	0.45
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.30	0.45
20:C8:8:GLN:O	20:C8:10:SER:N	3.32	0.45
55:M9:154:ALA:C	55:M9:156:ASN:H	3.64	0.45
36:1:2932:U:O2	36:1:2934:A:C8	2.70	0.45
36:1:816:A:H5''	36:1:920:A:H62	1.81	0.45
36:5:420:G:OP2	36:5:420:G:OP1	2.34	0.45
15:C3:83:GLU:HG2	15:C3:83:GLU:H	1.39	0.45
36:1:2585:G:N3	38:4:151:C:H5	2.15	0.45
1:2:1595:U:H5	1:2:1596:C:C5	2.35	0.45
2:S0:49:ASN:HB3	2:S0:52:LYS:CG	2.45	0.45
1:2:333:A:H2'	1:2:334:G:C8	2.52	0.45
1:6:1041:G:N2	1:6:1042:G:C2	2.84	0.45
86:2:2090:OHX:N1	86:2:2132:OHX:N2	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:127:ARG:NH2	35:SM:66:ALA:HB2	3.43	0.45
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.74	0.45
36:1:2747:A:H4'	42:L5:174:PRO:O	2.17	0.45
19:C7:41:ILE:HG22	19:C7:42:GLN:H	1.82	0.45
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.15	0.45
2:S0:13:ASP:CG	2:S0:179:ARG:HH22	2.26	0.45
8:S6:153:VAL:HG11	8:S6:175:ILE:HG21	1.98	0.45
64:N8:121:VAL:O	64:N8:123:VAL:HG22	3.61	0.45
66:O0:16:LEU:HA	66:O0:16:LEU:HD22	1.75	0.45
36:1:76:G:H3'	49:M3:73:ARG:HD2	1.99	0.45
25:D3:53:VAL:HG13	25:D3:72:VAL:HB	1.97	0.45
36:5:1941:C:H1'	36:5:3362:A:C8	2.52	0.45
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.17	0.45
18:C6:32:ASN:OD1	18:C6:68:ARG:HA	3.39	0.45
33:E1:141:CYS:SG	33:E1:143:LYS:HB3	3.06	0.45
63:N7:9:LYS:HB3	63:N7:25:ILE:HD12	3.40	0.45
19:C7:66:VAL:O	19:C7:69:ILE:HG13	2.16	0.45
1:6:879:G:C2	1:6:950:C:C2	3.05	0.45
44:L7:110:ARG:HG2	44:L7:111:ILE:N	2.32	0.45
66:O0:42:ILE:H	66:O0:42:ILE:HG13	1.65	0.45
63:N7:22:LYS:HG3	63:N7:49:TYR:OH	2.64	0.45
1:6:938:G:N2	1:6:941:A:OP2	2.46	0.45
27:D5:46:LYS:HB2	27:D5:46:LYS:HE3	4.37	0.45
49:M3:104:ARG:HA	72:O6:20:MET:O	5.01	0.45
13:C1:34:TRP:O	13:C1:61:THR:HA	3.06	0.45
37:7:4:U:H2'	37:7:5:G:C8	2.51	0.45
1:6:1235:C:OP2	1:6:1245:G:H8	1.99	0.45
41:L4:44:LYS:HD3	41:L4:111:VAL:CG2	2.46	0.45
43:L6:65:ILE:HA	43:L6:65:ILE:HD13	4.65	0.45
49:M3:119:TYR:O	49:M3:123:ILE:HG23	2.68	0.45
64:N8:79:TRP:CE3	64:N8:82:ILE:HD12	2.71	0.45
64:N8:84:GLU:O	64:N8:87:ARG:HB2	2.92	0.45
1:2:1606:C:H2'	1:2:1607:G:C8	2.51	0.45
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	2.74	0.45
46:L9:163:GLN:C	46:L9:165:CYS:H	2.20	0.45
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.17	0.45
25:D3:77:ILE:O	25:D3:79:ASN:N	2.50	0.45
39:L2:240:ALA:HA	36:5:2154:U:O3'	217.73	0.45
16:C4:128:LYS:HE2	28:D6:27:SER:OG	3.89	0.45
71:O5:31:LEU:HD13	71:O5:44:ILE:HA	1.97	0.45
52:M6:172:ARG:HE	52:M6:172:ARG:HB3	1.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2287:C:C2	36:1:2298:U:O4'	2.69	0.45
36:5:3216:G:N1	36:5:3259:U:OP1	2.46	0.45
36:5:2232:A:O2'	36:5:2429:G:H5'	2.17	0.45
36:1:2509:U:O2'	36:1:2510:U:H5'	2.17	0.45
68:O2:86:THR:HG23	68:O2:115:LEU:HD22	2.68	0.45
36:1:664:U:H2'	36:1:665:A:C8	2.51	0.45
36:5:1658:G:C4	36:5:1796:G:C5	3.05	0.45
36:5:887:G:H2'	36:5:888:A:C8	2.51	0.45
58:N2:76:LEU:HD23	58:N2:95:PHE:HZ	2.41	0.45
11:S9:182:GLU:HG3	11:S9:183:ALA:N	2.31	0.45
36:1:968:G:H2'	36:1:969:C:C6	2.51	0.45
3:S1:23:PRO:O	3:S1:27:LYS:HG3	2.46	0.45
34:SR:236:ALA:O	34:SR:261:LYS:NZ	3.39	0.45
15:C3:72:MET:O	15:C3:75:LEU:N	3.79	0.45
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.51	0.45
1:2:312:A:C2	1:2:314:C:H2'	2.52	0.45
47:M0:152:LEU:HB2	47:M0:165:ILE:HD13	6.55	0.45
36:5:830:A:H5'	36:5:831:G:OP2	2.17	0.45
36:5:2599:U:H2'	36:5:2600:C:C6	2.52	0.45
9:S7:164:TYR:HD2	9:S7:164:TYR:H	1.64	0.45
18:C6:130:GLY:O	18:C6:137:ARG:HG3	2.90	0.45
36:1:1809:A:H2'	36:1:1810:A:O4'	2.17	0.45
1:2:190:C:N4	1:2:196:G:O6	2.49	0.45
7:S5:100:ASN:O	7:S5:102:ARG:N	2.50	0.45
1:2:1795:U:N3	28:D6:9:GLY:O	2.50	0.45
11:S9:109:LEU:O	11:S9:113:VAL:HB	2.16	0.45
36:1:2443:A:O2'	36:1:2444:C:OP2	2.24	0.45
53:M7:29:THR:HG22	53:M7:87:SER:CB	2.47	0.45
1:2:899:G:H5'	16:C4:46:MET:HA	1.99	0.45
16:C4:81:VAL:HG11	16:C4:102:LEU:HD21	1.99	0.45
36:1:3259:U:H5'	36:1:3259:U:C6	2.38	0.45
36:1:1094:U:H4'	36:1:1096:U:OP1	2.17	0.45
3:S1:48:VAL:HG11	3:S1:61:LEU:HD22	3.83	0.45
1:6:230:C:N4	1:6:235:G:H1	2.12	0.45
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.56	0.45
36:5:1502:C:OP1	86:5:3911:OHX:N4	2.50	0.45
45:L8:109:LEU:HA	45:L8:109:LEU:HD13	3.93	0.45
36:5:1878:G:O2'	36:5:1879:A:OP1	2.28	0.45
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.33	0.45
3:S1:205:PHE:HD1	3:S1:207:LEU:HD12	1.82	0.45
1:2:1678:A:OP1	10:S8:59:ARG:NH1	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:69:CYS:SG	3:S1:71:ALA:HB3	2.56	0.45
1:2:491:C:H2'	1:2:492:A:H5'	1.98	0.45
25:D3:87:VAL:HG12	25:D3:92:CYS:HB3	1.98	0.45
5:S3:177:MET:HG3	5:S3:178:ARG:N	4.85	0.45
11:S9:168:ARG:HE	11:S9:171:ARG:HH11	1.64	0.45
63:N7:136:PHE:HB2	70:O4:88:ARG:HG3	4.29	0.45
7:S5:25:LEU:HB2	7:S5:26:ALA:H	1.58	0.45
1:2:990:C:O2'	16:C4:127:ARG:HD3	2.17	0.45
25:D3:104:LEU:HA	25:D3:104:LEU:HD23	1.71	0.45
46:L9:78:MET:O	46:L9:82:VAL:HB	2.17	0.45
1:2:607:G:OP2	1:2:613:G:N1	2.49	0.45
36:5:1782:U:H2'	36:5:1783:U:H6	1.82	0.45
26:D4:60:PHE:O	1:6:523:G:H5'	412.96	0.45
1:2:330:G:H2'	1:2:331:A:H8	1.81	0.45
1:2:1451:C:H2'	1:2:1452:U:C6	2.51	0.45
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.17	0.45
9:S7:148:LYS:O	9:S7:149:ILE:HG23	4.53	0.45
60:N4:4:GLU:CG	60:N4:30:ARG:HD3	2.47	0.45
54:M8:169:GLY:H	54:M8:172:PHE:HD2	2.90	0.45
49:M3:158:ALA:O	64:N8:124:ILE:HD11	2.58	0.45
8:S6:30:LYS:O	8:S6:102:VAL:HG23	2.34	0.45
74:O8:32:ASN:ND2	74:O8:32:ASN:O	2.50	0.45
1:2:1525:A:H1'	1:2:1590:G:O4'	2.16	0.45
13:C1:17:PRO:HG3	13:C1:63:LEU:HD11	1.98	0.45
1:6:102:U:O4	1:6:360:A:H2'	2.17	0.45
86:5:4031:OHX:N4	86:5:4234:OHX:N1	2.64	0.45
36:1:65:A:H2'	36:1:110:G:N7	2.32	0.45
51:M5:154:PRO:O	51:M5:157:LYS:HG3	3.16	0.45
47:M0:24:ARG:HB2	47:M0:24:ARG:HH11	1.82	0.45
18:C6:115:THR:O	18:C6:117:LEU:N	3.35	0.45
36:5:1599:G:OP1	86:5:4131:OHX:N4	2.49	0.45
49:M3:144:THR:C	49:M3:146:PRO:HD3	2.65	0.45
41:L4:165:ALA:O	41:L4:168:ALA:HB3	2.32	0.45
52:M6:46:GLU:HB3	52:M6:134:LYS:HB3	4.21	0.45
34:SR:87:LYS:HD2	34:SR:108:SER:HA	3.62	0.45
43:L6:2:SER:HA	68:O2:81:ASP:OD2	2.16	0.45
35:SM:88:ARG:HG2	35:SM:91:THR:HG23	1.98	0.45
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.38	0.45
13:C1:26:LYS:HD2	13:C1:27:THR:H	4.58	0.45
1:2:234:G:N1	1:2:235:G:H1'	2.32	0.45
55:M9:130:ASN:C	55:M9:132:PHE:H	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:208:MET:HG3	42:L5:223:PHE:CZ	2.52	0.45
61:N5:27:ARG:H	61:N5:27:ARG:HG2	1.61	0.45
43:L6:59:GLU:OE2	43:L6:59:GLU:HA	2.16	0.45
8:S6:195:VAL:O	8:S6:198:ALA:HB3	2.16	0.45
6:S4:8:HIS:ND1	1:6:95:G:H4'	350.44	0.45
36:1:1594:A:P	70:O4:36:LYS:HZ3	2.40	0.45
71:O5:26:LYS:O	71:O5:29:ALA:HB3	2.63	0.45
1:6:212:U:H2'	1:6:213:A:H8	1.81	0.45
1:2:373:G:N7	86:2:2160:OHX:N6	2.65	0.45
40:L3:76:VAL:HA	40:L3:326:GLY:H	1.82	0.45
25:D3:66:SER:OG	1:6:566:C:OP2	357.52	0.45
1:2:1611:A:O3'	7:S5:95:ASN:ND2	2.38	0.45
36:1:31:C:H2'	36:1:32:U:O4'	2.16	0.45
52:M6:124:LEU:HD23	56:N0:168:PRO:HG3	2.18	0.45
42:L5:151:GLN:HE21	42:L5:152:ARG:H	5.02	0.45
39:L2:3:ARG:HD3	36:5:911:C:H42	178.99	0.45
73:O7:3:LYS:HB3	36:5:2138:A:C4	170.51	0.45
36:5:1014:U:C3'	36:5:1015:U:H5'	2.47	0.45
35:SM:48:ARG:H	35:SM:48:ARG:HG3	1.53	0.45
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	2.89	0.45
86:5:4006:OHX:N6	86:5:4195:OHX:N2	2.65	0.45
1:2:704:C:OP2	1:2:704:C:H3'	2.16	0.45
3:S1:176:VAL:HB	3:S1:177:GLN:HE21	1.82	0.45
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.99	0.45
36:5:1466:G:O6	86:5:3911:OHX:N5	2.50	0.45
41:L4:98:ARG:HG2	41:L4:99:MET:N	2.31	0.45
61:N5:40:LEU:HA	61:N5:40:LEU:HD12	1.77	0.45
54:M8:181:SER:HB3	36:5:2790:A:OP2	183.09	0.45
36:1:2573:G:N7	86:1:3997:OHX:N1	2.65	0.45
4:S2:69:ILE:HD11	4:S2:76:LEU:HD22	2.90	0.45
1:6:793:A:H3'	1:6:794:U:H5'	1.99	0.45
36:1:2948:C:H2'	36:1:2949:U:C6	2.52	0.45
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.02	0.45
36:1:1017:C:O2'	36:1:1018:G:OP2	2.35	0.45
37:7:4:U:H2'	37:7:5:G:H8	1.82	0.45
36:1:385:A:C6	36:1:386:A:C6	3.05	0.45
1:6:138:A:H62	1:6:266:A:N6	2.15	0.45
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.17	0.45
62:N6:103:LYS:HD3	62:N6:103:LYS:HA	1.79	0.45
37:3:30:G:C6	37:3:31:U:C4	3.05	0.45
13:C1:79:LYS:HB3	13:C1:79:LYS:HE2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:647:G:N2	1:2:687:G:H1	2.15	0.45
1:2:1426:C:H5'	35:SM:93:ARG:NH1	2.32	0.45
46:L9:93:VAL:N	46:L9:178:GLY:O	2.49	0.45
43:L6:19:LYS:HG3	36:5:591:G:H1'	214.59	0.45
25:D3:23:ARG:HA	25:D3:23:ARG:HD2	2.51	0.45
1:2:1160:A:H2'	1:2:1161:C:C6	2.52	0.45
36:1:3186:A:O2'	46:L9:42:ASP:HA	2.16	0.45
10:S8:83:TYR:O	10:S8:101:ILE:HB	2.89	0.45
38:4:143:U:H2'	38:4:144:G:O4'	2.16	0.45
52:M6:80:PHE:C	52:M6:80:PHE:CD2	3.83	0.45
62:N6:95:VAL:HA	62:N6:96:PRO:HD3	1.88	0.45
34:SR:275:ARG:CZ	34:SR:275:ARG:HB2	2.46	0.45
58:N2:104:ARG:CZ	36:5:1758:G:H5'	120.49	0.45
36:5:34:A:H2'	36:5:35:A:C8	2.52	0.45
49:M3:105:ASN:ND2	72:O6:17:VAL:HG11	3.28	0.45
36:5:1340:G:H2'	36:5:1341:U:H6	1.82	0.45
36:5:2655:U:H4'	36:5:2656:A:O4'	2.17	0.45
4:S2:126:ARG:O	4:S2:130:ILE:HD13	2.17	0.45
26:D4:84:LYS:HG3	26:D4:85:PHE:H	1.81	0.45
20:C8:8:GLN:HB2	20:C8:9:GLY:H	1.57	0.45
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.17	0.45
36:1:769:G:OP1	49:M3:175:SER:OG	2.21	0.45
14:C2:129:GLU:HA	14:C2:133:LEU:HD22	1.99	0.45
1:2:616:G:C2	1:2:622:A:N7	2.84	0.45
45:L8:249:ARG:O	45:L8:253:SER:HB2	2.16	0.45
36:1:3132:C:H2'	36:1:3133:C:C6	2.52	0.45
36:1:813:G:C4	36:1:814:U:C5	3.05	0.45
36:1:650:C:O5'	36:1:650:C:H6	2.00	0.45
10:S8:3:ILE:HG13	10:S8:3:ILE:H	1.62	0.45
53:M7:131:ARG:HA	53:M7:131:ARG:HD2	2.15	0.45
34:SR:274:LEU:O	34:SR:276:PRO:HD3	3.40	0.45
8:S6:70:PRO:HG2	60:N4:2:LYS:NZ	2.32	0.45
1:2:912:U:H4'	1:2:913:G:H3'	1.99	0.45
37:3:25:G:H2'	37:3:26:C:O4'	2.17	0.45
1:2:116:U:O2	1:2:333:A:H2	2.00	0.45
26:D4:23:PHE:CE2	26:D4:75:VAL:HG23	6.02	0.45
1:2:533:U:C4'	26:D4:33:ALA:HB2	2.47	0.45
7:S5:57:SER:OG	7:S5:58:LEU:N	2.73	0.45
9:S7:33:GLU:C	9:S7:35:LYS:H	2.58	0.45
74:O8:46:ARG:HH21	74:O8:51:LEU:HB2	1.81	0.45
55:M9:134:HIS:ND1	55:M9:136:ARG:HB3	2.67	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:291:SER:OG	34:SR:304:GLY:HA3	2.17	0.45
39:L2:102:LEU:HD13	39:L2:166:ILE:HD11	3.36	0.45
86:5:4006:OHX:N4	86:5:4195:OHX:N1	2.64	0.45
68:O2:27:ARG:HG3	68:O2:28:VAL:HG23	2.32	0.45
48:M1:133:ARG:HD2	48:M1:153:LYS:H	4.99	0.45
73:O7:64:MET:O	73:O7:68:LYS:HB3	4.28	0.45
7:S5:74:ALA:O	18:C6:122:ARG:NH2	2.50	0.45
1:6:1699:G:C2'	1:6:1700:C:H5'	2.47	0.45
5:S3:156:PHE:C	5:S3:157:LEU:HD12	2.37	0.45
36:5:2101:C:O2'	36:5:2102:U:OP1	2.32	0.45
3:S1:197:ILE:O	3:S1:201:THR:OG1	2.72	0.45
53:M7:125:GLN:HB2	53:M7:141:SER:CB	2.43	0.45
9:S7:100:PRO:HA	1:6:639:U:H3	367.20	0.45
65:N9:28:LYS:HG3	65:N9:29:TYR:CE1	2.52	0.45
36:5:1843:C:O2'	36:5:1844:C:H5'	2.17	0.45
2:S0:107:PHE:O	2:S0:115:PHE:HE2	3.17	0.45
36:1:1769:G:N7	86:1:4169:OHX:N2	2.64	0.45
10:S8:54:LYS:HG2	10:S8:175:GLN:O	2.17	0.45
50:M4:50:LYS:HE3	50:M4:86:ALA:HB2	1.98	0.45
28:D6:85:ARG:HD3	28:D6:85:ARG:HA	1.60	0.45
36:1:2253:G:C2	36:1:2254:U:C2	3.05	0.45
46:L9:4:ILE:HG22	56:N0:142:GLN:CD	2.37	0.45
61:N5:113:LEU:C	61:N5:113:LEU:HD12	2.52	0.45
1:6:557:G:O2'	1:6:558:U:H4'	2.17	0.45
36:5:849:C:H2'	36:5:850:U:C6	2.51	0.45
36:1:2395:G:H4'	40:L3:258:ALA:HB1	1.98	0.45
2:S0:90:ALA:HB2	2:S0:97:PRO:HB3	2.08	0.45
47:M0:208:ASN:HA	47:M0:211:ARG:HG2	3.91	0.45
1:2:136:C:H4'	1:2:137:U:OP1	2.17	0.45
45:L8:136:LEU:HA	45:L8:136:LEU:HD23	1.74	0.45
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.17	0.45
36:1:3056:U:H1'	36:1:3058:U:O5'	2.17	0.45
1:6:1271:G:H2'	1:6:1272:U:O4'	2.17	0.45
1:6:209:U:H2'	1:6:210:A:H8	1.81	0.45
16:C4:48:VAL:HG11	16:C4:53:ASP:HB2	2.74	0.45
41:L4:241:GLY:O	41:L4:242:ALA:HB3	2.37	0.45
45:L8:202:GLU:O	45:L8:203:VAL:HB	2.57	0.45
36:1:216:G:H4'	62:N6:19:TYR:CZ	2.51	0.45
36:5:1618:G:H4'	38:8:129:C:H1'	1.98	0.45
36:5:3306:U:O5'	36:5:3306:U:H6	2.00	0.45
1:2:939:A:H2'	1:2:940:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:121:SER:O	45:L8:123:GLN:N	2.47	0.45
36:5:708:G:N2	36:5:711:A:C8	2.85	0.45
4:S2:87:GLN:HE21	1:6:11:A:H5'	379.01	0.45
34:SR:145:LEU:HB2	34:SR:146:GLY:H	3.61	0.45
36:1:2378:C:H2'	36:1:2379:U:C6	2.52	0.45
36:5:1740:U:H1'	36:5:1741:A:N7	2.31	0.45
36:5:2512:C:C5'	36:5:2512:C:H6	2.30	0.45
1:2:217:A:OP1	1:2:217:A:H2'	2.17	0.45
74:O8:78:LEU:HA	74:O8:78:LEU:HD13	1.62	0.45
36:5:683:U:H2'	36:5:684:G:O4'	2.16	0.45
50:M4:118:PHE:O	50:M4:122:VAL:HG23	2.16	0.45
51:M5:190:THR:O	51:M5:194:GLN:HG2	3.73	0.45
36:5:155:G:H5''	36:5:156:G:N7	2.31	0.45
28:D6:30:ILE:HD11	28:D6:34:LYS:O	2.16	0.45
41:L4:299:ILE:H	41:L4:299:ILE:HG12	2.21	0.45
36:1:155:G:O2'	72:O6:27:SER:HB3	2.17	0.45
1:2:900:A:H4'	1:2:916:U:H1'	1.99	0.45
16:C4:102:LEU:HD22	16:C4:105:LEU:HD11	1.99	0.45
16:C4:29:HIS:NE2	16:C4:38:THR:HB	6.29	0.45
9:S7:35:LYS:NZ	9:S7:39:ARG:HD2	2.32	0.45
41:L4:93:MET:HB2	36:5:658:G:H21	145.09	0.45
41:L4:93:MET:O	36:5:1438:U:H1'	141.30	0.45
6:S4:11:ARG:HH11	6:S4:21:ASP:H	2.62	0.45
36:5:409:A:OP2	86:5:4098:OHX:N5	2.50	0.45
59:N3:13:ILE:HG12	59:N3:85:TRP:CD1	5.13	0.45
1:6:1458:G:C2	1:6:1459:C:C4	3.05	0.45
36:5:1896:A:H61	36:5:2339:C:H42	1.64	0.45
36:5:656:A:H2'	36:5:657:A:H8	1.81	0.45
44:L7:88:ARG:CZ	44:L7:103:LEU:HD13	2.47	0.45
36:1:2707:C:H2'	36:1:2708:C:C6	2.52	0.45
1:6:341:A:H2'	1:6:342:C:C6	2.52	0.45
3:S1:113:MET:HE1	3:S1:211:HIS:CD2	2.97	0.45
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.85	0.45
26:D4:87:PRO:HG2	26:D4:90:ARG:NH2	2.32	0.45
74:O8:17:ARG:HB3	74:O8:20:VAL:CG2	3.05	0.45
14:C2:118:ALA:HA	1:6:1227:A:H3'	461.63	0.45
62:N6:127:GLU:C	71:O5:16:GLN:HE21	48.02	0.45
1:2:154:G:O6	26:D4:128:LYS:NZ	2.49	0.45
13:C1:60:PHE:O	13:C1:61:THR:OG1	4.73	0.45
9:S7:96:ARG:CZ	9:S7:124:LYS:HB3	2.46	0.45
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:291:G:H2'	1:6:292:U:C6	2.52	0.45
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	3.35	0.45
15:C3:87:ASP:OD2	15:C3:88:LEU:N	2.50	0.45
70:O4:20:ILE:HA	70:O4:20:ILE:HD13	1.57	0.45
1:6:25:C:H1'	1:6:26:A:OP2	2.17	0.45
51:M5:200:TRP:CD1	51:M5:204:LYS:HD2	3.92	0.45
42:L5:24:ARG:NH2	37:7:13:A:N3	291.94	0.45
1:2:553:G:H3'	1:2:554:C:H2'	1.98	0.45
36:1:1675:G:O2'	36:1:1676:A:H5'	2.16	0.45
86:5:4198:OHX:N2	86:8:227:OHX:N5	2.65	0.45
71:O5:21:LEU:HB2	71:O5:54:VAL:HG11	2.40	0.45
49:M3:162:ASN:HD21	49:M3:164:GLU:HB2	2.17	0.45
49:M3:131:LYS:NZ	49:M3:131:LYS:HB3	2.31	0.45
42:L5:104:LEU:HD11	42:L5:108:ARG:NH2	2.31	0.45
33:E1:111:GLU:HA	33:E1:112:GLY:HA2	1.76	0.45
38:4:24:G:OP2	62:N6:13:ARG:HD3	2.16	0.45
1:2:1169:G:N1	1:2:1575:G:OP2	2.45	0.45
36:5:897:U:H2'	36:5:898:U:H6	1.83	0.45
1:2:1765:A:OP1	86:2:2092:OHX:N3	2.50	0.45
25:D3:22:ASN:HB3	1:6:609:U:H5	336.29	0.45
36:1:120:G:N3	36:1:121:A:N6	2.65	0.45
59:N3:46:LEU:HD12	59:N3:47:ASN:CG	2.38	0.45
86:5:4051:OHX:N3	86:5:4194:OHX:N6	2.65	0.45
36:5:696:C:HO2'	36:5:697:A:H8	1.60	0.45
36:5:2265:C:H2'	36:5:2266:U:O4'	2.16	0.45
36:1:1487:G:H1	36:1:1855:U:H3	1.65	0.45
25:D3:52:ILE:HG22	25:D3:99:ASN:HA	3.28	0.45
36:1:697:A:H2'	36:1:698:U:O4'	2.16	0.45
40:L3:172:ALA:O	40:L3:174:LYS:N	2.50	0.45
42:L5:279:LYS:HG2	42:L5:282:ARG:NH2	2.32	0.45
23:D1:25:LYS:HD2	23:D1:27:ASP:OD2	2.16	0.45
36:5:2320:A:OP2	86:5:4071:OHX:N5	2.50	0.45
1:6:1572:G:N3	1:6:1572:G:H2'	2.31	0.45
45:L8:200:LEU:HA	45:L8:200:LEU:HD23	1.55	0.45
36:1:1507:G:H5'	36:1:1507:G:N3	2.32	0.45
10:S8:65:PHE:HA	10:S8:181:GLY:O	2.17	0.45
36:5:2628:A:C2	36:5:2629:U:H1'	2.51	0.45
1:6:1688:U:H2'	1:6:1689:A:C8	2.52	0.44
40:L3:56:ILE:CG1	40:L3:356:LEU:HD22	2.58	0.44
8:S6:176:GLN:HG3	8:S6:177:ARG:H	1.82	0.44
1:2:531:C:OP2	86:2:2070:OHX:N4	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:149:ARG:CD	1:6:765:G:N7	428.38	0.44
36:5:3153:U:H1'	36:5:3154:C:C5	2.51	0.44
40:L3:25:ILE:HD11	40:L3:334:ARG:NE	8.15	0.44
36:5:1238:C:HO2'	36:5:1239:C:P	2.34	0.44
36:1:819:U:H5'	36:1:2138:A:N1	2.32	0.44
7:S5:53:VAL:O	7:S5:55:ASP:N	2.70	0.44
55:M9:88:ARG:HG3	55:M9:88:ARG:HH11	3.55	0.44
42:L5:270:LYS:C	42:L5:272:TYR:H	2.60	0.44
47:M0:72:ALA:O	47:M0:76:MET:HG2	4.16	0.44
86:5:4006:OHX:N3	86:5:4195:OHX:N5	2.65	0.44
52:M6:68:ARG:H	52:M6:68:ARG:HG2	1.36	0.44
19:C7:15:ALA:HA	19:C7:18:GLU:HB2	1.98	0.44
58:N2:50:LEU:HG	58:N2:50:LEU:H	2.13	0.44
20:C8:86:LEU:HA	20:C8:99:HIS:ND1	2.78	0.44
73:O7:66:TYR:HD2	73:O7:67:LEU:N	3.05	0.44
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	7.94	0.44
41:L4:303:GLY:H	36:5:1347:U:H5''	198.14	0.44
1:2:327:U:H2'	1:2:328:A:H8	1.82	0.44
68:O2:96:ILE:HG21	68:O2:105:ARG:HG2	1.99	0.44
1:6:1228:G:H2'	1:6:1228:G:N3	2.32	0.44
67:O1:46:THR:HG23	67:O1:47:ASP:H	4.24	0.44
64:N8:69:TRP:O	64:N8:70:LYS:HB2	2.17	0.44
36:5:3160:U:H2'	36:5:3161:C:C6	2.52	0.44
2:S0:200:ASP:HA	2:S0:203:PHE:CE1	2.57	0.44
36:5:2947:G:N2	36:5:2948:C:C2	2.86	0.44
36:5:2573:G:H2'	36:5:2574:G:O4'	2.17	0.44
1:2:1112:G:OP1	77:Q1:6:ARG:NH2	2.50	0.44
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.30	0.44
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	2.90	0.44
36:5:1586:G:OP1	86:8:215:OHX:N3	2.50	0.44
48:M1:114:ILE:HG22	48:M1:114:ILE:O	2.17	0.44
21:C9:64:HIS:HE1	1:6:1523:G:N7	409.01	0.44
41:L4:188:ARG:O	41:L4:193:LYS:HE3	2.17	0.44
1:2:71:A:N1	1:2:72:A:C6	2.85	0.44
19:C7:103:ASP:O	19:C7:104:ASN:HB3	4.80	0.44
1:6:647:G:N2	1:6:687:G:N2	2.65	0.44
9:S7:71:HIS:HD2	9:S7:74:GLN:OE1	6.31	0.44
36:5:2768:U:H2'	36:5:2769:A:C8	2.51	0.44
36:1:431:U:H5''	69:O3:65:ARG:HH12	1.80	0.44
33:E1:91:ILE:HB	1:6:1445:G:C6	386.07	0.44
15:C3:116:ILE:O	15:C3:117:LEU:C	2.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1434:G:O2'	36:1:1435:A:H5'	2.16	0.44
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	1.86	0.44
10:S8:188:GLU:HG3	13:C1:13:PHE:CD2	2.52	0.44
1:2:1238:A:H2'	1:2:1239:U:O4'	2.17	0.44
77:Q1:13:LEU:O	77:Q1:17:ARG:HG3	2.16	0.44
37:3:115:G:H2'	37:3:116:C:C6	2.50	0.44
37:7:106:U:C4	37:7:107:C:C4	3.06	0.44
71:O5:70:TYR:CE1	71:O5:77:PRO:HD3	2.56	0.44
36:5:873:C:H5'	36:5:874:U:H4'	1.99	0.44
35:SM:31:SER:OG	35:SM:32:SER:N	2.73	0.44
55:M9:8:LYS:HE3	55:M9:8:LYS:HB2	1.84	0.44
9:S7:173:TYR:CD1	9:S7:181:ILE:HD11	4.38	0.44
36:1:109:A:H4'	36:1:110:G:OP1	2.16	0.44
86:5:4051:OHX:N1	86:5:4194:OHX:N4	2.65	0.44
34:SR:236:ALA:HB1	34:SR:256:THR:HG22	3.80	0.44
1:6:212:U:H2'	1:6:213:A:C8	2.52	0.44
36:1:201:A:H2'	36:1:202:G:H8	1.81	0.44
36:1:114:A:H2'	36:1:115:A:O4'	2.17	0.44
36:1:856:G:C6	36:1:857:G:N1	2.85	0.44
1:6:1691:A:H2'	1:6:1692:G:C8	2.52	0.44
38:4:19:C:H2'	38:4:20:U:O4'	2.16	0.44
36:5:255:A:H2'	36:5:256:G:C8	2.52	0.44
64:N8:44:ASN:O	64:N8:47:LYS:O	2.35	0.44
36:1:407:A:C2	38:4:17:A:H1'	2.53	0.44
2:S0:48:ILE:HG21	2:S0:161:PRO:HB2	2.53	0.44
36:5:2569:A:H4'	36:5:2570:U:H5'	1.99	0.44
1:6:986:G:OP2	86:6:2115:OHX:N2	2.50	0.44
36:1:330:G:OP2	86:1:4043:OHX:N2	2.50	0.44
86:2:2075:OHX:N3	86:2:2163:OHX:N5	2.66	0.44
1:2:874:C:OP1	86:2:2033:OHX:N2	2.50	0.44
70:O4:91:ARG:HG3	70:O4:95:ILE:HD13	1.98	0.44
1:6:1179:G:C2	1:6:1180:C:C2	3.05	0.44
36:5:2318:U:O4	86:5:3992:OHX:N6	2.50	0.44
64:N8:26:ARG:HH12	36:5:938:C:H3'	180.43	0.44
74:O8:77:ARG:HD2	74:O8:77:ARG:HA	2.61	0.44
60:N4:54:LEU:HA	60:N4:54:LEU:HD12	1.84	0.44
58:N2:85:LYS:HD2	58:N2:85:LYS:HA	1.76	0.44
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.16	0.44
36:5:961:C:N3	86:5:4173:OHX:N4	2.65	0.44
36:5:2808:A:N7	36:5:2955:U:H4'	2.32	0.44
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	2.13	0.44
7:S5:48:PHE:CG	7:S5:67:PRO:HB3	2.52	0.44
7:S5:95:ASN:O	7:S5:98:MET:HG2	2.47	0.44
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.47	0.44
42:L5:153:THR:HG23	42:L5:160:PHE:CZ	2.52	0.44
7:S5:144:GLU:CD	30:D8:57:MET:HG3	4.03	0.44
55:M9:178:ALA:HA	55:M9:181:ARG:HB3	2.17	0.44
1:6:836:U:H2'	1:6:837:G:C8	2.52	0.44
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.45	0.44
36:1:1363:A:H8	36:1:1363:A:O5'	2.00	0.44
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.44	0.44
55:M9:100:ARG:NE	36:5:1722:U:OP1	214.84	0.44
40:L3:347:SER:O	40:L3:348:ARG:HB3	2.82	0.44
70:O4:71:THR:HG22	70:O4:78:GLY:N	2.57	0.44
22:D0:80:GLU:OE1	31:D9:44:ARG:NH1	2.51	0.44
3:S1:197:ILE:HG21	3:S1:210:ILE:HG21	2.89	0.44
3:S1:36:SER:HB3	3:S1:231:LEU:O	3.83	0.44
1:6:1203:A:C4	1:6:1556:A:C2	3.05	0.44
29:D7:36:LYS:O	29:D7:77:THR:HG22	2.57	0.44
67:O1:46:THR:HG21	67:O1:91:SER:HB2	1.98	0.44
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.71	0.44
47:M0:8:CYS:SG	36:5:2828:G:H5''	269.12	0.44
6:S4:240:LYS:N	6:S4:240:LYS:HE2	2.31	0.44
1:6:1234:A:HO2'	1:6:1235:C:H6	1.63	0.44
1:6:1719:A:N6	1:6:1720:G:C2	2.85	0.44
45:L8:68:ARG:HA	45:L8:236:GLY:O	5.06	0.44
3:S1:83:LYS:HB2	3:S1:83:LYS:HE2	2.90	0.44
41:L4:232:SER:OG	41:L4:233:LEU:N	2.51	0.44
74:O8:69:LEU:HA	74:O8:69:LEU:HD22	1.67	0.44
36:1:271:C:H2'	36:1:272:G:O4'	2.17	0.44
57:N1:8:ARG:NH2	36:5:2756:C:H1'	247.09	0.44
57:N1:28:SER:HA	57:N1:31:LEU:HD12	1.99	0.44
57:N1:9:SER:OG	57:N1:10:ARG:HG3	2.66	0.44
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.35	0.44
42:L5:22:ARG:NH2	42:L5:28:THR:OG1	2.47	0.44
49:M3:131:LYS:HG3	49:M3:133:PRO:HD3	1.99	0.44
24:D2:105:THR:CG2	1:6:804:A:N3	365.94	0.44
45:L8:210:ALA:O	45:L8:214:LEU:HB2	2.42	0.44
37:3:106:U:H2'	37:3:107:C:H6	1.82	0.44
1:2:381:C:O2'	1:2:755:A:N1	2.45	0.44
66:O0:50:VAL:HB	36:5:2553:U:O4'	230.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:65:A:C4	36:5:110:G:N7	2.85	0.44
9:S7:15:GLU:HG3	9:S7:15:GLU:H	2.67	0.44
68:O2:79:VAL:HG12	68:O2:83:GLU:OE1	2.18	0.44
36:5:3041:U:H2'	36:5:3042:U:C6	2.52	0.44
51:M5:194:GLN:H	51:M5:194:GLN:HG2	3.02	0.44
36:1:201:A:H2'	36:1:202:G:C8	2.52	0.44
56:N0:14:LEU:HD23	56:N0:14:LEU:HA	2.16	0.44
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.99	0.44
40:L3:27:ALA:HB2	40:L3:220:VAL:HG23	1.99	0.44
21:C9:15:ILE:O	21:C9:19:ALA:N	2.45	0.44
54:M8:94:PHE:CZ	64:N8:119:PRO:HD3	2.52	0.44
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	2.63	0.44
35:SM:102:THR:HG23	35:SM:105:LYS:HB2	1.99	0.44
57:N1:6:GLY:HA3	36:5:2631:U:P	236.67	0.44
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.05	0.44
1:6:1150:G:O6	86:6:2111:OHX:N5	2.50	0.44
36:1:29:C:H4'	36:1:62:A:H4'	1.98	0.44
70:O4:11:ASN:C	70:O4:11:ASN:OD1	2.69	0.44
36:5:1867:A:H2'	36:5:1868:G:C8	2.52	0.44
68:O2:7:PRO:HG2	68:O2:63:THR:HG23	3.20	0.44
36:5:2733:A:OP1	86:5:4128:OHX:N1	2.51	0.44
1:6:386:G:C6	1:6:387:A:N6	2.85	0.44
36:5:3275:U:H4'	36:5:3276:G:OP2	2.13	0.44
69:O3:58:GLU:HG3	69:O3:62:SER:O	2.17	0.44
53:M7:64:ASN:OD1	86:M7:206:OHX:N2	2.50	0.44
1:6:196:G:HO2'	1:6:197:A:P	2.36	0.44
36:1:31:C:H5	51:M5:188:ARG:HH12	1.65	0.44
1:6:1429:G:H2'	1:6:1430:U:C6	2.52	0.44
36:1:916:G:N1	39:L2:207:VAL:HG11	2.32	0.44
36:1:922:U:P	73:O7:3:LYS:HD2	2.57	0.44
9:S7:39:ARG:NH2	55:M9:185:LEU:HD22	2.57	0.44
24:D2:71:LYS:HB3	24:D2:130:TYR:CE2	2.95	0.44
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.44	0.44
2:S0:63:ILE:HD13	23:D1:34:ILE:HG21	2.34	0.44
36:1:1097:G:N7	57:N1:116:ARG:NH2	2.65	0.44
41:L4:6:VAL:HG21	41:L4:255:PHE:CZ	2.53	0.44
36:5:1103:A:H3'	36:5:1104:G:C5'	2.43	0.44
41:L4:138:ARG:HH21	41:L4:240:PRO:HB2	2.30	0.44
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.17	0.44
86:5:4006:OHX:N6	86:5:4195:OHX:N5	2.65	0.44
52:M6:83:ALA:CB	36:5:1313:G:H5'	258.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:159:THR:HG21	6:S4:227:VAL:O	2.35	0.44
1:2:1291:G:H22	1:2:1324:G:H1	1.64	0.44
7:S5:40:ILE:CG2	7:S5:42:LEU:HG	5.14	0.44
7:S5:39:GLU:HB3	7:S5:40:ILE:H	1.41	0.44
26:D4:20:ARG:HD3	26:D4:76:TYR:CE2	3.04	0.44
22:D0:50:LEU:HD22	22:D0:95:ALA:HB2	2.99	0.44
55:M9:17:VAL:HG12	55:M9:18:GLY:H	1.81	0.44
55:M9:172:ARG:NH1	1:6:852:C:OP1	321.89	0.44
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	2.33	0.44
40:L3:283:TYR:HB2	40:L3:323:MET:HG2	3.66	0.44
1:6:176:C:OP1	86:6:2092:OHX:N6	2.51	0.44
36:5:2881:C:H2'	36:5:2882:U:C6	2.52	0.44
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.53	0.44
36:1:565:U:H2'	36:1:566:G:H8	1.82	0.44
57:N1:78:LYS:HB3	57:N1:87:LYS:HG3	1.98	0.44
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.14	0.44
75:O9:41:ARG:HG3	75:O9:42:ARG:H	1.81	0.44
2:S0:154:GLU:CD	2:S0:154:GLU:H	2.30	0.44
36:5:550:A:H2'	36:5:551:A:C8	2.53	0.44
36:1:2534:G:O6	86:1:3996:OHX:N4	2.50	0.44
36:5:3245:A:H2	36:5:3246:G:C6	2.36	0.44
36:5:3393:U:H2'	36:5:3394:U:C6	2.52	0.44
86:5:4198:OHX:N6	86:8:227:OHX:N5	2.66	0.44
41:L4:156:LEU:C	41:L4:158:SER:H	2.47	0.44
36:1:249:U:O2	36:1:250:U:N3	2.48	0.44
13:C1:80:MET:HB3	13:C1:83:THR:O	3.74	0.44
21:C9:132:LEU:O	21:C9:135:ILE:HG13	2.17	0.44
38:8:154:C:H2'	38:8:155:A:O4'	2.17	0.44
22:D0:65:ILE:HD12	31:D9:43:PHE:CZ	2.52	0.44
5:S3:140:GLY:HA2	1:6:1277:G:H5'	397.52	0.44
79:Q3:84:ARG:O	79:Q3:88:GLU:HG2	2.17	0.44
63:N7:102:GLU:H	63:N7:107:ARG:HH21	2.81	0.44
53:M7:111:LYS:HE2	53:M7:153:LYS:O	5.75	0.44
51:M5:157:LYS:NZ	36:5:58:G:OP1	85.13	0.44
54:M8:62:VAL:O	54:M8:87:VAL:HA	2.44	0.44
11:S9:182:GLU:HG3	11:S9:182:GLU:H	3.02	0.44
36:5:973:A:H2'	36:5:974:G:O4'	2.17	0.44
36:5:3054:U:OP2	86:5:3904:OHX:N6	2.50	0.44
36:1:2810:C:OP1	86:1:4082:OHX:N6	2.50	0.44
48:M1:30:LEU:O	48:M1:34:SER:N	2.43	0.44
68:O2:37:GLY:HA3	36:5:639:G:P	184.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:368:G:C2	36:5:369:A:N7	2.86	0.44
36:1:973:A:P	54:M8:12:ARG:HH12	2.40	0.44
67:O1:64:VAL:HG22	36:5:1456:A:N6	164.67	0.44
36:5:1950:U:H2'	36:5:1951:C:C6	2.52	0.44
36:5:1680:G:H2'	36:5:1681:U:H6	1.82	0.44
68:O2:3:SER:HB3	68:O2:71:HIS:NE2	2.47	0.44
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	2.75	0.44
54:M8:28:LEU:O	54:M8:31:LYS:N	2.50	0.44
36:5:2998:U:O4	86:5:4136:OHX:N4	2.50	0.44
36:5:2624:G:H2'	36:5:2625:C:H6	1.83	0.44
56:N0:66:GLU:OE1	56:N0:99:ARG:N	2.38	0.44
1:6:901:G:C6	1:6:902:G:C6	3.06	0.44
61:N5:67:ILE:HB	61:N5:83:VAL:HG12	1.99	0.44
30:D8:42:ARG:HG3	30:D8:56:LEU:HD22	1.98	0.44
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.33	0.44
15:C3:37:ILE:CD1	15:C3:74:ILE:HD13	2.46	0.44
42:L5:269:SER:OG	37:7:1:G:N3	315.21	0.44
6:S4:108:ARG:HG2	6:S4:108:ARG:H	3.37	0.44
1:6:1050:G:O6	86:6:2191:OHX:N4	2.51	0.44
57:N1:129:LYS:NZ	36:5:1097:G:OP1	243.81	0.44
36:5:2180:G:C6	36:5:2181:C:N4	2.85	0.44
36:1:440:A:OP2	36:1:440:A:H8	2.00	0.44
7:S5:73:THR:HG23	18:C6:114:ARG:HD3	2.00	0.44
23:D1:4:ASP:OD1	23:D1:5:LYS:HD2	3.59	0.44
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.51	0.44
5:S3:7:LYS:HD3	22:D0:88:LYS:HE2	1.99	0.44
21:C9:7:ARG:HD2	1:6:1366:U:O2'	424.60	0.44
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.18	0.44
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.51	0.44
68:O2:44:ARG:NH1	36:5:1145:G:OP1	206.58	0.44
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.82	0.44
36:1:1035:G:C6	36:1:1036:A:C6	3.06	0.44
17:C5:90:ILE:HG23	17:C5:109:PRO:HD3	2.29	0.44
42:L5:113:LEU:HB3	42:L5:115:LEU:HD23	2.81	0.44
11:S9:95:TYR:O	11:S9:99:LEU:N	2.50	0.44
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.18	0.44
86:2:2044:OHX:N2	86:2:2099:OHX:N6	2.65	0.44
73:O7:52:LYS:O	73:O7:56:ARG:HG3	2.17	0.44
36:5:2373:A:H2'	36:5:2373:A:OP2	2.17	0.44
68:O2:12:LYS:O	68:O2:13:HIS:HB2	2.16	0.44
64:N8:79:TRP:CE3	64:N8:87:ARG:HG2	3.62	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2724:U:OP1	57:N1:57:TYR:OH	2.20	0.44
9:S7:49:ILE:HD12	9:S7:172:VAL:HA	2.41	0.44
1:2:1120:U:H2'	1:2:1121:C:C6	2.53	0.44
36:1:1666:G:H2'	36:1:1667:A:C8	2.53	0.44
1:6:146:U:C4	1:6:167:U:C4	3.05	0.44
8:S6:50:PHE:HB3	8:S6:111:LEU:HB3	3.04	0.44
31:D9:10:HIS:C	31:D9:10:HIS:CD2	2.91	0.44
30:D8:16:LEU:HA	30:D8:16:LEU:HD22	3.34	0.44
49:M3:171:ARG:HD3	36:5:770:G:OP1	144.14	0.44
5:S3:202:LEU:O	5:S3:204:ASP:N	2.99	0.44
60:N4:45:ASN:HA	60:N4:46:PRO:HD3	1.87	0.44
15:C3:70:LYS:HE2	15:C3:70:LYS:HB3	4.57	0.44
1:2:785:U:O2'	1:2:786:C:H5'	2.17	0.44
36:5:612:U:H2'	36:5:613:G:C8	2.52	0.44
49:M3:144:THR:O	49:M3:146:PRO:HD3	2.60	0.44
36:1:855:U:H2'	36:1:856:G:O4'	2.18	0.44
1:2:742:U:H4'	1:2:743:U:OP2	2.18	0.44
24:D2:102:VAL:H	24:D2:113:HIS:CD2	2.67	0.44
36:5:330:G:OP2	86:5:4045:OHX:N1	2.51	0.44
1:2:61:A:C8	1:2:269:G:O2'	2.67	0.44
45:L8:178:ALA:HB2	45:L8:218:ILE:HG12	2.00	0.44
74:O8:30:LYS:HB2	74:O8:38:PHE:CE2	2.52	0.44
36:5:3063:C:H2'	36:5:3064:U:C6	2.52	0.44
36:5:1000:C:C2	36:5:1045:C:N4	2.85	0.44
19:C7:115:LEU:HB3	19:C7:116:LYS:H	1.60	0.44
36:1:806:A:H5''	36:1:936:A:N6	2.31	0.44
36:1:2589:G:H2'	36:1:2590:A:H8	1.82	0.44
28:D6:70:LYS:HZ2	1:6:931:C:P	317.60	0.44
4:S2:165:VAL:HG11	4:S2:210:THR:HG23	2.00	0.44
1:2:534:A:H8	1:2:534:A:H5'	1.82	0.44
5:S3:215:GLU:N	5:S3:215:GLU:OE2	2.50	0.44
36:1:2954:U:O5'	36:1:2954:U:H6	2.00	0.44
5:S3:80:ALA:O	5:S3:83:THR:HG23	2.17	0.44
36:1:833:G:H2'	36:1:834:U:O4'	2.18	0.44
36:1:1273:A:HO2'	36:1:1274:A:P	2.41	0.44
11:S9:176:ASN:HA	11:S9:179:ARG:HG2	4.50	0.44
57:N1:160:ILE:HD12	57:N1:160:ILE:HA	2.52	0.44
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	2.30	0.44
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.55	0.44
7:S5:94:THR:O	7:S5:97:LEU:N	2.47	0.44
1:2:1369:U:OP1	21:C9:119:LYS:NZ	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:27:ARG:NH1	62:N6:76:LEU:O	2.50	0.44
42:L5:146:LEU:HD13	42:L5:148:ILE:CD1	3.81	0.44
19:C7:43:SER:O	19:C7:47:ARG:HB2	2.39	0.44
36:5:1438:U:H2'	36:5:1439:U:C6	2.52	0.44
72:O6:45:ARG:HH22	72:O6:54:GLU:CD	2.53	0.44
59:N3:2:SER:CA	59:N3:56:ASP:HA	3.53	0.44
34:SR:37:SER:OG	34:SR:38:ARG:N	2.71	0.44
36:5:1064:A:H4'	36:5:1065:A:O5'	2.17	0.44
41:L4:3:ARG:HA	41:L4:4:PRO:HD3	2.37	0.44
39:L2:192:LYS:HB3	39:L2:193:ARG:NH1	2.32	0.44
7:S5:112:ARG:HD3	1:6:1529:C:OP1	373.86	0.44
70:O4:77:GLY:O	70:O4:79:SER:N	2.45	0.44
36:5:2438:A:C2	36:5:2439:A:C8	3.06	0.44
10:S8:36:THR:HA	10:S8:58:LEU:HA	2.00	0.44
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.36	0.44
74:O8:8:ILE:O	74:O8:12:LEU:HD23	2.16	0.44
86:5:4062:OHX:N5	86:5:4137:OHX:N6	2.65	0.44
14:C2:66:VAL:HB	14:C2:67:THR:H	1.55	0.44
62:N6:124:GLY:O	62:N6:126:LEU:N	4.92	0.44
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.33	0.44
68:O2:45:ARG:NH1	36:5:1160:C:C2	205.59	0.44
36:1:398:A:C5	53:M7:3:ARG:NH2	2.82	0.44
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.52	0.44
36:1:1556:C:H2'	36:1:2169:G:N1	2.33	0.44
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.41	0.44
1:2:1504:G:C6	1:2:1505:A:C6	3.06	0.44
43:L6:13:GLU:OE2	68:O2:91:THR:HB	4.37	0.44
72:O6:11:LEU:HA	72:O6:11:LEU:HD13	1.77	0.44
36:1:3227:A:H8	36:1:3227:A:H5''	1.82	0.44
1:6:1107:G:C5	1:6:1108:G:C6	3.05	0.44
45:L8:133:LYS:NZ	36:5:120:G:OP2	105.43	0.44
36:5:419:G:N2	38:8:5:U:C2	2.86	0.44
41:L4:123:ALA:O	41:L4:126:ILE:HB	2.18	0.44
36:1:2264:U:OP2	86:1:3984:OHX:N5	2.50	0.44
44:L7:37:ASN:HB3	36:5:597:G:OP1	248.99	0.44
36:1:1665:C:H2'	36:1:1666:G:H8	1.82	0.44
2:S0:177:LEU:O	2:S0:181:VAL:HG13	3.38	0.44
1:6:804:A:H2'	1:6:805:U:H6	1.82	0.44
36:1:174:C:O2'	36:1:175:C:H5'	2.18	0.44
1:2:1183:A:N1	17:C5:99:GLY:HA3	2.33	0.44
68:O2:104:ASN:O	68:O2:108:ILE:HG13	2.24	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:56:ALA:HA	39:L2:57:PRO:HD3	1.83	0.44
36:1:761:A:C2'	36:1:762:U:H5'	2.47	0.44
36:5:170:G:H2'	36:5:170:G:N3	2.32	0.44
51:M5:99:ARG:HD3	51:M5:167:THR:HB	1.98	0.44
36:1:3333:G:N2	36:1:3369:G:O2'	2.51	0.44
36:5:734:C:H2'	36:5:735:A:O4'	2.17	0.44
32:E0:59:GLY:O	32:E0:61:SER:N	3.93	0.44
1:2:42:G:H4'	1:2:43:A:O5'	2.18	0.44
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.53	0.44
47:M0:184:LYS:HG3	47:M0:189:GLU:OE2	2.16	0.44
20:C8:63:GLN:HA	20:C8:66:LEU:HD12	1.99	0.44
48:M1:131:MET:HB3	48:M1:131:MET:HE3	3.12	0.44
1:6:1576:A:H2'	1:6:1577:A:O4'	2.18	0.44
45:L8:206:GLU:HG3	45:L8:206:GLU:H	1.50	0.44
1:6:1327:C:H6	1:6:1327:C:O5'	2.00	0.44
51:M5:147:ARG:HH11	51:M5:147:ARG:HG3	1.83	0.44
60:N4:17:ARG:HA	60:N4:17:ARG:HD3	1.81	0.44
36:1:1547:G:P	51:M5:105:ARG:HH11	2.41	0.44
36:5:1778:G:O2'	36:5:1780:G:OP2	2.34	0.44
40:L3:153:LYS:HD3	40:L3:154:TYR:CE2	2.88	0.44
70:O4:52:GLN:HB3	36:5:1639:C:OP1	197.75	0.44
86:2:2090:OHX:N5	86:2:2132:OHX:N6	2.65	0.44
4:S2:228:ASN:OD1	23:D1:1:MET:HA	4.83	0.44
41:L4:299:ILE:HG22	54:M8:39:ARG:HB3	2.49	0.44
53:M7:29:THR:CA	53:M7:32:THR:HG23	2.40	0.44
48:M1:15:GLU:HB3	48:M1:130:VAL:HG13	2.00	0.44
36:1:259:C:H6	36:1:259:C:O5'	2.00	0.44
54:M8:178:ARG:HD2	54:M8:178:ARG:HA	2.11	0.44
59:N3:13:ILE:CD1	59:N3:53:SER:HB2	2.89	0.44
39:L2:193:ARG:O	39:L2:195:SER:N	2.50	0.44
52:M6:65:ASN:HB3	52:M6:68:ARG:HD3	2.20	0.44
19:C7:34:LEU:HD23	19:C7:38:ILE:HB	1.99	0.44
49:M3:101:ARG:HB2	36:5:76:G:N7	83.89	0.44
1:2:735:C:OP2	1:2:735:C:H2'	2.17	0.44
40:L3:62:ARG:N	40:L3:68:HIS:ND1	3.04	0.44
20:C8:20:THR:HG21	20:C8:35:ILE:HG23	2.00	0.44
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.42	0.44
36:5:1470:U:H2'	36:5:1471:U:C6	2.52	0.44
26:D4:50:ALA:HB1	26:D4:54:ALA:HB3	3.22	0.44
33:E1:130:VAL:HG11	33:E1:143:LYS:HG2	1.99	0.44
25:D3:7:ARG:HD2	1:6:1102:G:OP2	351.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:126:THR:HA	3:S1:136:ARG:HA	2.61	0.44
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.70	0.44
1:2:393:C:H2'	1:2:394:C:C6	2.53	0.44
27:D5:41:ILE:HG13	27:D5:42:LEU:H	1.82	0.44
7:S5:187:ILE:HD13	27:D5:66:VAL:HG11	3.82	0.44
2:S0:45:VAL:HG12	2:S0:46:HIS:H	2.49	0.44
9:S7:114:ARG:O	9:S7:117:THR:HG22	2.18	0.44
9:S7:96:ARG:HB3	1:6:856:A:N6	365.32	0.44
6:S4:18:TRP:HB3	6:S4:20:LEU:HD21	1.99	0.44
86:2:2044:OHX:N4	86:2:2099:OHX:N3	2.65	0.44
36:1:414:U:H3	38:4:9:A:H61	1.65	0.44
79:Q3:51:ALA:O	79:Q3:54:ILE:HG23	5.36	0.44
36:5:2371:G:H5''	36:5:2372:A:OP2	2.18	0.44
28:D6:51:ARG:HG2	30:D8:60:GLU:OE2	10.26	0.44
51:M5:159:ARG:H	51:M5:159:ARG:HG2	2.12	0.44
19:C7:104:ASN:O	19:C7:106:THR:HG22	6.29	0.44
43:L6:155:LEU:O	43:L6:158:TYR:HB3	2.21	0.44
45:L8:128:LYS:HG3	36:5:120:G:N7	99.63	0.44
1:2:332:U:H5''	10:S8:31:ARG:HG3	2.00	0.44
36:5:570:A:H2'	36:5:571:U:O4'	2.17	0.44
2:S0:71:GLU:HG2	2:S0:72:ASP:N	3.14	0.44
36:5:214:G:H2'	36:5:215:G:C8	2.53	0.44
36:1:2219:A:H2'	36:1:2220:A:C8	2.52	0.44
68:O2:24:ARG:HD3	68:O2:25:TYR:OH	2.37	0.44
1:6:1735:U:O4	86:6:2119:OHX:N5	2.51	0.44
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.37	0.44
6:S4:77:ARG:HA	6:S4:77:ARG:HD3	3.93	0.44
36:1:1004:U:N3	36:1:1005:G:C8	2.86	0.44
1:2:1347:U:O2	1:2:1516:A:H5'	2.18	0.44
1:2:755:A:H2'	1:2:756:A:C8	2.51	0.44
36:1:2153:U:OP1	39:L2:246:LEU:HB2	2.16	0.44
21:C9:63:ARG:O	21:C9:67:MET:HE3	2.18	0.44
36:5:3340:G:O2'	36:5:3341:U:OP1	2.21	0.44
54:M8:98:LYS:HB3	54:M8:99:THR:H	1.66	0.44
36:1:1419:A:H5'	38:4:20:U:O2'	2.17	0.44
36:5:1584:U:H2'	36:5:1585:C:C6	2.53	0.44
37:7:113:C:C4	37:7:114:U:C4	3.05	0.44
41:L4:153:SER:OG	41:L4:155:ASP:HB2	2.18	0.44
48:M1:173:ASP:HB3	48:M1:174:LYS:H	2.54	0.44
1:2:934:C:N3	1:2:1077:C:H4'	2.33	0.44
45:L8:74:THR:O	45:L8:77:GLN:NE2	3.13	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:21:G:C8	38:4:37:A:N6	2.86	0.44
34:SR:72:THR:OG1	34:SR:73:LEU:N	2.50	0.44
36:5:1083:G:H2'	36:5:1084:A:C8	2.52	0.44
36:1:1325:U:H2'	36:1:1326:A:O4'	2.17	0.44
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	3.11	0.44
4:S2:46:LYS:O	4:S2:48:GLY:N	2.51	0.44
35:SM:107:ASN:OD1	35:SM:112:ASP:HB3	2.17	0.44
6:S4:42:LEU:HD12	6:S4:101:LEU:HD22	5.74	0.44
1:2:265:A:C2	1:2:267:U:C4	3.06	0.44
37:3:90:U:C4	37:3:91:G:C5	3.06	0.44
51:M5:197:LEU:HA	51:M5:197:LEU:HD12	1.85	0.44
67:O1:61:LYS:HB3	67:O1:61:LYS:HE2	4.72	0.44
7:S5:93:LEU:HA	7:S5:93:LEU:HD22	1.80	0.44
25:D3:76:LEU:HA	25:D3:76:LEU:HD23	2.03	0.44
40:L3:287:LYS:HD2	40:L3:287:LYS:HA	4.30	0.44
32:E0:20:LYS:HD2	32:E0:20:LYS:HA	2.46	0.44
47:M0:10:ARG:HG2	47:M0:11:TYR:CD1	2.68	0.44
1:6:953:G:H2'	1:6:954:G:C8	2.53	0.44
36:1:1639:C:C2'	36:1:1640:G:H5'	2.48	0.44
69:O3:107:ILE:HD12	69:O3:107:ILE:HA	4.13	0.44
47:M0:36:LEU:CD1	47:M0:87:LEU:HB3	2.64	0.44
77:Q1:2:ARG:HD2	1:6:1773:C:OP2	310.35	0.44
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	2.02	0.44
7:S5:59:VAL:O	7:S5:61:TYR:N	2.66	0.44
20:C8:36:LYS:O	20:C8:102:ALA:N	2.59	0.44
2:S0:179:ARG:HD3	2:S0:183:ARG:NH1	2.31	0.44
43:L6:78:ARG:HG3	43:L6:78:ARG:NH1	2.33	0.44
24:D2:71:LYS:HZ3	1:6:1099:U:P	375.66	0.44
36:1:409:A:H61	38:4:15:G:H1'	1.83	0.44
36:1:3316:A:O2'	36:1:3317:U:O2	2.36	0.44
1:6:1518:C:OP2	86:6:2139:OHX:N1	2.51	0.44
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.52	0.44
36:1:1492:G:O6	75:O9:2:ALA:HB3	2.18	0.44
47:M0:81:GLY:C	47:M0:83:ASP:N	2.98	0.44
34:SR:19:TRP:CE3	34:SR:306:THR:HG22	2.53	0.44
26:D4:29:HIS:O	26:D4:29:HIS:ND1	2.50	0.44
36:1:439:C:H5'	36:1:440:A:N7	2.33	0.44
5:S3:209:ILE:O	19:C7:20:TYR:OH	3.02	0.44
23:D1:3:ASN:HD22	23:D1:7:GLN:H	7.89	0.44
3:S1:137:ILE:HD13	3:S1:172:LEU:HD22	3.26	0.44
22:D0:26:LEU:HB2	22:D0:89:ARG:HB2	3.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:16:ALA:HB1	65:N9:21:ILE:HD11	2.00	0.44
5:S3:142:LEU:HD12	5:S3:142:LEU:HA	1.87	0.44
5:S3:125:TYR:O	5:S3:129:SER:OG	2.73	0.44
1:2:301:A:C5	1:2:302:U:C4	3.06	0.44
30:D8:12:VAL:HG13	30:D8:28:VAL:HG11	1.99	0.44
17:C5:115:TYR:H	17:C5:118:GLU:HG3	1.83	0.44
44:L7:73:GLY:O	57:N1:143:THR:HB	2.45	0.44
1:2:495:C:H3'	1:2:496:G:O4'	2.18	0.44
42:L5:113:LEU:HD12	42:L5:113:LEU:HA	1.85	0.44
65:N9:28:LYS:HG3	65:N9:29:TYR:HD1	1.81	0.44
42:L5:258:LYS:HA	42:L5:258:LYS:HD3	1.84	0.44
36:1:1023:C:OP2	86:1:4165:OHX:N5	2.51	0.44
86:1:4003:OHX:N6	86:1:4172:OHX:N2	2.66	0.44
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	2.00	0.44
39:L2:130:SER:HA	39:L2:169:ILE:CG2	2.47	0.44
1:2:435:C:H2'	1:2:436:A:C8	2.53	0.44
1:2:176:C:N4	1:2:266:A:OP2	2.50	0.44
44:L7:143:THR:HG22	44:L7:241:LYS:CE	2.48	0.44
9:S7:116:ARG:HE	9:S7:116:ARG:HB2	1.68	0.44
8:S6:25:ARG:HG3	8:S6:28:PHE:CD1	2.53	0.44
36:5:2351:U:H2'	36:5:2352:A:H8	1.83	0.44
61:N5:108:LEU:HA	61:N5:108:LEU:HD23	1.70	0.44
6:S4:208:VAL:HG21	6:S4:225:VAL:HG21	1.99	0.44
1:6:1277:G:C5	1:6:1278:G:C5	3.05	0.44
21:C9:3:GLY:HA3	1:6:1364:G:N2	430.73	0.44
70:O4:19:LYS:HE3	70:O4:35:VAL:HG12	2.00	0.44
36:5:810:A:H2'	36:5:811:U:C6	2.53	0.44
1:2:1085:G:N2	1:2:1087:A:H3'	2.31	0.44
36:1:3336:A:O5'	36:1:3336:A:H8	2.01	0.44
6:S4:42:LEU:N	6:S4:84:ALA:O	2.48	0.44
36:5:336:A:O2'	36:5:337:G:H5'	2.17	0.44
46:L9:1:MET:SD	56:N0:138:GLN:HG3	2.58	0.44
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.17	0.44
38:8:76:C:H2'	38:8:77:A:O4'	2.18	0.44
15:C3:84:ILE:HG22	15:C3:135:LEU:HD21	1.99	0.44
10:S8:72:ILE:HG21	10:S8:112:TRP:CZ2	2.53	0.44
36:1:1331:U:H4'	36:1:1332:A:OP2	2.17	0.44
36:1:1150:A:O2'	69:O3:21:ARG:NH2	2.51	0.44
70:O4:4:ARG:HD2	36:5:1485:G:N2	151.78	0.44
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.36	0.44
43:L6:166:LYS:HA	43:L6:166:LYS:HD3	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:240:U:OP1	1:2:240:U:H4'	2.17	0.44
29:D7:7:LEU:HA	29:D7:7:LEU:HD23	2.12	0.44
61:N5:28:THR:O	61:N5:28:THR:OG1	2.48	0.44
36:1:1012:G:H2'	36:1:1013:G:O4'	2.18	0.44
50:M4:123:LEU:HB3	52:M6:194:LEU:HD21	2.00	0.44
1:6:513:U:H2'	1:6:514:G:C8	2.52	0.44
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.18	0.44
28:D6:50:VAL:O	28:D6:53:LEU:HB3	2.17	0.44
61:N5:34:LEU:HD13	61:N5:35:PRO:O	4.57	0.44
43:L6:78:ARG:HG3	43:L6:78:ARG:HH11	1.82	0.44
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	2.00	0.44
36:1:3317:U:H4'	36:1:3318:G:O5'	2.18	0.44
72:O6:74:LYS:HA	72:O6:83:ALA:HB2	2.08	0.44
43:L6:55:LEU:HB3	43:L6:98:VAL:HG21	2.12	0.44
86:1:4032:OHX:N6	86:1:4045:OHX:N5	2.66	0.44
1:2:1508:U:H2'	1:2:1509:C:C6	2.52	0.44
36:1:1723:A:P	55:M9:103:ARG:HH22	2.41	0.44
86:5:4006:OHX:N4	86:5:4195:OHX:N2	2.66	0.44
1:2:741:C:OP2	13:C1:43:LYS:HD2	2.18	0.44
55:M9:4:LEU:HA	55:M9:7:GLN:HE21	4.54	0.44
58:N2:37:LEU:HA	58:N2:37:LEU:HD13	4.27	0.44
36:1:1429:G:C6	41:L4:99:MET:HE1	2.52	0.44
36:5:1580:A:P	36:5:2522:G:H22	2.41	0.44
4:S2:53:ILE:CD1	4:S2:53:ILE:H	3.74	0.44
22:D0:104:THR:HG22	22:D0:116:VAL:HG21	2.00	0.44
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.70	0.44
36:1:561:C:H2'	36:1:562:C:C6	2.53	0.44
11:S9:86:LEU:HD12	11:S9:95:TYR:HD1	1.81	0.44
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	6.10	0.44
1:2:1145:U:H2'	1:2:1146:G:O4'	2.18	0.44
56:N0:52:LYS:HZ2	37:7:100:C:P	278.86	0.44
36:5:2745:G:N2	36:5:2748:A:OP2	2.47	0.44
1:6:687:G:H2'	1:6:688:G:H8	1.83	0.44
1:6:1267:G:O2'	1:6:1268:G:H5'	2.18	0.44
36:1:1813:A:OP1	36:1:1817:G:O2'	2.33	0.44
36:1:2535:A:H61	36:1:2544:U:H3	1.66	0.44
36:1:643:U:C4	36:1:644:G:C5	3.06	0.44
70:O4:109:THR:O	70:O4:113:LYS:HB2	2.18	0.44
36:5:597:G:H2'	36:5:598:A:H8	1.83	0.44
6:S4:45:ILE:HG13	6:S4:45:ILE:O	2.16	0.44
45:L8:110:THR:O	45:L8:114:ALA:HB3	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:202:LEU:HD22	5:S3:202:LEU:H	1.82	0.44
4:S2:63:VAL:HG12	4:S2:134:LEU:HD23	6.03	0.44
5:S3:4:LEU:HA	5:S3:4:LEU:HD22	2.16	0.44
36:1:733:G:O2'	36:1:735:A:N6	2.43	0.44
38:4:23:U:C4'	62:N6:17:LYS:HG2	2.48	0.44
36:5:423:A:C6	36:5:424:G:C6	3.05	0.44
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	4.63	0.44
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.18	0.44
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.35	0.44
36:1:2805:G:N3	36:1:2967:A:H2	2.16	0.44
1:2:1036:A:H1'	24:D2:9:ASP:OD1	2.17	0.44
40:L3:375:GLU:OE1	60:N4:14:TYR:OH	2.80	0.44
37:3:110:G:C6	37:3:111:U:C4	3.06	0.44
36:1:2631:U:O2'	36:1:2632:G:H5'	2.18	0.44
47:M0:149:VAL:C	47:M0:151:GLY:H	2.88	0.44
36:1:2890:A:N1	36:1:2913:C:N3	2.65	0.44
4:S2:80:VAL:HA	4:S2:102:VAL:HG22	1.99	0.44
11:S9:88:GLU:O	11:S9:91:LYS:HB2	2.18	0.44
36:1:2630:C:H1'	36:1:2758:A:N3	2.33	0.44
34:SR:222:LEU:HA	34:SR:222:LEU:HD13	2.19	0.44
55:M9:99:LEU:HD22	55:M9:99:LEU:O	2.17	0.44
51:M5:59:PHE:HZ	51:M5:148:TYR:CE1	2.36	0.44
1:2:1657:U:H4'	1:2:1658:G:O5'	2.16	0.44
69:O3:60:ARG:NH2	69:O3:60:ARG:HB2	2.32	0.44
1:2:190:C:O2'	1:2:191:C:H5'	2.17	0.44
36:1:2207:A:H2'	36:1:2208:A:C8	2.53	0.44
72:O6:28:TYR:OH	36:5:315:C:OP2	97.57	0.44
1:2:901:G:N2	16:C4:54:GLU:OE1	2.51	0.44
28:D6:46:GLU:HG2	28:D6:49:ALA:HB3	2.00	0.44
41:L4:316:ASN:ND2	41:L4:319:LYS:HE3	4.03	0.44
36:1:1573:G:H2'	36:1:1573:G:N3	2.33	0.44
46:L9:90:MET:O	46:L9:91:ARG:HG2	4.12	0.44
5:S3:67:ASN:O	5:S3:70:THR:OG1	2.35	0.44
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.28	0.44
15:C3:26:PHE:CE2	15:C3:66:ILE:HD13	2.52	0.44
55:M9:115:ILE:HD11	55:M9:123:LEU:HD12	2.00	0.44
41:L4:3:ARG:NH1	41:L4:27:SER:OG	2.51	0.44
42:L5:23:ARG:NH2	36:5:2703:A:OP2	282.62	0.44
41:L4:207:VAL:HG22	41:L4:249:ILE:HB	2.00	0.44
1:2:702:G:HO2'	1:2:703:G:H8	1.65	0.44
25:D3:56:LYS:HZ2	25:D3:97:ASP:H	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:127:VAL:HG11	3:S1:176:VAL:HG21	1.99	0.44
70:O4:46:ASP:CG	70:O4:80:ARG:HD2	2.58	0.44
3:S1:39:GLU:HB3	3:S1:74:GLN:HA	2.00	0.44
20:C8:80:LYS:HD2	20:C8:80:LYS:HA	1.70	0.44
16:C4:114:ARG:HA	28:D6:62:TYR:CE1	2.53	0.44
63:N7:12:VAL:HG22	63:N7:22:LYS:HG2	2.00	0.44
1:2:1410:A:H2'	1:2:1411:A:O4'	2.18	0.44
36:1:1678:G:O6	58:N2:74:LYS:NZ	2.44	0.44
34:SR:216:LYS:HA	34:SR:239:GLU:CG	2.89	0.44
36:1:1555:U:H5	36:1:1559:A:H61	1.65	0.44
61:N5:103:TYR:O	61:N5:138:ARG:NH1	2.50	0.44
66:O0:30:THR:HG21	66:O0:89:VAL:HG13	2.72	0.44
28:D6:59:TYR:HA	28:D6:60:PRO:HD3	2.32	0.44
36:1:709:A:O5'	36:1:709:A:H8	2.01	0.44
44:L7:222:HIS:ND1	44:L7:224:ILE:HG13	2.32	0.44
69:O3:89:LEU:HA	69:O3:89:LEU:HD23	1.71	0.44
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.28	0.44
37:7:8:G:C6	37:7:9:C:C4	3.06	0.44
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.33	0.44
42:L5:233:ALA:O	42:L5:236:LEU:HB2	2.64	0.44
36:5:1716:U:HO2'	36:5:1717:U:P	2.41	0.44
36:5:187:A:C5	36:5:188:U:C4	3.06	0.44
56:N0:27:MET:HG2	57:N1:151:LEU:O	2.29	0.44
71:O5:27:GLU:O	71:O5:31:LEU:HD12	3.33	0.44
31:D9:43:PHE:O	31:D9:47:ALA:N	2.66	0.44
1:2:352:A:OP2	1:2:352:A:H8	2.01	0.44
13:C1:3:THR:OG1	13:C1:82:ARG:NE	2.48	0.44
36:1:3298:C:OP1	53:M7:74:LYS:NZ	2.48	0.44
79:Q3:26:VAL:O	79:Q3:30:GLU:HB2	2.62	0.44
1:2:962:C:OP2	15:C3:70:LYS:HD3	2.17	0.44
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.83	0.44
36:5:2812:C:H2'	36:5:2813:A:C8	2.52	0.44
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.33	0.44
34:SR:74:THR:HG1	34:SR:78:ALA:H	1.64	0.44
36:1:821:U:OP2	86:1:3978:OHX:N3	2.50	0.44
1:6:521:A:H2'	1:6:522:U:O4'	2.17	0.44
25:D3:84:THR:OG1	25:D3:120:VAL:HG22	2.18	0.44
36:5:730:C:H2'	36:5:731:U:C6	2.53	0.44
38:4:108:C:H2'	38:4:109:A:O4'	2.18	0.44
36:1:2738:A:H4'	65:N9:37:PRO:HB2	1.99	0.44
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:552:G:C6	1:6:553:G:C6	3.05	0.44
36:5:1936:A:H2'	36:5:1937:U:O4'	2.18	0.44
1:6:1285:U:O2'	1:6:1286:U:OP1	2.29	0.44
1:6:1001:A:C6	1:6:1002:G:C6	3.06	0.44
8:S6:44:GLU:H	8:S6:44:GLU:CD	2.21	0.44
44:L7:89:ILE:HD12	44:L7:89:ILE:HA	1.61	0.44
71:O5:73:LYS:HE2	71:O5:73:LYS:HB3	1.75	0.44
44:L7:188:ILE:HD13	44:L7:188:ILE:HA	1.85	0.44
15:C3:46:THR:OG1	15:C3:49:GLN:HG2	4.48	0.44
1:2:1039:A:N6	1:2:1091:A:C2	2.86	0.44
34:SR:286:GLU:HA	34:SR:287:PRO:HD3	1.65	0.44
53:M7:78:VAL:HG13	53:M7:79:THR:N	2.62	0.43
1:2:1541:G:C5	1:2:1542:G:C6	3.06	0.43
17:C5:127:ARG:HG3	17:C5:130:ARG:HG2	6.20	0.43
52:M6:14:HIS:NE2	52:M6:124:LEU:HD13	2.33	0.43
1:2:915:A:H5''	1:2:916:U:H5	1.83	0.43
42:L5:148:ILE:HG13	42:L5:159:VAL:HG21	2.75	0.43
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.96	0.43
86:1:3876:OHX:N5	51:M5:91:GLU:OE2	2.51	0.43
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.47	0.43
37:7:28:C:C4	37:7:29:C:C2	3.06	0.43
