



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:58 PM GMT

PDB ID : 4U50
Title : Crystal structure of Verrucarín 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

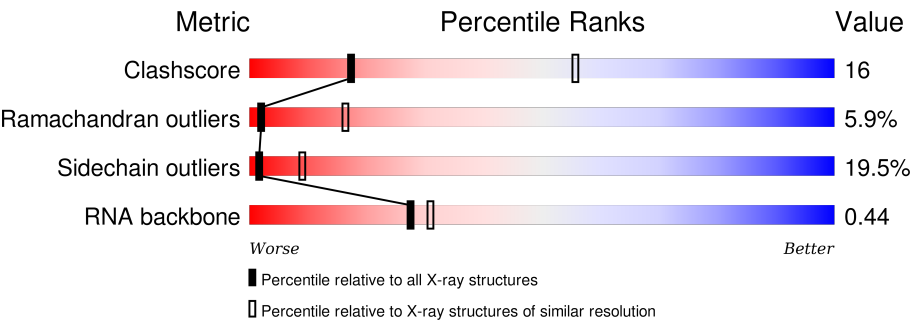
1 Overall quality at a glance i

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)

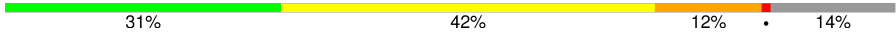



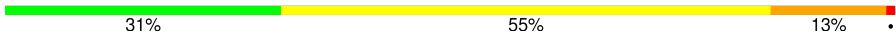

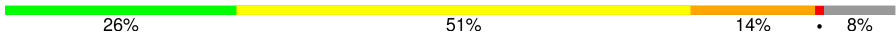

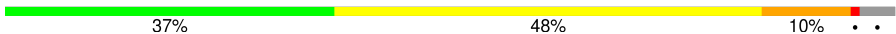

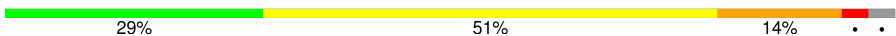

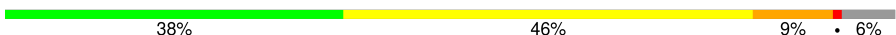



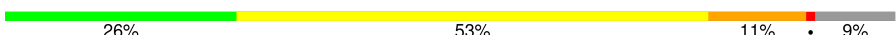



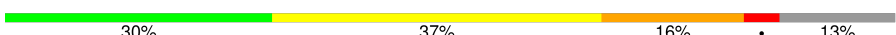




The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey 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	<div><div>30%</div><div>45%</div><div>19%</div><div>• •</div></div>
1	6	1800	<div><div>33%</div><div>43%</div><div>20%</div><div>•</div></div>
2	S0	251	<div><div>21%</div><div>47%</div><div>13%</div><div>•</div><div>18%</div></div>
2	s0	251	<div><div>63%</div><div>17%</div><div>•</div><div>18%</div></div>
3	S1	254	<div><div>24%</div><div>42%</div><div>17%</div><div>•</div><div>16%</div></div>
3	s1	254	<div><div>64%</div><div>20%</div><div>•</div><div>15%</div></div>


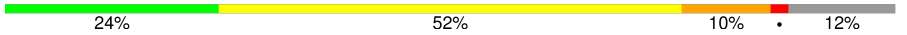

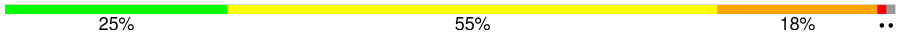

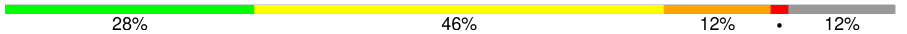

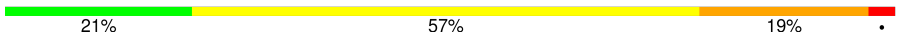

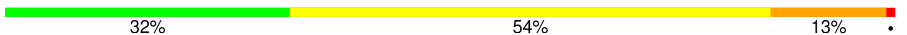

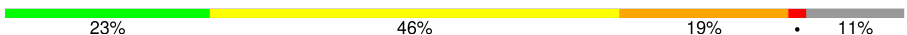

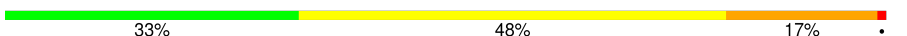











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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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





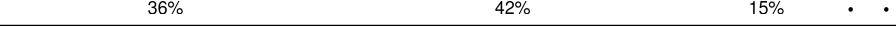
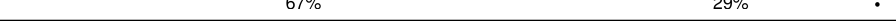

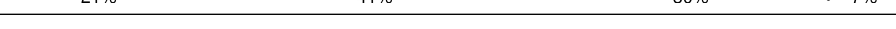
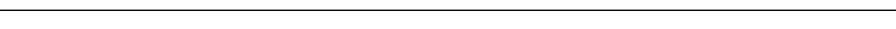
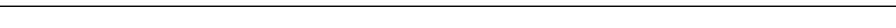




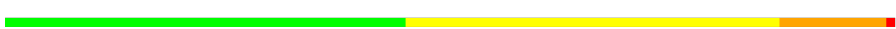
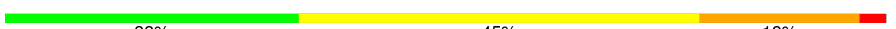


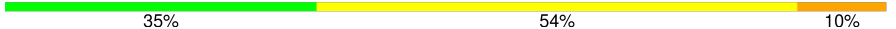






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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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

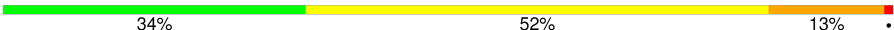



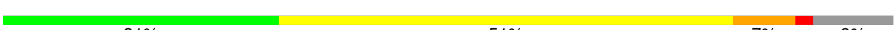





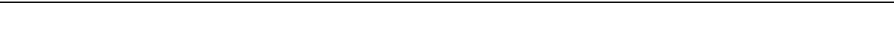

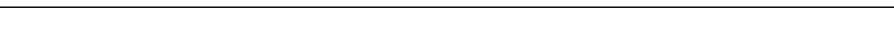
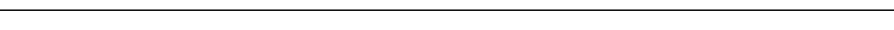











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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253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


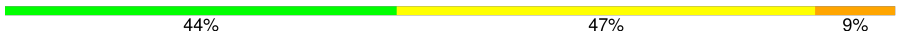



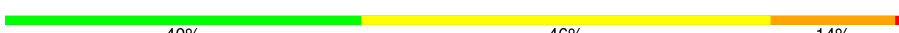





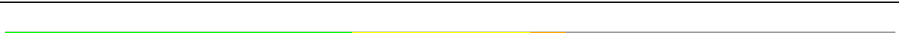













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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5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



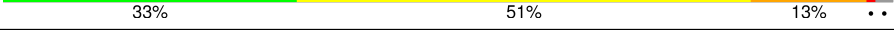
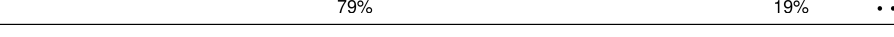
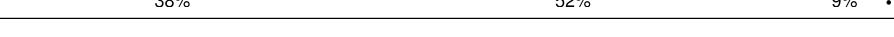
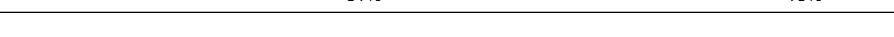



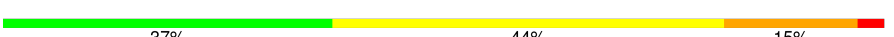

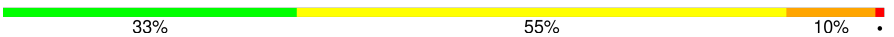






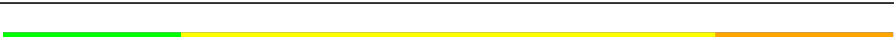



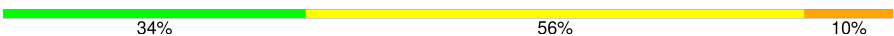


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Mol	Chain	Length	Quality of chain
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	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	p0	311	
82	m2	160	
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	3868	-	-	X	-
86	OHX	1	3937	-	-	X	-
86	OHX	1	3957	-	-	X	-
86	OHX	1	3959	-	-	X	-
86	OHX	1	3971	-	-	X	-
86	OHX	1	4002	-	-	X	-
86	OHX	1	4030	-	-	X	-
86	OHX	1	4043	-	-	X	-
86	OHX	1	4054	-	-	X	-
86	OHX	1	4138	-	-	X	-
86	OHX	1	4155	-	-	X	-
86	OHX	1	4167	-	-	X	-
86	OHX	1	4171	-	-	X	-
86	OHX	1	4180	-	-	X	-
86	OHX	1	4196	-	-	X	-
86	OHX	2	2030	-	-	X	-
86	OHX	2	2043	-	-	X	-
86	OHX	2	2098	-	-	X	-
86	OHX	2	2110	-	-	X	-
86	OHX	2	2131	-	-	X	-
86	OHX	2	2146	-	-	X	-
86	OHX	5	3935	-	-	X	-
86	OHX	5	3946	-	-	X	-
86	OHX	5	3955	-	-	X	-
86	OHX	5	3971	-	-	X	-
86	OHX	5	3994	-	-	X	-
86	OHX	5	3995	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	5	4004	-	-	X	-
86	OHX	5	4014	-	-	X	-
86	OHX	5	4049	-	-	X	-
86	OHX	5	4060	-	-	X	-
86	OHX	5	4083	-	-	X	-
86	OHX	5	4096	-	-	X	-
86	OHX	5	4136	-	-	X	-
86	OHX	5	4192	-	-	X	-
86	OHX	5	4193	-	-	X	-
86	OHX	5	4194	-	-	X	-
86	OHX	5	4210	-	-	X	-
86	OHX	5	4227	-	-	X	-
86	OHX	6	2058	-	-	X	-
86	OHX	6	2095	-	-	X	-
86	OHX	6	2118	-	-	X	-
86	OHX	6	2128	-	-	X	-
86	OHX	6	2145	-	-	X	-
86	OHX	6	2169	-	-	X	-
86	OHX	6	2187	-	-	X	-
86	OHX	8	218	-	-	X	-
86	OHX	8	225	-	-	X	-

2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411230 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
			1214	775	230	206	3			
13	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

There are 4 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	E1	71	Total	C	N	O	S	0	0	0
			566	362	106	94	4			
33	e1	76	Total	C	N	O	S	0	0	0
			608	388	117	99	4			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E1	77	ALA	GLY	conflict	UNP P05759
e1	77	ALA	GLY	conflict	UNP P05759

- 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			
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				

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	O7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			
73	o7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

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

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

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

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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 60S acidic ribosomal protein P0.

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

- Molecule 82 is a protein called UNKNOWN PROTEIN m2.

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

- Molecule 83 is a protein called UNKNOWN PROTEIN 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 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	n8	5	Total	Mg	0	0
			5	5		
85	o1	1	Total	Mg	0	0
			1	1		
85	N5	2	Total	Mg	0	0
			2	2		
85	6	146	Total	Mg	0	0
			146	146		
85	sM	2	Total	Mg	0	0
			2	2		
85	O4	1	Total	Mg	0	0
			1	1		
85	m5	3	Total	Mg	0	0
			3	3		
85	l3	3	Total	Mg	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	C1	1	Total 1	Mg 1	0	0
85	M1	1	Total 1	Mg 1	0	0
85	d6	1	Total 1	Mg 1	0	0
85	2	122	Total 122	Mg 122	0	0
85	n0	3	Total 3	Mg 3	0	0
85	L4	2	Total 2	Mg 2	0	0
85	l7	2	Total 2	Mg 2	0	0
85	M5	1	Total 1	Mg 1	0	0
85	c9	1	Total 1	Mg 1	0	0
85	S2	2	Total 2	Mg 2	0	0
85	L8	1	Total 1	Mg 1	0	0
85	o4	2	Total 2	Mg 2	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	1	Total 1	Mg 1	0	0
85	M0	2	Total 2	Mg 2	0	0
85	c1	1	Total 1	Mg 1	0	0
85	5	497	Total 497	Mg 497	0	0
85	L5	1	Total 1	Mg 1	0	0
85	O7	1	Total 1	Mg 1	0	0

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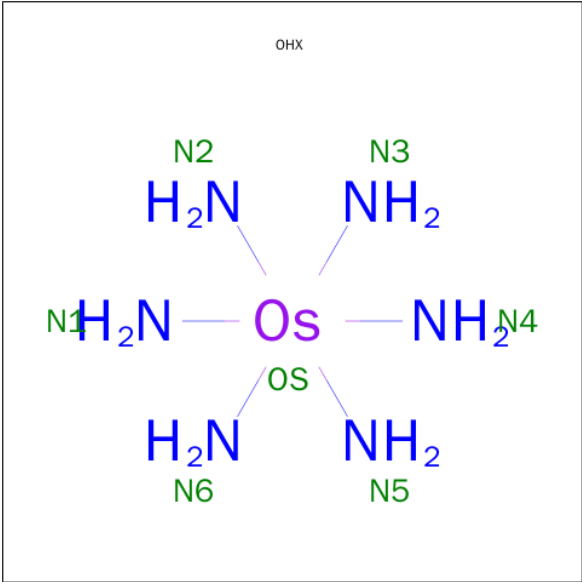
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	s6	1	Total 1	Mg 1	0	0
85	Q2	1	Total 1	Mg 1	0	0
85	n9	1	Total 1	Mg 1	0	0
85	1	470	Total 470	Mg 470	0	0
85	D0	1	Total 1	Mg 1	0	0
85	S8	1	Total 1	Mg 1	0	0
85	l2	3	Total 3	Mg 3	0	0
85	O2	1	Total 1	Mg 1	0	0
85	q3	2	Total 2	Mg 2	0	0
85	o3	1	Total 1	Mg 1	0	0
85	d3	3	Total 3	Mg 3	0	0
85	M3	3	Total 3	Mg 3	0	0
85	N3	3	Total 3	Mg 3	0	0
85	4	25	Total 25	Mg 25	0	0
85	n6	1	Total 1	Mg 1	0	0
85	S4	1	Total 1	Mg 1	0	0
85	L2	2	Total 2	Mg 2	0	0
85	m1	2	Total 2	Mg 2	0	0
85	l5	1	Total 1	Mg 1	0	0
85	m7	5	Total 5	Mg 5	0	0
85	M7	3	Total 3	Mg 3	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	N8	4	Total 4	Mg 4	0	0
85	s1	1	Total 1	Mg 1	0	0
85	m6	1	Total 1	Mg 1	0	0
85	s8	2	Total 2	Mg 2	0	0
85	l8	1	Total 1	Mg 1	0	0
85	c7	1	Total 1	Mg 1	0	0
85	7	16	Total 16	Mg 16	0	0
85	n3	2	Total 2	Mg 2	0	0
85	q1	1	Total 1	Mg 1	0	0
85	L3	2	Total 2	Mg 2	0	0
85	d4	1	Total 1	Mg 1	0	0
85	N6	2	Total 2	Mg 2	0	0
85	8	15	Total 15	Mg 15	0	0
85	l4	2	Total 2	Mg 2	0	0
85	M6	1	Total 1	Mg 1	0	0
85	N0	1	Total 1	Mg 1	0	0
85	3	14	Total 14	Mg 14	0	0

- Molecule 86 is osmium (III) hexammine (three-letter code: OHX) (formula: H₁₂N₆Os).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
			7	6	1		
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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			7	6	1		
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
			7	6	1		
86	2	1	Total	N	Os	0	0
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86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
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
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
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86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	S6	1	Total	N	Os	0	0
			7	6	1		
86	S8	1	Total	N	Os	0	0
			7	6	1		
86	C3	1	Total	N	Os	0	0
			7	6	1		
86	C5	1	Total	N	Os	0	0
			7	6	1		

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
			7	6	1		
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86	1	1	Total	N	Os	0	0
			7	6	1		
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
86	1	1	Total	N	Os	0	0
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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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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
86	1	1	Total	N	Os	0	0
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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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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
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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86	1	1	Total	N	Os	0	0
			7	6	1		
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	3	1	Total	N	Os	0	0
			7	6	1		
86	3	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	3	1	Total	N	Os	0	0
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86	3	1	Total	N	Os	0	0
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			7	6	1		
86	4	1	Total	N	Os	0	0
			7	6	1		
86	4	1	Total	N	Os	0	0
			7	6	1		

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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	L3	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L3	1	Total	N	Os	0	0
			7	6	1		
86	L4	1	Total	N	Os	0	0
			7	6	1		
86	M0	1	Total	N	Os	0	0
			7	6	1		
86	M5	1	Total	N	Os	0	0
			7	6	1		
86	M7	1	Total	N	Os	0	0
			7	6	1		
86	M7	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
			7	6	1		
86	N9	1	Total	N	Os	0	0
			7	6	1		
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
			7	6	1		
86	6	1	Total	N	Os	0	0
			7	6	1		

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

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

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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	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		
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	l3	1	Total 7	N 6	Os 1	0	0
86	l3	1	Total 7	N 6	Os 1	0	0
86	l3	1	Total 7	N 6	Os 1	0	0
86	l4	1	Total 7	N 6	Os 1	0	0
86	l4	1	Total 7	N 6	Os 1	0	0
86	l5	1	Total 7	N 6	Os 1	0	0
86	l5	1	Total 7	N 6	Os 1	0	0
86	l9	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
86	m7	1	Total 7	N 6	Os 1	0	0
86	m8	1	Total 7	N 6	Os 1	0	0
86	n3	1	Total 7	N 6	Os 1	0	0
86	n3	1	Total 7	N 6	Os 1	0	0
86	n6	1	Total 7	N 6	Os 1	0	0
86	n9	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	o2	1	Total	N	Os	0	0
			7	6	1		
86	o3	1	Total	N	Os	0	0
			7	6	1		
86	o7	1	Total	N	Os	0	0
			7	6	1		
86	o7	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).

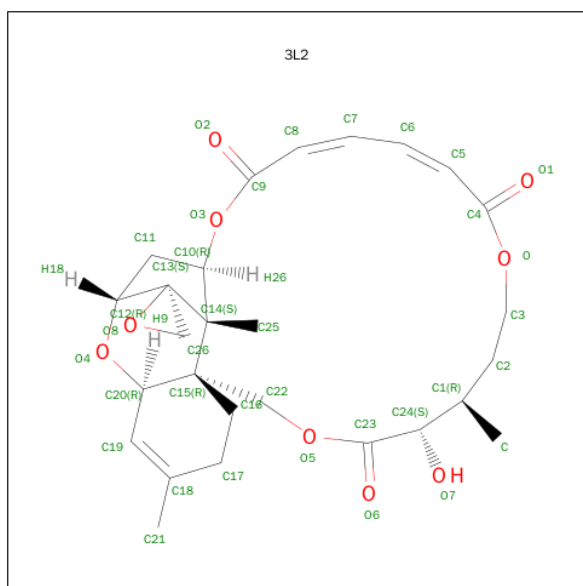
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	q0	1	Total	Zn	0	0
			1	1		
87	D6	1	Total	Zn	0	0
			1	1		
87	Q2	1	Total	Zn	0	0
			1	1		
87	e1	1	Total	Zn	0	0
			1	1		
87	Q3	1	Total	Zn	0	0
			1	1		
87	D9	1	Total	Zn	0	0
			1	1		
87	E1	1	Total	Zn	0	0
			1	1		
87	Q0	1	Total	Zn	0	0
			1	1		
87	d7	1	Total	Zn	0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

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	O7	1	Total	Zn	0	0
			1	1		
87	q2	1	Total	Zn	0	0
			1	1		

- Molecule 88 is (4S,5R,10E,12Z,16R,16aS,17S,18R,19aR,23aR)-4-hydroxy-5,16a,21-trimethyl-4,5,6,7,16,16a,22,23-octahydro-3H,18H,19aH-spiro[16,18-methano[1,6,12]trioxacyclooctadecino[3,4-d]chromene-17,2'-oxirane]-3,9,14-trione (three-letter code: 3L2) (formula: C₂₇H₃₄O₉).



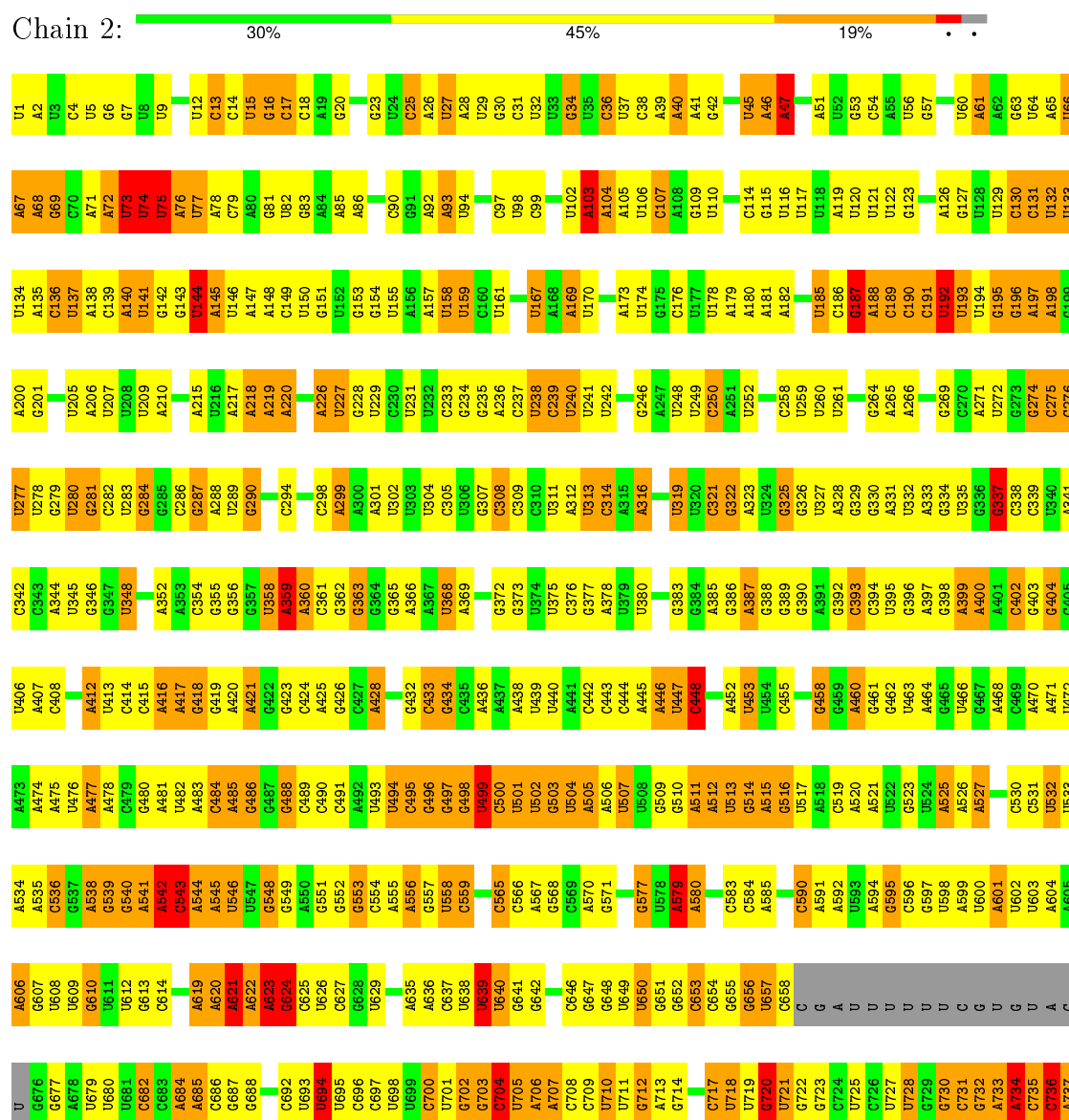
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	C	O	0	0
			36	27	9		
88	5	1	Total	C	O	0	0
			36	27	9		

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.

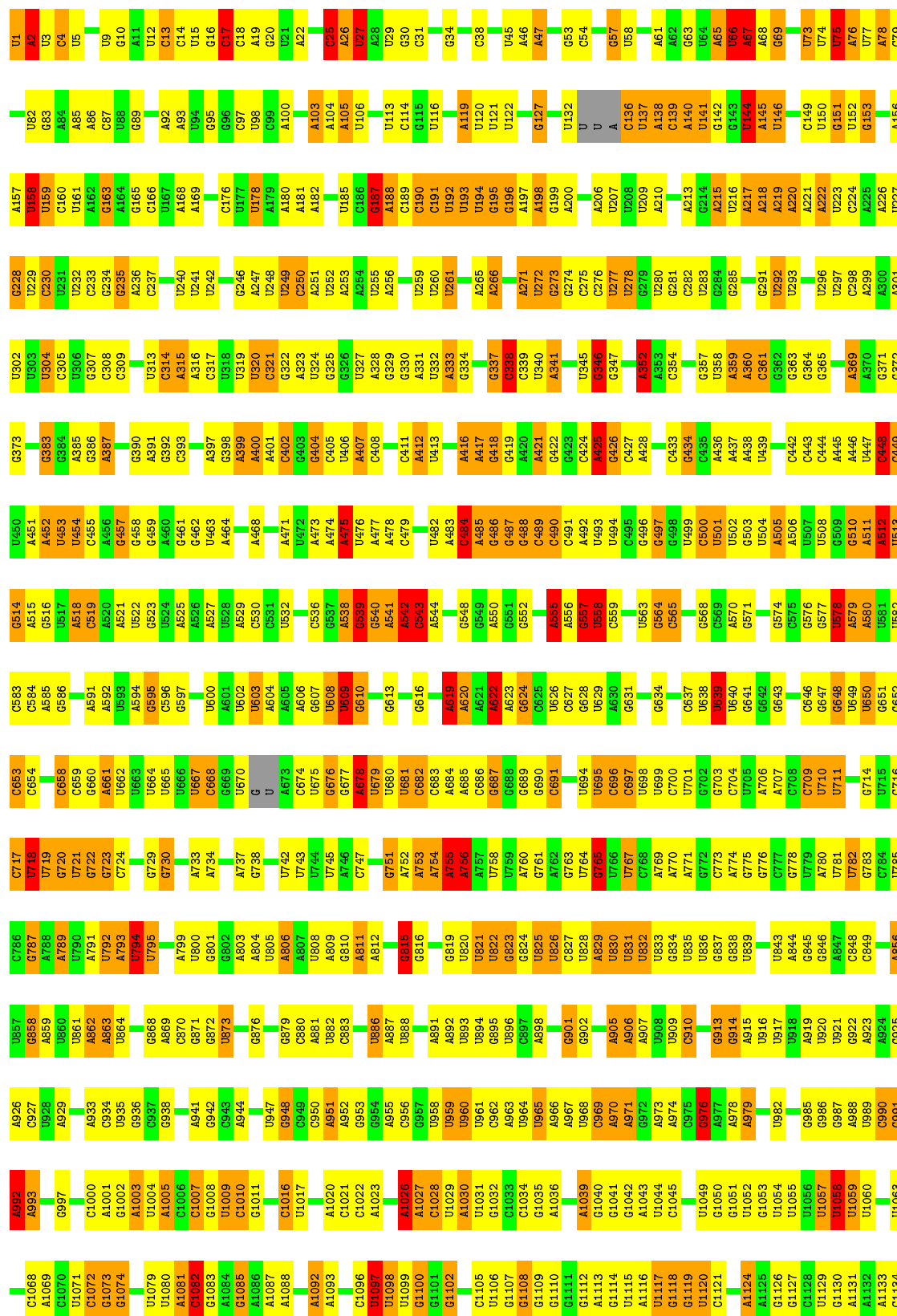
• Molecule 1: 18S ribosomal RNA

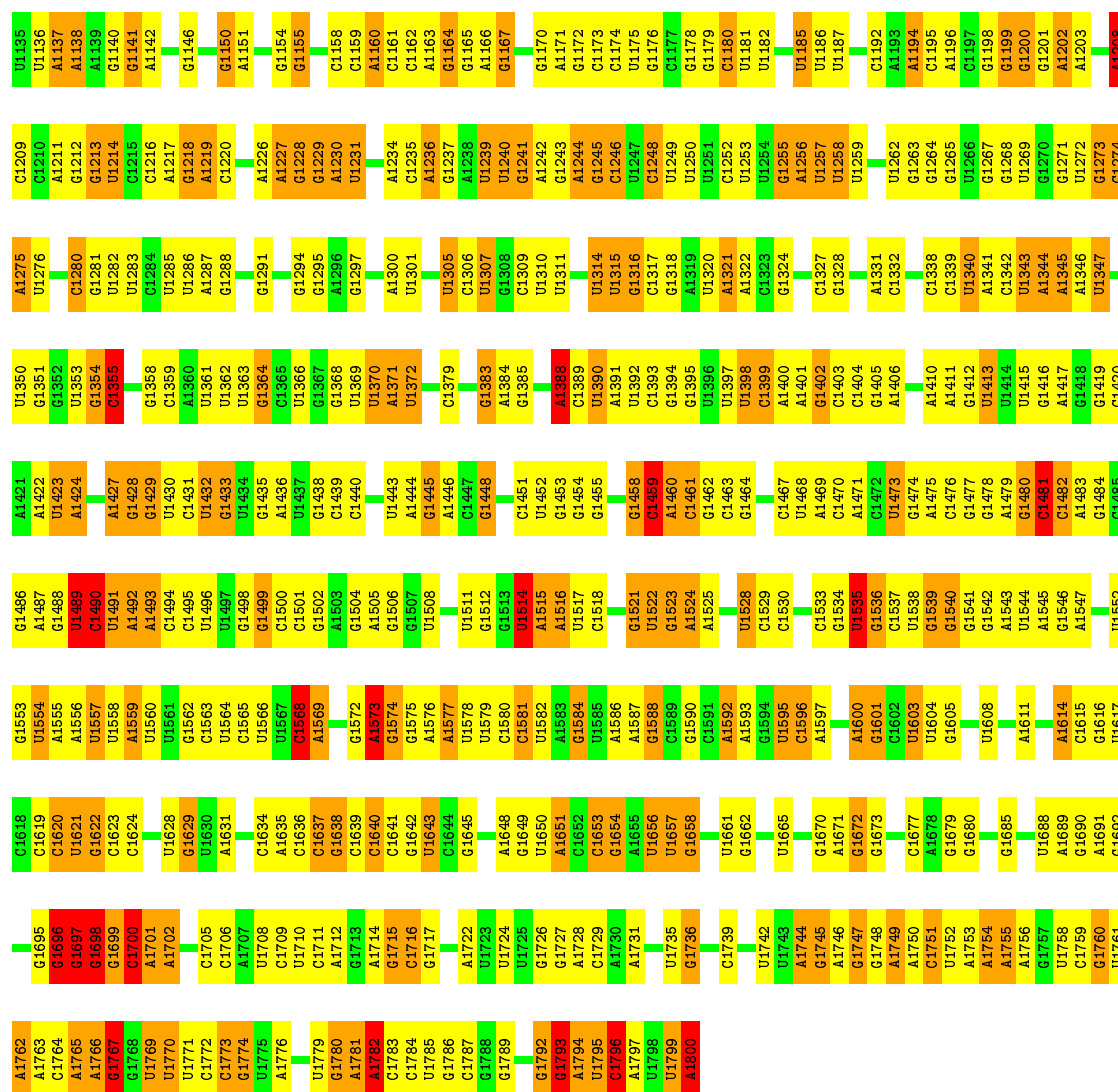


C1787	G1718	A1651	C1581	C1518	G1453	A1384	U1301	U1232	U1168	U1095	A1026	A952	A881	C810	U738
G1788	A1719	C1652	G1584	U1519	G1454	G1385	U1302	G1293	G1169	C1096	A1027	G953	U882	A811	G739
G1720	G1521	C1653	U1585	U1520	G1456	G1386		A1234	G1170	U1097	U1028	G954	C883	U812	A740
	G1726		U1586	U1522	C1457	A1387	C1309	C1235	A1171	U1098	U1029	A955	A884	U813	C741
	G1729	U1656	A1587	G1523	C1458	A1388		G1237	G1172	U1099	U1030	G956	G885	A814	U742
U1795	A1730	G1658	U1588	A1524	C1459	U1389	U1314	A1238	C1173	G1100	U1031	G957	U886	G815	U743
C1796	A1525	A1460	C1589	A1526	C1461	U1390	U1315	U1239	C1174	G1101	G1032	U958	A887	G816	U744
A1797	A1527		C1590	U1527	C1461	C1393	G1316	U1240	U1175	G1102	C1033	U959	U888	A817	U745
U	C1732	U1661	C1591	U1528	G1464	G1394	C1317	G1241	C1177	C1105	G1035	A892		C818	
A	C1733	G1662	A1592	U1529	C1465	G1395	C1318	A1242	G1178	U1106	A1036	A966	U893	G819	G751
	U1734	G1663	A1593	C1529	C1466	U1396	A1319	G1243	G1179	G1107	C1037	A967	U894	U820	A752
	U1735	U1655	G1594	G1531	C1467	U1397	U1320	C1180	G1180	G1108	U1038	U968	U895	U821	A753
	G1736	U1666	C1596	U1532	C1468	U1398	A1321	G1245	U1181	G1109	A1039	G969	U896	U822	A754
	U1737			C1533	U1468	C1399	C1322	C1246	U1182		A1039	A970	U897	G823	A755
	U1738			C1533			C1323	U1247	U1183	A1113	G1041	A971		G824	A756
	U1740	G1670	C1599	G1534	A1471	G1402	C1324	C1248	A1183	G1114	A1042		A898	U825	
	A1740	A1671	U1595	C1535	C1472	C1403	A1325	U1249	U1185	G1115	A1043	G975	U899	U826	U759
	U1741	G1672	G1601	G1536	U1473	C1404		U1250	U1186	U1117	U1044	G976	G901	U828	G763
	U1742	G1673	C1602	C1537	G1474	G1405	A1329	U1251		G1118	G1045	A977	G902	U829	U764
	U1743		U1603	U1538	G1475	A1406	G1330	C1252	A1189	G1119	C1046	A978		A830	G765
	G1744	G1679	U1604	G1539	C1476	U1407	A1331	U1253	U1190	G1120	U1047	A979	U831	U832	U766
	G1745	G1680	G1605	G1540		G1408		U1254	U1191	C1121	G1051	G980		U832	U767
	A1746	A1681	C1606	G1541	A1479	G1409	U1335	G1255	A1194	G1122	U1052		U911	U833	G768
	G1747	G1682	G1607	G1542	G1480	A1410	A1336	G1256	C1195	C1123	G1053		U912	G834	A769
	G1748	C1683	U1608	A1543	C1481	A1411	A1337	U1257	C1195	A1124		G985	G913	U835	A770
	A1749		U1609	U1544	C1482	G1412	C1338	U1258	A1196	G1130	U1058	G986	G914	U836	A771
	U1750	G1685	G1610	A1545	A1483	U1413	C1339	U1259	G1197	G1140	A1064	G993	A915	G837	G772
		C	A1611	G1546	G1484	U1414	U1340		G1198	A1131	U1059	A988	U916	G838	G773
	A1754	U	U1612	A1547	C1485	U1415	A1341	G1263	G1199	A1132	U1060	A989	U917	U839	A774
	A1755	U	G1613	G1548	G1486	G1416	G1200		G1200		A1061	G990	U918	U840	G775
	A1756	A	U1614	C1549	A1487	A1417	G1201	U1266	G1201	A1138	A1062	G991	A919		
		G	C1615	U1550	C1488	A1418	A1344	U1267	A1202	A1139	U1063	A992	A920	U843	G778
	G1760	A	U1616	A1488			A1345	G1268	A1203	A1140	A1064	G993		G846	U779
	U1761	G	G1617	G1553	C1490	A1424	U1347		A1204	G1141	A1065	G994			A780
	A1762	A	C1618	U1554	U1491	A1425	A1348	G1273	G1207	A1143	C1066	A995	A924	A850	U781
	A1763	A	C1619	A1555	A1492	C1426	G1349	G1274	A1308	A1144	C1067	U996	G925	U851	
	G1764	G	C1620	U1556	A1493	A1427	U1350	A1275	C1209	U1145	C1068	G997	A926	C852	G783
	A1765	G	U1557	U1558	C1494	G1428	G1351	U1276	G1277	U1146			C927	G853	C784
	G1766	G	C1622	U1559	C1495	G1429		U1277	C1210	G1146	G1073	C1000	U928	U854	
	G1767	G	A1559	A1560	U1496	U1430	G1354	G1278	A1211	A1147	G1074	A1001	A929	U854	G787
	G1768	G	G1497	U1497	G1498	U1432	C1355	C1279	G1212	C1148	G1075	G1002	A930	A855	A788
	U1769	C	G1499	G1499	G1499	G1433	G1358	C1280	G1213	G1149	A1076	A1003	C931	A856	A789
	U1770	A	C1500	C1500	U1434	G1435	C1359	G1281	U1214	G1150	U1079	A1004	U932	U857	
	U1771				G1435			U1282	A1217	A1151		A1005	A933		U792
	C1772	C	A1503	U1564	U1362	G1438	U1362	U1285	G1218	A1152	U1080	C1006	C934	U860	U793
	G1773	U	G1504	C1565	U1363		U1363	G1218	A1219	G1155	A1081	C1010	U935	U861	A794
	G1774	C	A1505	U1566	G1364	U1364	G1364	A1287	C1220	C1156	G1082	G1011	C937	A862	U795
	U1775	C	G1506	G1567	C1365	U1442	C1365	G1288	A1221	A1157	A1084	U1012	G938	A863	A796
	A1776	A	G1507	A1569	U1442	U1443	U1366	U1289	C1222	C1158	G1085	A1013	A939	U864	
	G1777	U	U1508	A1570	U1443	U1444		U1290	A1223	C1159	A1086	G1014	A940	A865	A799
	U1778	C	U1509	C1571	U1444	A1445	U1369	U1291	U1224	G1159	A1087	U1015	A941	G866	U800
	G1779	U	U1510	A1572	U1445	A1446	C1370	G1292	U1225	A1160	A1087	U1016	A941	G867	U801
	A1781	A	U1511	U1511	C1447	U1447	A1371	U1293	U1226	C1162	U1089	C1016	G942	G868	G802
	G1782	G	U1514	U1514	G1448	G1448	U1372	G1294	A1227	A1163	C1090	U1017	C943	A869	A803
	C1783	A	A1515	U1515	U1449	U1449	U1378	G1297	G1228	G1164	A1091	A1019	U945	C870	A806
	U1784	G	A1516	C1451	U1450	U1450	U1378	G1297	G1229	G1165	A1092	A1023	U946	G871	A807
	U1785	C	U1517	U1517	U1451	U1452	G1383	A1300	U1231	A1166	A1092			U872	U808
	G1786									G1167	G1094		A951	U873	A809

• Molecule 1: 18S ribosomal RNA

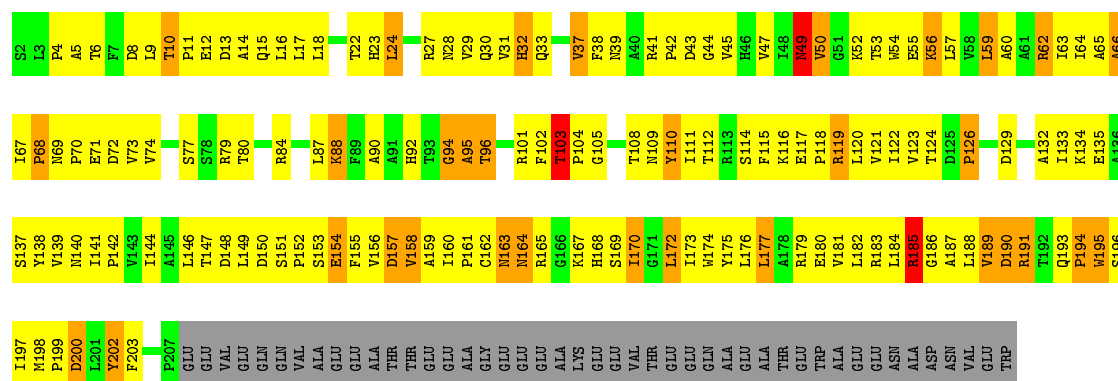
Chain 6:  33% 43% 20%





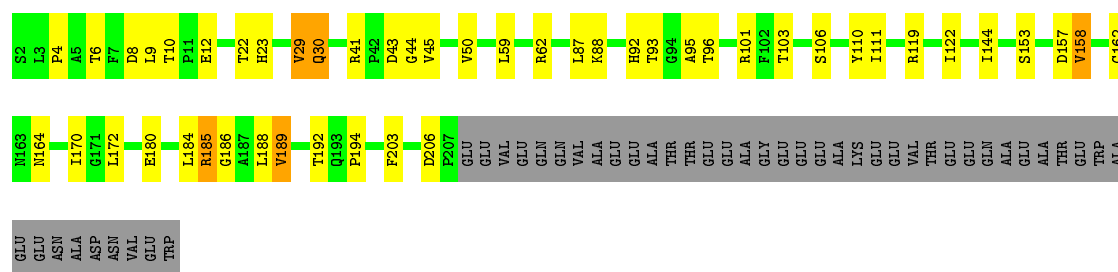
• Molecule 2: 40S ribosomal protein S0-A

Chain S0: 21% 47% 13% 18%

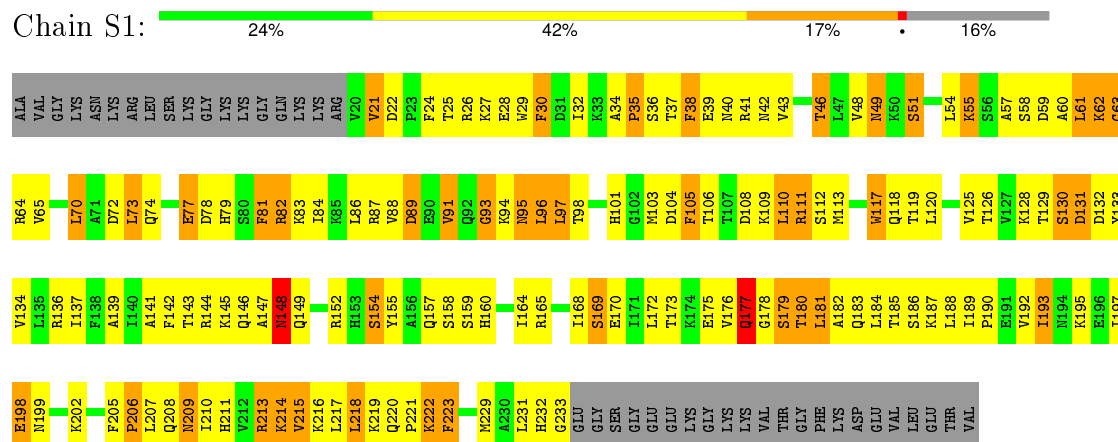


• Molecule 2: 40S ribosomal protein S0-A

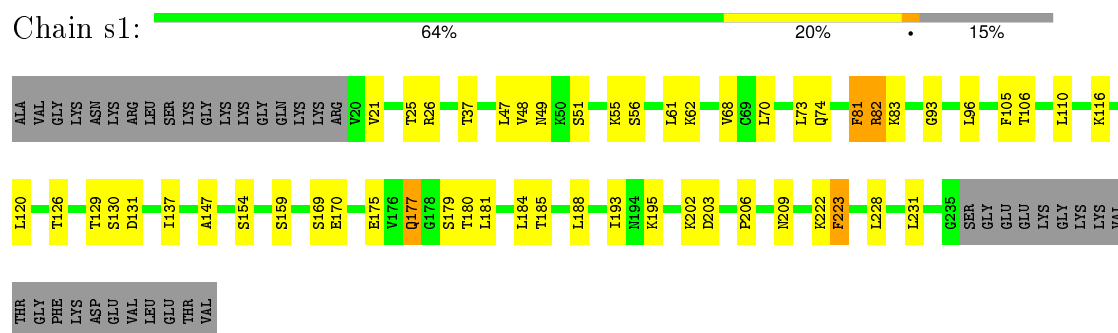
Chain s0: 63% 17% 18%



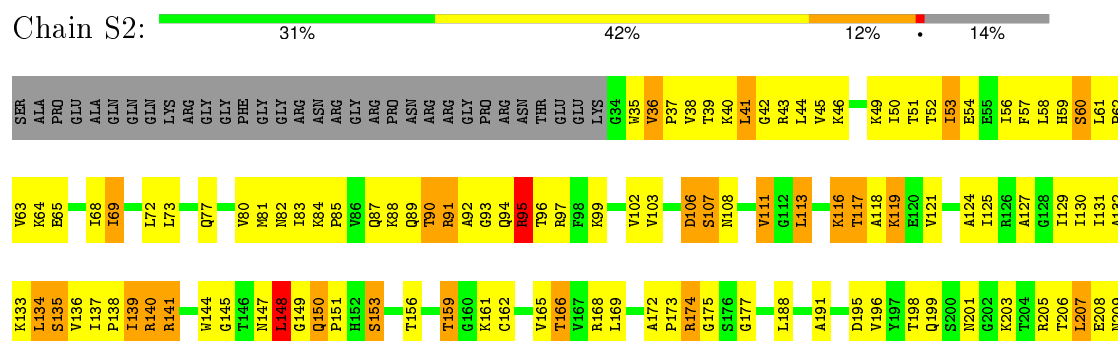
- Molecule 3: 40S ribosomal protein S1-A