48:M1:137:ARG:HG2	37:7:28:C:H5''	307.40	0.43
70:O4:10:ARG:HD3	36:5:1489:A:OP1	131.61	0.43
42:L5:119:TYR:HE1	42:L5:134:ALA:HA	3.30	0.43
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.33	0.43
1:2:68:A:H5'	8:S6:160:ARG:NH1	2.24	0.43
51:M5:68:ARG:NH1	51:M5:68:ARG:HG2	2.32	0.43
36:1:3139:A:C8	36:1:3139:A:C5'	3.01	0.43
22:D0:28:SER:OG	22:D0:29:THR:N	2.51	0.43
1:6:1696:G:N2	1:6:1704:U:H3	2.16	0.43
5:S3:168:ILE:HD12	5:S3:170:THR:HG23	6.74	0.43
64:N8:66:ALA:HA	64:N8:69:TRP:N	3.44	0.43
45:L8:34:PHE:CZ	45:L8:42:PRO:HB3	3.11	0.43
36:1:2546:C:H2'	36:1:2547:A:O4'	2.18	0.43
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.18	0.43
68:O2:45:ARG:NH1	36:5:1160:C:N3	205.43	0.43
1:2:730:G:N3	1:2:730:G:H2'	2.33	0.43
13:C1:131:ILE:HA	13:C1:131:ILE:HD12	1.64	0.43
36:1:671:U:H2'	36:1:672:A:C8	2.53	0.43
36:1:709:A:H2'	36:1:710:A:O4'	2.18	0.43
52:M6:88:VAL:C	52:M6:90:HIS:H	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:33:TYR:CD2	58:N2:63:VAL:HG21	2.87	0.43
36:5:1556:C:H2'	36:5:2169:G:O6	2.18	0.43
1:6:799:A:H2'	1:6:800:U:O4'	2.18	0.43
71:O5:119:LYS:HG3	71:O5:119:LYS:HZ2	1.64	0.43
51:M5:38:ARG:HE	51:M5:60:VAL:HG13	1.83	0.43
12:C0:56:LYS:HB3	12:C0:67:THR:HG22	3.56	0.43
86:2:2032:OHX:N3	15:C3:12:SER:O	2.51	0.43
36:1:929:A:H2'	36:1:930:U:H6	1.83	0.43
39:L2:7:ASN:HD21	39:L2:235:ALA:HB2	1.96	0.43
45:L8:90:THR:HA	45:L8:214:LEU:HD21	2.00	0.43
36:1:180:C:H2'	36:1:181:U:H6	1.83	0.43
1:2:47:A:N1	1:2:386:G:H1'	2.32	0.43
36:1:2952:G:H2'	36:1:2953:U:O4'	2.17	0.43
86:5:4051:OHX:N5	86:5:4194:OHX:N6	2.66	0.43
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	2.00	0.43
36:1:1146:C:H4'	36:1:1331:U:C4	2.53	0.43
36:1:87:U:OP2	49:M3:11:LYS:NZ	2.51	0.43
36:1:1459:C:O2'	67:O1:51:LEU:O	2.31	0.43
1:2:1298:U:O3'	4:S2:212:LYS:NZ	2.51	0.43
38:8:66:A:H2'	38:8:67:U:C6	2.52	0.43
36:1:959:C:H41	36:1:2801:A:H5''	1.82	0.43
36:5:274:G:H2'	36:5:275:U:O4'	2.18	0.43
66:O0:46:ALA:HB2	66:O0:72:GLY:H	1.82	0.43
55:M9:80:LYS:HE2	36:5:1940:G:OP1	206.20	0.43
71:O5:24:LEU:HD23	71:O5:24:LEU:HA	1.52	0.43
17:C5:107:ILE:H	17:C5:107:ILE:HG12	2.45	0.43
51:M5:24:ARG:HG2	51:M5:24:ARG:HH11	2.63	0.43
1:2:400:A:H8	10:S8:24:LYS:O	2.01	0.43
36:5:2611:U:H2'	36:5:2612:U:C6	2.53	0.43
1:2:1733:C:H2'	1:2:1734:U:C6	2.52	0.43
47:M0:169:LYS:HD2	57:N1:160:ILE:O	6.01	0.43
46:L9:189:GLU:HA	46:L9:189:GLU:OE2	2.17	0.43
36:1:3088:G:H2'	36:1:3089:C:O4'	2.18	0.43
49:M3:46:ILE:HA	49:M3:46:ILE:HD13	1.62	0.43
40:L3:296:THR:HG21	40:L3:356:LEU:HB2	1.99	0.43
42:L5:177:GLU:HG3	42:L5:177:GLU:H	1.46	0.43
36:1:2163:C:H4'	39:L2:8:GLN:HA	1.99	0.43
1:6:1225:U:O2	1:6:1230:A:O2'	2.36	0.43
1:2:959:U:OP1	29:D7:30:SER:OG	2.29	0.43
7:S5:184:PHE:C	7:S5:186:ASN:H	2.90	0.43
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	4.74	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1834:U:OP1	75:O9:5:LYS:HE3	2.18	0.43
41:L4:20:LEU:HD23	41:L4:20:LEU:HA	1.79	0.43
25:D3:30:LYS:HG2	25:D3:34:LEU:HG	2.15	0.43
36:5:2897:A:H2'	36:5:2899:C:C5'	2.45	0.43
19:C7:12:ALA:O	19:C7:15:ALA:HB3	3.58	0.43
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	2.19	0.43
52:M6:18:ARG:NH1	36:5:1315:U:OP1	277.39	0.43
73:O7:69:HIS:ND1	73:O7:72:ARG:NH2	2.65	0.43
14:C2:124:LYS:O	14:C2:126:TRP:N	2.42	0.43
1:6:151:G:H2'	1:6:152:U:C6	2.53	0.43
14:C2:41:LEU:O	14:C2:43:ARG:HD2	2.19	0.43
6:S4:140:VAL:HA	6:S4:145:ARG:O	2.17	0.43
41:L4:283:THR:CG2	41:L4:285:ASP:H	2.31	0.43
3:S1:186:SER:O	3:S1:190:PRO:HD2	2.45	0.43
67:O1:88:PRO:O	67:O1:89:LEU:HD13	3.40	0.43
5:S3:106:LYS:O	5:S3:110:LEU:N	2.91	0.43
1:2:1230:A:H2'	1:2:1258:U:C5	2.49	0.43
61:N5:100:LYS:HG2	61:N5:105:VAL:O	3.59	0.43
61:N5:135:ILE:O	61:N5:139:ILE:HG22	2.18	0.43
6:S4:179:LYS:N	6:S4:194:THR:O	2.51	0.43
8:S6:188:ARG:NH1	1:6:284:G:N7	348.03	0.43
13:C1:67:ARG:N	13:C1:67:ARG:HD3	2.32	0.43
1:2:1423:U:O2'	4:S2:95:ARG:NH2	2.50	0.43
44:L7:132:PRO:HA	44:L7:229:PHE:CG	2.53	0.43
1:6:371:G:H2'	1:6:372:G:O4'	2.19	0.43
6:S4:118:GLU:OE2	6:S4:237:SER:OG	3.18	0.43
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.51	0.43
3:S1:65:VAL:CG1	1:6:920:U:H5''	264.75	0.43
31:D9:36:LEU:HD13	31:D9:36:LEU:HA	4.46	0.43
75:O9:43:ASN:O	75:O9:45:ARG:N	2.95	0.43
59:N3:35:TYR:CE2	59:N3:37:ILE:HG22	2.53	0.43
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.99	0.43
38:8:15:G:C6	38:8:16:G:N1	2.86	0.43
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	2.00	0.43
28:D6:76:SER:HB3	1:6:1794:A:C6	320.37	0.43
7:S5:156:ARG:H	7:S5:156:ARG:HG3	1.45	0.43
36:5:3256:G:O5'	36:5:3256:G:H8	2.01	0.43
36:1:1033:U:H2'	36:1:1034:U:C6	2.53	0.43
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.17	0.43
9:S7:10:SER:HB2	9:S7:42:GLN:CD	2.38	0.43
55:M9:23:TRP:CZ2	55:M9:26:PRO:HD2	3.03	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:87:GLY:C	21:C9:89:ARG:H	2.59	0.43
1:2:1649:G:H2'	1:2:1650:U:C6	2.53	0.43
21:C9:76:LEU:HD23	21:C9:76:LEU:HA	1.78	0.43
36:1:189:G:C2	36:1:191:U:C4	3.06	0.43
6:S4:208:VAL:O	6:S4:210:ILE:HG13	2.18	0.43
1:2:1765:A:C8	1:2:1768:G:N2	2.87	0.43
39:L2:44:ILE:HD12	39:L2:62:VAL:HG13	1.99	0.43
47:M0:24:ARG:CG	47:M0:24:ARG:HH11	2.31	0.43
36:1:736:A:H2'	36:1:737:G:O4'	2.17	0.43
13:C1:40:LEU:HB3	13:C1:42:PHE:CE2	2.53	0.43
13:C1:40:LEU:HD12	13:C1:40:LEU:HA	1.84	0.43
36:1:813:G:H2'	36:1:814:U:H6	1.83	0.43
2:S0:53:THR:OG1	2:S0:161:PRO:HG2	2.18	0.43
36:1:2631:U:OP2	57:N1:4:SER:OG	2.36	0.43
36:1:2632:G:C6	36:1:2647:A:C6	3.07	0.43
36:5:2612:U:H2'	36:5:2613:U:O4'	2.18	0.43
37:7:110:G:C6	37:7:111:U:C4	3.06	0.43
1:6:223:U:H2'	1:6:224:C:C6	2.54	0.43
26:D4:104:SER:HB3	26:D4:107:GLN:HB2	1.99	0.43
63:N7:60:LYS:O	63:N7:63:ALA:HB3	3.00	0.43
34:SR:9:LEU:HA	34:SR:313:TRP:HA	2.00	0.43
36:5:1910:A:H2'	36:5:1911:A:C8	2.53	0.43
1:6:1087:A:H2	1:6:1142:A:H4'	1.83	0.43
36:5:567:G:H2'	36:5:568:G:C8	2.54	0.43
1:6:848:C:H2'	1:6:849:C:C6	2.52	0.43
42:L5:150:LEU:HD23	42:L5:150:LEU:HA	1.97	0.43
71:O5:18:ALA:O	71:O5:22:VAL:HG23	2.18	0.43
12:C0:80:LEU:O	12:C0:81:ASN:ND2	2.39	0.43
7:S5:116:HIS:O	7:S5:120:ILE:HG13	2.40	0.43
1:6:1030:A:C5	1:6:1792:G:C6	3.06	0.43
50:M4:119:GLN:O	50:M4:123:LEU:HD12	3.20	0.43
36:1:1951:C:H5'	36:1:1952:G:OP1	2.19	0.43
7:S5:190:ILE:O	7:S5:194:LEU:HB2	2.87	0.43
72:O6:26:ILE:H	72:O6:26:ILE:HG13	1.71	0.43
1:2:538:A:H8	1:2:543:C:C4	2.36	0.43
19:C7:43:SER:HB2	19:C7:46:LEU:H	3.48	0.43
78:Q2:71:ARG:HE	78:Q2:80:ARG:NE	2.16	0.43
9:S7:154:LEU:HD21	9:S7:183:PHE:CD1	2.51	0.43
15:C3:16:ILE:HG13	15:C3:17:PRO:HD2	2.25	0.43
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.53	0.43
27:D5:54:VAL:HA	27:D5:57:TYR:CD1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1068:C:H2'	1:6:1069:A:C8	2.52	0.43
57:N1:129:LYS:HD2	36:5:1095:U:C1'	250.51	0.43
86:1:4032:OHX:N2	86:1:4045:OHX:N1	2.67	0.43
44:L7:157:ASN:C	44:L7:159:GLN:H	3.74	0.43
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	2.00	0.43
1:2:119:A:H1'	1:2:397:A:C4	2.53	0.43
10:S8:107:THR:HA	10:S8:110:ARG:HB3	2.00	0.43
78:Q2:65:THR:OG1	78:Q2:87:ARG:HG2	2.17	0.43
41:L4:92:ASN:HA	41:L4:98:ARG:O	2.18	0.43
36:5:2203:U:H2'	36:5:2204:C:C6	2.53	0.43
66:O0:34:LEU:HA	66:O0:34:LEU:HD13	3.09	0.43
4:S2:73:LEU:HG	4:S2:76:LEU:HD13	2.17	0.43
41:L4:261:VAL:HG12	41:L4:262:TRP:CD1	4.17	0.43
22:D0:63:LEU:HD22	31:D9:34:TYR:CZ	2.54	0.43
9:S7:117:THR:HG22	9:S7:120:ALA:HB3	2.57	0.43
4:S2:88:LYS:HG3	1:6:1301:U:H5'	382.34	0.43
34:SR:164:ASP:C	34:SR:166:SER:H	2.22	0.43
36:1:1286:A:N3	36:1:1287:A:H1'	2.33	0.43
36:5:2681:U:O2'	36:5:2682:C:H5'	2.18	0.43
36:5:3317:U:H4'	36:5:3318:G:O5'	2.18	0.43
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.33	0.43
36:1:44:U:OP1	51:M5:84:PRO:HG2	2.19	0.43
1:6:330:G:C4	1:6:331:A:C8	3.06	0.43
36:5:3255:U:H2'	36:5:3256:G:H8	1.84	0.43
43:L6:10:TYR:CG	68:O2:88:HIS:CE1	3.06	0.43
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.50	0.43
1:6:592:A:O2'	1:6:596:C:OP1	2.32	0.43
52:M6:29:ASN:OD1	69:O3:14:LEU:HD22	2.17	0.43
36:5:3110:C:H2'	36:5:3111:U:H6	1.81	0.43
1:2:5:U:H2'	1:2:6:G:C8	2.54	0.43
62:N6:22:ALA:HA	62:N6:23:PRO:HD3	1.89	0.43
6:S4:123:LEU:HD21	6:S4:235:TYR:HB2	2.98	0.43
36:5:768:C:H2'	36:5:769:G:O4'	2.19	0.43
70:O4:11:ASN:HA	70:O4:12:PRO:HD3	1.80	0.43
57:N1:35:LYS:HE3	36:5:1084:A:OP1	233.70	0.43
7:S5:71:ALA:HB1	7:S5:91:GLU:HA	2.00	0.43
38:8:56:G:H2'	38:8:57:C:O4'	2.19	0.43
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.52	0.43
13:C1:94:ILE:HG22	13:C1:97:TYR:H	2.31	0.43
1:2:1073:G:N7	86:2:2129:OHX:N2	2.66	0.43
1:6:1496:U:H4'	1:6:1519:U:O2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:37:VAL:HA	35:SM:38:PRO:HD2	1.70	0.43
52:M6:81:TYR:OH	52:M6:99:LEU:HD13	2.18	0.43
58:N2:58:GLU:OE2	58:N2:60:GLY:N	4.33	0.43
1:2:577:G:H3'	1:2:577:G:H8	1.83	0.43
71:O5:114:ARG:HD2	71:O5:114:ARG:HA	1.72	0.43
44:L7:147:LEU:HD23	44:L7:147:LEU:HA	1.84	0.43
1:6:1528:U:O5'	1:6:1528:U:H6	2.01	0.43
36:1:1889:G:N3	36:1:1889:G:H2'	2.32	0.43
36:5:3289:G:H4'	36:5:3290:G:OP1	2.19	0.43
36:5:948:C:H2'	36:5:949:C:H6	1.83	0.43
36:5:948:C:H2'	36:5:949:C:C6	2.53	0.43
1:2:333:A:H62	10:S8:27:PHE:HB2	1.84	0.43
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.31	0.43
36:1:2101:C:O2'	36:1:2102:U:O5'	2.28	0.43
28:D6:9:GLY:O	28:D6:10:ARG:HG3	2.18	0.43
64:N8:9:ARG:HE	64:N8:9:ARG:HB3	2.03	0.43
36:1:1307:G:C2	36:1:1308:A:C2	3.06	0.43
37:7:92:A:C5	37:7:93:C:H1'	2.53	0.43
36:5:1613:A:C2	36:5:1614:C:C2	3.06	0.43
1:2:77:U:O5'	1:2:77:U:H6	2.01	0.43
55:M9:88:ARG:O	86:5:4000:OHX:N1	205.46	0.43
42:L5:260:PHE:CE2	37:7:121:U:H5'	320.01	0.43
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	2.00	0.43
72:O6:62:ARG:NH1	72:O6:94:ILE:HD11	4.57	0.43
59:N3:82:ALA:HA	59:N3:95:PHE:O	2.18	0.43
29:D7:31:TYR:HB2	29:D7:81:ARG:HG3	2.30	0.43
50:M4:22:LEU:HD22	50:M4:94:TRP:CH2	2.70	0.43
68:O2:27:ARG:HB3	36:5:655:C:OP1	160.91	0.43
1:2:1565:C:H4'	20:C8:85:PHE:O	2.19	0.43
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	2.55	0.43
1:6:760:A:H2'	1:6:761:G:O4'	2.18	0.43
20:C8:134:ARG:HD2	1:6:1545:A:OP2	357.74	0.43
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.48	0.43
70:O4:78:GLY:O	70:O4:80:ARG:N	4.91	0.43
1:6:1316:G:H2'	1:6:1317:C:H6	1.83	0.43
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.36	0.43
1:6:207:U:H2'	1:6:208:U:H6	1.83	0.43
36:5:286:U:H2'	36:5:287:G:C8	2.53	0.43
51:M5:14:LYS:CE	36:5:269:G:H5''	132.83	0.43
22:D0:63:LEU:HD22	31:D9:34:TYR:CE1	2.53	0.43
20:C8:5:VAL:HG12	20:C8:6:GLN:H	3.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:62:VAL:O	27:D5:66:VAL:HG23	2.18	0.43
20:C8:65:GLU:HG2	20:C8:68:ARG:HH12	4.60	0.43
1:6:1391:A:C8	1:6:1412:G:C6	3.06	0.43
62:N6:89:LYS:HE2	36:5:375:A:O5'	76.43	0.43
4:S2:103:VAL:CG2	4:S2:113:LEU:HD23	2.47	0.43
18:C6:140:LYS:HE2	18:C6:142:TYR:CE1	2.53	0.43
36:5:2372:A:H4'	36:5:2373:A:OP2	2.18	0.43
10:S8:31:ARG:NH2	1:6:333:A:OP1	298.55	0.43
1:2:331:A:H5'	10:S8:33:PRO:HA	2.00	0.43
28:D6:73:TYR:CE2	28:D6:82:ARG:HD2	2.53	0.43
36:5:920:A:OP1	36:5:922:U:H5	2.01	0.43
1:6:1172:G:H2'	1:6:1173:C:O4'	2.18	0.43
1:6:1174:C:C4	1:6:1175:U:C4	3.05	0.43
1:2:1019:A:OP2	15:C3:107:LYS:HE3	2.18	0.43
1:2:687:G:H5'	24:D2:119:LYS:HG2	2.00	0.43
36:1:1131:G:C4	36:1:2373:A:C2	3.06	0.43
76:Q0:79:GLU:HA	76:Q0:80:PRO:HD2	1.50	0.43
25:D3:17:VAL:HG22	25:D3:20:ARG:NH2	2.80	0.43
36:5:597:G:C4	36:5:598:A:C8	3.06	0.43
18:C6:71:GLY:HA2	1:6:1483:A:H4'	409.68	0.43
1:6:1249:U:O5'	1:6:1249:U:H6	2.00	0.43
43:L6:102:ASN:OD1	43:L6:105:TYR:N	2.46	0.43
36:1:1580:A:H5'	36:1:2522:G:C8	2.53	0.43
45:L8:153:ILE:HD13	45:L8:166:LEU:HB2	2.28	0.43
36:1:192:C:H2'	36:1:193:C:C6	2.54	0.43
36:1:1470:U:H2'	36:1:1471:U:H6	1.82	0.43
46:L9:47:LYS:HZ2	50:M4:6:ILE:H	1.66	0.43
36:1:2970:C:H4'	36:1:2971:A:N1	2.33	0.43
1:6:1082:C:OP2	1:6:1082:C:H3'	2.19	0.43
4:S2:222:TYR:CE2	23:D1:12:TYR:HD2	2.36	0.43
36:5:2807:U:O2'	36:5:2808:A:H5''	2.18	0.43
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	2.04	0.43
1:6:1087:A:C2	1:6:1142:A:H4'	2.54	0.43
42:L5:90:HIS:NE2	42:L5:229:ASP:OD2	2.59	0.43
1:2:839:U:H5''	13:C1:28:SER:OG	2.18	0.43
59:N3:93:LEU:HB2	60:N4:20:LEU:HD22	2.11	0.43
13:C1:141:LYS:HG2	13:C1:142:VAL:N	3.38	0.43
61:N5:131:ASP:HB3	61:N5:134:ASP:HB2	1.99	0.43
1:2:121:U:O2	6:S4:34:GLY:HA2	2.18	0.43
1:6:29:U:H2'	1:6:30:G:H8	1.83	0.43
36:1:1549:U:H2'	36:1:1550:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:108:ILE:O	49:M3:111:ALA:HB3	2.18	0.43
56:N0:157:GLN:H	56:N0:157:GLN:HG2	1.68	0.43
1:6:628:G:H8	1:6:628:G:O5'	2.02	0.43
36:1:164:A:H8	36:1:164:A:O5'	2.01	0.43
1:6:820:U:H6	1:6:820:U:H2'	1.53	0.43
1:6:1303:U:H2'	1:6:1304:G:O4'	2.18	0.43
1:2:1203:A:C5	1:2:1556:A:C2	3.07	0.43
51:M5:8:GLU:HG2	51:M5:8:GLU:O	2.89	0.43
36:1:2208:A:N1	86:1:4044:OHX:N4	2.66	0.43
62:N6:27:ARG:O	62:N6:31:LEU:HD12	2.55	0.43
1:6:477:A:H2'	1:6:478:A:H8	1.83	0.43
11:S9:38:ASN:ND2	1:6:594:A:OP2	409.97	0.43
36:1:911:C:O2	36:1:917:A:N1	2.50	0.43
19:C7:41:ILE:HD13	19:C7:47:ARG:HA	3.17	0.43
7:S5:168:VAL:O	7:S5:171:ALA:HB3	2.19	0.43
9:S7:35:LYS:C	9:S7:37:GLU:H	2.20	0.43
36:1:289:A:O2'	51:M5:93:LYS:O	2.35	0.43
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.53	0.43
1:2:1572:G:H1'	7:S5:185:ARG:NH2	2.23	0.43
38:8:72:A:N3	38:8:88:A:O2'	2.52	0.43
47:M0:144:ASN:ND2	47:M0:147:VAL:HG21	4.88	0.43
44:L7:160:ARG:HB2	44:L7:203:TRP:CE3	2.53	0.43
36:1:2623:G:C4	36:1:2624:G:C8	3.07	0.43
58:N2:53:ALA:O	58:N2:68:THR:N	2.51	0.43
36:5:1572:U:O2'	36:5:1573:G:H8	2.01	0.43
5:S3:40:ARG:N	5:S3:47:GLU:O	2.39	0.43
5:S3:7:LYS:HB2	1:6:1515:A:OP2	442.34	0.43
3:S1:194:ASN:O	3:S1:197:ILE:HB	2.19	0.43
36:5:1027:A:N7	36:5:1029:G:C2	2.86	0.43
16:C4:12:GLN:HB3	16:C4:77:THR:OG1	2.18	0.43
8:S6:14:LYS:HB3	8:S6:124:LEU:HD13	2.34	0.43
14:C2:32:LEU:HD22	14:C2:41:LEU:HD21	2.34	0.43
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	5.26	0.43
64:N8:65:GLN:O	64:N8:66:ALA:CB	2.67	0.43
64:N8:70:LYS:N	64:N8:71:PRO:HD3	2.33	0.43
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.92	0.43
51:M5:11:GLN:NE2	51:M5:14:LYS:HE3	2.33	0.43
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.31	0.43
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.19	0.43
44:L7:132:PRO:HA	44:L7:229:PHE:CD1	2.53	0.43
47:M0:214:PRO:C	47:M0:216:TYR:H	2.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:4:C:H2'	38:8:5:U:H6	1.83	0.43
28:D6:79:ILE:O	28:D6:84:VAL:HG11	2.18	0.43
27:D5:95:HIS:ND1	27:D5:96:SER:O	2.51	0.43
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.51	0.43
68:O2:20:HIS:ND1	68:O2:42:VAL:HG21	2.49	0.43
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.40	0.43
41:L4:158:SER:HA	41:L4:213:ASN:O	2.18	0.43
65:N9:14:ARG:NH2	65:N9:18:ARG:HD2	2.34	0.43
49:M3:126:PHE:HA	49:M3:127:PRO:HD2	2.65	0.43
36:1:3011:A:C4	40:L3:13:HIS:CD2	3.06	0.43
49:M3:168:ARG:CZ	49:M3:172:LEU:HD21	3.23	0.43
54:M8:138:LEU:HA	54:M8:138:LEU:HD23	1.76	0.43
19:C7:53:TYR:O	19:C7:57:LEU:HG	2.18	0.43
45:L8:140:VAL:HG12	45:L8:144:GLU:OE2	2.18	0.43
6:S4:95:THR:HG22	26:D4:16:PRO:HG2	2.01	0.43
8:S6:122:GLU:O	8:S6:126:ASP:HB3	2.18	0.43
21:C9:93:HIS:NE2	21:C9:95:ASP:OD1	3.15	0.43
36:5:2910:A:N1	86:5:3900:OHX:N4	2.67	0.43
1:2:1107:G:C2'	1:2:1108:G:H5'	2.49	0.43
1:2:1108:G:N1	25:D3:22:ASN:OD1	2.48	0.43
9:S7:170:GLN:HA	9:S7:181:ILE:HG22	2.01	0.43
36:1:2766:U:O4	86:1:4038:OHX:N2	2.52	0.43
12:C0:32:HIS:HD1	12:C0:33:GLU:H	3.91	0.43
13:C1:26:LYS:HD2	13:C1:27:THR:N	4.93	0.43
1:6:553:G:H3'	1:6:554:C:H2'	1.98	0.43
40:L3:10:ARG:NH2	40:L3:263:SER:HB2	2.55	0.43
79:Q3:36:ARG:HH11	79:Q3:48:LYS:HE3	3.22	0.43
8:S6:75:LEU:HB2	8:S6:77:LEU:HD21	2.92	0.43
36:1:3364:C:H2'	36:1:3365:U:C6	2.53	0.43
36:5:701:G:H2'	36:5:702:C:C6	2.53	0.43
6:S4:251:GLU:O	6:S4:255:ARG:HG3	2.34	0.43
1:2:1629:G:C5	1:2:1630:U:C5	3.06	0.43
36:5:641:C:N4	36:5:645:A:C8	2.85	0.43
38:8:145:U:H2'	38:8:146:U:C6	2.53	0.43
67:O1:57:GLN:NE2	36:5:1474:A:O2'	141.07	0.43
13:C1:29:LYS:O	13:C1:31:THR:N	2.52	0.43
49:M3:70:ARG:HD3	49:M3:71:ALA:O	2.18	0.43
36:5:2403:G:H5'	36:5:2872:A:C2	2.54	0.43
46:L9:63:LYS:HE3	36:5:1210:U:H5'	311.52	0.43
45:L8:146:LYS:NZ	45:L8:173:MET:O	5.43	0.43
4:S2:169:LEU:HG	4:S2:217:ALA:HB1	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:164:LEU:HD22	55:M9:164:LEU:HA	2.08	0.43
78:Q2:10:THR:HG22	78:Q2:23:HIS:CD2	2.53	0.43
1:2:1092:A:C8	1:2:1094:G:C8	3.07	0.43
41:L4:62:ALA:HB3	41:L4:90:PHE:HE2	1.83	0.43
7:S5:205:SER:C	7:S5:207:THR:H	2.50	0.43
40:L3:3:HIS:ND1	40:L3:3:HIS:C	2.72	0.43
36:1:3087:A:H5''	40:L3:365:PHE:CD1	2.54	0.43
36:1:498:A:OP1	69:O3:86:ARG:NH2	2.51	0.43
42:L5:48:LYS:HE3	42:L5:145:PHE:CE2	2.54	0.43
36:1:1565:G:N2	36:1:1574:C:C2	2.86	0.43
2:S0:186:GLY:O	2:S0:188:LEU:N	2.48	0.43
72:O6:74:LYS:HG2	72:O6:74:LYS:O	2.19	0.43
40:L3:173:GLN:HG3	40:L3:175:LYS:H	1.83	0.43
26:D4:122:GLY:C	26:D4:124:ARG:N	3.01	0.43
59:N3:85:TRP:O	59:N3:92:PHE:HA	2.18	0.43
70:O4:56:THR:HA	70:O4:62:TYR:OH	2.21	0.43
25:D3:24:TRP:HE3	25:D3:30:LYS:HG3	1.83	0.43
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.18	0.43
36:1:2181:C:H2'	36:1:2182:A:O4'	2.19	0.43
50:M4:20:VAL:O	50:M4:66:THR:HG23	2.18	0.43
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	2.00	0.43
4:S2:148:LEU:CA	23:D1:4:ASP:HB2	2.49	0.43
48:M1:50:ALA:HB2	48:M1:65:ILE:HD13	2.01	0.43
36:1:3139:A:C8	36:1:3139:A:H5'	2.54	0.43
73:O7:19:CYS:H	73:O7:24:ARG:H	1.66	0.43
22:D0:26:LEU:O	22:D0:88:LYS:HG2	2.60	0.43
36:1:2635:A:H4'	36:1:2636:A:O5'	2.18	0.43
1:2:237:C:C5'	1:2:238:U:H5'	2.47	0.43
57:N1:71:SER:HB2	57:N1:91:LEU:O	2.24	0.43
2:S0:151:SER:HA	2:S0:152:PRO:HD2	2.17	0.43
20:C8:49:LYS:HZ3	20:C8:80:LYS:HB3	1.84	0.43
17:C5:111:MET:HG3	20:C8:119:ILE:CD1	4.77	0.43
64:N8:27:LYS:HZ1	36:5:801:A:P	152.11	0.43
41:L4:262:TRP:HB3	41:L4:276:LEU:HD21	2.00	0.43
40:L3:250:ALA:HB1	36:5:2947:G:N3	218.45	0.43
17:C5:24:LYS:O	17:C5:28:MET:HG3	3.51	0.43
6:S4:16:HIS:C	6:S4:18:TRP:H	2.21	0.43
36:5:352:A:H4'	36:5:353:G:OP1	2.18	0.43
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	3.82	0.43
36:1:1766:G:OP2	36:1:1766:G:H8	2.01	0.43
36:5:1514:G:C6	36:5:1841:A:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.86	0.43
36:1:715:A:H4'	36:1:716:A:OP1	2.18	0.43
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.57	0.43
36:1:431:U:H5''	69:O3:65:ARG:NH1	2.34	0.43
10:S8:172:ARG:NH1	1:6:330:G:OP2	280.41	0.43
34:SR:255:ALA:HB1	34:SR:289:ALA:O	2.18	0.43
2:S0:119:ARG:HH11	2:S0:119:ARG:HB3	1.82	0.43
64:N8:128:ARG:HB3	72:O6:8:ALA:HB3	2.94	0.43
44:L7:83:LEU:HD22	44:L7:84:VAL:N	2.33	0.43
36:1:980:A:H2'	36:1:981:U:C1'	2.49	0.43
36:1:127:G:O2'	36:1:128:G:H5'	2.18	0.43
36:5:145:G:O6	86:5:4013:OHX:N5	2.51	0.43
36:5:251:G:C6	36:5:253:A:N6	2.87	0.43
1:2:122:U:O2'	6:S4:35:PRO:HG3	2.18	0.43
41:L4:210:ALA:HB2	41:L4:254:ALA:CA	2.49	0.43
39:L2:32:LEU:HD23	39:L2:163:ARG:HH11	2.71	0.43
1:2:912:U:H4'	1:2:913:G:O5'	2.18	0.43
36:5:695:C:O2'	36:5:696:C:H5'	2.19	0.43
10:S8:24:LYS:O	1:6:400:A:H5''	307.43	0.43
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.34	0.43
53:M7:47:TYR:OH	53:M7:58:ILE:HD13	2.54	0.43
39:L2:229:ALA:O	39:L2:234:LYS:NZ	2.52	0.43
36:1:2267:C:H2'	36:1:2268:U:O4'	2.19	0.43
1:6:1438:G:H2'	1:6:1439:C:C6	2.54	0.43
46:L9:122:LYS:HD2	46:L9:123:ILE:H	5.07	0.43
36:1:2812:C:O2'	36:1:2813:A:H5'	2.19	0.43
1:2:1220:C:H5''	12:C0:52:LYS:HD2	2.01	0.43
14:C2:24:ILE:O	14:C2:26:ASP:N	2.52	0.43
36:1:647:A:OP2	36:1:647:A:H8	2.01	0.43
71:O5:41:LEU:HA	71:O5:41:LEU:HD12	1.78	0.43
52:M6:15:LEU:HD23	52:M6:15:LEU:HA	1.68	0.43
1:6:194:U:O2	1:6:194:U:H2'	2.18	0.43
36:5:3351:U:O2	36:5:3351:U:H3'	2.19	0.43
38:4:43:A:OP1	86:4:235:OHX:N5	2.51	0.43
36:1:1009:A:OP2	86:1:4092:OHX:N1	2.51	0.43
57:N1:159:PHE:O	57:N1:160:ILE:HD12	2.19	0.43
1:2:144:U:H1'	1:2:145:A:H5'	2.00	0.43
4:S2:229:LEU:HA	4:S2:229:LEU:HD12	1.76	0.43
11:S9:113:VAL:HG22	11:S9:118:LEU:HD13	4.41	0.43
42:L5:148:ILE:HG23	42:L5:151:GLN:HB2	2.01	0.43
73:O7:2:GLY:N	36:5:2138:A:HO2'	173.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.45	0.43
36:1:786:A:H5''	54:M8:146:SER:O	2.19	0.43
36:1:8:C:H2'	36:1:9:U:O4'	2.18	0.43
55:M9:115:ILE:HG21	55:M9:120:TYR:HB2	2.00	0.43
75:O9:5:LYS:HG2	75:O9:5:LYS:H	1.54	0.43
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	2.12	0.43
72:O6:58:ILE:HB	72:O6:94:ILE:HD11	1.99	0.43
1:2:12:U:O4'	1:2:1300:A:H1'	2.18	0.43
17:C5:42:ARG:HB2	17:C5:42:ARG:HE	1.30	0.43
35:SM:26:VAL:HG11	48:M1:49:LYS:HE3	2.41	0.43
59:N3:120:LYS:H	59:N3:137:VAL:CG2	2.80	0.43
17:C5:118:GLU:O	20:C8:121:ALA:HA	2.76	0.43
86:5:4062:OHX:N3	86:5:4137:OHX:N6	2.67	0.43
16:C4:123:SER:HA	1:6:929:A:C8	293.77	0.43
1:2:791:A:H2'	1:2:792:U:C6	2.54	0.43
54:M8:96:PHE:CG	54:M8:97:PRO:HD2	2.58	0.43
22:D0:24:ILE:HG23	22:D0:116:VAL:HG22	2.00	0.43
1:2:1001:A:C6	1:2:1002:G:C6	3.06	0.43
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	1.78	0.43
1:2:491:C:N3	1:2:496:G:N2	2.55	0.43
1:2:1586:A:H2'	1:2:1587:A:O4'	2.18	0.43
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.45	0.43
36:1:229:G:H5''	62:N6:4:GLN:HB2	2.00	0.43
36:1:1559:A:H4'	36:1:1560:G:OP2	2.17	0.43
1:6:692:C:H2'	1:6:693:U:O4'	2.18	0.43
11:S9:90:LYS:HD3	11:S9:90:LYS:HA	1.87	0.43
1:2:731:C:H4'	1:2:732:G:OP1	2.18	0.43
36:1:412:G:C5	36:1:413:U:C5	3.07	0.43
46:L9:106:LYS:HG3	46:L9:107:ASP:OD1	4.46	0.43
62:N6:57:LEU:HD23	62:N6:67:GLU:HB3	3.05	0.43
36:5:2187:G:OP2	86:5:3970:OHX:N4	2.51	0.43
1:2:1788:G:N7	16:C4:132:ARG:NE	2.66	0.43
56:N0:52:LYS:NZ	37:7:100:C:P	279.47	0.43
69:O3:91:ALA:N	69:O3:93:THR:OG1	2.52	0.43
1:2:45:U:C2	1:2:436:A:N6	2.86	0.43
86:5:4198:OHX:N2	86:8:227:OHX:N1	2.66	0.43
36:1:604:G:C2	36:1:605:U:C2	3.07	0.43
1:2:1156:C:C2'	1:2:1157:A:H5'	2.49	0.43
8:S6:35:GLU:HA	8:S6:50:PHE:O	2.19	0.43
8:S6:52:ILE:HD13	8:S6:102:VAL:HG21	2.01	0.43
36:5:126:U:H2'	36:5:127:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:83:THR:HA	13:C1:111:VAL:HG12	2.00	0.43
43:L6:7:PRO:HB2	43:L6:9:TRP:H	1.84	0.43
11:S9:24:LEU:HD13	1:6:591:A:H5''	407.33	0.43
36:5:1236:G:H3'	36:5:1237:G:C5'	2.49	0.43
1:2:1738:U:H2'	1:2:1739:C:C6	2.53	0.43
38:4:113:U:H5''	75:O9:7:PHE:HB3	2.00	0.43
62:N6:63:LYS:HA	62:N6:63:LYS:HD2	1.72	0.43
63:N7:81:LEU:HA	63:N7:82:PRO:HD3	2.75	0.43
9:S7:173:TYR:CE1	9:S7:181:ILE:HD13	2.53	0.43
59:N3:45:ARG:O	59:N3:46:LEU:C	2.55	0.43
34:SR:276:PRO:HG2	34:SR:278:PHE:CE1	2.53	0.43
34:SR:74:THR:HG23	34:SR:79:TYR:HB2	2.01	0.43
36:1:959:C:H5'	36:1:960:U:O5'	2.18	0.43
1:2:932:U:H4'	1:2:933:A:O4'	2.18	0.43
40:L3:261:MET:HG2	52:M6:64:PHE:HB3	2.50	0.43
1:6:1054:U:H2'	1:6:1055:U:O4'	2.19	0.43
56:N0:128:GLU:O	56:N0:130:GLU:N	3.00	0.43
34:SR:203:THR:HG23	34:SR:212:ALA:HB3	2.00	0.43
79:Q3:57:CYS:SG	79:Q3:59:CYS:O	2.77	0.43
1:2:958:U:OP2	29:D7:20:LYS:HE3	2.19	0.43
36:1:1428:A:OP2	64:N8:2:PRO:HB3	2.19	0.43
56:N0:110:MET:HB3	56:N0:116:ALA:HB3	2.01	0.43
1:2:1059:U:O2'	1:2:1060:U:N3	2.52	0.43
67:O1:71:LEU:HA	67:O1:71:LEU:HD23	1.60	0.43
79:Q3:23:ARG:HD2	79:Q3:23:ARG:HH11	1.83	0.43
64:N8:62:HIS:CG	64:N8:62:HIS:O	2.83	0.43
1:2:817:A:C6	1:2:818:C:N4	2.87	0.43
36:5:87:U:H2'	36:5:88:A:C8	2.54	0.43
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.86	0.43
36:1:2694:A:C6	36:1:2695:A:C6	3.07	0.43
7:S5:64:VAL:CG2	7:S5:89:ILE:HD11	2.48	0.43
7:S5:63:GLN:NE2	7:S5:66:GLN:HB2	3.88	0.43
17:C5:128:HIS:O	17:C5:130:ARG:HG2	2.19	0.43
28:D6:87:ARG:NH1	1:6:1797:A:C5	343.28	0.43
79:Q3:4:ARG:NH1	36:5:837:A:OP2	237.54	0.43
1:2:896:U:C1'	16:C4:38:THR:HG21	2.49	0.43
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.78	0.43
1:6:1255:G:O2'	1:6:1256:A:H8	2.02	0.43
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.25	0.43
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.84	0.43
36:1:1939:G:C6	36:1:1940:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:119:TYR:CE1	42:L5:141:PRO:HB3	2.90	0.43
27:D5:61:SER:H	27:D5:64:VAL:HB	1.87	0.43
47:M0:80:SER:CB	47:M0:147:VAL:HG11	2.48	0.43
36:5:978:G:N2	36:5:1104:G:C4	2.86	0.43
58:N2:53:ALA:HB1	58:N2:68:THR:HG22	2.01	0.43
13:C1:109:VAL:HB	13:C1:137:PHE:HB2	2.88	0.43
10:S8:42:ARG:NH1	1:6:1677:C:OP1	262.16	0.43
1:2:544:A:H5''	1:2:545:A:OP2	2.19	0.43
36:5:2794:G:H1'	36:5:2795:U:C6	2.54	0.43
45:L8:185:ARG:O	45:L8:188:THR:OG1	2.36	0.43
1:6:151:G:H2'	1:6:152:U:H6	1.82	0.43
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.99	0.43
39:L2:159:SER:C	39:L2:161:ASP:N	2.97	0.43
5:S3:178:ARG:NE	5:S3:178:ARG:H	2.14	0.43
1:6:694:U:H6	1:6:694:U:OP2	2.01	0.43
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.34	0.43
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	2.00	0.43
29:D7:61:THR:HG23	29:D7:62:ILE:H	1.84	0.43
1:6:138:A:H62	1:6:266:A:H61	1.64	0.43
36:5:2881:C:H2'	36:5:2882:U:H6	1.84	0.43
18:C6:140:LYS:HE2	18:C6:142:TYR:HE1	1.84	0.43
44:L7:27:ALA:CA	44:L7:30:ARG:HB3	2.48	0.43
1:2:827:C:H2'	1:2:828:U:C6	2.52	0.43
4:S2:129:ILE:HG22	4:S2:133:LYS:HE3	2.11	0.43
10:S8:31:ARG:NH2	10:S8:48:THR:HA	2.34	0.43
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.59	0.43
1:2:1052:U:OP1	1:2:1053:G:H5''	2.19	0.43
36:5:1944:U:H3	36:5:2104:A:N6	2.16	0.43
36:1:953:G:H2'	36:1:1117:G:H5''	2.00	0.43
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD13	2.86	0.43
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.51	0.43
1:2:710:U:H2'	1:2:711:U:H5'	2.01	0.43
71:O5:53:CYS:O	71:O5:57:VAL:HG23	2.18	0.43
1:6:1185:U:O2	1:6:1185:U:H2'	2.18	0.43
46:L9:103:ILE:HG13	46:L9:136:PHE:CZ	2.54	0.43
46:L9:61:GLY:O	46:L9:62:ARG:C	2.57	0.43
40:L3:67:PHE:HD1	40:L3:72:VAL:HG12	1.83	0.43
57:N1:95:HIS:O	57:N1:96:ILE:HD13	2.19	0.43
49:M3:149:GLN:HA	49:M3:150:PRO:HD2	2.26	0.43
36:1:816:A:C8	36:1:906:A:C6	3.07	0.43
43:L6:2:SER:N	36:5:1385:C:HO2'	136.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:76:ASN:OD1	74:O8:77:ARG:N	3.29	0.43
67:O1:60:TRP:CZ3	67:O1:64:VAL:HG13	2.54	0.43
15:C3:100:LYS:HA	15:C3:103:GLU:HG2	2.01	0.43
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.52	0.43
36:5:2815:G:H5''	36:5:2816:G:OP2	2.19	0.43
45:L8:60:ARG:O	45:L8:64:ILE:HG13	4.78	0.43
36:5:2725:U:O3'	86:5:4148:OHX:N6	2.52	0.43
76:Q0:78:ILE:HG23	76:Q0:83:LYS:HB2	2.01	0.43
36:1:773:G:O6	86:1:3887:OHX:N6	2.51	0.43
36:1:3015:G:C5	36:1:3040:A:C2	3.06	0.43
54:M8:166:LEU:O	54:M8:167:SER:C	2.57	0.43
36:1:648:C:N4	36:1:2375:G:H5'	2.33	0.43
36:5:747:A:H2'	36:5:748:U:O4'	2.19	0.43
40:L3:199:PHE:C	40:L3:201:LYS:H	2.22	0.43
1:6:286:C:H2'	1:6:287:G:O4'	2.19	0.43
11:S9:28:LEU:O	11:S9:28:LEU:HD22	2.19	0.43
51:M5:155:VAL:H	51:M5:155:VAL:HG23	2.58	0.43
13:C1:21:ASN:N	13:C1:21:ASN:OD1	3.35	0.43
36:5:3374:U:H2'	36:5:3378:C:H41	1.83	0.43
36:1:2943:G:O5'	40:L3:2:SER:HB2	2.19	0.43
50:M4:113:THR:HG22	50:M4:116:GLU:N	2.17	0.43
53:M7:62:ARG:HG2	53:M7:63:PHE:CD1	2.54	0.43
1:2:566:C:H2'	1:2:567:A:O4'	2.19	0.43
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.48	0.43
2:S0:155:PHE:O	23:D1:60:ARG:NH2	3.44	0.43
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.19	0.43
36:5:942:U:O5'	36:5:942:U:H6	2.01	0.43
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.55	0.43
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.54	0.43
22:D0:47:GLN:O	22:D0:47:GLN:HG2	2.19	0.43
49:M3:137:GLN:HG3	49:M3:139:LEU:HD23	2.01	0.43
43:L6:176:PHE:H	50:M4:117:ARG:NH2	5.06	0.43
36:1:1464:G:O2'	86:1:3878:OHX:N4	2.52	0.43
1:2:488:G:N2	1:2:500:C:O2	2.51	0.43
70:O4:71:THR:CG2	70:O4:78:GLY:H	2.32	0.43
10:S8:51:GLY:O	10:S8:52:ASN:HB2	2.81	0.43
36:1:3119:U:H5''	36:1:3120:C:OP2	2.19	0.43
8:S6:7:TYR:OH	8:S6:116:LYS:HD3	3.55	0.43
15:C3:105:ASN:HB3	1:6:879:G:O2'	275.90	0.43
14:C2:36:LEU:HD21	14:C2:43:ARG:HH12	6.14	0.43
1:2:1760:G:C2'	1:2:1761:U:H5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:167:LYS:HE3	2:S0:168:HIS:NE2	3.27	0.43
1:2:393:C:OP2	10:S8:2:GLY:N	2.51	0.43
71:O5:101:THR:CG2	71:O5:103:LYS:HG2	2.49	0.43
27:D5:37:GLN:O	27:D5:70:LYS:HD3	8.14	0.43
48:M1:160:VAL:O	48:M1:163:PHE:N	3.16	0.43
36:5:113:C:C2	36:5:319:A:C2	3.06	0.43
6:S4:18:TRP:HH2	6:S4:31:PRO:HD3	1.84	0.43
1:6:1027:A:OP1	1:6:1789:G:O2'	2.21	0.43
79:Q3:49:ARG:HD2	79:Q3:50:GLY:H	1.83	0.43
36:5:83:U:H2'	36:5:84:U:O4'	2.19	0.43
36:1:1879:A:H4'	36:1:1880:U:OP2	2.19	0.43
36:5:1396:C:H2'	36:5:1397:C:C6	2.54	0.43
64:N8:74:ASN:CG	64:N8:115:LYS:HB2	2.39	0.43
52:M6:156:LEU:HB3	36:5:3243:A:N7	267.05	0.43
3:S1:128:LYS:HE3	3:S1:132:ASP:OD1	2.19	0.43
36:5:651:G:C6	36:5:652:G:C6	3.07	0.43
3:S1:30:PHE:CZ	3:S1:94:LYS:HA	2.53	0.43
86:5:4198:OHX:N6	86:8:227:OHX:N3	2.66	0.43
2:S0:177:LEU:HA	2:S0:177:LEU:HD23	1.72	0.43
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.19	0.43
86:6:2056:OHX:N1	86:6:2143:OHX:N3	2.66	0.43
36:5:370:U:OP1	86:5:4160:OHX:N5	2.52	0.43
43:L6:170:LYS:HD3	43:L6:173:MET:CE	8.01	0.43
15:C3:14:SER:OG	1:6:958:U:H2'	339.60	0.43
6:S4:97:GLU:HG2	6:S4:97:GLU:H	3.62	0.43
40:L3:246:LEU:C	40:L3:248:LYS:H	2.40	0.43
1:2:1277:G:H2'	1:2:1278:G:O4'	2.19	0.43
1:2:755:A:H2'	1:2:756:A:O4'	2.19	0.43
36:1:3153:U:H1'	36:1:3158:G:C5	2.54	0.43
45:L8:162:LEU:HD23	51:M5:7:LEU:HD21	2.00	0.43
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.91	0.43
1:2:865:A:H62	1:2:963:A:H2	1.67	0.43
36:1:2931:C:H2'	36:1:2932:U:O4'	2.19	0.43
51:M5:190:THR:O	51:M5:194:GLN:HG3	2.19	0.43
86:2:2075:OHX:N6	86:2:2163:OHX:N2	2.67	0.43
86:2:2075:OHX:N3	86:2:2163:OHX:N1	2.66	0.43
37:7:113:C:H2'	37:7:114:U:O4'	2.18	0.43
1:6:1779:U:H2'	1:6:1781:A:OP2	2.19	0.43
9:S7:151:LYS:NZ	24:D2:51:GLU:OE2	2.35	0.43
1:2:872:G:O6	86:2:2127:OHX:N3	2.52	0.43
36:1:2796:G:H4'	36:1:2798:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:21:ARG:HD2	51:M5:192:LYS:HG3	2.52	0.43
61:N5:93:TYR:CE2	38:8:131:A:H5''	105.93	0.43
36:1:2904:U:H2'	36:1:2905:U:C6	2.54	0.43
48:M1:107:ASP:HA	48:M1:124:GLY:HA2	1.99	0.43
36:1:1717:U:H2'	36:1:1718:G:C8	2.54	0.43
36:1:3045:G:H2'	36:1:3046:A:O4'	2.18	0.43
1:6:782:U:H5''	1:6:782:U:O2	2.18	0.43
33:E1:96:LYS:HA	33:E1:96:LYS:HD2	1.65	0.43
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.06	0.43
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.19	0.43
36:5:1130:A:C8	36:5:1132:C:C6	3.07	0.43
36:1:1100:U:O2	44:L7:105:LEU:HD22	2.19	0.43
40:L3:339:ARG:NH1	40:L3:342:LEU:HD11	2.33	0.43
36:5:3181:C:H2'	36:5:3182:G:C8	2.54	0.43
36:5:3194:C:O2'	36:5:3195:U:H5'	2.19	0.43
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.42	0.43
8:S6:137:ARG:O	8:S6:141:ILE:HG13	2.81	0.43
41:L4:203:ARG:HB2	36:5:1384:U:OP1	114.72	0.43
1:6:1640:C:O5'	1:6:1640:C:H6	2.02	0.43
28:D6:36:ILE:HD12	28:D6:36:ILE:N	4.96	0.43
1:2:896:U:O4'	16:C4:38:THR:HG21	2.19	0.43
16:C4:17:ALA:HA	16:C4:30:VAL:HG22	5.39	0.43
3:S1:138:PHE:CZ	1:6:885:G:H5''	282.62	0.43
34:SR:44:SER:OG	34:SR:59:ARG:HB2	2.18	0.43
15:C3:29:SER:OG	15:C3:31:GLU:HB3	2.19	0.43
55:M9:105:LEU:HD23	55:M9:138:LEU:HD12	3.75	0.43
36:1:1815:U:HO2'	36:1:1816:A:P	2.35	0.43
47:M0:38:LYS:HB3	47:M0:46:PHE:HE2	2.54	0.43
41:L4:35:VAL:O	41:L4:39:PHE:N	2.42	0.43
44:L7:157:ASN:O	44:L7:159:GLN:HG2	2.21	0.43
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	5.15	0.43
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.19	0.43
5:S3:211:PRO:HG3	19:C7:20:TYR:CZ	2.54	0.43
58:N2:50:LEU:O	58:N2:52:ASN:N	2.52	0.43
4:S2:148:LEU:HD22	4:S2:148:LEU:HA	1.75	0.43
36:5:1573:G:C5	36:5:1574:C:H1'	2.53	0.43
55:M9:4:LEU:O	55:M9:5:ARG:C	2.71	0.43
5:S3:135:GLU:HB2	5:S3:157:LEU:HD11	3.82	0.43
57:N1:68:THR:HG23	57:N1:69:LYS:N	3.68	0.43
36:1:1595:U:C2	36:1:1596:C:C5	3.07	0.43
36:5:2204:C:H4'	36:5:2205:U:OP1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:135:GLY:O	45:L8:139:VAL:HG23	2.19	0.43
20:C8:78:HIS:O	20:C8:80:LYS:N	2.45	0.43
47:M0:52:LEU:HB2	47:M0:136:PHE:HB2	2.01	0.43
14:C2:29:LYS:HG3	14:C2:100:TRP:CD1	2.54	0.43
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.52	0.43
8:S6:2:LYS:HE3	8:S6:2:LYS:HB2	1.85	0.43
10:S8:146:ARG:NH2	1:6:186:C:OP1	274.65	0.43
1:2:1586:A:H2'	1:2:1587:A:C8	2.53	0.43
34:SR:16:HIS:O	34:SR:308:ASN:HB3	2.48	0.43
49:M3:35:ARG:HH12	36:5:685:G:P	83.07	0.43
36:5:1819:U:C2'	36:5:1820:U:H5'	2.49	0.43
19:C7:22:PRO:HA	34:SR:216:LYS:HZ1	1.83	0.43
6:S4:23:LEU:HD13	11:S9:4:ALA:HB3	2.01	0.43
44:L7:24:GLU:O	44:L7:26:VAL:N	2.37	0.43
43:L6:149:ILE:HG23	43:L6:155:LEU:HB3	2.01	0.43
1:2:1682:U:O2'	1:2:1683:C:H5'	2.18	0.43
1:2:1683:C:O2'	1:2:1684:U:O5'	2.37	0.43
36:1:1103:A:N3	36:1:1103:A:H2'	2.34	0.43
36:5:214:G:H2'	36:5:215:G:H8	1.84	0.43
38:4:86:U:H5'	38:4:87:G:OP1	2.19	0.43
36:5:370:U:O4	36:5:371:G:C6	2.71	0.43
59:N3:89:ASP:OD1	59:N3:89:ASP:N	2.69	0.43
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	3.22	0.43
1:2:1246:C:H2'	1:2:1247:U:O4'	2.19	0.43
36:1:2112:U:H1'	36:1:2113:A:OP2	2.19	0.43
18:C6:113:ASP:HA	18:C6:116:LEU:HD22	2.01	0.43
1:2:5:U:C2	1:2:20:G:C2	3.07	0.43
36:5:2924:U:O4	86:5:4055:OHX:N2	2.51	0.43
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	2.00	0.43
36:1:107:A:H1'	36:1:325:A:N3	2.34	0.43
21:C9:86:ARG:HG3	21:C9:90:PRO:O	3.83	0.43
55:M9:158:GLU:O	55:M9:161:ALA:HB3	2.19	0.43
43:L6:166:LYS:HG3	43:L6:166:LYS:HZ3	1.70	0.43
1:2:1657:U:C5	36:1:2125:A:O3'	2.72	0.43
1:2:577:G:H3'	1:2:577:G:C8	2.54	0.43
4:S2:153:SER:HB3	4:S2:154:LEU:H	2.24	0.43
14:C2:68:GLU:O	14:C2:70:ASN:N	2.51	0.43
36:5:421:G:C8	36:5:2365:C:C6	3.07	0.43
40:L3:311:PHE:HB2	40:L3:315:GLY:O	2.98	0.43
36:5:2294:U:H2'	36:5:2296:A:OP2	2.19	0.43
1:2:1031:U:H4'	1:2:1032:G:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.34	0.43
65:N9:5:LYS:HG3	65:N9:6:ASN:N	2.63	0.43
65:N9:58:LYS:NZ	65:N9:58:LYS:HA	4.32	0.43
5:S3:132:LYS:HE3	5:S3:192:PRO:HD2	2.37	0.43
40:L3:358:TRP:CZ3	60:N4:15:PRO:HG2	2.87	0.43
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.54	0.43
36:5:1784:G:H2'	36:5:1785:U:O4'	2.19	0.43
1:2:819:G:O6	1:2:853:G:C6	2.72	0.43
1:6:1114:G:O2'	1:6:1115:U:OP2	2.36	0.43
36:5:2999:U:H2'	36:5:3000:A:C8	2.54	0.43
5:S3:136:VAL:HG22	5:S3:186:VAL:HG13	2.00	0.43
47:M0:31:ILE:HB	47:M0:66:GLU:HB2	2.01	0.42
1:2:513:U:H2'	1:2:514:G:C8	2.53	0.42
1:6:767:U:O2	1:6:767:U:O4'	2.37	0.42
28:D6:45:VAL:HG21	28:D6:64:LEU:HD13	4.85	0.42
42:L5:55:PHE:CE1	42:L5:60:ILE:HG12	2.54	0.42
41:L4:321:LYS:HA	41:L4:324:LEU:HB3	2.57	0.42
7:S5:59:VAL:HG12	7:S5:60:ASP:H	1.84	0.42
36:1:1765:U:C5'	55:M9:43:LYS:HE2	2.48	0.42
15:C3:17:PRO:HG3	1:6:959:U:O2	354.37	0.42
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.26	0.42
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.84	0.42
1:2:67:A:N6	1:2:83:G:O2'	2.52	0.42
25:D3:93:LEU:O	25:D3:93:LEU:HG	2.18	0.42
36:5:1566:A:C2'	36:5:1567:U:H5'	2.48	0.42
73:O7:72:ARG:HH11	38:8:94:C:H3'	49.62	0.42
1:6:1699:G:N2	1:6:1702:A:H5''	2.33	0.42
1:6:1308:G:C6	1:6:1309:C:C4	3.07	0.42
46:L9:45:PHE:CD1	46:L9:55:VAL:HG13	2.54	0.42
14:C2:81:ASP:HA	14:C2:82:PRO:HD2	2.31	0.42
22:D0:106:ILE:O	22:D0:107:THR:OG1	2.32	0.42
42:L5:211:LEU:O	42:L5:215:ASP:N	3.45	0.42
16:C4:136:ARG:H	16:C4:136:ARG:HG2	1.51	0.42
43:L6:90:LYS:HE3	43:L6:90:LYS:HB2	3.47	0.42
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.54	0.42
10:S8:26:LYS:O	10:S8:29:LEU:HB3	2.18	0.42
36:1:2282:U:O2	36:1:2310:U:H4'	2.19	0.42
1:6:690:G:H2'	1:6:690:G:N3	2.34	0.42
1:2:851:U:H2'	1:2:852:C:H6	1.82	0.42
36:1:508:U:O4	86:1:4172:OHX:N5	2.52	0.42
1:2:445:A:H1'	1:2:525:A:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	1.85	0.42
44:L7:26:VAL:HG23	44:L7:27:ALA:H	1.84	0.42
1:2:1483:A:C6	1:2:1484:G:C6	3.07	0.42
51:M5:2:GLY:N	72:O6:36:ARG:HH22	2.98	0.42
15:C3:94:LYS:O	15:C3:97:SER:N	2.98	0.42
36:1:2561:A:C2	45:L8:32:LYS:HG3	2.54	0.42
86:5:4198:OHX:N4	86:8:227:OHX:N3	2.67	0.42
36:5:3056:U:P	36:5:3079:U:H3	2.43	0.42
63:N7:21:LYS:NZ	63:N7:47:GLU:O	2.51	0.42
53:M7:112:LEU:HA	53:M7:112:LEU:HD12	1.84	0.42
36:5:3034:C:H2'	36:5:3035:A:H8	1.84	0.42
40:L3:367:LYS:HZ2	60:N4:33:ASN:HB2	2.86	0.42
78:Q2:19:LYS:HA	36:5:2741:C:H4'	207.61	0.42
36:1:2424:A:N1	39:L2:230:VAL:HG21	2.33	0.42
42:L5:122:VAL:HG22	42:L5:125:VAL:H	1.83	0.42
1:2:1764:C:H3'	1:2:1767:G:N7	2.34	0.42
33:E1:98:VAL:HG12	33:E1:99:LYS:N	3.45	0.42
36:5:107:A:H2'	36:5:108:A:O4'	2.19	0.42
36:5:3227:A:C2'	36:5:3228:C:H5'	2.49	0.42
36:1:3027:A:H2'	36:1:3028:G:O4'	2.19	0.42
36:5:1108:U:H2'	36:5:1109:U:H6	1.83	0.42
1:6:1783:C:H2'	1:6:1784:C:H6	1.83	0.42
12:C0:6:GLU:O	12:C0:10:LYS:HG3	2.19	0.42
36:5:148:G:O2'	36:5:149:U:OP2	2.34	0.42
54:M8:166:LEU:O	54:M8:168:THR:HG22	2.18	0.42
36:5:1792:C:H5''	36:5:1793:C:P	2.59	0.42
59:N3:112:SER:HA	59:N3:132:ASN:ND2	3.23	0.42
7:S5:141:GLY:HA2	7:S5:142:PRO:HD3	1.84	0.42
36:5:739:G:O6	86:5:3964:OHX:N6	2.52	0.42
1:2:1308:G:C2	1:2:1309:C:C2	3.07	0.42
1:6:1342:C:O2'	1:6:1343:U:H5'	2.19	0.42
1:2:81:G:C6	1:2:82:U:N3	2.87	0.42
36:5:279:U:H2'	36:5:280:U:C6	2.54	0.42
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.27	0.42
36:1:1165:A:H2'	36:1:1166:G:O4'	2.19	0.42
60:N4:25:ASP:OD2	60:N4:25:ASP:N	4.26	0.42
75:O9:12:LYS:HE3	75:O9:12:LYS:HB3	1.82	0.42
1:6:1080:U:O5'	1:6:1080:U:H6	2.02	0.42
69:O3:45:LEU:HD23	69:O3:71:VAL:HG12	2.00	0.42
47:M0:169:LYS:O	47:M0:177:ASP:HA	2.39	0.42
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:69:ARG:NH2	36:5:2991:A:C2	194.09	0.42
41:L4:141:ARG:O	41:L4:144:LYS:NZ	9.96	0.42
36:5:621:A:H2'	36:5:622:A:C8	2.54	0.42
17:C5:127:ARG:HH22	35:SM:66:ALA:HB2	3.04	0.42
1:2:1796:C:O5'	28:D6:5:ARG:NH1	2.52	0.42
46:L9:22:SER:OG	46:L9:39:LYS:HE3	2.19	0.42
1:2:1388:A:H4'	1:2:1389:C:O5'	2.18	0.42
7:S5:61:TYR:CE2	7:S5:164:PRO:HB2	4.08	0.42
36:1:2407:C:H1'	36:1:2818:U:C2	2.54	0.42
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.85	0.42
72:O6:74:LYS:HG3	72:O6:80:PHE:HD2	2.43	0.42
37:3:121:U:H5''	42:L5:265:TYR:HE1	1.83	0.42
75:O9:10:LYS:HA	75:O9:13:MET:HE2	3.43	0.42
75:O9:9:ILE:HG22	75:O9:13:MET:HE3	2.01	0.42
56:N0:115:ARG:N	56:N0:115:ARG:HD2	2.33	0.42
6:S4:19:LEU:HD13	1:6:788:A:C4	393.19	0.42
72:O6:62:ARG:HH11	72:O6:94:ILE:HD11	4.48	0.42
7:S5:123:VAL:O	27:D5:58:ARG:HD2	2.19	0.42
86:1:4032:OHX:N4	86:1:4045:OHX:N1	2.67	0.42
1:2:736:C:C4	1:2:737:A:N7	2.86	0.42
1:2:740:A:C2'	1:2:741:C:H5''	2.43	0.42
78:Q2:46:LYS:O	86:Q2:503:OHX:N6	2.52	0.42
36:5:1573:G:C6	36:5:1574:C:H1'	2.54	0.42
20:C8:20:THR:OG1	20:C8:21:ASN:N	2.52	0.42
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	3.25	0.42
1:6:1699:G:N2	1:6:1701:A:H3'	2.29	0.42
5:S3:54:ARG:HA	5:S3:90:ARG:HH21	1.84	0.42
19:C7:6:THR:HG23	19:C7:9:VAL:HG23	2.01	0.42
45:L8:91:PHE:CE1	45:L8:185:ARG:HB3	2.53	0.42
14:C2:97:LEU:HA	14:C2:100:TRP:CE3	2.53	0.42
44:L7:44:ILE:CD1	44:L7:180:SER:HB3	2.47	0.42
51:M5:19:LEU:HD12	51:M5:19:LEU:HA	1.76	0.42
54:M8:2:GLY:O	54:M8:3:ILE:HD13	2.19	0.42
36:5:1725:C:H2'	36:5:1726:C:C6	2.54	0.42
4:S2:59:HIS:CE1	4:S2:238:SER:HA	3.82	0.42
43:L6:129:GLU:HG2	43:L6:130:ILE:H	4.48	0.42
1:6:138:A:H2'	1:6:139:C:H5'	2.01	0.42
1:6:176:C:H3'	1:6:177:U:H6	1.83	0.42
4:S2:81:MET:HG3	4:S2:103:VAL:HG23	2.46	0.42
59:N3:66:LYS:O	59:N3:69:LEU:HB2	2.55	0.42
47:M0:210:ILE:HD13	47:M0:217:PHE:CE2	4.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1026:A:H2'	36:1:1027:A:C8	2.53	0.42
78:Q2:83:LEU:HD22	78:Q2:84:THR:N	2.74	0.42
1:6:97:C:H1'	1:6:426:G:H5'	2.00	0.42
36:5:2767:U:H2'	36:5:2768:U:H6	1.84	0.42
56:N0:84:ARG:NH2	36:5:1296:C:OP1	287.81	0.42
1:6:1673:G:C5	1:6:1674:C:C5	3.07	0.42
1:2:700:C:O2	1:2:739:G:N2	2.51	0.42
5:S3:179:GLN:HB3	5:S3:180:GLY:H	2.47	0.42
7:S5:156:ARG:HA	7:S5:157:ARG:HE	3.60	0.42
25:D3:59:ILE:HG12	32:E0:4:VAL:HG23	6.67	0.42
36:1:2807:U:O3'	36:1:2808:A:H3'	2.20	0.42
1:6:1354:G:H3'	1:6:1355:C:C6	2.54	0.42
65:N9:7:HIS:CG	65:N9:8:THR:N	3.02	0.42
76:Q0:99:CYS:HB2	76:Q0:114:LYS:HE2	2.01	0.42
45:L8:195:SER:OG	45:L8:195:SER:O	2.34	0.42
56:N0:25:PHE:CD1	57:N1:151:LEU:HD21	4.10	0.42
39:L2:233:GLN:HE21	36:5:2607:G:P	193.36	0.42
36:1:3019:U:C4	36:1:3020:U:C4	3.07	0.42
36:5:1246:G:O2'	36:5:1264:G:OP2	2.34	0.42
45:L8:141:ALA:O	45:L8:144:GLU:HB2	2.85	0.42
50:M4:109:ARG:NH1	36:5:3210:A:OP1	291.04	0.42
39:L2:170:ALA:HB2	79:Q3:65:ALA:HB1	2.12	0.42
1:6:1081:A:H1'	1:6:1082:C:H5	1.84	0.42
86:1:4132:OHX:N1	86:1:4164:OHX:N4	2.67	0.42
63:N7:81:LEU:HA	63:N7:81:LEU:HD23	1.75	0.42
36:5:340:C:C4	36:5:341:G:C6	3.07	0.42
36:1:2821:C:C6	88:1:4212:3KF:C3	3.03	0.42
36:5:255:A:H2'	36:5:256:G:H8	1.83	0.42
36:1:2148:U:H2'	36:1:2149:A:C4	2.53	0.42
47:M0:37:GLY:O	47:M0:39:LYS:N	2.51	0.42
45:L8:115:ALA:O	45:L8:117:ALA:N	2.52	0.42
36:5:2193:U:H5''	36:5:2194:G:H5'	2.02	0.42
36:1:3004:C:O2'	36:1:3005:A:H5'	2.19	0.42
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.83	0.42
37:3:67:G:H2'	37:3:68:C:O4'	2.19	0.42
36:5:184:U:H2'	36:5:185:C:H6	1.84	0.42
36:5:378:A:OP2	86:5:4197:OHX:N6	2.52	0.42
38:8:141:C:H2'	38:8:142:C:C6	2.54	0.42
1:2:329:G:H5'	10:S8:99:ALA:HB3	2.01	0.42
74:O8:39:ARG:NH1	74:O8:63:LYS:HE2	9.75	0.42
64:N8:131:SER:HB3	64:N8:134:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:318:LEU:HA	41:L4:318:LEU:HD23	2.15	0.42
69:O3:7:LEU:HD23	69:O3:7:LEU:HA	1.60	0.42
42:L5:259:LYS:HB3	42:L5:259:LYS:HE2	1.90	0.42
16:C4:129:LYS:HE3	16:C4:129:LYS:HB2	1.74	0.42
72:O6:71:LYS:HB3	72:O6:71:LYS:NZ	2.31	0.42
20:C8:82:PRO:HB2	20:C8:84:TRP:CD1	2.87	0.42
36:5:593:C:C4	36:5:594:U:C4	3.07	0.42
1:2:1212:G:O6	86:2:2029:OHX:N3	2.52	0.42
23:D1:24:ILE:HD12	23:D1:31:SER:HB2	3.98	0.42
40:L3:4:ARG:HD3	40:L3:7:GLU:HG3	2.81	0.42
36:5:3182:G:H2'	36:5:3183:A:O4'	2.20	0.42
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	2.01	0.42
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	3.50	0.42
28:D6:36:ILE:HG23	28:D6:36:ILE:O	2.19	0.42
52:M6:121:PRO:C	52:M6:123:ALA:H	2.63	0.42
72:O6:82:ARG:HH12	36:5:272:G:H1'	134.09	0.42
11:S9:143:ILE:HA	11:S9:144:PRO:HD3	1.94	0.42
7:S5:143:ARG:NH1	30:D8:57:MET:SD	2.90	0.42
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.18	0.42
55:M9:43:LYS:HZ2	55:M9:46:LYS:HD3	10.22	0.42
23:D1:36:VAL:HG12	23:D1:51:VAL:O	2.18	0.42
1:6:884:A:O2'	1:6:885:G:H5'	2.19	0.42
36:1:1915:A:H5''	55:M9:84:THR:HG22	2.00	0.42
55:M9:84:THR:O	55:M9:88:ARG:HG2	4.07	0.42
55:M9:134:HIS:HB2	55:M9:135:LYS:H	1.83	0.42
36:1:1815:U:O2'	36:1:1816:A:P	2.77	0.42
4:S2:83:ILE:HA	4:S2:99:LYS:O	2.59	0.42
41:L4:39:PHE:CE1	41:L4:236:LEU:HD23	2.69	0.42
36:5:892:U:OP2	86:5:3915:OHX:N6	2.52	0.42
66:O0:17:VAL:HG22	66:O0:98:SER:HB3	2.43	0.42
34:SR:142:ALA:HB2	34:SR:186:PHE:CE2	2.74	0.42
1:2:1050:G:OP1	29:D7:70:LYS:NZ	2.39	0.42
7:S5:225:ARG:HB2	30:D8:61:ARG:NH1	3.38	0.42
20:C8:100:THR:O	20:C8:101:LEU:HD23	2.81	0.42
22:D0:27:THR:O	22:D0:113:ASP:HB3	2.75	0.42
36:1:1236:G:N2	36:1:1244:A:H4'	2.34	0.42
36:1:1554:U:H4'	36:1:1555:U:O5'	2.18	0.42
6:S4:23:LEU:HB3	6:S4:24:SER:H	1.71	0.42
67:O1:20:LEU:HA	67:O1:20:LEU:HD23	2.01	0.42
48:M1:117:ASP:HA	48:M1:118:PRO:HD2	2.02	0.42
73:O7:52:LYS:HG3	73:O7:55:ARG:HH11	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.19	0.42
26:D4:62:THR:HG23	1:6:531:C:O2	420.91	0.42
48:M1:110:ILE:C	48:M1:112:LEU:H	2.35	0.42
13:C1:86:ILE:HD13	13:C1:86:ILE:HG21	2.07	0.42
68:O2:89:THR:HG22	68:O2:117:ILE:HA	2.01	0.42
63:N7:87:LEU:HB2	63:N7:127:ASN:OD1	2.19	0.42
54:M8:182:LYS:O	54:M8:184:PHE:N	2.52	0.42
9:S7:129:LEU:HA	9:S7:129:LEU:HD23	1.97	0.42
43:L6:50:LYS:HG2	43:L6:74:VAL:CG2	2.48	0.42
40:L3:286:GLY:HA3	40:L3:321:PHE:CZ	2.55	0.42
74:O8:31:LEU:HD12	74:O8:35:GLY:HA2	4.27	0.42
40:L3:306:THR:OG1	40:L3:316:GLU:O	2.23	0.42
58:N2:92:TRP:C	58:N2:93:ILE:HG13	3.55	0.42
44:L7:84:VAL:HG12	44:L7:138:TYR:CD1	2.68	0.42
68:O2:21:HIS:ND1	68:O2:24:ARG:HD2	2.34	0.42
68:O2:41:VAL:HG12	68:O2:46:PHE:CD2	3.36	0.42
1:2:1478:G:OP1	21:C9:43:ASN:ND2	2.52	0.42
36:1:1511:U:H3'	36:1:1512:U:C6	2.51	0.42
36:1:1353:U:H2'	43:L6:9:TRP:CE3	2.54	0.42
51:M5:38:ARG:NH2	51:M5:60:VAL:HG13	2.35	0.42
31:D9:10:HIS:HB3	1:6:1451:C:H5''	406.79	0.42
16:C4:90:ARG:HA	16:C4:128:LYS:NZ	2.33	0.42
36:5:22:G:O4'	38:8:104:A:H1'	2.19	0.42
36:1:93:C:O2'	64:N8:55:LYS:HG3	2.19	0.42
1:2:131:C:HO2'	1:2:132:U:P	2.41	0.42
36:1:189:G:OP2	62:N6:46:LYS:NZ	2.52	0.42
11:S9:131:GLN:O	11:S9:132:ARG:HG2	3.31	0.42
51:M5:173:GLY:O	51:M5:183:THR:OG1	2.29	0.42
86:2:2096:OHX:N6	13:C1:18:HIS:O	2.52	0.42
12:C0:77:ARG:HA	12:C0:82:LEU:HD12	2.00	0.42
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.84	0.42
36:1:1047:A:C6	36:1:1048:A:C6	3.07	0.42
1:2:751:G:H2'	1:2:752:A:H8	1.84	0.42
40:L3:251:CYS:SG	36:5:2944:U:H1'	223.93	0.42
40:L3:132:LYS:HE3	36:5:3151:U:OP1	208.19	0.42
1:2:1176:G:C6	1:2:1464:G:C6	3.07	0.42
1:2:225:A:H2'	1:2:226:A:O4'	2.19	0.42
86:5:4051:OHX:N3	86:5:4194:OHX:N4	2.66	0.42
36:5:683:U:C6	36:5:684:G:C8	3.07	0.42
40:L3:174:LYS:N	36:5:3314:A:OP1	203.90	0.42
78:Q2:52:GLY:HA3	36:5:2421:U:O2'	175.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:867:G:C6	36:1:868:C:C4	3.07	0.42
16:C4:60:ALA:HB1	16:C4:101:ALA:HB2	2.01	0.42
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	2.95	0.42
41:L4:353:ALA:O	41:L4:357:GLU:HG3	2.19	0.42
36:5:2951:G:O2'	36:5:2952:G:H5'	2.20	0.42
67:O1:36:ILE:O	67:O1:39:PHE:HB3	2.19	0.42
54:M8:11:LYS:HE3	54:M8:11:LYS:HB2	1.83	0.42
51:M5:181:ASN:N	51:M5:181:ASN:OD1	2.47	0.42
72:O6:5:THR:HG23	72:O6:12:ASN:O	2.19	0.42
40:L3:21:ARG:HG2	40:L3:269:GLN:HG2	2.01	0.42
1:2:190:C:N4	1:2:196:G:C6	2.87	0.42
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	2.01	0.42
7:S5:99:MET:HG2	7:S5:180:ARG:NH2	3.19	0.42
36:5:283:G:N3	36:5:283:G:H3'	2.33	0.42
62:N6:27:ARG:HG2	62:N6:78:PHE:CE1	2.55	0.42
11:S9:150:LEU:HD12	11:S9:150:LEU:HA	2.17	0.42
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.19	0.42
24:D2:15:ASN:ND2	24:D2:71:LYS:HG2	2.28	0.42
7:S5:166:ARG:O	7:S5:170:GLN:HB2	2.19	0.42
36:5:2513:U:H1'	36:5:2514:U:OP1	2.19	0.42
1:2:1572:G:H3'	1:2:1572:G:OP1	2.19	0.42
54:M8:43:PRO:HG2	36:5:729:C:OP1	190.99	0.42
47:M0:38:LYS:HD3	47:M0:83:ASP:OD1	5.53	0.42
72:O6:98:ARG:HD2	72:O6:98:ARG:H	1.84	0.42
59:N3:13:ILE:HD12	59:N3:85:TRP:CG	2.54	0.42
27:D5:58:ARG:HA	27:D5:103:ARG:HB2	5.85	0.42
66:O0:100:ILE:HD12	66:O0:101:LEU:HD23	2.02	0.42
63:N7:51:LEU:HB2	63:N7:65:ARG:HD2	2.19	0.42
20:C8:39:GLY:N	1:6:1566:U:H5''	352.36	0.42
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.83	0.42
21:C9:53:TRP:HA	21:C9:56:LYS:HB2	2.01	0.42
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	3.78	0.42
1:2:1535:U:O2'	1:2:1536:G:H5''	2.19	0.42
66:O0:31:VAL:O	66:O0:35:ARG:N	2.47	0.42
1:6:183:U:H2'	1:6:184:C:O4'	2.19	0.42
36:1:3067:C:H3'	55:M9:62:ARG:HH12	1.83	0.42
62:N6:120:GLN:CG	62:N6:126:LEU:HG	5.77	0.42
3:S1:77:GLU:C	3:S1:79:HIS:H	2.21	0.42
4:S2:53:ILE:O	4:S2:56:ILE:N	2.52	0.42
1:2:1409:G:H22	1:2:1411:A:H3'	1.79	0.42
36:1:975:C:C2	36:1:976:U:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:73:ARG:NH1	51:M5:88:GLY:O	3.18	0.42
1:6:72:A:C6	1:6:73:U:N3	2.87	0.42
11:S9:2:PRO:HD2	1:6:461:G:OP1	359.18	0.42
70:O4:85:VAL:HA	70:O4:88:ARG:HG3	2.00	0.42
52:M6:115:LYS:HG2	36:5:3178:A:C2	259.47	0.42
9:S7:157:LYS:O	9:S7:158:ASP:HB2	2.39	0.42
64:N8:73:LEU:HD11	64:N8:78:LEU:H	1.84	0.42
54:M8:148:GLU:O	54:M8:151:ARG:HB2	2.94	0.42
75:O9:44:TRP:CZ3	75:O9:45:ARG:HG3	2.54	0.42
36:1:622:A:C5	36:1:623:U:C5	3.08	0.42
26:D4:57:VAL:HG13	26:D4:60:PHE:HE2	1.84	0.42
60:N4:4:GLU:HG3	60:N4:30:ARG:NH1	3.85	0.42
3:S1:101:HIS:C	3:S1:217:LEU:HD13	2.40	0.42
41:L4:338:LYS:HD2	41:L4:338:LYS:HA	1.94	0.42
3:S1:171:ILE:O	3:S1:174:LYS:HB2	2.18	0.42
1:2:717:C:N4	1:2:720:G:H22	2.17	0.42
36:5:1767:C:H2'	36:5:1768:U:O4'	2.18	0.42
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	2.01	0.42
36:1:1623:G:OP2	86:1:4041:OHX:N1	2.52	0.42
1:6:1211:A:N6	1:6:1452:U:H3	2.16	0.42
48:M1:122:ILE:HD13	48:M1:122:ILE:HA	2.41	0.42
19:C7:17:ILE:CD1	19:C7:57:LEU:HB2	2.49	0.42
30:D8:19:THR:OG1	30:D8:27:GLN:HG3	2.19	0.42
36:1:169:U:O2'	36:1:170:G:O5'	2.31	0.42
1:2:29:U:H2'	1:2:30:G:C8	2.53	0.42
36:1:2941:A:N7	40:L3:255:TRP:CE2	2.88	0.42
1:2:1516:A:C8	22:D0:59:PRO:HD2	2.53	0.42
1:6:722:G:O2'	1:6:723:G:H5"	2.19	0.42
47:M0:29:SER:HB2	47:M0:125:LEU:HD12	2.67	0.42
45:L8:122:LYS:O	45:L8:124:ASP:N	3.10	0.42
36:5:3063:C:H2'	36:5:3064:U:H6	1.84	0.42
1:2:969:C:H4'	1:2:1104:U:O2'	2.20	0.42
44:L7:105:LEU:HA	44:L7:105:LEU:HD23	1.87	0.42
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.00	0.42
21:C9:40:SER:HB2	21:C9:96:ALA:HA	2.31	0.42
44:L7:120:THR:O	44:L7:124:LEU:HB2	2.19	0.42
63:N7:54:THR:HG23	63:N7:57:HIS:CE1	2.54	0.42
71:O5:64:GLU:O	71:O5:68:GLN:HB2	2.66	0.42
36:1:888:A:H2'	36:1:889:U:O4'	2.18	0.42
1:6:1642:G:H1	1:6:1759:C:H42	1.67	0.42
68:O2:8:LYS:HB2	68:O2:8:LYS:HE2	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1244:A:N3	1:2:1244:A:H3'	2.33	0.42
1:2:427:C:O2'	1:2:459:G:N3	2.33	0.42
37:7:55:A:H2'	37:7:56:A:O4'	2.19	0.42
41:L4:139:GLY:O	41:L4:180:LYS:HE2	7.41	0.42
28:D6:7:SER:OG	28:D6:8:ASN:O	2.34	0.42
42:L5:102:GLY:O	42:L5:105:ILE:HG22	2.19	0.42
20:C8:132:ARG:H	20:C8:132:ARG:HG2	1.57	0.42
7:S5:61:TYR:HD1	7:S5:165:LEU:HD13	1.83	0.42
2:S0:156:VAL:O	23:D1:65:SER:HB3	3.05	0.42
42:L5:91:GLY:C	42:L5:93:THR:H	2.69	0.42
41:L4:74:ILE:HG21	41:L4:93:MET:HE3	2.01	0.42
47:M0:141:LYS:O	47:M0:144:ASN:N	2.88	0.42
41:L4:3:ARG:HA	41:L4:4:PRO:HD2	1.62	0.42
24:D2:83:ILE:HD11	24:D2:120:HIS:CE1	2.55	0.42
34:SR:123:ILE:H	34:SR:123:ILE:HG13	2.45	0.42
34:SR:183:LEU:HD12	34:SR:186:PHE:HD1	5.74	0.42
49:M3:73:ARG:HD2	36:5:76:G:H3'	82.39	0.42
49:M3:76:THR:HG23	49:M3:101:ARG:NH1	2.34	0.42
22:D0:80:GLU:HG3	31:D9:54:LYS:NZ	2.54	0.42
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.45	0.42
6:S4:159:THR:OG1	6:S4:160:VAL:N	2.78	0.42
3:S1:205:PHE:CG	3:S1:206:PRO:HD2	2.55	0.42
3:S1:81:PHE:CE2	3:S1:82:ARG:HD3	3.93	0.42
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.36	0.42
14:C2:63:VAL:HB	14:C2:64:SER:H	1.86	0.42
66:O0:42:ILE:O	66:O0:42:ILE:HG13	2.78	0.42
43:L6:57:HIS:NE2	43:L6:61:ASN:HA	2.33	0.42
1:2:1144:U:O2'	1:2:1301:U:H4'	2.19	0.42
68:O2:82:LEU:CD2	68:O2:117:ILE:HD12	3.03	0.42
51:M5:150:TRP:CG	51:M5:151:ILE:N	2.87	0.42
40:L3:97:ARG:NH1	36:5:3244:A:C6	246.02	0.42
36:5:1222:G:O2'	36:5:1223:A:P	2.78	0.42
1:6:323:A:H2'	1:6:346:G:N2	2.35	0.42
36:1:2544:U:H2'	36:1:2545:C:C6	2.55	0.42
6:S4:94:ALA:C	6:S4:96:ASN:H	2.22	0.42
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	2.01	0.42
1:6:571:G:H8	1:6:572:C:C6	2.37	0.42
69:O3:18:ARG:O	69:O3:18:ARG:HG3	3.02	0.42
41:L4:106:TRP:CZ2	49:M3:19:GLN:HG2	4.26	0.42
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.38	0.42
40:L3:122:TRP:CZ2	40:L3:127:LYS:HD2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1346:A:H8	1:2:1370:U:O2	2.01	0.42
36:1:1615:C:H2'	36:1:1616:U:C6	2.55	0.42
52:M6:170:LYS:O	52:M6:173:ALA:HB3	2.19	0.42
38:8:155:A:H2'	38:8:156:U:O4'	2.19	0.42
1:2:1578:U:O2'	1:2:1579:U:H5'	2.20	0.42
62:N6:26:GLN:O	62:N6:30:LEU:HG	3.05	0.42
1:6:1714:A:C4	1:6:1715:G:C8	3.08	0.42
52:M6:54:TYR:HE2	52:M6:58:LEU:HD13	2.55	0.42
36:5:2429:G:OP2	86:5:4041:OHX:N5	2.53	0.42
25:D3:52:ILE:HD12	25:D3:75:GLN:HB3	5.49	0.42
36:1:54:C:O2'	36:1:1547:G:H1'	2.20	0.42
36:1:2801:A:O2'	36:1:2802:A:H2'	2.19	0.42
36:5:88:A:H2'	36:5:89:A:O4'	2.19	0.42
36:5:2952:G:H2'	36:5:2953:U:C6	2.55	0.42
23:D1:73:ALA:O	23:D1:78:LEU:HG	2.19	0.42
49:M3:156:ALA:HA	64:N8:101:VAL:HG23	3.22	0.42
1:2:102:U:O4	1:2:360:A:H2'	2.18	0.42
36:5:258:G:H2'	36:5:259:C:C6	2.54	0.42
36:1:370:U:H4'	36:1:404:G:H5'	2.01	0.42
25:D3:12:ALA:O	25:D3:16:ARG:HG2	2.20	0.42
36:1:1791:C:H2'	36:1:1792:C:C6	2.54	0.42
40:L3:386:ASP:HB3	40:L3:387:LEU:H	1.58	0.42
38:4:67:U:H5''	73:O7:84:SER:O	2.18	0.42
36:5:1742:U:H2'	36:5:1743:G:C8	2.54	0.42
1:6:1017:U:H2'	1:6:1018:U:C6	2.55	0.42
70:O4:43:LYS:O	36:5:1653:G:H4'	186.05	0.42
36:5:1382:G:O6	86:5:3935:OHX:N6	2.53	0.42
46:L9:44:THR:HB	36:5:3186:A:N3	325.40	0.42
36:5:2256:A:OP2	36:5:2256:A:H2'	2.19	0.42
34:SR:283:LYS:HB2	34:SR:283:LYS:HE3	1.76	0.42
56:N0:158:LYS:HE2	56:N0:158:LYS:HB3	1.93	0.42
65:N9:22:LYS:HE3	65:N9:22:LYS:HB2	4.56	0.42
2:S0:7:PHE:HD2	2:S0:7:PHE:HA	1.69	0.42
40:L3:196:ARG:HA	40:L3:196:ARG:HD2	2.01	0.42
61:N5:142:ILE:HA	61:N5:142:ILE:HD12	1.86	0.42
4:S2:50:ILE:HG12	4:S2:50:ILE:H	1.64	0.42
43:L6:174:LEU:HD23	43:L6:174:LEU:HA	1.76	0.42
28:D6:88:SER:O	28:D6:92:ARG:HG3	2.19	0.42
36:1:504:A:O3'	41:L4:315:LYS:HE2	2.20	0.42
36:5:138:U:H2'	36:5:139:G:C8	2.55	0.42
36:5:1695:U:C2	36:5:1749:A:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:75:ALA:HB2	36:5:3049:A:C2	246.04	0.42
69:O3:58:GLU:HG2	69:O3:59:VAL:N	3.18	0.42
36:1:2989:U:O3'	40:L3:232:ARG:NH2	2.52	0.42
1:6:1040:G:C6	1:6:1041:G:N7	2.88	0.42
1:2:1542:G:H5''	21:C9:88:VAL:N	2.34	0.42
28:D6:10:ARG:HH11	28:D6:36:ILE:HG13	5.56	0.42
28:D6:64:LEU:HA	28:D6:65:PRO:HD3	1.71	0.42
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	2.64	0.42
47:M0:12:GLN:HG2	47:M0:128:ARG:CZ	2.50	0.42
3:S1:180:THR:HB	3:S1:182:ALA:H	1.85	0.42
15:C3:33:VAL:HG23	15:C3:34:ILE:N	2.34	0.42
1:6:1208:A:H5''	1:6:1209:C:OP2	2.20	0.42
36:5:1063:G:OP2	36:5:1097:G:H5''	2.20	0.42
34:SR:116:ASP:OD1	34:SR:118:LYS:HB3	3.62	0.42
36:5:2987:A:C6	36:5:2988:C:C4	3.07	0.42
15:C3:54:LEU:HD23	15:C3:58:HIS:CG	2.55	0.42
44:L7:103:LEU:HG	44:L7:130:ILE:HD11	5.24	0.42
1:6:219:A:HO2'	1:6:220:A:P	2.42	0.42
1:6:219:A:N6	1:6:843:U:C2	2.88	0.42
5:S3:168:ILE:HG23	5:S3:189:MET:SD	2.60	0.42
5:S3:104:SER:O	5:S3:108:LYS:HB2	2.19	0.42
22:D0:22:ILE:HD12	22:D0:22:ILE:HA	1.76	0.42
22:D0:50:LEU:O	22:D0:51:VAL:HG13	4.54	0.42
36:1:1747:G:OP1	74:O8:42:LYS:NZ	2.40	0.42
53:M7:136:ILE:HD11	36:5:1846:C:C4	143.78	0.42
36:5:1846:C:H3'	36:5:1847:A:H8	1.83	0.42
10:S8:116:HIS:NE2	10:S8:146:ARG:HD3	3.47	0.42
28:D6:37:LYS:HA	28:D6:71:LEU:O	2.19	0.42
1:2:218:A:N7	1:2:830:U:H5	2.17	0.42
36:5:2948:C:O5'	36:5:2948:C:H6	2.03	0.42
2:S0:14:ALA:HA	2:S0:17:LEU:HB2	3.33	0.42
2:S0:14:ALA:HA	2:S0:17:LEU:HD12	2.83	0.42
1:2:1671:A:OP2	86:2:2044:OHX:N6	2.53	0.42
16:C4:132:ARG:HB2	1:6:1787:C:OP2	293.34	0.42
10:S8:26:LYS:HD2	10:S8:29:LEU:HD13	2.00	0.42
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.88	0.42
43:L6:155:LEU:HD23	43:L6:155:LEU:HA	1.73	0.42
37:3:31:U:H4'	42:L5:218:ARG:NH2	2.35	0.42
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	2.15	0.42
36:1:627:U:H4'	36:1:1399:A:H1'	2.02	0.42
15:C3:114:ARG:O	15:C3:118:ILE:HG13	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1665:C:H6	36:1:1665:C:O5'	2.01	0.42
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HD3	2.00	0.42
65:N9:18:ARG:HA	65:N9:18:ARG:HE	1.85	0.42
42:L5:108:ARG:NE	42:L5:253:PHE:HB2	2.34	0.42
39:L2:20:THR:HA	39:L2:23:ARG:HG3	3.83	0.42
36:1:979:U:H1'	36:1:980:A:N9	2.34	0.42
52:M6:182:ASN:O	52:M6:185:ALA:N	3.67	0.42
48:M1:145:LYS:HB2	48:M1:145:LYS:HE2	1.81	0.42
36:5:1805:C:H2'	36:5:1806:A:C8	2.54	0.42
36:5:1204:A:H2'	36:5:1205:A:C5'	2.50	0.42
36:1:147:U:H5'	45:L8:136:LEU:HB2	2.01	0.42
36:1:2816:G:C8	36:1:2869:U:H3'	2.54	0.42
33:E1:98:VAL:HG12	33:E1:99:LYS:H	3.32	0.42
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	2.01	0.42
36:5:58:G:O2'	36:5:61:A:H5'	2.20	0.42
15:C3:115:LEU:O	15:C3:115:LEU:HD22	2.44	0.42
1:2:289:U:H2'	1:2:290:G:O4'	2.20	0.42
36:1:969:C:H42	36:1:1113:G:H1	1.68	0.42
34:SR:202:LEU:HA	34:SR:212:ALA:O	2.20	0.42
5:S3:116:ARG:HG2	5:S3:152:PHE:HE1	3.84	0.42
36:1:274:G:H2'	36:1:275:U:O4'	2.20	0.42
1:6:1143:A:O2'	1:6:1144:U:H5'	2.20	0.42
1:6:1605:G:H2'	1:6:1606:C:H6	1.84	0.42
53:M7:20:SER:HB3	53:M7:21:TYR:CD2	2.54	0.42
1:6:1065:A:C6	1:6:1066:C:C4	3.07	0.42
36:5:1486:G:O6	86:5:4077:OHX:N4	2.53	0.42
36:5:2842:U:C2	36:5:2843:U:C6	3.08	0.42
36:1:3205:G:H2'	36:1:3206:C:C5	2.55	0.42
7:S5:81:ARG:NH2	30:D8:47:PRO:HB3	2.34	0.42
11:S9:94:ASP:HA	11:S9:97:LEU:HB2	2.02	0.42
1:2:1617:U:O2'	1:2:1618:C:H5'	2.19	0.42
48:M1:91:LEU:HA	48:M1:91:LEU:HD23	1.89	0.42
15:C3:125:LEU:HD23	15:C3:125:LEU:HA	1.98	0.42
34:SR:29:GLN:HE21	34:SR:32:LEU:HD22	1.85	0.42
47:M0:170:LYS:NZ	47:M0:175:ASN:O	2.50	0.42
7:S5:99:MET:O	7:S5:100:ASN:HB2	2.21	0.42
26:D4:23:PHE:HE2	26:D4:75:VAL:HG23	5.22	0.42
11:S9:133:HIS:O	11:S9:134:ILE:HD13	2.20	0.42
20:C8:36:LYS:HB3	20:C8:102:ALA:O	3.36	0.42
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.10	0.42
27:D5:88:ILE:HD13	27:D5:88:ILE:HA	4.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:471:A:O2'	11:S9:8:TYR:HB2	2.20	0.42
48:M1:11:ASP:O	48:M1:12:LEU:HB3	4.13	0.42
40:L3:347:SER:HB2	40:L3:350:ALA:HB2	3.60	0.42
7:S5:84:LYS:HE2	7:S5:92:ARG:HH12	2.22	0.42
1:6:530:C:OP1	86:6:2098:OHX:N3	2.53	0.42
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.50	0.42
55:M9:4:LEU:HD22	55:M9:7:GLN:HG3	4.68	0.42
18:C6:37:THR:O	18:C6:37:THR:OG1	3.59	0.42
1:2:580:A:C5'	5:S3:143:ARG:HH12	2.31	0.42
1:6:1698:G:N2	1:6:1699:G:C5	2.87	0.42
31:D9:44:ARG:HH22	1:6:1280:C:H5'	399.32	0.42
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.60	0.42
22:D0:51:VAL:HB	22:D0:52:LYS:H	4.26	0.42
25:D3:130:VAL:HG11	25:D3:143:PRO:HD3	2.19	0.42
14:C2:44:GLY:HA2	14:C2:120:VAL:O	3.47	0.42
8:S6:108:VAL:HG11	1:6:153:G:O2'	304.66	0.42
4:S2:57:PHE:CE1	4:S2:138:PRO:HD3	2.55	0.42
29:D7:3:LEU:HD23	29:D7:3:LEU:HA	2.48	0.42
55:M9:14:VAL:HG12	55:M9:15:VAL:N	2.98	0.42
36:1:398:A:H5'	53:M7:3:ARG:HD2	2.00	0.42
45:L8:100:GLU:H	45:L8:100:GLU:HG2	3.23	0.42
6:S4:23:LEU:O	6:S4:24:SER:HB2	4.02	0.42
6:S4:26:CYS:HB2	11:S9:2:PRO:O	2.51	0.42
68:O2:4:LEU:HD12	68:O2:4:LEU:HA	1.74	0.42
1:6:139:C:C2	1:6:176:C:C2	3.07	0.42
24:D2:89:TRP:O	24:D2:93:LEU:HD23	3.30	0.42
36:5:196:G:C2	36:5:199:A:C8	3.08	0.42
1:6:887:A:H2'	1:6:888:U:C6	2.55	0.42
46:L9:30:PRO:HD2	46:L9:82:VAL:O	2.20	0.42
61:N5:45:LYS:HD3	71:O5:75:TYR:CD2	4.97	0.42
19:C7:104:ASN:O	19:C7:106:THR:N	3.30	0.42
61:N5:86:VAL:HG21	61:N5:95:ILE:HG12	2.87	0.42
36:5:601:U:H6	36:5:601:U:OP1	2.03	0.42
36:1:3102:G:H2'	36:1:3103:A:H8	1.84	0.42
36:5:1517:G:O2'	36:5:1518:U:H5'	2.19	0.42
36:5:1222:G:HO2'	36:5:1223:A:P	2.43	0.42
36:1:2253:G:C2	36:1:2264:U:C2	3.08	0.42
51:M5:5:LYS:CB	72:O6:36:ARG:HH12	2.33	0.42
65:N9:15:LYS:HD3	36:5:952:A:H5''	205.06	0.42
46:L9:163:GLN:C	46:L9:165:CYS:N	2.72	0.42
36:5:1317:A:C4	36:5:1319:G:N7	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1344:G:H1	36:1:1360:C:N4	2.17	0.42
1:2:922:G:H2'	1:2:923:A:C8	2.55	0.42
12:C0:30:ALA:O	12:C0:38:LYS:HA	2.19	0.42
18:C6:107:LYS:HA	18:C6:110:THR:HG22	5.44	0.42
20:C8:2:SER:O	20:C8:4:VAL:N	5.05	0.42
6:S4:210:ILE:O	6:S4:217:THR:HA	2.20	0.42
6:S4:87:MET:SD	6:S4:123:LEU:HB2	3.61	0.42
1:6:1765:A:OP1	86:6:2122:OHX:N6	2.52	0.42
4:S2:243:TYR:HB3	4:S2:246:GLU:HB2	2.02	0.42
4:S2:47:ALA:O	4:S2:49:LYS:N	2.52	0.42
47:M0:24:ARG:O	47:M0:25:ALA:HB3	4.51	0.42
36:5:2722:U:H2'	36:5:2723:U:C6	2.55	0.42
6:S4:104:ASP:HB2	6:S4:107:GLY:H	1.85	0.42
36:1:213:A:OP1	62:N6:2:ALA:HB2	2.19	0.42
86:1:3974:OHX:N5	86:1:4155:OHX:N2	2.68	0.42
2:S0:3:LEU:HA	2:S0:4:PRO:HD2	1.84	0.42
63:N7:108:GLU:O	63:N7:112:LYS:HG3	2.66	0.42
36:5:1262:G:H5''	36:5:1263:A:OP2	2.20	0.42
9:S7:82:GLU:OE2	9:S7:89:HIS:HA	2.19	0.42
55:M9:125:LYS:NZ	36:5:1720:U:O4	243.09	0.42
41:L4:157:GLU:OE2	41:L4:251:THR:OG1	2.19	0.42
42:L5:31:TYR:O	42:L5:35:ARG:HD2	2.19	0.42
68:O2:34:LYS:HB3	68:O2:36:LYS:HE3	2.02	0.42
61:N5:24:LEU:HB3	61:N5:25:LYS:H	2.12	0.42
36:5:397:A:H5''	36:5:398:A:H3'	2.01	0.42
42:L5:6:ASP:HB3	42:L5:7:ALA:H	1.66	0.42
56:N0:80:ARG:HH21	56:N0:80:ARG:HD3	1.89	0.42
39:L2:15:ILE:HD12	39:L2:15:ILE:HA	4.72	0.42
1:6:781:U:H5''	1:6:781:U:O2	2.20	0.42
54:M8:53:PHE:CD1	54:M8:53:PHE:N	2.88	0.42
56:N0:45:LEU:HD22	56:N0:45:LEU:HA	2.01	0.42
74:O8:72:THR:OG1	74:O8:72:THR:O	4.01	0.42
28:D6:97:PRO:HA	28:D6:98:PRO:HD2	3.68	0.42
15:C3:40:TYR:O	15:C3:45:LEU:HB2	2.93	0.42
36:1:3181:C:H2'	36:1:3182:G:O4'	2.20	0.42
47:M0:87:LEU:HD23	47:M0:87:LEU:HA	1.66	0.42
40:L3:188:ILE:HD12	40:L3:188:ILE:H	2.85	0.42
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.78	0.42
1:6:93:A:H4'	1:6:94:U:OP2	2.20	0.42
7:S5:96:SER:O	7:S5:180:ARG:NH2	3.69	0.42
62:N6:3:LYS:HG3	62:N6:8:VAL:CG1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:100:HIS:HA	62:N6:101:PRO:HD3	1.89	0.42
1:2:1234:A:H1'	33:E1:145:HIS:O	2.19	0.42
1:2:1235:C:H5'	33:E1:146:SER:HB3	2.00	0.42
42:L5:105:ILE:HD13	42:L5:105:ILE:O	2.20	0.42
2:S0:12:GLU:HA	2:S0:15:GLN:OE1	3.76	0.42
24:D2:34:ILE:O	24:D2:38:LEU:HG	2.42	0.42
2:S0:142:PRO:HB3	23:D1:34:ILE:CD1	2.50	0.42
3:S1:100:PHE:HZ	3:S1:215:VAL:HG11	4.03	0.42
74:O8:46:ARG:HA	74:O8:51:LEU:CD1	3.67	0.42
55:M9:77:GLY:O	55:M9:81:ARG:HD3	2.20	0.42
26:D4:124:ARG:HD3	26:D4:127:LYS:NZ	2.34	0.42
64:N8:91:LEU:H	64:N8:91:LEU:HD22	1.84	0.42
59:N3:23:MET:HB2	59:N3:98:ASN:C	2.40	0.42
24:D2:83:ILE:HG23	24:D2:84:GLY:N	2.52	0.42
3:S1:58:SER:HA	3:S1:62:LYS:HD3	2.02	0.42
36:5:2211:U:C5	36:5:2234:G:O6	2.65	0.42
71:O5:89:ARG:HD2	38:8:38:U:C4	68.62	0.42
1:2:703:G:H2'	1:2:704:C:H5'	2.02	0.42
36:5:1313:G:H2'	36:5:1314:C:C6	2.55	0.42
1:6:220:A:H3'	1:6:832:U:H1'	2.01	0.42
1:2:1535:U:H2'	1:2:1535:U:H6	1.62	0.42
55:M9:89:LEU:HD12	55:M9:90:PRO:HD2	2.02	0.42
65:N9:23:LYS:HD2	65:N9:24:PRO:HD2	2.00	0.42
78:Q2:65:THR:OG1	78:Q2:87:ARG:HD3	2.89	0.42
49:M3:24:VAL:HA	51:M5:199:LEU:O	2.20	0.42
49:M3:115:ARG:NH2	49:M3:145:PHE:O	3.65	0.42
45:L8:71:VAL:CG2	45:L8:76:ALA:HB2	2.49	0.42
36:5:2895:G:C2'	36:5:2896:A:H5''	2.47	0.42
9:S7:98:ILE:HD13	9:S7:118:LEU:HA	2.78	0.42
65:N9:28:LYS:O	65:N9:29:TYR:HB2	2.19	0.42
17:C5:75:PRO:HG3	17:C5:93:VAL:HG11	3.23	0.42
66:O0:48:THR:HA	36:5:1729:A:N6	238.64	0.42
49:M3:28:GLN:HG3	51:M5:200:TRP:HZ3	3.73	0.42
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.85	0.42
1:6:225:A:N6	1:6:226:A:H62	2.18	0.42
40:L3:106:TRP:CH2	40:L3:161:LEU:HD13	2.82	0.42
36:5:2386:A:N6	36:5:2993:G:O2'	2.44	0.42
24:D2:103:ILE:HA	24:D2:112:ASP:HA	2.01	0.42
70:O4:106:LYS:HA	70:O4:109:THR:OG1	2.19	0.42
1:6:1394:G:H1	1:6:1404:C:N4	2.16	0.42
1:2:1183:A:C5	1:2:1184:A:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:99:GLY:O	1:6:1211:A:H1'	375.01	0.42
45:L8:25:PRO:HB2	45:L8:26:LEU:H	1.63	0.42
43:L6:18:LEU:HA	43:L6:18:LEU:HD13	1.72	0.42
37:3:42:A:H2'	37:3:43:U:H6	1.83	0.42
1:6:819:G:O2'	1:6:821:U:OP2	2.38	0.42
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	2.00	0.42
31:D9:8:PHE:HE2	1:6:1217:A:H61	418.63	0.42
35:SM:25:ILE:HG22	48:M1:46:VAL:HG23	2.00	0.42
5:S3:71:LEU:HD23	5:S3:71:LEU:HA	1.76	0.42
36:5:2765:C:H2'	36:5:2766:U:H6	1.85	0.42
52:M6:27:LEU:HD11	52:M6:102:LEU:HD22	2.49	0.42
45:L8:123:GLN:C	45:L8:125:ALA:H	3.32	0.42
36:5:2624:G:C4	36:5:2625:C:C5	3.08	0.42
46:L9:2:LYS:HB3	46:L9:59:ASN:OD1	2.19	0.42
15:C3:46:THR:HG23	15:C3:49:GLN:CD	2.40	0.42
1:2:1746:A:H2'	1:2:1747:G:O4'	2.19	0.42
1:2:654:C:H3'	1:2:655:G:H5''	2.02	0.42
1:6:1511:U:H2'	1:6:1512:G:C8	2.55	0.42
1:2:945:U:H2'	1:2:946:U:H6	1.84	0.42
36:5:1445:U:C4	36:5:1446:A:C6	3.08	0.42
71:O5:110:ALA:O	71:O5:112:PRO:HD3	2.51	0.42
73:O7:48:ASN:HA	73:O7:54:LYS:NZ	3.54	0.42
36:1:2727:A:H4'	36:1:2728:G:OP2	2.20	0.42
49:M3:33:VAL:HG12	49:M3:34:SER:N	2.33	0.42
41:L4:54:GLU:OE2	41:L4:55:LYS:HB3	2.19	0.42
66:O0:71:GLN:HA	66:O0:71:GLN:OE1	4.65	0.42
64:N8:117:ARG:HG3	64:N8:117:ARG:NH1	2.86	0.42
8:S6:6:SER:O	8:S6:8:PRO:HD3	2.19	0.42
36:1:3238:G:N2	36:1:3250:U:H1'	2.35	0.42
39:L2:80:GLU:N	39:L2:168:VAL:O	2.44	0.42
36:5:2271:A:H2'	36:5:2272:G:O4'	2.20	0.42
40:L3:2:SER:O	40:L3:3:HIS:CB	2.95	0.42
50:M4:25:LYS:HG2	50:M4:62:GLN:HB3	2.02	0.42
46:L9:191:LEU:HA	46:L9:191:LEU:HD13	4.42	0.42
1:6:187:G:H8	1:6:187:G:O5'	2.02	0.42
7:S5:97:LEU:HA	7:S5:97:LEU:HD23	2.83	0.42
1:6:1594:G:C6	1:6:1595:U:N3	2.88	0.42
35:SM:68:ARG:HH21	1:6:1460:A:P	332.11	0.42
52:M6:14:HIS:CE1	52:M6:119:VAL:HG12	2.54	0.42
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.20	0.42
51:M5:70:ASN:OD1	51:M5:93:LYS:HD2	3.41	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:7:LEU:HD22	24:D2:11:LEU:HG	3.09	0.42
3:S1:130:SER:OG	3:S1:180:THR:N	2.53	0.42
6:S4:241:GLY:O	6:S4:243:GLY:N	2.53	0.42
41:L4:91:GLY:HA3	41:L4:93:MET:CE	2.49	0.42
47:M0:144:ASN:O	47:M0:145:LYS:C	2.59	0.42
59:N3:126:TRP:HA	59:N3:127:PRO:HD3	1.84	0.42
36:5:1104:G:N2	36:5:1105:A:C4	2.88	0.42
36:1:2303:A:P	77:Q1:23:ARG:HH22	2.43	0.42
36:1:45:A:OP1	86:Q2:503:OHX:N1	2.53	0.42
20:C8:99:HIS:CD2	20:C8:101:LEU:HD21	2.54	0.42
36:1:829:U:C2	36:1:894:G:C6	3.08	0.42
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.38	0.42
20:C8:49:LYS:NZ	20:C8:80:LYS:HB3	2.34	0.42
61:N5:40:LEU:HB3	61:N5:41:ALA:H	3.85	0.42
1:2:792:U:C2'	1:2:793:A:H5'	2.49	0.42
51:M5:179:LYS:HD3	36:5:287:G:OP1	126.45	0.42
71:O5:90:ARG:HG2	71:O5:90:ARG:H	1.58	0.42
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.19	0.42
36:1:613:G:H2'	36:1:614:C:C6	2.55	0.42
9:S7:44:LYS:HD2	9:S7:63:PRO:HA	3.83	0.42
46:L9:124:ARG:HG2	46:L9:164:ILE:HG12	3.69	0.42
1:2:1435:G:O6	12:C0:64:TYR:OH	2.22	0.42
47:M0:210:ILE:HD13	47:M0:217:PHE:CG	4.24	0.42
61:N5:86:VAL:HG12	61:N5:120:LYS:HB3	2.00	0.42
45:L8:63:LYS:O	45:L8:67:ILE:HG12	3.33	0.42
9:S7:141:ARG:HH21	9:S7:143:LEU:HD22	1.85	0.42
37:3:6:C:OP2	42:L5:22:ARG:NH1	2.46	0.42
76:Q0:94:SER:HB2	76:Q0:103:LEU:HB2	2.02	0.42
2:S0:66:ALA:HB1	23:D1:50:TYR:CD1	4.12	0.42
36:1:2916:U:H1'	59:N3:44:SER:HB3	2.01	0.42
28:D6:23:CYS:HB3	28:D6:27:SER:H	2.40	0.42
36:1:91:G:N7	36:1:93:C:C2	2.88	0.42
20:C8:108:LYS:HA	20:C8:108:LYS:HD2	1.86	0.42
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.55	0.42
50:M4:105:GLN:NE2	50:M4:109:ARG:HH21	3.19	0.42
1:6:1321:A:H4'	1:6:1322:A:O5'	2.19	0.42
12:C0:74:GLU:O	12:C0:77:ARG:HB3	2.20	0.42
52:M6:58:LEU:HD12	52:M6:58:LEU:HA	1.86	0.42
7:S5:147:THR:OG1	7:S5:148:ARG:N	3.02	0.42
45:L8:230:LYS:HA	45:L8:230:LYS:HD2	3.78	0.42
63:N7:16:GLY:HA3	36:5:1637:A:H5''	209.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:15:ARG:HB3	28:D6:16:GLY:H	2.69	0.42
8:S6:20:ASP:OD2	8:S6:23:ARG:HG3	2.20	0.42
55:M9:152:GLU:O	55:M9:156:ASN:HB2	2.54	0.42
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.50	0.42
49:M3:175:SER:O	49:M3:178:LYS:N	2.53	0.42
86:2:2075:OHX:N4	86:2:2163:OHX:N2	2.68	0.42
7:S5:93:LEU:HD23	7:S5:93:LEU:HA	2.17	0.42
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.20	0.42
36:5:2722:U:H2'	36:5:2723:U:H6	1.85	0.42
36:5:2635:A:H4'	36:5:2636:A:O5'	2.19	0.42
36:1:1587:A:OP1	86:4:224:OHX:N6	2.53	0.42
60:N4:86:SER:C	60:N4:88:ASP:H	2.22	0.42
70:O4:21:LYS:HG2	70:O4:22:VAL:N	2.50	0.42
43:L6:136:GLU:O	43:L6:140:VAL:HG23	2.92	0.42
45:L8:217:THR:O	45:L8:220:ALA:HB3	2.31	0.42
47:M0:100:ASN:ND2	47:M0:118:ALA:HB1	3.26	0.42
34:SR:135:THR:OG1	34:SR:139:GLN:N	2.95	0.42
36:1:1502:C:N3	36:1:1513:G:O6	2.53	0.42
36:5:833:G:H2'	36:5:834:U:O4'	2.20	0.42
1:2:1345:A:N7	1:2:1377:U:C4	2.88	0.42
39:L2:238:ILE:HA	39:L2:238:ILE:HD13	4.50	0.42
11:S9:151:ASP:OD1	11:S9:151:ASP:N	2.52	0.42
71:O5:15:GLU:H	71:O5:15:GLU:CD	4.08	0.42
11:S9:54:ARG:HB3	11:S9:54:ARG:HE	2.14	0.42
11:S9:101:VAL:HG23	11:S9:101:VAL:H	1.90	0.42
1:6:1385:G:N7	86:6:2117:OHX:N6	2.68	0.42
36:1:2137:U:C6	36:1:2141:U:C4	3.08	0.42
1:6:215:A:H5''	1:6:216:U:OP2	2.20	0.42
36:1:1480:G:H4'	36:1:1481:A:OP1	2.19	0.42
40:L3:187:SER:HB3	40:L3:190:GLU:HB2	4.33	0.42
36:1:1703:U:N3	36:1:1740:U:O2	2.52	0.42
49:M3:167:PHE:O	49:M3:170:LEU:N	3.01	0.42
16:C4:16:VAL:HG23	16:C4:31:THR:O	2.19	0.42
36:5:916:G:H5'	36:5:917:A:OP1	2.20	0.42
36:5:1240:A:H2'	36:5:1241:U:H5'	2.01	0.42
48:M1:16:LYS:HG2	48:M1:130:VAL:CG1	2.66	0.42
78:Q2:71:ARG:HH21	78:Q2:80:ARG:NE	2.18	0.42
2:S0:184:LEU:C	2:S0:186:GLY:H	2.19	0.42
51:M5:77:LYS:O	36:5:2424:A:H1'	169.73	0.42
24:D2:5:SER:O	24:D2:6:VAL:HG12	5.09	0.42
36:1:7:C:H2'	36:1:8:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:65:VAL:C	15:C3:67:THR:N	3.57	0.42
72:O6:14:GLY:HA2	36:5:73:C:OP1	106.98	0.42
72:O6:9:ILE:O	72:O6:13:LYS:HG3	2.20	0.42
22:D0:32:LYS:HA	22:D0:32:LYS:HD2	1.72	0.42
27:D5:54:VAL:HA	27:D5:57:TYR:CZ	3.32	0.42
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.20	0.42
64:N8:92:LYS:HA	64:N8:92:LYS:HD2	5.27	0.42
44:L7:160:ARG:HB2	44:L7:203:TRP:CD2	2.55	0.42
66:O0:10:ILE:O	66:O0:13:LYS:HB2	2.20	0.42
62:N6:60:ARG:NH1	36:5:190:U:N3	82.70	0.42
1:6:1700:C:O2	1:6:1700:C:H2'	2.18	0.42
5:S3:105:MET:HG3	5:S3:122:VAL:HG21	2.02	0.42
3:S1:106:THR:HG1	3:S1:109:LYS:HB3	3.28	0.42
3:S1:40:ASN:OD1	3:S1:73:LEU:HA	2.20	0.42
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.22	0.42
57:N1:97:LYS:HE2	57:N1:97:LYS:HB3	3.71	0.42
1:6:697:C:OP2	86:6:2070:OHX:N5	2.53	0.42
14:C2:46:ARG:NH2	1:6:1253:U:OP2	452.92	0.42
36:5:1823:A:C5	36:5:1824:U:C5	3.08	0.42
57:N1:27:LEU:HD22	57:N1:27:LEU:HA	2.20	0.42
1:2:1782:A:OP1	77:Q1:9:ARG:NH1	2.53	0.42
36:1:1794:G:C2	39:L2:187:HIS:CE1	3.08	0.42
2:S0:88:LYS:HE2	2:S0:201:LEU:HG	4.14	0.42
39:L2:21:ARG:NH2	39:L2:22:LEU:HD11	3.26	0.42
68:O2:2:ALA:O	68:O2:90:LYS:HA	3.58	0.42
13:C1:86:ILE:HG22	13:C1:87:ARG:N	4.41	0.42
36:1:2273:G:O6	86:1:4139:OHX:N5	2.52	0.42
34:SR:159:ASN:ND2	34:SR:163:ASP:HA	2.35	0.42
54:M8:85:GLY:O	54:M8:104:LEU:HB2	2.29	0.42
10:S8:48:THR:HB	1:6:333:A:H5'	301.23	0.42
1:2:277:U:H6	1:2:279:G:N2	2.16	0.42
10:S8:184:LEU:HD12	10:S8:184:LEU:HA	1.79	0.42
71:O5:85:THR:HB	71:O5:88:LEU:HB2	2.01	0.42
28:D6:66:LYS:HB2	28:D6:68:TYR:CE2	3.78	0.42
46:L9:94:TYR:OH	46:L9:142:ASP:OD1	2.29	0.42
3:S1:32:ILE:HG13	3:S1:96:LEU:HD21	2.02	0.42
24:D2:104:LEU:HA	24:D2:126:LEU:H	1.95	0.42
14:C2:52:LEU:HD22	14:C2:57:ALA:HB2	2.01	0.42
54:M8:153:PHE:O	54:M8:161:LYS:HG2	4.65	0.42
5:S3:20:GLU:HB2	12:C0:61:TRP:CZ3	2.82	0.42
43:L6:56:LYS:NZ	43:L6:99:GLU:HA	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1157:A:O2'	1:2:1158:C:OP1	2.34	0.42
53:M7:14:SER:OG	53:M7:151:THR:OG1	3.07	0.42
12:C0:45:ALA:O	12:C0:49:LEU:HG	4.34	0.42
42:L5:136:GLU:N	42:L5:136:GLU:OE2	5.06	0.42
36:1:132:C:C2'	36:1:133:U:H5''	2.49	0.42
1:6:658:C:H5'	1:6:659:C:OP2	2.20	0.42
7:S5:128:ASN:HB3	7:S5:131:GLN:HB3	2.01	0.42
36:1:1004:U:N3	36:1:1005:G:N7	2.67	0.42
45:L8:82:LEU:HD12	45:L8:83:ASP:H	1.85	0.42
36:1:502:U:C4	36:1:503:C:C5	3.08	0.42
36:1:147:U:O2	51:M5:41:ARG:HD3	2.20	0.42
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	2.01	0.42
67:O1:55:LEU:O	67:O1:58:ALA:HB3	2.20	0.42
78:Q2:8:ARG:HB2	78:Q2:8:ARG:HH11	4.84	0.42
4:S2:58:LEU:HD11	4:S2:236:PRO:HG2	3.46	0.42
9:S7:164:TYR:C	9:S7:166:LEU:H	2.71	0.42
1:6:1151:A:O2'	1:6:1766:A:N7	2.39	0.42
14:C2:24:ILE:C	14:C2:26:ASP:H	2.24	0.42
36:5:808:A:N6	36:5:934:G:C4	2.88	0.42
44:L7:233:GLU:HB3	44:L7:234:GLU:H	2.15	0.42
36:1:1118:C:O2	36:1:1154:A:H2	2.03	0.42
48:M1:80:LEU:HD22	48:M1:84:LEU:HG	2.01	0.42
1:2:1096:C:H2'	1:2:1096:C:O2	2.20	0.42
43:L6:159:LEU:HA	43:L6:159:LEU:HD23	1.75	0.42
44:L7:104:GLN:O	44:L7:107:ARG:N	2.37	0.42
1:2:1553:G:N2	1:2:1555:A:H3'	2.34	0.42
36:5:2962:U:OP1	86:5:3975:OHX:N4	2.53	0.41
36:1:2852:C:N3	47:M0:158:LYS:NZ	2.67	0.41
39:L2:36:GLU:O	39:L2:91:GLY:HA2	2.20	0.41
1:2:145:A:O2'	1:2:146:U:O5'	2.30	0.41
17:C5:126:VAL:HG13	17:C5:127:ARG:N	2.35	0.41
41:L4:299:ILE:CG2	54:M8:39:ARG:HB3	2.64	0.41
11:S9:109:LEU:HD11	11:S9:134:ILE:HD11	2.02	0.41
48:M1:92:ARG:HH22	48:M1:94:ARG:HH11	5.83	0.41
50:M4:19:ARG:NH2	50:M4:69:THR:HG23	2.69	0.41
1:2:694:U:O2	1:2:694:U:H2'	2.18	0.41
8:S6:173:PRO:HD3	1:6:66:U:C6	336.77	0.41
37:3:47:C:H2'	37:3:48:U:C6	2.55	0.41
36:1:2107:A:C6	36:1:2108:C:C4	3.07	0.41
72:O6:4:LYS:O	72:O6:16:LYS:HE2	2.19	0.41
38:8:71:A:H4'	38:8:72:A:O5'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:248:ILE:HG13	11:S9:71:PHE:CE2	4.57	0.41
36:1:1064:A:H5''	36:1:1066:G:O4'	2.21	0.41
36:1:1095:U:O4'	57:N1:129:LYS:HD2	2.20	0.41
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	2.54	0.41
66:O0:92:ILE:HG21	66:O0:100:ILE:HD11	3.00	0.41
36:1:2897:A:H2'	36:1:2899:C:H5''	2.02	0.41
21:C9:31:PRO:HB3	21:C9:103:LYS:HD2	5.28	0.41
1:2:736:C:H42	1:2:737:A:H62	1.68	0.41
36:5:1877:U:OP1	86:5:3955:OHX:N3	2.52	0.41
5:S3:142:LEU:HD13	5:S3:182:LEU:HD21	2.01	0.41
1:6:1309:C:O2	1:6:1401:A:H2	2.03	0.41
26:D4:87:PRO:HG2	26:D4:90:ARG:HG3	3.46	0.41
36:1:372:A:H2'	36:1:373:A:C8	2.55	0.41
33:E1:97:LYS:HE2	1:6:1231:U:C5	437.48	0.41
36:1:406:G:H1'	38:4:16:G:N2	2.35	0.41
1:2:1480:G:H4'	21:C9:11:ALA:HB1	2.02	0.41
1:2:793:A:OP2	1:2:793:A:H8	2.03	0.41
2:S0:88:LYS:HZ1	19:C7:82:ASP:HB3	1.84	0.41
27:D5:43:ASP:HB2	27:D5:46:LYS:HG3	2.01	0.41
27:D5:69:LEU:O	27:D5:70:LYS:HD3	2.20	0.41
14:C2:73:LYS:NZ	33:E1:108:VAL:H	2.18	0.41
36:1:1015:U:O2'	36:1:1017:C:OP2	2.29	0.41
19:C7:22:PRO:HA	34:SR:216:LYS:NZ	2.35	0.41
53:M7:119:VAL:HA	53:M7:145:HIS:O	2.54	0.41
36:1:672:A:OP2	54:M8:55:SER:HB2	2.20	0.41
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.53	0.41
36:5:195:U:H2'	36:5:196:G:O4'	2.20	0.41
36:1:3346:U:H3	36:1:3359:A:N6	2.17	0.41
45:L8:148:ALA:O	45:L8:149:LYS:HD3	2.20	0.41
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	3.34	0.41
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.52	0.41
1:2:826:U:H2'	1:2:827:C:H6	1.83	0.41
36:5:177:U:O4	36:5:239:G:N2	2.53	0.41
26:D4:79:VAL:O	26:D4:82:ALA:HB3	2.75	0.41
69:O3:51:TYR:CZ	69:O3:53:TYR:HB3	2.55	0.41
24:D2:18:GLU:OE2	24:D2:65:LEU:HD23	2.20	0.41
12:C0:29:GLN:HB3	12:C0:39:ASN:HB2	2.02	0.41
36:1:2394:G:H2'	36:1:2395:G:O4'	2.20	0.41
40:L3:123:TYR:CD1	36:5:3315:G:H2'	181.45	0.41
43:L6:9:TRP:CE2	36:5:1354:G:C6	178.09	0.41
1:2:1575:G:H2'	1:2:1576:A:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:157:VAL:HG21	45:L8:163:VAL:HG21	2.71	0.41
51:M5:41:ARG:HG2	51:M5:41:ARG:H	1.73	0.41
36:1:193:C:H2'	36:1:194:U:C6	2.55	0.41
58:N2:84:LEU:HA	58:N2:84:LEU:HD23	1.84	0.41
60:N4:45:ASN:HB3	60:N4:48:ARG:HG3	4.42	0.41
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	2.21	0.41
70:O4:19:LYS:NZ	70:O4:38:LEU:HD13	2.35	0.41
53:M7:83:TRP:O	53:M7:85:ALA:N	2.53	0.41
28:D6:17:HIS:ND1	28:D6:18:VAL:O	2.53	0.41
44:L7:40:LYS:HB2	44:L7:40:LYS:HE3	1.78	0.41
64:N8:28:HIS:ND1	64:N8:32:ARG:HG3	3.02	0.41
36:5:1618:G:C2	36:5:1619:A:H1'	2.55	0.41
36:5:3305:A:H2'	36:5:3306:U:C6	2.55	0.41
1:6:1002:G:C6	1:6:1003:A:N7	2.88	0.41
54:M8:133:LYS:HB2	54:M8:135:GLN:NE2	2.47	0.41
36:1:1029:G:H2'	36:1:1030:A:C8	2.55	0.41
43:L6:37:GLY:O	43:L6:91:VAL:HG22	2.20	0.41
50:M4:79:ALA:HB2	36:5:525:C:H5''	343.79	0.41
6:S4:260:GLY:O	6:S4:261:LEU:HB2	4.70	0.41
36:1:1345:G:N7	86:1:3958:OHX:N4	2.68	0.41
86:1:3958:OHX:N1	86:1:4140:OHX:N4	2.68	0.41
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	2.35	0.41
36:5:2409:G:H4'	36:5:2410:U:OP2	2.19	0.41
1:2:341:A:H2'	1:2:342:C:C6	2.55	0.41
1:2:1256:A:OP1	12:C0:5:LYS:NZ	2.39	0.41
47:M0:90:ARG:NH1	36:5:1043:C:O3'	313.31	0.41
42:L5:85:ARG:NH1	42:L5:254:LYS:H	2.18	0.41
63:N7:17:ARG:HG2	70:O4:73:SER:O	2.19	0.41
43:L6:48:ARG:NH2	36:5:3276:G:O2'	238.67	0.41
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.56	0.41
53:M7:67:ILE:N	53:M7:67:ILE:HD13	3.00	0.41
40:L3:187:SER:O	40:L3:188:ILE:C	2.59	0.41
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.46	0.41
36:1:2207:A:C8	36:1:2208:A:N7	2.88	0.41
51:M5:94:TYR:CE2	51:M5:96:ARG:HB2	2.76	0.41
28:D6:5:ARG:NH1	1:6:1796:C:O5'	340.34	0.41
1:2:542:A:C8	1:2:543:C:H5'	2.39	0.41
33:E1:118:ARG:HB3	33:E1:119:ARG:H	3.76	0.41
1:6:1540:G:C6	1:6:1541:G:C4	3.08	0.41
18:C6:72:GLY:HA2	1:6:1608:U:H5''	402.98	0.41
39:L2:79:ASN:ND2	39:L2:165:VAL:HG22	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1096:U:H1'	36:1:1097:G:C2	2.55	0.41
64:N8:16:SER:HA	36:5:942:U:N3	168.84	0.41
64:N8:88:ASP:OD2	64:N8:88:ASP:N	4.23	0.41
11:S9:63:ASP:O	11:S9:66:ASP:HB2	2.69	0.41
44:L7:154:GLY:O	44:L7:160:ARG:HA	2.19	0.41
36:5:2255:A:H5'	36:5:2261:G:N2	2.26	0.41
1:6:1051:G:H4'	1:6:1052:U:OP1	2.19	0.41
18:C6:47:LYS:HZ1	18:C6:114:ARG:HD3	3.57	0.41
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	2.15	0.41
4:S2:179:VAL:HG11	1:6:2:A:H3'	390.85	0.41
40:L3:347:SER:OG	40:L3:348:ARG:N	2.52	0.41
48:M1:23:VAL:HG12	48:M1:65:ILE:O	4.92	0.41
1:6:1698:G:O2'	1:6:1699:G:P	2.78	0.41
1:2:1420:C:OP1	31:D9:54:LYS:NZ	2.51	0.41
36:1:2707:C:H2'	36:1:2708:C:H6	1.85	0.41
10:S8:76:THR:HB	10:S8:77:ARG:H	2.61	0.41
7:S5:35:GLN:C	7:S5:37:GLN:H	2.63	0.41
7:S5:69:PHE:CE2	18:C6:53:LEU:HD12	2.54	0.41
55:M9:176:ARG:HA	55:M9:176:ARG:HD3	1.85	0.41
74:O8:18:ALA:C	74:O8:20:VAL:H	2.55	0.41
74:O8:8:ILE:H	74:O8:8:ILE:CD1	2.54	0.41
1:6:515:A:C2	1:6:543:C:O2	2.72	0.41
1:6:151:G:H22	1:6:163:G:N2	2.16	0.41
62:N6:124:GLY:C	62:N6:126:LEU:H	4.17	0.41
67:O1:88:PRO:HG2	67:O1:89:LEU:HD13	2.02	0.41
17:C5:97:TYR:HA	17:C5:102:PHE:HA	2.51	0.41
1:2:1043:A:C2	1:2:1076:A:C2	3.08	0.41
27:D5:39:ALA:HB1	27:D5:72:GLY:N	2.35	0.41
25:D3:69:ARG:NH2	1:6:568:G:N7	365.23	0.41
11:S9:93:LEU:HD12	11:S9:93:LEU:HA	4.11	0.41
23:D1:40:ASP:OD1	23:D1:44:ARG:NH1	2.53	0.41
33:E1:93:HIS:HB3	33:E1:94:LYS:H	1.55	0.41
36:5:979:U:C2	36:5:980:A:N3	2.88	0.41
1:6:483:A:H61	1:6:504:U:H3	1.67	0.41
1:2:887:A:H2'	1:2:888:U:C6	2.56	0.41
19:C7:105:GLN:HA	19:C7:108:ASP:HB2	2.05	0.41
1:6:307:G:H2'	1:6:308:C:H5''	2.02	0.41
1:2:623:A:OP1	86:2:2158:OHX:N1	2.53	0.41
74:O8:69:LEU:HD13	74:O8:70:PRO:HD2	2.02	0.41
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.43	0.41
36:5:359:U:H4'	36:5:817:A:N6	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:127:ALA:O	39:L2:169:ILE:HD11	2.53	0.41
62:N6:71:SER:CB	62:N6:83:ASP:HB2	2.48	0.41
25:D3:23:ARG:HB3	25:D3:29:TYR:CZ	3.06	0.41
25:D3:77:ILE:C	25:D3:79:ASN:H	2.22	0.41
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.39	0.41
28:D6:11:ASN:HB3	1:6:934:C:C6	333.88	0.41
36:5:3053:G:N7	86:5:4167:OHX:N3	2.68	0.41
36:1:2538:U:HO2'	36:1:2541:U:H3	1.68	0.41
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.39	0.41
36:5:2352:A:H2'	36:5:2353:G:H8	1.84	0.41
39:L2:200:ARG:HG3	36:5:2147:A:OP1	207.58	0.41
36:1:2245:C:O2'	39:L2:221:LYS:HA	2.20	0.41
36:5:191:U:H2'	36:5:192:C:C6	2.55	0.41
1:6:1716:C:O2'	1:6:1717:G:OP2	2.33	0.41
46:L9:112:ILE:HG21	46:L9:161:LEU:HG	2.02	0.41
1:2:757:A:H4'	6:S4:22:LYS:HD2	2.01	0.41
36:1:3299:A:H61	36:1:3315:G:H1	1.68	0.41
1:6:768:C:H2'	1:6:769:A:O4'	2.20	0.41
1:2:1106:U:H2'	1:2:1107:G:H8	1.85	0.41
1:2:398:G:OP2	10:S8:47:ARG:NH1	2.36	0.41
1:6:914:G:H5'	1:6:914:G:C8	2.55	0.41
36:1:2338:C:H4'	59:N3:47:ASN:O	2.20	0.41
68:O2:79:VAL:O	68:O2:83:GLU:HG3	4.30	0.41
11:S9:74:ASN:O	11:S9:78:ARG:HB3	2.43	0.41
8:S6:70:PRO:HG2	60:N4:2:LYS:HZ2	1.84	0.41
67:O1:51:LEU:HD12	36:5:1459:C:H4'	146.01	0.41
15:C3:96:VAL:O	15:C3:100:LYS:HG2	6.04	0.41
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.23	0.41
9:S7:178:GLY:O	1:6:641:G:O2'	394.71	0.41
44:L7:66:LYS:HG3	44:L7:76:TYR:CD2	2.56	0.41
1:2:1737:G:O6	86:2:2041:OHX:N4	2.52	0.41
14:C2:89:ILE:HG12	14:C2:90:LYS:H	1.84	0.41
42:L5:163:LEU:HD11	42:L5:175:HIS:CG	2.55	0.41
1:2:1446:A:C4	1:2:1448:G:C8	3.08	0.41
36:5:1921:A:OP2	36:5:1930:A:N6	2.41	0.41
1:6:1374:C:H2'	1:6:1375:A:C8	2.56	0.41
36:1:2840:C:N4	36:1:2845:A:O2'	2.46	0.41
25:D3:132:LEU:HA	25:D3:132:LEU:HD23	4.43	0.41
58:N2:35:LYS:HA	58:N2:35:LYS:HD2	2.82	0.41
60:N4:63:ILE:O	60:N4:65:GLU:N	3.29	0.41
36:5:3049:A:H2'	36:5:3050:U:O4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3198:U:H4'	36:5:3199:G:OP2	2.19	0.41
50:M4:123:LEU:H	50:M4:123:LEU:HD12	4.23	0.41
8:S6:137:ARG:HD3	8:S6:177:ARG:HE	1.84	0.41
16:C4:38:THR:O	16:C4:39:ILE:HG23	2.21	0.41
36:5:916:G:C2	36:5:924:G:O4'	2.74	0.41
20:C8:141:THR:HG22	20:C8:142:GLY:H	3.13	0.41
7:S5:57:SER:CB	30:D8:53:ILE:HB	2.72	0.41
30:D8:57:MET:HE2	30:D8:57:MET:HB3	1.96	0.41
36:1:2407:C:H6	36:1:2407:C:O5'	2.02	0.41
55:M9:184:LEU:O	55:M9:185:LEU:HD23	2.73	0.41
36:1:409:A:OP2	86:1:4056:OHX:N6	2.53	0.41
55:M9:134:HIS:CE1	55:M9:137:ALA:HB2	2.55	0.41
40:L3:169:THR:HG23	40:L3:170:PRO:HD2	2.02	0.41
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.08	0.41
1:6:1565:C:H2'	1:6:1566:U:O4'	2.20	0.41
40:L3:68:HIS:CD2	40:L3:69:LYS:HG2	3.25	0.41
36:1:1465:A:H2'	36:1:1466:G:O4'	2.19	0.41
36:1:829:U:H3	36:1:895:A:H62	1.67	0.41
63:N7:4:PHE:HE2	66:O0:63:SER:HB3	1.84	0.41
36:5:2101:C:O2'	36:5:2102:U:P	2.78	0.41
42:L5:41:LYS:HA	42:L5:41:LYS:HD2	1.59	0.41
36:1:2708:C:H2'	36:1:2709:C:O4'	2.20	0.41
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.90	0.41
36:5:181:U:H1'	36:5:236:G:N2	2.35	0.41
17:C5:47:ARG:NH2	1:6:1555:A:OP2	403.55	0.41
74:O8:14:LEU:O	74:O8:20:VAL:HG21	2.20	0.41
51:M5:44:ARG:NH1	51:M5:120:TRP:O	2.52	0.41
1:2:154:G:OP1	8:S6:2:LYS:NZ	2.46	0.41
4:S2:52:THR:HB	4:S2:54:GLU:HG2	2.01	0.41
1:6:793:A:C3'	1:6:794:U:H5'	2.51	0.41
1:2:1641:C:N4	1:2:1760:G:H1	2.17	0.41
54:M8:54:LEU:HD13	54:M8:58:ASN:CB	2.50	0.41
20:C8:3:LEU:HD23	20:C8:5:VAL:HG13	2.01	0.41
59:N3:74:MET:HG2	59:N3:74:MET:O	2.84	0.41
36:5:1819:U:O4	86:5:4046:OHX:N3	2.53	0.41
36:1:386:A:C5	36:1:387:A:H1'	2.55	0.41
61:N5:129:ASP:HB2	61:N5:130:TYR:CE1	2.56	0.41
6:S4:18:TRP:O	6:S4:51:ARG:NH1	3.10	0.41
6:S4:212:ASP:OD1	6:S4:216:ASN:N	5.07	0.41
4:S2:88:LYS:HG2	4:S2:89:GLN:H	2.95	0.41
46:L9:156:GLN:HE21	46:L9:160:ASP:CG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:132:PRO:HA	44:L7:229:PHE:CE2	3.09	0.41
9:S7:133:THR:HG21	9:S7:162:ILE:HD11	2.02	0.41
1:6:372:G:OP2	86:6:2182:OHX:N6	2.53	0.41
53:M7:127:ARG:HD2	36:5:1505:C:H5''	128.93	0.41
36:1:3294:A:OP2	40:L3:126:LYS:HE3	2.20	0.41
24:D2:86:ILE:H	24:D2:86:ILE:HG13	1.41	0.41
64:N8:74:ASN:CB	64:N8:76:ASP:HB2	2.50	0.41
36:1:1768:U:H2'	36:1:1769:G:C8	2.54	0.41
26:D4:94:TYR:HB2	26:D4:96:LEU:HD11	2.01	0.41
54:M8:83:VAL:C	54:M8:85:GLY:N	2.95	0.41
1:2:278:U:H4'	1:2:279:G:O5'	2.20	0.41
7:S5:34:GLN:HG2	18:C6:57:LEU:HD13	2.01	0.41
74:O8:69:LEU:HA	74:O8:70:PRO:HD2	1.87	0.41
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	2.97	0.41
36:5:1070:U:O4	86:5:4105:OHX:N6	2.53	0.41
36:1:1103:A:H1'	36:1:1104:G:P	2.59	0.41
1:2:176:C:OP1	86:2:2073:OHX:N3	2.53	0.41
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.65	0.41
1:6:858:G:H5''	1:6:859:A:OP2	2.20	0.41
46:L9:170:LYS:HZ2	46:L9:170:LYS:HG2	2.06	0.41
1:2:1530:C:C2	1:2:1531:G:C8	3.08	0.41
12:C0:29:GLN:O	12:C0:31:LYS:N	2.52	0.41
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.89	0.41
8:S6:3:LEU:CD2	8:S6:109:LEU:HB2	2.49	0.41
13:C1:80:MET:HB2	13:C1:80:MET:HE2	2.11	0.41
36:5:370:U:H5''	36:5:371:G:OP2	2.20	0.41
36:5:371:G:H4'	36:5:396:A:N1	2.36	0.41
4:S2:177:GLY:C	4:S2:195:ASP:HA	2.86	0.41
35:SM:39:PRO:HD3	48:M1:52:TYR:CE1	2.55	0.41
36:5:192:C:H2'	36:5:193:C:C6	2.55	0.41
1:2:1062:A:OP2	86:2:2166:OHX:N4	2.54	0.41
36:5:1205:A:H4'	36:5:2835:U:O2'	2.20	0.41
36:1:2941:A:H8	36:1:2941:A:OP2	2.02	0.41
46:L9:18:VAL:O	50:M4:5:SER:OG	3.71	0.41
46:L9:47:LYS:HZ2	50:M4:5:SER:H	1.68	0.41
39:L2:45:VAL:CG2	39:L2:84:THR:HA	2.99	0.41
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.35	0.41
38:8:106:C:H4'	38:8:107:G:H5''	2.02	0.41
36:5:2944:U:H5''	36:5:2945:G:OP2	2.20	0.41
1:2:226:A:C2'	1:2:227:U:H5'	2.50	0.41
36:1:578:A:N3	41:L4:331:ALA:HA	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:279:LYS:HE3	42:L5:282:ARG:NH1	2.36	0.41
35:SM:101:ASP:HB3	35:SM:102:THR:H	1.59	0.41
39:L2:229:ALA:HB3	39:L2:234:LYS:HG2	2.02	0.41
1:6:1683:C:H2'	1:6:1684:U:O4'	2.20	0.41
46:L9:10:ILE:HB	46:L9:53:ILE:HB	2.02	0.41
1:2:1660:A:H2'	1:2:1661:U:C6	2.55	0.41
61:N5:72:ALA:O	61:N5:76:VAL:HG23	2.30	0.41
1:2:760:A:H2'	1:2:761:G:O4'	2.20	0.41
36:1:3377:G:O6	86:1:4036:OHX:N1	2.53	0.41
1:2:1304:G:H5'	1:2:1322:A:OP2	2.20	0.41
36:5:1091:A:O2'	36:5:1092:C:H5'	2.20	0.41
36:5:2519:A:C4	36:5:2589:G:N2	2.88	0.41
7:S5:183:ALA:HB2	7:S5:193:THR:HG21	2.65	0.41
56:N0:30:PHE:CE2	56:N0:103:VAL:HG21	2.55	0.41
1:6:717:C:H42	1:6:720:G:H1	1.67	0.41
1:6:727:U:H2'	1:6:728:U:C6	2.54	0.41
1:2:1790:A:N1	1:2:1791:A:C6	2.89	0.41
36:1:2396:G:H3'	36:1:2398:A:H5'	2.01	0.41
36:1:631:U:H2'	36:1:632:G:C8	2.56	0.41
49:M3:116:LEU:HD23	49:M3:116:LEU:HA	2.34	0.41
36:1:1192:C:H2'	36:1:1192:C:O2	2.21	0.41
68:O2:55:ILE:HA	68:O2:55:ILE:HD12	3.01	0.41
62:N6:48:LEU:HD23	62:N6:48:LEU:HA	2.04	0.41
40:L3:50:LYS:HE2	40:L3:328:ILE:HG22	4.96	0.41
36:1:1297:C:H2'	36:1:1298:C:H6	1.86	0.41
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.21	0.41
1:2:1500:C:OP2	21:C9:102:ARG:HD3	2.20	0.41
49:M3:167:PHE:O	49:M3:170:LEU:HB2	2.21	0.41
42:L5:148:ILE:HG23	42:L5:151:GLN:HB3	2.41	0.41
42:L5:50:ARG:O	42:L5:64:ILE:HA	2.20	0.41
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	2.02	0.41
16:C4:20:TYR:CE1	16:C4:22:SER:HB3	2.54	0.41
5:S3:82:GLY:C	5:S3:84:ILE:H	2.59	0.41
55:M9:81:ARG:HG3	55:M9:88:ARG:NH1	2.34	0.41
1:2:959:U:H2'	1:2:959:U:O2	2.19	0.41
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.91	0.41
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	2.02	0.41
59:N3:17:LEU:HD21	59:N3:98:ASN:CG	2.52	0.41
34:SR:115:ILE:HG12	34:SR:116:ASP:H	1.85	0.41
86:6:2101:OHX:N5	86:6:2186:OHX:N6	2.68	0.41
1:2:706:A:C6	1:2:734:A:N6	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	2.03	0.41
20:C8:38:VAL:HG13	20:C8:101:LEU:HD22	2.02	0.41
10:S8:84:HIS:NE2	10:S8:90:LEU:HD13	2.86	0.41
3:S1:211:HIS:CD2	3:S1:211:HIS:N	2.93	0.41
1:2:355:G:OP2	86:2:2036:OHX:N4	2.54	0.41
10:S8:76:THR:HB	10:S8:105:ASP:CB	2.50	0.41
10:S8:39:GLY:O	10:S8:59:ARG:HB3	2.20	0.41
36:1:718:G:N2	36:1:721:G:H1'	2.34	0.41
26:D4:27:VAL:HG21	26:D4:40:LEU:HD21	2.78	0.41
2:S0:203:PHE:N	2:S0:203:PHE:CD2	2.88	0.41
36:5:2288:G:H2'	36:5:2289:U:C6	2.55	0.41
19:C7:88:VAL:HG13	19:C7:89:SER:N	2.36	0.41
36:5:1144:U:H1'	36:5:1145:G:C8	2.56	0.41
36:1:1599:G:H2'	36:1:1600:U:O4'	2.20	0.41
36:5:1817:G:O2'	36:5:1818:U:OP2	2.31	0.41
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.62	0.41
1:6:482:U:H2'	1:6:483:A:C8	2.55	0.41
4:S2:90:THR:O	4:S2:92:ALA:N	2.54	0.41
36:5:1131:G:C2	36:5:2373:A:C4	3.08	0.41
8:S6:31:ARG:HD2	8:S6:34:GLN:NE2	2.34	0.41
1:2:1484:G:O4'	1:2:1607:G:H4'	2.21	0.41
54:M8:81:VAL:CG2	54:M8:101:VAL:HG13	2.50	0.41
68:O2:75:LEU:HA	68:O2:75:LEU:HD23	2.01	0.41
49:M3:159:VAL:HA	64:N8:124:ILE:HD11	2.61	0.41
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.41	0.41
46:L9:19:SER:HB3	50:M4:6:ILE:H	5.26	0.41
25:D3:40:SER:HB2	25:D3:41:SER:H	1.72	0.41
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.56	0.41
36:1:793:C:H6	36:1:793:C:O5'	2.04	0.41
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.31	0.41
1:2:1175:U:H2'	1:2:1176:G:H8	1.84	0.41
42:L5:33:ARG:HD2	37:7:7:G:OP1	270.54	0.41
8:S6:20:ASP:O	8:S6:23:ARG:N	3.34	0.41
47:M0:189:GLU:HB3	47:M0:200:LEU:HB3	2.86	0.41
36:5:2294:U:O2	36:5:2296:A:H8	2.04	0.41
43:L6:136:GLU:HA	43:L6:136:GLU:OE1	2.20	0.41
39:L2:238:ILE:HG23	39:L2:238:ILE:HD12	4.18	0.41
1:6:1164:G:H2'	1:6:1165:G:C8	2.55	0.41
26:D4:43:LYS:O	26:D4:47:VAL:HG12	6.16	0.41
36:1:117:U:O4	45:L8:147:LYS:HD2	2.20	0.41
72:O6:68:ARG:O	72:O6:72:VAL:HG23	2.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:158:ASP:O	36:5:147:U:N3	131.29	0.41
25:D3:144:ARG:HB2	25:D3:145:SER:H	1.68	0.41
36:1:2925:C:H2'	36:1:2926:A:O4'	2.20	0.41
36:1:2751:G:N7	86:1:4106:OHX:N6	2.69	0.41
1:2:432:G:C6	1:2:433:C:C4	3.09	0.41
1:6:926:A:H2'	1:6:927:C:O4'	2.20	0.41
70:O4:24:LYS:HB2	70:O4:24:LYS:HE3	1.89	0.41
49:M3:99:HIS:CD2	49:M3:99:HIS:H	2.94	0.41
15:C3:102:LEU:HA	15:C3:102:LEU:HD23	1.71	0.41
25:D3:54:LEU:HA	25:D3:54:LEU:HD23	2.09	0.41
36:5:1771:C:H2'	36:5:1772:U:O4'	2.21	0.41
40:L3:243:HIS:C	40:L3:244:ARG:HG3	2.41	0.41
36:1:3078:U:H4'	36:1:3079:U:O5'	2.19	0.41
23:D1:81:ASN:O	23:D1:82:VAL:HB	2.21	0.41
1:2:196:G:O2'	1:2:197:A:P	2.78	0.41
1:2:1556:A:C4	1:2:1560:U:O2	2.74	0.41
1:2:532:U:H2'	1:2:533:U:O4'	2.21	0.41
24:D2:5:SER:HB3	24:D2:8:ALA:CB	3.12	0.41
36:1:259:C:H2'	36:1:260:C:H6	1.86	0.41
5:S3:59:LEU:CD1	5:S3:63:GLY:HA2	2.50	0.41
1:6:1370:U:O4	86:6:2139:OHX:N6	2.54	0.41
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.92	0.41
37:3:63:A:C4	37:3:65:G:N7	2.89	0.41
1:6:487:G:H3'	1:6:488:G:C5'	2.50	0.41
36:5:1064:A:N6	36:5:1096:U:N3	2.69	0.41
22:D0:43:LYS:O	22:D0:47:GLN:N	2.54	0.41
5:S3:10:LYS:HG3	5:S3:11:LEU:HD23	2.20	0.41
36:5:1470:U:H2'	36:5:1471:U:H6	1.84	0.41
1:6:913:G:N7	36:5:2205:U:C2	2.89	0.41
1:6:1202:A:OP2	86:6:2126:OHX:N1	2.53	0.41
68:O2:109:LEU:HD23	68:O2:109:LEU:HA	1.74	0.41
36:5:1560:G:H2'	36:5:1561:G:C8	2.54	0.41
4:S2:53:ILE:HG12	4:S2:72:LEU:HD23	2.02	0.41
19:C7:79:GLU:O	19:C7:82:ASP:HB2	2.20	0.41
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.41	0.41
1:2:393:C:H4'	1:2:1673:G:O2'	2.21	0.41
54:M8:51:ALA:O	54:M8:54:LEU:HB2	2.21	0.41
52:M6:36:VAL:HG11	52:M6:108:ILE:HG23	2.02	0.41
5:S3:12:VAL:HG21	31:D9:34:TYR:HB3	2.03	0.41
37:3:112:G:H2'	37:3:113:C:H6	1.81	0.41
50:M4:48:GLY:CA	50:M4:53:VAL:HG13	2.64	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:106:LYS:H	46:L9:109:ALA:CB	2.32	0.41
29:D7:62:ILE:CG1	29:D7:63:LEU:H	2.32	0.41
62:N6:58:VAL:HG22	62:N6:104:LEU:CD2	2.89	0.41
37:3:79:A:C2	37:3:102:A:C4	3.08	0.41
17:C5:74:ALA:HA	17:C5:75:PRO:HD3	2.33	0.41
36:1:3215:A:H8	50:M4:121:MET:CE	2.32	0.41
42:L5:286:VAL:HG13	47:M0:206:LEU:HD21	2.97	0.41
43:L6:22:ARG:NE	36:5:608:A:C6	239.95	0.41
57:N1:79:MET:HA	57:N1:84:TYR:HA	2.01	0.41
1:2:1118:G:O6	86:2:2149:OHX:N1	2.53	0.41
34:SR:317:THR:HG22	34:SR:318:ALA:H	1.86	0.41
36:1:1353:U:H2'	43:L6:9:TRP:HE3	1.86	0.41
36:5:3155:U:OP1	86:5:4221:OHX:N4	2.53	0.41
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	3.13	0.41
36:1:2112:U:H4'	36:1:2113:A:O4'	2.20	0.41
18:C6:83:GLN:HG2	18:C6:116:LEU:O	3.75	0.41
48:M1:108:GLU:HA	48:M1:122:ILE:CG2	2.50	0.41
86:1:4141:OHX:N1	86:1:4184:OHX:N5	2.68	0.41
36:5:1734:G:H2'	36:5:1735:G:O4'	2.20	0.41
10:S8:119:GLN:O	10:S8:120:THR:OG1	2.33	0.41
36:5:2358:A:H2'	36:5:2359:C:O4'	2.21	0.41
39:L2:202:VAL:HG23	39:L2:211:HIS:HB3	2.03	0.41
36:5:2542:U:O2'	36:5:2543:U:H3'	2.21	0.41
36:5:2348:A:OP2	36:5:2349:U:H5	2.04	0.41
39:L2:44:ILE:HG12	39:L2:87:PHE:HE1	1.85	0.41
45:L8:211:LEU:HD12	45:L8:215:VAL:HG23	2.03	0.41
36:1:1273:A:O2'	36:1:1274:A:OP1	2.32	0.41
40:L3:261:MET:HG2	52:M6:64:PHE:CB	3.17	0.41
69:O3:45:LEU:HA	69:O3:45:LEU:HD23	1.87	0.41
1:6:296:U:H2'	1:6:297:U:C6	2.55	0.41
1:2:1101:G:O3'	24:D2:76:SER:HB2	2.21	0.41
69:O3:73:ARG:HG3	69:O3:82:ARG:HD2	2.74	0.41
36:1:1316:C:C2	52:M6:130:LYS:HG3	2.55	0.41
76:Q0:92:ASP:O	76:Q0:93:LYS:HG2	3.30	0.41
36:5:3222:U:O2'	36:5:3223:A:H5'	2.21	0.41
1:6:1045:C:C2	1:6:1074:G:C2	3.07	0.41
36:5:2608:G:C2	36:5:2609:A:C8	3.08	0.41
1:2:220:A:H5''	1:2:832:U:H1'	2.02	0.41
36:1:1248:C:OP1	36:1:1249:G:H8	2.03	0.41
7:S5:20:PHE:CE2	7:S5:22:PRO:HG3	3.99	0.41
36:5:3163:A:O2'	36:5:3164:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:98:C:OP1	56:N0:39:SER:OG	2.34	0.41
34:SR:288:HIS:ND1	34:SR:288:HIS:O	3.60	0.41
1:2:114:C:H6	1:2:114:C:H5'	1.85	0.41
55:M9:52:LYS:HE3	55:M9:52:LYS:HB2	2.93	0.41
44:L7:51:TYR:HE2	44:L7:183:ASP:OD1	2.53	0.41
36:1:1567:U:O2	36:1:1571:A:N6	2.46	0.41
52:M6:190:VAL:O	52:M6:193:GLN:N	3.14	0.41
1:2:142:G:N3	1:2:142:G:H2'	2.35	0.41
51:M5:47:LYS:HA	51:M5:50:ARG:HE	2.84	0.41
51:M5:65:ARG:HG2	51:M5:127:TYR:CD1	3.01	0.41
11:S9:126:ARG:O	11:S9:129:ILE:N	2.81	0.41
16:C4:31:THR:HB	16:C4:38:THR:HA	2.02	0.41
39:L2:205:ASN:O	39:L2:207:VAL:N	3.07	0.41
8:S6:175:ILE:HG12	8:S6:175:ILE:H	1.59	0.41
15:C3:27:LYS:H	15:C3:27:LYS:HE3	1.85	0.41
6:S4:182:TYR:CE1	6:S4:192:ILE:HD11	4.24	0.41