- Molecule 3: 40S ribosomal protein S1-A



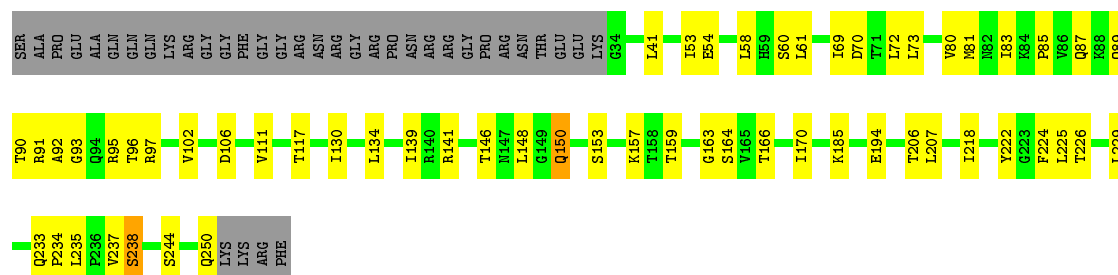
- Molecule 4: 40S ribosomal protein S2





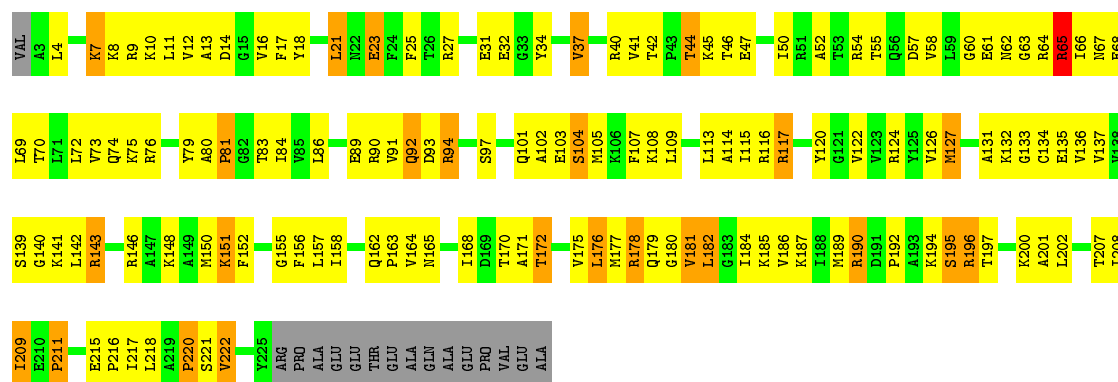
• Molecule 4: 40S ribosomal protein S2

Chain s2: 63% 22% 14%



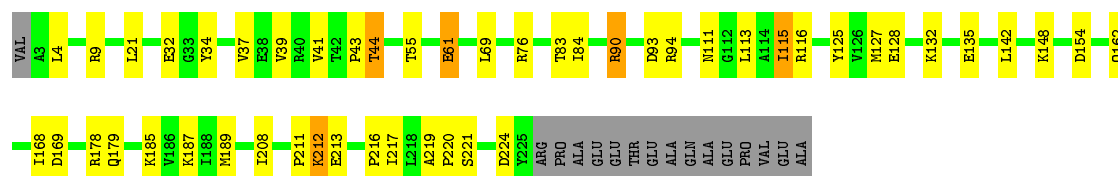
• Molecule 5: 40S ribosomal protein S3

Chain S3: 34% 49% 10% 7%



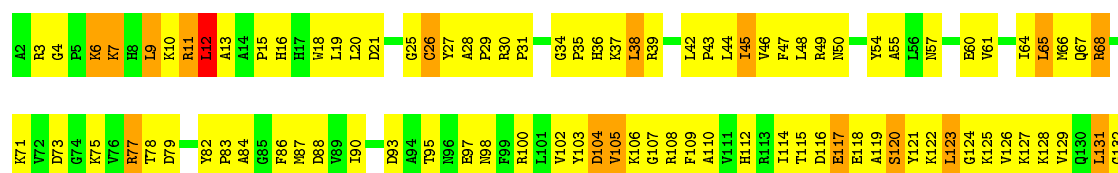
• Molecule 5: 40S ribosomal protein S3

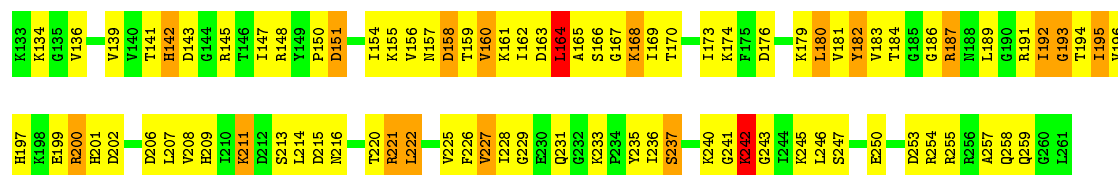
Chain s3: 73% 18% 7%



• Molecule 6: 40S ribosomal protein S4-A

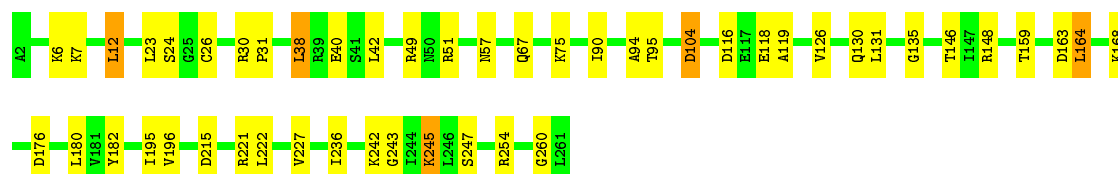
Chain S4: 31% 55% 13%





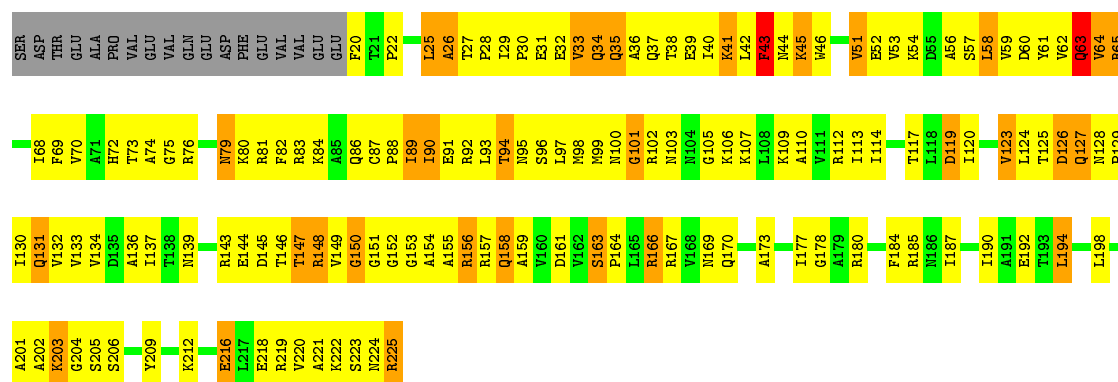
• Molecule 6: 40S ribosomal protein S4-A

Chain s4: 81% 17%



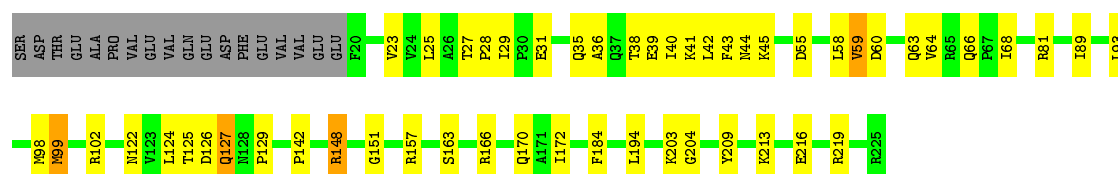
• Molecule 7: 40S ribosomal protein S5

Chain S5: 26% 51% 14% 8%



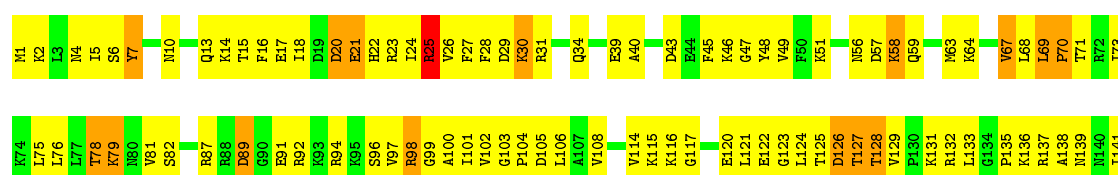
• Molecule 7: 40S ribosomal protein S5

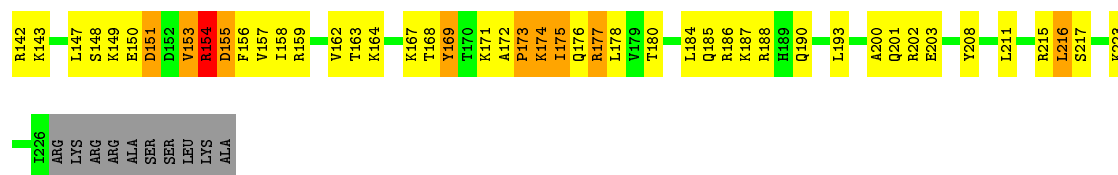
Chain s5: 69% 21% 8%



• Molecule 8: 40S ribosomal protein S6-A

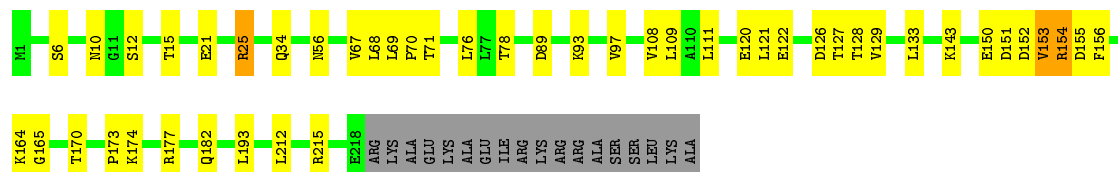
Chain S6: 37% 48% 10%





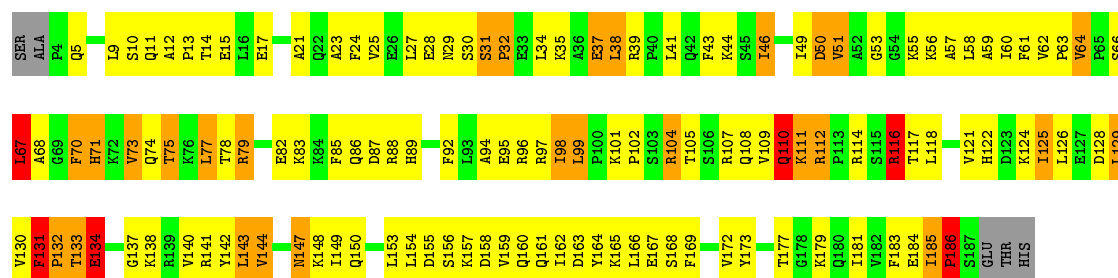
• Molecule 8: 40S ribosomal protein S6-A

Chain s6: 72% 19% 8%



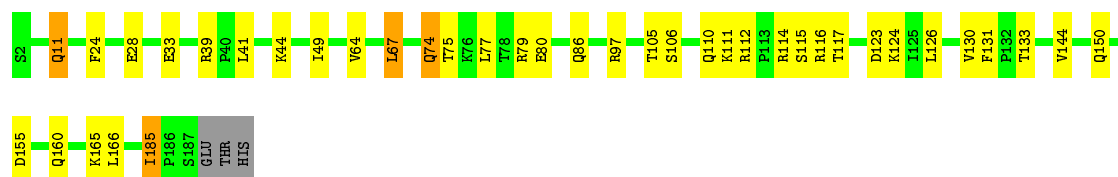
• Molecule 9: 40S ribosomal protein S7-A

Chain S7: 29% 51% 14%



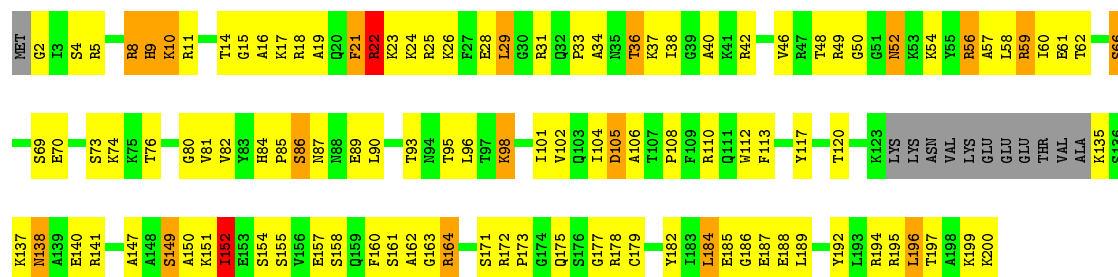
• Molecule 9: 40S ribosomal protein S7-A

Chain s7: 78% 19%

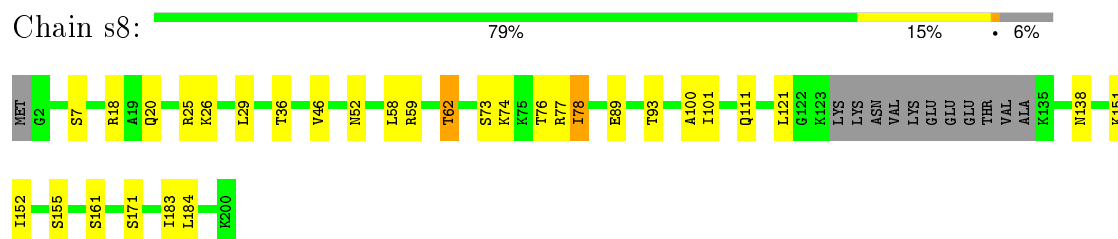


• Molecule 10: 40S ribosomal protein S8-A

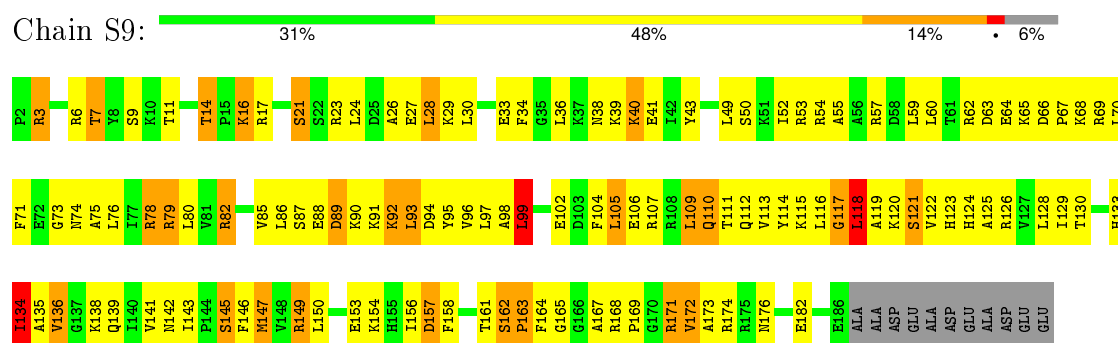
Chain S8: 38% 46% 9% 6%



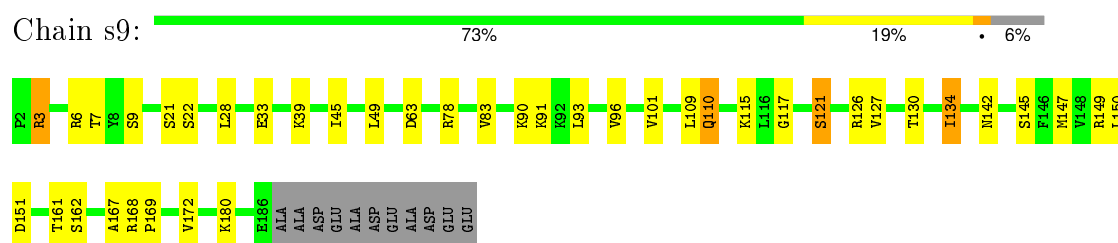
- Molecule 10: 40S ribosomal protein S8-A



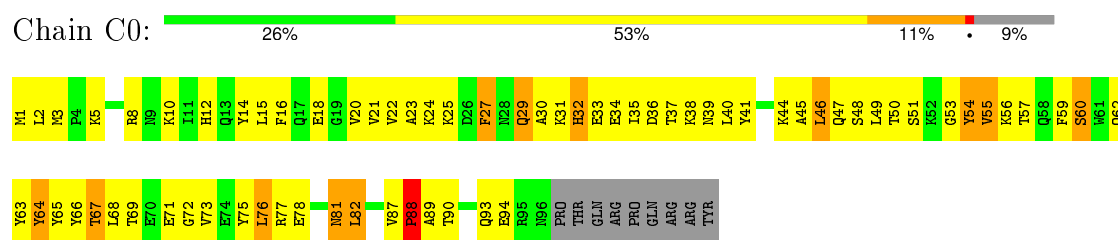
- Molecule 11: 40S ribosomal protein S9-A



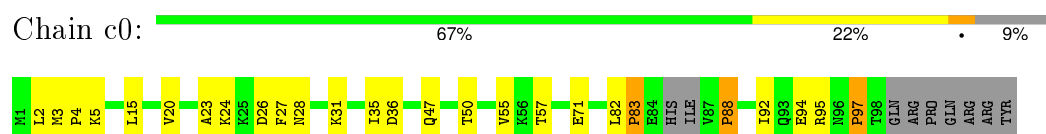
- Molecule 11: 40S ribosomal protein S9-A



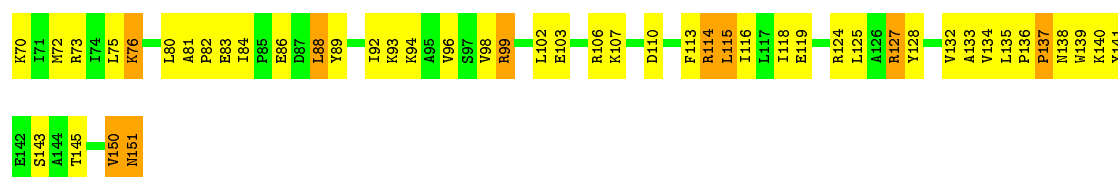
- Molecule 12: 40S ribosomal protein S10-A



- Molecule 12: 40S ribosomal protein S10-A

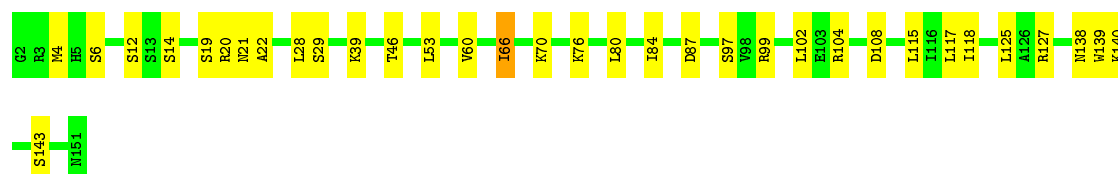


- Molecule 13: 40S ribosomal protein S11-A



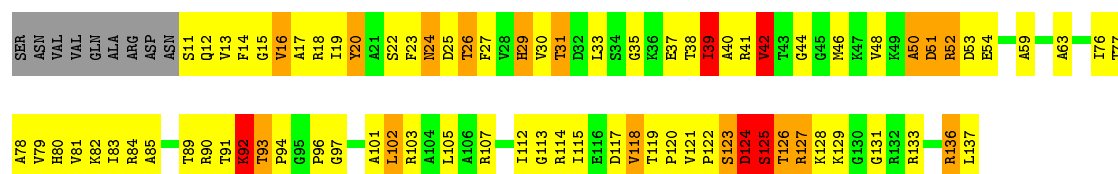
- Molecule 15: 40S ribosomal protein S13

Chain c3: 77% 22%



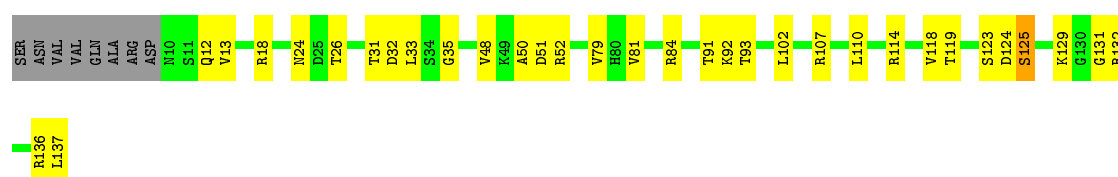
- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 34% 44% 12% 7%



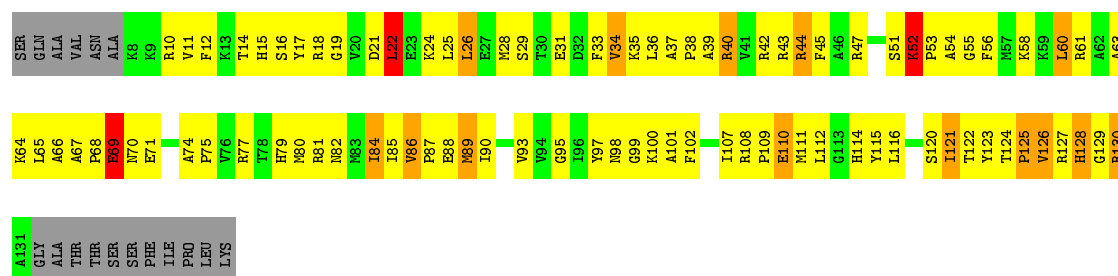
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 70% 24% 6%

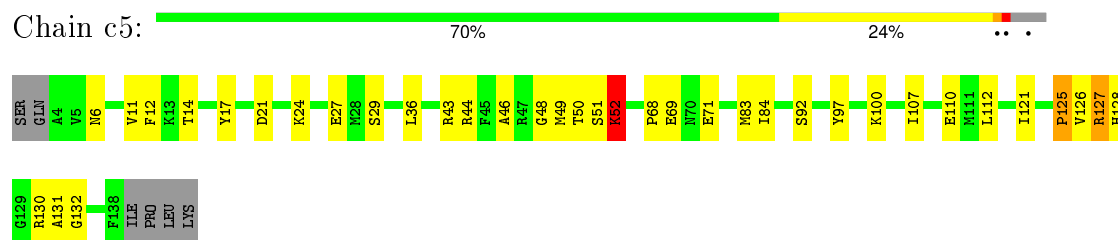


- Molecule 17: 40S ribosomal protein S15

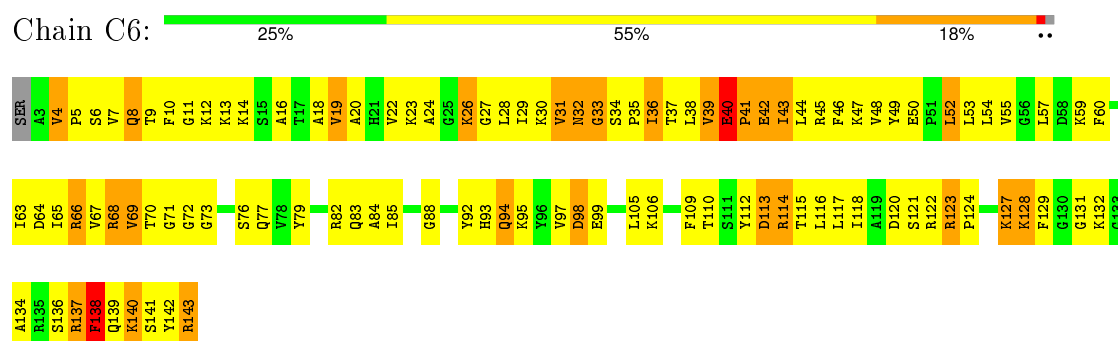
Chain C5: 24% 52% 10% 12%



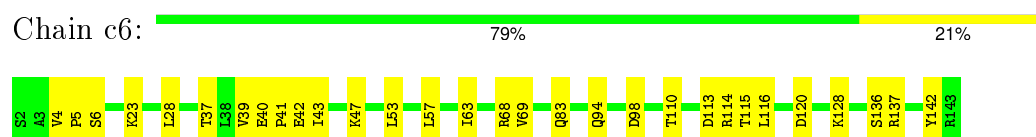
- Molecule 17: 40S ribosomal protein S15



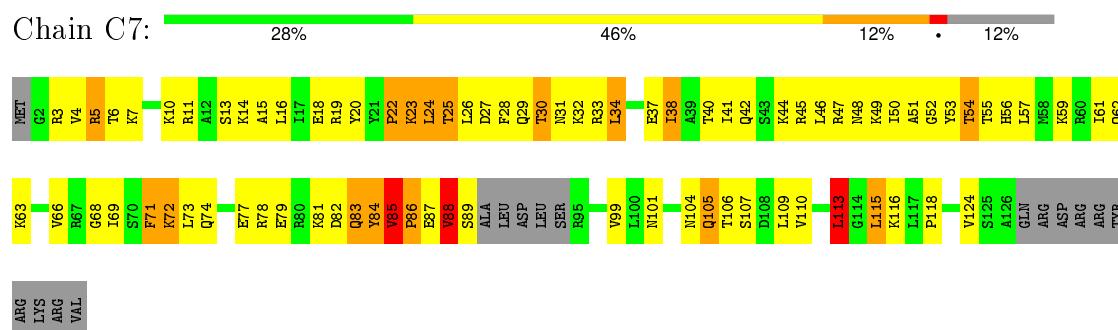
- Molecule 18: 40S ribosomal protein S16-A