36:5:1437:C:H5'	36:5:1438:U:OP2	2.20	0.41
6:S4:11:ARG:H	6:S4:27:TYR:HA	1.85	0.41
1:2:69:G:C2	1:2:70:C:C2	3.09	0.41
59:N3:48:ARG:HG2	36:5:2339:C:OP2	246.60	0.41
58:N2:43:VAL:HB	58:N2:49:ASN:HB3	2.02	0.41
13:C1:132:SER:O	13:C1:135:VAL:N	4.59	0.41
36:5:3280:U:O2'	36:5:3281:U:H5''	2.21	0.41
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.50	0.41
36:1:1213:G:O2'	56:N0:90:MET:HG3	2.20	0.41
38:8:41:A:H2'	38:8:42:G:O4'	2.21	0.41
8:S6:16:PHE:HB3	8:S6:18:ILE:HD11	4.22	0.41
1:2:109:G:O2'	1:2:796:A:N1	2.50	0.41
42:L5:34:LYS:HE3	57:N1:30:TYR:CE1	5.08	0.41
1:2:1227:A:C2	14:C2:43:ARG:HG2	2.56	0.41
46:L9:25:VAL:O	46:L9:35:THR:HA	2.21	0.41
2:S0:200:ASP:N	2:S0:200:ASP:OD1	2.53	0.41
27:D5:71:ILE:CG2	27:D5:75:LEU:HB2	2.50	0.41
36:1:3245:A:H8	36:1:3245:A:C5'	2.34	0.41
11:S9:170:GLY:O	11:S9:174:ARG:HG3	2.79	0.41
21:C9:64:HIS:CE1	1:6:1523:G:N7	409.41	0.41
36:5:1534:A:OP1	86:5:3921:OHX:N1	2.53	0.41
8:S6:31:ARG:HG2	8:S6:34:GLN:OE1	5.23	0.41
36:5:3316:A:O2'	86:5:4246:OHX:N3	2.53	0.41
64:N8:34:MET:HB2	36:5:96:G:OP2	159.69	0.41
34:SR:144:LEU:HD13	34:SR:144:LEU:HA	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1595:U:H1'	36:5:1596:C:C6	2.55	0.41
74:O8:70:PRO:O	74:O8:73:LEU:HB3	2.70	0.41
9:S7:116:ARG:NH2	1:6:858:G:H5'	350.60	0.41
3:S1:167:VAL:O	3:S1:171:ILE:HG13	2.31	0.41
53:M7:14:SER:HB3	53:M7:150:VAL:O	2.21	0.41
36:1:2394:G:C8	40:L3:260:VAL:HG23	2.55	0.41
42:L5:235:SER:O	42:L5:239:ILE:HG13	2.20	0.41
47:M0:208:ASN:O	47:M0:212:GLU:HB2	3.01	0.41
38:8:157:U:H2'	38:8:158:U:C6	2.56	0.41
36:1:979:U:O2'	36:1:980:A:N7	2.43	0.41
36:1:985:U:H2'	36:1:986:U:H6	1.86	0.41
63:N7:61:LYS:O	63:N7:64:LYS:N	3.05	0.41
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.85	0.41
1:6:1645:G:OP2	86:6:2179:OHX:N3	2.54	0.41
31:D9:8:PHE:O	1:6:1450:U:O2'	412.02	0.41
21:C9:94:ILE:HA	21:C9:94:ILE:HD13	3.26	0.41
78:Q2:98:LYS:HD2	36:5:2656:A:H4'	250.52	0.41
4:S2:123:GLY:O	4:S2:126:ARG:N	2.52	0.41
16:C4:99:GLN:HG2	16:C4:99:GLN:H	1.83	0.41
30:D8:22:ARG:HD3	30:D8:22:ARG:HA	1.74	0.41
36:5:994:G:O6	86:5:4152:OHX:N1	2.54	0.41
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.85	0.41
36:1:1895:A:O2'	36:1:3053:G:H4'	2.20	0.41
36:5:735:A:HO2'	36:5:736:A:P	2.44	0.41
36:1:3131:U:H2'	36:1:3132:C:C6	2.56	0.41
79:Q3:36:ARG:HB2	79:Q3:48:LYS:HE2	2.61	0.41
65:N9:56:ALA:C	65:N9:58:LYS:H	3.20	0.41
1:6:635:A:C2	1:6:863:A:C8	3.08	0.41
36:1:3351:U:H4'	36:1:3352:U:OP1	2.20	0.41
36:1:858:A:C6	36:1:859:G:C6	3.08	0.41
67:O1:74:ARG:N	67:O1:94:GLU:O	2.52	0.41
36:5:1670:C:OP1	86:5:4230:OHX:N3	2.53	0.41
36:5:1342:C:H2'	36:5:1343:A:H8	1.85	0.41
36:1:1400:G:C2	36:1:1401:A:C8	3.08	0.41
36:5:2652:U:C4	36:5:2759:U:O2	2.73	0.41
40:L3:36:ASP:OD1	40:L3:38:SER:OG	2.35	0.41
36:1:1046:A:H2'	36:1:1049:C:C5	2.56	0.41
36:5:2108:C:H1'	36:5:3344:A:N3	2.36	0.41
65:N9:43:HIS:CE1	65:N9:47:LEU:HD11	3.15	0.41
1:6:745:U:C2	1:6:807:A:C2	3.09	0.41
36:1:1161:G:C2	36:1:1162:U:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2406:C:H2'	36:5:2407:C:C6	2.55	0.41
36:5:1754:G:C6	36:5:1755:C:C4	3.09	0.41
38:4:95:G:OP1	73:O7:76:ASN:ND2	2.38	0.41
1:2:212:U:C2	1:2:254:A:C2	3.09	0.41
15:C3:53:LEU:HA	15:C3:53:LEU:HD12	2.29	0.41
23:D1:69:LEU:HA	23:D1:69:LEU:HD23	2.15	0.41
2:S0:32:HIS:ND1	2:S0:32:HIS:C	2.74	0.41
36:1:638:C:C2'	36:1:639:G:O5'	2.68	0.41
36:1:197:G:H2'	36:1:198:A:C8	2.55	0.41
9:S7:186:PRO:HB2	9:S7:187:SER:H	1.60	0.41
5:S3:50:ILE:HG13	5:S3:50:ILE:H	3.71	0.41
32:E0:41:THR:HA	32:E0:45:VAL:HB	2.03	0.41
1:6:675:U:H2'	1:6:676:G:C8	2.55	0.41
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.31	0.41
1:2:463:U:H2'	1:2:464:A:C8	2.56	0.41
50:M4:24:LYS:HB3	50:M4:24:LYS:HE2	4.34	0.41
41:L4:25:VAL:O	41:L4:127:ALA:HB2	2.74	0.41
11:S9:105:LEU:HD12	11:S9:105:LEU:HA	2.87	0.41
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.21	0.41
36:5:3303:G:H4'	36:5:3304:U:OP1	2.20	0.41
30:D8:42:ARG:NH1	30:D8:56:LEU:HB3	2.36	0.41
39:L2:181:LYS:HG3	39:L2:184:ARG:HG3	2.16	0.41
2:S0:139:VAL:HG22	2:S0:139:VAL:O	2.38	0.41
15:C3:55:ARG:HD2	15:C3:56:ASP:OD2	2.20	0.41
6:S4:180:LEU:HD23	6:S4:180:LEU:HA	1.85	0.41
1:6:755:A:H2'	1:6:756:A:C8	2.55	0.41
59:N3:17:LEU:HB3	59:N3:36:ILE:HD12	2.26	0.41
36:1:2180:G:C6	36:1:2181:C:N4	2.89	0.41
36:1:994:G:N2	36:1:1053:A:H2'	2.35	0.41
34:SR:132:LYS:HD2	34:SR:134:TRP:CZ2	2.56	0.41
8:S6:55:GLY:HA3	8:S6:63:MET:HE2	2.65	0.41
36:1:348:A:H4'	36:1:367:A:N6	2.36	0.41
45:L8:33:ASN:O	36:5:2549:G:C5	210.35	0.41
55:M9:6:THR:HB	55:M9:7:GLN:OE1	2.21	0.41
41:L4:182:LEU:CD1	41:L4:223:PRO:HB2	2.51	0.41
22:D0:22:ILE:O	22:D0:93:LEU:N	2.42	0.41
1:2:1756:A:H2'	1:2:1757:G:H8	1.85	0.41
36:5:2971:A:C3'	36:5:2971:A:N3	2.82	0.41
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	2.02	0.41
20:C8:128:PHE:HD2	35:SM:61:ILE:HG22	1.84	0.41
1:6:162:A:C6	1:6:163:G:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:103:A:H4'	1:6:105:A:C8	2.56	0.41
53:M7:129:THR:OG1	36:5:1507:G:N7	148.31	0.41
36:1:1598:G:OP2	70:O4:31:ARG:NH2	2.54	0.41
47:M0:7:ARG:NH1	36:5:2828:G:OP1	269.35	0.41
59:N3:54:LEU:HA	59:N3:54:LEU:HD12	1.92	0.41
36:1:385:A:H2'	36:1:386:A:H8	1.82	0.41
61:N5:130:TYR:N	61:N5:130:TYR:CD1	2.88	0.41
38:8:139:U:H2'	38:8:140:G:C8	2.55	0.41
42:L5:256:THR:HA	42:L5:257:GLU:OE1	7.52	0.41
4:S2:113:LEU:HD23	4:S2:114:GLY:N	3.94	0.41
13:C1:133:LYS:NZ	1:6:324:U:OP1	291.61	0.41
46:L9:36:LYS:HB3	46:L9:78:MET:SD	2.61	0.41
49:M3:93:ILE:HD12	49:M3:93:ILE:HG23	1.81	0.41
36:5:1843:C:H2'	36:5:1844:C:C6	2.49	0.41
10:S8:46:VAL:HG13	10:S8:54:LYS:O	2.20	0.41
1:2:276:C:O2'	1:2:277:U:H5''	2.20	0.41
1:2:1051:G:HO2'	1:2:1052:U:P	2.43	0.41
9:S7:141:ARG:O	9:S7:148:LYS:HA	2.48	0.41
45:L8:99:PRO:HG2	45:L8:190:VAL:HG13	4.82	0.41
10:S8:69:SER:HA	13:C1:22:ASN:HD21	3.40	0.41
54:M8:153:PHE:O	54:M8:161:LYS:HE2	2.20	0.41
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.93	0.41
12:C0:31:LYS:HA	12:C0:37:THR:O	2.21	0.41
71:O5:10:ARG:NH1	71:O5:60:GLU:CD	2.74	0.41
1:6:1591:C:H2'	1:6:1592:A:C8	2.56	0.41
36:1:2541:U:H1'	36:1:2542:U:OP2	2.21	0.41
42:L5:253:PHE:CE1	42:L5:255:PRO:HB3	2.86	0.41
20:C8:15:LEU:O	20:C8:22:VAL:HG23	2.20	0.41
36:5:1235:U:H4'	36:5:1236:G:H5'	2.01	0.41
62:N6:32:SER:HB2	62:N6:49:PRO:HA	4.24	0.41
36:5:1692:U:C4	36:5:1693:C:N4	2.88	0.41
39:L2:29:LEU:HA	39:L2:76:PHE:CE1	2.56	0.41
37:7:106:U:C2	37:7:107:C:C6	3.08	0.41
36:5:252:U:H5''	36:5:252:U:H6	1.85	0.41
36:1:619:A:H5''	36:1:620:U:OP1	2.20	0.41
36:1:65:A:H3'	36:1:111:C:H41	1.85	0.41
1:2:290:G:H2'	1:2:290:G:N3	2.35	0.41
36:1:3333:G:N3	36:1:3334:U:C5	2.89	0.41
68:O2:81:ASP:O	68:O2:84:THR:HG23	2.21	0.41
42:L5:279:LYS:HG2	42:L5:282:ARG:CZ	2.51	0.41
1:6:1003:A:H1'	1:6:1005:A:N7	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:93:LEU:H	59:N3:93:LEU:HD23	1.85	0.41
86:5:4029:OHX:N3	86:5:4077:OHX:N4	2.69	0.41
86:5:4029:OHX:N1	86:5:4077:OHX:N2	2.68	0.41
34:SR:29:GLN:HG3	34:SR:32:LEU:HD22	3.38	0.41
21:C9:9:VAL:HG22	21:C9:140:LEU:HD11	2.02	0.41
36:1:520:U:N3	41:L4:347:THR:O	2.53	0.41
41:L4:10:SER:OG	41:L4:13:GLY:O	2.24	0.41
36:1:1304:A:OP1	86:1:4207:OHX:N5	2.54	0.41
1:2:802:G:H21	24:D2:107:SER:HB3	1.85	0.41
29:D7:12:ALA:HA	29:D7:15:GLU:HB3	3.32	0.41
1:6:246:G:C6	1:6:247:A:C6	3.09	0.41
1:6:249:U:H3'	1:6:250:C:H5'	2.03	0.41
1:2:448:C:OP1	6:S4:29:PRO:HD3	2.20	0.41
36:1:2886:U:C6	36:1:2911:A:N7	2.89	0.41
47:M0:129:VAL:HA	47:M0:133:GLN:OE1	3.11	0.41
2:S0:82:GLY:O	2:S0:85:ALA:HB3	2.21	0.41
52:M6:129:LEU:HA	52:M6:129:LEU:HD12	1.95	0.41
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	2.07	0.41
43:L6:34:LEU:HD23	43:L6:34:LEU:HA	1.59	0.41
40:L3:300:ARG:HH11	40:L3:300:ARG:HA	6.13	0.41
36:5:1688:U:H2'	36:5:1689:U:C6	2.54	0.41
1:6:120:U:H2'	1:6:121:U:H6	1.84	0.41
1:6:993:A:H2'	1:6:994:G:O4'	2.21	0.41
41:L4:22:LEU:HD13	41:L4:23:PRO:N	2.35	0.41
62:N6:31:LEU:HB3	62:N6:101:PRO:HG2	2.02	0.41
1:2:915:A:H2'	1:2:915:A:N3	2.35	0.41
60:N4:44:LYS:HE3	36:5:2111:G:O2'	226.23	0.41
36:5:1014:U:C2'	36:5:1015:U:H5'	2.51	0.41
1:2:78:A:OP2	86:2:2162:OHX:N3	2.53	0.41
1:6:833:U:OP2	86:6:2198:OHX:N5	2.53	0.41
55:M9:105:LEU:HD21	55:M9:139:VAL:HG12	6.69	0.41
55:M9:138:LEU:O	55:M9:142:ILE:HG13	2.21	0.41
40:L3:166:ILE:CD1	40:L3:173:GLN:HG2	2.52	0.41
36:1:1063:G:C6	36:1:1097:G:C5	3.09	0.41
70:O4:56:THR:OG1	70:O4:56:THR:O	2.34	0.41
55:M9:104:ARG:HG2	55:M9:104:ARG:O	2.20	0.41
68:O2:22:SER:HA	68:O2:28:VAL:HG12	2.01	0.41
58:N2:49:ASN:C	58:N2:51:GLY:H	2.20	0.41
1:6:2:A:C8	1:6:370:A:H1'	2.56	0.41
44:L7:130:ILE:HG21	44:L7:130:ILE:HD13	1.88	0.41
3:S1:172:LEU:HA	3:S1:172:LEU:HD23	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:127:VAL:HG13	3:S1:176:VAL:HG11	2.03	0.41
42:L5:40:HIS:ND1	57:N1:69:LYS:HA	2.72	0.41
45:L8:91:PHE:CZ	45:L8:185:ARG:HB3	2.76	0.41
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.20	0.41
22:D0:17:GLN:HE21	22:D0:96:PRO:HB2	1.85	0.41
14:C2:46:ARG:NH2	14:C2:50:LYS:HE3	2.36	0.41
20:C8:116:LEU:HA	20:C8:119:ILE:HB	3.30	0.41
32:E0:28:LYS:HZ1	1:6:542:A:N6	427.81	0.41
31:D9:19:ARG:NH2	1:6:1597:A:OP1	406.43	0.41
1:2:794:U:O2'	1:2:795:U:N3	2.51	0.41
42:L5:34:LYS:HD2	57:N1:30:TYR:CZ	2.55	0.41
14:C2:62:LEU:HD22	14:C2:75:VAL:HG11	2.02	0.41
1:2:1784:C:H2'	1:2:1785:U:H6	1.86	0.41
51:M5:73:ARG:HA	51:M5:74:PRO:HD3	1.64	0.41
1:6:1241:G:H2'	1:6:1242:A:H8	1.86	0.41
36:5:1815:U:O2'	36:5:1816:A:P	2.78	0.41
34:SR:50:ASP:O	34:SR:52:GLN:N	2.54	0.41
24:D2:81:VAL:HG13	24:D2:89:TRP:CD1	2.55	0.41
1:6:1719:A:H2'	1:6:1720:G:O4'	2.21	0.41
1:6:1508:U:H2'	1:6:1509:C:C6	2.55	0.41
86:1:4003:OHX:N4	86:1:4172:OHX:N1	2.68	0.41
1:2:442:C:O2'	1:2:525:A:N1	2.52	0.41
49:M3:179:PHE:CD1	49:M3:182:ILE:HD12	6.78	0.41
36:5:176:G:C2	36:5:177:U:C2	3.09	0.41
34:SR:289:ALA:HB2	34:SR:305:TYR:CE2	3.04	0.41
1:2:917:U:H2'	1:2:918:U:H5'	2.01	0.41
28:D6:79:ILE:HD12	1:6:1794:A:H1'	331.25	0.41
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.34	0.41
41:L4:325:LEU:HA	41:L4:325:LEU:HD23	2.06	0.41
46:L9:4:ILE:HD13	46:L9:4:ILE:HG21	1.80	0.41
60:N4:4:GLU:HG2	60:N4:30:ARG:NH1	2.36	0.41
27:D5:96:SER:O	27:D5:98:GLN:N	2.53	0.41
24:D2:65:LEU:HD13	24:D2:65:LEU:H	1.85	0.41
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	12.23	0.41
70:O4:106:LYS:O	70:O4:110:GLU:HG3	2.21	0.41
37:3:27:A:O4'	37:3:57:G:N2	2.54	0.41
58:N2:107:PHE:HB3	58:N2:108:TYR:H	1.67	0.41
36:1:136:G:N2	36:1:137:G:C4	2.88	0.41
20:C8:14:ILE:O	20:C8:14:ILE:HG13	2.21	0.41
42:L5:184:ASP:HB3	42:L5:187:THR:OG1	3.55	0.41
46:L9:47:LYS:HE3	46:L9:50:ASN:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2995:A:C2'	36:1:2996:U:H5''	2.51	0.41
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.48	0.41
36:1:3153:U:H5''	36:1:3154:C:OP1	2.21	0.41
51:M5:142:ILE:O	51:M5:144:ARG:O	2.39	0.41
2:S0:61:ALA:HA	2:S0:64:ILE:HD12	2.02	0.41
52:M6:39:GLU:CD	52:M6:107:GLY:H	2.73	0.41
1:2:1662:G:C2'	1:2:1663:G:H5'	2.51	0.41
41:L4:210:ALA:N	41:L4:254:ALA:HB2	2.36	0.41
10:S8:67:TRP:HA	10:S8:183:ILE:HG23	5.37	0.41
36:1:1638:A:N3	36:1:1709:C:H1'	2.35	0.41
78:Q2:88:CYS:HA	36:5:2653:C:OP2	232.52	0.41
47:M0:88:ARG:HD3	47:M0:90:ARG:HD3	3.25	0.41
36:5:327:A:C6	36:5:328:U:N3	2.89	0.41
36:5:2904:U:H2'	36:5:2905:U:C6	2.56	0.41
1:2:1653:C:N4	1:2:1654:G:C6	2.89	0.41
1:6:969:C:H4'	1:6:1104:U:O2'	2.20	0.41
1:6:1413:U:H4'	1:6:1414:U:OP2	2.21	0.41
36:5:706:A:H2'	36:5:707:U:O4'	2.21	0.41
50:M4:101:LYS:O	50:M4:104:ALA:N	3.51	0.41
36:5:2661:G:O2'	36:5:2662:G:H5'	2.21	0.41
41:L4:307:GLN:HE22	36:5:1346:G:H1'	201.03	0.41
1:6:1620:C:H2'	1:6:1621:U:H6	1.85	0.41
1:6:719:U:C4	1:6:721:U:H5	2.39	0.41
1:6:1628:U:H2'	1:6:1629:G:C8	2.55	0.41
73:O7:58:THR:O	73:O7:61:THR:HG23	2.20	0.41
43:L6:6:ALA:HA	68:O2:74:PHE:HE1	1.86	0.41
1:2:568:G:O5'	25:D3:90:ASP:HA	2.21	0.41
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.38	0.41
47:M0:53:VAL:HG22	47:M0:134:ILE:HG12	2.02	0.41
36:5:2985:C:H2'	36:5:2986:U:C6	2.56	0.41
36:5:85:A:OP1	36:5:85:A:H8	2.03	0.41
1:6:667:U:H4'	1:6:668:C:OP1	2.20	0.41
36:1:1216:C:H6	36:1:1216:C:H5''	1.86	0.41
46:L9:74:LEU:HA	46:L9:74:LEU:HD23	1.69	0.41
38:4:88:A:O2'	38:4:89:A:H5'	2.20	0.41
86:5:3975:OHX:N6	86:5:4193:OHX:N3	2.68	0.41
40:L3:75:ALA:O	40:L3:326:GLY:N	2.51	0.41
47:M0:63:GLU:H	47:M0:63:GLU:HG2	2.01	0.41
36:1:2852:C:H2'	36:1:2853:A:O4'	2.21	0.41
36:5:2852:C:H2'	36:5:2853:A:O4'	2.20	0.41
1:2:195:G:O6	10:S8:141:ARG:NH2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.21	0.41
41:L4:144:LYS:HA	86:L4:402:OHX:N2	2.36	0.41
50:M4:47:ASP:OD1	50:M4:78:THR:OG1	2.92	0.41
10:S8:25:ARG:HD3	10:S8:27:PHE:CE1	3.83	0.41
86:2:2090:OHX:N1	86:2:2132:OHX:N4	2.69	0.41
1:6:1636:C:C2	1:6:1638:G:C5	3.08	0.41
51:M5:188:ARG:HB2	51:M5:188:ARG:HE	1.77	0.41
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.02	0.41
36:1:1741:A:C2	36:1:1742:U:C4	3.08	0.41
34:SR:182:ASN:ND2	34:SR:184:ASN:HD21	4.70	0.41
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.55	0.41
33:E1:138:ARG:O	33:E1:139:LEU:HD12	2.88	0.41
36:1:2747:A:OP1	86:1:3968:OHX:N4	2.54	0.41
42:L5:155:THR:HA	42:L5:179:ARG:HD3	3.49	0.41
39:L2:3:ARG:HB2	39:L2:207:VAL:HG12	3.64	0.41
36:1:679:U:H2'	36:1:680:G:H8	1.85	0.41
36:5:1308:A:C8	36:5:1308:A:OP2	2.73	0.41
1:2:149:C:H2'	1:2:150:U:C6	2.56	0.41
38:4:79:A:H2'	38:4:80:A:C1'	2.43	0.41
52:M6:3:VAL:CG1	52:M6:4:GLU:H	2.22	0.41
55:M9:182:ASP:O	55:M9:184:LEU:N	4.10	0.41
9:S7:39:ARG:HH21	55:M9:185:LEU:HD22	2.38	0.41
16:C4:85:ALA:N	16:C4:119:THR:HG22	2.24	0.41
36:1:289:A:C2	51:M5:93:LYS:HG3	2.56	0.41
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	2.02	0.41
2:S0:140:ASN:ND2	4:S2:62:PRO:HD3	4.47	0.41
5:S3:79:TYR:CD1	5:S3:84:ILE:HB	2.70	0.41
29:D7:28:PRO:HB3	1:6:959:U:H5''	351.26	0.41
37:3:22:A:C6	37:3:23:A:C6	3.09	0.41
55:M9:109:TYR:HB3	55:M9:115:ILE:HG12	4.08	0.41
75:O9:2:ALA:O	75:O9:3:ALA:HB3	2.21	0.41
27:D5:54:VAL:HG12	27:D5:54:VAL:O	2.20	0.41
59:N3:13:ILE:HD13	59:N3:14:SER:O	5.19	0.41
19:C7:29:GLN:O	19:C7:32:LYS:HB3	2.28	0.41
36:1:1739:U:O3'	70:O4:56:THR:HG23	2.21	0.41
11:S9:69:ARG:O	11:S9:73:GLY:HA3	2.21	0.41
39:L2:188:LYS:O	39:L2:192:LYS:HG3	2.34	0.41
49:M3:52:ASP:OD2	49:M3:142:ALA:HB2	2.66	0.41
36:5:1657:C:N4	36:5:1798:A:OP2	2.43	0.41
49:M3:91:ARG:NH2	49:M3:97:VAL:O	2.94	0.41
21:C9:57:ARG:O	21:C9:61:VAL:HG23	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	3.09	0.41
1:2:704:C:H4'	1:2:705:U:OP1	2.19	0.41
48:M1:65:ILE:HD13	48:M1:65:ILE:HG21	2.34	0.41
22:D0:109:GLU:HA	22:D0:110:PRO:HD2	1.94	0.41
20:C8:99:HIS:HD2	20:C8:101:LEU:HD21	1.86	0.41
20:C8:30:TYR:CE1	1:6:1539:G:C2	352.20	0.41
22:D0:58:LEU:HD12	22:D0:88:LYS:O	2.21	0.41
5:S3:11:LEU:HD13	22:D0:29:THR:HG23	2.34	0.41
48:M1:53:THR:HA	48:M1:59:ILE:O	2.21	0.41
1:2:1366:U:O2'	21:C9:7:ARG:HD2	2.21	0.41
70:O4:46:ASP:OD1	70:O4:46:ASP:N	3.15	0.41
63:N7:10:VAL:HG22	63:N7:24:VAL:HG13	2.03	0.41
1:6:1698:G:H1'	1:6:1699:G:OP1	2.21	0.41
51:M5:172:ARG:HH22	36:5:63:A:P	101.02	0.41
3:S1:143:THR:HG21	3:S1:156:ALA:HB2	2.69	0.41
3:S1:36:SER:OG	3:S1:37:THR:N	2.53	0.41
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	2.01	0.41
3:S1:142:PHE:O	3:S1:208:GLN:N	2.50	0.41
3:S1:160:HIS:CE1	3:S1:205:PHE:HE2	4.30	0.41
3:S1:70:LEU:HD12	3:S1:82:ARG:O	2.21	0.41
36:5:3113:A:C2	36:5:3122:A:C4	3.09	0.41
45:L8:142:LEU:HD23	36:5:117:U:C4	106.86	0.41
17:C5:40:ARG:NH1	1:6:1556:A:O2'	384.71	0.41
74:O8:12:LEU:O	74:O8:15:THR:OG1	2.53	0.41
36:5:43:A:N6	36:5:2802:A:C4	2.88	0.41
1:2:794:U:O2	1:2:794:U:O2'	2.39	0.41
54:M8:89:ASP:HB3	36:5:677:A:OP1	133.32	0.41
36:5:172:G:N3	36:5:172:G:H2'	2.35	0.41
42:L5:211:LEU:HA	42:L5:211:LEU:HD23	1.84	0.41
1:2:1002:G:N1	1:2:1761:U:OP1	2.52	0.41
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	3.28	0.41
53:M7:136:ILE:C	53:M7:137:ASN:HD22	2.31	0.41
36:5:2572:C:O2'	36:5:2573:G:OP2	2.32	0.41
86:1:4084:OHX:N6	86:1:4154:OHX:N4	2.69	0.41
1:2:1042:G:H22	1:2:1076:A:H2	1.67	0.41
49:M3:104:ARG:HH21	36:5:74:G:H5''	90.19	0.41
36:1:1672:U:O2'	36:1:1673:G:H5'	2.21	0.41
67:O1:9:THR:OG1	67:O1:76:SER:HB3	4.30	0.41
9:S7:63:PRO:HB2	9:S7:66:SER:OG	2.21	0.41
20:C8:62:THR:N	20:C8:65:GLU:OE1	2.50	0.41
40:L3:308:MET:HE3	40:L3:308:MET:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1676:U:H1'	1:2:1726:G:N2	2.36	0.41
59:N3:128:ARG:O	59:N3:131:SER:HB2	2.21	0.41
41:L4:44:LYS:O	41:L4:47:ARG:HB2	3.84	0.41
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.12	0.41
1:6:1491:U:H4'	1:6:1492:A:C5'	2.51	0.41
21:C9:64:HIS:CD2	21:C9:68:ARG:HH21	3.64	0.41
42:L5:79:TYR:HB2	42:L5:81:HIS:CD2	3.24	0.41
51:M5:156:HIS:O	51:M5:159:ARG:HG2	2.20	0.41
9:S7:77:LEU:O	9:S7:81:LEU:HG	2.20	0.41
34:SR:96:THR:CG2	34:SR:98:GLU:HB3	2.51	0.41
49:M3:15:ARG:CZ	36:5:96:G:H5'	151.51	0.41
1:2:1266:U:H2'	1:2:1267:G:H8	1.83	0.41
1:6:330:G:C6	1:6:331:A:C5	3.09	0.41
1:6:1265:G:N7	86:6:2190:OHX:N4	2.69	0.41
10:S8:167:ALA:HA	10:S8:184:LEU:H	2.42	0.41
41:L4:220:ARG:HG2	36:5:211:A:OP1	76.58	0.41
36:1:863:C:H2'	36:1:864:G:O4'	2.20	0.41
1:2:25:C:OP2	1:2:26:A:H2'	2.20	0.41
36:1:2902:A:P	46:L9:170:LYS:HE3	2.61	0.41
36:1:2808:A:N7	36:1:2955:U:H4'	2.36	0.41
54:M8:122:ILE:HG23	54:M8:126:GLN:CB	2.73	0.41
17:C5:52:LYS:HB2	17:C5:52:LYS:HE3	1.82	0.41
76:Q0:103:LEU:HD22	76:Q0:104:PRO:HD2	2.03	0.41
38:8:83:C:H4'	38:8:85:G:N2	2.35	0.41
36:5:34:A:H3'	36:5:35:A:C8	2.55	0.41
44:L7:55:TYR:OH	44:L7:186:HIS:HA	2.20	0.41
40:L3:159:ARG:HD2	40:L3:180:GLU:OE1	2.21	0.41
66:O0:83:LYS:HG2	66:O0:85:PHE:CE2	2.56	0.41
19:C7:8:THR:HG21	1:6:1330:G:H21	419.01	0.41
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.77	0.41
5:S3:99:VAL:HG13	5:S3:173:ARG:NH2	2.59	0.41
36:1:378:A:H3'	36:1:379:C:H6	1.86	0.41
1:6:1081:A:H1'	1:6:1082:C:C5	2.55	0.41
25:D3:19:ARG:O	25:D3:21:ASN:N	2.54	0.41
59:N3:79:VAL:HG23	59:N3:80:ARG:HG3	2.01	0.41
13:C1:54:ILE:HD13	13:C1:54:ILE:HA	2.56	0.41
47:M0:22:TYR:CZ	36:5:1048:A:H2'	266.95	0.41
36:1:771:A:C6	36:1:772:U:C2	3.08	0.41
39:L2:44:ILE:C	39:L2:61:VAL:HG23	5.90	0.41
1:6:89:G:C6	1:6:90:C:C4	3.09	0.41
12:C0:32:HIS:CG	12:C0:33:GLU:H	3.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3268:A:H3'	36:5:3269:U:H3'	2.02	0.41
68:O2:79:VAL:HG13	68:O2:111:ARG:HG2	2.03	0.41
86:5:4051:OHX:N5	86:5:4194:OHX:N2	2.68	0.41
20:C8:8:GLN:H	20:C8:8:GLN:HG3	1.50	0.41
55:M9:154:ALA:O	55:M9:158:GLU:HG2	2.58	0.41
36:5:2624:G:H2'	36:5:2625:C:C6	2.55	0.41
36:1:1547:G:OP1	51:M5:105:ARG:HD3	2.20	0.41
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.41	0.41
1:6:1304:G:C5	1:6:1305:U:C4	3.09	0.41
47:M0:48:LEU:HB2	47:M0:178:ARG:HH12	3.18	0.41
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.37	0.41
34:SR:203:THR:CG2	34:SR:212:ALA:HB3	2.51	0.41
36:1:2657:A:C2	36:1:2694:A:C8	3.08	0.41
1:6:1018:U:H2'	1:6:1019:A:C8	2.55	0.41
36:5:2842:U:H2'	36:5:2843:U:H6	1.85	0.41
1:2:1344:A:O2'	1:2:1345:A:P	2.78	0.41
44:L7:137:GLY:HA3	44:L7:233:GLU:O	2.60	0.41
36:1:1134:G:C2	36:1:1135:A:C8	3.09	0.41
36:1:140:C:O2'	36:1:141:C:H5'	2.20	0.41
39:L2:104:LEU:HD13	39:L2:162:ALA:O	3.15	0.41
74:O8:3:ARG:CZ	74:O8:52:TYR:HE1	5.00	0.41
1:6:877:G:H5'	1:6:937:C:H1'	2.03	0.41
36:1:2743:A:H2'	36:1:2744:U:O4'	2.20	0.41
49:M3:67:ARG:HG3	49:M3:67:ARG:H	1.55	0.41
1:2:1193:A:OP1	1:2:1193:A:H8	2.03	0.41
41:L4:294:GLU:OE1	41:L4:294:GLU:N	2.36	0.41
42:L5:68:THR:HG22	42:L5:70:THR:H	1.86	0.41
36:5:945:C:H2'	36:5:946:U:C6	2.56	0.41
44:L7:79:ALA:HB2	57:N1:138:SER:N	2.35	0.41
13:C1:118:GLN:HG3	13:C1:121:ASP:OD2	2.21	0.41
36:1:2400:G:H5''	36:1:2401:A:OP2	2.21	0.41
36:5:792:G:H2'	36:5:793:C:C6	2.56	0.41
36:1:1187:C:C4	36:1:1188:U:C5	3.09	0.41
45:L8:159:PRO:HG3	51:M5:43:THR:O	4.24	0.41
1:6:1338:C:H1'	1:6:1410:A:C4	2.56	0.41
44:L7:144:ILE:HD12	44:L7:189:ILE:HG13	2.02	0.41
36:5:1752:A:OP2	86:5:4076:OHX:N3	2.54	0.41
7:S5:152:GLY:O	7:S5:154:ALA:N	2.53	0.41
48:M1:54:VAL:O	48:M1:56:THR:N	2.50	0.41
36:5:1932:A:H5'	36:5:1933:A:OP2	2.21	0.41
1:6:1287:A:H4'	1:6:1288:G:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:107:VAL:HA	13:C1:108:PRO:HD2	2.23	0.41
27:D5:94:LYS:HE3	27:D5:94:LYS:HB2	3.97	0.41
36:1:1923:C:H6	36:1:1923:C:O5'	2.04	0.41
78:Q2:32:LYS:HA	78:Q2:32:LYS:HD2	4.58	0.41
53:M7:48:LEU:HA	53:M7:48:LEU:HD23	1.77	0.41
39:L2:119:LYS:HE2	39:L2:119:LYS:HB2	4.33	0.41
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.21	0.41
1:2:1465:C:C4	1:2:1466:G:C8	3.09	0.41
1:6:189:C:O5'	1:6:189:C:H6	2.04	0.41
1:6:895:G:H2'	1:6:896:U:C6	2.56	0.41
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.84	0.41
8:S6:153:VAL:HB	8:S6:154:ARG:H	3.01	0.41
34:SR:23:LEU:CB	34:SR:293:ALA:HB2	3.23	0.41
4:S2:116:LYS:HB2	4:S2:131:ILE:HD12	2.22	0.41
2:S0:124:THR:O	2:S0:146:LEU:HB2	2.20	0.41
18:C6:38:LEU:O	18:C6:40:GLU:N	2.50	0.41
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.54	0.41
36:5:2437:G:N2	36:5:2510:U:O2	2.39	0.41
36:5:2603:G:H2'	36:5:2604:U:O4'	2.20	0.41
3:S1:113:MET:HB3	3:S1:142:PHE:CE2	2.70	0.41
3:S1:70:LEU:HA	3:S1:73:LEU:HG	2.03	0.41
7:S5:35:GLN:HG3	7:S5:39:GLU:OE1	4.40	0.41
45:L8:138:HIS:CD2	45:L8:142:LEU:HD11	3.41	0.41
36:1:900:G:H2'	36:1:901:G:H8	1.86	0.41
67:O1:10:ARG:NH2	36:5:3386:G:H5'	155.74	0.41
22:D0:101:LYS:O	22:D0:104:THR:OG1	3.62	0.41
53:M7:128:ARG:HG2	53:M7:136:ILE:HG21	4.25	0.41
43:L6:60:ASP:OD1	43:L6:62:THR:HG23	3.57	0.41
1:2:219:A:H5'	1:2:831:U:O2'	2.21	0.41
27:D5:41:ILE:HD12	27:D5:41:ILE:HA	1.87	0.41
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	3.52	0.41
11:S9:96:VAL:HA	11:S9:99:LEU:CD2	2.51	0.41
11:S9:96:VAL:O	11:S9:99:LEU:HB2	2.74	0.41
33:E1:89:LYS:HB2	33:E1:90:LYS:H	3.25	0.41
33:E1:94:LYS:HB3	33:E1:95:HIS:H	1.63	0.41
59:N3:106:LYS:HD2	59:N3:108:GLU:OE2	2.20	0.41
36:5:2585:G:N3	36:5:2585:G:H2'	2.36	0.41
79:Q3:83:ILE:HA	79:Q3:83:ILE:HD13	2.11	0.41
1:2:450:U:H2'	1:2:451:A:H8	1.86	0.41
36:1:436:A:C8	36:1:621:A:N6	2.86	0.41
54:M8:83:VAL:C	54:M8:85:GLY:H	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1611:G:H2'	36:5:1612:A:H8	1.86	0.41
1:2:894:U:H2'	1:2:895:G:C8	2.56	0.41
36:5:136:G:O2'	36:5:137:G:H5'	2.21	0.41
36:5:2239:G:OP2	86:5:4187:OHX:N6	2.54	0.41
12:C0:38:LYS:HB2	12:C0:41:TYR:CD2	3.05	0.41
40:L3:13:HIS:HB2	36:5:3044:G:O2'	243.61	0.41
27:D5:44:GLN:O	27:D5:47:TYR:HB3	2.29	0.41
36:5:2505:U:H5''	36:5:2506:U:OP2	2.21	0.41
1:6:1715:G:C6	1:6:1716:C:N4	2.89	0.41
36:1:181:U:H4'	73:O7:75:LYS:HG2	2.03	0.41
40:L3:113:GLU:HB3	40:L3:176:ALA:HB2	2.02	0.41
36:1:3298:C:C2	36:1:3299:A:C8	3.09	0.41
3:S1:147:ALA:O	3:S1:148:ASN:HB3	2.21	0.41
64:N8:148:ILE:HD13	64:N8:148:ILE:HG21	1.82	0.41
36:5:3167:A:H2'	36:5:3168:A:O4'	2.21	0.41
36:1:397:A:C2	36:1:399:A:C4	3.09	0.41
38:4:84:C:H1'	62:N6:113:LYS:HG3	2.03	0.41
17:C5:60:LEU:HA	17:C5:76:VAL:HG21	2.09	0.41
56:N0:141:LYS:HE2	56:N0:141:LYS:HB3	4.53	0.41
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.20	0.41
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.36	0.41
36:5:2872:A:H4'	36:5:2873:U:OP1	2.20	0.41
49:M3:21:ARG:HB3	51:M5:196:THR:HG23	3.72	0.41
38:4:67:U:H2'	38:4:68:G:C8	2.55	0.41
1:2:1660:A:H5'	59:N3:67:PRO:HG2	2.02	0.41
36:1:587:U:C2'	36:1:588:G:H5'	2.51	0.41
36:5:985:U:H2'	36:5:986:U:H6	1.85	0.41
34:SR:150:TRP:HB2	34:SR:174:ASN:HB2	2.03	0.41
19:C7:37:GLU:O	19:C7:39:ALA:N	3.32	0.41
36:5:1450:G:OP1	86:5:4224:OHX:N4	2.54	0.41
36:5:2124:G:O2'	36:5:2125:A:H5'	2.21	0.41
1:2:85:A:O2'	26:D4:120:GLY:HA2	2.21	0.41
86:2:2083:OHX:N3	86:2:2085:OHX:N1	2.69	0.41
69:O3:23:ASN:OD1	69:O3:25:PRO:HD3	2.21	0.41
24:D2:17:ALA:HA	24:D2:20:THR:OG1	2.21	0.41
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.03	0.41
49:M3:66:ASN:OD1	49:M3:66:ASN:N	2.53	0.41
66:O0:74:ASN:OD1	66:O0:74:ASN:N	2.81	0.41
59:N3:109:MET:HE2	59:N3:109:MET:HB3	1.80	0.41
36:1:3342:A:OP1	36:1:3342:A:H3'	2.20	0.41
39:L2:179:LEU:HA	39:L2:179:LEU:HD13	1.96	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:256:A:H2'	1:2:257:A:O4'	2.21	0.41
41:L4:178:LEU:HA	41:L4:178:LEU:HD23	1.65	0.41
1:6:178:U:H6	1:6:178:U:H2'	1.63	0.41
40:L3:120:LYS:HA	40:L3:120:LYS:HD2	2.01	0.41
44:L7:184:LEU:HD23	44:L7:184:LEU:HA	1.93	0.41
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.54	0.41
39:L2:147:ARG:HG3	39:L2:157:VAL:HG12	2.02	0.41
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.21	0.41
51:M5:110:ALA:C	51:M5:112:ASN:H	2.22	0.41
70:O4:52:GLN:HG2	36:5:1639:C:H5'	196.51	0.40
53:M7:78:VAL:CG1	53:M7:79:THR:N	3.27	0.40
1:2:1585:U:N3	1:2:1611:A:C2	2.82	0.40
1:6:1639:C:N4	1:6:1640:C:N3	2.69	0.40
1:2:1796:C:H6	28:D6:7:SER:HB3	1.87	0.40
28:D6:87:ARG:HB3	28:D6:91:ASP:HB2	2.03	0.40
79:Q3:5:THR:HG21	79:Q3:8:VAL:HG23	3.18	0.40
1:2:1251:U:H5'	33:E1:135:HIS:HD2	1.86	0.40
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.55	0.40
24:D2:30:SER:O	24:D2:31:SER:HB3	2.21	0.40
3:S1:100:PHE:CD2	3:S1:181:LEU:HD21	6.92	0.40
36:1:1940:G:H21	36:1:3362:A:H8	1.67	0.40
36:5:1439:U:C2	36:5:1440:G:C8	3.08	0.40
1:6:486:G:O2'	1:6:487:G:H5'	2.21	0.40
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	3.05	0.40
43:L6:43:LEU:HD22	69:O3:102:LEU:HB2	2.50	0.40
36:5:956:U:C2	36:5:957:C:C5	3.10	0.40
3:S1:49:ASN:O	3:S1:57:ALA:HB2	2.21	0.40
1:2:1279:C:H2'	1:2:1280:C:O4'	2.21	0.40
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.22	0.40
20:C8:18:LEU:HA	20:C8:18:LEU:HD13	1.91	0.40
10:S8:51:GLY:H	1:6:397:A:H5''	312.71	0.40
50:M4:135:LEU:O	50:M4:136:ALA:HB2	3.22	0.40
1:6:913:G:O4'	1:6:913:G:N3	2.54	0.40
26:D4:87:PRO:HD2	26:D4:90:ARG:NH1	2.35	0.40
44:L7:168:ILE:O	44:L7:171:ALA:HB3	2.21	0.40
42:L5:171:LEU:HD23	42:L5:171:LEU:HA	2.38	0.40
52:M6:89:SER:O	52:M6:89:SER:OG	3.05	0.40
4:S2:52:THR:O	4:S2:55:GLU:HB2	2.20	0.40
20:C8:25:ASN:OD1	20:C8:25:ASN:N	2.71	0.40
49:M3:186:ARG:O	49:M3:190:LYS:HB3	2.21	0.40
49:M3:190:LYS:NZ	49:M3:190:LYS:HB2	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:60:LYS:O	55:M9:64:ARG:HG3	2.21	0.40
36:1:1556:C:O2	36:1:2169:G:C2	2.74	0.40
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.54	0.40
36:5:2373:A:N3	36:5:2824:G:O2'	2.43	0.40
1:2:442:C:H2'	1:2:443:C:H6	1.86	0.40
43:L6:72:ASN:OD1	43:L6:74:VAL:HG23	3.07	0.40
1:2:918:U:C2	1:2:919:A:C8	3.09	0.40
69:O3:85:PHE:CD1	69:O3:89:LEU:HD21	3.67	0.40
36:5:1944:U:C2	36:5:1945:A:C8	3.09	0.40
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.54	0.40
42:L5:15:ARG:CZ	36:5:1003:A:H1'	289.40	0.40
60:N4:9:SER:HA	60:N4:52:THR:HG22	2.02	0.40
36:1:591:G:C1'	43:L6:19:LYS:HG3	2.50	0.40
36:1:2414:G:C2	36:1:2807:U:O2	2.74	0.40
1:6:1489:U:C4	1:6:1513:G:C6	3.09	0.40
28:D6:26:CYS:O	28:D6:27:SER:HB2	2.42	0.40
36:5:1030:A:C6	36:5:1031:C:C4	3.09	0.40
1:2:1115:U:O3'	77:Q1:17:ARG:NH2	2.54	0.40
39:L2:221:LYS:NZ	36:5:2965:U:O2	211.80	0.40
36:5:189:G:H2'	36:5:224:C:OP1	2.19	0.40
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	1.88	0.40
1:2:367:A:C6	1:2:368:U:C4	3.08	0.40
9:S7:161:GLN:HE21	9:S7:161:GLN:HB2	3.92	0.40
79:Q3:84:ARG:HA	79:Q3:87:ARG:NH1	2.89	0.40
40:L3:80:ASP:OD1	40:L3:319:ASN:ND2	2.52	0.40
65:N9:39:PHE:CD2	65:N9:39:PHE:C	2.95	0.40
28:D6:15:ARG:HD2	28:D6:18:VAL:HG12	2.21	0.40
7:S5:216:GLU:O	7:S5:219:ARG:HB3	2.22	0.40
77:Q1:1:MET:HA	1:6:1783:C:OP1	313.35	0.40
36:1:3335:A:C2	36:1:3336:A:C4	3.09	0.40
56:N0:14:LEU:HG	56:N0:56:GLY:HA2	2.75	0.40
36:5:999:G:C6	36:5:1000:C:N4	2.89	0.40
10:S8:72:ILE:HD13	10:S8:112:TRP:CD2	2.56	0.40
67:O1:36:ILE:HD13	67:O1:36:ILE:HG21	1.85	0.40
1:2:1320:U:O2	1:2:1322:A:H5'	2.22	0.40
5:S3:50:ILE:HB	5:S3:88:ALA:HA	2.02	0.40
2:S0:82:GLY:O	2:S0:86:VAL:HG13	3.35	0.40
36:1:1486:G:N2	70:O4:6:THR:HG22	2.36	0.40
1:2:59:C:H1'	1:2:60:U:C5	2.56	0.40
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.21	0.40
37:7:85:G:O6	86:7:222:OHX:N5	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:692:A:C4	36:1:693:A:C8	3.10	0.40
32:E0:31:LYS:HE3	1:6:545:A:OP1	418.63	0.40
36:5:381:U:H2'	36:5:382:U:C6	2.56	0.40
1:2:1512:G:C6	1:2:1513:G:C6	3.08	0.40
36:5:2220:A:N6	36:5:2221:G:C6	2.89	0.40
5:S3:200:LYS:HB3	5:S3:200:LYS:HE2	4.47	0.40
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.75	0.40
72:O6:86:LYS:HD3	72:O6:86:LYS:HA	2.35	0.40
36:5:1390:A:H5'	36:5:1390:A:N3	2.36	0.40
36:5:867:G:C6	36:5:868:C:C4	3.09	0.40
36:1:2718:U:OP2	86:1:3981:OHX:N3	2.55	0.40
47:M0:161:GLY:O	47:M0:163:GLN:NE2	3.08	0.40
38:4:149:A:H2'	38:4:150:G:C8	2.56	0.40
36:1:5:G:H2'	36:1:6:A:O4'	2.21	0.40
36:5:2271:A:N7	36:5:2272:G:C6	2.89	0.40
46:L9:87:LYS:HZ1	46:L9:191:LEU:HD21	15.42	0.40
40:L3:188:ILE:CD1	40:L3:188:ILE:H	3.13	0.40
79:Q3:10:ILE:HD13	36:5:837:A:H1'	229.34	0.40
45:L8:241:LYS:HE2	36:5:2586:G:O2'	185.40	0.40
41:L4:316:ASN:O	41:L4:319:LYS:O	2.64	0.40
7:S5:164:PRO:O	7:S5:168:VAL:HG23	2.32	0.40
36:5:1759:C:N3	36:5:1760:A:C8	2.89	0.40
3:S1:129:THR:OG1	3:S1:180:THR:HA	2.22	0.40
74:O8:2:ALA:N	36:5:1613:A:OP1	138.97	0.40
55:M9:123:LEU:HD13	55:M9:142:ILE:HD11	2.63	0.40
39:L2:209:HIS:CG	39:L2:210:PRO:HD2	2.89	0.40
39:L2:188:LYS:HE3	39:L2:189:TYR:CE2	5.60	0.40
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	2.56	0.40
36:5:2278:C:H2'	36:5:2279:A:H5''	2.03	0.40
52:M6:62:THR:HB	52:M6:65:ASN:O	2.21	0.40
68:O2:22:SER:HA	68:O2:28:VAL:CG1	2.51	0.40
21:C9:28:LEU:HD23	21:C9:111:ILE:HD11	7.38	0.40
58:N2:54:VAL:HG13	58:N2:67:SER:HB2	3.35	0.40
3:S1:176:VAL:HA	3:S1:184:LEU:HD23	2.03	0.40
2:S0:31:VAL:N	2:S0:149:LEU:O	2.44	0.40
5:S3:135:GLU:HB3	5:S3:187:LYS:HB3	2.75	0.40
36:5:2101:C:HO2'	36:5:2102:U:P	2.44	0.40
36:5:2602:G:N7	86:5:3902:OHX:N3	2.69	0.40
10:S8:105:ASP:O	10:S8:107:THR:HG23	2.21	0.40
74:O8:54:LEU:HG	74:O8:56:ILE:CD1	2.99	0.40
38:4:154:C:H2'	38:4:155:A:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:56:ARG:O	72:O6:59:ASP:HB2	3.28	0.40
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	2.09	0.40
14:C2:75:VAL:O	14:C2:79:ALA:N	2.57	0.40
1:2:1337:A:H5'	1:2:1338:C:OP2	2.21	0.40
36:5:1144:U:OP1	36:5:1367:G:O2'	2.36	0.40
25:D3:87:VAL:HA	25:D3:88:PRO:HD3	1.77	0.40
20:C8:72:ILE:HA	20:C8:79:TYR:CE2	4.51	0.40
29:D7:62:ILE:HD12	29:D7:62:ILE:HA	1.90	0.40
9:S7:133:THR:HG22	9:S7:157:LYS:O	3.51	0.40
54:M8:57:ILE:HD12	36:5:671:U:OP2	159.80	0.40
54:M8:151:ARG:HB2	54:M8:152:HIS:HD2	1.86	0.40
63:N7:34:LYS:HA	63:N7:34:LYS:HD2	2.35	0.40
36:1:2376:G:C6	36:1:2377:G:O6	2.75	0.40
1:6:304:U:H2'	1:6:305:C:C6	2.56	0.40
26:D4:91:LEU:HA	26:D4:96:LEU:HD12	2.04	0.40
40:L3:95:THR:HG22	36:5:3243:A:H4'	255.13	0.40
36:1:1295:G:OP1	56:N0:84:ARG:HG3	2.21	0.40
36:5:764:U:H6	36:5:764:U:O5'	2.04	0.40
69:O3:13:HIS:CE1	69:O3:94:PHE:CE1	3.67	0.40
46:L9:118:LEU:HD12	46:L9:177:ASP:HB2	2.03	0.40
25:D3:44:GLY:CA	25:D3:78:LYS:HZ2	2.32	0.40
1:6:846:G:H2'	1:6:847:A:O4'	2.20	0.40
44:L7:138:TYR:HA	44:L7:139:PRO:HD3	2.09	0.40
63:N7:15:ARG:NH2	70:O4:83:ASN:OD1	2.53	0.40
9:S7:136:VAL:N	9:S7:153:LEU:O	2.58	0.40
36:1:1423:C:C2	36:1:1424:C:C5	3.09	0.40
1:2:1530:C:N3	1:2:1531:G:C8	2.89	0.40
8:S6:27:PHE:O	8:S6:30:LYS:HG3	4.08	0.40
1:6:1535:U:HO2'	1:6:1536:G:P	2.45	0.40
7:S5:49:GLU:O	7:S5:51:VAL:HG23	2.21	0.40
39:L2:219:ILE:HG22	39:L2:221:LYS:O	2.22	0.40
21:C9:80:TYR:HD2	21:C9:101:ASN:HD21	3.17	0.40
1:6:1320:U:O2	1:6:1322:A:H5'	2.21	0.40
1:2:1525:A:H2'	1:2:1526:A:O4'	2.20	0.40
34:SR:206:PRO:CG	34:SR:247:PRO:HA	3.38	0.40
13:C1:30:ARG:HG2	13:C1:30:ARG:H	3.92	0.40
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.16	0.40
36:5:2714:G:C8	36:5:2751:G:H2'	2.56	0.40
1:6:213:A:OP2	86:6:2146:OHX:N1	2.54	0.40
36:1:26:A:C4	36:1:330:G:C8	3.10	0.40
60:N4:17:ARG:HH11	60:N4:17:ARG:HD2	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.82	0.40
44:L7:148:VAL:HB	44:L7:185:ILE:HD11	2.03	0.40
28:D6:97:PRO:N	28:D6:98:PRO:HD2	2.36	0.40
36:1:1501:U:O2'	36:1:1502:C:H5'	2.22	0.40
51:M5:6:TYR:CD2	72:O6:40:VAL:HG13	2.56	0.40
9:S7:109:VAL:HG22	9:S7:110:GLN:H	2.88	0.40
10:S8:117:TYR:CE1	10:S8:150:ALA:HA	2.91	0.40
38:4:47:C:H1'	38:4:61:A:C4	2.56	0.40
36:5:543:C:H42	36:5:548:G:H1	1.68	0.40
1:2:1414:U:H4'	1:2:1415:U:OP2	2.21	0.40
36:1:661:G:C5	36:1:802:C:C6	3.10	0.40
44:L7:177:GLY:O	44:L7:178:ILE:HB	2.20	0.40
36:5:2964:G:N7	86:5:3979:OHX:N6	2.69	0.40
36:1:352:A:H61	36:1:365:A:H5''	1.86	0.40
36:5:2891:U:O2'	36:5:3014:U:H5''	2.21	0.40
36:1:637:C:H6	36:1:637:C:H2'	1.37	0.40
47:M0:173:PHE:N	47:M0:173:PHE:CD1	2.88	0.40
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.84	0.40
4:S2:44:LEU:HD23	4:S2:44:LEU:HA	2.16	0.40
36:1:2550:U:O2	36:1:2550:U:O4'	2.39	0.40
1:6:362:G:O5'	1:6:362:G:H8	2.03	0.40
1:6:1499:G:H2'	1:6:1500:C:C6	2.57	0.40
40:L3:20:LYS:HG3	40:L3:21:ARG:O	2.43	0.40
41:L4:22:LEU:HD22	41:L4:23:PRO:HD2	2.17	0.40
40:L3:296:THR:HG21	40:L3:357:LYS:C	3.99	0.40
7:S5:65:ARG:HA	7:S5:67:PRO:HD3	2.04	0.40
86:2:2090:OHX:N5	86:2:2132:OHX:N2	2.70	0.40
1:2:1368:G:C6	1:2:1369:U:C4	3.09	0.40
11:S9:102:GLU:CD	11:S9:102:GLU:N	3.16	0.40
1:2:902:G:H8	1:2:902:G:O5'	2.04	0.40
33:E1:144:CYS:HB3	33:E1:147:VAL:HG22	2.03	0.40
36:5:1239:C:H3'	36:5:1240:A:C8	2.50	0.40
36:5:1760:A:C6	36:5:1766:G:C6	3.09	0.40
2:S0:122:ILE:HG23	2:S0:144:ILE:HG22	2.03	0.40
36:5:409:A:C8	36:5:410:U:C6	3.09	0.40
74:O8:44:LYS:NZ	36:5:1751:G:O6	131.12	0.40
44:L7:29:GLU:HA	44:L7:32:ALA:HB3	2.02	0.40
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	2.42	0.40
15:C3:36:GLN:HG2	15:C3:54:LEU:HD21	4.61	0.40
70:O4:54:ILE:HD11	70:O4:78:GLY:HA2	2.34	0.40
5:S3:90:ARG:HB3	5:S3:91:VAL:H	2.71	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:52:ARG:NH2	1:6:905:A:H4'	299.34	0.40
49:M3:24:VAL:O	49:M3:26:PHE:N	3.11	0.40
36:1:373:A:N6	36:1:396:A:H62	2.19	0.40
1:6:1252:C:H2'	1:6:1253:U:O4'	2.21	0.40
1:6:151:G:N2	1:6:163:G:H22	2.20	0.40
36:1:1748:G:OP2	74:O8:42:LYS:NZ	2.52	0.40
5:S3:138:VAL:HA	5:S3:183:GLY:O	2.52	0.40
66:O0:41:LEU:HD22	66:O0:42:ILE:N	2.36	0.40
2:S0:88:LYS:N	2:S0:88:LYS:HD2	2.37	0.40
36:1:976:U:OP1	54:M8:144:ARG:NH2	2.53	0.40
47:M0:99:ILE:HG23	47:M0:99:ILE:O	2.21	0.40
1:2:830:U:O2	1:2:830:U:H2'	2.21	0.40
1:2:1258:U:H4'	12:C0:2:LEU:HD13	2.03	0.40
46:L9:86:TYR:CE1	46:L9:151:VAL:HG13	2.57	0.40
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	1.85	0.40
9:S7:96:ARG:HH21	9:S7:124:LYS:NZ	5.13	0.40
2:S0:17:LEU:HD23	2:S0:17:LEU:HA	2.13	0.40
36:1:781:G:OP1	54:M8:151:ARG:HD2	2.21	0.40
63:N7:38:PHE:CE2	63:N7:40:HIS:HB3	2.64	0.40
68:O2:11:LYS:O	68:O2:13:HIS:N	2.50	0.40
36:5:3132:C:H2'	36:5:3133:C:H6	1.85	0.40
1:6:330:G:H2'	1:6:331:A:H8	1.86	0.40
45:L8:134:TYR:CE2	45:L8:190:VAL:HG11	4.97	0.40
36:1:2702:A:C4	36:1:2704:A:N6	2.89	0.40
36:5:3242:G:H5''	36:5:3245:A:H8	1.86	0.40
36:5:3231:U:H2'	36:5:3232:G:H8	1.87	0.40
73:O7:28:HIS:O	73:O7:32:LYS:N	2.53	0.40
63:N7:26:VAL:HG22	63:N7:42:LEU:O	2.20	0.40
1:2:1217:A:C8	1:2:1217:A:H5'	2.55	0.40
1:6:571:G:C8	1:6:572:C:C5	3.10	0.40
48:M1:132:ASN:HA	48:M1:154:THR:CG2	2.50	0.40
15:C3:128:TYR:O	15:C3:132:VAL:HG22	2.22	0.40
36:5:565:U:H2'	36:5:566:G:O4'	2.21	0.40
18:C6:11:GLY:HA2	18:C6:83:GLN:NE2	2.37	0.40
36:5:1952:G:C6	36:5:1953:G:N7	2.89	0.40
45:L8:106:LYS:HE3	36:5:140:C:OP1	89.11	0.40
12:C0:16:PHE:HZ	12:C0:77:ARG:HH12	5.11	0.40
25:D3:19:ARG:NE	1:6:609:U:H1'	342.36	0.40
36:1:1393:A:N6	36:1:1417:G:H1'	2.36	0.40
36:1:2194:G:H2'	36:1:2195:C:C6	2.57	0.40
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:12:LYS:HE2	28:D6:16:GLY:N	2.79	0.40
44:L7:136:TYR:O	44:L7:231:ASN:HA	2.21	0.40
36:1:3334:U:O4	36:1:3369:G:H1'	2.21	0.40
61:N5:59:SER:OG	61:N5:98:ALA:HA	2.21	0.40
2:S0:36:TYR:CD1	2:S0:161:PRO:HG3	2.55	0.40
36:5:731:U:O5'	36:5:731:U:H6	2.03	0.40
71:O5:64:GLU:HA	71:O5:67:ARG:HB3	2.03	0.40
41:L4:157:GLU:HB3	41:L4:211:GLU:O	2.20	0.40
14:C2:89:ILE:O	14:C2:89:ILE:HD13	5.00	0.40
1:6:727:U:H2'	1:6:728:U:H6	1.86	0.40
1:6:296:U:H2'	1:6:297:U:O4'	2.21	0.40
36:5:2107:A:C2	36:5:2108:C:C2	3.09	0.40
1:6:310:C:C4	1:6:311:U:C5	3.10	0.40
41:L4:349:THR:HG21	44:L7:64:GLN:HE22	1.85	0.40
1:6:1603:U:H2'	1:6:1604:U:C6	2.56	0.40
1:2:306:U:H2'	1:2:307:G:C8	2.56	0.40
36:5:1638:A:N1	36:5:1736:G:O2'	2.47	0.40
36:1:1608:C:H2'	36:1:1609:C:C6	2.56	0.40
1:6:1660:A:H2'	1:6:1661:U:C6	2.56	0.40
36:1:1528:G:N3	36:1:1588:A:H2	2.19	0.40
73:O7:71:SER:O	73:O7:74:PHE:HB3	2.21	0.40
1:6:911:U:H5'	1:6:912:U:OP1	2.21	0.40
36:5:553:U:O4	86:5:3993:OHX:N3	2.54	0.40
49:M3:6:ASN:O	49:M3:7:LEU:HD23	2.28	0.40
58:N2:59:ASP:C	58:N2:61:THR:H	2.25	0.40
1:6:398:G:O5'	1:6:398:G:H8	2.05	0.40
6:S4:75:LYS:HB3	6:S4:75:LYS:HE2	1.93	0.40
43:L6:93:VAL:HG13	43:L6:93:VAL:O	2.82	0.40
41:L4:14:GLU:HG3	41:L4:14:GLU:H	2.92	0.40
1:6:541:A:OP1	1:6:541:A:H8	2.04	0.40
66:O0:62:LEU:HA	66:O0:62:LEU:HD23	1.95	0.40
53:M7:38:GLY:H	53:M7:114:VAL:HG22	2.23	0.40
36:5:2530:G:H2'	36:5:2531:C:H5''	2.03	0.40
36:1:951:A:C4	36:1:1369:A:C2	3.10	0.40
1:2:117:U:H2'	1:2:118:U:O4'	2.21	0.40
7:S5:96:SER:HB3	7:S5:176:THR:HG21	3.40	0.40
51:M5:104:GLU:O	51:M5:108:ARG:HG3	2.20	0.40
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.21	0.40
11:S9:45:ILE:O	11:S9:48:GLN:HG3	2.22	0.40
36:1:2503:G:HO2'	36:1:2504:U:H5	1.67	0.40
1:2:900:A:H2'	1:2:901:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:145:HIS:ND1	33:E1:146:SER:OG	2.55	0.40
33:E1:144:CYS:CB	33:E1:147:VAL:HG13	2.92	0.40
42:L5:148:ILE:HG13	42:L5:159:VAL:HG11	3.27	0.40
36:5:1012:G:H2'	36:5:1013:G:O4'	2.22	0.40
36:1:860:G:O5'	39:L2:181:LYS:NZ	2.54	0.40
20:C8:102:ALA:O	20:C8:105:VAL:HG12	2.21	0.40
2:S0:122:ILE:HG12	2:S0:144:ILE:HG13	4.05	0.40
8:S6:175:ILE:HG12	1:6:78:A:H1'	337.85	0.40
47:M0:84:ALA:HB3	47:M0:85:PHE:HD2	1.85	0.40
59:N3:2:SER:N	59:N3:56:ASP:HA	2.85	0.40
37:3:15:C:O2	37:3:65:G:N2	2.39	0.40
50:M4:20:VAL:HA	50:M4:33:ALA:O	2.21	0.40
68:O2:30:GLU:O	68:O2:31:ASN:C	2.70	0.40
36:1:290:G:H4'	51:M5:69:GLY:O	2.22	0.40
58:N2:50:LEU:HB3	58:N2:54:VAL:HB	3.71	0.40
34:SR:248:ASN:ND2	34:SR:298:GLY:HA3	3.65	0.40
55:M9:3:ASN:OD1	55:M9:5:ARG:HG3	2.22	0.40
53:M7:126:ARG:HD3	53:M7:140:GLU:OE2	3.50	0.40
65:N9:23:LYS:HD3	65:N9:23:LYS:HA	1.96	0.40
34:SR:194:GLY:HA3	34:SR:223:TRP:HH2	2.47	0.40
36:5:959:C:N4	36:5:2801:A:C8	2.89	0.40
36:1:900:G:H1'	36:1:1589:A:H62	1.83	0.40
67:O1:10:ARG:HD2	67:O1:12:TYR:OH	3.28	0.40
54:M8:63:SER:OG	54:M8:64:VAL:N	3.04	0.40
2:S0:168:HIS:HA	2:S0:203:PHE:CE2	3.59	0.40
51:M5:73:ARG:HG3	51:M5:74:PRO:HD2	2.04	0.40
47:M0:196:PHE:CG	47:M0:197:VAL:N	2.89	0.40
34:SR:34:LEU:HD12	34:SR:35:SER:H	3.56	0.40
3:S1:117:TRP:HE1	3:S1:152:ARG:HD3	1.87	0.40
1:6:460:A:H3'	1:6:461:G:H8	1.85	0.40
48:M1:82:ARG:HH11	48:M1:82:ARG:CB	4.78	0.40
4:S2:95:ARG:HD2	4:S2:95:ARG:H	1.87	0.40
36:5:1155:C:H2'	36:5:1156:C:C6	2.56	0.40
36:5:24:G:OP2	86:5:3905:OHX:N6	2.54	0.40
42:L5:81:HIS:O	42:L5:84:PRO:HD2	2.21	0.40
36:1:709:A:P	54:M8:179:ARG:HH22	2.43	0.40
9:S7:129:LEU:HD22	9:S7:169:PHE:CD1	2.90	0.40
36:1:715:A:H8	64:N8:115:LYS:HG2	1.87	0.40
61:N5:57:LEU:O	61:N5:57:LEU:HD13	5.21	0.40
54:M8:81:VAL:HG22	54:M8:101:VAL:HG22	2.15	0.40
68:O2:94:ALA:O	68:O2:120:THR:HG23	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:53:ASP:O	26:D4:79:VAL:HG22	2.62	0.40
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.73	0.40
1:2:968:U:H5'	1:2:1033:C:O2'	2.22	0.40
37:7:58:C:H2'	37:7:59:U:H6	1.86	0.40
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.25	0.40
1:2:1119:G:C6	1:2:1120:U:C4	3.09	0.40
36:1:2184:U:H2'	36:1:2185:G:O4'	2.22	0.40
11:S9:20:GLU:O	11:S9:24:LEU:HG	3.83	0.40
1:2:1371:A:H2'	1:2:1371:A:OP1	2.22	0.40
36:1:1614:C:H2'	36:1:1615:C:H6	1.86	0.40
1:2:526:A:N6	1:2:527:A:C6	2.89	0.40
1:6:1148:C:O2'	1:6:1149:G:H5'	2.22	0.40
36:5:2821:C:C6	88:5:4248:3KF:C3	3.04	0.40
41:L4:184:SER:CB	41:L4:202:ARG:HG2	2.51	0.40
15:C3:138:ASN:O	15:C3:140:LYS:N	3.27	0.40
36:1:503:C:P	43:L6:26:ARG:NH1	2.94	0.40
45:L8:163:VAL:HA	45:L8:166:LEU:HD12	2.03	0.40
40:L3:32:PHE:CD1	40:L3:182:GLN:HB3	2.57	0.40
42:L5:21:ARG:HG2	42:L5:21:ARG:HH11	2.07	0.40
39:L2:29:LEU:HD12	39:L2:123:ARG:HA	2.94	0.40
36:1:180:C:H2'	36:1:181:U:C6	2.56	0.40
5:S3:72:LEU:HD22	12:C0:65:TYR:CD1	3.09	0.40
42:L5:196:ARG:HA	42:L5:199:ILE:HD12	2.81	0.40
1:6:479:C:O2	1:6:510:G:N2	2.55	0.40
39:L2:163:ARG:HE	39:L2:163:ARG:HB2	2.41	0.40
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.21	0.40
7:S5:87:CYS:SG	7:S5:88:PRO:HD2	3.32	0.40
1:6:30:G:H2'	1:6:31:C:C6	2.57	0.40
36:1:2812:C:H2'	36:1:2813:A:C8	2.56	0.40
54:M8:133:LYS:N	54:M8:135:GLN:OE1	2.54	0.40
6:S4:259:GLN:HG3	6:S4:260:GLY:H	4.39	0.40
39:L2:104:LEU:HD12	39:L2:104:LEU:HA	1.61	0.40
36:5:2124:G:C2	36:5:2330:C:C2	3.10	0.40
9:S7:110:GLN:HB3	9:S7:110:GLN:HE21	3.83	0.40
49:M3:6:ASN:O	54:M8:164:ARG:NH1	3.29	0.40
1:6:775:G:C2	1:6:786:C:C4	3.10	0.40
36:5:1862:U:OP2	86:5:4139:OHX:N2	2.54	0.40
7:S5:206:SER:O	7:S5:212:LYS:NZ	2.55	0.40
47:M0:185:ARG:C	47:M0:187:ALA:H	2.24	0.40
36:5:1699:A:H2'	36:5:1700:G:C8	2.57	0.40
34:SR:300:THR:HA	34:SR:314:GLN:HA	2.96	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:499:G:C6	36:1:500:C:C4	3.09	0.40
52:M6:162:VAL:O	52:M6:165:ALA:HB3	2.89	0.40
38:4:112:U:OP2	75:O9:8:ARG:NH2	2.54	0.40
1:6:1570:A:H2'	1:6:1571:C:O4'	2.21	0.40
37:3:99:G:OP1	56:N0:53:LYS:HD3	2.22	0.40
36:5:393:U:H2'	36:5:394:G:O4'	2.21	0.40
1:2:1613:U:C4	1:2:1614:A:C2	3.10	0.40
44:L7:38:LYS:HD3	44:L7:38:LYS:HA	4.40	0.40
41:L4:136:LEU:HA	41:L4:136:LEU:HD23	1.89	0.40
1:6:897:C:H6	1:6:897:C:O5'	2.04	0.40
36:1:2429:G:OP2	86:1:3985:OHX:N4	2.55	0.40
1:2:196:G:C2	1:2:197:A:H1'	2.57	0.40
1:2:1202:A:N3	1:2:1202:A:H3'	2.37	0.40
28:D6:10:ARG:NH1	28:D6:36:ILE:HA	2.48	0.40
72:O6:79:SER:HB3	72:O6:82:ARG:HG3	3.59	0.40
49:M3:167:PHE:CE1	64:N8:132:LYS:HG3	2.57	0.40
42:L5:173:VAL:HA	42:L5:174:PRO:HD2	1.85	0.40
36:1:911:C:H42	39:L2:3:ARG:HD3	1.87	0.40
7:S5:61:TYR:HD2	7:S5:164:PRO:HB2	3.68	0.40
36:1:1764:U:P	55:M9:43:LYS:HD3	2.61	0.40
55:M9:180:LYS:HD3	55:M9:184:LEU:HD12	3.07	0.40
61:N5:34:LEU:HD23	61:N5:35:PRO:HD2	2.03	0.40
2:S0:63:ILE:HG12	23:D1:36:VAL:HG23	2.03	0.40
8:S6:173:PRO:HB2	8:S6:174:LYS:H	1.45	0.40
15:C3:28:LEU:HB3	15:C3:29:SER:H	1.65	0.40
36:1:1319:G:C4	36:1:1320:C:C5	3.09	0.40
43:L6:55:LEU:HA	43:L6:55:LEU:HD23	1.64	0.40
36:5:3051:U:C2	36:5:3052:G:C8	3.09	0.40
74:O8:28:ASN:ND2	36:5:1750:A:OP2	139.73	0.40
1:2:1536:G:N1	1:2:1538:U:C2	2.89	0.40
2:S0:162:CYS:HB2	2:S0:163:ASN:H	1.59	0.40
74:O8:11:PHE:CD1	74:O8:12:LEU:HD22	2.50	0.40
32:E0:28:LYS:HD3	1:6:542:A:N1	429.56	0.40
15:C3:89:TYR:CE2	15:C3:150:VAL:HG13	2.57	0.40
67:O1:46:THR:HG23	67:O1:46:THR:O	2.22	0.40
67:O1:41:LYS:HE3	67:O1:47:ASP:CG	4.92	0.40
36:1:1349:G:H5'	41:L4:291:ASN:OD1	2.21	0.40
22:D0:102:ARG:O	22:D0:106:ILE:HG22	2.21	0.40
58:N2:74:LYS:NZ	36:5:1677:G:N7	150.24	0.40
40:L3:283:TYR:CZ	40:L3:325:LYS:HG3	3.16	0.40
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:237:VAL:O	4:S2:238:SER:HB3	4.65	0.40
1:2:730:G:H21	1:2:731:C:H5''	1.86	0.40
24:D2:50:PHE:CB	24:D2:63:VAL:HG22	2.83	0.40
79:Q3:49:ARG:HD3	79:Q3:51:ALA:O	2.21	0.40
1:6:1509:C:C4	1:6:1510:U:C5	3.09	0.40
40:L3:43:LEU:HD12	40:L3:43:LEU:N	2.36	0.40
36:5:1938:U:O2	36:5:2115:G:H5'	2.20	0.40
47:M0:210:ILE:HG23	47:M0:217:PHE:CD2	2.57	0.40
36:5:2912:G:H1'	36:5:3131:U:OP1	2.22	0.40
1:2:1491:U:O2	1:2:1491:U:H5''	2.22	0.40
36:5:2239:G:N7	86:5:4187:OHX:N5	2.70	0.40
36:5:817:A:OP2	36:5:817:A:H4'	2.21	0.40
36:1:941:G:O4'	36:1:1435:A:H1'	2.22	0.40
44:L7:96:PRO:HA	44:L7:97:PRO:HD3	1.94	0.40
36:1:1803:C:O3'	70:O4:70:LYS:HE3	2.20	0.40
36:1:2674:A:H5''	48:M1:105:GLY:HA3	2.03	0.40
63:N7:27:LYS:HA	63:N7:27:LYS:HD2	2.17	0.40
1:6:1489:U:HO2'	1:6:1490:C:P	2.45	0.40
56:N0:27:MET:SD	56:N0:44:PHE:HB2	2.62	0.40
19:C7:17:ILE:HG23	19:C7:58:MET:HE1	2.67	0.40
36:1:3008:A:OP2	52:M6:74:ARG:NH1	2.54	0.40
1:2:1576:A:H2'	1:2:1577:A:O4'	2.22	0.40
36:5:1251:A:H2'	36:5:1252:A:O4'	2.21	0.40
1:6:633:U:H5'	1:6:1103:U:OP1	2.22	0.40
36:5:1444:G:H1	36:5:2359:C:H42	1.70	0.40
12:C0:73:VAL:O	12:C0:77:ARG:HG3	4.93	0.40
1:2:962:C:OP1	15:C3:70:LYS:HB3	2.21	0.40
23:D1:12:TYR:O	23:D1:14:PRO:HD3	2.21	0.40
7:S5:82:PHE:N	7:S5:82:PHE:CD2	3.59	0.40
47:M0:24:ARG:HG3	47:M0:24:ARG:HH11	1.85	0.40
52:M6:43:ILE:HD11	52:M6:138:LEU:HD13	3.22	0.40
36:1:216:G:H4'	62:N6:19:TYR:CE2	2.56	0.40
2:S0:23:HIS:HA	2:S0:48:ILE:HB	2.04	0.40
1:6:386:G:H2'	1:6:387:A:C8	2.56	0.40
46:L9:1:MET:O	46:L9:2:LYS:HB2	2.21	0.40
61:N5:26:VAL:HG12	61:N5:28:THR:HG22	6.26	0.40
1:2:1732:A:H2'	1:2:1733:C:C6	2.56	0.40
1:6:1028:C:C4	1:6:1030:A:H1'	2.56	0.40
60:N4:25:ASP:OD2	60:N4:26:SER:N	4.75	0.40
36:5:2192:C:H2'	36:5:2193:U:O4'	2.21	0.40
64:N8:117:ARG:HH11	64:N8:117:ARG:HG3	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:328:ILE:HG23	40:L3:329:PRO:O	2.93	0.40
68:O2:72:LYS:O	68:O2:92:TYR:HA	2.21	0.40
9:S7:20:VAL:O	9:S7:24:PHE:N	3.05	0.40
3:S1:93:GLY:C	3:S1:95:ASN:H	2.53	0.40
1:2:380:U:H5	11:S9:5:PRO:HB3	1.87	0.40
1:2:587:C:H2'	1:2:588:U:O4'	2.21	0.40
1:6:706:A:H2'	1:6:707:A:O4'	2.22	0.40
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.67	0.40
35:SM:85:SER:O	35:SM:87:THR:N	2.52	0.40
36:5:3333:G:N2	36:5:3369:G:O2'	2.54	0.40
36:1:1618:G:H2'	36:1:1619:A:O4'	2.21	0.40
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.61	0.40
36:1:1643:A:H3'	36:1:1644:C:C6	2.56	0.40
55:M9:98:ARG:HD3	55:M9:133:LYS:O	3.91	0.40
69:O3:30:ILE:HD12	69:O3:30:ILE:HG23	2.21	0.40
56:N0:131:LYS:HB2	56:N0:131:LYS:HE3	1.91	0.40
8:S6:216:LEU:HA	8:S6:216:LEU:HD23	2.28	0.40
63:N7:80:LEU:HD23	63:N7:80:LEU:HA	4.12	0.40
12:C0:44:LYS:HA	12:C0:44:LYS:HD3	2.16	0.40
35:SM:69:ARG:HG3	35:SM:69:ARG:H	3.63	0.40
20:C8:110:ARG:NH1	20:C8:110:ARG:HB3	2.37	0.40
1:6:389:G:C6	1:6:390:G:C5	3.10	0.40
36:5:1226:G:H2'	36:5:1227:C:C6	2.56	0.40