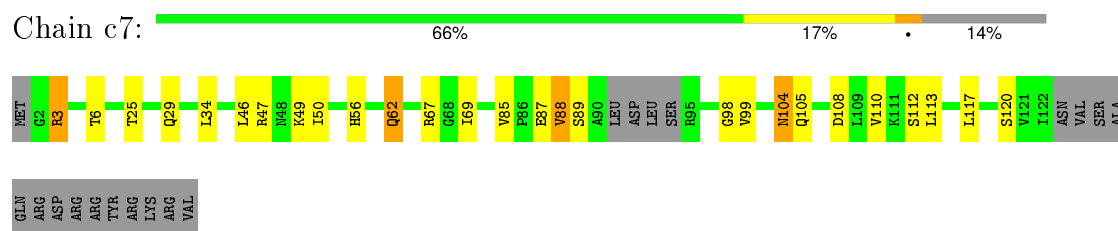
- Molecule 18: 40S ribosomal protein S16-A



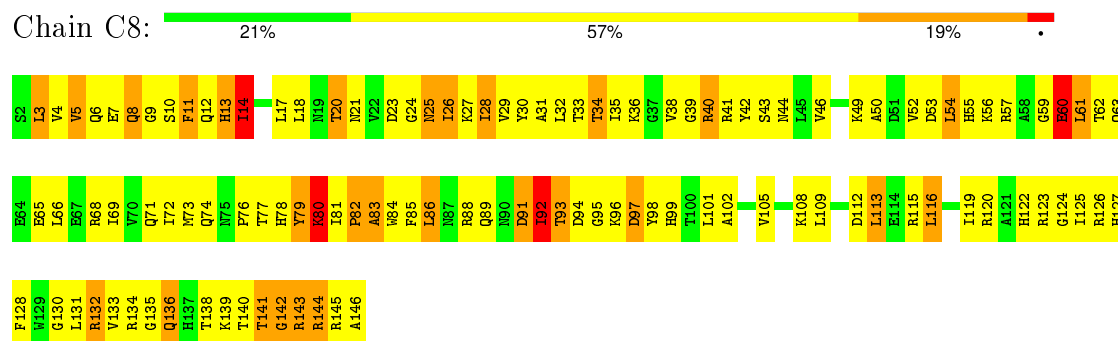
- Molecule 19: 40S ribosomal protein S17-A



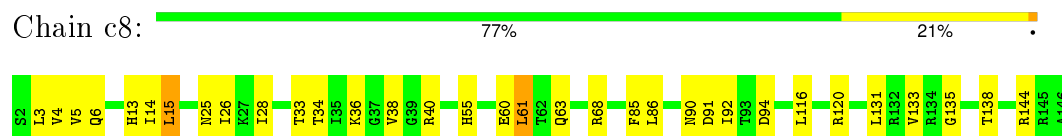
- Molecule 19: 40S ribosomal protein S17-A



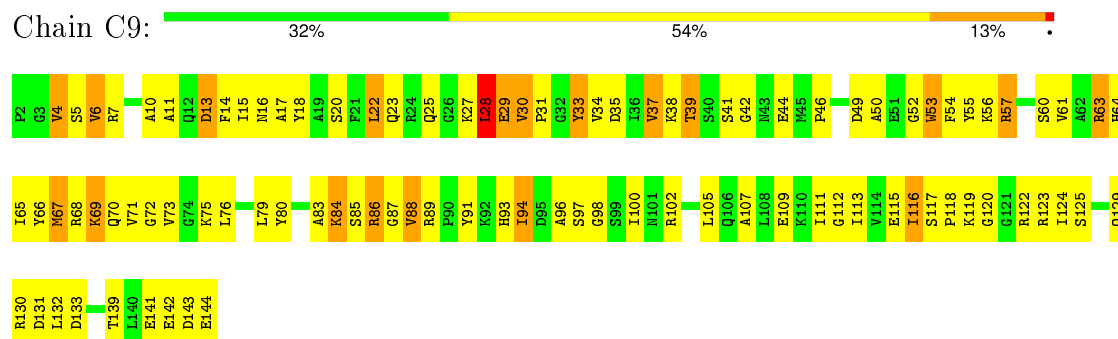
- Molecule 20: 40S ribosomal protein S18-A



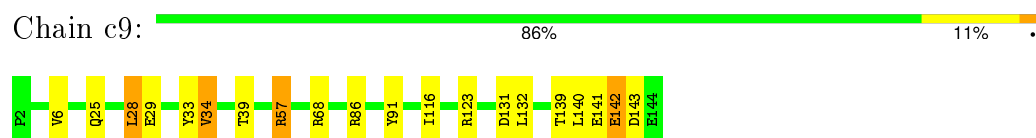
- Molecule 20: 40S ribosomal protein S18-A



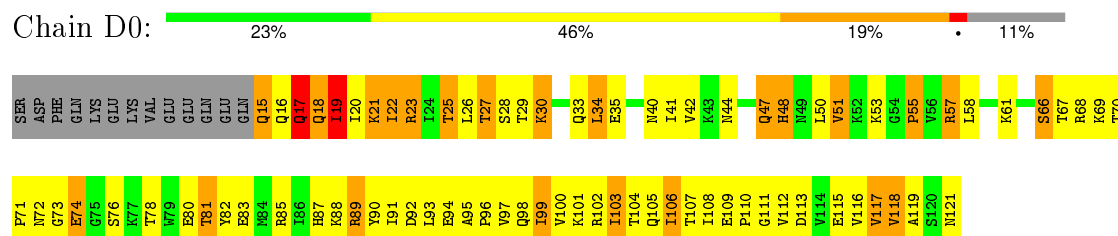
- Molecule 21: 40S ribosomal protein S19-A



- Molecule 21: 40S ribosomal protein S19-A

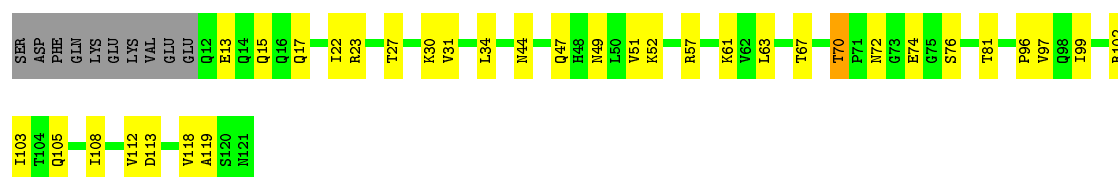


- Molecule 22: 40S ribosomal protein S20



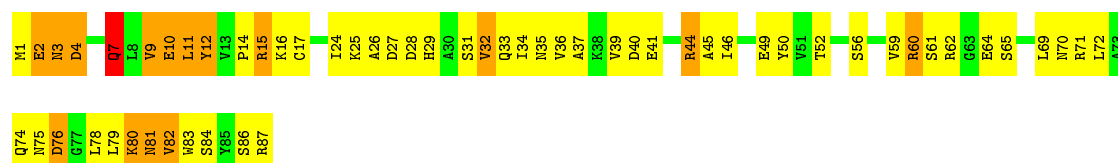
- Molecule 22: 40S ribosomal protein S20





- Molecule 23: 40S ribosomal protein S21-A

Chain D1: 33% 48% 17%



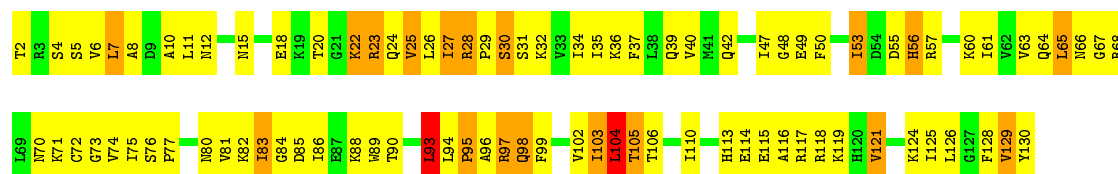
- Molecule 23: 40S ribosomal protein S21-A

Chain d1: 79% 21%



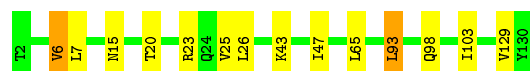
- Molecule 24: 40S ribosomal protein S22-A

Chain D2: 29% 55% 14%



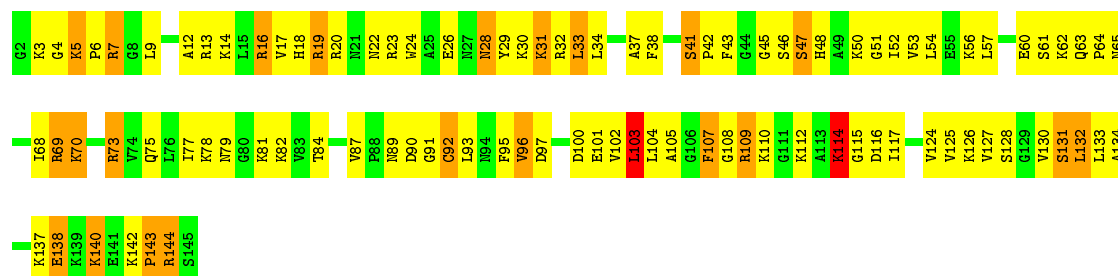
- Molecule 24: 40S ribosomal protein S22-A

Chain d2: 89% 9%

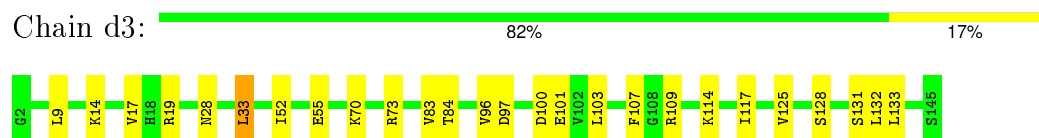


- Molecule 25: 40S ribosomal protein S23-A

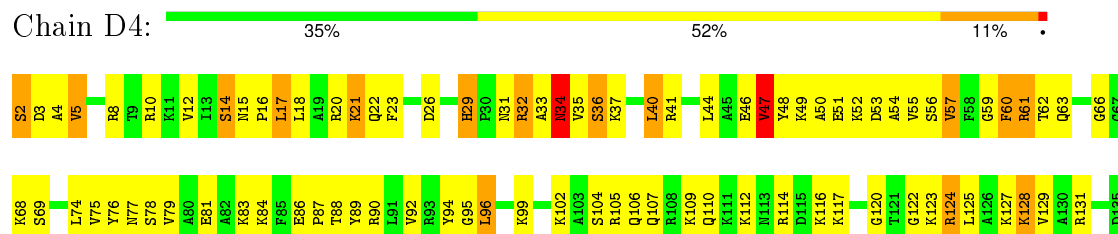
Chain D3: 32% 51% 15%



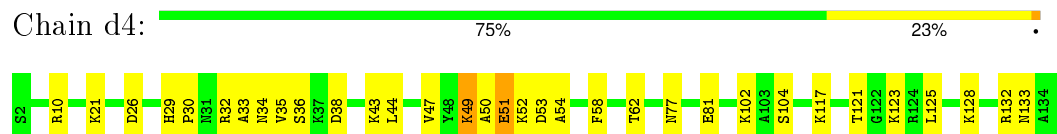
- Molecule 25: 40S ribosomal protein S23-A



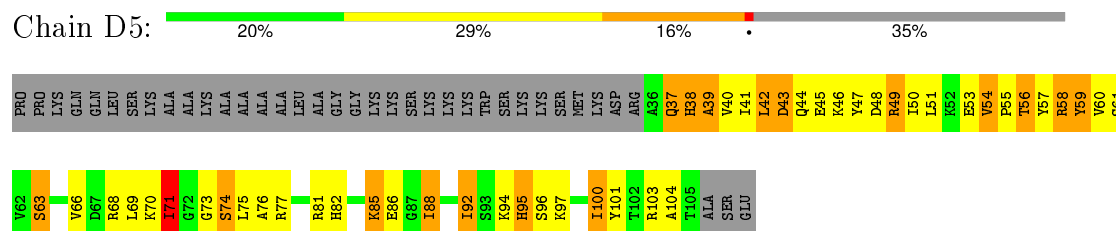
- Molecule 26: 40S ribosomal protein S24-A



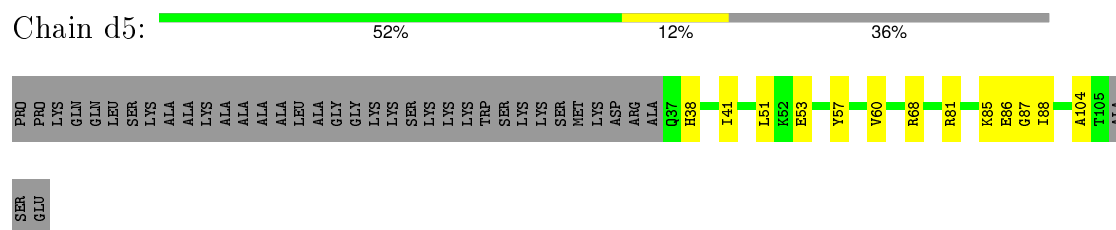
- Molecule 26: 40S ribosomal protein S24-A



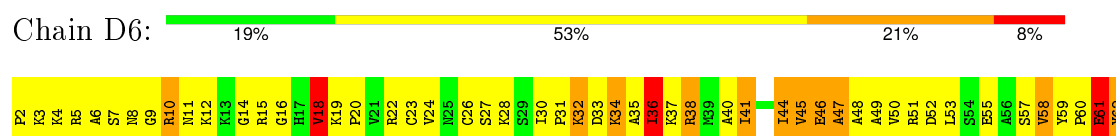
- Molecule 27: 40S ribosomal protein S25-A

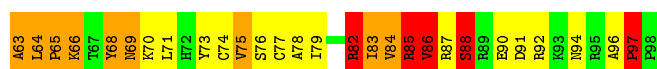


- Molecule 27: 40S ribosomal protein S25-A



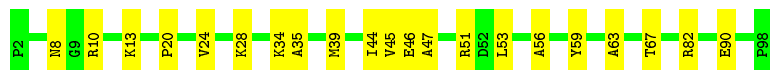
- Molecule 28: 40S ribosomal protein S26-B





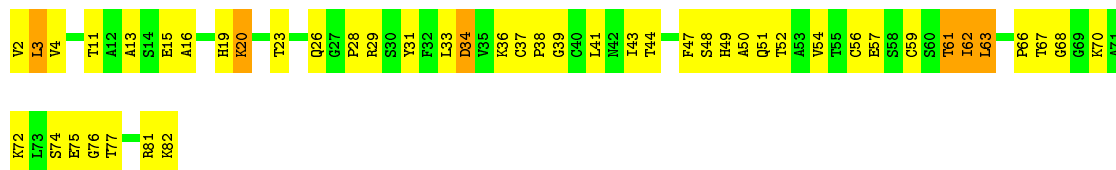
- Molecule 28: 40S ribosomal protein S26-B

Chain d6: 78% 22%



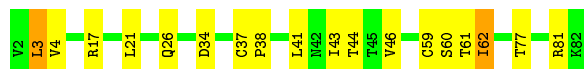
- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 42% 51% 7%



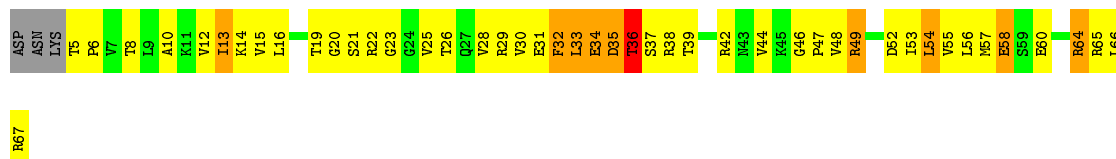
- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 78% 20%



- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 26% 55% 14% 5%



- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 67% 23% 6% 5%



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 36% 42% 15% 2%



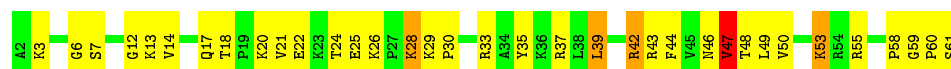
- Molecule 31: 40S ribosomal protein S29-A

Chain d9:  67% 29% .

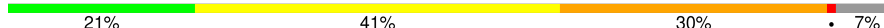


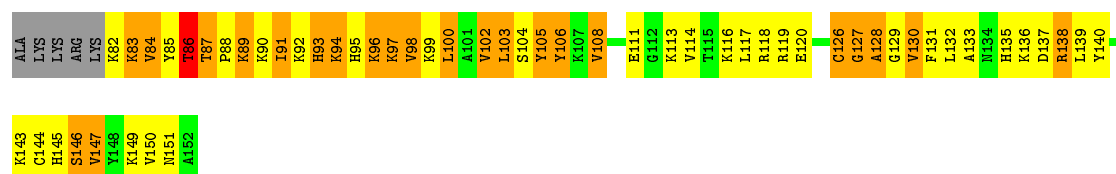
- Molecule 32: 40S ribosomal protein S30-A

Chain E0:  42% 50% 7% .



- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1:  21% 41% 30% 7% .



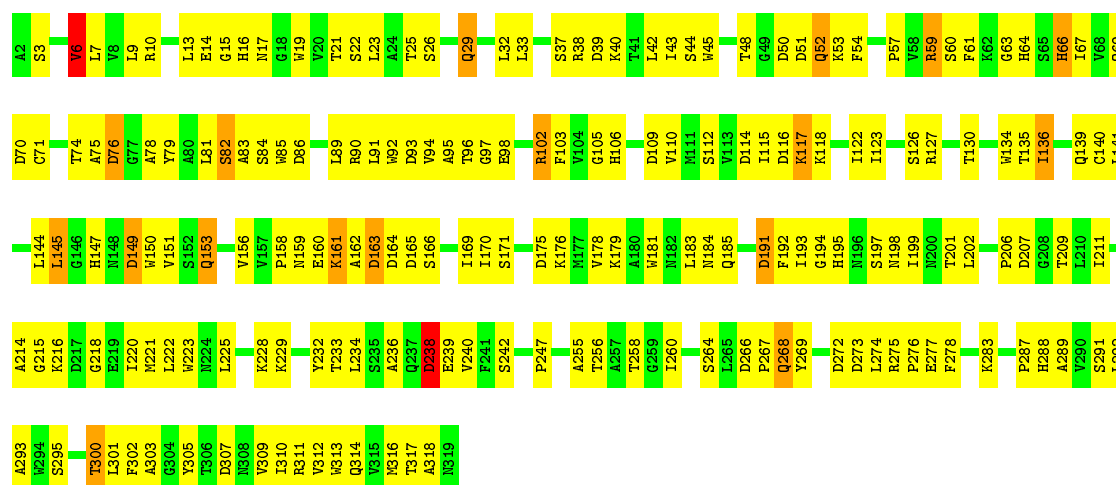
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1:  59% 37% .




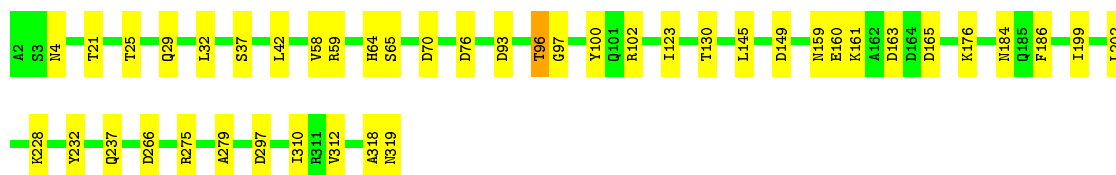
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR:  41% 53% 5% .



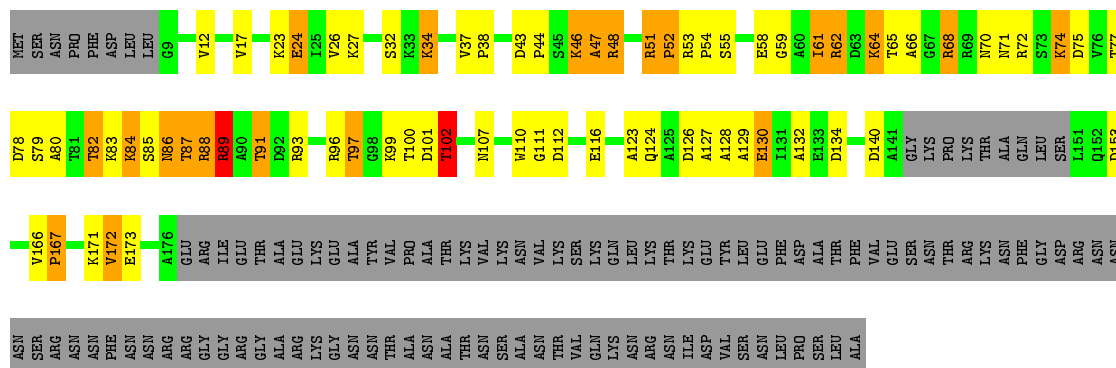
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain sR:  86% 13%



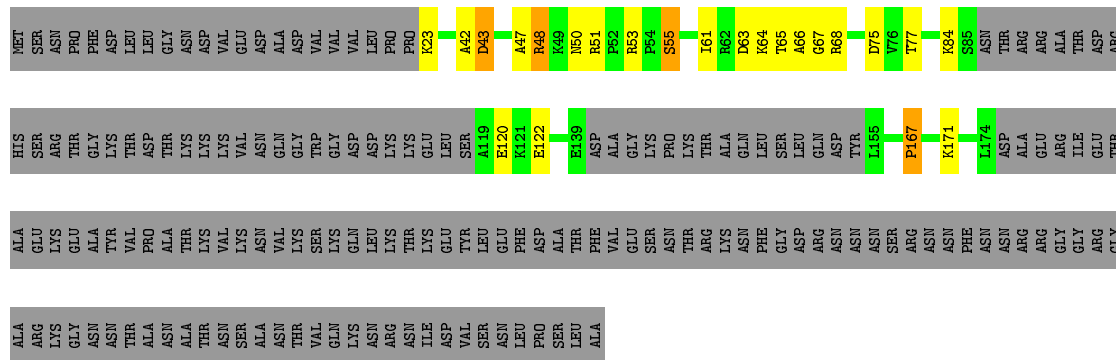
• Molecule 35: Suppressor protein STM1

Chain SM: 31% 18% 8% 42%



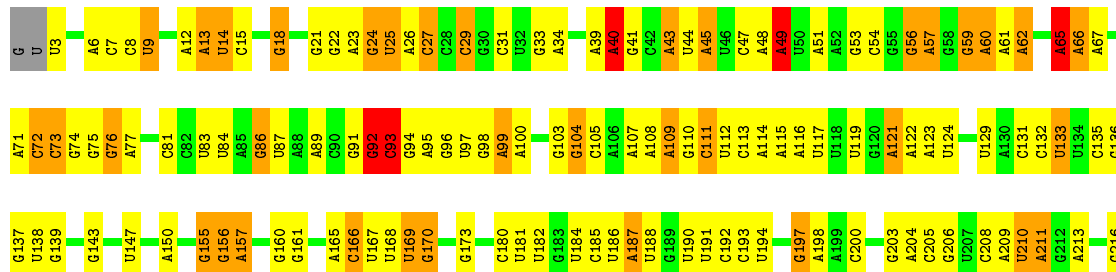
• Molecule 35: Suppressor protein STM1

Chain sM: 30% 7% 62%



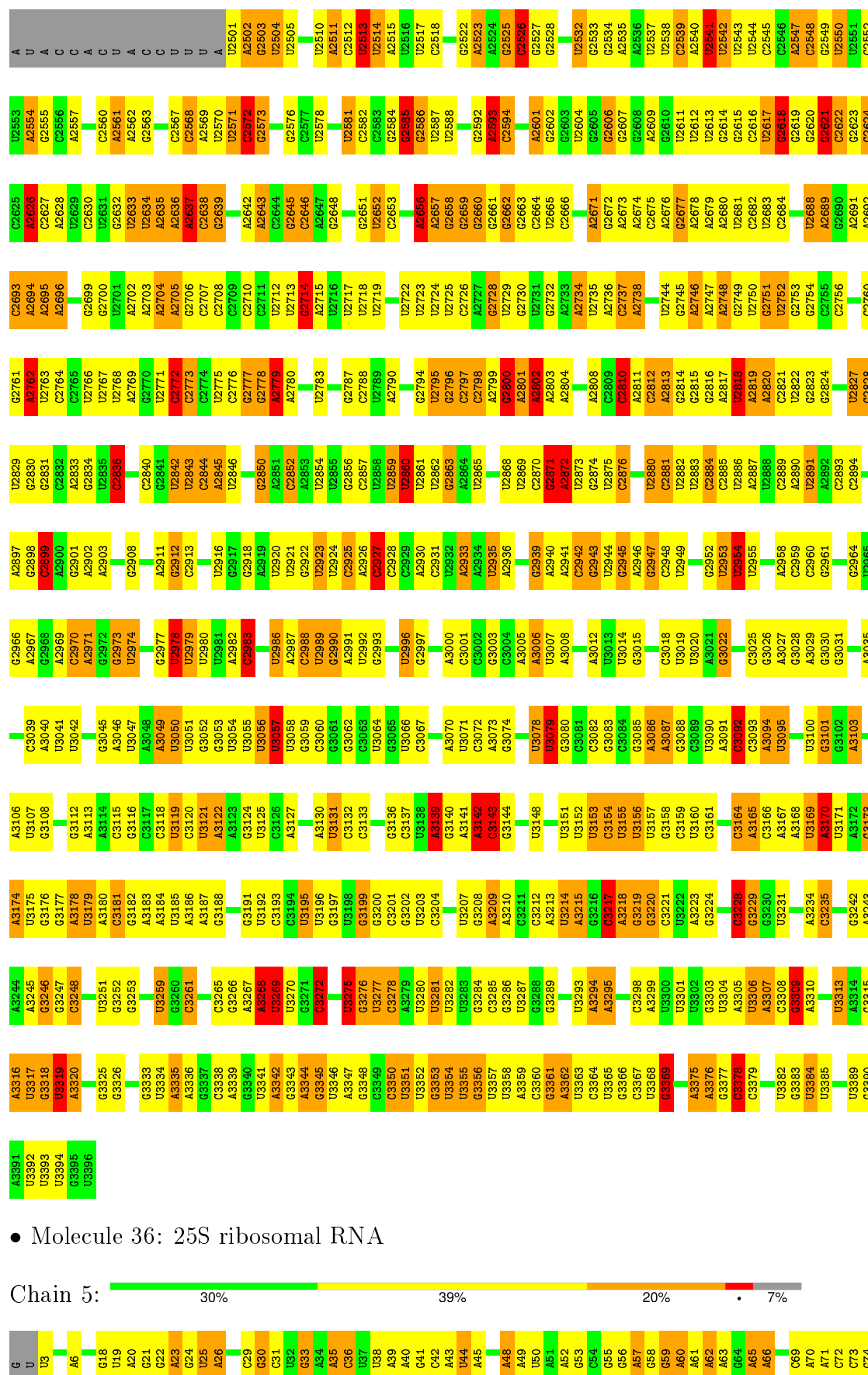
• Molecule 36: 25S ribosomal RNA

Chain 1: 30% 41% 18% 7%



G1313	G1289	G1171	U1108	A1086	G964	G900	A837	U764	A690	U627	A557	G425	U359	U286	U217
A1240	A1240	G1174	U1109	C1037	A965	G901	G838	C765	A691	A628	U558	G426	G350	A289	G218
A1241	U1241	C1175	U1110	C1038	U966	U905	C839	U766	A692	A630	A559	C427	A361	A289	A219
A1316	G1242	C1176	U1111	U1039	A967	U906	C839	U767	A693	A630	G560	U429	G363	C291	G220
A1318	G1243	G1176	A1040	A1040	G968	G907	C840	C768	C694	C633	C562	U430	G364	C291	A221
G1319	A1244	G1177	U1041	U1041	G969	G907	A841	G769	C695	C634	C561	U431	G365	A295	A222
C1320	G1245	G1178	U1114	U1042	A970	G908	G842	G770	C695	C634	U563	U431	A365	U223	U223
G1321	G1246	A1179	G1115	C1043	G971	G909	A843	G770	U698	G635	U564	U434	A366	U224	C224
U1322	U1287	A1180	G1116	U1044	A972	G910	A846	U776	A699	C636	U565	U434	G368	U298	C225
G1323	C1248	A1181	G1117	C1045	A973	G911	A847	U777	C700	C637	G566	C435	A369	G299	C226
U1324	G1249	A1182	C1118	A1046	G974	G912	A848	U778	G701	C638	G567	A436	U370	G300	G226
U1325	G1250	C1192	C1119	A1047	C975	A913	A848	G779	C702	G639	G568	G437	A371	G303	G229
A1326	A1251	C1195	A1120	A1048	U976	A914	C849	A780	G703	U640	C573	A438	A372	G304	U230
		G1186	U1121	C1049	C977	A915	U850	A781	U704	C641	U574	C439	A373	U305	G231
		G1187	U1122	U1050	G978	G916	C851	A705	A705	U642	U574	A440	A374	U306	G232
		U1188	U1123	U1051	U979	A917	U852	A706	A706	U643	U574	U	A375	A306	C233
U1330	U1255	U1188	U1124	U1051	U979	A917	U852	A706	A706	U643	U574	U	A375	A306	C233
U1331	U1258	U1189	U1125	U1052	U980	C918	G853	A786	U707	G644	A578	G	G376	U309	G236
		A1190	G1126	A1053	U981	U919	G854	G787	G708	A645	A579	G	A377	U310	G237
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	A1263	C1192	U1128	A1055	U986	A921	G856	A789	A710	A647	U581	U	A379	U311	G239
G1338	A1264	C1193	U1129	A1056	U987	U922	G857	A790	A711	C648	G582	U	U380	U312	G240
G1339	G1265	G1194	A1130	A1061	U988	C923	A858	A791	G712	A649	G583	U	U381	U313	G241
G1340	G1266	A1195	G1131	A1062	U989	G924	G859	G792	U713	C650	G584	U	U382	U314	U240
U1341	U1267	C1196	C1132	G1063	A989	A925	G860	G793	G714	G651	A585	U	A383	C315	G241
	G1268		A1133	A1064	U990	A926	C861	U794	A715	G652	C586	G	A384	U316	G242
			G1134	A1065	G993	C927	U862	G795	A716	A653	U587	U	A385	A317	G243
G1344	U1269	C1199	U1135	U1067	G994	A929	G863	U796	G717	C654	U588	U	A386	A318	G244
G1345	A1270	A1201	A1136	U1068	U995	A930	G864	U797	G718	C655	A589	G	A387	A319	U245
U1347	C1272	G1199	U1137	U1069	U996	A931	G865	G798	U719	A656	U590	U	A388	G320	U246
U1348	A1273	A1203	U1138	C1069	U997	U932	U866	G799	A720	A657	A592	C	A389	U321	C247
G1349	A1274	A1204	G1139	U1070	G999	A933	G867	G800	G721	G658	C593	U	A390	A323	U248
				U1071	G1001	A934	C868	A801	G722	G659	U594	U	A391	A324	U249
				U1072	G1002	A935	G869	C802	G723	A660	C595	U	A392	A325	U250
				U1073	A1003	A936	G870	C903	G724	G661	C596	U	A393	U326	G251
				U1074	U1004	G937	U871	G806	G725	G662	C597	G	A394	A327	U252
				A1075	G1005	C938	U872	A807	G726	C663	A598	U	A395	U328	U252
				U1076	A1006	U939	C873	A807	G727	U664	C599	U	A396	U329	G256
				U1077	U1007	G940	U874	A807	G728	A665	C600	U	A397	U330	G256
				U1078	U1008	G941	U875	A810	C730	A666	A603	U	A398	C332	G263
				U1079	U1009	U942	G876	U811	U731	C667	G604	U	A399	G333	G264
				U1080	U1010	U943	G877	U812	C732	C668	U605	U	G400	A334	A265
				U1081	U1011	C944	U878	G813	G733	U669	C606	G	U401	G335	A266
				U1082	U1012	U945	U879	U814	C734	C670	A607	U	A402	U336	G267
				U1083	U1013	U946	G880	G815	C735	U671	A608	U	C403	C339	A268
				U1084	U1014	G947	C881	G816	A736	A672	C609	G	C404	C340	G269
				U1085	U1015	C948	A882	A817	A737	C675	G610	U	U405	U343	U270
				U1086	U1016	U951	A883	A818	U741	C676	A611	U	G406	A344	C271
				U1087	U1017	A952	U884	U820	G742	G677	U612	A	A407	G345	G272
				U1088	U1018	A953	U885	U821	C743	A677	C544	G	A408	G346	A273
				U1089	U1019	G954	U886	U822	A744	G678	C614	G	A409	C347	G274
				U1090	U1020	U955	U887	C823	U750	U679	G617	G	U410	A348	U275
				U1091	U1021	U956	C890	C824	G751	U680	G618	A	G412	A349	G277
				U1092	U1022	U957	C891	U825	G752	U681	A619	A	U413	C350	U278
				U1093	U1023	C958	C892	U826	G753	U682	U620	U	U414	A351	U279
				U1094	U1024	C959	C893	U827	A754	U683	A621	C	U415	A352	G280
				U1095	U1025	C960	C894	U828	A755	U684	G622	U	G420	G353	G281
				U1096	U1026	U960	C895	U829	A756	U685	G623	C	G421	U354	G282
				U1097	U1027	A962	C896	U830	G757	U686	G624	G	A422	A355	G283
				U1098	U1028	A963	C897	U831	C758	U687	U625	C	A423	C356	A284
				U1099	U1029	G964	C898	U832	G759	U688	U626	A	G424	G424	A285

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A2424	C2360	C2287	G2221	U2154	A	A	U	A1896	U1819	G1748	G1662	A1587	G1517	U1446	G1383
G2425	A2361	C2288	A2222	C2155	C	C	U	A1897	U1820	A1749	C1663	A1588	U1518	A1449	C1384
U2426	C2362	G2288	A2223	C2156	A	U	G	A1898	U1821	G1749	G1664	A1589	G1450	A1450	C1385
U2427	A2363	C2288	A2224	G2157	A	A	G	A1899	C1822	G1750	C1665	G1590	A1524	A1454	A1386
G2428	A2364	U2294	U2225	G2158	U	C	U	A1900	A1823	G1751	C1666	G1591	U1525	G1455	A1387
G2429	C2365	A2295	U2226	U2158	U	U	C	A1901	G1826	A1752	G1667	G1592	U1526	U1455	U1388
U2433	C2366	C2296	C2227	U2162	A	U	A	U1902	G1826	A1760	C1668	A1593	C1527	A1456	G1389
U2434	G2369	U2297	A2228	C2163	A2093	G	G	G1903	U1831	C1761	G1669	A1594	U1528	U1457	G1390
G2435	U2298	U2298	A2229	A2164	C2094	C	A	G1904	G1831	C1762	U1672	U1595	U1530	U1458	C1391
U2436	A2299	C2300	C2230	G2165	G2095	C	C	G1905	U1834	U1763	G1673	C1596	U1531	U1459	G1392
G2437	G2371	G2301	C2231	U2168	A2100	U	G	C1906	A1835	U1764	G1674	C1597	C1532	A1464	A1393
A2438	G2372	G2302	A2232	U2169	C2101	C	C	G1907	G1838	U1765	G1675	G1598	U1533	A1465	A1394
A2439	A2373	A2303	A2233	G2169	U2102	U	A	A1908	G1839	G1766	A1676	A1603	A1535	A1467	G1395
G2442	C2375	C2304	C2235	U2170	U2103	C	C	A1911	A1839	C1767	A1676	G1604	G1536	G1471	C1396
A2443	G2376	G2305	G2236	A2172	A2104	U	G	A1915	U1840	U1768	G1680	U1605	G1537	U1472	U1398
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A	A2397	G2326	A2256	U2193	A2126	A	U	U1938	U1862	C1793	U1717	C1631	G1562	A1491	A1419
G	A2398	U2327	A2257	G2194	U2127	G	U	G1939	G1863	G1796	G1718	A1632	C1563	G1492	C1420
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G	A2402	G2335	U2260	G2199	A2131	C	U	U1942	G1868	A1799	U1721	G1635	U1566	U1495	A1428
G	G2403	U2336	G2261	U2200	G2134	C	G	G1947	U1870	U1800	A1723	U1636	U1567	C1496	G1429
A	A2404	C2339	C2262	G2201	U2135	U	G	U1948	C1879	U1801	U1724	A1637	U1568	G1497	U1430
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G	U2417	C2354	A2280	A2215	A2150	U	G	A	G1892	U1815	U1740	A1583	U1584	G1513	G1444
U	G2418	G2355	A2281	G2216	C2151	U	C	G	A1894	A1816	G1736	C1657	C1585	U1514	U1445
G	A2419	A2356	U2282	U2217	A2151	U	G	C	U1894	G1817					A1446
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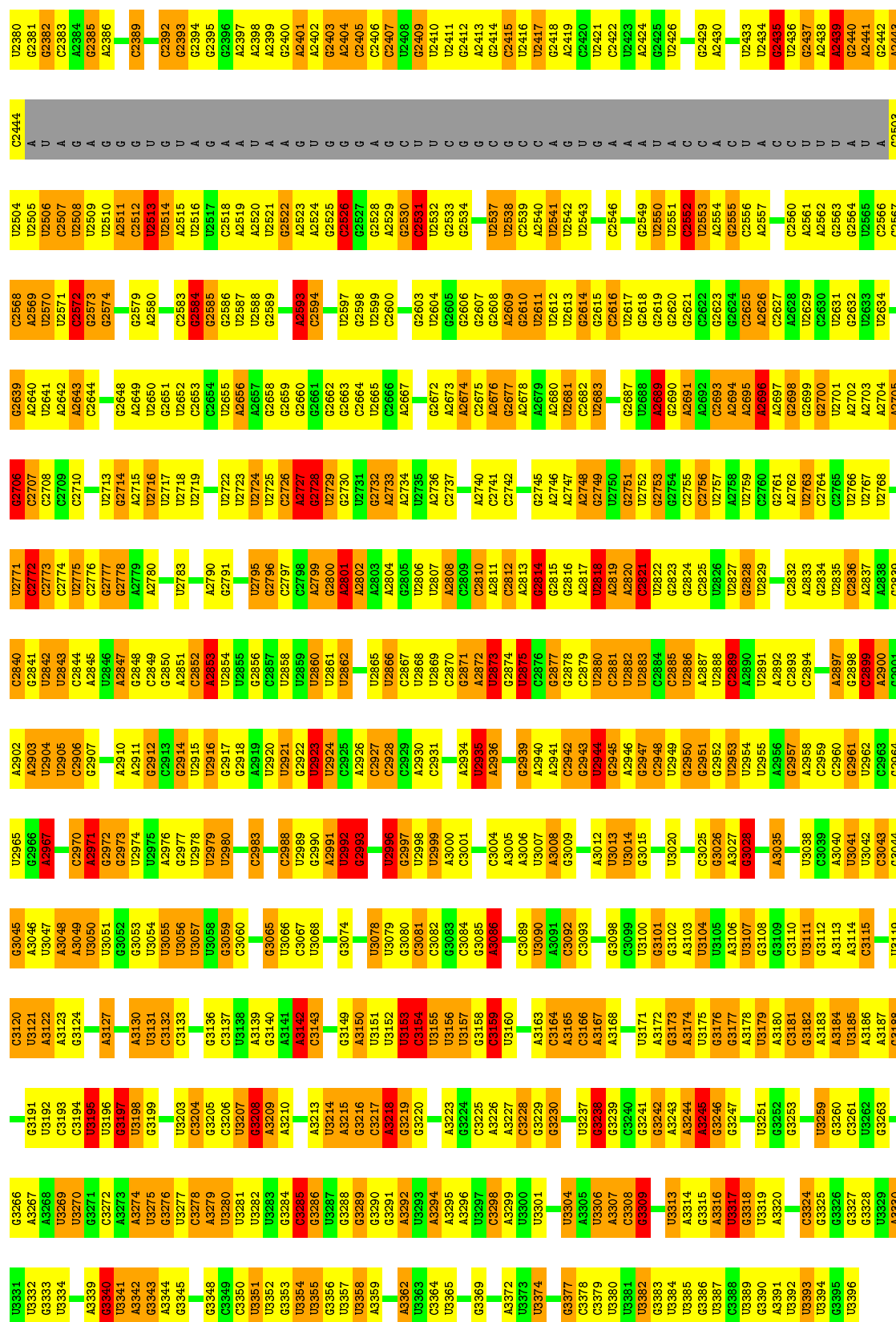


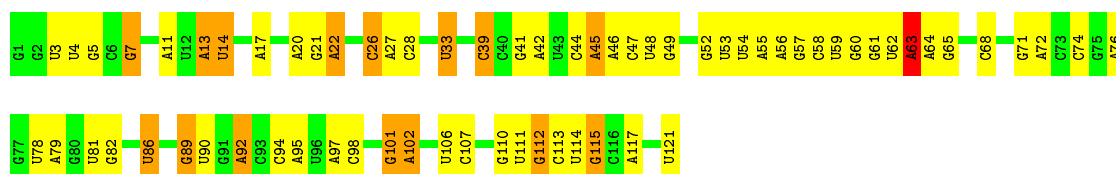
- Molecule 36: 25S ribosomal RNA

Chain 5: 30% 39% 20% 7%

WORLDWIDE
PDB
PROTEIN DATA BANK

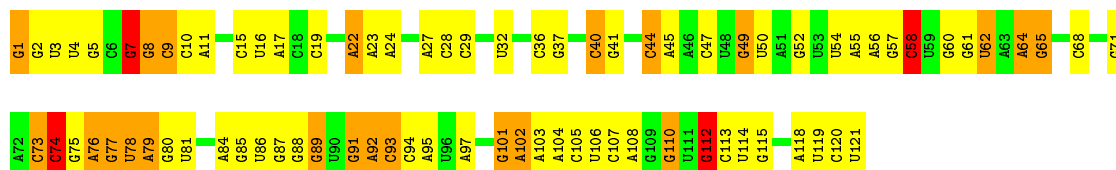






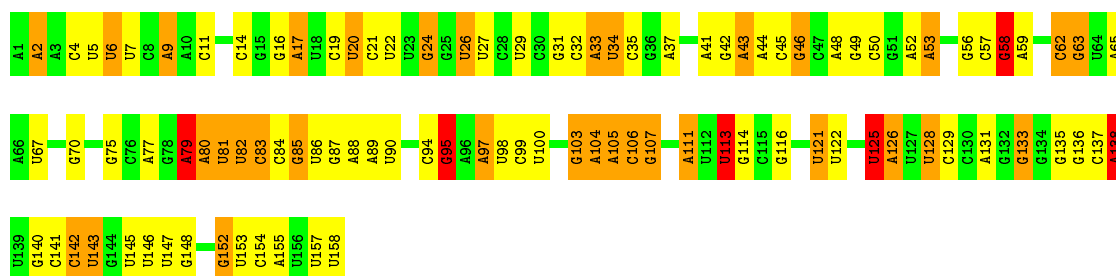
• Molecule 37: 5S ribosomal RNA

Chain 7: 33% 45% 18% •



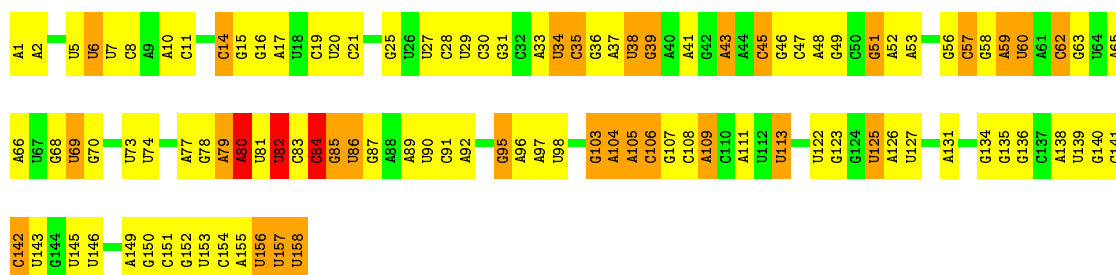
• Molecule 38: 5.8S ribosomal RNA

Chain 4: 37% 38% 21% •



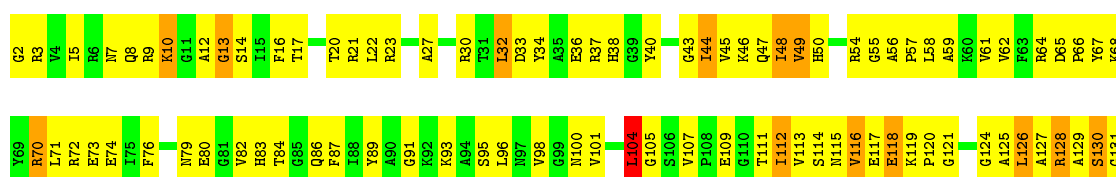
• Molecule 38: 5.8S ribosomal RNA

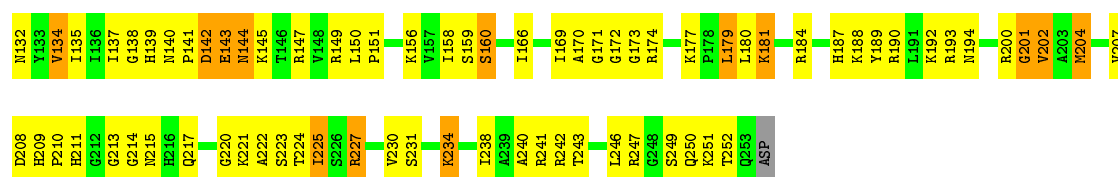
Chain 8: 32% 47% 18% •



• Molecule 39: 60S ribosomal protein L2-A

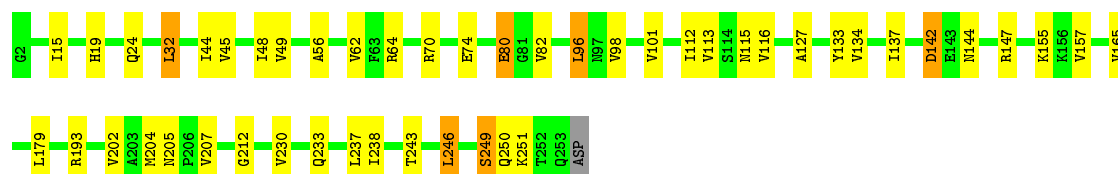
Chain L2: 35% 54% 10%





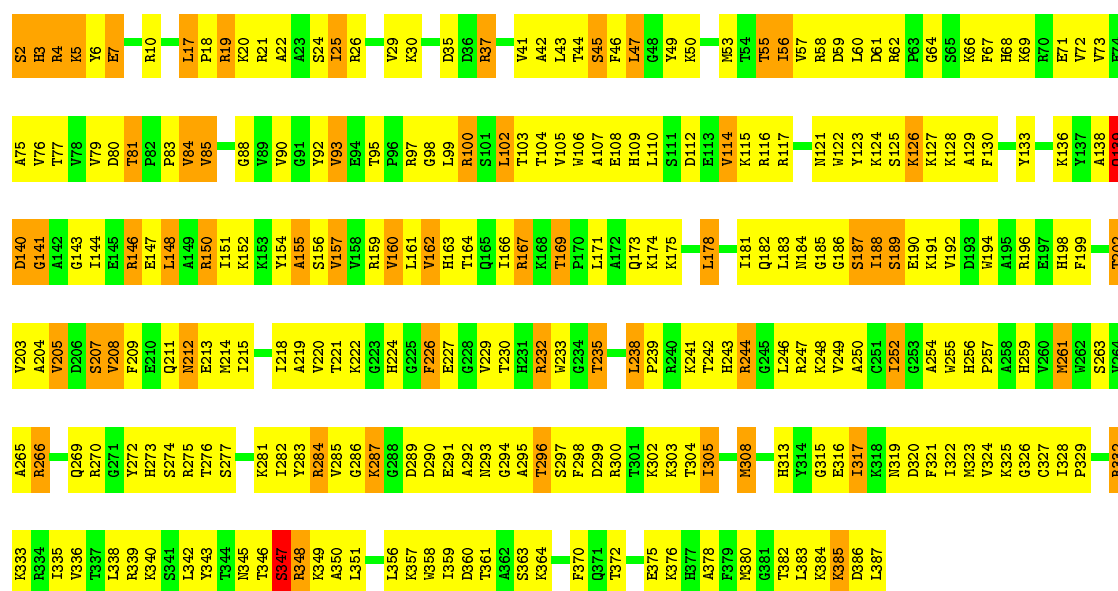
• Molecule 39: 60S ribosomal protein L2-A