All (2) 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)
37:7:52:G:OP1	86:5:3939:OHX:N2[2_647]	2.15	0.05
36:1:531:G:OP1	86:2:2162:OHX:N1[2_545]	2.18	0.02

5.3 Torsion angles

5.3.1 Protein backbone

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%)	140 (69%)	38 (19%)	26 (13%)	0	2
2	s0	204/251 (81%)	148 (72%)	33 (16%)	23 (11%)	0	3
3	S1	212/254 (84%)	149 (70%)	39 (18%)	24 (11%)	0	3
3	s1	214/254 (84%)	173 (81%)	32 (15%)	9 (4%)	3	26
4	S2	215/253 (85%)	175 (81%)	27 (13%)	13 (6%)	2	16
4	s2	215/253 (85%)	176 (82%)	26 (12%)	13 (6%)	2	16
5	S3	221/239 (92%)	177 (80%)	30 (14%)	14 (6%)	2	13
5	s3	221/239 (92%)	168 (76%)	35 (16%)	18 (8%)	1	7
6	S4	258/260 (99%)	206 (80%)	42 (16%)	10 (4%)	4	28
6	s4	258/260 (99%)	212 (82%)	26 (10%)	20 (8%)	1	8
7	S5	204/224 (91%)	158 (78%)	30 (15%)	16 (8%)	1	8
7	s5	204/224 (91%)	144 (71%)	45 (22%)	15 (7%)	1	9
8	S6	224/236 (95%)	194 (87%)	18 (8%)	12 (5%)	2	19
8	s6	216/236 (92%)	189 (88%)	17 (8%)	10 (5%)	3	23
9	S7	182/189 (96%)	142 (78%)	25 (14%)	15 (8%)	1	7
9	s7	184/189 (97%)	144 (78%)	23 (12%)	17 (9%)	1	5
10	S8	184/200 (92%)	155 (84%)	19 (10%)	10 (5%)	2	19
10	s8	184/200 (92%)	158 (86%)	18 (10%)	8 (4%)	3	25
11	S9	183/196 (93%)	135 (74%)	36 (20%)	12 (7%)	1	12
11	s9	183/196 (93%)	149 (81%)	25 (14%)	9 (5%)	3	22
12	C0	94/105 (90%)	66 (70%)	20 (21%)	8 (8%)	1	6
12	c0	92/105 (88%)	64 (70%)	12 (13%)	16 (17%)	0	0
13	C1	153/155 (99%)	124 (81%)	18 (12%)	11 (7%)	1	10
13	c1	144/155 (93%)	118 (82%)	17 (12%)	9 (6%)	2	13
14	C2	122/142 (86%)	71 (58%)	32 (26%)	19 (16%)	0	1
14	c2	122/142 (86%)	69 (57%)	31 (25%)	22 (18%)	0	0
15	C3	148/150 (99%)	119 (80%)	21 (14%)	8 (5%)	2	19
15	c3	148/150 (99%)	110 (74%)	27 (18%)	11 (7%)	1	9
16	C4	125/136 (92%)	87 (70%)	24 (19%)	14 (11%)	0	3
16	c4	126/136 (93%)	95 (75%)	16 (13%)	15 (12%)	0	3
17	C5	122/141 (86%)	86 (70%)	26 (21%)	10 (8%)	1	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	c5	133/141 (94%)	88 (66%)	25 (19%)	20 (15%)	0	1
18	C6	139/142 (98%)	114 (82%)	14 (10%)	11 (8%)	1	8
18	c6	140/142 (99%)	113 (81%)	21 (15%)	6 (4%)	3	25
19	C7	116/136 (85%)	87 (75%)	17 (15%)	12 (10%)	1	4
19	c7	113/136 (83%)	89 (79%)	15 (13%)	9 (8%)	1	7
20	C8	143/145 (99%)	111 (78%)	20 (14%)	12 (8%)	1	6
20	c8	143/145 (99%)	112 (78%)	20 (14%)	11 (8%)	1	8
21	C9	141/143 (99%)	109 (77%)	23 (16%)	9 (6%)	2	13
21	c9	141/143 (99%)	117 (83%)	17 (12%)	7 (5%)	3	21
22	D0	105/120 (88%)	78 (74%)	23 (22%)	4 (4%)	4	28
22	d0	108/120 (90%)	82 (76%)	19 (18%)	7 (6%)	1	13
23	D1	85/87 (98%)	59 (69%)	19 (22%)	7 (8%)	1	7
23	d1	85/87 (98%)	65 (76%)	13 (15%)	7 (8%)	1	7
24	D2	127/129 (98%)	106 (84%)	16 (13%)	5 (4%)	4	28
24	d2	127/129 (98%)	115 (91%)	11 (9%)	1 (1%)	24	69
25	D3	142/144 (99%)	108 (76%)	20 (14%)	14 (10%)	1	4
25	d3	142/144 (99%)	121 (85%)	16 (11%)	5 (4%)	4	31
26	D4	132/134 (98%)	108 (82%)	14 (11%)	10 (8%)	1	9
26	d4	132/134 (98%)	101 (76%)	17 (13%)	14 (11%)	0	3
27	D5	68/107 (64%)	46 (68%)	12 (18%)	10 (15%)	0	1
27	d5	67/107 (63%)	50 (75%)	13 (19%)	4 (6%)	2	16
28	D6	95/97 (98%)	55 (58%)	21 (22%)	19 (20%)	0	0
28	d6	95/97 (98%)	69 (73%)	19 (20%)	7 (7%)	1	9
29	D7	79/81 (98%)	59 (75%)	17 (22%)	3 (4%)	4	28
29	d7	79/81 (98%)	58 (73%)	14 (18%)	7 (9%)	1	5
30	D8	61/66 (92%)	46 (75%)	12 (20%)	3 (5%)	3	22
30	d8	61/66 (92%)	44 (72%)	15 (25%)	2 (3%)	5	32
31	D9	51/55 (93%)	41 (80%)	7 (14%)	3 (6%)	2	16
31	d9	51/55 (93%)	38 (74%)	8 (16%)	5 (10%)	1	4
32	E0	58/60 (97%)	41 (71%)	12 (21%)	5 (9%)	1	6
33	E1	69/76 (91%)	32 (46%)	17 (25%)	20 (29%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	e1	74/76 (97%)	39 (53%)	17 (23%)	18 (24%)	0	0
34	SR	316/318 (99%)	265 (84%)	43 (14%)	8 (2%)	7	41
34	sR	316/318 (99%)	263 (83%)	40 (13%)	13 (4%)	3	27
35	SM	155/273 (57%)	105 (68%)	32 (21%)	18 (12%)	0	3
35	sM	98/273 (36%)	60 (61%)	21 (21%)	17 (17%)	0	0
39	L2	250/253 (99%)	222 (89%)	21 (8%)	7 (3%)	6	37
39	l2	250/253 (99%)	205 (82%)	27 (11%)	18 (7%)	1	10
40	L3	384/386 (100%)	316 (82%)	52 (14%)	16 (4%)	3	26
40	l3	384/386 (100%)	334 (87%)	32 (8%)	18 (5%)	3	22
41	L4	359/361 (99%)	299 (83%)	38 (11%)	22 (6%)	2	15
41	l4	359/361 (99%)	299 (83%)	37 (10%)	23 (6%)	2	13
42	L5	294/296 (99%)	243 (83%)	35 (12%)	16 (5%)	2	19
42	l5	292/296 (99%)	255 (87%)	28 (10%)	9 (3%)	5	34
43	L6	152/175 (87%)	142 (93%)	8 (5%)	2 (1%)	15	59
43	l6	153/175 (87%)	136 (89%)	13 (8%)	4 (3%)	7	40
44	L7	220/243 (90%)	189 (86%)	22 (10%)	9 (4%)	3	27
44	l7	221/243 (91%)	190 (86%)	25 (11%)	6 (3%)	6	39
45	L8	231/255 (91%)	182 (79%)	34 (15%)	15 (6%)	1	13
45	l8	229/255 (90%)	180 (79%)	32 (14%)	17 (7%)	1	9
46	L9	189/191 (99%)	158 (84%)	20 (11%)	11 (6%)	2	17
46	l9	189/191 (99%)	166 (88%)	18 (10%)	5 (3%)	7	40
47	M0	207/220 (94%)	177 (86%)	21 (10%)	9 (4%)	3	25
47	m0	209/220 (95%)	160 (77%)	31 (15%)	18 (9%)	1	6
48	M1	167/173 (96%)	127 (76%)	23 (14%)	17 (10%)	1	4
48	m1	167/173 (96%)	136 (81%)	21 (13%)	10 (6%)	2	16
49	M3	191/198 (96%)	156 (82%)	28 (15%)	7 (4%)	4	29
49	m3	192/198 (97%)	153 (80%)	23 (12%)	16 (8%)	1	7
50	M4	134/137 (98%)	118 (88%)	10 (8%)	6 (4%)	3	24
50	m4	135/137 (98%)	119 (88%)	13 (10%)	3 (2%)	8	45
51	M5	201/203 (99%)	178 (89%)	20 (10%)	3 (2%)	13	55
51	m5	201/203 (99%)	171 (85%)	24 (12%)	6 (3%)	5	35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	M6	195/198 (98%)	174 (89%)	17 (9%)	4 (2%)	9	46
52	m6	195/198 (98%)	170 (87%)	19 (10%)	6 (3%)	5	34
53	M7	181/183 (99%)	151 (83%)	23 (13%)	7 (4%)	4	28
53	m7	153/183 (84%)	135 (88%)	16 (10%)	2 (1%)	15	59
54	M8	183/185 (99%)	153 (84%)	22 (12%)	8 (4%)	3	24
54	m8	183/185 (99%)	152 (83%)	25 (14%)	6 (3%)	5	32
55	M9	186/188 (99%)	162 (87%)	22 (12%)	2 (1%)	17	62
55	m9	186/188 (99%)	159 (86%)	24 (13%)	3 (2%)	12	54
56	N0	170/172 (99%)	149 (88%)	15 (9%)	6 (4%)	4	31
56	n0	170/172 (99%)	153 (90%)	13 (8%)	4 (2%)	7	43
57	N1	157/159 (99%)	136 (87%)	18 (12%)	3 (2%)	10	50
57	n1	157/159 (99%)	137 (87%)	15 (10%)	5 (3%)	5	33
58	N2	98/120 (82%)	82 (84%)	11 (11%)	5 (5%)	2	20
58	n2	96/120 (80%)	79 (82%)	13 (14%)	4 (4%)	3	26
59	N3	134/136 (98%)	119 (89%)	12 (9%)	3 (2%)	8	45
59	n3	134/136 (98%)	122 (91%)	9 (7%)	3 (2%)	8	45
60	N4	96/155 (62%)	73 (76%)	14 (15%)	9 (9%)	1	5
60	n4	133/155 (86%)	106 (80%)	15 (11%)	12 (9%)	1	5
61	N5	119/141 (84%)	105 (88%)	12 (10%)	2 (2%)	11	52
61	n5	118/141 (84%)	92 (78%)	15 (13%)	11 (9%)	1	5
62	N6	124/126 (98%)	113 (91%)	9 (7%)	2 (2%)	12	54
62	n6	124/126 (98%)	107 (86%)	12 (10%)	5 (4%)	4	27
63	N7	133/135 (98%)	112 (84%)	16 (12%)	5 (4%)	4	28
63	n7	133/135 (98%)	109 (82%)	13 (10%)	11 (8%)	1	7
64	N8	146/148 (99%)	118 (81%)	21 (14%)	7 (5%)	3	22
64	n8	146/148 (99%)	119 (82%)	21 (14%)	6 (4%)	3	27
65	N9	56/58 (97%)	47 (84%)	7 (12%)	2 (4%)	4	30
65	n9	56/58 (97%)	39 (70%)	11 (20%)	6 (11%)	0	3
66	O0	95/104 (91%)	83 (87%)	9 (10%)	3 (3%)	5	33
66	o0	98/104 (94%)	84 (86%)	14 (14%)	0	100	100
67	O1	107/112 (96%)	96 (90%)	5 (5%)	6 (6%)	2	18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
67	o1	107/112 (96%)	93 (87%)	9 (8%)	5 (5%)	3	22
68	O2	125/129 (97%)	111 (89%)	10 (8%)	4 (3%)	5	33
68	o2	125/129 (97%)	100 (80%)	18 (14%)	7 (6%)	2	18
69	O3	104/106 (98%)	90 (86%)	10 (10%)	4 (4%)	4	28
69	o3	104/106 (98%)	92 (88%)	10 (10%)	2 (2%)	10	50
70	O4	110/120 (92%)	88 (80%)	18 (16%)	4 (4%)	4	30
70	o4	110/120 (92%)	97 (88%)	10 (9%)	3 (3%)	6	39
71	O5	117/119 (98%)	100 (86%)	11 (9%)	6 (5%)	2	20
71	o5	117/119 (98%)	97 (83%)	17 (14%)	3 (3%)	7	40
72	O6	97/99 (98%)	77 (79%)	13 (13%)	7 (7%)	1	10
72	o6	97/99 (98%)	84 (87%)	9 (9%)	4 (4%)	3	27
73	O7	85/87 (98%)	70 (82%)	13 (15%)	2 (2%)	7	43
73	o7	85/87 (98%)	65 (76%)	17 (20%)	3 (4%)	4	31
74	O8	75/77 (97%)	59 (79%)	12 (16%)	4 (5%)	2	19
74	o8	75/77 (97%)	62 (83%)	9 (12%)	4 (5%)	2	19
75	O9	48/50 (96%)	42 (88%)	6 (12%)	0	100	100
75	o9	48/50 (96%)	40 (83%)	7 (15%)	1 (2%)	9	46
76	Q0	50/52 (96%)	46 (92%)	1 (2%)	3 (6%)	2	16
76	q0	50/52 (96%)	46 (92%)	2 (4%)	2 (4%)	4	27
77	Q1	23/25 (92%)	22 (96%)	1 (4%)	0	100	100
77	q1	23/25 (92%)	19 (83%)	4 (17%)	0	100	100
78	Q2	103/105 (98%)	82 (80%)	15 (15%)	6 (6%)	2	17
78	q2	103/105 (98%)	90 (87%)	9 (9%)	4 (4%)	4	28
79	Q3	89/91 (98%)	76 (85%)	9 (10%)	4 (4%)	3	24
79	q3	89/91 (98%)	77 (86%)	11 (12%)	1 (1%)	17	62
80	e0	60/62 (97%)	42 (70%)	11 (18%)	7 (12%)	0	3
82	p0	139/311 (45%)	117 (84%)	15 (11%)	7 (5%)	3	21
All	All	22333/24143 (92%)	18126 (81%)	2889 (13%)	1318 (6%)	2	16

All (1318) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO

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Mol	Chain	Res	Type
2	S0	32	HIS
2	S0	66	ALA
2	S0	68	PRO
2	S0	111	ILE
2	S0	158	VAL
2	S0	191	ARG
3	S1	36	SER
3	S1	37	THR
3	S1	49	ASN
3	S1	58	SER
3	S1	63	GLY
3	S1	132	ASP
3	S1	148	ASN
3	S1	154	SER
3	S1	158	SER
3	S1	221	PRO
4	S2	48	GLY
4	S2	107	SER
4	S2	148	LEU
5	S3	31	GLU
5	S3	62	ASN
5	S3	65	ARG
5	S3	93	ASP
5	S3	211	PRO
5	S3	220	PRO
6	S4	242	LYS
7	S5	26	ALA
7	S5	35	GLN
7	S5	39	GLU
7	S5	51	VAL
7	S5	58	LEU
7	S5	101	GLY
8	S6	173	PRO
8	S6	174	LYS
9	S7	31	SER
9	S7	32	PRO
9	S7	64	VAL
9	S7	111	LYS
9	S7	131	PHE
9	S7	132	PRO
11	S9	134	ILE
11	S9	150	LEU

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Mol	Chain	Res	Type
11	S9	164	PHE
12	C0	54	TYR
12	C0	61	TRP
12	C0	87	VAL
12	C0	88	PRO
13	C1	29	LYS
13	C1	144	ALA
14	C2	21	GLU
14	C2	93	ASP
14	C2	126	TRP
14	C2	131	ASP
15	C3	19	SER
15	C3	22	ALA
15	C3	27	LYS
15	C3	68	GLY
15	C3	138	ASN
16	C4	92	LYS
16	C4	124	ASP
16	C4	126	THR
17	C5	22	LEU
17	C5	54	ALA
17	C5	125	PRO
17	C5	126	VAL
18	C6	39	VAL
18	C6	41	PRO
18	C6	59	LYS
18	C6	138	PHE
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
19	C7	124	VAL
20	C8	14	ILE
20	C8	60	GLU
20	C8	91	ASP
20	C8	92	ILE
20	C8	144	ARG
21	C9	31	PRO
21	C9	53	TRP
23	D1	2	GLU
23	D1	4	ASP
24	D2	83	ILE
25	D3	3	LYS

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Mol	Chain	Res	Type
25	D3	70	LYS
25	D3	128	SER
25	D3	138	GLU
25	D3	144	ARG
26	D4	5	VAL
26	D4	36	SER
27	D5	37	GLN
27	D5	39	ALA
27	D5	44	GLN
27	D5	71	ILE
27	D5	97	LYS
28	D6	11	ASN
28	D6	45	VAL
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
28	D6	86	VAL
29	D7	38	PRO
29	D7	62	ILE
31	D9	8	PHE
32	E0	13	LYS
32	E0	47	VAL
33	E1	87	THR
33	E1	102	VAL
33	E1	103	LEU
33	E1	106	TYR
33	E1	110	ALA
33	E1	138	ARG
34	SR	160	GLU
34	SR	161	LYS
34	SR	318	ALA
35	SM	87	THR
35	SM	140	ASP
35	SM	154	TYR
35	SM	166	VAL
35	SM	167	PRO
39	L2	17	THR
39	L2	234	LYS
40	L3	4	ARG
40	L3	5	LYS
40	L3	140	ASP
40	L3	173	GLN