Chain 12: 81% 17%



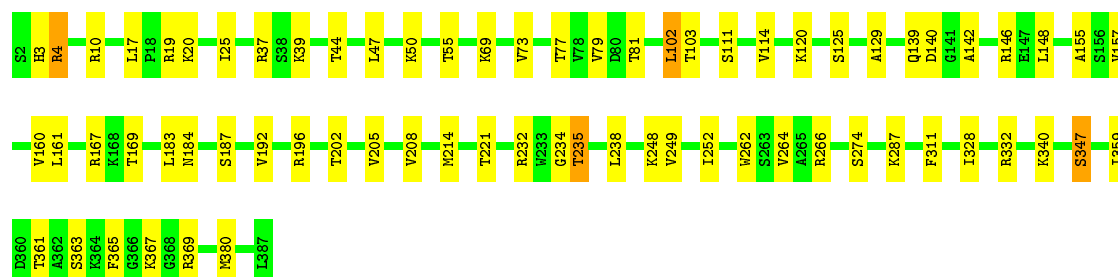
• Molecule 40: 60S ribosomal protein L3

Chain L3: 31% 53% 15%

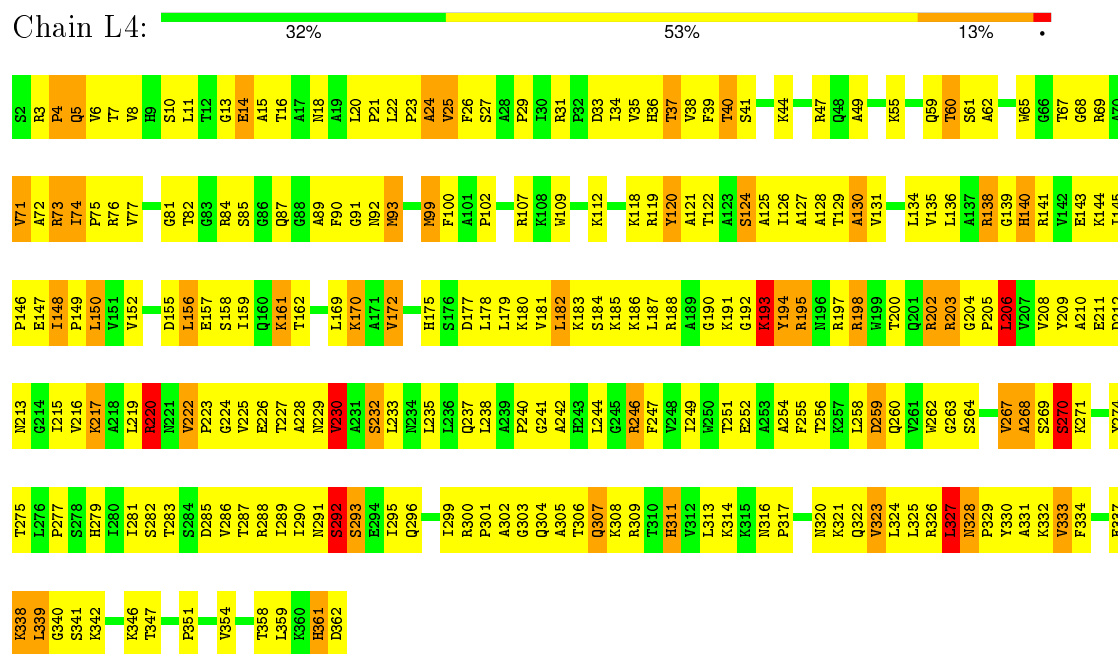


• Molecule 40: 60S ribosomal protein L3

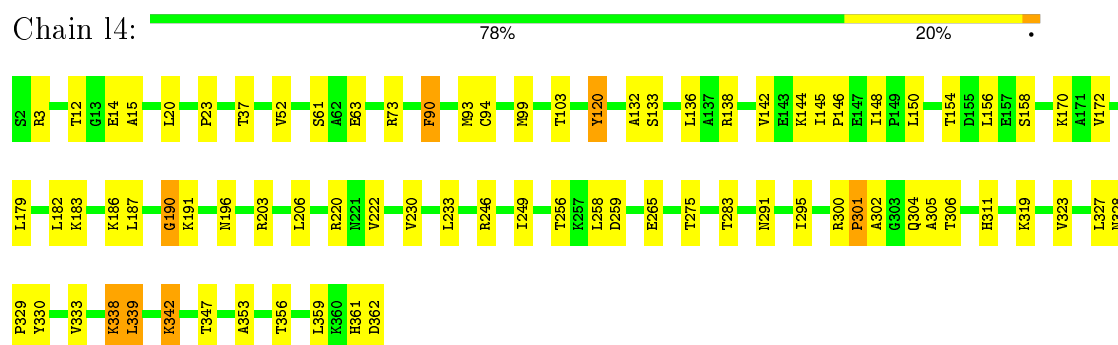
Chain l3: 82% 17%



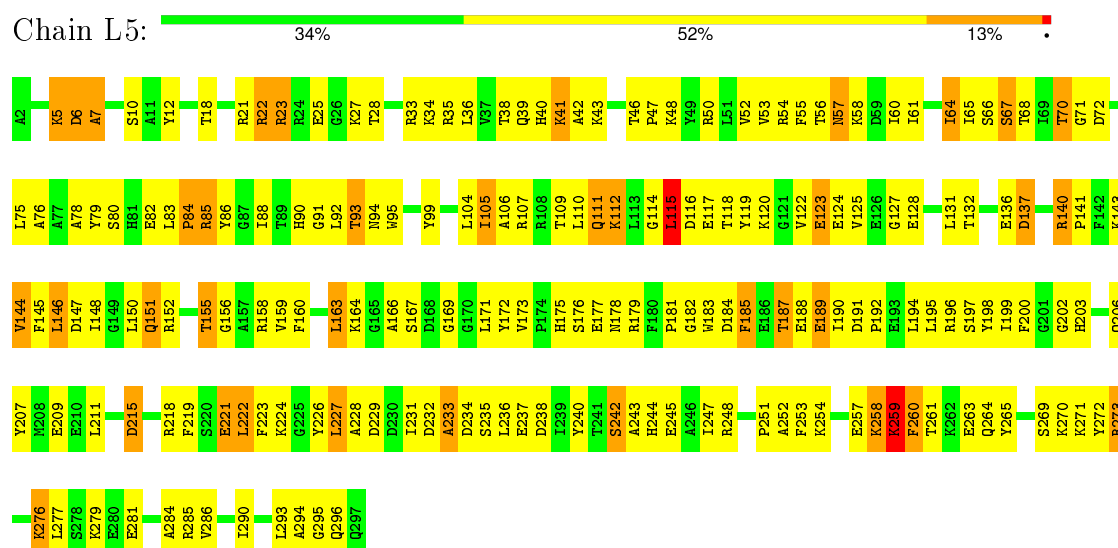
• Molecule 41: 60S ribosomal protein L4-A



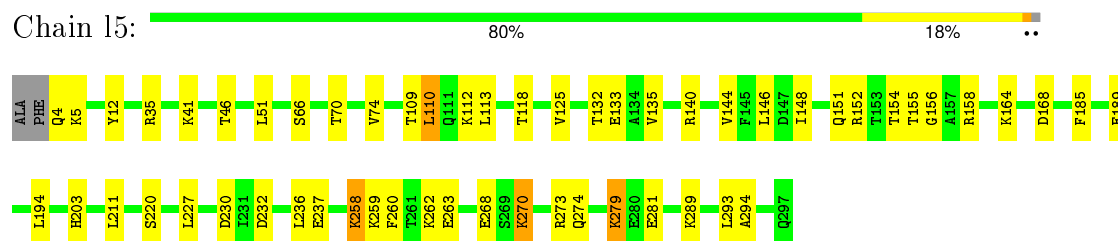
• Molecule 41: 60S ribosomal protein L4-A



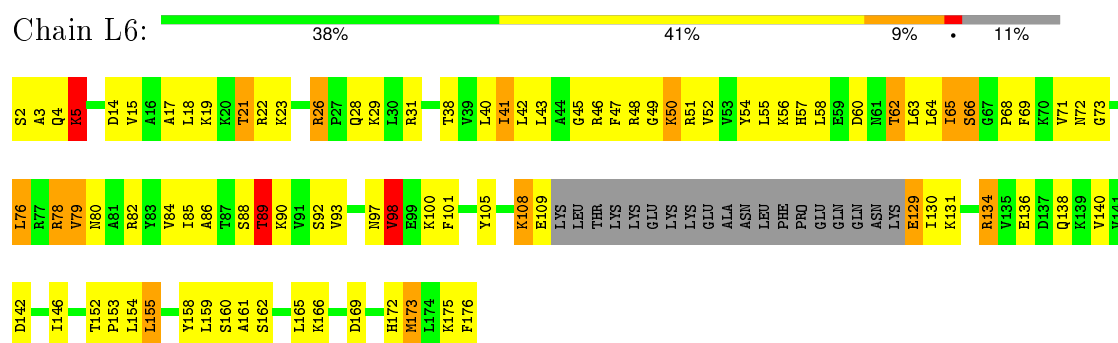
• Molecule 42: 60S ribosomal protein L5



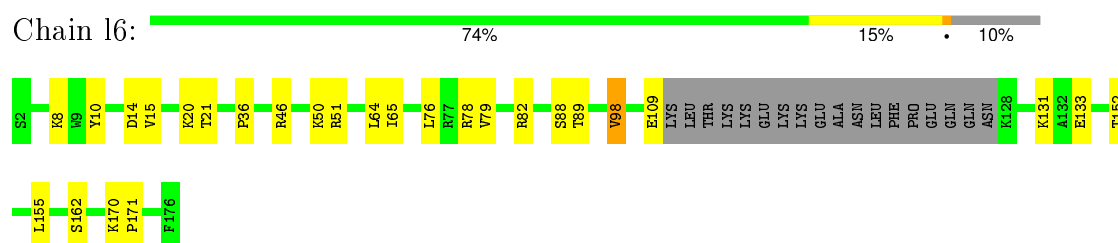
- Molecule 42: 60S ribosomal protein L5



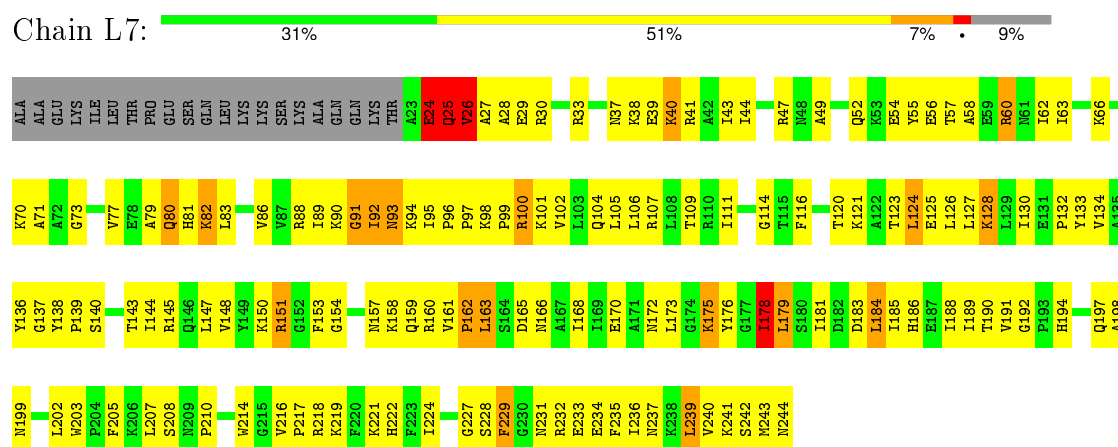
- Molecule 43: 60S ribosomal protein L6-A



- Molecule 43: 60S ribosomal protein L6-A

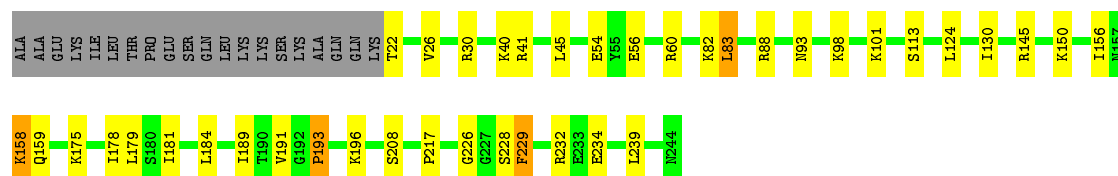


- Molecule 44: 60S ribosomal protein L7-A



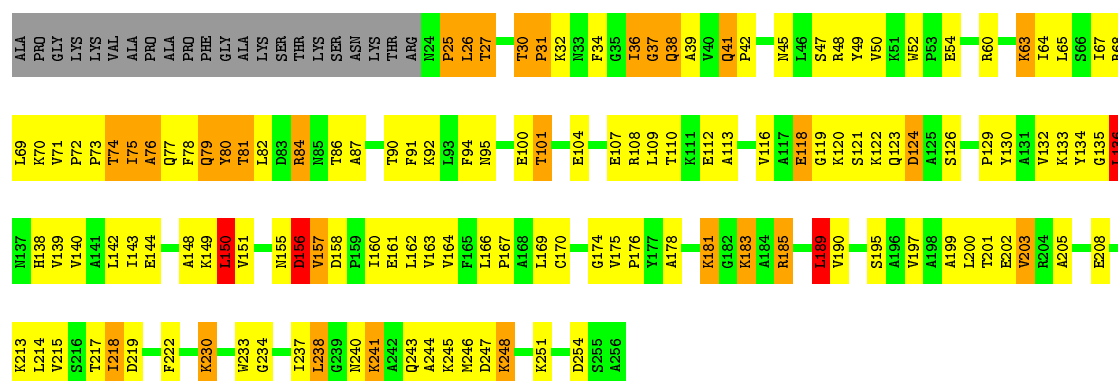
- Molecule 44: 60S ribosomal protein L7-A

Chain 17: 



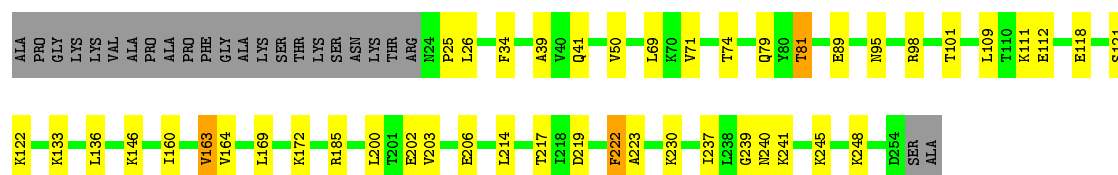
- Molecule 45: 60S ribosomal protein L8-A

Chain L8: 



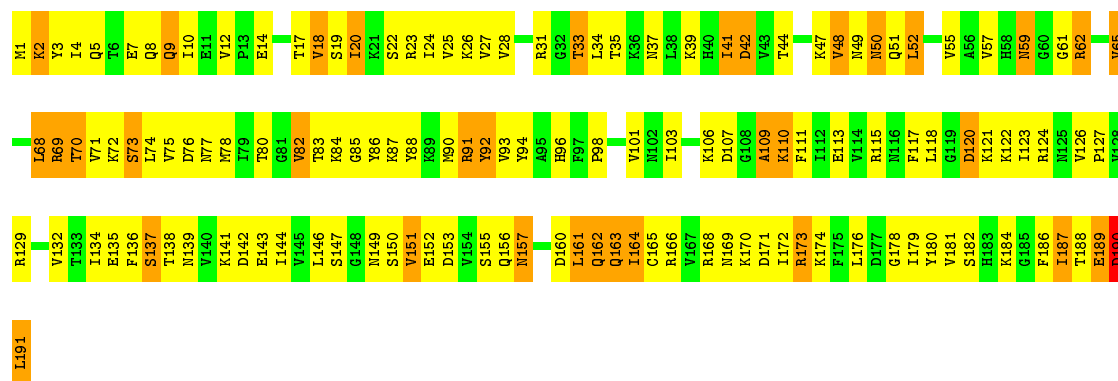
- Molecule 45: 60S ribosomal protein L8-A

Chain 18: 

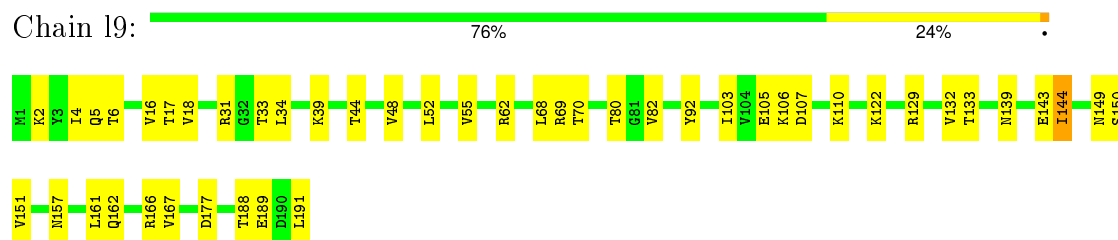


- Molecule 46: 60S ribosomal protein L9-A

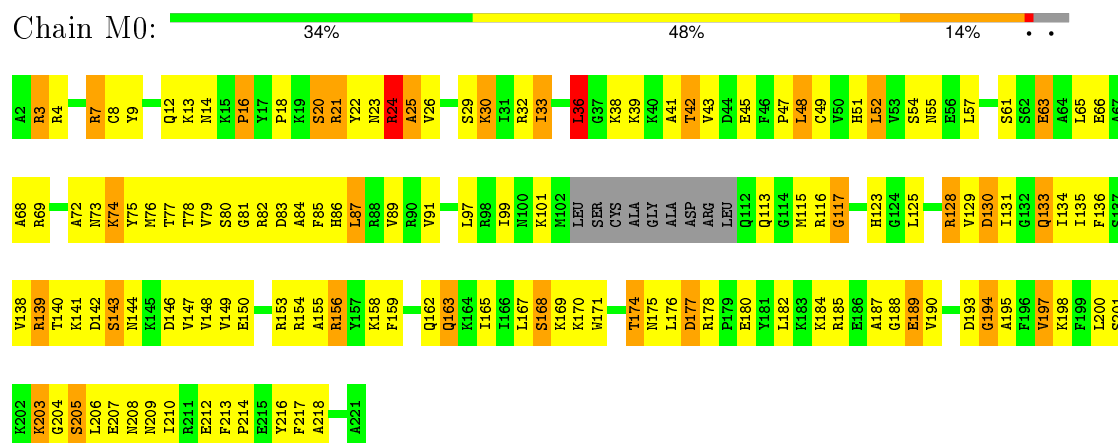
Chain L9: 



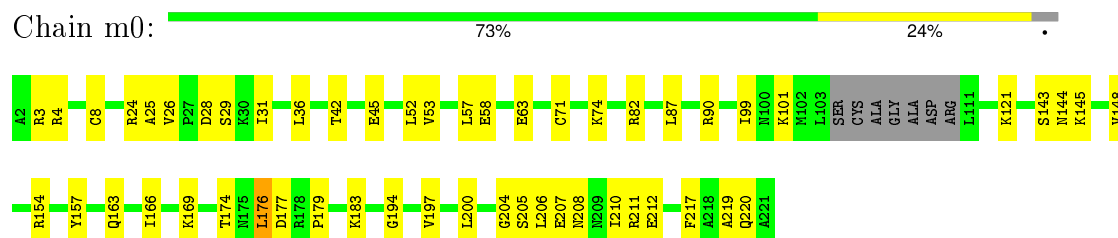
- Molecule 46: 60S ribosomal protein L9-A



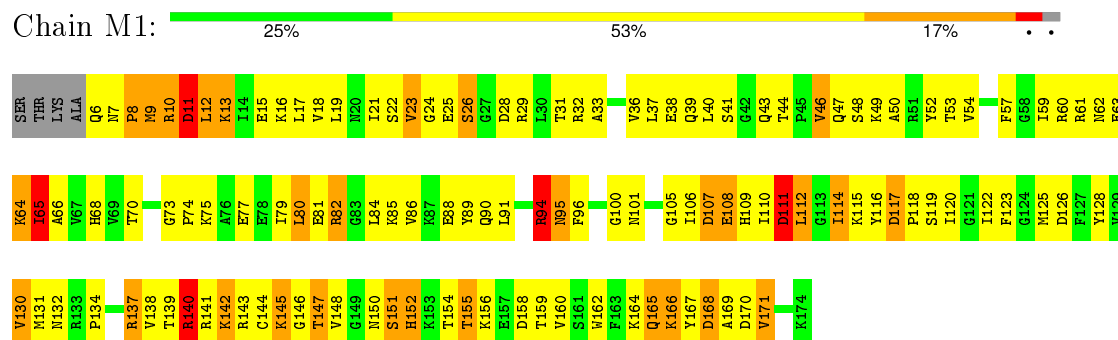
• Molecule 47: 60S ribosomal protein L10



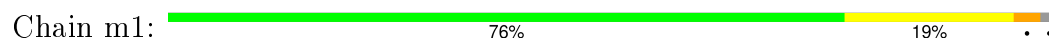
• Molecule 47: 60S ribosomal protein L10

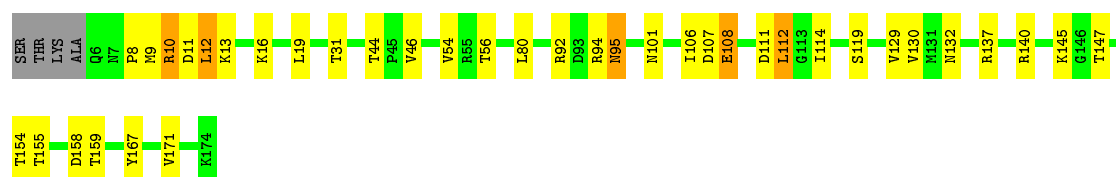


• Molecule 48: 60S ribosomal protein L11-B



• Molecule 48: 60S ribosomal protein L11-B





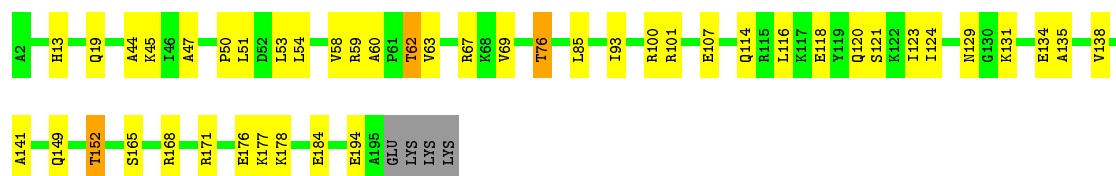
- Molecule 49: 60S ribosomal protein L13-A

Chain M3: 40% 43% 13% ..



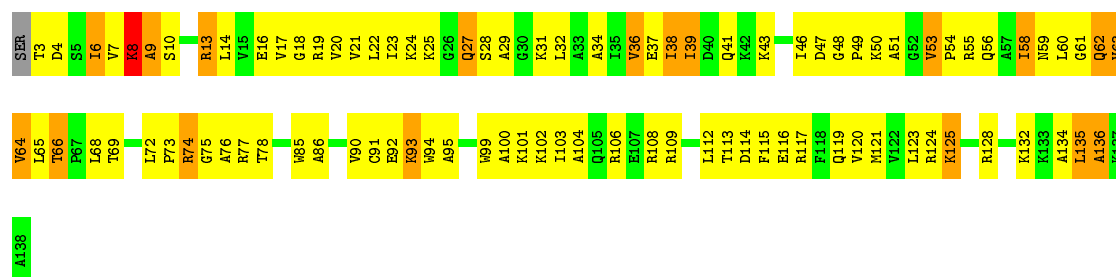
- Molecule 49: 60S ribosomal protein L13-A

Chain m3: 75% 21% ..



- Molecule 50: 60S ribosomal protein L14-A

Chain M4: 31% 54% 13% ..

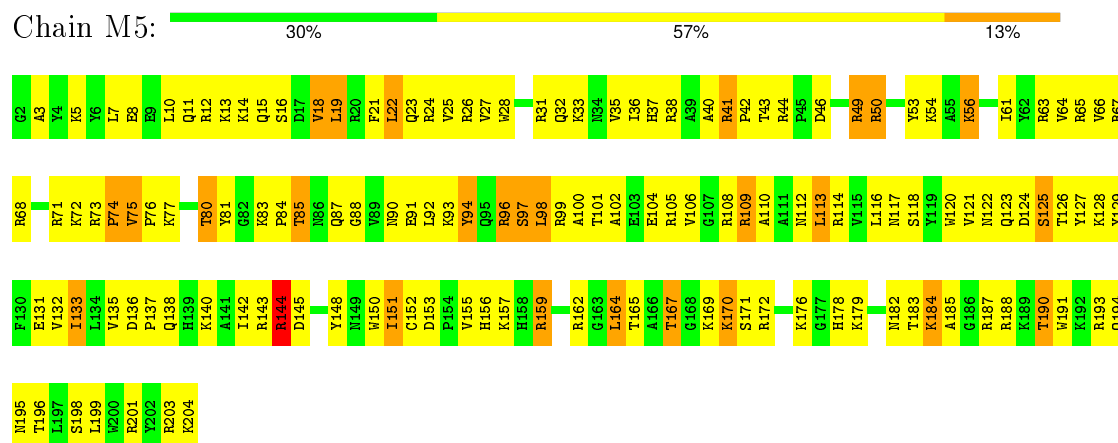


- Molecule 50: 60S ribosomal protein L14-A

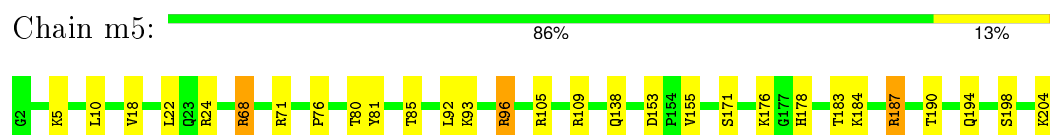
Chain m4: 85% 15% .



- Molecule 51: 60S ribosomal protein L15-A



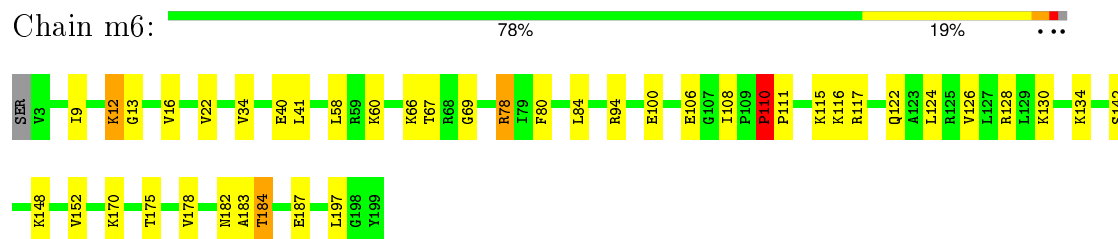
- Molecule 51: 60S ribosomal protein L15-A



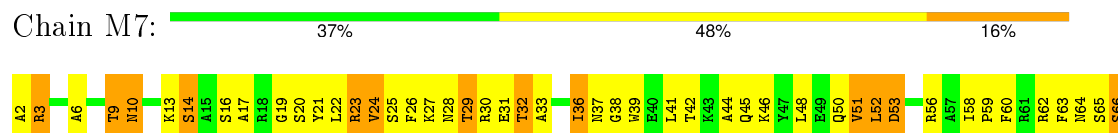
- Molecule 52: 60S ribosomal protein L16-A

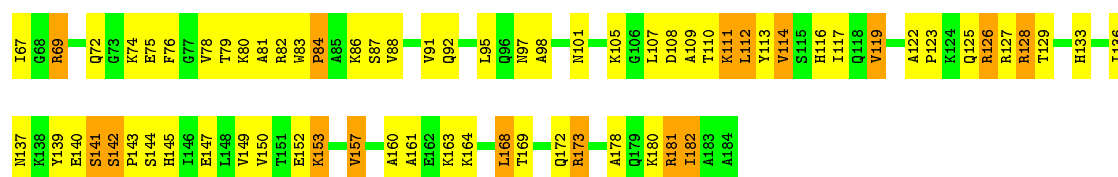


- Molecule 52: 60S ribosomal protein L16-A



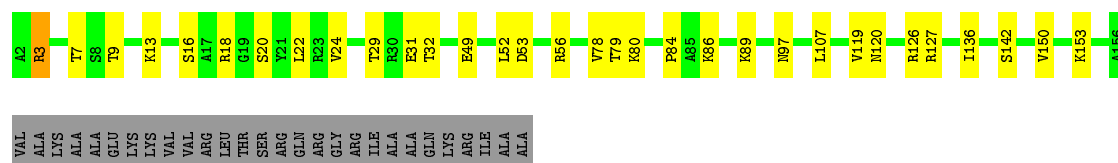
- Molecule 53: 60S ribosomal protein L17-A





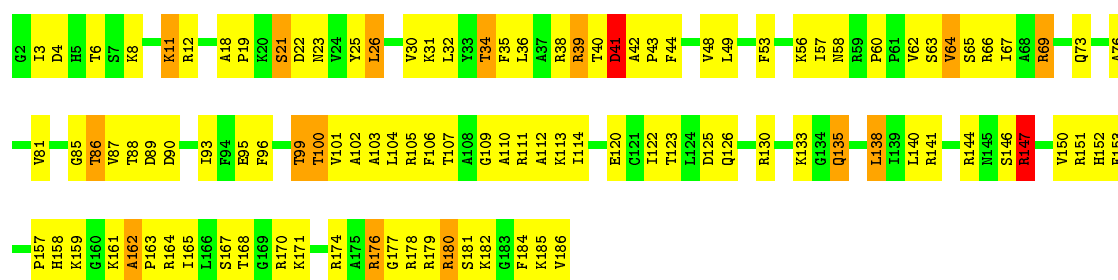
• Molecule 53: 60S ribosomal protein L17-A

Chain m7: 67% 17% 15%



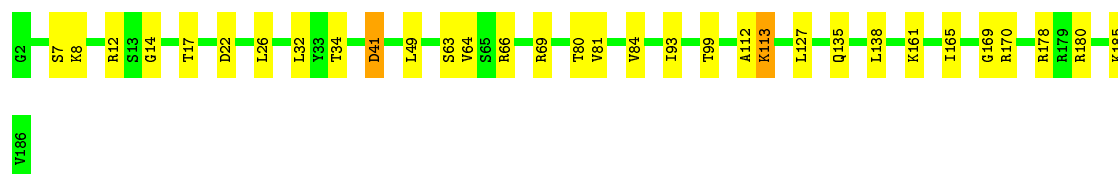
• Molecule 54: 60S ribosomal protein L18-A

Chain M8: 42% 49% 8%



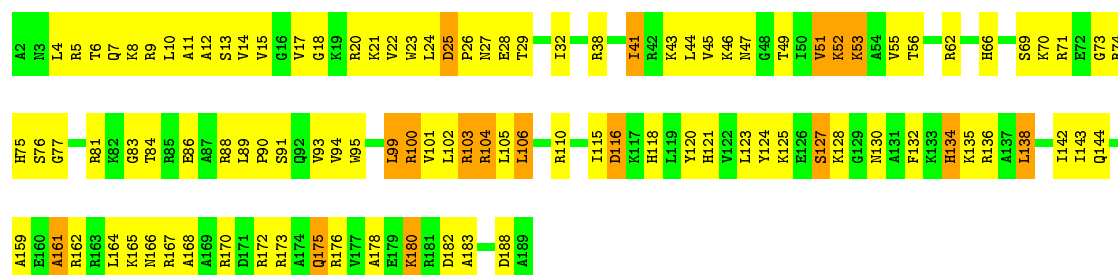
• Molecule 54: 60S ribosomal protein L18-A

Chain m8: 83% 16%

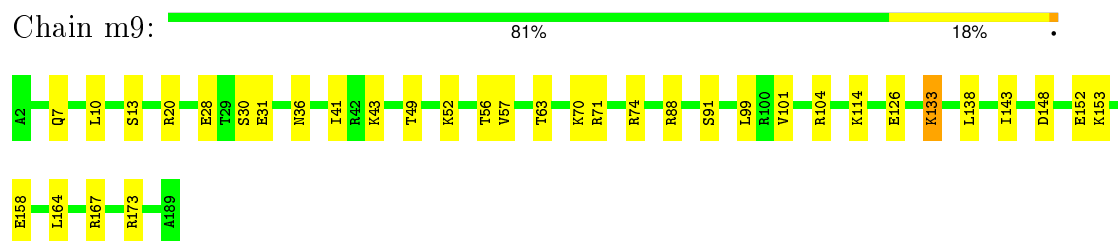


• Molecule 55: 60S ribosomal protein L19-A

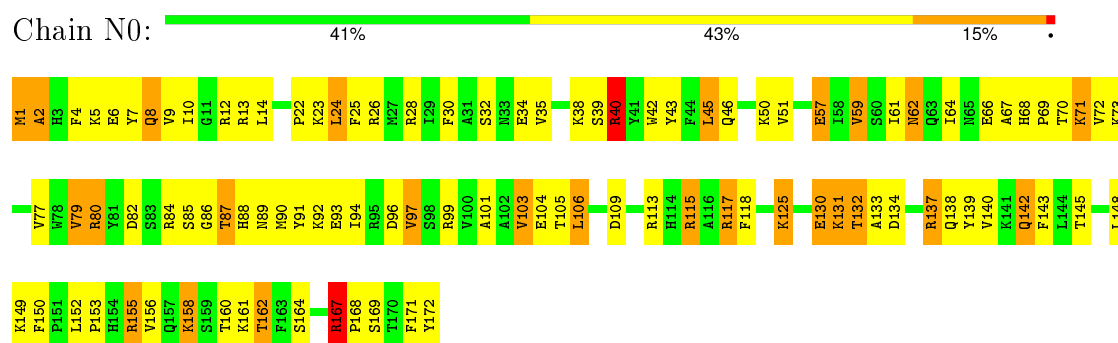
Chain M9: 44% 47% 9%



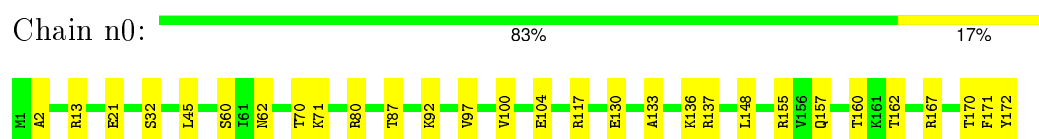
- Molecule 55: 60S ribosomal protein L19-A



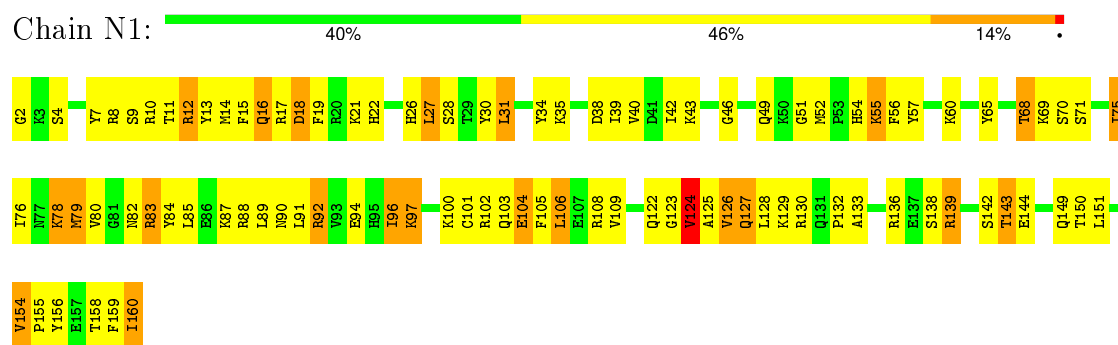
- Molecule 56: 60S ribosomal protein L20-A



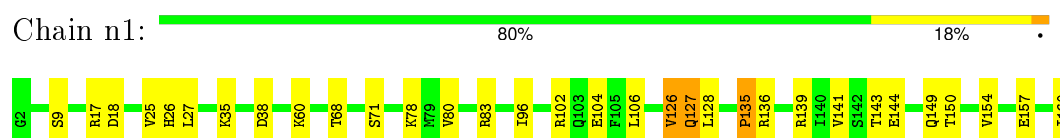
- Molecule 56: 60S ribosomal protein L20-A



- Molecule 57: 60S ribosomal protein L21-A



- Molecule 57: 60S ribosomal protein L21-A

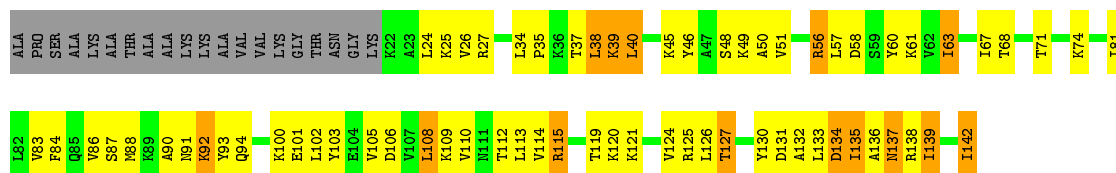


- Molecule 58: 60S ribosomal protein L22-A

ARG

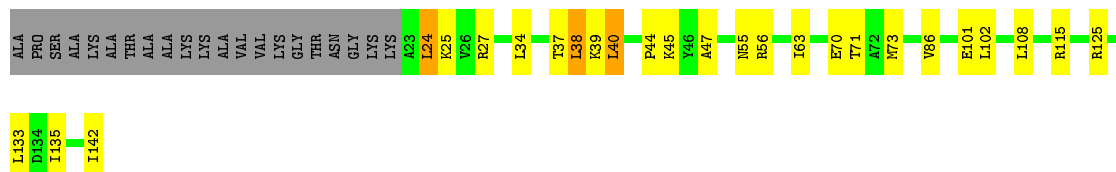
- Molecule 61: 60S ribosomal protein L25

Chain N5: 



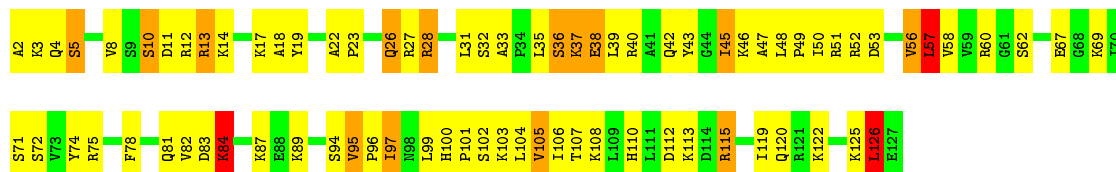
- Molecule 61: 60S ribosomal protein L25

Chain n5: 



- Molecule 62: 60S ribosomal protein L26-A

Chain N6: 



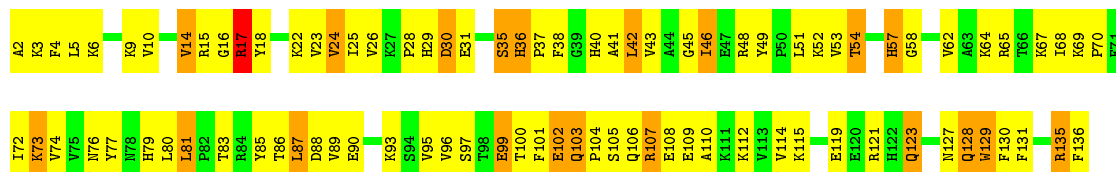
- Molecule 62: 60S ribosomal protein L26-A

Chain n6: 




- Molecule 63: 60S ribosomal protein L27-A

Chain N7: 



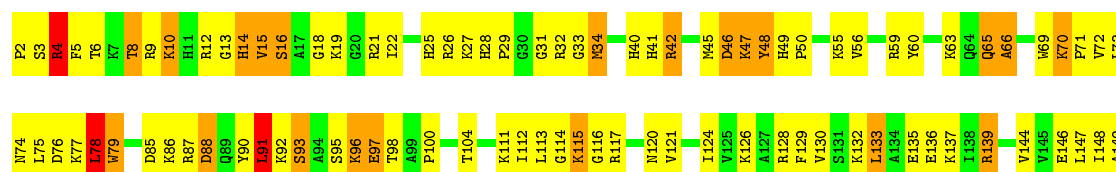
- Molecule 63: 60S ribosomal protein L27-A

Chain n7:  78% 20% .




- Molecule 64: 60S ribosomal protein L28

Chain N8:  38% 46% 14% .



- Molecule 64: 60S ribosomal protein L28

Chain n8:  81% 17% .




- Molecule 65: 60S ribosomal protein L29

Chain N9:  47% 38% 16%



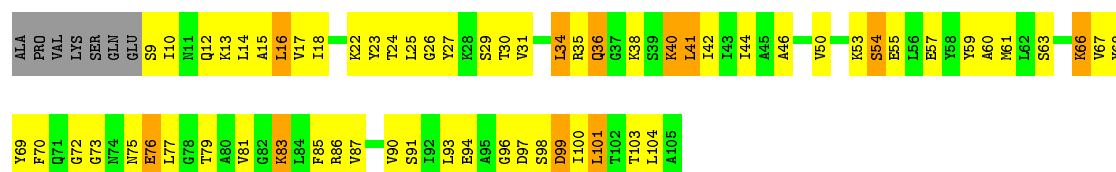
- Molecule 65: 60S ribosomal protein L29

Chain n9:  76% 22% .




- Molecule 66: 60S ribosomal protein L30

Chain O0:  32% 51% 11% 7%



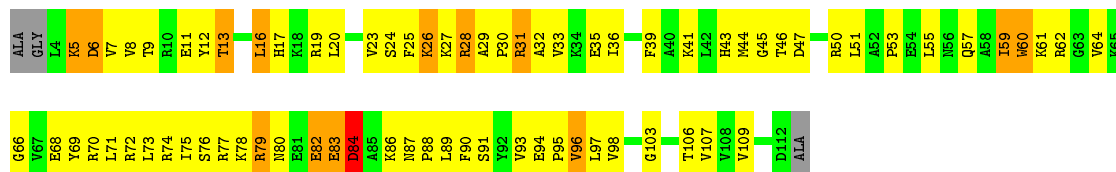
- Molecule 66: 60S ribosomal protein L30

Chain o0:  78% 17% . .



- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 30% 54% 12% ..



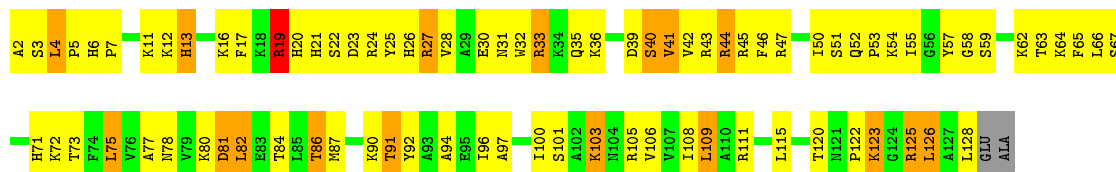
- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 77% 21% .



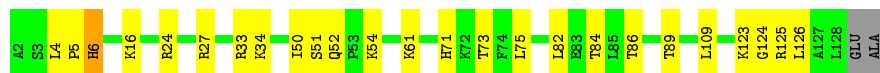
- Molecule 68: 60S ribosomal protein L32

Chain O2: 33% 51% 13% ..



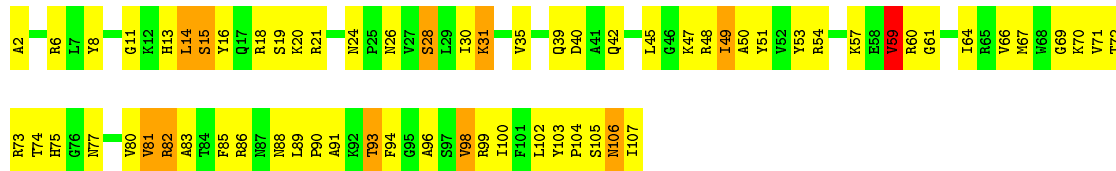
- Molecule 68: 60S ribosomal protein L32

Chain o2: 79% 19% ..



- Molecule 69: 60S ribosomal protein L33-A

Chain O3: 38% 52% 9% .



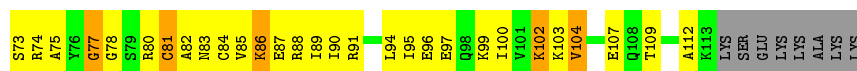
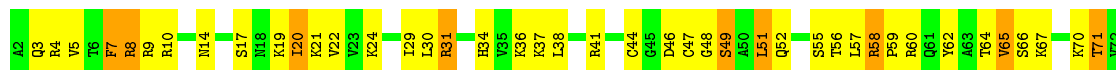
- Molecule 69: 60S ribosomal protein L33-A

Chain o3: 81% 18% .