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Mol	Chain	Res	Type
40	L3	188	ILE
40	L3	348	ARG
40	L3	385	LYS
41	L4	90	PHE
41	L4	143	GLU
41	L4	146	PRO
41	L4	220	ARG
41	L4	291	ASN
41	L4	304	GLN
41	L4	311	HIS
41	L4	320	ASN
41	L4	338	LYS
42	L5	59	ASP
42	L5	215	ASP
42	L5	223	PHE
42	L5	233	ALA
42	L5	234	ASP
42	L5	258	LYS
43	L6	98	VAL
44	L7	24	GLU
45	L8	25	PRO
45	L8	115	ALA
45	L8	116	VAL
46	L9	50	ASN
46	L9	62	ARG
46	L9	190	ASP
47	M0	145	LYS
47	M0	219	ALA
48	M1	8	PRO
48	M1	9	MET
48	M1	11	ASP
48	M1	94	ARG
48	M1	95	ASN
48	M1	165	GLN
48	M1	173	ASP
49	M3	47	ALA
49	M3	76	THR
49	M3	129	ASN
49	M3	166	ALA
50	M4	8	LYS
50	M4	9	ALA
50	M4	29	ALA

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Mol	Chain	Res	Type
52	M6	90	HIS
52	M6	111	PRO
52	M6	173	ALA
53	M7	3	ARG
53	M7	157	VAL
54	M8	41	ASP
56	N0	138	GLN
56	N0	167	ARG
58	N2	50	LEU
58	N2	51	GLY
60	N4	81	PRO
62	N6	84	LYS
63	N7	35	SER
63	N7	128	GLN
64	N8	76	ASP
66	O0	100	ILE
67	O1	5	LYS
67	O1	83	GLU
68	O2	126	LEU
71	O5	39	PRO
71	O5	92	LEU
72	O6	27	SER
72	O6	33	ALA
72	O6	34	SER
73	O7	12	HIS
76	Q0	78	ILE
78	Q2	100	LYS
79	Q3	58	SER
2	s0	4	PRO
2	s0	8	ASP
2	s0	49	ASN
2	s0	65	ALA
2	s0	164	ASN
2	s0	186	GLY
2	s0	189	VAL
2	s0	206	ASP
3	s1	206	PRO
3	s1	223	PHE
4	s2	92	ALA
4	s2	106	ASP
5	s3	115	ILE
5	s3	211	PRO

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Mol	Chain	Res	Type
5	s3	217	ILE
5	s3	220	PRO
6	s4	12	LEU
6	s4	104	ASP
6	s4	118	GLU
6	s4	163	ASP
6	s4	164	LEU
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	39	GLU
7	s5	43	PHE
7	s5	184	PHE
7	s5	204	GLY
8	s6	68	LEU
8	s6	70	PRO
8	s6	122	GLU
8	s6	153	VAL
8	s6	173	PRO
8	s6	174	LYS
9	s7	30	SER
9	s7	64	VAL
9	s7	67	LEU
9	s7	116	ARG
9	s7	131	PHE
10	s8	101	ILE
11	s9	121	SER
12	c0	2	LEU
12	c0	82	LEU
12	c0	83	PRO
12	c0	88	PRO
12	c0	92	ILE
12	c0	94	GLU
12	c0	97	PRO
13	c1	114	ALA
13	c1	133	LYS
14	c2	82	PRO
14	c2	131	ASP
15	c3	60	VAL
15	c3	66	ILE
15	c3	137	PRO
15	c3	139	TRP

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Mol	Chain	Res	Type
15	c3	140	LYS
16	c4	98	GLY
16	c4	126	THR
16	c4	132	ARG
17	c5	11	VAL
17	c5	17	TYR
17	c5	51	SER
17	c5	52	LYS
17	c5	125	PRO
18	c6	42	GLU
18	c6	116	LEU
19	c7	67	ARG
19	c7	88	VAL
19	c7	104	ASN
20	c8	60	GLU
20	c8	91	ASP
20	c8	92	ILE
20	c8	135	GLY
22	d0	15	GLN
22	d0	49	ASN
22	d0	51	VAL
22	d0	97	VAL
22	d0	118	VAL
23	d1	4	ASP
23	d1	44	ARG
25	d3	138	GLU
26	d4	30	PRO
26	d4	32	ARG
26	d4	52	LYS
26	d4	54	ALA
26	d4	121	THR
26	d4	123	LYS
27	d5	85	LYS
28	d6	47	ALA
28	d6	63	ALA
29	d7	38	PRO
29	d7	60	SER
31	d9	6	VAL
31	d9	16	LYS
80	e0	60	PRO
33	e1	79	LYS
33	e1	83	LYS

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Mol	Chain	Res	Type
33	e1	84	VAL
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	102	VAL
33	e1	103	LEU
33	e1	106	TYR
34	sR	4	ASN
34	sR	149	ASP
34	sR	160	GLU
34	sR	163	ASP
34	sR	165	ASP
34	sR	282	SER
35	sM	48	ARG
35	sM	63	ASP
39	l2	24	GLN
39	l2	56	ALA
39	l2	238	ILE
40	l3	3	HIS
40	l3	140	ASP
40	l3	142	ALA
40	l3	235	THR
40	l3	302	LYS
40	l3	347	SER
41	l4	4	PRO
41	l4	15	ALA
41	l4	24	ALA
41	l4	301	PRO
41	l4	339	LEU
41	l4	345	GLU
41	l4	353	ALA
42	l5	178	ASN
42	l5	260	PHE
43	l6	98	VAL
45	l8	25	PRO
45	l8	26	LEU
45	l8	34	PHE
45	l8	48	ARG
45	l8	240	ASN
46	l9	167	VAL
47	m0	3	ARG
47	m0	82	ARG

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Mol	Chain	Res	Type
47	m0	215	GLU
47	m0	219	ALA
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	108	GLU
48	m1	111	ASP
49	m3	47	ALA
49	m3	134	GLU
49	m3	140	SER
49	m3	150	PRO
49	m3	152	THR
50	m4	136	ALA
51	m5	76	PRO
51	m5	81	TYR
51	m5	91	GLU
51	m5	184	LYS
52	m6	4	GLU
52	m6	110	PRO
53	m7	3	ARG
55	m9	36	ASN
56	n0	2	ALA
57	n1	122	GLN
57	n1	136	ARG
57	n1	148	PRO
58	n2	50	LEU
59	n3	42	SER
60	n4	71	ARG
60	n4	76	VAL
61	n5	25	LYS
61	n5	44	PRO
62	n6	83	ASP
63	n7	16	GLY
63	n7	102	GLU
63	n7	105	SER
63	n7	129	TRP
64	n8	47	LYS
64	n8	76	ASP
65	n9	7	HIS
65	n9	21	ILE
65	n9	23	LYS
65	n9	39	PHE

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Mol	Chain	Res	Type
67	o1	5	LYS
68	o2	4	LEU
68	o2	5	PRO
68	o2	6	HIS
68	o2	27	ARG
69	o3	88	ASN
72	o6	33	ALA
72	o6	64	SER
73	o7	67	LEU
73	o7	84	SER
73	o7	85	LYS
78	q2	104	LEU
82	p0	93	LEU
82	p0	198	PRO
2	S0	5	ALA
2	S0	39	ASN
2	S0	49	ASN
2	S0	95	ALA
2	S0	139	VAL
2	S0	185	ARG
2	S0	190	ASP
2	S0	195	TRP
3	S1	51	SER
3	S1	54	LEU
3	S1	62	LYS
3	S1	177	GLN
3	S1	179	SER
3	S1	201	THR
3	S1	206	PRO
3	S1	213	ARG
4	S2	47	ALA
4	S2	91	ARG
5	S3	64	ARG
5	S3	164	VAL
5	S3	218	LEU
6	S4	3	ARG
6	S4	12	LEU
6	S4	95	THR
6	S4	104	ASP
7	S5	63	GLN
7	S5	64	VAL
7	S5	81	ARG

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Mol	Chain	Res	Type
7	S5	150	GLY
7	S5	153	GLY
8	S6	20	ASP
8	S6	122	GLU
8	S6	152	ASP
8	S6	165	GLY
9	S7	98	ILE
9	S7	186	PRO
10	S8	40	ALA
10	S8	52	ASN
11	S9	31	ALA
11	S9	82	ARG
11	S9	98	ALA
11	S9	163	PRO
12	C0	64	TYR
12	C0	94	GLU
13	C1	6	THR
13	C1	30	ARG
13	C1	113	PRO
13	C1	145	ALA
13	C1	154	ALA
14	C2	75	VAL
14	C2	91	VAL
16	C4	39	ILE
16	C4	42	VAL
16	C4	51	ASP
18	C6	97	VAL
18	C6	113	ASP
19	C7	41	ILE
19	C7	72	LYS
19	C7	87	GLU
20	C8	79	TYR
20	C8	87	ASN
21	C9	12	GLN
21	C9	39	THR
21	C9	69	LYS
23	D1	28	ASP
23	D1	43	GLY
25	D3	78	LYS
25	D3	97	ASP
25	D3	114	LYS
25	D3	137	LYS

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Mol	Chain	Res	Type
26	D4	4	ALA
26	D4	33	ALA
27	D5	43	ASP
27	D5	69	LEU
28	D6	9	GLY
28	D6	18	VAL
28	D6	32	LYS
28	D6	63	ALA
28	D6	65	PRO
29	D7	63	LEU
30	D8	36	THR
31	D9	11	PRO
33	E1	84	VAL
33	E1	85	TYR
33	E1	90	LYS
33	E1	98	VAL
33	E1	105	TYR
33	E1	127	GLY
34	SR	51	ASP
35	SM	86	ASN
35	SM	111	GLY
35	SM	139	GLU
39	L2	47	GLN
39	L2	250	GLN
41	L4	15	ALA
41	L4	190	GLY
41	L4	268	ALA
41	L4	317	PRO
42	L5	6	ASP
42	L5	57	ASN
42	L5	188	GLU
42	L5	259	LYS
44	L7	26	VAL
44	L7	91	GLY
44	L7	191	VAL
45	L8	36	ILE
45	L8	39	ALA
45	L8	80	TYR
45	L8	85	ASN
45	L8	156	ASP
47	M0	25	ALA
47	M0	117	GLY

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Mol	Chain	Res	Type
47	M0	207	GLU
48	M1	24	GLY
48	M1	65	ILE
48	M1	114	ILE
48	M1	152	HIS
48	M1	167	TYR
49	M3	141	ALA
49	M3	193	ALA
51	M5	81	TYR
53	M7	160	ALA
53	M7	161	ALA
53	M7	164	LYS
54	M8	99	THR
54	M8	183	GLY
57	N1	159	PHE
58	N2	11	ILE
58	N2	20	SER
60	N4	86	SER
64	N8	96	LYS
66	O0	70	PHE
67	O1	6	ASP
68	O2	27	ARG
68	O2	29	ALA
70	O4	47	CYS
71	O5	118	ILE
72	O6	3	VAL
72	O6	28	TYR
78	Q2	15	LYS
2	s0	44	GLY
2	s0	66	ALA
2	s0	95	ALA
2	s0	158	VAL
2	s0	162	CYS
2	s0	185	ARG
3	s1	93	GLY
3	s1	106	THR
3	s1	154	SER
3	s1	232	HIS
4	s2	149	GLY
4	s2	150	GLN
4	s2	163	GLY
5	s3	90	ARG

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Mol	Chain	Res	Type
5	s3	179	GLN
5	s3	195	SER
6	s4	117	GLU
6	s4	135	GLY
6	s4	205	PHE
6	s4	245	LYS
7	s5	54	LYS
7	s5	60	ASP
7	s5	81	ARG
8	s6	154	ARG
9	s7	8	ILE
9	s7	106	SER
9	s7	155	ASP
10	s8	122	GLY
10	s8	136	SER
11	s9	167	ALA
12	c0	30	ALA
12	c0	32	HIS
13	c1	28	SER
13	c1	55	ASP
13	c1	128	CYS
14	c2	26	ASP
14	c2	89	ILE
14	c2	118	ALA
14	c2	119	SER
15	c3	18	TYR
15	c3	29	SER
15	c3	87	ASP
15	c3	108	ASP
16	c4	37	GLU
16	c4	131	GLY
17	c5	22	LEU
17	c5	69	GLU
17	c5	132	GLY
17	c5	136	SER
19	c7	37	GLU
19	c7	99	VAL
19	c7	116	LYS
20	c8	61	LEU
20	c8	145	ARG
21	c9	26	GLY
21	c9	29	GLU

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Mol	Chain	Res	Type
21	c9	33	TYR
21	c9	34	VAL
21	c9	51	GLU
21	c9	66	TYR
23	d1	6	GLY
25	d3	128	SER
26	d4	33	ALA
26	d4	35	VAL
26	d4	49	LYS
26	d4	50	ALA
26	d4	53	ASP
28	d6	8	ASN
28	d6	13	LYS
29	d7	63	LEU
31	d9	7	TRP
80	e0	49	LEU
80	e0	51	ASN
33	e1	85	TYR
33	e1	100	LEU
33	e1	110	ALA
34	sR	186	PHE
34	sR	271	VAL
35	sM	42	ALA
35	sM	50	ASN
35	sM	66	ALA
35	sM	84	LYS
35	sM	122	GLU
35	sM	167	PRO
35	sM	172	VAL
39	l2	172	GLY
39	l2	215	ASN
39	l2	240	ALA
40	l3	23	ALA
40	l3	129	ALA
40	l3	200	GLU
40	l3	386	ASP
41	l4	90	PHE
41	l4	311	HIS
41	l4	342	LYS
44	l7	158	LYS
45	l8	121	SER
45	l8	122	LYS

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Mol	Chain	Res	Type
45	l8	133	LYS
45	l8	202	GLU
45	l8	203	VAL
45	l8	237	ILE
46	l9	144	ILE
47	m0	25	ALA
47	m0	27	PRO
47	m0	117	GLY
47	m0	194	GLY
47	m0	207	GLU
48	m1	94	ARG
48	m1	95	ASN
48	m1	114	ILE
49	m3	76	THR
49	m3	133	PRO
50	m4	135	LEU
51	m5	183	THR
52	m6	13	GLY
52	m6	16	VAL
53	m7	67	ILE
54	m8	84	VAL
54	m8	99	THR
58	n2	91	ASP
60	n4	25	ASP
60	n4	26	SER
60	n4	63	ILE
60	n4	95	SER
60	n4	98	PRO
61	n5	24	LEU
61	n5	47	ALA
61	n5	48	SER
62	n6	84	LYS
64	n8	12	ARG
64	n8	84	GLU
64	n8	120	ASN
65	n9	25	LYS
67	o1	45	GLY
68	o2	127	ALA
70	o4	79	SER
71	o5	82	ALA
72	o6	98	ARG
74	o8	18	ALA

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Mol	Chain	Res	Type
74	o8	19	ASP
78	q2	14	GLY
78	q2	78	LYS
79	q3	51	ALA
82	p0	68	SER
82	p0	102	SER
2	S0	30	GLN
2	S0	94	GLY
2	S0	187	ALA
2	S0	192	THR
4	S2	36	VAL
4	S2	150	GLN
5	S3	44	THR
5	S3	216	PRO
6	S4	26	CYS
7	S5	43	PHE
8	S6	69	LEU
8	S6	89	ASP
8	S6	138	ALA
8	S6	148	SER
8	S6	149	LYS
8	S6	150	GLU
9	S7	29	ASN
9	S7	85	PHE
9	S7	116	ARG
10	S8	22	ARG
10	S8	120	THR
11	S9	16	LYS
11	S9	147	MET
12	C0	60	SER
13	C1	51	GLY
13	C1	55	ASP
13	C1	146	ALA
14	C2	25	GLU
14	C2	66	VAL
14	C2	69	ALA
14	C2	87	PRO
14	C2	89	ILE
14	C2	106	ILE
14	C2	107	ASP
16	C4	50	ALA
16	C4	108	SER

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Mol	Chain	Res	Type
16	C4	109	GLY
16	C4	125	SER
17	C5	53	PRO
17	C5	80	MET
19	C7	42	GLN
19	C7	83	GLN
19	C7	113	LEU
19	C7	115	LEU
20	C8	7	GLU
20	C8	61	LEU
20	C8	80	LYS
20	C8	134	ARG
23	D1	10	GLU
24	D2	31	SER
24	D2	57	ARG
25	D3	20	ARG
25	D3	41	SER
25	D3	131	SER
26	D4	6	THR
26	D4	99	LYS
27	D5	38	HIS
27	D5	56	THR
28	D6	36	ILE
28	D6	46	GLU
28	D6	75	VAL
30	D8	35	ASP
32	E0	51	ASN
33	E1	83	LYS
33	E1	94	LYS
33	E1	111	GLU
35	SM	52	PRO
35	SM	64	LYS
35	SM	88	ARG
35	SM	89	ARG
35	SM	173	GLU
35	SM	174	LEU
39	L2	130	SER
39	L2	251	LYS
40	L3	155	ALA
40	L3	351	LEU
40	L3	378	ALA
42	L5	7	ALA

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Mol	Chain	Res	Type
42	L5	178	ASN
42	L5	213	ASP
42	L5	253	PHE
42	L5	260	PHE
44	L7	25	GLN
45	L8	157	VAL
45	L8	161	GLU
45	L8	196	ALA
46	L9	40	HIS
46	L9	110	LYS
46	L9	120	ASP
47	M0	16	PRO
48	M1	115	LYS
50	M4	10	SER
54	M8	167	SER
56	N0	2	ALA
56	N0	142	GLN
57	N1	124	VAL
59	N3	134	GLY
60	N4	97	LYS
64	N8	78	LEU
66	O0	96	GLY
67	O1	60	TRP
69	O3	59	VAL
69	O3	88	ASN
70	O4	77	GLY
74	O8	33	LYS
74	O8	74	LYS
78	Q2	94	GLY
79	Q3	7	LYS
79	Q3	51	ALA
2	s0	10	THR
2	s0	68	PRO
2	s0	167	LYS
2	s0	183	ARG
3	s1	26	ARG
3	s1	63	GLY
4	s2	236	PRO
4	s2	238	SER
5	s3	61	GLU
5	s3	76	ARG
5	s3	93	ASP

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Mol	Chain	Res	Type
5	s3	216	PRO
5	s3	219	ALA
6	s4	11	ARG
6	s4	47	PHE
6	s4	168	LYS
6	s4	213	SER
7	s5	36	ALA
7	s5	45	LYS
9	s7	10	SER
9	s7	74	GLN
9	s7	111	LYS
9	s7	133	THR
9	s7	176	LEU
10	s8	100	ALA
11	s9	65	LYS
11	s9	118	LEU
12	c0	24	LYS
12	c0	95	ARG
13	c1	7	VAL
13	c1	8	GLN
14	c2	58	LEU
14	c2	87	PRO
14	c2	93	ASP
14	c2	101	ALA
14	c2	106	ILE
14	c2	108	ARG
16	c4	11	SER
16	c4	12	GLN
16	c4	50	ALA
16	c4	51	ASP
17	c5	7	ALA
17	c5	68	PRO
18	c6	113	ASP
19	c7	68	GLY
20	c8	3	LEU
20	c8	55	HIS
22	d0	17	GLN
22	d0	96	PRO
23	d1	10	GLU
23	d1	42	GLU
24	d2	68	ARG
25	d3	89	ASN

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Mol	Chain	Res	Type
26	d4	58	PHE
27	d5	87	GLY
28	d6	35	ALA
28	d6	62	TYR
31	d9	47	ALA
33	e1	81	LYS
33	e1	111	GLU
33	e1	127	GLY
33	e1	146	SER
35	sM	64	LYS
35	sM	67	GLY
39	l2	14	SER
39	l2	160	SER
40	l3	4	ARG
40	l3	244	ARG
40	l3	385	LYS
41	l4	157	GLU
41	l4	277	PRO
41	l4	302	ALA
41	l4	305	ALA
42	l5	92	LEU
42	l5	258	LYS
44	l7	32	ALA
44	l7	91	GLY
44	l7	191	VAL
45	l8	39	ALA
45	l8	43	LYS
45	l8	118	GLU
45	l8	123	GLN
46	l9	122	LYS
47	m0	76	MET
47	m0	145	LYS
47	m0	220	GLN
49	m3	50	PRO
49	m3	62	THR
49	m3	135	ALA
49	m3	142	ALA
54	m8	167	SER
57	n1	146	ASN
58	n2	52	ASN
58	n2	104	ARG
59	n3	124	ASP

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Mol	Chain	Res	Type
61	n5	40	LEU
61	n5	55	ASN
61	n5	64	GLU
62	n6	125	LYS
63	n7	125	GLY
63	n7	128	GLN
65	n9	31	SER
70	o4	47	CYS
71	o5	119	LYS
75	o9	44	TRP
82	p0	47	GLY
2	S0	64	ILE
2	S0	103	THR
2	S0	194	PRO
3	S1	209	ASN
4	S2	106	ASP
4	S2	135	SER
4	S2	235	LEU
4	S2	248	SER
5	S3	112	GLY
5	S3	196	ARG
5	S3	217	ILE
6	S4	39	ARG
6	S4	165	ALA
7	S5	49	GLU
7	S5	54	LYS
7	S5	127	GLN
9	S7	112	ARG
10	S8	10	LYS
10	S8	59	ARG
10	S8	106	ALA
10	S8	149	SER
10	S8	152	ILE
14	C2	112	ALA
15	C3	17	PRO
16	C4	18	ARG
16	C4	114	ARG
17	C5	51	SER
17	C5	52	LYS
18	C6	33	GLY
21	C9	38	LYS
24	D2	78	ARG

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Mol	Chain	Res	Type
25	D3	40	SER
28	D6	64	LEU
33	E1	118	ARG
33	E1	137	ASP
34	SR	105	GLY
35	SM	53	ARG
39	L2	143	GLU
40	L3	66	LYS
40	L3	174	LYS
40	L3	386	ASP
41	L4	14	GLU
41	L4	232	SER
41	L4	269	SER
41	L4	318	LEU
42	L5	137	ASP
44	L7	204	PRO
46	L9	2	LYS
46	L9	189	GLU
48	M1	108	GLU
48	M1	117	ASP
49	M3	136	GLU
51	M5	94	TYR
52	M6	16	VAL
53	M7	84	PRO
54	M8	162	ALA
55	M9	3	ASN
56	N0	129	ILE
57	N1	125	ALA
58	N2	52	ASN
60	N4	63	ILE
60	N4	77	LYS
60	N4	87	LEU
61	N5	108	LEU
62	N6	126	LEU
63	N7	102	GLU
63	N7	103	GLN
64	N8	15	VAL
64	N8	47	LYS
67	O1	82	GLU
68	O2	13	HIS
70	O4	48	GLY
71	O5	97	ALA

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Mol	Chain	Res	Type
71	O5	119	LYS
73	O7	86	ALA
76	Q0	80	PRO
78	Q2	8	ARG
78	Q2	34	SER
78	Q2	96	GLU
2	s0	5	ALA
2	s0	103	THR
4	s2	83	ILE
4	s2	107	SER
4	s2	235	LEU
5	s3	4	LEU
5	s3	45	LYS
5	s3	196	ARG
6	s4	30	ARG
6	s4	90	ILE
7	s5	56	ALA
8	s6	152	ASP
10	s8	56	ARG
11	s9	164	PHE
12	c0	31	LYS
14	c2	22	VAL
14	c2	45	LEU
14	c2	54	ARG
16	c4	35	GLY
16	c4	97	GLY
17	c5	6	ASN
17	c5	14	THR
17	c5	109	PRO
17	c5	127	ARG
17	c5	130	ARG
17	c5	131	ALA
20	c8	14	ILE
23	d1	43	GLY
25	d3	70	LYS
25	d3	109	ARG
26	d4	3	ASP
26	d4	36	SER
28	d6	61	GLU
29	d7	61	THR
29	d7	62	ILE
30	d8	33	LEU

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Mol	Chain	Res	Type
30	d8	57	MET
80	e0	11	ALA
33	e1	129	GLY
34	sR	161	LYS
34	sR	168	THR
35	sM	43	ASP
35	sM	46	LYS
35	sM	121	LYS
39	l2	70	ARG
39	l2	80	GLU
39	l2	125	ALA
39	l2	133	TYR
39	l2	194	ASN
39	l2	234	LYS
39	l2	247	ARG
39	l2	249	SER
40	l3	187	SER
40	l3	247	ARG
41	l4	145	ILE
42	l5	279	LYS
42	l5	294	ALA
43	l6	10	TYR
43	l6	173	MET
47	m0	77	THR
47	m0	83	ASP
47	m0	176	LEU
47	m0	214	PRO
49	m3	60	ALA
50	m4	78	THR
51	m5	98	LEU
54	m8	147	ARG
55	m9	155	LEU
56	n0	154	HIS
60	n4	74	LYS
60	n4	77	LYS
61	n5	38	LEU
61	n5	58	ASP
61	n5	97	LYS
62	n6	126	LEU
63	n7	6	LYS
63	n7	103	GLN
63	n7	104	PRO

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Mol	Chain	Res	Type
64	n8	78	LEU
67	o1	83	GLU
71	o5	40	SER
76	q0	78	ILE
78	q2	74	CYS
82	p0	33	VAL
2	S0	27	ARG
2	S0	65	ALA
3	S1	23	PRO
3	S1	131	ASP
4	S2	39	THR
6	S4	195	ILE
7	S5	154	ALA
10	S8	9	HIS
11	S9	60	LEU
11	S9	168	ARG
14	C2	22	VAL
14	C2	82	PRO
14	C2	108	ARG
14	C2	119	SER
15	C3	3	ARG
15	C3	137	PRO
16	C4	24	ASN
16	C4	75	GLY
17	C5	69	GLU
18	C6	32	ASN
19	C7	84	TYR
20	C8	25	ASN
21	C9	29	GLU
22	D0	17	GLN
22	D0	59	PRO
23	D1	46	ILE
23	D1	81	ASN
25	D3	112	LYS
26	D4	34	ASN
26	D4	51	GLU
27	D5	54	VAL
28	D6	8	ASN
28	D6	47	ALA
32	E0	14	VAL
32	E0	60	PRO
33	E1	93	HIS

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Mol	Chain	Res	Type
33	E1	100	LEU
35	SM	12	VAL
40	L3	289	ASP
40	L3	317	ILE
41	L4	140	HIS
41	L4	305	ALA
44	L7	163	LEU
44	L7	178	ILE
44	L7	188	ILE
45	L8	122	LYS
45	L8	136	LEU
46	L9	42	ASP
47	M0	24	ARG
47	M0	211	ARG
48	M1	39	GLN
48	M1	64	LYS
50	M4	6	ILE
51	M5	187	ARG
55	M9	53	LYS
59	N3	131	SER
60	N4	96	LEU
64	N8	24	LYS
64	N8	70	LYS
67	O1	7	VAL
69	O3	76	GLY
69	O3	94	PHE
70	O4	33	GLN
76	Q0	79	GLU
2	s0	30	GLN
4	s2	182	PRO
7	s5	29	ILE
7	s5	35	GLN
7	s5	82	PHE
8	s6	165	GLY
9	s7	34	LEU
9	s7	112	ARG
10	s8	78	ILE
10	s8	94	ASN
11	s9	134	ILE
11	s9	147	MET
12	c0	3	MET
12	c0	35	ILE

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Mol	Chain	Res	Type
14	c2	21	GLU
14	c2	40	GLY
14	c2	66	VAL
14	c2	81	ASP
14	c2	91	VAL
14	c2	115	VAL
15	c3	22	ALA
16	c4	114	ARG
16	c4	122	PRO
16	c4	124	ASP
17	c5	50	THR
17	c5	135	THR
20	c8	7	GLU
20	c8	19	ASN
23	d1	41	GLU
27	d5	38	HIS
27	d5	104	ALA
80	e0	47	VAL
80	e0	54	ARG
33	e1	124	PRO
34	sR	66	HIS
34	sR	277	GLU
35	sM	168	GLU
39	l2	142	ASP
41	l4	120	TYR
41	l4	195	ARG
41	l4	233	LEU
44	l7	157	ASN
45	l8	69	LEU
45	l8	112	GLU
46	l9	21	LYS
47	m0	47	PRO
48	m1	117	ASP
49	m3	141	ALA
49	m3	153	ASP
54	m8	43	PRO
54	m8	112	ALA
55	m9	183	ALA
56	n0	129	ILE
56	n0	139	TYR
60	n4	72	SER
60	n4	83	THR

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Mol	Chain	Res	Type
62	n6	92	GLY
63	n7	56	LYS
63	n7	127	ASN
67	o1	7	VAL
67	o1	82	GLU
68	o2	8	LYS
69	o3	59	VAL
70	o4	48	GLY
72	o6	97	SER
74	o8	17	ARG
2	S0	28	ASN
3	S1	182	ALA
3	S1	210	ILE
4	S2	175	GLY
9	S7	15	GLU
9	S7	84	LYS
17	C5	66	ALA
18	C6	40	GLU
21	C9	118	PRO
21	C9	119	LYS
22	D0	55	PRO
26	D4	104	SER
33	E1	148	TYR
34	SR	163	ASP
34	SR	194	GLY
41	L4	233	LEU
43	L6	6	ALA
45	L8	253	SER
46	L9	59	ASN
50	M4	28	SER
53	M7	97	ASN
54	M8	133	LYS
59	N3	82	ALA
60	N4	76	VAL
65	N9	25	LYS
71	O5	90	ARG
72	O6	11	LEU
72	O6	21	THR
74	O8	70	PRO
3	s1	178	GLY
4	s2	234	PRO
5	s3	43	PRO

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Mol	Chain	Res	Type
6	s4	93	ASP
6	s4	95	THR
6	s4	260	GLY
7	s5	100	ASN
10	s8	62	THR
11	s9	110	GLN
12	c0	23	ALA
12	c0	96	ASN
13	c1	24	LYS
17	c5	126	VAL
18	c6	4	VAL
21	c9	103	LYS
29	d7	41	LEU
29	d7	75	GLU
35	sM	47	ALA
40	l3	297	SER
41	l4	5	GLN
41	l4	14	GLU
41	l4	71	VAL
41	l4	190	GLY
42	l5	125	VAL
42	l5	215	ASP
42	l5	270	LYS
43	l6	172	HIS
44	l7	178	ILE
47	m0	169	LYS
49	m3	162	ASN
52	m6	111	PRO
57	n1	127	GLN
59	n3	16	GLY
60	n4	64	THR
68	o2	124	GLY
76	q0	80	PRO
9	S7	73	VAL
11	S9	162	SER
18	C6	56	GLY
24	D2	77	PRO
31	D9	6	VAL
34	SR	15	GLY
35	SM	20	LEU
35	SM	172	VAL
41	L4	4	PRO

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Mol	Chain	Res	Type
63	N7	36	HIS
2	s0	139	VAL
13	c1	129	ARG
18	c6	40	GLU
19	c7	38	ILE
34	sR	194	GLY
39	l2	13	GLY
82	p0	197	PHE
2	S0	31	VAL
3	S1	93	GLY
12	C0	35	ILE
13	C1	7	VAL
14	C2	115	VAL
18	C6	29	ILE
26	D4	35	VAL
30	D8	20	GLY
40	L3	96	PRO
46	L9	164	ILE
54	M8	132	PRO
56	N0	61	ILE
65	N9	21	ILE
5	s3	33	GLY
5	s3	163	PRO
15	c3	65	VAL
18	c6	97	VAL
41	l4	25	VAL
46	l9	108	GLY
48	m1	45	PRO
52	m6	190	VAL
6	S4	233	LYS
22	D0	106	ILE
28	D6	59	TYR
47	M0	91	VAL
2	s0	97	PRO
4	s2	151	PRO
8	s6	69	LEU
9	s7	73	VAL
40	l3	141	GLY
74	o8	35	GLY
28	D6	97	PRO
41	L4	272	VAL
45	L8	190	VAL

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Mol	Chain	Res	Type
54	M8	84	VAL
60	N4	80	ARG
61	N5	26	VAL
11	s9	165	GLY
14	c2	63	VAL
16	c4	96	PRO
31	d9	11	PRO
40	l3	185	GLY
49	m3	93	ILE
74	O8	37	PRO
79	Q3	90	VAL
9	s7	32	PRO
19	c7	117	LEU
80	e0	27	PRO
35	sM	51	ARG

5.3.2 Protein sidechains [i](#)

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%)	134 (82%)	30 (18%)	2	10
2	s0	165/209 (79%)	137 (83%)	28 (17%)	2	12
3	S1	191/223 (86%)	147 (77%)	44 (23%)	1	4
3	s1	192/223 (86%)	154 (80%)	38 (20%)	1	8
4	S2	176/204 (86%)	140 (80%)	36 (20%)	1	7
4	s2	176/204 (86%)	127 (72%)	49 (28%)	0	1
5	S3	182/194 (94%)	149 (82%)	33 (18%)	2	11
5	s3	182/194 (94%)	144 (79%)	38 (21%)	1	7
6	S4	221/221 (100%)	177 (80%)	44 (20%)	1	8
6	s4	221/221 (100%)	179 (81%)	42 (19%)	2	10
7	S5	173/190 (91%)	145 (84%)	28 (16%)	3	14
7	s5	173/190 (91%)	140 (81%)	33 (19%)	2	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	S6	188/201 (94%)	152 (81%)	36 (19%)	2	10
8	s6	187/201 (93%)	158 (84%)	29 (16%)	3	15
9	S7	165/169 (98%)	135 (82%)	30 (18%)	2	10
9	s7	165/169 (98%)	131 (79%)	34 (21%)	1	7
10	S8	150/161 (93%)	123 (82%)	27 (18%)	2	11
10	s8	150/161 (93%)	125 (83%)	25 (17%)	3	13
11	S9	158/165 (96%)	121 (77%)	37 (23%)	1	4
11	s9	158/165 (96%)	121 (77%)	37 (23%)	1	4
12	C0	77/98 (79%)	62 (80%)	15 (20%)	2	9
12	c0	73/98 (74%)	61 (84%)	12 (16%)	3	13
13	C1	129/136 (95%)	108 (84%)	21 (16%)	3	14
13	c1	129/136 (95%)	105 (81%)	24 (19%)	2	10
14	C2	88/118 (75%)	70 (80%)	18 (20%)	1	7
14	c2	88/118 (75%)	68 (77%)	20 (23%)	1	5
15	C3	127/127 (100%)	101 (80%)	26 (20%)	1	7
15	c3	127/127 (100%)	104 (82%)	23 (18%)	2	11
16	C4	81/104 (78%)	63 (78%)	18 (22%)	1	5
16	c4	97/104 (93%)	72 (74%)	25 (26%)	0	2
17	C5	101/117 (86%)	80 (79%)	21 (21%)	1	7
17	c5	103/117 (88%)	85 (82%)	18 (18%)	2	12
18	C6	117/118 (99%)	96 (82%)	21 (18%)	2	11
18	c6	118/118 (100%)	96 (81%)	22 (19%)	2	10
19	C7	94/124 (76%)	74 (79%)	20 (21%)	1	7
19	c7	92/124 (74%)	71 (77%)	21 (23%)	1	5
20	C8	128/128 (100%)	92 (72%)	36 (28%)	0	1
20	c8	128/128 (100%)	99 (77%)	29 (23%)	1	5
21	C9	115/115 (100%)	89 (77%)	26 (23%)	1	5
21	c9	115/115 (100%)	95 (83%)	20 (17%)	2	12
22	D0	100/113 (88%)	83 (83%)	17 (17%)	2	12
22	d0	103/113 (91%)	74 (72%)	29 (28%)	0	1
23	D1	74/74 (100%)	57 (77%)	17 (23%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	d1	74/74 (100%)	53 (72%)	21 (28%)	0	1
24	D2	110/110 (100%)	86 (78%)	24 (22%)	1	6
24	d2	110/110 (100%)	92 (84%)	18 (16%)	3	13
25	D3	119/119 (100%)	103 (87%)	16 (13%)	5	22
25	d3	119/119 (100%)	98 (82%)	21 (18%)	2	11
26	D4	112/112 (100%)	101 (90%)	11 (10%)	10	38
26	d4	112/112 (100%)	90 (80%)	22 (20%)	1	9
27	D5	61/88 (69%)	42 (69%)	19 (31%)	0	1
27	d5	61/88 (69%)	49 (80%)	12 (20%)	1	8
28	D6	83/83 (100%)	63 (76%)	20 (24%)	1	3
28	d6	83/83 (100%)	67 (81%)	16 (19%)	2	9
29	D7	70/70 (100%)	61 (87%)	9 (13%)	5	24
29	d7	70/70 (100%)	58 (83%)	12 (17%)	2	12
30	D8	56/59 (95%)	40 (71%)	16 (29%)	0	1
30	d8	56/59 (95%)	43 (77%)	13 (23%)	1	4
31	D9	47/48 (98%)	35 (74%)	12 (26%)	1	2
31	d9	47/48 (98%)	38 (81%)	9 (19%)	2	10
32	E0	51/51 (100%)	44 (86%)	7 (14%)	4	21
33	E1	62/66 (94%)	47 (76%)	15 (24%)	1	3
33	e1	66/66 (100%)	49 (74%)	17 (26%)	0	2
34	SR	260/261 (100%)	225 (86%)	35 (14%)	5	22
34	sR	260/261 (100%)	229 (88%)	31 (12%)	6	28
35	SM	97/228 (42%)	75 (77%)	22 (23%)	1	5
35	sM	54/228 (24%)	44 (82%)	10 (18%)	2	10
39	L2	193/195 (99%)	150 (78%)	43 (22%)	1	5
39	l2	192/195 (98%)	157 (82%)	35 (18%)	2	10
40	L3	319/322 (99%)	254 (80%)	65 (20%)	1	7
40	l3	320/322 (99%)	249 (78%)	71 (22%)	1	5
41	L4	288/288 (100%)	235 (82%)	53 (18%)	2	10
41	l4	288/288 (100%)	227 (79%)	61 (21%)	1	7
42	L5	244/244 (100%)	203 (83%)	41 (17%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	l5	243/244 (100%)	200 (82%)	43 (18%)	2	11
43	L6	134/152 (88%)	110 (82%)	24 (18%)	2	11
43	l6	135/152 (89%)	112 (83%)	23 (17%)	2	12
44	L7	186/204 (91%)	161 (87%)	25 (13%)	5	22
44	l7	187/204 (92%)	160 (86%)	27 (14%)	4	19
45	L8	187/207 (90%)	154 (82%)	33 (18%)	2	11
45	l8	177/207 (86%)	148 (84%)	29 (16%)	3	13
46	L9	171/171 (100%)	139 (81%)	32 (19%)	2	10
46	l9	171/171 (100%)	125 (73%)	46 (27%)	0	2
47	M0	177/186 (95%)	143 (81%)	34 (19%)	2	10
47	m0	179/186 (96%)	152 (85%)	27 (15%)	3	17
48	M1	147/150 (98%)	116 (79%)	31 (21%)	1	7
48	m1	147/150 (98%)	113 (77%)	34 (23%)	1	4
49	M3	154/158 (98%)	123 (80%)	31 (20%)	1	7
49	m3	154/158 (98%)	127 (82%)	27 (18%)	2	12
50	M4	107/108 (99%)	87 (81%)	20 (19%)	2	10
50	m4	108/108 (100%)	83 (77%)	25 (23%)	1	4
51	M5	175/175 (100%)	145 (83%)	30 (17%)	2	12
51	m5	175/175 (100%)	144 (82%)	31 (18%)	2	11
52	M6	160/161 (99%)	139 (87%)	21 (13%)	5	24
52	m6	160/161 (99%)	125 (78%)	35 (22%)	1	6
53	M7	140/145 (97%)	109 (78%)	31 (22%)	1	5
53	m7	125/145 (86%)	94 (75%)	31 (25%)	1	3
54	M8	150/150 (100%)	129 (86%)	21 (14%)	4	20
54	m8	150/150 (100%)	118 (79%)	32 (21%)	1	7
55	M9	153/153 (100%)	128 (84%)	25 (16%)	3	14
55	m9	153/153 (100%)	127 (83%)	26 (17%)	2	12
56	N0	156/156 (100%)	126 (81%)	30 (19%)	2	10
56	n0	156/156 (100%)	120 (77%)	36 (23%)	1	4
57	N1	136/136 (100%)	106 (78%)	30 (22%)	1	5
57	n1	136/136 (100%)	105 (77%)	31 (23%)	1	5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
58	N2	87/106 (82%)	66 (76%)	21 (24%)	1	3
58	n2	85/106 (80%)	71 (84%)	14 (16%)	3	13
59	N3	104/104 (100%)	81 (78%)	23 (22%)	1	5
59	n3	104/104 (100%)	88 (85%)	16 (15%)	3	16
60	N4	57/129 (44%)	51 (90%)	6 (10%)	8	35
60	n4	100/129 (78%)	80 (80%)	20 (20%)	1	8
61	N5	104/117 (89%)	79 (76%)	25 (24%)	1	3
61	n5	104/117 (89%)	89 (86%)	15 (14%)	4	19
62	N6	109/109 (100%)	89 (82%)	20 (18%)	2	10
62	n6	109/109 (100%)	89 (82%)	20 (18%)	2	10
63	N7	115/115 (100%)	90 (78%)	25 (22%)	1	6
63	n7	115/115 (100%)	86 (75%)	29 (25%)	1	2
64	N8	118/118 (100%)	98 (83%)	20 (17%)	2	13
64	n8	118/118 (100%)	93 (79%)	25 (21%)	1	7
65	N9	46/46 (100%)	36 (78%)	10 (22%)	1	6
65	n9	46/46 (100%)	32 (70%)	14 (30%)	0	1
66	O0	81/87 (93%)	70 (86%)	11 (14%)	5	22
66	o0	84/87 (97%)	65 (77%)	19 (23%)	1	5
67	O1	92/96 (96%)	76 (83%)	16 (17%)	2	12
67	o1	94/96 (98%)	66 (70%)	28 (30%)	0	1
68	O2	109/110 (99%)	89 (82%)	20 (18%)	2	10
68	o2	109/110 (99%)	88 (81%)	21 (19%)	2	9
69	O3	90/90 (100%)	74 (82%)	16 (18%)	2	11
69	o3	90/90 (100%)	78 (87%)	12 (13%)	5	23
70	O4	95/102 (93%)	81 (85%)	14 (15%)	4	18
70	o4	95/102 (93%)	78 (82%)	17 (18%)	2	11
71	O5	104/104 (100%)	85 (82%)	19 (18%)	2	10
71	o5	103/104 (99%)	77 (75%)	26 (25%)	1	2
72	O6	81/81 (100%)	64 (79%)	17 (21%)	1	7
72	o6	80/81 (99%)	57 (71%)	23 (29%)	0	1
73	O7	70/70 (100%)	53 (76%)	17 (24%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
73	o7	70/70 (100%)	62 (89%)	8 (11%)	7	31
74	O8	68/68 (100%)	46 (68%)	22 (32%)	0	0
74	o8	67/68 (98%)	53 (79%)	14 (21%)	1	7
75	O9	45/45 (100%)	37 (82%)	8 (18%)	2	11
75	o9	45/45 (100%)	34 (76%)	11 (24%)	1	3
76	Q0	47/47 (100%)	39 (83%)	8 (17%)	2	12
76	q0	47/47 (100%)	34 (72%)	13 (28%)	0	1
77	Q1	23/23 (100%)	17 (74%)	6 (26%)	0	2
77	q1	23/23 (100%)	14 (61%)	9 (39%)	0	0
78	Q2	90/90 (100%)	67 (74%)	23 (26%)	0	2
78	q2	90/90 (100%)	68 (76%)	22 (24%)	1	3
79	Q3	71/71 (100%)	56 (79%)	15 (21%)	1	7
79	q3	71/71 (100%)	59 (83%)	12 (17%)	2	13
80	e0	53/53 (100%)	43 (81%)	10 (19%)	2	10
82	p0	105/253 (42%)	86 (82%)	19 (18%)	2	11
All	All	18727/20241 (92%)	15053 (80%)	3674 (20%)	1	9

All (3674) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	6	THR
2	S0	7	PHE
2	S0	10	THR
2	S0	16	LEU
2	S0	32	HIS
2	S0	50	VAL
2	S0	52	LYS
2	S0	57	LEU
2	S0	59	LEU
2	S0	62	ARG
2	S0	72	ASP
2	S0	84	ARG
2	S0	87	LEU
2	S0	88	LYS
2	S0	96	THR
2	S0	98	ILE
2	S0	101	ARG

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Mol	Chain	Res	Type
2	S0	110	TYR
2	S0	111	ILE
2	S0	119	ARG
2	S0	128	SER
2	S0	157	ASP
2	S0	162	CYS
2	S0	165	ARG
2	S0	169	SER
2	S0	170	ILE
2	S0	172	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	200	ASP
3	S1	21	VAL
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	33	LYS
3	S1	39	GLU
3	S1	46	THR
3	S1	55	LYS
3	S1	61	LEU
3	S1	65	VAL
3	S1	70	LEU
3	S1	77	GLU
3	S1	78	ASP
3	S1	81	PHE
3	S1	85	LYS
3	S1	89	ASP
3	S1	91	VAL
3	S1	96	LEU
3	S1	97	LEU
3	S1	104	ASP
3	S1	105	PHE
3	S1	110	LEU
3	S1	111	ARG
3	S1	115	ARG
3	S1	117	TRP
3	S1	135	LEU
3	S1	144	ARG
3	S1	169	SER
3	S1	170	GLU

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Mol	Chain	Res	Type
3	S1	173	THR
3	S1	177	GLN
3	S1	181	LEU
3	S1	183	GLN
3	S1	184	LEU
3	S1	204	ILE
3	S1	206	PRO
3	S1	212	VAL
3	S1	215	VAL
3	S1	218	LEU
3	S1	219	LYS
3	S1	222	LYS
3	S1	223	PHE
3	S1	225	VAL
3	S1	232	HIS
4	S2	39	THR
4	S2	41	LEU
4	S2	50	ILE
4	S2	53	ILE
4	S2	54	GLU
4	S2	69	ILE
4	S2	73	LEU
4	S2	77	GLN
4	S2	87	GLN
4	S2	89	GLN
4	S2	91	ARG
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	111	VAL
4	S2	113	LEU
4	S2	117	THR
4	S2	134	LEU
4	S2	137	ILE
4	S2	140	ARG
4	S2	148	LEU
4	S2	150	GLN
4	S2	159	THR
4	S2	166	THR
4	S2	186	LYS
4	S2	187	LEU
4	S2	207	LEU

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Mol	Chain	Res	Type
4	S2	208	GLU
4	S2	221	THR
4	S2	222	TYR
4	S2	225	LEU
4	S2	226	THR
4	S2	229	LEU
4	S2	240	LEU
4	S2	242	ILE
4	S2	245	ASP
5	S3	4	LEU
5	S3	5	ILE
5	S3	7	LYS
5	S3	21	LEU
5	S3	23	GLU
5	S3	37	VAL
5	S3	46	THR
5	S3	65	ARG
5	S3	67	ASN
5	S3	76	ARG
5	S3	84	ILE
5	S3	92	GLN
5	S3	93	ASP
5	S3	94	ARG
5	S3	103	GLU
5	S3	105	MET
5	S3	110	LEU
5	S3	113	LEU
5	S3	117	ARG
5	S3	128	GLU
5	S3	143	ARG
5	S3	146	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	166	ASP
5	S3	172	THR
5	S3	178	ARG
5	S3	186	VAL
5	S3	189	MET
5	S3	190	ARG
5	S3	197	THR
5	S3	207	THR
5	S3	223	LYS

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Mol	Chain	Res	Type
6	S4	7	LYS
6	S4	9	LEU
6	S4	11	ARG
6	S4	12	LEU
6	S4	38	LEU
6	S4	45	ILE
6	S4	49	ARG
6	S4	54	TYR
6	S4	56	LEU
6	S4	62	LYS
6	S4	68	ARG
6	S4	70	VAL
6	S4	77	ARG
6	S4	81	THR
6	S4	92	LEU
6	S4	95	THR
6	S4	108	ARG
6	S4	113	ARG
6	S4	117	GLU
6	S4	126	VAL
6	S4	128	LYS
6	S4	129	VAL
6	S4	131	LEU
6	S4	133	LYS
6	S4	155	LYS
6	S4	160	VAL
6	S4	180	LEU
6	S4	181	VAL
6	S4	182	TYR
6	S4	187	ARG
6	S4	192	ILE
6	S4	197	HIS
6	S4	211	LYS
6	S4	215	ASP
6	S4	221	ARG
6	S4	226	PHE
6	S4	227	VAL
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	248	ILE

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Mol	Chain	Res	Type
6	S4	258	GLN
6	S4	259	GLN
7	S5	24	VAL
7	S5	25	LEU
7	S5	32	GLU
7	S5	38	THR
7	S5	43	PHE
7	S5	45	LYS
7	S5	46	TRP
7	S5	48	PHE
7	S5	53	VAL
7	S5	65	ARG
7	S5	76	ARG
7	S5	79	ASN
7	S5	89	ILE
7	S5	90	ILE
7	S5	93	LEU
7	S5	95	ASN
7	S5	109	LYS
7	S5	112	ARG
7	S5	122	ASN
7	S5	131	GLN
7	S5	147	THR
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	186	ASN
7	S5	194	LEU
7	S5	203	LYS
7	S5	225	ARG
8	S6	5	ILE
8	S6	7	TYR
8	S6	13	GLN
8	S6	19	ASP
8	S6	25	ARG
8	S6	45	PHE
8	S6	51	LYS
8	S6	56	ASN
8	S6	58	LYS
8	S6	65	GLN
8	S6	78	THR
8	S6	79	LYS

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Mol	Chain	Res	Type
8	S6	83	CYS
8	S6	98	ARG
8	S6	108	VAL
8	S6	120	GLU
8	S6	125	THR
8	S6	126	ASP
8	S6	127	THR
8	S6	128	THR
8	S6	131	LYS
8	S6	132	ARG
8	S6	133	LEU
8	S6	143	LYS
8	S6	151	ASP
8	S6	154	ARG
8	S6	155	ASP
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	177	ARG
8	S6	193	LEU
8	S6	211	LEU
8	S6	212	LEU
8	S6	214	LYS
8	S6	223	LYS
9	S7	16	LEU
9	S7	28	GLU
9	S7	37	GLU
9	S7	38	LEU
9	S7	46	ILE
9	S7	50	ASP
9	S7	67	LEU
9	S7	70	PHE
9	S7	71	HIS
9	S7	75	THR
9	S7	77	LEU
9	S7	85	PHE
9	S7	87	ASP
9	S7	90	VAL
9	S7	97	ARG
9	S7	104	ARG
9	S7	109	VAL
9	S7	110	GLN

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Mol	Chain	Res	Type
9	S7	114	ARG
9	S7	116	ARG
9	S7	119	THR
9	S7	126	LEU
9	S7	130	VAL
9	S7	144	VAL
9	S7	147	ASN
9	S7	154	LEU
9	S7	162	ILE
9	S7	164	TYR
9	S7	166	LEU
9	S7	185	ILE
10	S8	6	ASP
10	S8	7	SER
10	S8	8	ARG
10	S8	10	LYS
10	S8	17	LYS
10	S8	20	GLN
10	S8	21	PHE
10	S8	22	ARG
10	S8	29	LEU
10	S8	36	THR
10	S8	38	ILE
10	S8	46	VAL
10	S8	56	ARG
10	S8	58	LEU
10	S8	60	ILE
10	S8	82	VAL
10	S8	107	THR
10	S8	135	LYS
10	S8	138	ASN
10	S8	140	GLU
10	S8	149	SER
10	S8	151	LYS
10	S8	152	ILE
10	S8	164	ARG
10	S8	184	LEU
10	S8	193	LEU
10	S8	196	LEU
11	S9	3	ARG
11	S9	14	THR
11	S9	20	GLU

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Mol	Chain	Res	Type
11	S9	28	LEU
11	S9	30	LEU
11	S9	36	LEU
11	S9	39	LYS
11	S9	40	LYS
11	S9	46	SER
11	S9	48	GLN
11	S9	54	ARG
11	S9	57	ARG
11	S9	64	GLU
11	S9	78	ARG
11	S9	82	ARG
11	S9	83	VAL
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	97	LEU
11	S9	99	LEU
11	S9	110	GLN
11	S9	118	LEU
11	S9	121	SER
11	S9	130	THR
11	S9	134	ILE
11	S9	138	LYS
11	S9	149	ARG
11	S9	151	ASP
11	S9	155	HIS
11	S9	157	ASP
11	S9	161	THR
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	180	LYS
11	S9	182	GLU
12	C0	7	ASP
12	C0	8	ARG
12	C0	20	VAL
12	C0	28	ASN
12	C0	32	HIS
12	C0	33	GLU
12	C0	46	LEU
12	C0	49	LEU

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Mol	Chain	Res	Type
12	C0	55	VAL
12	C0	56	LYS
12	C0	71	GLU
12	C0	76	LEU
12	C0	78	GLU
12	C0	81	ASN
12	C0	82	LEU
13	C1	4	GLU
13	C1	7	VAL
13	C1	8	GLN
13	C1	21	ASN
13	C1	29	LYS
13	C1	40	LEU
13	C1	44	THR
13	C1	54	ILE
13	C1	56	LYS
13	C1	67	ARG
13	C1	69	LYS
13	C1	74	THR
13	C1	76	VAL
13	C1	79	LYS
13	C1	83	THR
13	C1	87	ARG
13	C1	94	ILE
13	C1	109	VAL
13	C1	123	VAL
13	C1	131	ILE
13	C1	140	VAL
14	C2	25	GLU
14	C2	28	LEU
14	C2	33	ARG
14	C2	41	LEU
14	C2	43	ARG
14	C2	46	ARG
14	C2	61	VAL
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	89	ILE
14	C2	103	LEU
14	C2	121	VAL
14	C2	126	TRP

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Mol	Chain	Res	Type
14	C2	129	GLU
14	C2	132	GLU
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	19	SER
15	C3	21	ASN
15	C3	27	LYS
15	C3	34	ILE
15	C3	39	LYS
15	C3	46	THR
15	C3	61	THR
15	C3	64	ARG
15	C3	66	ILE
15	C3	73	ARG
15	C3	76	LYS
15	C3	83	GLU
15	C3	88	LEU
15	C3	99	ARG
15	C3	102	LEU
15	C3	105	ASN
15	C3	115	LEU
15	C3	125	LEU
15	C3	141	TYR
15	C3	142	GLU
15	C3	149	LEU
15	C3	151	ASN
16	C4	16	VAL
16	C4	20	TYR
16	C4	29	HIS
16	C4	30	VAL
16	C4	31	THR
16	C4	42	VAL
16	C4	76	ILE
16	C4	81	VAL
16	C4	92	LYS
16	C4	99	GLN
16	C4	107	ARG
16	C4	114	ARG

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Mol	Chain	Res	Type
16	C4	115	ILE
16	C4	118	VAL
16	C4	123	SER
16	C4	132	ARG
16	C4	136	ARG
16	C4	137	LEU
17	C5	20	VAL
17	C5	22	LEU
17	C5	31	GLU
17	C5	34	VAL
17	C5	35	LYS
17	C5	36	LEU
17	C5	40	ARG
17	C5	43	ARG
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	60	LEU
17	C5	69	GLU
17	C5	80	MET
17	C5	84	ILE
17	C5	89	MET
17	C5	94	VAL
17	C5	100	LYS
17	C5	106	GLU
17	C5	110	GLU
17	C5	121	ILE
18	C6	4	VAL
18	C6	14	LYS
18	C6	17	THR
18	C6	19	VAL
18	C6	26	LYS
18	C6	28	LEU
18	C6	29	ILE
18	C6	39	VAL
18	C6	47	LYS
18	C6	53	LEU
18	C6	54	LEU
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	98	ASP

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Mol	Chain	Res	Type
18	C6	106	LYS
18	C6	116	LEU
18	C6	121	SER
18	C6	136	SER
18	C6	137	ARG
18	C6	143	ARG
19	C7	5	ARG
19	C7	6	THR
19	C7	19	ARG
19	C7	29	GLN
19	C7	34	LEU
19	C7	38	ILE
19	C7	40	THR
19	C7	41	ILE
19	C7	43	SER
19	C7	54	THR
19	C7	55	THR
19	C7	69	ILE
19	C7	72	LYS
19	C7	76	GLU
19	C7	83	GLN
19	C7	84	TYR
19	C7	88	VAL
19	C7	105	GLN
19	C7	113	LEU
19	C7	115	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	6	GLN
20	C8	8	GLN
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	17	LEU
20	C8	20	THR
20	C8	22	VAL
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	32	LEU
20	C8	34	THR

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Mol	Chain	Res	Type
20	C8	40	ARG
20	C8	46	VAL
20	C8	53	ASP
20	C8	54	LEU
20	C8	60	GLU
20	C8	61	LEU
20	C8	71	GLN
20	C8	77	THR
20	C8	80	LYS
20	C8	103	ASN
20	C8	108	LYS
20	C8	119	ILE
20	C8	120	ARG
20	C8	131	LEU
20	C8	132	ARG
20	C8	136	GLN
20	C8	138	THR
20	C8	140	THR
20	C8	141	THR
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
21	C9	12	GLN
21	C9	13	ASP
21	C9	18	TYR
21	C9	22	LEU
21	C9	28	LEU
21	C9	30	VAL
21	C9	33	TYR
21	C9	34	VAL
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	39	THR
21	C9	43	ASN
21	C9	57	ARG
21	C9	67	MET
21	C9	94	ILE
21	C9	103	LYS
21	C9	111	ILE
21	C9	117	SER
21	C9	130	ARG

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Mol	Chain	Res	Type
21	C9	131	ASP
21	C9	133	ASP
21	C9	134	ARG
21	C9	139	THR
22	D0	15	GLN
22	D0	21	LYS
22	D0	22	ILE
22	D0	23	ARG
22	D0	27	THR
22	D0	31	VAL
22	D0	42	VAL
22	D0	43	LYS
22	D0	47	GLN
22	D0	50	LEU
22	D0	57	ARG
22	D0	58	LEU
22	D0	72	ASN
22	D0	74	GLU
22	D0	85	ARG
22	D0	89	ARG
22	D0	103	ILE
23	D1	2	GLU
23	D1	3	ASN
23	D1	5	LYS
23	D1	8	LEU
23	D1	9	VAL
23	D1	11	LEU
23	D1	18	SER
23	D1	24	ILE
23	D1	25	LYS
23	D1	32	VAL
23	D1	36	VAL
23	D1	52	THR
23	D1	65	SER
23	D1	68	SER
23	D1	69	LEU
23	D1	78	LEU
23	D1	80	LYS
24	D2	2	THR
24	D2	4	SER
24	D2	22	LYS
24	D2	24	GLN

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Mol	Chain	Res	Type
24	D2	25	VAL
24	D2	27	ILE
24	D2	29	PRO
24	D2	31	SER
24	D2	49	GLU
24	D2	53	ILE
24	D2	65	LEU
24	D2	71	LYS
24	D2	76	SER
24	D2	81	VAL
24	D2	87	GLU
24	D2	93	LEU
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR
24	D2	121	VAL
24	D2	125	ILE
24	D2	126	LEU
24	D2	129	VAL
25	D3	7	ARG
25	D3	19	ARG
25	D3	28	ASN
25	D3	40	SER
25	D3	56	LYS
25	D3	59	ILE
25	D3	73	ARG
25	D3	84	THR
25	D3	97	ASP
25	D3	100	ASP
25	D3	107	PHE
25	D3	110	LYS
25	D3	114	LYS
25	D3	127	VAL
25	D3	138	GLU
25	D3	144	ARG
26	D4	32	ARG
26	D4	34	ASN
26	D4	51	GLU
26	D4	57	VAL
26	D4	74	LEU
26	D4	96	LEU

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Mol	Chain	Res	Type
26	D4	100	VAL
26	D4	102	LYS
26	D4	107	GLN
26	D4	124	ARG
26	D4	128	LYS
27	D5	37	GLN
27	D5	42	LEU
27	D5	48	ASP
27	D5	49	ARG
27	D5	58	ARG
27	D5	59	TYR
27	D5	60	VAL
27	D5	63	SER
27	D5	68	ARG
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	100	ILE
27	D5	102	THR
28	D6	7	SER
28	D6	30	ILE
28	D6	36	ILE
28	D6	38	ARG
28	D6	44	ILE
28	D6	45	VAL
28	D6	46	GLU
28	D6	53	LEU
28	D6	61	GLU
28	D6	64	LEU
28	D6	67	THR
28	D6	68	TYR
28	D6	70	LYS
28	D6	77	CYS
28	D6	79	ILE
28	D6	82	ARG
28	D6	83	ILE
28	D6	85	ARG

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Mol	Chain	Res	Type
28	D6	88	SER
28	D6	90	GLU
29	D7	3	LEU
29	D7	20	LYS
29	D7	29	ARG
29	D7	30	SER
29	D7	41	LEU
29	D7	55	THR
29	D7	62	ILE
29	D7	65	THR
29	D7	72	LYS
30	D8	5	THR
30	D8	8	THR
30	D8	13	ILE
30	D8	14	LYS
30	D8	19	THR
30	D8	31	GLU
30	D8	32	PHE
30	D8	38	ARG
30	D8	39	THR
30	D8	40	ILE
30	D8	49	ARG
30	D8	54	LEU
30	D8	57	MET
30	D8	58	GLU
30	D8	64	ARG
30	D8	65	ARG
31	D9	5	ASN
31	D9	7	TRP
31	D9	9	SER
31	D9	10	HIS
31	D9	12	ARG
31	D9	19	ARG
31	D9	21	CYS
31	D9	22	ARG
31	D9	23	VAL
31	D9	28	THR
31	D9	36	LEU
31	D9	40	ARG
32	E0	3	LYS
32	E0	20	LYS
32	E0	22	GLU

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Mol	Chain	Res	Type
32	E0	28	LYS
32	E0	39	LEU
32	E0	42	ARG
32	E0	47	VAL
33	E1	83	LYS
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	97	LYS
33	E1	106	TYR
33	E1	107	LYS
33	E1	108	VAL
33	E1	109	ASP
33	E1	115	THR
33	E1	118	ARG
33	E1	126	CYS
33	E1	139	LEU
33	E1	146	SER
33	E1	150	VAL
34	SR	10	ARG
34	SR	21	THR
34	SR	52	GLN
34	SR	58	VAL
34	SR	59	ARG
34	SR	60	SER
34	SR	72	THR
34	SR	76	ASP
34	SR	82	SER
34	SR	94	VAL
34	SR	117	LYS
34	SR	126	SER
34	SR	136	ILE
34	SR	141	LEU
34	SR	143	THR
34	SR	144	LEU
34	SR	149	ASP
34	SR	153	GLN
34	SR	165	ASP
34	SR	184	ASN
34	SR	191	ASP
34	SR	196	ASN
34	SR	207	ASP

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Mol	Chain	Res	Type
34	SR	211	ILE
34	SR	213	SER
34	SR	232	TYR
34	SR	234	LEU
34	SR	238	ASP
34	SR	248	ASN
34	SR	266	ASP
34	SR	268	GLN
34	SR	277	GLU
34	SR	300	THR
34	SR	316	MET
34	SR	317	THR
35	SM	23	LYS
35	SM	28	SER
35	SM	34	LYS
35	SM	46	LYS
35	SM	48	ARG
35	SM	51	ARG
35	SM	61	ILE
35	SM	68	ARG
35	SM	69	ARG
35	SM	70	ASN
35	SM	72	ARG
35	SM	75	ASP
35	SM	77	THR
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	96	ARG
35	SM	100	THR
35	SM	102	THR
35	SM	117	LEU
35	SM	121	LYS
35	SM	130	GLU
39	L2	17	THR
39	L2	18	SER
39	L2	19	HIS
39	L2	23	ARG
39	L2	28	LYS
39	L2	31	THR
39	L2	32	LEU
39	L2	36	GLU

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Mol	Chain	Res	Type
39	L2	44	ILE
39	L2	45	VAL
39	L2	48	ILE
39	L2	49	VAL
39	L2	52	SER
39	L2	70	ARG
39	L2	71	LEU
39	L2	74	GLU
39	L2	95	SER
39	L2	96	LEU
39	L2	101	VAL
39	L2	104	LEU
39	L2	109	GLU
39	L2	112	ILE
39	L2	116	VAL
39	L2	118	GLU
39	L2	137	ILE
39	L2	142	ASP
39	L2	157	VAL
39	L2	165	VAL
39	L2	168	VAL
39	L2	169	ILE
39	L2	175	VAL
39	L2	179	LEU
39	L2	180	LEU
39	L2	190	ARG
39	L2	197	PRO
39	L2	202	VAL
39	L2	205	ASN
39	L2	207	VAL
39	L2	225	ILE
39	L2	226	SER
39	L2	227	ARG
39	L2	230	VAL
39	L2	245	LEU
40	L3	3	HIS
40	L3	7	GLU
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	25	ILE
40	L3	30	LYS

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Mol	Chain	Res	Type
40	L3	37	ARG
40	L3	39	LYS
40	L3	44	THR
40	L3	47	LEU
40	L3	55	THR
40	L3	56	ILE
40	L3	67	PHE
40	L3	70	ARG
40	L3	73	VAL
40	L3	79	VAL
40	L3	81	THR
40	L3	84	VAL
40	L3	85	VAL
40	L3	97	ARG
40	L3	100	ARG
40	L3	103	THR
40	L3	114	VAL
40	L3	120	LYS
40	L3	134	SER
40	L3	139	GLN
40	L3	148	LEU
40	L3	150	ARG
40	L3	157	VAL
40	L3	160	VAL
40	L3	167	ARG
40	L3	169	THR
40	L3	178	LEU
40	L3	183	LEU
40	L3	187	SER
40	L3	188	ILE
40	L3	192	VAL
40	L3	196	ARG
40	L3	205	VAL
40	L3	210	GLU
40	L3	212	ASN
40	L3	213	GLU
40	L3	232	ARG
40	L3	235	THR
40	L3	238	LEU
40	L3	241	LYS
40	L3	244	ARG
40	L3	266	ARG

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Mol	Chain	Res	Type
40	L3	277	SER
40	L3	284	ARG
40	L3	287	LYS
40	L3	296	THR
40	L3	300	ARG
40	L3	305	ILE
40	L3	308	MET
40	L3	320	ASP
40	L3	332	ARG
40	L3	337	THR
40	L3	338	LEU
40	L3	349	LYS
40	L3	352	GLU
40	L3	355	SER
40	L3	364	LYS
40	L3	386	ASP
41	L4	3	ARG
41	L4	25	VAL
41	L4	27	SER
41	L4	54	GLU
41	L4	60	THR
41	L4	69	ARG
41	L4	73	ARG
41	L4	74	ILE
41	L4	93	MET
41	L4	99	MET
41	L4	112	LYS
41	L4	120	TYR
41	L4	134	LEU
41	L4	138	ARG
41	L4	142	VAL
41	L4	147	GLU
41	L4	150	LEU
41	L4	152	VAL
41	L4	156	LEU
41	L4	158	SER
41	L4	170	LYS
41	L4	176	SER
41	L4	179	LEU
41	L4	186	LYS
41	L4	187	LEU
41	L4	193	LYS

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Mol	Chain	Res	Type
41	L4	194	TYR
41	L4	200	THR
41	L4	203	ARG
41	L4	206	LEU
41	L4	211	GLU
41	L4	220	ARG
41	L4	222	VAL
41	L4	226	GLU
41	L4	230	VAL
41	L4	246	ARG
41	L4	258	LEU
41	L4	259	ASP
41	L4	267	VAL
41	L4	270	SER
41	L4	278	SER
41	L4	284	SER
41	L4	287	THR
41	L4	288	ARG
41	L4	292	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	311	HIS
41	L4	323	VAL
41	L4	327	LEU
41	L4	333	VAL
41	L4	338	LYS
41	L4	346	LYS
42	L5	5	LYS
42	L5	9	SER
42	L5	22	ARG
42	L5	23	ARG
42	L5	35	ARG
42	L5	41	LYS
42	L5	66	SER
42	L5	69	ILE
42	L5	75	LEU
42	L5	92	LEU
42	L5	93	THR
42	L5	105	ILE
42	L5	112	LYS
42	L5	115	LEU
42	L5	117	GLU

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Mol	Chain	Res	Type
42	L5	118	THR
42	L5	122	VAL
42	L5	131	LEU
42	L5	140	ARG
42	L5	146	LEU
42	L5	151	GLN
42	L5	152	ARG
42	L5	173	VAL
42	L5	177	GLU
42	L5	185	PHE
42	L5	187	THR
42	L5	197	SER
42	L5	203	HIS
42	L5	205	SER
42	L5	206	GLN
42	L5	216	GLU
42	L5	222	LEU
42	L5	227	LEU
42	L5	234	ASP
42	L5	241	THR
42	L5	242	SER
42	L5	259	LYS
42	L5	261	THR
42	L5	263	GLU
42	L5	290	ILE
42	L5	293	LEU
43	L6	2	SER
43	L6	5	LYS
43	L6	15	VAL
43	L6	21	THR
43	L6	28	GLN
43	L6	31	ARG
43	L6	35	VAL
43	L6	52	VAL
43	L6	62	THR
43	L6	64	LEU
43	L6	70	LYS
43	L6	76	LEU
43	L6	78	ARG
43	L6	79	VAL
43	L6	84	VAL
43	L6	89	THR

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Mol	Chain	Res	Type
43	L6	90	LYS
43	L6	98	VAL
43	L6	136	GLU
43	L6	146	ILE
43	L6	152	THR
43	L6	155	LEU
43	L6	160	SER
43	L6	170	LYS
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	43	ILE
44	L7	47	ARG
44	L7	60	ARG
44	L7	78	GLU
44	L7	82	LYS
44	L7	83	LEU
44	L7	92	ILE
44	L7	93	ASN
44	L7	101	LYS
44	L7	110	ARG
44	L7	118	LYS
44	L7	124	LEU
44	L7	128	LYS
44	L7	141	TYR
44	L7	158	LYS
44	L7	164	SER
44	L7	179	LEU
44	L7	182	ASP
44	L7	184	LEU
44	L7	189	ILE
44	L7	204	PRO
44	L7	239	LEU
45	L8	26	LEU
45	L8	41	GLN
45	L8	43	LYS
45	L8	50	VAL
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	84	ARG
45	L8	92	LYS

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Mol	Chain	Res	Type
45	L8	98	ARG
45	L8	101	THR
45	L8	118	GLU
45	L8	132	VAL
45	L8	136	LEU
45	L8	144	GLU
45	L8	150	LEU
45	L8	156	ASP
45	L8	169	LEU
45	L8	173	MET
45	L8	180	VAL
45	L8	181	LYS
45	L8	185	ARG
45	L8	189	LEU
45	L8	194	THR
45	L8	206	GLU
45	L8	211	LEU
45	L8	214	LEU
45	L8	216	SER
45	L8	218	ILE
45	L8	221	ASN
45	L8	224	ASP
45	L8	241	LYS
45	L8	248	LYS
46	L9	4	ILE
46	L9	6	THR
46	L9	14	GLU
46	L9	18	VAL
46	L9	19	SER
46	L9	22	SER
46	L9	33	THR
46	L9	41	ILE
46	L9	48	VAL
46	L9	49	ASN
46	L9	52	LEU
46	L9	55	VAL
46	L9	62	ARG
46	L9	65	VAL
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	73	SER

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Mol	Chain	Res	Type
46	L9	78	MET
46	L9	82	VAL
46	L9	118	LEU
46	L9	132	VAL
46	L9	133	THR
46	L9	135	GLU
46	L9	138	THR
46	L9	139	ASN
46	L9	151	VAL
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	177	ASP
46	L9	189	GLU
47	M0	12	GLN
47	M0	24	ARG
47	M0	26	VAL
47	M0	30	LYS
47	M0	32	ARG
47	M0	35	ASP
47	M0	36	LEU
47	M0	39	LYS
47	M0	40	LYS
47	M0	48	LEU
47	M0	52	LEU
47	M0	54	SER
47	M0	57	LEU
47	M0	63	GLU
47	M0	87	LEU
47	M0	102	MET
47	M0	130	ASP
47	M0	133	GLN
47	M0	137	SER
47	M0	138	VAL
47	M0	139	ARG
47	M0	145	LYS
47	M0	156	ARG
47	M0	163	GLN
47	M0	165	ILE
47	M0	166	ILE
47	M0	175	ASN
47	M0	176	LEU

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Mol	Chain	Res	Type
47	M0	177	ASP
47	M0	178	ARG
47	M0	185	ARG
47	M0	190	VAL
47	M0	203	LYS
47	M0	205	SER
48	M1	10	ARG
48	M1	12	LEU
48	M1	16	LYS
48	M1	25	GLU
48	M1	39	GLN
48	M1	44	THR
48	M1	52	TYR
48	M1	53	THR
48	M1	56	THR
48	M1	65	ILE
48	M1	71	VAL
48	M1	80	LEU
48	M1	82	ARG
48	M1	85	LYS
48	M1	92	ARG
48	M1	94	ARG
48	M1	95	ASN
48	M1	101	ASN
48	M1	106	ILE
48	M1	107	ASP
48	M1	112	LEU
48	M1	115	LYS
48	M1	127	PHE
48	M1	137	ARG
48	M1	138	VAL
48	M1	140	ARG
48	M1	148	VAL
48	M1	155	THR
48	M1	166	LYS
48	M1	171	VAL
48	M1	173	ASP
49	M3	20	GLU
49	M3	33	VAL
49	M3	35	ARG
49	M3	41	THR
49	M3	54	LEU

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Mol	Chain	Res	Type
49	M3	55	ARG
49	M3	57	VAL
49	M3	58	VAL
49	M3	59	ARG
49	M3	70	ARG
49	M3	76	THR
49	M3	85	LEU
49	M3	101	ARG
49	M3	108	ILE
49	M3	113	VAL
49	M3	114	GLN
49	M3	115	ARG
49	M3	117	LYS
49	M3	121	SER
49	M3	124	ILE
49	M3	131	LYS
49	M3	134	GLU
49	M3	136	GLU
49	M3	137	GLN
49	M3	140	SER
49	M3	164	GLU
49	M3	168	ARG
49	M3	174	ARG
49	M3	180	ARG
49	M3	182	ILE
49	M3	190	LYS
50	M4	3	THR
50	M4	8	LYS
50	M4	15	VAL
50	M4	25	LYS
50	M4	38	ILE
50	M4	39	ILE
50	M4	42	LYS
50	M4	53	VAL
50	M4	64	VAL
50	M4	66	THR
50	M4	90	VAL
50	M4	91	CYS
50	M4	93	LYS
50	M4	98	SER
50	M4	102	LYS
50	M4	106	ARG

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Mol	Chain	Res	Type
50	M4	107	GLU
50	M4	113	THR
50	M4	125	LYS
50	M4	135	LEU
51	M5	20	ARG
51	M5	22	LEU
51	M5	38	ARG
51	M5	43	THR
51	M5	49	ARG
51	M5	50	ARG
51	M5	66	VAL
51	M5	68	ARG
51	M5	75	VAL
51	M5	77	LYS
51	M5	80	THR
51	M5	97	SER
51	M5	104	GLU
51	M5	106	VAL
51	M5	109	ARG
51	M5	113	LEU
51	M5	117	ASN
51	M5	133	ILE
51	M5	138	GLN
51	M5	151	ILE
51	M5	153	ASP
51	M5	155	VAL
51	M5	159	ARG
51	M5	167	THR
51	M5	170	LYS
51	M5	175	ASN
51	M5	183	THR
51	M5	184	LYS
51	M5	188	ARG
51	M5	190	THR
52	M6	27	LEU
52	M6	34	VAL
52	M6	36	VAL
52	M6	51	LYS
52	M6	58	LEU
52	M6	68	ARG
52	M6	78	ARG
52	M6	79	ILE

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Mol	Chain	Res	Type
52	M6	84	LEU
52	M6	94	ARG
52	M6	106	GLU
52	M6	116	LYS
52	M6	117	ARG
52	M6	124	LEU
52	M6	126	VAL
52	M6	128	ARG
52	M6	143	THR
52	M6	160	ARG
52	M6	170	LYS
52	M6	184	THR
52	M6	190	VAL
53	M7	3	ARG
53	M7	7	THR
53	M7	9	THR
53	M7	10	ASN
53	M7	14	SER
53	M7	20	SER
53	M7	23	ARG
53	M7	32	THR
53	M7	36	ILE
53	M7	41	LEU
53	M7	52	LEU
53	M7	67	ILE
53	M7	69	ARG
53	M7	78	VAL
53	M7	79	THR
53	M7	107	LEU
53	M7	112	LEU
53	M7	114	VAL
53	M7	118	GLN
53	M7	119	VAL
53	M7	126	ARG
53	M7	127	ARG
53	M7	136	ILE
53	M7	138	LYS
53	M7	144	SER
53	M7	153	LYS
53	M7	157	VAL
53	M7	168	LEU
53	M7	173	ARG

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Mol	Chain	Res	Type
53	M7	180	LYS
53	M7	181	ARG
54	M8	3	ILE
54	M8	17	THR
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	41	ASP
54	M8	63	SER
54	M8	69	ARG
54	M8	86	THR
54	M8	100	THR
54	M8	132	PRO
54	M8	135	GLN
54	M8	138	LEU
54	M8	139	ILE
54	M8	141	ARG
54	M8	147	ARG
54	M8	168	THR
54	M8	171	LYS
54	M8	180	ARG
54	M8	182	LYS
55	M9	5	ARG
55	M9	29	THR
55	M9	30	SER
55	M9	41	ILE
55	M9	44	LEU
55	M9	49	THR
55	M9	51	VAL
55	M9	55	VAL
55	M9	70	LYS
55	M9	71	ARG
55	M9	74	ARG
55	M9	81	ARG
55	M9	99	LEU
55	M9	103	ARG
55	M9	104	ARG
55	M9	110	ARG
55	M9	115	ILE
55	M9	116	ASP
55	M9	134	HIS

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Mol	Chain	Res	Type
55	M9	160	GLU
55	M9	164	LEU
55	M9	165	LYS
55	M9	176	ARG
55	M9	180	LYS
55	M9	182	ASP
56	N0	1	MET
56	N0	17	GLU
56	N0	21	GLU
56	N0	47	LYS
56	N0	50	LYS
56	N0	51	VAL
56	N0	57	GLU
56	N0	79	VAL
56	N0	80	ARG
56	N0	81	TYR
56	N0	85	SER
56	N0	87	THR
56	N0	105	THR
56	N0	106	LEU
56	N0	115	ARG
56	N0	117	ARG
56	N0	120	SER
56	N0	122	HIS
56	N0	130	GLU
56	N0	132	THR
56	N0	137	ARG
56	N0	142	GLN
56	N0	145	THR
56	N0	155	ARG
56	N0	156	VAL
56	N0	157	GLN
56	N0	160	THR
56	N0	167	ARG
56	N0	169	SER
56	N0	171	PHE
57	N1	12	ARG
57	N1	25	VAL
57	N1	26	HIS
57	N1	27	LEU
57	N1	32	LYS
57	N1	38	ASP

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Mol	Chain	Res	Type
57	N1	39	ILE
57	N1	50	LYS
57	N1	52	MET
57	N1	68	THR
57	N1	78	LYS
57	N1	79	MET
57	N1	80	VAL
57	N1	83	ARG
57	N1	88	ARG
57	N1	89	LEU
57	N1	102	ARG
57	N1	104	GLU
57	N1	106	LEU
57	N1	122	GLN
57	N1	126	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	136	ARG
57	N1	139	ARG
57	N1	141	VAL
57	N1	143	THR
57	N1	144	GLU
57	N1	149	GLN
57	N1	160	ILE
58	N2	10	LYS
58	N2	16	THR
58	N2	29	ASP
58	N2	32	SER
58	N2	38	ILE
58	N2	39	ASP
58	N2	43	VAL
58	N2	49	ASN
58	N2	52	ASN
58	N2	54	VAL
58	N2	55	THR
58	N2	62	VAL
58	N2	66	VAL
58	N2	70	LYS
58	N2	72	SER
58	N2	87	ASN
58	N2	88	GLN
58	N2	92	TRP

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Mol	Chain	Res	Type
58	N2	93	ILE
58	N2	98	THR
58	N2	100	THR
59	N3	9	THR
59	N3	13	ILE
59	N3	14	SER
59	N3	19	VAL
59	N3	24	ASN
59	N3	25	CYS
59	N3	32	ARG
59	N3	46	LEU
59	N3	66	LYS
59	N3	69	LEU
59	N3	73	VAL
59	N3	74	MET
59	N3	79	VAL
59	N3	83	LYS
59	N3	87	ARG
59	N3	102	ILE
59	N3	104	ASN
59	N3	106	LYS
59	N3	115	THR
59	N3	125	LEU
59	N3	128	ARG
59	N3	135	VAL
59	N3	137	VAL
60	N4	7	SER
60	N4	19	THR
60	N4	39	LEU
60	N4	45	ASN
60	N4	54	LEU
60	N4	64	THR
61	N5	26	VAL
61	N5	27	ARG
61	N5	28	THR
61	N5	34	LEU
61	N5	38	LEU
61	N5	45	LYS
61	N5	57	LEU
61	N5	63	ILE
61	N5	73	MET
61	N5	74	LYS

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Mol	Chain	Res	Type
61	N5	81	ILE
61	N5	86	VAL
61	N5	92	LYS
61	N5	96	LYS
61	N5	102	LEU
61	N5	108	LEU
61	N5	109	LYS
61	N5	110	VAL
61	N5	112	THR
61	N5	115	ARG
61	N5	125	ARG
61	N5	127	THR
61	N5	135	ILE
61	N5	139	ILE
61	N5	142	ILE
62	N6	13	ARG
62	N6	36	SER
62	N6	37	LYS
62	N6	38	GLU
62	N6	40	ARG
62	N6	42	GLN
62	N6	45	ILE
62	N6	51	ARG
62	N6	56	VAL
62	N6	57	LEU
62	N6	60	ARG
62	N6	67	GLU
62	N6	74	TYR
62	N6	80	VAL
62	N6	89	LYS
62	N6	94	SER
62	N6	105	VAL
62	N6	115	ARG
62	N6	125	LYS
62	N6	126	LEU
63	N7	14	VAL
63	N7	15	ARG
63	N7	21	LYS
63	N7	24	VAL
63	N7	25	ILE
63	N7	33	SER
63	N7	46	ILE

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Mol	Chain	Res	Type
63	N7	52	LYS
63	N7	54	THR
63	N7	57	HIS
63	N7	64	LYS
63	N7	72	ILE
63	N7	80	LEU
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	87	LEU
63	N7	90	GLU
63	N7	99	GLU
63	N7	102	GLU
63	N7	103	GLN
63	N7	109	GLU
63	N7	126	LYS
63	N7	134	LEU
63	N7	135	ARG
64	N8	6	THR
64	N8	7	LYS
64	N8	8	THR
64	N8	10	LYS
64	N8	26	ARG
64	N8	34	MET
64	N8	42	ARG
64	N8	46	ASP
64	N8	47	LYS
64	N8	56	VAL
64	N8	60	TYR
64	N8	67	HIS
64	N8	78	LEU
64	N8	85	ASP
64	N8	88	ASP
64	N8	92	LYS
64	N8	115	LYS
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
65	N9	3	LYS
65	N9	13	THR
65	N9	18	ARG
65	N9	22	LYS

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Mol	Chain	Res	Type
65	N9	25	LYS
65	N9	33	LYS
65	N9	39	PHE
65	N9	41	ARG
65	N9	50	THR
65	N9	59	LYS
66	O0	16	LEU
66	O0	20	SER
66	O0	28	LYS
66	O0	40	LYS
66	O0	54	SER
66	O0	79	THR
66	O0	83	LYS
66	O0	99	ASP
66	O0	100	ILE
66	O0	101	LEU
66	O0	103	THR
67	O1	8	VAL
67	O1	9	THR
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	31	ARG
67	O1	64	VAL
67	O1	68	GLU
67	O1	79	ARG
67	O1	84	ASP
67	O1	86	LYS
67	O1	91	SER
67	O1	94	GLU
67	O1	106	THR
67	O1	107	VAL
67	O1	110	GLU
68	O2	4	LEU
68	O2	10	VAL
68	O2	15	LYS
68	O2	19	ARG
68	O2	33	ARG
68	O2	34	LYS
68	O2	41	VAL
68	O2	54	LYS
68	O2	55	ILE

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Mol	Chain	Res	Type
68	O2	61	LYS
68	O2	62	LYS
68	O2	73	THR
68	O2	75	LEU
68	O2	83	GLU
68	O2	89	THR
68	O2	91	THR
68	O2	106	VAL
68	O2	109	LEU
68	O2	120	THR
68	O2	128	LEU
69	O3	15	SER
69	O3	28	SER
69	O3	31	LYS
69	O3	33	GLU
69	O3	37	THR
69	O3	48	ARG
69	O3	49	ILE
69	O3	54	ARG
69	O3	65	ARG
69	O3	70	LYS
69	O3	73	ARG
69	O3	80	VAL
69	O3	90	PRO
69	O3	93	THR
69	O3	98	VAL
69	O3	106	ASN
70	O4	5	VAL
70	O4	20	ILE
70	O4	21	LYS
70	O4	29	ILE
70	O4	51	LEU
70	O4	56	THR
70	O4	58	ARG
70	O4	65	VAL
70	O4	71	THR
70	O4	86	LYS
70	O4	88	ARG
70	O4	102	LYS
70	O4	104	VAL
70	O4	105	VAL
71	O5	4	VAL

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Mol	Chain	Res	Type
71	O5	20	GLN
71	O5	27	GLU
71	O5	43	LYS
71	O5	47	VAL
71	O5	48	ARG
71	O5	49	LYS
71	O5	71	LYS
71	O5	76	GLN
71	O5	86	ARG
71	O5	89	ARG
71	O5	90	ARG
71	O5	94	LYS
71	O5	101	THR
71	O5	102	GLU
71	O5	105	ARG
71	O5	107	LYS
71	O5	118	ILE
71	O5	119	LYS
72	O6	11	LEU
72	O6	21	THR
72	O6	26	ILE
72	O6	28	TYR
72	O6	34	SER
72	O6	36	ARG
72	O6	45	ARG
72	O6	52	PRO
72	O6	57	LEU
72	O6	58	ILE
72	O6	66	GLU
72	O6	68	ARG
72	O6	70	ARG
72	O6	71	LYS
72	O6	76	ARG
72	O6	81	THR
72	O6	88	GLU
73	O7	5	THR
73	O7	17	THR
73	O7	19	CYS
73	O7	21	ARG
73	O7	24	ARG
73	O7	25	ARG
73	O7	33	THR

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Mol	Chain	Res	Type
73	O7	36	SER
73	O7	44	THR
73	O7	55	ARG
73	O7	58	THR
73	O7	59	THR
73	O7	64	MET
73	O7	65	ARG
73	O7	67	LEU
73	O7	80	THR
73	O7	82	SER
74	O8	5	ILE
74	O8	17	ARG
74	O8	22	THR
74	O8	24	THR
74	O8	25	VAL
74	O8	29	LYS
74	O8	31	LEU
74	O8	32	ASN
74	O8	41	THR
74	O8	45	VAL
74	O8	46	ARG
74	O8	52	TYR
74	O8	53	THR
74	O8	55	VAL
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	68	SER
74	O8	69	LEU
74	O8	72	THR
74	O8	77	ARG
74	O8	78	LEU
75	O9	4	GLN
75	O9	5	LYS
75	O9	21	ARG
75	O9	23	LEU
75	O9	25	GLN
75	O9	29	LEU
75	O9	36	ARG
75	O9	45	ARG
76	Q0	78	ILE
76	Q0	85	LEU

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Mol	Chain	Res	Type
76	Q0	88	LYS
76	Q0	97	ARG
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	126	LYS
76	Q0	127	LEU
77	Q1	6	ARG
77	Q1	9	ARG
77	Q1	10	THR
77	Q1	11	ARG
77	Q1	13	LEU
77	Q1	23	ARG
78	Q2	3	ASN
78	Q2	8	ARG
78	Q2	26	THR
78	Q2	28	TYR
78	Q2	29	LYS
78	Q2	45	ARG
78	Q2	48	SER
78	Q2	54	THR
78	Q2	60	LYS
78	Q2	70	LEU
78	Q2	71	ARG
78	Q2	78	LYS
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	87	ARG
78	Q2	88	CYS
78	Q2	89	LYS
78	Q2	92	GLU
78	Q2	93	LEU
78	Q2	100	LYS
78	Q2	104	LEU
78	Q2	105	GLN
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	24	ARG
79	Q3	25	GLN
79	Q3	31	ILE
79	Q3	33	GLN
79	Q3	45	LYS

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Mol	Chain	Res	Type
79	Q3	49	ARG
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	70	THR
79	Q3	71	VAL
79	Q3	82	THR
79	Q3	90	VAL
79	Q3	91	GLU
2	s0	9	LEU
2	s0	10	THR
2	s0	12	GLU
2	s0	24	LEU
2	s0	29	VAL
2	s0	30	GLN
2	s0	50	VAL
2	s0	55	GLU
2	s0	57	LEU
2	s0	59	LEU
2	s0	83	GLN
2	s0	87	LEU
2	s0	96	THR
2	s0	101	ARG
2	s0	106	SER
2	s0	111	ILE
2	s0	124	THR
2	s0	144	ILE
2	s0	154	GLU
2	s0	162	CYS
2	s0	172	LEU
2	s0	179	ARG
2	s0	180	GLU
2	s0	183	ARG
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	36	SER
3	s1	37	THR
3	s1	47	LEU
3	s1	51	SER

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Mol	Chain	Res	Type
3	s1	55	LYS
3	s1	62	LYS
3	s1	64	ARG
3	s1	70	LEU
3	s1	73	LEU
3	s1	81	PHE
3	s1	82	ARG
3	s1	96	LEU
3	s1	97	LEU
3	s1	105	PHE
3	s1	110	LEU
3	s1	120	LEU
3	s1	125	VAL
3	s1	126	THR
3	s1	127	VAL
3	s1	129	THR
3	s1	148	ASN
3	s1	154	SER
3	s1	169	SER
3	s1	173	THR
3	s1	175	GLU
3	s1	180	THR
3	s1	181	LEU
3	s1	184	LEU
3	s1	185	THR
3	s1	193	ILE
3	s1	202	LYS
3	s1	205	PHE
3	s1	212	VAL
3	s1	223	PHE
3	s1	231	LEU
3	s1	232	HIS
4	s2	41	LEU
4	s2	50	ILE
4	s2	52	THR
4	s2	53	ILE
4	s2	55	GLU
4	s2	58	LEU
4	s2	60	SER
4	s2	61	LEU
4	s2	69	ILE
4	s2	72	LEU

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Mol	Chain	Res	Type
4	s2	73	LEU
4	s2	77	GLN
4	s2	80	VAL
4	s2	81	MET
4	s2	83	ILE
4	s2	84	LYS
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	94	GLN
4	s2	95	ARG
4	s2	96	THR
4	s2	97	ARG
4	s2	111	VAL
4	s2	117	THR
4	s2	130	ILE
4	s2	137	ILE
4	s2	139	ILE
4	s2	141	ARG
4	s2	148	LEU
4	s2	153	SER
4	s2	158	THR
4	s2	166	THR
4	s2	170	ILE
4	s2	181	SER
4	s2	194	GLU
4	s2	205	ARG
4	s2	207	LEU
4	s2	210	THR
4	s2	221	THR
4	s2	222	TYR
4	s2	226	THR
4	s2	229	LEU
4	s2	232	GLU
4	s2	233	GLN
4	s2	238	SER
4	s2	245	ASP
4	s2	248	SER
5	s3	4	LEU
5	s3	9	ARG
5	s3	14	ASP

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Mol	Chain	Res	Type
5	s3	21	LEU
5	s3	29	LEU
5	s3	32	GLU
5	s3	34	TYR
5	s3	37	VAL
5	s3	39	VAL
5	s3	44	THR
5	s3	46	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	105	MET
5	s3	116	ARG
5	s3	127	MET
5	s3	128	GLU
5	s3	132	LYS
5	s3	139	SER
5	s3	143	ARG
5	s3	146	ARG
5	s3	148	LYS
5	s3	158	ILE
5	s3	159	HIS
5	s3	164	VAL
5	s3	168	ILE
5	s3	172	THR
5	s3	176	LEU
5	s3	189	MET
5	s3	204	ASP
5	s3	212	LYS
5	s3	213	GLU
5	s3	223	LYS
5	s3	224	ASP
6	s4	6	LYS
6	s4	7	LYS
6	s4	12	LEU
6	s4	16	HIS
6	s4	23	LEU
6	s4	30	ARG
6	s4	38	LEU

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Mol	Chain	Res	Type
6	s4	39	ARG
6	s4	41	SER
6	s4	42	LEU
6	s4	45	ILE
6	s4	49	ARG
6	s4	51	ARG
6	s4	70	VAL
6	s4	78	THR
6	s4	89	VAL
6	s4	95	THR
6	s4	98	ASN
6	s4	104	ASP
6	s4	108	ARG
6	s4	116	ASP
6	s4	123	LEU
6	s4	126	VAL
6	s4	128	LYS
6	s4	130	GLN
6	s4	131	LEU
6	s4	146	THR
6	s4	147	ILE
6	s4	148	ARG
6	s4	156	VAL
6	s4	164	LEU
6	s4	170	THR
6	s4	176	ASP
6	s4	180	LEU
6	s4	181	VAL
6	s4	182	TYR
6	s4	184	THR
6	s4	210	ILE
6	s4	214	LEU
6	s4	221	ARG
6	s4	222	LEU
6	s4	246	LEU
7	s5	23	VAL
7	s5	25	LEU
7	s5	27	THR
7	s5	31	GLU
7	s5	38	THR
7	s5	41	LYS
7	s5	45	LYS

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Mol	Chain	Res	Type
7	s5	63	GLN
7	s5	64	VAL
7	s5	68	ILE
7	s5	76	ARG
7	s5	83	ARG
7	s5	86	GLN
7	s5	89	ILE
7	s5	93	LEU
7	s5	100	ASN
7	s5	102	ARG
7	s5	119	ASP
7	s5	122	ASN
7	s5	125	THR
7	s5	128	ASN
7	s5	143	ARG
7	s5	147	THR
7	s5	148	ARG
7	s5	157	ARG
7	s5	162	VAL
7	s5	170	GLN
7	s5	194	LEU
7	s5	203	LYS
7	s5	208	SER
7	s5	216	GLU
7	s5	219	ARG
7	s5	225	ARG
8	s6	17	GLU
8	s6	21	GLU
8	s6	34	GLN
8	s6	64	LYS
8	s6	67	VAL
8	s6	76	LEU
8	s6	81	VAL
8	s6	93	LYS
8	s6	97	VAL
8	s6	108	VAL
8	s6	109	LEU
8	s6	111	LEU
8	s6	120	GLU
8	s6	121	LEU
8	s6	125	THR
8	s6	126	ASP

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Mol	Chain	Res	Type
8	s6	127	THR
8	s6	128	THR
8	s6	137	ARG
8	s6	143	LYS
8	s6	153	VAL
8	s6	154	ARG
8	s6	169	TYR
8	s6	177	ARG
8	s6	180	THR
8	s6	182	GLN
8	s6	191	ARG
8	s6	193	LEU
8	s6	215	ARG
9	s7	9	LEU
9	s7	11	GLN
9	s7	15	GLU
9	s7	18	LEU
9	s7	24	PHE
9	s7	28	GLU
9	s7	33	GLU
9	s7	39	ARG
9	s7	50	ASP
9	s7	51	VAL
9	s7	60	ILE
9	s7	67	LEU
9	s7	74	GLN
9	s7	75	THR
9	s7	77	LEU
9	s7	79	ARG
9	s7	80	GLU
9	s7	81	LEU
9	s7	86	GLN
9	s7	87	ASP
9	s7	97	ARG
9	s7	101	LYS
9	s7	112	ARG
9	s7	114	ARG
9	s7	115	SER
9	s7	116	ARG
9	s7	118	LEU
9	s7	123	ASP
9	s7	134	GLU

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Mol	Chain	Res	Type
9	s7	143	LEU
9	s7	144	VAL
9	s7	166	LEU
9	s7	176	LEU
9	s7	185	ILE
10	s8	7	SER
10	s8	20	GLN
10	s8	22	ARG
10	s8	25	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	49	ARG
10	s8	54	LYS
10	s8	58	LEU
10	s8	59	ARG
10	s8	61	GLU
10	s8	62	THR
10	s8	74	LYS
10	s8	76	THR
10	s8	77	ARG
10	s8	93	THR
10	s8	120	THR
10	s8	121	LEU
10	s8	138	ASN
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER
10	s8	158	SER
10	s8	161	SER
10	s8	183	ILE
11	s9	3	ARG
11	s9	7	THR
11	s9	9	SER
11	s9	16	LYS
11	s9	17	ARG
11	s9	21	SER
11	s9	28	LEU
11	s9	37	LYS
11	s9	46	SER
11	s9	49	LEU
11	s9	54	ARG
11	s9	77	ILE

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Mol	Chain	Res	Type
11	s9	78	ARG
11	s9	81	VAL
11	s9	87	SER
11	s9	93	LEU
11	s9	94	ASP
11	s9	96	VAL
11	s9	99	LEU
11	s9	105	LEU
11	s9	109	LEU
11	s9	111	THR
11	s9	113	VAL
11	s9	115	LYS
11	s9	120	LYS
11	s9	126	ARG
11	s9	130	THR
11	s9	132	ARG
11	s9	134	ILE
11	s9	150	LEU
11	s9	161	THR
11	s9	162	SER
11	s9	168	ARG
11	s9	172	VAL
11	s9	180	LYS
11	s9	182	GLU
11	s9	184	SER
12	c0	2	LEU
12	c0	5	LYS
12	c0	15	LEU
12	c0	20	VAL
12	c0	27	PHE
12	c0	28	ASN
12	c0	33	GLU
12	c0	43	ILE
12	c0	47	GLN
12	c0	48	SER
12	c0	55	VAL
12	c0	57	THR
13	c1	2	SER
13	c1	5	LEU
13	c1	10	GLU
13	c1	21	ASN
13	c1	26	LYS

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Mol	Chain	Res	Type
13	c1	30	ARG
13	c1	31	THR
13	c1	32	LYS
13	c1	33	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	46	LYS
13	c1	52	SER
13	c1	56	LYS
13	c1	60	PHE
13	c1	67	ARG
13	c1	71	LEU
13	c1	76	VAL
13	c1	78	THR
13	c1	79	LYS
13	c1	80	MET
13	c1	109	VAL
13	c1	123	VAL
13	c1	129	ARG
14	c2	30	VAL
14	c2	36	LEU
14	c2	37	VAL
14	c2	43	ARG
14	c2	58	LEU
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	66	VAL
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	89	ILE
14	c2	103	LEU
14	c2	121	VAL
14	c2	125	ASN
14	c2	132	GLU
14	c2	138	GLU
14	c2	140	PHE
15	c3	6	SER
15	c3	12	SER
15	c3	16	ILE

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Mol	Chain	Res	Type
15	c3	21	ASN
15	c3	25	TRP
15	c3	27	LYS
15	c3	28	LEU
15	c3	29	SER
15	c3	39	LYS
15	c3	48	SER
15	c3	66	ILE
15	c3	67	THR
15	c3	70	LYS
15	c3	76	LYS
15	c3	80	LEU
15	c3	87	ASP
15	c3	93	LYS
15	c3	102	LEU
15	c3	104	ARG
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	138	ASN
16	c4	16	VAL
16	c4	20	TYR
16	c4	24	ASN
16	c4	26	THR
16	c4	28	VAL
16	c4	43	THR
16	c4	49	LYS
16	c4	51	ASP
16	c4	62	LEU
16	c4	79	VAL
16	c4	84	ARG
16	c4	92	LYS
16	c4	93	THR
16	c4	102	LEU
16	c4	107	ARG
16	c4	114	ARG
16	c4	119	THR
16	c4	123	SER
16	c4	124	ASP
16	c4	126	THR
16	c4	127	ARG
16	c4	129	LYS

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Mol	Chain	Res	Type
16	c4	132	ARG
16	c4	133	ARG
16	c4	136	ARG
17	c5	12	PHE
17	c5	24	LYS
17	c5	27	GLU
17	c5	28	MET
17	c5	29	SER
17	c5	34	VAL
17	c5	36	LEU
17	c5	40	ARG
17	c5	49	MET
17	c5	52	LYS
17	c5	69	GLU
17	c5	71	GLU
17	c5	97	TYR
17	c5	102	PHE
17	c5	107	ILE
17	c5	121	ILE
17	c5	124	THR
17	c5	127	ARG
18	c6	12	LYS
18	c6	17	THR
18	c6	23	LYS
18	c6	26	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	39	VAL
18	c6	40	GLU
18	c6	43	ILE
18	c6	53	LEU
18	c6	57	LEU
18	c6	58	ASP
18	c6	63	ILE
18	c6	68	ARG
18	c6	69	VAL
18	c6	83	GLN
18	c6	94	GLN
18	c6	107	LYS
18	c6	110	THR
18	c6	114	ARG
18	c6	137	ARG

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Mol	Chain	Res	Type
18	c6	143	ARG
19	c7	3	ARG
19	c7	4	VAL
19	c7	6	THR
19	c7	25	THR
19	c7	27	ASP
19	c7	29	GLN
19	c7	34	LEU
19	c7	38	ILE
19	c7	46	LEU
19	c7	47	ARG
19	c7	55	THR
19	c7	62	GLN
19	c7	67	ARG
19	c7	69	ILE
19	c7	72	LYS
19	c7	85	VAL
19	c7	88	VAL
19	c7	106	THR
19	c7	108	ASP
19	c7	110	VAL
19	c7	113	LEU
20	c8	3	LEU
20	c8	4	VAL
20	c8	6	GLN
20	c8	25	ASN
20	c8	27	LYS
20	c8	28	ILE
20	c8	29	VAL
20	c8	33	THR
20	c8	38	VAL
20	c8	40	ARG
20	c8	54	LEU
20	c8	57	ARG
20	c8	61	LEU
20	c8	62	THR
20	c8	63	GLN
20	c8	68	ARG
20	c8	74	GLN
20	c8	77	THR
20	c8	85	PHE
20	c8	94	ASP

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Mol	Chain	Res	Type
20	c8	100	THR
20	c8	105	VAL
20	c8	116	LEU
20	c8	119	ILE
20	c8	120	ARG
20	c8	131	LEU
20	c8	133	VAL
20	c8	138	THR
20	c8	141	THR
21	c9	27	LYS
21	c9	28	LEU
21	c9	29	GLU
21	c9	37	VAL
21	c9	41	SER
21	c9	57	ARG
21	c9	68	ARG
21	c9	70	GLN
21	c9	71	VAL
21	c9	86	ARG
21	c9	88	VAL
21	c9	89	ARG
21	c9	111	ILE
21	c9	123	ARG
21	c9	132	LEU
21	c9	139	THR
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
21	c9	143	ASP
22	d0	13	GLU
22	d0	16	GLN
22	d0	22	ILE
22	d0	24	ILE
22	d0	27	THR
22	d0	31	VAL
22	d0	34	LEU
22	d0	44	ASN
22	d0	46	GLU
22	d0	47	GLN
22	d0	51	VAL
22	d0	57	ARG
22	d0	61	LYS

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Mol	Chain	Res	Type
22	d0	63	LEU
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU
22	d0	76	SER
22	d0	88	LYS
22	d0	98	GLN
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	105	GLN
22	d0	107	THR
22	d0	108	ILE
22	d0	114	VAL
22	d0	115	GLU
22	d0	121	ASN
23	d1	1	MET
23	d1	2	GLU
23	d1	3	ASN
23	d1	5	LYS
23	d1	10	GLU
23	d1	11	LEU
23	d1	12	TYR
23	d1	17	CYS
23	d1	18	SER
23	d1	31	SER
23	d1	32	VAL
23	d1	34	ILE
23	d1	38	LYS
23	d1	41	GLU
23	d1	50	TYR
23	d1	52	THR
23	d1	62	ARG
23	d1	74	GLN
23	d1	78	LEU
23	d1	81	ASN
23	d1	85	TYR
24	d2	6	VAL
24	d2	7	LEU
24	d2	25	VAL
24	d2	26	LEU
24	d2	27	ILE

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Mol	Chain	Res	Type
24	d2	33	VAL
24	d2	56	HIS
24	d2	65	LEU
24	d2	70	ASN
24	d2	86	ILE
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	104	LEU
24	d2	117	ARG
24	d2	125	ILE
24	d2	128	PHE
24	d2	129	VAL
25	d3	9	LEU
25	d3	14	LYS
25	d3	16	ARG
25	d3	17	VAL
25	d3	19	ARG
25	d3	27	ASN
25	d3	29	TYR
25	d3	33	LEU
25	d3	52	ILE
25	d3	73	ARG
25	d3	75	GLN
25	d3	83	VAL
25	d3	84	THR
25	d3	94	ASN
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG
25	d3	125	VAL
25	d3	133	LEU
25	d3	138	GLU
26	d4	2	SER
26	d4	8	ARG
26	d4	12	VAL
26	d4	21	LYS
26	d4	26	ASP
26	d4	43	LYS
26	d4	44	LEU
26	d4	47	VAL

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Mol	Chain	Res	Type
26	d4	49	LYS
26	d4	51	GLU
26	d4	55	VAL
26	d4	62	THR
26	d4	77	ASN
26	d4	88	THR
26	d4	92	VAL
26	d4	105	ARG
26	d4	107	GLN
26	d4	114	ARG
26	d4	121	THR
26	d4	128	LYS
26	d4	132	ARG
26	d4	133	ASN
27	d5	41	ILE
27	d5	42	LEU
27	d5	43	ASP
27	d5	46	LYS
27	d5	57	TYR
27	d5	60	VAL
27	d5	63	SER
27	d5	68	ARG
27	d5	81	ARG
27	d5	88	ILE
27	d5	92	ILE
27	d5	93	SER
28	d6	5	ARG
28	d6	10	ARG
28	d6	18	VAL
28	d6	26	CYS
28	d6	28	LYS
28	d6	38	ARG
28	d6	41	ILE
28	d6	43	ASN
28	d6	46	GLU
28	d6	51	ARG
28	d6	53	LEU
28	d6	55	GLU
28	d6	76	SER
28	d6	82	ARG
28	d6	89	ARG
28	d6	90	GLU

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Mol	Chain	Res	Type
29	d7	3	LEU
29	d7	5	GLN
29	d7	14	SER
29	d7	26	GLN
29	d7	36	LYS
29	d7	43	ILE
29	d7	45	THR
29	d7	46	VAL
29	d7	48	SER
29	d7	56	CYS
29	d7	72	LYS
29	d7	77	THR
30	d8	5	THR
30	d8	13	ILE
30	d8	16	LEU
30	d8	19	THR
30	d8	22	ARG
30	d8	26	THR
30	d8	30	VAL
30	d8	32	PHE
30	d8	33	LEU
30	d8	54	LEU
30	d8	64	ARG
30	d8	65	ARG
30	d8	66	LEU
31	d9	10	HIS
31	d9	12	ARG
31	d9	21	CYS
31	d9	28	THR
31	d9	30	LEU
31	d9	36	LEU
31	d9	40	ARG
31	d9	42	CYS
31	d9	54	LYS
80	e0	14	VAL
80	e0	21	VAL
80	e0	22	GLU
80	e0	24	THR
80	e0	29	LYS
80	e0	44	PHE
80	e0	45	VAL
80	e0	46	ASN

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Mol	Chain	Res	Type
80	e0	49	LEU
80	e0	56	MET
33	e1	78	LYS
33	e1	80	ARG
33	e1	87	THR
33	e1	89	LYS
33	e1	90	LYS
33	e1	96	LYS
33	e1	100	LEU
33	e1	102	VAL
33	e1	106	TYR
33	e1	109	ASP
33	e1	113	LYS
33	e1	119	ARG
33	e1	120	GLU
33	e1	135	HIS
33	e1	147	VAL
33	e1	148	TYR
33	e1	151	ASN
34	sR	10	ARG
34	sR	29	GLN
34	sR	32	LEU
34	sR	58	VAL
34	sR	65	SER
34	sR	66	HIS
34	sR	70	ASP
34	sR	76	ASP
34	sR	96	THR
34	sR	104	VAL
34	sR	106	HIS
34	sR	123	ILE
34	sR	131	ILE
34	sR	145	LEU
34	sR	149	ASP
34	sR	176	LYS
34	sR	178	VAL
34	sR	184	ASN
34	sR	207	ASP
34	sR	222	LEU
34	sR	228	LYS
34	sR	232	TYR
34	sR	242	SER

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Mol	Chain	Res	Type
34	sR	258	THR
34	sR	270	LEU
34	sR	275	ARG
34	sR	286	GLU
34	sR	300	THR
34	sR	309	VAL
34	sR	310	ILE
34	sR	319	ASN
35	sM	27	LYS
35	sM	41	SER
35	sM	43	ASP
35	sM	45	SER
35	sM	55	SER
35	sM	61	ILE
35	sM	68	ARG
35	sM	74	LYS
35	sM	75	ASP
35	sM	77	THR
39	l2	23	ARG
39	l2	32	LEU
39	l2	41	ILE
39	l2	44	ILE
39	l2	45	VAL
39	l2	46	LYS
39	l2	48	ILE
39	l2	49	VAL
39	l2	62	VAL
39	l2	70	ARG
39	l2	74	GLU
39	l2	82	VAL
39	l2	96	LEU
39	l2	97	ASN
39	l2	101	VAL
39	l2	114	SER
39	l2	116	VAL
39	l2	119	LYS
39	l2	134	VAL
39	l2	137	ILE
39	l2	142	ASP
39	l2	147	ARG
39	l2	155	LYS
39	l2	157	VAL

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Mol	Chain	Res	Type
39	12	161	ASP
39	12	169	ILE
39	12	177	LYS
39	12	188	LYS
39	12	193	ARG
39	12	200	ARG
39	12	227	ARG
39	12	230	VAL
39	12	243	THR
39	12	246	LEU
39	12	250	GLN
40	13	5	LYS
40	13	7	GLU
40	13	10	ARG
40	13	17	LEU
40	13	19	ARG
40	13	28	ARG
40	13	37	ARG
40	13	44	THR
40	13	47	LEU
40	13	50	LYS
40	13	55	THR
40	13	56	ILE
40	13	69	LYS
40	13	70	ARG
40	13	73	VAL
40	13	81	THR
40	13	85	VAL
40	13	103	THR
40	13	111	SER
40	13	114	VAL
40	13	125	SER
40	13	139	GLN
40	13	140	ASP
40	13	145	GLU
40	13	146	ARG
40	13	150	ARG
40	13	160	VAL
40	13	167	ARG
40	13	169	THR
40	13	178	LEU
40	13	183	LEU

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Mol	Chain	Res	Type
40	l3	188	ILE
40	l3	191	LYS
40	l3	196	ARG
40	l3	202	THR
40	l3	205	VAL
40	l3	211	GLN
40	l3	212	ASN
40	l3	213	GLU
40	l3	221	THR
40	l3	232	ARG
40	l3	238	LEU
40	l3	244	ARG
40	l3	248	LYS
40	l3	252	ILE
40	l3	266	ARG
40	l3	274	SER
40	l3	276	THR
40	l3	282	ILE
40	l3	284	ARG
40	l3	287	LYS
40	l3	297	SER
40	l3	302	LYS
40	l3	304	THR
40	l3	308	MET
40	l3	319	ASN
40	l3	323	MET
40	l3	324	VAL
40	l3	328	ILE
40	l3	332	ARG
40	l3	336	VAL
40	l3	338	LEU
40	l3	339	ARG
40	l3	340	LYS
40	l3	347	SER
40	l3	354	VAL
40	l3	359	ILE
40	l3	363	SER
40	l3	364	LYS
40	l3	382	THR
40	l3	384	LYS
41	l4	6	VAL
41	l4	14	GLU

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Mol	Chain	Res	Type
41	14	42	VAL
41	14	47	ARG
41	14	64	SER
41	14	67	THR
41	14	75	PRO
41	14	93	MET
41	14	99	MET
41	14	114	ASN
41	14	118	LYS
41	14	133	SER
41	14	136	LEU
41	14	138	ARG
41	14	144	LYS
41	14	145	ILE
41	14	150	LEU
41	14	152	VAL
41	14	156	LEU
41	14	158	SER
41	14	160	GLN
41	14	163	LYS
41	14	172	VAL
41	14	177	ASP
41	14	179	LEU
41	14	180	LYS
41	14	183	LYS
41	14	186	LYS
41	14	187	LEU
41	14	195	ARG
41	14	200	THR
41	14	203	ARG
41	14	206	LEU
41	14	222	VAL
41	14	229	ASN
41	14	230	VAL
41	14	244	LEU
41	14	246	ARG
41	14	256	THR
41	14	258	LEU
41	14	265	GLU
41	14	276	LEU
41	14	283	THR
41	14	292	SER

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Mol	Chain	Res	Type
41	14	299	ILE
41	14	300	ARG
41	14	301	PRO
41	14	306	THR
41	14	307	GLN
41	14	319	LYS
41	14	322	GLN
41	14	327	LEU
41	14	338	LYS
41	14	341	SER
41	14	342	LYS
41	14	345	GLU
41	14	347	THR
41	14	356	THR
41	14	357	GLU
41	14	358	THR
41	14	359	LEU
42	15	5	LYS
42	15	6	ASP
42	15	10	SER
42	15	13	SER
42	15	27	LYS
42	15	34	LYS
42	15	45	ASN
42	15	51	LEU
42	15	65	ILE
42	15	66	SER
42	15	68	THR
42	15	70	THR
42	15	75	LEU
42	15	81	HIS
42	15	84	PRO
42	15	89	THR
42	15	110	LEU
42	15	112	LYS
42	15	118	THR
42	15	120	LYS
42	15	128	GLU
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	151	GLN

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Mol	Chain	Res	Type
42	15	152	ARG
42	15	154	THR
42	15	155	THR
42	15	158	ARG
42	15	183	TRP
42	15	185	PHE
42	15	187	THR
42	15	194	LEU
42	15	211	LEU
42	15	214	ASP
42	15	234	ASP
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	264	GLN
42	15	268	GLU
42	15	277	LEU
42	15	282	ARG
43	16	2	SER
43	16	8	LYS
43	16	14	ASP
43	16	15	VAL
43	16	20	LYS
43	16	21	THR
43	16	31	ARG
43	16	52	VAL
43	16	64	LEU
43	16	65	ILE
43	16	76	LEU
43	16	78	ARG
43	16	79	VAL
43	16	84	VAL
43	16	89	THR
43	16	93	VAL
43	16	98	VAL
43	16	108	LYS
43	16	131	LYS
43	16	152	THR
43	16	155	LEU
43	16	170	LYS
43	16	173	MET
44	17	26	VAL

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Mol	Chain	Res	Type
44	17	41	ARG
44	17	45	LEU
44	17	46	GLU
44	17	60	ARG
44	17	77	VAL
44	17	83	LEU
44	17	93	ASN
44	17	98	LYS
44	17	101	LYS
44	17	121	LYS
44	17	124	LEU
44	17	130	ILE
44	17	156	ILE
44	17	157	ASN
44	17	158	LYS
44	17	159	GLN
44	17	175	LYS
44	17	178	ILE
44	17	179	LEU
44	17	184	LEU
44	17	196	LYS
44	17	219	LYS
44	17	229	PHE
44	17	234	GLU
44	17	239	LEU
44	17	244	ASN
45	18	26	LEU
45	18	41	GLN
45	18	47	SER
45	18	49	TYR
45	18	50	VAL
45	18	63	LYS
45	18	68	ARG
45	18	71	VAL
45	18	74	THR
45	18	79	GLN
45	18	89	GLU
45	18	90	THR
45	18	95	ASN
45	18	109	LEU
45	18	136	LEU
45	18	146	LYS

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Mol	Chain	Res	Type
45	18	149	LYS
45	18	160	ILE
45	18	163	VAL
45	18	164	VAL
45	18	172	LYS
45	18	191	ASN
45	18	197	VAL
45	18	214	LEU
45	18	217	THR
45	18	224	ASP
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	1	MET
46	19	5	GLN
46	19	16	VAL
46	19	17	THR
46	19	18	VAL
46	19	20	ILE
46	19	23	ARG
46	19	28	VAL
46	19	31	ARG
46	19	33	THR
46	19	39	LYS
46	19	41	ILE
46	19	44	THR
46	19	46	THR
46	19	48	VAL
46	19	52	LEU
46	19	55	VAL
46	19	62	ARG
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	77	ASN
46	19	80	THR
46	19	82	VAL
46	19	90	MET
46	19	92	TYR
46	19	105	GLU
46	19	106	LYS
46	19	107	ASP

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Mol	Chain	Res	Type
46	l9	118	LEU
46	l9	124	ARG
46	l9	129	ARG
46	l9	132	VAL
46	l9	133	THR
46	l9	138	THR
46	l9	143	GLU
46	l9	144	ILE
46	l9	151	VAL
46	l9	157	ASN
46	l9	161	LEU
46	l9	162	GLN
46	l9	166	ARG
46	l9	170	LYS
46	l9	173	ARG
46	l9	177	ASP
46	l9	188	THR
47	m0	3	ARG
47	m0	24	ARG
47	m0	29	SER
47	m0	36	LEU
47	m0	39	LYS
47	m0	42	THR
47	m0	48	LEU
47	m0	52	LEU
47	m0	58	GLU
47	m0	63	GLU
47	m0	71	CYS
47	m0	74	LYS
47	m0	78	THR
47	m0	87	LEU
47	m0	143	SER
47	m0	144	ASN
47	m0	154	ARG
47	m0	162	GLN
47	m0	169	LYS
47	m0	176	LEU
47	m0	177	ASP
47	m0	189	GLU
47	m0	193	ASP
47	m0	200	LEU
47	m0	206	LEU

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Mol	Chain	Res	Type
47	m0	211	ARG
47	m0	212	GLU
48	m1	6	GLN
48	m1	10	ARG
48	m1	12	LEU
48	m1	13	LYS
48	m1	18	VAL
48	m1	23	VAL
48	m1	30	LEU
48	m1	35	LYS
48	m1	41	SER
48	m1	44	THR
48	m1	46	VAL
48	m1	47	GLN
48	m1	54	VAL
48	m1	55	ARG
48	m1	56	THR
48	m1	65	ILE
48	m1	80	LEU
48	m1	82	ARG
48	m1	92	ARG
48	m1	94	ARG
48	m1	106	ILE
48	m1	107	ASP
48	m1	112	LEU
48	m1	114	ILE
48	m1	119	SER
48	m1	122	ILE
48	m1	140	ARG
48	m1	142	LYS
48	m1	152	HIS
48	m1	153	LYS
48	m1	154	THR
48	m1	159	THR
48	m1	161	SER
48	m1	166	LYS
49	m3	52	ASP
49	m3	53	LEU
49	m3	54	LEU
49	m3	58	VAL
49	m3	62	THR
49	m3	67	ARG

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Mol	Chain	Res	Type
49	m3	68	LYS
49	m3	73	ARG
49	m3	76	THR
49	m3	80	VAL
49	m3	107	GLU
49	m3	118	GLU
49	m3	122	LYS
49	m3	123	ILE
49	m3	124	ILE
49	m3	131	LYS
49	m3	138	VAL
49	m3	147	ILE
49	m3	149	GLN
49	m3	152	THR
49	m3	153	ASP
49	m3	154	VAL
49	m3	157	ARG
49	m3	164	GLU
49	m3	168	ARG
49	m3	171	ARG
49	m3	184	GLU
50	m4	3	THR
50	m4	4	ASP
50	m4	5	SER
50	m4	6	ILE
50	m4	8	LYS
50	m4	15	VAL
50	m4	16	GLU
50	m4	23	ILE
50	m4	31	LYS
50	m4	37	GLU
50	m4	41	GLN
50	m4	42	LYS
50	m4	50	LYS
50	m4	53	VAL
50	m4	60	LEU
50	m4	63	VAL
50	m4	64	VAL
50	m4	80	THR
50	m4	98	SER
50	m4	109	ARG
50	m4	113	THR

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Mol	Chain	Res	Type
50	m4	119	GLN
50	m4	124	ARG
50	m4	128	ARG
50	m4	135	LEU
51	m5	5	LYS
51	m5	10	LEU
51	m5	15	GLN
51	m5	22	LEU
51	m5	44	ARG
51	m5	50	ARG
51	m5	66	VAL
51	m5	67	ARG
51	m5	73	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	83	LYS
51	m5	92	LEU
51	m5	96	ARG
51	m5	98	LEU
51	m5	105	ARG
51	m5	106	VAL
51	m5	135	VAL
51	m5	138	GLN
51	m5	153	ASP
51	m5	159	ARG
51	m5	165	THR
51	m5	171	SER
51	m5	176	LYS
51	m5	178	HIS
51	m5	188	ARG
51	m5	190	THR
51	m5	194	GLN
51	m5	196	THR
51	m5	198	SER
51	m5	204	LYS
52	m6	3	VAL
52	m6	4	GLU
52	m6	12	LYS
52	m6	22	VAL
52	m6	34	VAL
52	m6	36	VAL
52	m6	40	GLU

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Mol	Chain	Res	Type
52	m6	41	LEU
52	m6	46	GLU
52	m6	66	LYS
52	m6	67	THR
52	m6	74	ARG
52	m6	78	ARG
52	m6	84	LEU
52	m6	100	GLU
52	m6	103	LYS
52	m6	106	GLU
52	m6	108	ILE
52	m6	110	PRO
52	m6	115	LYS
52	m6	116	LYS
52	m6	117	ARG
52	m6	124	LEU
52	m6	128	ARG
52	m6	129	LEU
52	m6	134	LYS
52	m6	143	THR
52	m6	152	VAL
52	m6	170	LYS
52	m6	171	LYS
52	m6	175	THR
52	m6	182	ASN
52	m6	190	VAL
52	m6	192	LYS
52	m6	197	LEU
53	m7	3	ARG
53	m7	7	THR
53	m7	9	THR
53	m7	13	LYS
53	m7	24	VAL
53	m7	29	THR
53	m7	32	THR
53	m7	42	THR
53	m7	56	ARG
53	m7	61	ARG
53	m7	69	ARG
53	m7	70	THR
53	m7	78	VAL
53	m7	79	THR

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Mol	Chain	Res	Type
53	m7	89	LYS
53	m7	103	GLU
53	m7	105	LYS
53	m7	107	LEU
53	m7	112	LEU
53	m7	119	VAL
53	m7	120	ASN
53	m7	121	GLN
53	m7	127	ARG
53	m7	128	ARG
53	m7	131	ARG
53	m7	136	ILE
53	m7	142	SER
53	m7	144	SER
53	m7	148	LEU
53	m7	153	LYS
53	m7	155	GLU
54	m8	7	SER
54	m8	12	ARG
54	m8	17	THR
54	m8	21	SER
54	m8	24	VAL
54	m8	26	LEU
54	m8	31	LYS
54	m8	32	LEU
54	m8	34	THR
54	m8	39	ARG
54	m8	41	ASP
54	m8	49	LEU
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	66	ARG
54	m8	69	ARG
54	m8	80	THR
54	m8	81	VAL
54	m8	86	THR
54	m8	93	ILE
54	m8	113	LYS
54	m8	127	LEU
54	m8	135	GLN
54	m8	136	ASN

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Mol	Chain	Res	Type
54	m8	138	LEU
54	m8	146	SER
54	m8	147	ARG
54	m8	161	LYS
54	m8	166	LEU
54	m8	178	ARG
54	m8	179	ARG
55	m9	7	GLN
55	m9	9	ARG
55	m9	10	LEU
55	m9	14	VAL
55	m9	17	VAL
55	m9	29	THR
55	m9	36	ASN
55	m9	43	LYS
55	m9	52	LYS
55	m9	57	VAL
55	m9	59	SER
55	m9	63	THR
55	m9	74	ARG
55	m9	88	ARG
55	m9	99	LEU
55	m9	127	SER
55	m9	128	LYS
55	m9	139	VAL
55	m9	152	GLU
55	m9	153	LYS
55	m9	156	ASN
55	m9	164	LEU
55	m9	165	LYS
55	m9	167	ARG
55	m9	173	ARG
55	m9	177	VAL
56	n0	8	GLN
56	n0	13	ARG
56	n0	16	THR
56	n0	18	SER
56	n0	23	LYS
56	n0	45	LEU
56	n0	52	LYS
56	n0	70	THR
56	n0	73	LYS

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Mol	Chain	Res	Type
56	n0	74	ASN
56	n0	80	ARG
56	n0	81	TYR
56	n0	82	ASP
56	n0	87	THR
56	n0	92	LYS
56	n0	97	VAL
56	n0	99	ARG
56	n0	100	VAL
56	n0	104	GLU
56	n0	105	THR
56	n0	115	ARG
56	n0	117	ARG
56	n0	125	LYS
56	n0	130	GLU
56	n0	137	ARG
56	n0	145	THR
56	n0	148	LEU
56	n0	150	PHE
56	n0	153	PRO
56	n0	155	ARG
56	n0	157	GLN
56	n0	160	THR
56	n0	161	LYS
56	n0	162	THR
56	n0	167	ARG
56	n0	172	TYR
57	n1	9	SER
57	n1	12	ARG
57	n1	17	ARG
57	n1	21	LYS
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	32	LYS
57	n1	38	ASP
57	n1	52	MET
57	n1	68	THR
57	n1	80	VAL
57	n1	83	ARG
57	n1	86	GLU
57	n1	92	ARG

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Mol	Chain	Res	Type
57	n1	93	VAL
57	n1	96	ILE
57	n1	97	LYS
57	n1	102	ARG
57	n1	104	GLU
57	n1	118	GLU
57	n1	124	VAL
57	n1	126	VAL
57	n1	128	LEU
57	n1	130	ARG
57	n1	131	GLN
57	n1	139	ARG
57	n1	143	THR
57	n1	150	THR
57	n1	158	THR
57	n1	160	ILE
58	n2	13	LYS
58	n2	16	THR
58	n2	17	VAL
58	n2	27	VAL
58	n2	37	LEU
58	n2	43	VAL
58	n2	47	VAL
58	n2	50	LEU
58	n2	63	VAL
58	n2	66	VAL
58	n2	68	THR
58	n2	75	TYR
58	n2	90	ARG
58	n2	96	VAL
59	n3	7	GLN
59	n3	13	ILE
59	n3	40	LYS
59	n3	45	ARG
59	n3	48	ARG
59	n3	66	LYS
59	n3	69	LEU
59	n3	70	ARG
59	n3	71	LYS
59	n3	74	MET
59	n3	77	ILE
59	n3	88	ARG

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Mol	Chain	Res	Type
59	n3	102	ILE
59	n3	115	THR
59	n3	131	SER
59	n3	135	VAL
60	n4	1	MET
60	n4	5	ILE
60	n4	19	THR
60	n4	39	LEU
60	n4	54	LEU
60	n4	57	LYS
60	n4	58	HIS
60	n4	63	ILE
60	n4	82	ILE
60	n4	89	LEU
60	n4	96	LEU
60	n4	97	LYS
60	n4	98	PRO
60	n4	100	VAL
60	n4	104	ASN
60	n4	116	LYS
60	n4	119	GLU
60	n4	126	GLU
60	n4	127	LYS
60	n4	134	GLN
61	n5	24	LEU
61	n5	27	ARG
61	n5	33	ARG
61	n5	37	THR
61	n5	48	SER
61	n5	56	ARG
61	n5	57	LEU
61	n5	65	GLN
61	n5	71	THR
61	n5	86	VAL
61	n5	102	LEU
61	n5	115	ARG
61	n5	117	ASN
61	n5	124	VAL
61	n5	135	ILE
62	n6	10	SER
62	n6	12	ARG
62	n6	13	ARG

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Mol	Chain	Res	Type
62	n6	14	LYS
62	n6	17	LYS
62	n6	32	SER
62	n6	37	LYS
62	n6	45	ILE
62	n6	50	ILE
62	n6	51	ARG
62	n6	56	VAL
62	n6	57	LEU
62	n6	66	GLN
62	n6	74	TYR
62	n6	76	LEU
62	n6	90	VAL
62	n6	94	SER
62	n6	97	ILE
62	n6	113	LYS
62	n6	120	GLN
63	n7	3	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	46	ILE
63	n7	47	GLU
63	n7	52	LYS
63	n7	72	ILE
63	n7	73	LYS
63	n7	75	VAL
63	n7	77	TYR
63	n7	81	LEU
63	n7	83	THR
63	n7	86	THR
63	n7	93	LYS
63	n7	95	VAL
63	n7	97	SER
63	n7	98	THR
63	n7	100	THR
63	n7	102	GLU
63	n7	103	GLN

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Mol	Chain	Res	Type
63	n7	105	SER
63	n7	126	LYS
63	n7	134	LEU
63	n7	135	ARG
64	n8	3	SER
64	n8	6	THR
64	n8	8	THR
64	n8	10	LYS
64	n8	15	VAL
64	n8	22	ILE
64	n8	24	LYS
64	n8	25	HIS
64	n8	26	ARG
64	n8	27	LYS
64	n8	34	MET
64	n8	42	ARG
64	n8	47	LYS
64	n8	60	TYR
64	n8	73	LEU
64	n8	78	LEU
64	n8	81	LEU
64	n8	88	ASP
64	n8	91	LEU
64	n8	98	THR
64	n8	123	VAL
64	n8	124	ILE
64	n8	128	ARG
64	n8	132	LYS
64	n8	133	LEU
65	n9	3	LYS
65	n9	12	GLN
65	n9	13	THR
65	n9	14	ARG
65	n9	19	ASN
65	n9	21	ILE
65	n9	22	LYS
65	n9	26	THR
65	n9	27	TYR
65	n9	38	LYS
65	n9	40	ARG
65	n9	54	LEU
65	n9	58	LYS

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Mol	Chain	Res	Type
65	n9	59	LYS
66	o0	8	GLU
66	o0	12	GLN
66	o0	17	VAL
66	o0	19	LYS
66	o0	40	LYS
66	o0	44	ILE
66	o0	48	THR
66	o0	50	VAL
66	o0	52	ARG
66	o0	56	LEU
66	o0	61	MET
66	o0	68	TYR
66	o0	74	ASN
66	o0	76	GLU
66	o0	83	LYS
66	o0	86	ARG
66	o0	87	VAL
66	o0	99	ASP
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	28	ARG
67	o1	31	ARG
67	o1	34	LYS
67	o1	35	GLU
67	o1	44	MET
67	o1	46	THR
67	o1	51	LEU
67	o1	64	VAL
67	o1	68	GLU
67	o1	73	LEU
67	o1	76	SER
67	o1	83	GLU
67	o1	84	ASP
67	o1	89	LEU
67	o1	91	SER
67	o1	93	VAL
67	o1	97	LEU

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Mol	Chain	Res	Type
67	o1	100	SER
67	o1	102	LYS
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
67	o1	112	ASP
68	o2	8	LYS
68	o2	19	ARG
68	o2	24	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	35	GLN
68	o2	41	VAL
68	o2	44	ARG
68	o2	51	SER
68	o2	54	LYS
68	o2	61	LYS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	84	THR
68	o2	87	MET
68	o2	91	THR
68	o2	95	GLU
68	o2	113	LYS
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	14	LEU
69	o3	15	SER
69	o3	31	LYS
69	o3	37	THR
69	o3	70	LYS
69	o3	74	THR
69	o3	81	VAL
69	o3	84	THR
69	o3	86	ARG
69	o3	92	LYS
69	o3	93	THR
70	o4	5	VAL
70	o4	17	SER
70	o4	19	LYS

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Mol	Chain	Res	Type
70	o4	20	ILE
70	o4	21	LYS
70	o4	22	VAL
70	o4	23	VAL
70	o4	25	THR
70	o4	30	LEU
70	o4	31	ARG
70	o4	46	ASP
70	o4	57	LEU
70	o4	58	ARG
70	o4	71	THR
70	o4	87	GLU
70	o4	98	GLN
70	o4	104	VAL
71	o5	4	VAL
71	o5	11	THR
71	o5	20	GLN
71	o5	27	GLU
71	o5	30	GLU
71	o5	31	LEU
71	o5	36	LEU
71	o5	37	SER
71	o5	38	ARG
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL
71	o5	49	LYS
71	o5	62	GLN
71	o5	68	GLN
71	o5	69	LEU
71	o5	79	ASP
71	o5	81	ARG
71	o5	85	THR
71	o5	89	ARG
71	o5	90	ARG
71	o5	100	VAL
71	o5	101	THR
71	o5	107	LYS
71	o5	108	GLN
71	o5	113	GLN
72	o6	3	VAL
72	o6	7	ILE

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Mol	Chain	Res	Type
72	o6	9	ILE
72	o6	21	THR
72	o6	26	ILE
72	o6	29	LYS
72	o6	35	ASN
72	o6	36	ARG
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	60	LEU
72	o6	67	LYS
72	o6	68	ARG
72	o6	74	LYS
72	o6	76	ARG
72	o6	79	SER
72	o6	81	THR
72	o6	87	VAL
72	o6	88	GLU
72	o6	90	MET
72	o6	94	ILE
72	o6	98	ARG
73	o7	17	THR
73	o7	33	THR
73	o7	36	SER
73	o7	44	THR
73	o7	54	LYS
73	o7	65	ARG
73	o7	68	LYS
73	o7	80	THR
74	o8	8	ILE
74	o8	12	LEU
74	o8	14	LEU
74	o8	15	THR
74	o8	17	ARG
74	o8	19	ASP
74	o8	20	VAL
74	o8	24	THR
74	o8	41	THR
74	o8	50	SER
74	o8	53	THR
74	o8	64	LYS
74	o8	65	LEU

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Mol	Chain	Res	Type
74	o8	72	THR
75	o9	4	GLN
75	o9	6	SER
75	o9	15	LYS
75	o9	17	LYS
75	o9	21	ARG
75	o9	27	ILE
75	o9	34	THR
75	o9	45	ARG
75	o9	46	ARG
75	o9	47	THR
75	o9	48	LYS
76	q0	78	ILE
76	q0	79	GLU
76	q0	80	PRO
76	q0	85	LEU
76	q0	88	LYS
76	q0	91	CYS
76	q0	97	ARG
76	q0	106	ARG
76	q0	108	THR
76	q0	112	LYS
76	q0	113	ARG
76	q0	126	LYS
76	q0	127	LEU
77	q1	4	LYS
77	q1	6	ARG
77	q1	10	THR
77	q1	11	ARG
77	q1	13	LEU
77	q1	14	LYS
77	q1	18	ARG
77	q1	21	ARG
77	q1	23	ARG
78	q2	6	LYS
78	q2	7	THR
78	q2	8	ARG
78	q2	13	LYS
78	q2	16	THR
78	q2	35	LEU
78	q2	41	ARG
78	q2	44	ASP

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Mol	Chain	Res	Type
78	q2	45	ARG
78	q2	46	LYS
78	q2	47	GLN
78	q2	61	LYS
78	q2	71	ARG
78	q2	78	LYS
78	q2	79	THR
78	q2	80	ARG
78	q2	83	LEU
78	q2	84	THR
78	q2	93	LEU
78	q2	100	LYS
78	q2	104	LEU
78	q2	105	GLN
79	q3	3	LYS
79	q3	8	VAL
79	q3	33	GLN
79	q3	40	SER
79	q3	42	CYS
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	58	SER
79	q3	70	THR
79	q3	90	VAL
82	p0	4	ILE
82	p0	5	ARG
82	p0	7	LYS
82	p0	17	GLU
82	p0	30	VAL
82	p0	44	GLU
82	p0	48	ARG
82	p0	51	VAL
82	p0	67	LEU
82	p0	70	LEU
82	p0	72	ASP
82	p0	74	GLU
82	p0	76	LEU
82	p0	80	VAL
82	p0	93	LEU
82	p0	97	LYS

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Mol	Chain	Res	Type
82	p0	104	ARG
82	p0	185	LEU
82	p0	192	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (61) such sidechains are listed below:

Mol	Chain	Res	Type
2	S0	163	ASN
3	S1	157	GLN
3	S1	177	GLN
3	S1	232	HIS
4	S2	89	GLN
8	S6	34	GLN
10	S8	138	ASN
11	S9	110	GLN
18	C6	83	GLN
19	C7	105	GLN
21	C9	70	GLN
22	D0	17	GLN
23	D1	74	GLN
25	D3	79	ASN
34	SR	153	GLN
34	SR	159	ASN
34	SR	198	ASN
39	L2	83	HIS
41	L4	311	HIS
42	L5	40	HIS
45	L8	38	GLN
46	L9	37	ASN
51	M5	194	GLN
59	N3	98	ASN
59	N3	104	ASN
65	N9	45	HIS
68	O2	88	HIS
75	O9	32	ASN
78	Q2	82	GLN
3	s1	208	GLN
3	s1	209	ASN
3	s1	211	HIS
9	s7	11	GLN
9	s7	71	HIS
11	s9	124	HIS

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Mol	Chain	Res	Type
11	s9	133	HIS
17	c5	114	HIS
21	c9	64	HIS
23	d1	3	ASN
24	d2	113	HIS
26	d4	22	GLN
29	d7	42	ASN
33	e1	93	HIS
34	sR	182	ASN
35	sM	71	ASN
39	l2	233	GLN
42	l5	57	ASN
42	l5	81	HIS
44	l7	64	GLN
46	l9	49	ASN
46	l9	51	GLN
47	m0	55	ASN
47	m0	144	ASN
47	m0	175	ASN
52	m6	31	GLN
55	m9	7	GLN
59	n3	132	ASN
64	n8	25	HIS
64	n8	44	ASN
64	n8	49	HIS
76	q0	119	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	487 (27%)	58 (3%)
1	6	1793/1800 (99%)	477 (26%)	48 (2%)
36	1	3145/3396 (92%)	709 (22%)	82 (2%)
36	5	3146/3396 (92%)	741 (23%)	85 (2%)
37	3	120/121 (99%)	21 (17%)	1 (0%)
37	7	120/121 (99%)	20 (16%)	1 (0%)
38	4	157/158 (99%)	41 (26%)	2 (1%)
38	8	157/158 (99%)	34 (21%)	2 (1%)
All	All	10385/10950 (94%)	2530 (24%)	279 (2%)

All (2530) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	17	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	40	A
1	2	41	A
1	2	42	G
1	2	45	U
1	2	46	A
1	2	47	A
1	2	57	G
1	2	59	C
1	2	60	U
1	2	63	G
1	2	66	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	77	U
1	2	104	A
1	2	114	C
1	2	116	U
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	135	A
1	2	136	C
1	2	137	U
1	2	140	A
1	2	141	U
1	2	144	U
1	2	145	A
1	2	146	U

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Mol	Chain	Res	Type
1	2	149	C
1	2	153	G
1	2	158	U
1	2	159	U
1	2	169	A
1	2	178	U
1	2	179	A
1	2	185	U
1	2	186	C
1	2	187	G
1	2	188	A
1	2	190	C
1	2	191	C
1	2	192	U
1	2	193	U
1	2	194	U
1	2	195	G
1	2	196	G
1	2	197	A
1	2	200	A
1	2	212	U
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	228	G
1	2	229	U
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	236	A
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	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	270	C
1	2	271	A
1	2	272	U
1	2	273	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	284	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	309	C
1	2	314	C
1	2	316	A
1	2	317	C
1	2	319	U
1	2	321	C
1	2	322	G
1	2	337	G
1	2	338	C
1	2	351	C
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	363	G
1	2	381	C
1	2	387	A
1	2	390	G
1	2	397	A
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	404	G
1	2	418	G
1	2	419	G
1	2	424	C

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Mol	Chain	Res	Type
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	437	A
1	2	439	U
1	2	444	C
1	2	446	A
1	2	448	C
1	2	450	U
1	2	454	U
1	2	468	A
1	2	484	C
1	2	485	A
1	2	488	G
1	2	489	C
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	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	512	A
1	2	513	U
1	2	514	G
1	2	515	A
1	2	519	C
1	2	527	A
1	2	532	U
1	2	534	A
1	2	537	G

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Mol	Chain	Res	Type
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
1	2	548	G
1	2	555	A
1	2	556	A
1	2	558	U
1	2	559	C
1	2	565	C
1	2	579	A
1	2	580	A
1	2	583	C
1	2	594	A
1	2	595	G
1	2	609	U
1	2	610	G
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	649	U
1	2	650	U
1	2	653	C
1	2	654	C
1	2	655	G
1	2	656	G
1	2	657	U
1	2	658	C
1	2	677	G
1	2	679	U
1	2	680	U
1	2	682	C
1	2	684	A

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Mol	Chain	Res	Type
1	2	685	A
1	2	686	C
1	2	692	C
1	2	694	U
1	2	695	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
1	2	707	A
1	2	709	C
1	2	710	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G
1	2	721	U
1	2	722	G
1	2	723	G
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	743	U
1	2	745	U
1	2	754	A
1	2	755	A

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Mol	Chain	Res	Type
1	2	756	A
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	783	G
1	2	784	C
1	2	787	G
1	2	789	A
1	2	793	A
1	2	794	U
1	2	795	U
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	830	U
1	2	831	U
1	2	832	U
1	2	836	U
1	2	841	U
1	2	844	A
1	2	846	G
1	2	848	C
1	2	856	A
1	2	860	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	886	U
1	2	898	A
1	2	911	U
1	2	912	U
1	2	913	G

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Mol	Chain	Res	Type
1	2	914	G
1	2	916	U
1	2	921	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	944	A
1	2	951	A
1	2	960	U
1	2	961	U
1	2	966	A
1	2	991	G
1	2	992	A
1	2	993	A
1	2	996	U
1	2	999	U
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1025	A
1	2	1026	A
1	2	1028	C
1	2	1039	A
1	2	1040	G
1	2	1043	A
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	1064	G
1	2	1074	G
1	2	1075	C
1	2	1080	U
1	2	1081	A
1	2	1082	C
1	2	1086	A
1	2	1087	A
1	2	1091	A
1	2	1092	A
1	2	1096	C

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Mol	Chain	Res	Type
1	2	1097	U
1	2	1100	G
1	2	1109	G
1	2	1138	A
1	2	1143	A
1	2	1150	G
1	2	1151	A
1	2	1155	G
1	2	1157	A
1	2	1158	C
1	2	1159	C
1	2	1160	A
1	2	1167	G
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	1208	A
1	2	1217	A
1	2	1218	G
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1244	A
1	2	1245	G
1	2	1251	U
1	2	1257	U
1	2	1258	U
1	2	1262	U
1	2	1268	G
1	2	1285	U
1	2	1286	U
1	2	1301	U
1	2	1314	U
1	2	1315	U
1	2	1320	U

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Mol	Chain	Res	Type
1	2	1321	A
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1344	A
1	2	1345	A
1	2	1346	A
1	2	1355	C
1	2	1361	U
1	2	1363	U
1	2	1364	G
1	2	1368	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1378	U
1	2	1379	C
1	2	1384	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	1427	A
1	2	1428	G
1	2	1432	U
1	2	1435	G
1	2	1446	A
1	2	1447	C
1	2	1448	G
1	2	1457	C
1	2	1459	C
1	2	1461	C
1	2	1462	G
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1478	G
1	2	1482	C
1	2	1483	A
1	2	1486	G

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Mol	Chain	Res	Type
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	1503	A
1	2	1506	G
1	2	1510	U
1	2	1514	U
1	2	1515	A
1	2	1516	A
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1533	C
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1539	G
1	2	1540	G
1	2	1542	G
1	2	1557	U
1	2	1559	A
1	2	1563	C
1	2	1569	A
1	2	1573	A
1	2	1574	G
1	2	1584	G
1	2	1591	C
1	2	1592	A
1	2	1600	A
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1624	C
1	2	1627	U
1	2	1631	A
1	2	1653	C

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Mol	Chain	Res	Type
1	2	1657	U
1	2	1658	G
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1685	G
1	2	1729	C
1	2	1755	A
1	2	1756	A
1	2	1760	G
1	2	1762	A
1	2	1766	A
1	2	1770	U
1	2	1772	C
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1790	A
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
1	2	1798	U
36	1	26	A
36	1	40	A
36	1	49	A
36	1	59	G
36	1	60	A
36	1	61	A
36	1	65	A
36	1	66	A
36	1	73	C
36	1	74	G
36	1	75	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

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Mol	Chain	Res	Type
36	1	106	A
36	1	109	A
36	1	110	G
36	1	111	C
36	1	116	A
36	1	117	U
36	1	120	G
36	1	121	A
36	1	122	A
36	1	133	U
36	1	136	G
36	1	140	C
36	1	156	G
36	1	157	A
36	1	160	G
36	1	165	A
36	1	166	C
36	1	170	G
36	1	173	G
36	1	187	A
36	1	190	U
36	1	191	U
36	1	210	U
36	1	213	A
36	1	218	G
36	1	219	A
36	1	239	G
36	1	240	U
36	1	243	G
36	1	245	U
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	253	A
36	1	267	G
36	1	269	G
36	1	282	G
36	1	283	G
36	1	286	U
36	1	295	A
36	1	298	U

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Mol	Chain	Res	Type
36	1	299	G
36	1	315	C
36	1	323	A
36	1	326	U
36	1	329	U
36	1	339	C
36	1	349	A
36	1	350	C
36	1	351	A
36	1	376	G
36	1	390	G
36	1	398	A
36	1	399	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	414	U
36	1	421	G
36	1	422	A
36	1	438	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	498	A
36	1	507	U
36	1	520	U
36	1	521	A
36	1	531	G
36	1	535	G
36	1	541	U
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	553	U
36	1	557	A
36	1	558	U
36	1	559	A
36	1	560	G
36	1	578	A

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Mol	Chain	Res	Type
36	1	579	G
36	1	588	G
36	1	592	A
36	1	600	G
36	1	604	G
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	625	G
36	1	636	C
36	1	637	C
36	1	638	C
36	1	639	G
36	1	643	U
36	1	648	C
36	1	649	A
36	1	658	G
36	1	660	A
36	1	661	G
36	1	677	A
36	1	679	U
36	1	681	U
36	1	691	A
36	1	699	A
36	1	705	A
36	1	709	A
36	1	712	G
36	1	714	G
36	1	715	A
36	1	716	A
36	1	719	U
36	1	762	U
36	1	763	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	780	A

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Mol	Chain	Res	Type
36	1	781	G
36	1	785	G
36	1	786	A
36	1	798	G
36	1	803	C
36	1	806	A
36	1	807	A
36	1	817	A
36	1	830	A
36	1	849	C
36	1	861	C
36	1	874	U
36	1	875	G
36	1	878	G
36	1	879	U
36	1	890	C
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	944	C
36	1	953	G
36	1	959	C
36	1	960	U
36	1	962	A
36	1	963	G
36	1	978	G
36	1	979	U
36	1	981	U
36	1	982	C
36	1	993	G
36	1	994	G
36	1	1000	C
36	1	1001	G
36	1	1002	A
36	1	1006	A
36	1	1010	G

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Mol	Chain	Res	Type
36	1	1014	U
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1021	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1036	A
36	1	1037	C
36	1	1042	U
36	1	1046	A
36	1	1047	A
36	1	1049	C
36	1	1052	U
36	1	1064	A
36	1	1065	A
36	1	1068	C
36	1	1072	G
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	1113	G
36	1	1117	G
36	1	1129	A
36	1	1131	G
36	1	1144	U
36	1	1153	A
36	1	1159	A
36	1	1160	C
36	1	1177	G
36	1	1180	A
36	1	1181	U

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Mol	Chain	Res	Type
36	1	1182	A
36	1	1185	C
36	1	1191	U
36	1	1192	C
36	1	1193	A
36	1	1196	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	1233	G
36	1	1235	U
36	1	1236	G
36	1	1237	G
36	1	1241	U
36	1	1242	G
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1251	A
36	1	1254	C
36	1	1258	U
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
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	1285	G

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Mol	Chain	Res	Type
36	1	1286	A
36	1	1287	A
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1320	C
36	1	1330	A
36	1	1331	U
36	1	1332	A
36	1	1345	G
36	1	1348	U
36	1	1349	G
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	1363	A
36	1	1386	A
36	1	1387	G
36	1	1399	A
36	1	1400	G
36	1	1405	U
36	1	1406	A
36	1	1417	G
36	1	1418	A
36	1	1419	A
36	1	1425	U
36	1	1428	A
36	1	1429	G
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1443	G
36	1	1446	A
36	1	1450	G
36	1	1452	A
36	1	1455	U
36	1	1467	A
36	1	1481	A

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Mol	Chain	Res	Type
36	1	1482	A
36	1	1502	C
36	1	1506	A
36	1	1508	C
36	1	1511	U
36	1	1527	C
36	1	1549	U
36	1	1555	U
36	1	1556	C
36	1	1557	A
36	1	1560	G
36	1	1561	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1571	A
36	1	1572	U
36	1	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	1596	C
36	1	1605	A
36	1	1607	U
36	1	1608	C
36	1	1620	U
36	1	1621	A
36	1	1624	G
36	1	1629	U
36	1	1639	C
36	1	1640	G
36	1	1642	A

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Mol	Chain	Res	Type
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1658	G
36	1	1683	A
36	1	1684	U
36	1	1688	U
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1725	C
36	1	1736	G
36	1	1741	A
36	1	1742	U
36	1	1750	A
36	1	1751	G
36	1	1761	C
36	1	1762	C
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1770	G
36	1	1775	G
36	1	1776	G
36	1	1780	G
36	1	1782	U
36	1	1797	A
36	1	1801	U
36	1	1809	A
36	1	1810	A
36	1	1812	G
36	1	1813	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	1835	A
36	1	1839	A
36	1	1841	A

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Mol	Chain	Res	Type
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1847	A
36	1	1849	C
36	1	1850	A
36	1	1855	U
36	1	1857	C
36	1	1866	C
36	1	1871	U
36	1	1877	U
36	1	1879	A
36	1	1880	U
36	1	1901	A
36	1	1906	G
36	1	1931	U
36	1	1932	A
36	1	1935	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2097	U
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2114	C
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2134	G
36	1	2140	U
36	1	2144	A
36	1	2158	A
36	1	2164	A
36	1	2169	G
36	1	2170	U
36	1	2205	U
36	1	2206	G
36	1	2208	A

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Mol	Chain	Res	Type
36	1	2209	U
36	1	2210	G
36	1	2223	A
36	1	2225	U
36	1	2229	A
36	1	2244	A
36	1	2245	C
36	1	2246	G
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	2265	C
36	1	2272	G
36	1	2273	G
36	1	2280	A
36	1	2281	A
36	1	2282	U
36	1	2283	G
36	1	2301	U
36	1	2307	G
36	1	2309	A
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2317	A
36	1	2318	U
36	1	2330	C
36	1	2334	U
36	1	2336	U
36	1	2352	A
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2392	C
36	1	2393	G
36	1	2394	G

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Mol	Chain	Res	Type
36	1	2397	A
36	1	2402	A
36	1	2403	G
36	1	2411	U
36	1	2416	U
36	1	2418	G
36	1	2419	A
36	1	2425	G
36	1	2427	U
36	1	2437	G
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2511	A
36	1	2514	U
36	1	2515	A
36	1	2522	G
36	1	2523	A
36	1	2532	U
36	1	2533	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2544	U
36	1	2547	A
36	1	2549	G
36	1	2552	C
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

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Mol	Chain	Res	Type
36	1	2581	U
36	1	2585	G
36	1	2593	A
36	1	2602	G
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2623	G
36	1	2637	A
36	1	2652	U
36	1	2653	C
36	1	2656	A
36	1	2672	G
36	1	2674	A
36	1	2675	C
36	1	2676	A
36	1	2677	G
36	1	2681	U
36	1	2685	C
36	1	2689	A
36	1	2690	G
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2705	A
36	1	2714	G
36	1	2719	U
36	1	2720	G
36	1	2728	G
36	1	2729	U
36	1	2752	U
36	1	2753	G
36	1	2755	C
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	2779	A
36	1	2796	G
36	1	2800	G

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Mol	Chain	Res	Type
36	1	2801	A
36	1	2802	A
36	1	2803	A
36	1	2810	C
36	1	2815	G
36	1	2817	A
36	1	2818	U
36	1	2821	C
36	1	2829	U
36	1	2834	G
36	1	2839	G
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2849	C
36	1	2853	A
36	1	2855	U
36	1	2860	U
36	1	2863	G
36	1	2867	C
36	1	2871	G
36	1	2872	A
36	1	2876	C
36	1	2886	U
36	1	2887	A
36	1	2889	C
36	1	2893	C
36	1	2896	A
36	1	2897	A
36	1	2898	G
36	1	2899	C
36	1	2910	A
36	1	2923	U
36	1	2925	C
36	1	2928	C
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2947	G
36	1	2954	U
36	1	2955	U
36	1	2971	A

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Mol	Chain	Res	Type
36	1	2979	U
36	1	2990	G
36	1	2997	G
36	1	3012	A
36	1	3030	G
36	1	3034	C
36	1	3040	A
36	1	3055	U
36	1	3056	U
36	1	3057	U
36	1	3058	U
36	1	3059	G
36	1	3078	U
36	1	3079	U
36	1	3086	A
36	1	3087	A
36	1	3092	C
36	1	3113	A
36	1	3119	U
36	1	3122	A
36	1	3127	A
36	1	3130	A
36	1	3131	U
36	1	3139	A
36	1	3142	A
36	1	3143	C
36	1	3151	U
36	1	3153	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3164	C
36	1	3165	A
36	1	3167	A
36	1	3168	A
36	1	3170	A
36	1	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U

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Mol	Chain	Res	Type
36	1	3181	C
36	1	3186	A
36	1	3187	A
36	1	3196	U
36	1	3197	G
36	1	3198	U
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3227	A
36	1	3228	C
36	1	3229	G
36	1	3235	C
36	1	3244	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3265	C
36	1	3269	U
36	1	3270	U
36	1	3272	C
36	1	3273	A
36	1	3276	G
36	1	3281	U
36	1	3287	U
36	1	3289	G
36	1	3293	U
36	1	3294	A
36	1	3304	U
36	1	3309	G
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	3335	A

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Mol	Chain	Res	Type
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3347	A
36	1	3348	G
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	3375	A
36	1	3376	A
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
37	3	7	G
37	3	13	A
37	3	14	U
37	3	18	C
37	3	21	G
37	3	22	A
37	3	23	A
37	3	42	A
37	3	45	A
37	3	54	U
37	3	57	G
37	3	59	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	83	U
37	3	84	A
37	3	91	G
37	3	101	G
37	3	102	A
37	3	112	G
38	4	2	A
38	4	26	U

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Mol	Chain	Res	Type
38	4	34	U
38	4	35	C
38	4	47	C
38	4	48	A
38	4	49	G
38	4	50	C
38	4	51	G
38	4	52	A
38	4	59	A
38	4	62	C
38	4	63	G
38	4	69	U
38	4	79	A
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C
38	4	85	G
38	4	86	U
38	4	87	G
38	4	90	U
38	4	93	U
38	4	95	G
38	4	104	A
38	4	105	A
38	4	106	C
38	4	110	C
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	138	A
38	4	148	G
38	4	152	G
38	4	155	A
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	25	C

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Mol	Chain	Res	Type
1	6	26	A
1	6	27	U
1	6	34	G
1	6	42	G
1	6	47	A
1	6	50	C
1	6	57	G
1	6	60	U
1	6	65	A
1	6	66	U
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	78	A
1	6	99	C
1	6	104	A
1	6	114	C
1	6	126	A
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	144	U
1	6	145	A
1	6	146	U
1	6	158	U
1	6	159	U
1	6	166	C
1	6	177	U
1	6	178	U
1	6	181	A
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C

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Mol	Chain	Res	Type
1	6	192	U
1	6	193	U
1	6	195	G
1	6	197	A
1	6	198	A
1	6	199	G
1	6	200	A
1	6	215	A
1	6	216	U
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	222	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	235	G
1	6	240	U
1	6	241	U
1	6	249	U
1	6	250	C
1	6	260	U
1	6	261	U
1	6	265	A
1	6	266	A
1	6	271	A
1	6	272	U
1	6	273	G
1	6	275	C
1	6	276	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	299	A
1	6	301	A
1	6	308	C
1	6	314	C
1	6	316	A

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Mol	Chain	Res	Type
1	6	320	U
1	6	321	C
1	6	322	G
1	6	337	G
1	6	338	C
1	6	346	G
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	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	419	G
1	6	424	C
1	6	425	A
1	6	426	G
1	6	429	G
1	6	434	G
1	6	439	U
1	6	444	C
1	6	445	A
1	6	446	A
1	6	447	U
1	6	448	C
1	6	454	U
1	6	468	A
1	6	477	A
1	6	484	C
1	6	485	A
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

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Mol	Chain	Res	Type
1	6	496	G
1	6	497	G
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	507	U
1	6	508	U
1	6	510	G
1	6	511	A
1	6	512	A
1	6	513	U
1	6	515	A
1	6	519	C
1	6	527	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	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	570	A
1	6	574	G
1	6	577	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	585	A
1	6	594	A
1	6	595	G
1	6	610	G
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G

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Mol	Chain	Res	Type
1	6	634	G
1	6	639	U
1	6	648	G
1	6	650	U
1	6	651	G
1	6	652	G
1	6	653	C
1	6	658	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	669	G
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	680	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	695	U
1	6	697	C
1	6	698	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	740	A
1	6	743	U
1	6	751	G

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Mol	Chain	Res	Type
1	6	753	A
1	6	754	A
1	6	755	A
1	6	756	A
1	6	765	G
1	6	774	A
1	6	775	G
1	6	777	C
1	6	779	U
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	787	G
1	6	789	A
1	6	792	U
1	6	793	A
1	6	794	U
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	821	U
1	6	822	U
1	6	823	G
1	6	825	U
1	6	826	U
1	6	828	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	847	A
1	6	856	A
1	6	858	G
1	6	859	A
1	6	862	A
1	6	863	A
1	6	873	U
1	6	885	G

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Mol	Chain	Res	Type
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	928	U
1	6	933	A
1	6	935	U
1	6	940	A
1	6	942	G
1	6	951	A
1	6	959	U
1	6	960	U
1	6	969	C
1	6	970	A
1	6	971	A
1	6	987	G
1	6	992	A
1	6	993	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1008	G
1	6	1018	U
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1039	A
1	6	1040	G
1	6	1041	G
1	6	1052	U
1	6	1053	G
1	6	1056	U
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1071	U
1	6	1073	G
1	6	1076	A
1	6	1081	A

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Mol	Chain	Res	Type
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	1101	G
1	6	1109	G
1	6	1111	G
1	6	1137	A
1	6	1138	A
1	6	1139	A
1	6	1146	G
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1167	G
1	6	1185	U
1	6	1190	C
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1204	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1225	U
1	6	1227	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1231	U
1	6	1236	A
1	6	1239	U
1	6	1240	U
1	6	1241	G
1	6	1242	A

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Mol	Chain	Res	Type
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1249	U
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1259	U
1	6	1262	U
1	6	1269	U
1	6	1284	C
1	6	1286	U
1	6	1288	G
1	6	1291	G
1	6	1306	C
1	6	1307	U
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1338	C
1	6	1343	U
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1354	G
1	6	1360	A
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1383	G
1	6	1390	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G

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Mol	Chain	Res	Type
1	6	1413	U
1	6	1414	U
1	6	1415	U
1	6	1424	A
1	6	1427	A
1	6	1428	G
1	6	1430	U
1	6	1433	G
1	6	1435	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1458	G
1	6	1459	C
1	6	1461	C
1	6	1469	A
1	6	1471	A
1	6	1474	G
1	6	1480	G
1	6	1481	C
1	6	1482	C
1	6	1489	U
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1506	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1517	U
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	1553	G
1	6	1554	U
1	6	1557	U
1	6	1559	A

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Mol	Chain	Res	Type
1	6	1569	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1576	A
1	6	1577	A
1	6	1582	U
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1607	G
1	6	1615	C
1	6	1616	G
1	6	1618	C
1	6	1619	C
1	6	1620	C
1	6	1621	U
1	6	1622	G
1	6	1634	C
1	6	1637	C
1	6	1638	G
1	6	1657	U
1	6	1658	G
1	6	1678	A
1	6	1680	G
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1710	U
1	6	1712	A
1	6	1716	C
1	6	1717	G
1	6	1731	A
1	6	1736	G
1	6	1742	U
1	6	1760	G
1	6	1762	A
1	6	1766	A

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Mol	Chain	Res	Type
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1789	G
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	9	U
36	5	15	C
36	5	16	A
36	5	26	A
36	5	40	A
36	5	44	U
36	5	49	A
36	5	60	A
36	5	65	A
36	5	66	A
36	5	76	G
36	5	92	G
36	5	96	G
36	5	99	A
36	5	109	A
36	5	110	G
36	5	113	C
36	5	116	A
36	5	117	U
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
36	5	157	A
36	5	160	G
36	5	161	G

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Mol	Chain	Res	Type
36	5	165	A
36	5	166	C
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	179	C
36	5	180	C
36	5	181	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	200	C
36	5	210	U
36	5	211	A
36	5	213	A
36	5	218	G
36	5	219	A
36	5	221	A
36	5	227	G
36	5	231	G
36	5	235	A
36	5	236	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	241	G
36	5	244	G
36	5	246	U
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	263	C
36	5	269	G
36	5	270	U
36	5	271	C

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Mol	Chain	Res	Type
36	5	284	A
36	5	286	U
36	5	295	A
36	5	305	U
36	5	321	C
36	5	323	A
36	5	329	U
36	5	339	C
36	5	349	A
36	5	350	C
36	5	370	U
36	5	375	A
36	5	376	G
36	5	379	C
36	5	382	U
36	5	390	G
36	5	391	A
36	5	395	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	404	G
36	5	421	G
36	5	422	A
36	5	425	G
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	532	A
36	5	535	G
36	5	542	G
36	5	546	C
36	5	547	G
36	5	548	G

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Mol	Chain	Res	Type
36	5	551	A
36	5	552	G
36	5	553	U
36	5	555	U
36	5	557	A
36	5	558	U
36	5	559	A
36	5	560	G
36	5	578	A
36	5	579	G
36	5	592	A
36	5	600	G
36	5	604	G
36	5	607	A
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	636	C
36	5	649	A
36	5	651	G
36	5	660	A
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	719	U
36	5	725	G
36	5	726	G
36	5	727	G
36	5	736	A
36	5	747	A
36	5	748	U
36	5	758	C
36	5	766	U
36	5	767	U
36	5	768	C

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Mol	Chain	Res	Type
36	5	772	U
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	817	A
36	5	826	G
36	5	830	A
36	5	851	C
36	5	854	G
36	5	861	C
36	5	865	U
36	5	871	U
36	5	874	U
36	5	879	U
36	5	891	G
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	913	A
36	5	914	A
36	5	916	G
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	948	C
36	5	953	G
36	5	959	C
36	5	960	U
36	5	961	C
36	5	964	G
36	5	979	U
36	5	983	A
36	5	993	G
36	5	994	G

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Mol	Chain	Res	Type
36	5	997	A
36	5	1000	C
36	5	1001	G
36	5	1002	A
36	5	1010	G
36	5	1013	G
36	5	1015	U
36	5	1017	C
36	5	1019	G
36	5	1021	G
36	5	1022	U
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	1041	U
36	5	1047	A
36	5	1049	C
36	5	1052	U
36	5	1063	G
36	5	1064	A
36	5	1065	A
36	5	1066	G
36	5	1071	U
36	5	1072	G
36	5	1079	A
36	5	1081	U
36	5	1082	U
36	5	1088	U
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	1112	A
36	5	1115	G

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Mol	Chain	Res	Type
36	5	1117	G
36	5	1131	G
36	5	1144	U
36	5	1152	G
36	5	1153	A
36	5	1159	A
36	5	1178	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1190	A
36	5	1191	U
36	5	1192	C
36	5	1193	A
36	5	1201	C
36	5	1205	A
36	5	1209	G
36	5	1212	A
36	5	1222	G
36	5	1223	A
36	5	1233	G
36	5	1235	U
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1258	U
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1281	G
36	5	1285	G
36	5	1292	C
36	5	1305	U
36	5	1307	G
36	5	1308	A

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Mol	Chain	Res	Type
36	5	1309	U
36	5	1313	G
36	5	1314	C
36	5	1324	U
36	5	1330	A
36	5	1331	U
36	5	1332	A
36	5	1348	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1355	A
36	5	1356	U
36	5	1357	G
36	5	1370	G
36	5	1372	C
36	5	1380	G
36	5	1385	C
36	5	1386	A
36	5	1387	G
36	5	1398	U
36	5	1399	A
36	5	1400	G
36	5	1406	A
36	5	1417	G
36	5	1418	A
36	5	1419	A
36	5	1428	A
36	5	1431	G
36	5	1432	C
36	5	1433	A
36	5	1434	G
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1455	U
36	5	1477	A
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1502	C

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Mol	Chain	Res	Type
36	5	1503	A
36	5	1508	C
36	5	1527	C
36	5	1533	U
36	5	1536	G
36	5	1539	A
36	5	1549	U
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1564	U
36	5	1565	G
36	5	1566	A
36	5	1567	U
36	5	1569	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	1580	A
36	5	1581	C
36	5	1583	A
36	5	1589	A
36	5	1600	U
36	5	1619	A
36	5	1620	U
36	5	1629	U
36	5	1633	C
36	5	1637	A
36	5	1639	C
36	5	1642	A
36	5	1643	A
36	5	1644	C

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Mol	Chain	Res	Type
36	5	1645	U
36	5	1657	C
36	5	1664	G
36	5	1683	A
36	5	1687	U
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1735	G
36	5	1736	G
36	5	1741	A
36	5	1750	A
36	5	1751	G
36	5	1760	A
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1767	C
36	5	1769	G
36	5	1770	G
36	5	1780	G
36	5	1781	C
36	5	1793	C
36	5	1795	U
36	5	1797	A
36	5	1810	A
36	5	1812	G
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1819	U
36	5	1820	U
36	5	1821	U
36	5	1839	A
36	5	1840	U
36	5	1841	A
36	5	1842	A
36	5	1846	C

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Mol	Chain	Res	Type
36	5	1849	C
36	5	1850	A
36	5	1851	G
36	5	1866	C
36	5	1875	G
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1886	A
36	5	1893	A
36	5	1895	A
36	5	1901	A
36	5	1906	G
36	5	1908	A
36	5	1918	C
36	5	1932	A
36	5	1935	G
36	5	1947	G
36	5	2094	C
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2134	G
36	5	2140	U
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2176	U
36	5	2187	G
36	5	2188	A
36	5	2192	C
36	5	2198	A
36	5	2201	G
36	5	2205	U
36	5	2206	G
36	5	2209	U
36	5	2210	G

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Mol	Chain	Res	Type
36	5	2213	A
36	5	2222	A
36	5	2223	A
36	5	2225	U
36	5	2234	G
36	5	2244	A
36	5	2252	A
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2270	A
36	5	2273	G
36	5	2279	A
36	5	2303	A
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2319	U
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2367	A
36	5	2368	A
36	5	2371	G
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G
36	5	2386	A
36	5	2392	C
36	5	2393	G
36	5	2397	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2410	U
36	5	2411	U
36	5	2418	G

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Mol	Chain	Res	Type
36	5	2435	G
36	5	2436	U
36	5	2437	G
36	5	2440	G
36	5	2441	A
36	5	2443	A
36	5	2444	C
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2509	U
36	5	2510	U
36	5	2511	A
36	5	2512	C
36	5	2514	U
36	5	2515	A
36	5	2523	A
36	5	2524	A
36	5	2525	G
36	5	2526	C
36	5	2529	A
36	5	2530	G
36	5	2531	C
36	5	2535	A
36	5	2536	A
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
36	5	2549	G
36	5	2552	C
36	5	2555	G
36	5	2558	U
36	5	2566	C
36	5	2567	C
36	5	2568	C
36	5	2569	A
36	5	2570	U
36	5	2571	U

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Mol	Chain	Res	Type
36	5	2573	G
36	5	2574	G
36	5	2585	G
36	5	2587	U
36	5	2589	G
36	5	2593	A
36	5	2594	C
36	5	2596	U
36	5	2598	G
36	5	2606	G
36	5	2607	G
36	5	2608	G
36	5	2614	G
36	5	2615	G
36	5	2619	G
36	5	2647	A
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2675	C
36	5	2676	A
36	5	2677	G
36	5	2683	U
36	5	2689	A
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2705	A
36	5	2714	G
36	5	2719	U
36	5	2727	A
36	5	2728	G
36	5	2729	U
36	5	2740	A
36	5	2742	C
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

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Mol	Chain	Res	Type
36	5	2777	G
36	5	2778	G
36	5	2781	U
36	5	2783	U
36	5	2796	G
36	5	2797	C
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2802	A
36	5	2810	C
36	5	2814	G
36	5	2816	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2820	A
36	5	2821	C
36	5	2828	G
36	5	2829	U
36	5	2837	A
36	5	2838	A
36	5	2839	G
36	5	2843	U
36	5	2845	A
36	5	2847	A
36	5	2849	C
36	5	2853	A
36	5	2863	G
36	5	2865	U
36	5	2871	G
36	5	2872	A
36	5	2875	U
36	5	2877	G
36	5	2880	U
36	5	2881	C
36	5	2887	A
36	5	2889	C
36	5	2896	A
36	5	2897	A
36	5	2898	G
36	5	2899	C

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Mol	Chain	Res	Type
36	5	2912	G
36	5	2914	G
36	5	2921	U
36	5	2922	G
36	5	2923	U
36	5	2924	U
36	5	2928	C
36	5	2935	U
36	5	2936	A
36	5	2942	C
36	5	2944	U
36	5	2947	G
36	5	2954	U
36	5	2956	A
36	5	2957	G
36	5	2967	A
36	5	2971	A
36	5	2972	G
36	5	2979	U
36	5	2983	C
36	5	2990	G
36	5	2992	U
36	5	2993	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3028	G
36	5	3030	G
36	5	3034	C
36	5	3049	A
36	5	3056	U
36	5	3057	U
36	5	3059	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3092	C
36	5	3119	U
36	5	3122	A
36	5	3123	A
36	5	3130	A
36	5	3131	U

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Mol	Chain	Res	Type
36	5	3142	A
36	5	3143	C
36	5	3150	A
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3164	C
36	5	3165	A
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3176	G
36	5	3178	A
36	5	3179	U
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	3217	C
36	5	3218	A
36	5	3219	G
36	5	3227	A
36	5	3228	C
36	5	3229	G
36	5	3238	G
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3265	C
36	5	3266	G
36	5	3268	A
36	5	3269	U
36	5	3270	U
36	5	3273	A

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Mol	Chain	Res	Type
36	5	3274	A
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3282	U
36	5	3284	G
36	5	3285	C
36	5	3286	G
36	5	3287	U
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3304	U
36	5	3313	U
36	5	3316	A
36	5	3317	U
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3350	C
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3355	U
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3378	C
36	5	3382	U
36	5	3385	U
36	5	3386	G
36	5	3389	U
36	5	3390	G
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	27	A

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Mol	Chain	Res	Type
37	7	38	U
37	7	50	U
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	95	A
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	104	A
37	7	112	G
37	7	121	U
38	8	34	U
38	8	35	C
38	8	48	A
38	8	59	A
38	8	62	C
38	8	63	G
38	8	69	U
38	8	77	A
38	8	78	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	90	U
38	8	95	G
38	8	96	A
38	8	97	A
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U

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Mol	Chain	Res	Type
38	8	125	U
38	8	126	A
38	8	127	U
38	8	138	A
38	8	148	G
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

All (279) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	73	U
1	2	74	U
1	2	103	A
1	2	114	C
1	2	126	A
1	2	130	C
1	2	131	C
1	2	136	C
1	2	139	C
1	2	144	U
1	2	158	U
1	2	217	A
1	2	218	A
1	2	240	U
1	2	265	A
1	2	278	U
1	2	280	U
1	2	321	C
1	2	400	A
1	2	417	A
1	2	484	C
1	2	497	G
1	2	499	U
1	2	501	U
1	2	503	G
1	2	510	G
1	2	512	A

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Mol	Chain	Res	Type
1	2	555	A
1	2	558	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	794	U
1	2	829	A
1	2	913	G
1	2	1058	U
1	2	1081	A
1	2	1157	A
1	2	1196	A
1	2	1207	C
1	2	1226	A
1	2	1244	A
1	2	1250	U
1	2	1339	C
1	2	1344	A
1	2	1370	U
1	2	1481	C
1	2	1489	U
1	2	1568	C
1	2	1573	A
1	2	1615	C
1	2	1657	U
1	2	1761	U
36	1	43	A
36	1	65	A
36	1	169	U
36	1	239	G
36	1	282	G
36	1	374	A
36	1	397	A
36	1	547	G
36	1	588	G
36	1	594	U
36	1	637	C
36	1	715	A
36	1	763	G

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Mol	Chain	Res	Type
36	1	816	A
36	1	873	C
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	1181	U
36	1	1196	C
36	1	1273	A
36	1	1307	G
36	1	1329	U
36	1	1331	U
36	1	1352	A
36	1	1355	A
36	1	1419	A
36	1	1481	A
36	1	1507	G
36	1	1554	U
36	1	1556	C
36	1	1562	C
36	1	1607	U
36	1	1716	U
36	1	1724	U
36	1	1751	G
36	1	1815	U
36	1	1820	U
36	1	1846	C
36	1	1858	A
36	1	1931	U
36	1	2101	C
36	1	2112	U
36	1	2209	U
36	1	2249	G
36	1	2372	A
36	1	2374	C
36	1	2418	G
36	1	2513	U
36	1	2522	G
36	1	2537	U

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Mol	Chain	Res	Type
36	1	2538	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2677	G
36	1	2704	A
36	1	2728	G
36	1	2772	C
36	1	2801	A
36	1	2818	U
36	1	2896	A
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3139	A
36	1	3195	U
36	1	3196	U
36	1	3207	U
36	1	3228	C
36	1	3245	A
36	1	3269	U
36	1	3316	A
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
36	1	3375	A
37	3	13	A
38	4	85	G
38	4	125	U
1	6	25	C
1	6	66	U
1	6	76	A
1	6	114	C
1	6	136	C
1	6	158	U
1	6	187	G
1	6	192	U
1	6	217	A
1	6	240	U
1	6	272	U
1	6	345	U

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Mol	Chain	Res	Type
1	6	400	A
1	6	417	A
1	6	512	A
1	6	542	A
1	6	557	G
1	6	651	G
1	6	664	U
1	6	667	U
1	6	678	A
1	6	697	C
1	6	717	C
1	6	720	G
1	6	755	A
1	6	829	A
1	6	834	G
1	6	913	G
1	6	1051	G
1	6	1058	U
1	6	1097	U
1	6	1227	A
1	6	1241	G
1	6	1244	A
1	6	1255	G
1	6	1344	A
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1535	U
1	6	1568	C
1	6	1573	A
1	6	1615	C
1	6	1620	C
1	6	1657	U
1	6	1696	G
1	6	1698	G
1	6	1700	C
36	5	43	A
36	5	169	U
36	5	210	U
36	5	238	A
36	5	285	A
36	5	588	G

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Mol	Chain	Res	Type
36	5	594	U
36	5	735	A
36	5	765	C
36	5	767	U
36	5	873	C
36	5	896	A
36	5	908	G
36	5	916	G
36	5	937	G
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1160	C
36	5	1181	U
36	5	1192	C
36	5	1222	G
36	5	1238	C
36	5	1241	U
36	5	1284	C
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	1481	A
36	5	1514	G
36	5	1554	U
36	5	1560	G
36	5	1572	U
36	5	1716	U
36	5	1724	U
36	5	1792	C
36	5	1816	A
36	5	1819	U
36	5	1841	A
36	5	1858	A
36	5	1878	G
36	5	1879	A
36	5	2093	A

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Mol	Chain	Res	Type
36	5	2101	C
36	5	2112	U
36	5	2121	G
36	5	2204	C
36	5	2209	U
36	5	2255	A
36	5	2257	C
36	5	2372	A
36	5	2374	C
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2539	C
36	5	2586	G
36	5	2593	A
36	5	2682	C
36	5	2728	G
36	5	2772	C
36	5	2801	A
36	5	2818	U
36	5	2876	C
36	5	2896	A
36	5	2971	A
36	5	3056	U
36	5	3078	U
36	5	3121	U
36	5	3154	C
36	5	3195	U
36	5	3218	A
36	5	3228	C
36	5	3269	U
36	5	3275	U
36	5	3289	G
36	5	3317	U
36	5	3340	G
36	5	3341	U
36	5	3357	U
37	7	49	G
38	8	89	A
38	8	111	A

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 2555 ligands modelled in this entry, 1424 are monoatomic - leaving 1131 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	$\# Z > 2$
86	OHX	1	3865	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3866	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3886	-	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
86	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3929	-	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
86	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3972	-	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
86	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4015	-	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
86	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4058	-	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
86	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4101	-	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
86	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4144	-	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
86	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4187	-	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
86	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3KF	1	4212	85	24,25,25	0.83	0	26,39,39	0.76	0
86	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2040	-	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
86	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	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
86	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	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
86	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	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
86	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3897	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4241	-	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
86	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
88	3KF	5	4248	85	24,25,25	0.61	0	26,39,39	0.95	2 (7%)
86	OHX	6	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2078	-	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
86	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2121	-	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
86	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2164	-	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
86	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	224	-	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
86	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	Q2	503	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S8	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c3	201	-	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
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m6	204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q1	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s4	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s8	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	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
86	OHX	1	3865	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3866	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3908	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3950	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3992	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4034	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4076	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4118	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4160	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4202	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
88	3KF	1	4212	85	-	0/0/38/38	0/4/4/4
86	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2054	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2096	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2138	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2180	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	3	214	-	-	0/0/0/0	0/0/0/0
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	221	-	-	0/0/0/0	0/0/0/0
86	OHX	4	222	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	0/0/0/0	0/0/0/0
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	4	236	-	-	0/0/0/0	0/0/0/0
86	OHX	4	237	-	-	0/0/0/0	0/0/0/0
86	OHX	4	238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3907	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3949	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3991	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4033	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4075	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4117	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4159	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4201	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4243	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
88	3KF	5	4248	85	-	0/0/38/38	0/4/4/4
86	OHX	6	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2079	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2121	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2163	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	7	218	-	-	0/0/0/0	0/0/0/0
86	OHX	7	219	-	-	0/0/0/0	0/0/0/0
86	OHX	7	220	-	-	0/0/0/0	0/0/0/0
86	OHX	7	221	-	-	0/0/0/0	0/0/0/0
86	OHX	7	222	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	7	223	-	-	0/0/0/0	0/0/0/0
86	OHX	7	224	-	-	0/0/0/0	0/0/0/0
86	OHX	7	225	-	-	0/0/0/0	0/0/0/0
86	OHX	7	226	-	-	0/0/0/0	0/0/0/0
86	OHX	7	227	-	-	0/0/0/0	0/0/0/0
86	OHX	7	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	214	-	-	0/0/0/0	0/0/0/0
86	OHX	8	215	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	230	-	-	0/0/0/0	0/0/0/0
86	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	402	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	403	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	207	-	-	0/0/0/0	0/0/0/0
86	OHX	M8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	N1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	O3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	105	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	106	-	-	0/0/0/0	0/0/0/0
86	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	S8	301	-	-	0/0/0/0	0/0/0/0
86	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	203	-	-	0/0/0/0	0/0/0/0
86	OHX	d4	202	-	-	0/0/0/0	0/0/0/0
86	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	302	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	301	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	m6	204	-	-	0/0/0/0	0/0/0/0
86	OHX	m7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	m8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	204	-	-	0/0/0/0	0/0/0/0
86	OHX	n5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	q1	102	-	-	0/0/0/0	0/0/0/0
86	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s4	301	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	304	-	-	0/0/0/0	0/0/0/0
86	OHX	s9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
88	5	4248	3KF	O4-C10-C11	-2.14	105.53	110.34
88	5	4248	3KF	C5-C4-C13	2.16	122.00	119.09

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

463 monomers are involved in 690 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3866	OHX	1	0
86	1	3870	OHX	1	0
86	1	3874	OHX	1	0
86	1	3876	OHX	2	0
86	1	3878	OHX	2	0
86	1	3879	OHX	1	0
86	1	3880	OHX	1	0
86	1	3882	OHX	1	0
86	1	3883	OHX	2	0
86	1	3884	OHX	2	0
86	1	3885	OHX	1	0
86	1	3886	OHX	1	0
86	1	3887	OHX	1	0
86	1	3889	OHX	1	0
86	1	3892	OHX	1	0
86	1	3898	OHX	1	0
86	1	3900	OHX	1	0
86	1	3904	OHX	1	0
86	1	3910	OHX	2	0
86	1	3918	OHX	1	0
86	1	3919	OHX	1	0
86	1	3923	OHX	1	0
86	1	3924	OHX	1	0
86	1	3925	OHX	2	0
86	1	3929	OHX	1	0
86	1	3931	OHX	1	0
86	1	3932	OHX	1	0
86	1	3937	OHX	6	0
86	1	3939	OHX	1	0
86	1	3944	OHX	1	0
86	1	3945	OHX	1	0
86	1	3946	OHX	1	0
86	1	3952	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3955	OHX	1	0
86	1	3956	OHX	5	0
86	1	3957	OHX	1	0
86	1	3958	OHX	2	0
86	1	3963	OHX	1	0
86	1	3964	OHX	1	0
86	1	3966	OHX	1	0
86	1	3967	OHX	1	0
86	1	3968	OHX	1	0
86	1	3970	OHX	6	0
86	1	3971	OHX	2	0
86	1	3973	OHX	1	0
86	1	3974	OHX	1	0
86	1	3978	OHX	1	0
86	1	3979	OHX	2	0
86	1	3980	OHX	1	0
86	1	3981	OHX	1	0
86	1	3982	OHX	1	0
86	1	3984	OHX	1	0
86	1	3985	OHX	1	0
86	1	3993	OHX	1	0
86	1	3996	OHX	2	0
86	1	3997	OHX	2	0
86	1	4001	OHX	1	0
86	1	4002	OHX	2	0
86	1	4003	OHX	8	0
86	1	4006	OHX	2	0
86	1	4008	OHX	1	0
86	1	4013	OHX	1	0
86	1	4015	OHX	1	0
86	1	4017	OHX	1	0
86	1	4027	OHX	2	0
86	1	4030	OHX	1	0
86	1	4032	OHX	4	0
86	1	4034	OHX	1	0
86	1	4036	OHX	1	0
86	1	4038	OHX	2	0
86	1	4039	OHX	3	0
86	1	4040	OHX	1	0
86	1	4041	OHX	2	0
86	1	4043	OHX	1	0
86	1	4044	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4045	OHX	5	0
86	1	4047	OHX	2	0
86	1	4056	OHX	4	0
86	1	4057	OHX	1	0
86	1	4062	OHX	1	0
86	1	4063	OHX	1	0
86	1	4066	OHX	1	0
86	1	4074	OHX	1	0
86	1	4075	OHX	1	0
86	1	4080	OHX	1	0
86	1	4082	OHX	1	0
86	1	4084	OHX	3	0
86	1	4087	OHX	1	0
86	1	4090	OHX	1	0
86	1	4092	OHX	1	0
86	1	4099	OHX	1	0
86	1	4106	OHX	1	0
86	1	4107	OHX	1	0
86	1	4109	OHX	1	0
86	1	4118	OHX	2	0
86	1	4120	OHX	1	0
86	1	4122	OHX	1	0
86	1	4125	OHX	1	0
86	1	4128	OHX	1	0
86	1	4132	OHX	2	0
86	1	4133	OHX	1	0
86	1	4135	OHX	1	0
86	1	4138	OHX	1	0
86	1	4139	OHX	3	0
86	1	4140	OHX	1	0
86	1	4141	OHX	2	0
86	1	4142	OHX	1	0
86	1	4144	OHX	2	0
86	1	4148	OHX	1	0
86	1	4149	OHX	1	0
86	1	4151	OHX	1	0
86	1	4154	OHX	1	0
86	1	4155	OHX	1	0
86	1	4156	OHX	6	0
86	1	4158	OHX	1	0
86	1	4160	OHX	1	0
86	1	4164	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4165	OHX	2	0
86	1	4167	OHX	3	0
86	1	4168	OHX	2	0
86	1	4169	OHX	2	0
86	1	4172	OHX	11	0
86	1	4179	OHX	1	0
86	1	4180	OHX	1	0
86	1	4181	OHX	3	0
86	1	4184	OHX	1	0
86	1	4190	OHX	1	0
86	1	4193	OHX	1	0
86	1	4196	OHX	1	0
86	1	4198	OHX	7	0
86	1	4199	OHX	1	0
86	1	4203	OHX	1	0
86	1	4204	OHX	1	0
86	1	4206	OHX	1	0
86	1	4207	OHX	1	0
86	1	4208	OHX	1	0
88	1	4212	3KF	2	0
86	2	2023	OHX	1	0
86	2	2024	OHX	1	0
86	2	2026	OHX	2	0
86	2	2027	OHX	1	0
86	2	2029	OHX	1	0
86	2	2031	OHX	8	0
86	2	2032	OHX	1	0
86	2	2033	OHX	1	0
86	2	2034	OHX	1	0
86	2	2035	OHX	1	0
86	2	2036	OHX	3	0
86	2	2038	OHX	1	0
86	2	2039	OHX	2	0
86	2	2041	OHX	1	0
86	2	2042	OHX	1	0
86	2	2044	OHX	7	0
86	2	2045	OHX	1	0
86	2	2047	OHX	1	0
86	2	2048	OHX	1	0
86	2	2049	OHX	1	0
86	2	2051	OHX	1	0
86	2	2053	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2054	OHX	1	0
86	2	2062	OHX	1	0
86	2	2064	OHX	1	0
86	2	2065	OHX	1	0
86	2	2070	OHX	2	0
86	2	2073	OHX	1	0
86	2	2074	OHX	2	0
86	2	2075	OHX	4	0
86	2	2076	OHX	1	0
86	2	2078	OHX	2	0
86	2	2082	OHX	2	0
86	2	2083	OHX	1	0
86	2	2084	OHX	2	0
86	2	2085	OHX	1	0
86	2	2086	OHX	1	0
86	2	2090	OHX	5	0
86	2	2092	OHX	1	0
86	2	2093	OHX	1	0
86	2	2096	OHX	1	0
86	2	2099	OHX	7	0
86	2	2104	OHX	2	0
86	2	2105	OHX	1	0
86	2	2106	OHX	1	0
86	2	2109	OHX	1	0
86	2	2111	OHX	3	0
86	2	2115	OHX	1	0
86	2	2117	OHX	1	0
86	2	2121	OHX	3	0
86	2	2127	OHX	1	0
86	2	2128	OHX	1	0
86	2	2129	OHX	1	0
86	2	2130	OHX	1	0
86	2	2131	OHX	1	0
86	2	2132	OHX	7	0
86	2	2133	OHX	1	0
86	2	2135	OHX	1	0
86	2	2137	OHX	1	0
86	2	2139	OHX	1	0
86	2	2147	OHX	6	0
86	2	2149	OHX	2	0
86	2	2155	OHX	1	0
86	2	2156	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2157	OHX	1	0
86	2	2158	OHX	3	0
86	2	2160	OHX	1	0
86	2	2161	OHX	2	0
86	2	2162	OHX	2	1
86	2	2163	OHX	4	0
86	2	2166	OHX	1	0
86	2	2167	OHX	1	0
86	3	215	OHX	1	0
86	3	219	OHX	1	0
86	3	225	OHX	1	0
86	4	221	OHX	1	0
86	4	222	OHX	2	0
86	4	224	OHX	1	0
86	4	225	OHX	1	0
86	4	226	OHX	1	0
86	4	228	OHX	1	0
86	4	233	OHX	2	0
86	4	235	OHX	1	0
86	4	237	OHX	2	0
86	5	3897	OHX	2	0
86	5	3899	OHX	1	0
86	5	3900	OHX	2	0
86	5	3902	OHX	2	0
86	5	3903	OHX	2	0
86	5	3904	OHX	1	0
86	5	3905	OHX	3	0
86	5	3908	OHX	1	0
86	5	3909	OHX	1	0
86	5	3911	OHX	3	0
86	5	3913	OHX	1	0
86	5	3914	OHX	1	0
86	5	3915	OHX	3	0
86	5	3918	OHX	1	0
86	5	3921	OHX	2	0
86	5	3923	OHX	1	0
86	5	3925	OHX	1	0
86	5	3935	OHX	1	0
86	5	3939	OHX	0	1
86	5	3941	OHX	7	0
86	5	3944	OHX	1	0
86	5	3947	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3948	OHX	1	0
86	5	3952	OHX	1	0
86	5	3955	OHX	3	0
86	5	3956	OHX	1	0
86	5	3957	OHX	1	0
86	5	3958	OHX	2	0
86	5	3960	OHX	4	0
86	5	3962	OHX	1	0
86	5	3963	OHX	1	0
86	5	3964	OHX	1	0
86	5	3970	OHX	2	0
86	5	3973	OHX	1	0
86	5	3975	OHX	8	0
86	5	3979	OHX	1	0
86	5	3984	OHX	1	0
86	5	3986	OHX	1	0
86	5	3992	OHX	1	0
86	5	3993	OHX	1	0
86	5	3997	OHX	4	0
86	5	3998	OHX	1	0
86	5	4000	OHX	1	0
86	5	4002	OHX	1	0
86	5	4003	OHX	1	0
86	5	4006	OHX	6	0
86	5	4008	OHX	1	0
86	5	4009	OHX	1	0
86	5	4010	OHX	1	0
86	5	4013	OHX	1	0
86	5	4014	OHX	1	0
86	5	4016	OHX	7	0
86	5	4019	OHX	1	0
86	5	4020	OHX	2	0
86	5	4023	OHX	1	0
86	5	4024	OHX	1	0
86	5	4029	OHX	2	0
86	5	4030	OHX	1	0
86	5	4031	OHX	2	0
86	5	4033	OHX	1	0
86	5	4035	OHX	1	0
86	5	4037	OHX	1	0
86	5	4041	OHX	1	0
86	5	4042	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4045	OHX	1	0
86	5	4046	OHX	1	0
86	5	4047	OHX	1	0
86	5	4051	OHX	6	0
86	5	4052	OHX	1	0
86	5	4055	OHX	1	0
86	5	4057	OHX	1	0
86	5	4062	OHX	6	0
86	5	4063	OHX	1	0
86	5	4068	OHX	1	0
86	5	4070	OHX	1	0
86	5	4071	OHX	1	0
86	5	4076	OHX	1	0
86	5	4077	OHX	3	0
86	5	4086	OHX	2	0
86	5	4089	OHX	2	0
86	5	4092	OHX	1	0
86	5	4093	OHX	1	0
86	5	4095	OHX	1	0
86	5	4098	OHX	3	0
86	5	4101	OHX	2	0
86	5	4102	OHX	1	0
86	5	4104	OHX	1	0
86	5	4105	OHX	1	0
86	5	4113	OHX	1	0
86	5	4124	OHX	1	0
86	5	4125	OHX	1	0
86	5	4128	OHX	1	0
86	5	4131	OHX	1	0
86	5	4132	OHX	2	0
86	5	4134	OHX	2	0
86	5	4135	OHX	1	0
86	5	4136	OHX	1	0
86	5	4137	OHX	5	0
86	5	4138	OHX	2	0
86	5	4139	OHX	1	0
86	5	4141	OHX	1	0
86	5	4147	OHX	1	0
86	5	4148	OHX	1	0
86	5	4152	OHX	1	0
86	5	4153	OHX	1	0
86	5	4156	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4160	OHX	2	0
86	5	4162	OHX	1	0
86	5	4167	OHX	2	0
86	5	4168	OHX	1	0
86	5	4173	OHX	1	0
86	5	4179	OHX	1	0
86	5	4180	OHX	1	0
86	5	4182	OHX	1	0
86	5	4184	OHX	2	0
86	5	4186	OHX	2	0
86	5	4187	OHX	3	0
86	5	4188	OHX	1	0
86	5	4193	OHX	10	0
86	5	4194	OHX	6	0
86	5	4195	OHX	7	0
86	5	4196	OHX	1	0
86	5	4197	OHX	1	0
86	5	4198	OHX	6	0
86	5	4209	OHX	1	0
86	5	4212	OHX	6	0
86	5	4214	OHX	1	0
86	5	4218	OHX	1	0
86	5	4219	OHX	1	0
86	5	4221	OHX	2	0
86	5	4223	OHX	1	0
86	5	4224	OHX	1	0
86	5	4229	OHX	7	0
86	5	4230	OHX	1	0
86	5	4234	OHX	2	0
86	5	4235	OHX	1	0
86	5	4244	OHX	2	0
86	5	4246	OHX	1	0
88	5	4248	3KF	1	0
86	6	2046	OHX	1	0
86	6	2051	OHX	1	0
86	6	2052	OHX	1	0
86	6	2054	OHX	1	0
86	6	2056	OHX	6	0
86	6	2058	OHX	2	0
86	6	2062	OHX	1	0
86	6	2063	OHX	1	0
86	6	2065	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2067	OHX	1	0
86	6	2070	OHX	1	0
86	6	2072	OHX	1	0
86	6	2074	OHX	1	0
86	6	2076	OHX	1	0
86	6	2080	OHX	2	0
86	6	2083	OHX	1	0
86	6	2085	OHX	1	0
86	6	2088	OHX	1	0
86	6	2089	OHX	1	0
86	6	2090	OHX	1	0
86	6	2092	OHX	1	0
86	6	2093	OHX	2	0
86	6	2097	OHX	3	0
86	6	2098	OHX	1	0
86	6	2099	OHX	2	0
86	6	2100	OHX	1	0
86	6	2101	OHX	1	0
86	6	2102	OHX	1	0
86	6	2104	OHX	2	0
86	6	2106	OHX	1	0
86	6	2108	OHX	1	0
86	6	2109	OHX	1	0
86	6	2111	OHX	1	0
86	6	2115	OHX	1	0
86	6	2116	OHX	8	0
86	6	2117	OHX	1	0
86	6	2119	OHX	2	0
86	6	2120	OHX	1	0
86	6	2122	OHX	2	0
86	6	2124	OHX	1	0
86	6	2126	OHX	3	0
86	6	2132	OHX	1	0
86	6	2133	OHX	1	0
86	6	2134	OHX	1	0
86	6	2139	OHX	2	0
86	6	2140	OHX	1	0
86	6	2142	OHX	1	0
86	6	2143	OHX	7	0
86	6	2144	OHX	1	0
86	6	2145	OHX	1	0
86	6	2146	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2147	OHX	1	0
86	6	2150	OHX	1	0
86	6	2151	OHX	1	0
86	6	2155	OHX	1	0
86	6	2156	OHX	1	0
86	6	2161	OHX	1	0
86	6	2164	OHX	1	0
86	6	2166	OHX	1	0
86	6	2167	OHX	8	0
86	6	2171	OHX	1	0
86	6	2172	OHX	1	0
86	6	2175	OHX	1	0
86	6	2178	OHX	1	0
86	6	2179	OHX	1	0
86	6	2180	OHX	2	0
86	6	2182	OHX	2	0
86	6	2184	OHX	1	0
86	6	2185	OHX	3	0
86	6	2186	OHX	2	0
86	6	2188	OHX	2	0
86	6	2189	OHX	1	0
86	6	2190	OHX	2	0
86	6	2191	OHX	1	0
86	6	2198	OHX	1	0
86	6	2200	OHX	1	0
86	7	221	OHX	1	0
86	7	222	OHX	1	0
86	7	223	OHX	1	0
86	7	227	OHX	1	0
86	8	214	OHX	1	0
86	8	215	OHX	3	0
86	8	216	OHX	7	0
86	8	217	OHX	1	0
86	8	220	OHX	1	0
86	8	223	OHX	1	0
86	8	224	OHX	1	0
86	8	226	OHX	6	0
86	8	227	OHX	7	0
86	8	230	OHX	1	0
86	C5	201	OHX	4	0
86	L3	402	OHX	1	0
86	L3	403	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	L4	402	OHX	2	0
86	M0	303	OHX	1	0
86	M5	303	OHX	1	0
86	M7	206	OHX	2	0
86	M7	207	OHX	1	0
86	N1	201	OHX	1	0
86	O3	201	OHX	1	0
86	O7	105	OHX	3	0
86	O7	106	OHX	1	0
86	Q2	503	OHX	4	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

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

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

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

6.3 Carbohydrates [i](#)

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

6.4 Ligands [i](#)

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

6.5 Other polymers [i](#)

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