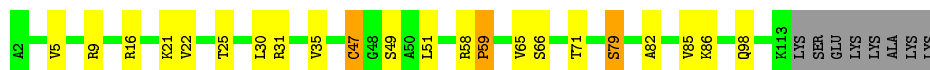
- Molecule 70: 60S ribosomal protein L34-A

Chain O4: 34% 48% 12% 7%



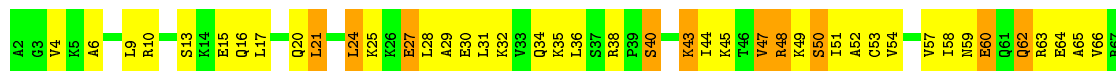
- Molecule 70: 60S ribosomal protein L34-A

Chain o4: 75% 16% 7%



- Molecule 71: 60S ribosomal protein L35-A

Chain O5: 35% 49% 15%



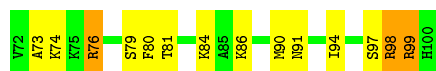
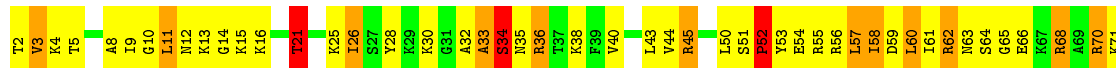
- Molecule 71: 60S ribosomal protein L35-A

Chain o5: 77% 22%



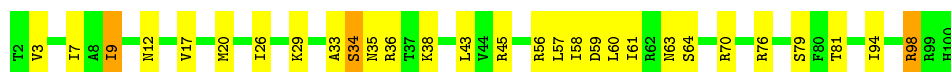
- Molecule 72: 60S ribosomal protein L36-A

Chain O6: 37% 44% 15%



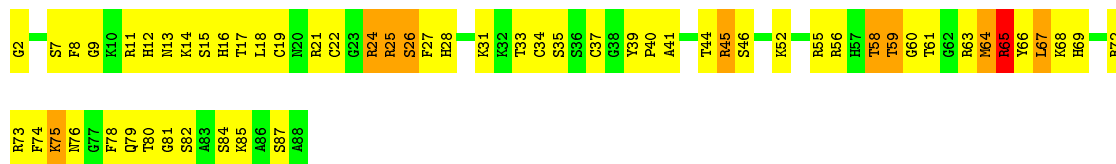
- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 71% 26%



- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 33% 55% 10%



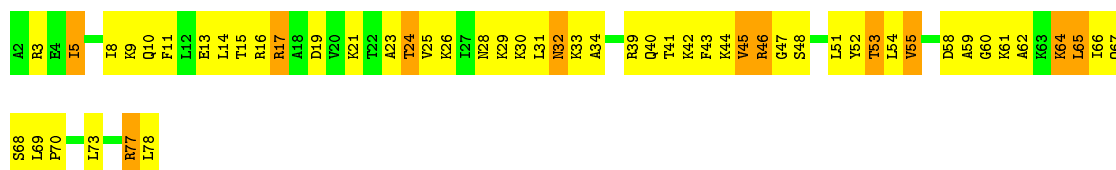
- Molecule 73: 60S ribosomal protein L37-A

Chain o7: 86% 14%



- Molecule 74: 60S ribosomal protein L38

Chain O8: 30% 56% 14%



- Molecule 74: 60S ribosomal protein L38

Chain o8: 81% 18%



- Molecule 75: 60S ribosomal protein L39

Chain O9: 38% 52% 10%



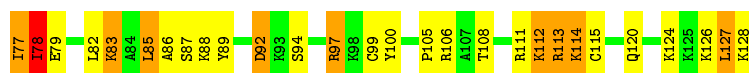
- Molecule 75: 60S ribosomal protein L39

Chain o9: 80% 20%



- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0: 

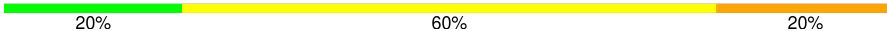


- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0: 



- Molecule 77: 60S ribosomal protein L41-A

Chain Q1: 



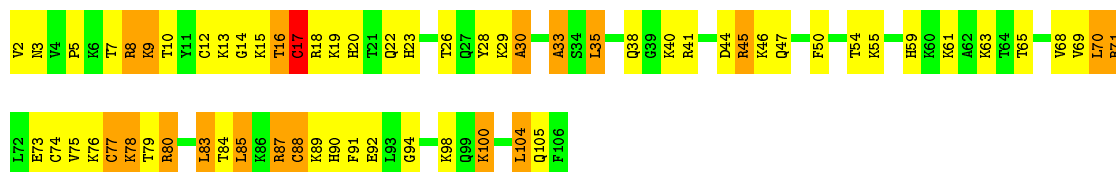
- Molecule 77: 60S ribosomal protein L41-A

Chain q1: 




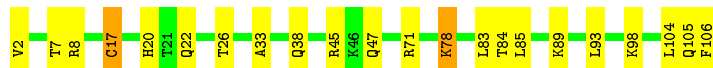
- Molecule 78: 60S ribosomal protein L42-A

Chain Q2: 



- Molecule 78: 60S ribosomal protein L42-A

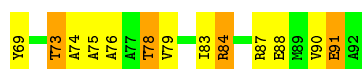
Chain q2: 



- Molecule 79: 60S ribosomal protein L43-A

Chain Q3: 





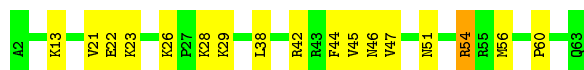
- Molecule 79: 60S ribosomal protein L43-A

Chain q3: 79% 21%



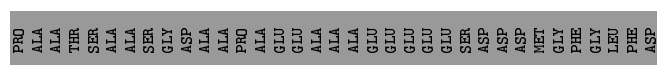
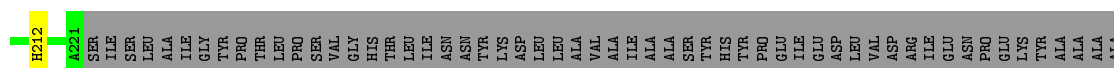
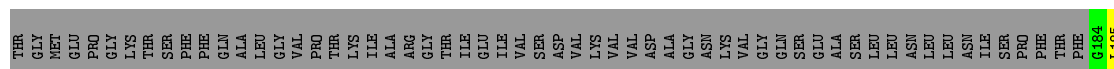
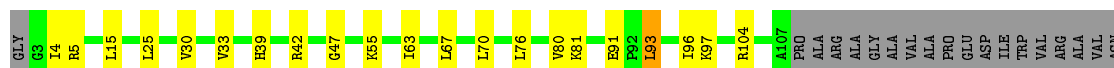
- Molecule 80: 40S ribosomal protein S30-A

Chain e0: 73% 26%



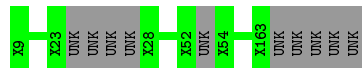
- Molecule 81: 60S acidic ribosomal protein P0

Chain p0: 39% 7% 54%



- Molecule 82: UNKNOWN PROTEIN m2

Chain m2: 94% 6%



- Molecule 83: UNKNOWN PROTEIN p1

Chain p1: 100%

There are no outlier residues recorded for this chain.

- Molecule 84: UNKNOWN PROTEIN p2

Chain p2: 100%

There are no outlier residues recorded for this chain.

4 Data and refinement statistics

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

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	434.39Å 285.58Å 303.06Å 90.00° 98.99° 90.00°	Depositor
Resolution (Å)	49.88 – 3.20	Depositor
% Data completeness (in resolution range)	99.9 (49.88-3.20)	Depositor
R_{merge}	0.34	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.30 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.212 , 0.262	Depositor
Wilson B-factor (Å ²)	72.4	Xtriage
Anisotropy	0.130	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.29$	Xtriage
Outliers	0 of 1195009 reflections	Xtriage
Total number of atoms	411230	wwPDB-VP
Average B, all atoms (Å ²)	65.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.43% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, OHX, MG, 3L2

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	0.70	1/41698 (0.0%)	1.28	289/64972 (0.4%)
1	6	0.80	10/42765 (0.0%)	1.35	400/66634 (0.6%)
2	S0	0.45	0/1617	0.66	0/2215
2	s0	0.45	0/1623	0.68	0/2222
3	S1	0.38	0/1735	0.63	0/2335
3	s1	0.49	0/1748	0.69	0/2352
4	S2	0.48	0/1665	0.66	0/2263
4	s2	0.56	0/1665	0.74	0/2263
5	S3	0.47	0/1759	0.64	0/2368
5	s3	0.39	0/1759	0.59	0/2368
6	S4	0.46	0/2109	0.69	1/2839 (0.0%)
6	s4	0.49	0/2109	0.74	1/2839 (0.0%)
7	S5	0.37	0/1629	0.58	0/2202
7	s5	0.42	0/1629	0.66	1/2202 (0.0%)
8	S6	0.45	0/1823	0.65	0/2439
8	s6	0.49	0/1779	0.68	0/2379
9	S7	0.42	0/1506	0.65	0/2028
9	s7	0.43	0/1516	0.62	0/2043
10	S8	0.52	0/1514	0.67	0/2021
10	s8	0.58	0/1514	0.73	0/2021
11	S9	0.46	0/1519	0.65	0/2035
11	s9	0.52	0/1519	0.75	1/2035 (0.0%)
12	C0	0.43	0/790	0.70	1/1069 (0.1%)
12	c0	0.36	0/777	0.64	3/1049 (0.3%)
13	C1	0.55	0/1240	0.67	0/1675
13	c1	0.58	0/1194	0.71	0/1610
14	C2	0.35	0/900	0.63	0/1224
14	c2	0.30	0/900	0.60	1/1224 (0.1%)
15	C3	0.47	0/1215	0.69	2/1638 (0.1%)
15	c3	0.53	0/1215	0.69	0/1638
16	C4	0.40	0/901	0.70	0/1217
16	c4	0.49	0/960	0.74	0/1290

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.43	0/998	0.64	0/1341
17	c5	0.44	0/1060	0.67	0/1426
18	C6	0.42	0/1125	0.69	2/1510 (0.1%)
18	c6	0.43	0/1131	0.67	0/1518
19	C7	0.43	0/935	0.64	0/1254
19	c7	0.43	0/914	0.67	0/1224
20	C8	0.41	0/1211	0.64	0/1628
20	c8	0.44	0/1211	0.68	1/1628 (0.1%)
21	C9	0.42	0/1130	0.65	0/1517
21	c9	0.44	0/1130	0.68	2/1517 (0.1%)
22	D0	0.42	0/865	0.64	0/1169
22	d0	0.43	0/892	0.64	0/1205
23	D1	0.44	0/693	0.63	0/935
23	d1	0.49	0/693	0.65	0/935
24	D2	0.50	0/1038	0.73	2/1395 (0.1%)
24	d2	0.56	0/1038	0.74	1/1395 (0.1%)
25	D3	0.59	0/1139	0.75	1/1518 (0.1%)
25	d3	0.66	0/1139	0.82	2/1518 (0.1%)
26	D4	0.43	0/1087	0.63	0/1449
26	d4	0.48	0/1087	0.69	0/1449
27	D5	0.38	0/571	0.69	0/768
27	d5	0.38	0/566	0.63	0/761
28	D6	0.48	0/782	0.73	0/1047
28	d6	0.59	0/782	0.73	0/1047
29	D7	0.42	0/620	0.65	0/838
29	d7	0.45	0/620	0.69	0/838
30	D8	0.35	0/499	0.59	0/670
30	d8	0.43	0/499	0.69	0/670
31	D9	0.52	0/452	0.71	1/600 (0.2%)
31	d9	0.45	0/452	0.67	0/600
32	E0	0.45	0/483	0.57	0/643
33	E1	0.42	0/577	0.76	0/770
33	e1	0.38	0/619	0.72	0/822
34	SR	0.36	0/2494	0.56	0/3393
34	sR	0.36	0/2495	0.58	0/3395
35	SM	0.51	0/1113	0.69	2/1502 (0.1%)
35	sM	0.47	0/683	0.67	1/923 (0.1%)
36	1	1.08	76/75394 (0.1%)	1.62	1625/117545 (1.4%)
36	5	1.10	110/75414 (0.1%)	1.64	1765/117575 (1.5%)
37	3	0.90	3/2883 (0.1%)	1.38	19/4491 (0.4%)
37	7	1.03	1/2883 (0.0%)	1.66	70/4491 (1.6%)
38	4	1.00	0/3746	1.57	67/5832 (1.1%)
38	8	0.90	2/3746 (0.1%)	1.41	29/5832 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	L2	0.67	0/1948	0.81	1/2617 (0.0%)
39	l2	0.65	0/1946	0.82	1/2614 (0.0%)
40	L3	0.70	0/3146	0.81	1/4228 (0.0%)
40	l3	0.77	0/3146	0.85	3/4228 (0.1%)
41	L4	0.77	0/2800	0.91	5/3790 (0.1%)
41	l4	0.72	1/2800 (0.0%)	0.87	2/3790 (0.1%)
42	L5	0.52	0/2425	0.69	0/3271
42	l5	0.67	0/2408	0.77	1/3248 (0.0%)
43	L6	0.71	0/1260	0.82	1/1694 (0.1%)
43	l6	0.71	0/1269	0.78	0/1705
44	L7	0.73	0/1821	0.84	0/2451
44	l7	0.82	0/1828	0.86	2/2461 (0.1%)
45	L8	0.53	0/1836	0.68	1/2481 (0.0%)
45	l8	0.49	0/1795	0.66	0/2429
46	L9	0.64	0/1539	0.75	0/2073
46	l9	0.73	0/1539	0.81	0/2073
47	M0	0.69	1/1741 (0.1%)	0.81	5/2335 (0.2%)
47	m0	0.70	1/1758 (0.1%)	0.85	1/2358 (0.0%)
48	M1	0.51	0/1374	0.69	1/1842 (0.1%)
48	m1	0.64	0/1374	0.78	2/1842 (0.1%)
49	M3	0.71	0/1568	0.83	2/2106 (0.1%)
49	m3	0.62	0/1573	0.80	0/2113
50	M4	0.70	0/1068	0.79	0/1438
50	m4	0.76	0/1074	0.80	1/1446 (0.1%)
51	M5	0.72	1/1757 (0.1%)	0.84	2/2354 (0.1%)
51	m5	0.63	0/1757	0.83	3/2354 (0.1%)
52	M6	0.81	0/1585	0.84	2/2128 (0.1%)
52	m6	0.96	2/1585 (0.1%)	0.95	4/2128 (0.2%)
53	M7	0.73	0/1443	0.80	1/1944 (0.1%)
53	m7	0.86	0/1250	0.84	0/1683
54	M8	0.75	0/1465	0.88	0/1965
54	m8	0.67	0/1465	0.85	0/1965
55	M9	0.53	0/1538	0.66	0/2050
55	m9	0.54	0/1538	0.65	0/2050
56	N0	0.73	0/1481	0.79	1/1990 (0.1%)
56	n0	0.82	0/1481	0.86	0/1990
57	N1	0.71	0/1300	0.80	1/1743 (0.1%)
57	n1	0.80	1/1300 (0.1%)	0.83	2/1743 (0.1%)
58	N2	0.40	0/812	0.60	0/1099
58	n2	0.46	0/794	0.67	0/1076
59	N3	0.70	0/1018	0.87	2/1369 (0.1%)
59	n3	0.79	0/1018	0.84	0/1369
60	N4	0.52	0/712	0.67	0/958

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
60	n4	0.58	0/1052	0.72	0/1398
61	N5	0.62	0/979	0.77	0/1321
61	n5	0.58	0/974	0.77	0/1314
62	N6	0.68	0/1004	0.85	2/1341 (0.1%)
62	n6	0.66	0/1004	0.82	1/1341 (0.1%)
63	N7	0.48	0/1118	0.67	0/1497
63	n7	0.47	0/1118	0.66	1/1497 (0.1%)
64	N8	0.73	0/1204	0.90	1/1612 (0.1%)
64	n8	0.72	0/1204	0.83	0/1612
65	N9	0.66	0/473	0.76	0/629
65	n9	0.71	0/473	0.94	1/629 (0.2%)
66	O0	0.49	0/751	0.63	0/1008
66	o0	0.46	0/775	0.63	0/1040
67	O1	0.61	0/890	0.73	0/1196
67	o1	0.72	0/897	0.80	0/1205
68	O2	0.76	0/1041	0.86	1/1394 (0.1%)
68	o2	0.79	0/1041	0.87	0/1394
69	O3	0.90	0/868	0.95	2/1168 (0.2%)
69	o3	0.87	0/868	0.90	0/1168
70	O4	0.56	0/890	0.75	1/1189 (0.1%)
70	o4	0.51	0/890	0.73	0/1189
71	O5	0.66	0/978	0.80	1/1301 (0.1%)
71	o5	0.53	0/974	0.68	0/1297
72	O6	0.62	0/778	0.78	0/1034
72	o6	0.54	0/777	0.72	0/1033
73	O7	0.73	0/696	1.03	4/923 (0.4%)
73	o7	0.61	0/696	0.80	0/923
74	O8	0.52	0/618	0.61	0/826
74	o8	0.45	0/614	0.59	0/822
75	O9	0.71	0/443	0.83	0/588
75	o9	0.67	0/443	0.81	0/588
76	Q0	0.65	0/423	0.80	0/562
76	q0	0.84	0/423	0.91	1/562 (0.2%)
77	Q1	0.63	0/234	0.93	0/300
77	q1	0.68	0/234	0.91	0/300
78	Q2	0.82	1/860 (0.1%)	0.80	0/1136
78	q2	0.76	1/860 (0.1%)	0.82	1/1136 (0.1%)
79	Q3	0.71	0/701	0.82	0/934
79	q3	0.66	0/701	0.76	2/934 (0.2%)
80	e0	0.56	0/499	0.72	0/665
81	p0	4.55	1/1091 (0.1%)	1.38	2/1472 (0.1%)
All	All	0.87	213/430073 (0.0%)	1.28	4359/631362 (0.7%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
7	s5	0	2
9	S7	0	1
9	s7	0	1
16	C4	0	1
17	c5	0	1
18	c6	0	1
19	C7	0	2
19	c7	0	1
22	d0	0	1
27	D5	0	1
28	D6	0	1
33	E1	0	1
39	l2	0	1
40	l3	0	1
41	L4	0	1
42	l5	0	1
43	L6	0	1
43	l6	0	1
44	l7	0	1
45	L8	0	1
49	M3	0	1
52	M6	0	1
52	m6	0	1
54	m8	0	2
56	n0	0	2
57	N1	0	1
64	n8	0	2
65	N9	0	1
65	n9	0	1
72	o6	0	1
81	p0	1	0
All	All	1	35

All (213) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	p0	212	HIS	CA-CB	149.59	4.83	1.53
78	Q2	17	CYS	CB-SG	13.09	2.04	1.82
36	5	1152	G	N9-C4	-11.55	1.28	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	q2	17	CYS	CB-SG	9.39	1.98	1.82
36	1	656	A	N3-C4	-7.83	1.30	1.34
36	1	3181	C	N3-C4	-7.79	1.28	1.33
36	1	2296	A	N9-C4	-7.79	1.33	1.37
51	M5	152	CYS	CB-SG	-7.70	1.69	1.82
41	14	94	CYS	CB-SG	-7.66	1.69	1.82
36	5	914	A	N9-C4	-7.60	1.33	1.37
1	6	1744	A	N9-C4	-7.32	1.33	1.37
36	5	367	A	N9-C4	-7.29	1.33	1.37
36	5	1152	G	N9-C8	7.17	1.42	1.37
36	5	1143	A	N9-C4	-7.12	1.33	1.37
36	5	2640	A	N9-C4	-7.08	1.33	1.37
36	5	2358	A	N9-C4	-7.07	1.33	1.37
36	1	2873	U	C2-N3	-7.04	1.32	1.37
36	5	2943	G	N7-C5	-7.03	1.35	1.39
52	m6	40	GLU	CG-CD	7.02	1.62	1.51
36	1	919	U	C2-N3	-6.96	1.32	1.37
36	5	1874	A	N9-C4	-6.93	1.33	1.37
36	1	2601	A	N9-C4	-6.86	1.33	1.37
36	1	817	A	N9-C4	6.81	1.42	1.37
36	5	2971	A	N9-C4	6.81	1.42	1.37
36	5	3008	A	N9-C4	-6.81	1.33	1.37
36	1	1103	A	N3-C4	6.76	1.39	1.34
36	1	1394	A	N9-C4	-6.74	1.33	1.37
36	5	883	A	N3-C4	-6.73	1.30	1.34
36	1	1103	A	N9-C4	6.71	1.41	1.37
36	5	1432	C	N3-C4	-6.69	1.29	1.33
36	1	2800	G	C6-N1	-6.69	1.34	1.39
36	5	652	G	N3-C4	-6.66	1.30	1.35
36	1	2147	A	C5-C4	-6.60	1.34	1.38
36	1	1154	A	N7-C5	-6.59	1.35	1.39
36	1	2986	U	N1-C2	-6.47	1.32	1.38
1	6	17	C	N3-C4	-6.46	1.29	1.33
36	1	1149	G	N3-C4	-6.43	1.30	1.35
36	5	1152	G	N3-C4	-6.41	1.30	1.35
36	5	2799	A	C6-N1	-6.41	1.31	1.35
36	1	3006	A	N3-C4	-6.38	1.31	1.34
36	5	1103	A	N9-C4	6.36	1.41	1.37
37	3	89	G	N9-C8	-6.36	1.33	1.37
36	5	2342	U	C2-N3	-6.34	1.33	1.37
36	5	808	A	N3-C4	-6.31	1.31	1.34
36	1	2714	G	N9-C4	-6.29	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1330	A	N9-C4	-6.27	1.34	1.37
36	1	1114	U	C2-N3	-6.21	1.33	1.37
36	5	2147	A	C5-C6	-6.18	1.35	1.41
36	5	2626	A	N3-C4	-6.14	1.31	1.34
36	1	1326	A	N9-C4	-6.13	1.34	1.37
36	5	955	U	C2-N3	-6.10	1.33	1.37
36	1	1103	A	N7-C5	6.10	1.43	1.39
36	5	2726	C	N3-C4	-6.10	1.29	1.33
36	5	1456	A	N9-C4	-6.09	1.34	1.37
36	5	2980	U	C2-N3	-6.09	1.33	1.37
52	m6	80	PHE	CB-CG	-6.06	1.41	1.51
1	6	1750	A	N9-C4	-6.05	1.34	1.37
47	m0	8	CYS	CB-SG	-6.01	1.72	1.82
37	3	89	G	C5-C4	-6.00	1.34	1.38
36	1	2355	G	N7-C5	-5.94	1.35	1.39
1	6	1027	A	N9-C4	-5.93	1.34	1.37
36	5	523	A	N9-C4	-5.92	1.34	1.37
36	5	2343	C	N1-C6	-5.87	1.33	1.37
36	5	1177	G	C6-N1	-5.87	1.35	1.39
36	5	2403	G	C6-N1	5.86	1.43	1.39
36	5	2858	U	C2-N3	-5.84	1.33	1.37
36	1	1367	G	C5-C4	-5.83	1.34	1.38
36	5	3106	A	N7-C5	-5.83	1.35	1.39
36	1	1445	U	N1-C2	-5.83	1.33	1.38
36	5	2401	A	C5-C4	5.82	1.42	1.38
36	5	3120	C	N3-C4	-5.80	1.29	1.33
36	1	3006	A	N9-C4	-5.80	1.34	1.37
36	5	2379	U	C2-N3	-5.79	1.33	1.37
36	1	1116	G	N3-C4	-5.78	1.31	1.35
36	5	943	U	N1-C2	-5.73	1.33	1.38
36	1	2363	A	N9-C4	-5.73	1.34	1.37
1	6	163	G	N9-C4	-5.73	1.33	1.38
36	1	421	G	N1-C2	-5.72	1.33	1.37
36	5	1476	G	N3-C4	-5.71	1.31	1.35
36	1	2409	G	C5-C4	-5.70	1.34	1.38
36	1	951	A	N9-C4	-5.70	1.34	1.37
36	1	744	A	N9-C4	-5.69	1.34	1.37
36	5	807	A	N9-C4	-5.68	1.34	1.37
36	5	343	U	C2-N3	-5.67	1.33	1.37
36	1	1379	G	C6-N1	-5.66	1.35	1.39
36	1	2314	U	C2-O2	5.66	1.27	1.22
1	6	1800	A	N9-C4	5.64	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	921	A	N7-C5	-5.62	1.35	1.39
36	5	397	A	N3-C4	-5.60	1.31	1.34
36	1	3306	U	N3-C4	-5.59	1.33	1.38
36	5	3274	A	N9-C4	-5.58	1.34	1.37
36	1	1547	G	C5-C4	-5.58	1.34	1.38
1	6	399	A	N9-C4	-5.58	1.34	1.37
36	1	900	G	N9-C4	-5.57	1.33	1.38
36	5	660	A	N3-C4	-5.57	1.31	1.34
36	1	339	C	N3-C4	-5.57	1.30	1.33
36	1	919	U	N3-C4	-5.56	1.33	1.38
36	5	521	A	N9-C4	-5.55	1.34	1.37
36	5	2399	A	N9-C4	-5.55	1.34	1.37
36	1	2281	A	N9-C4	-5.55	1.34	1.37
36	1	359	U	C4-O4	5.54	1.28	1.23
36	1	282	G	N1-C2	-5.53	1.33	1.37
38	8	5	U	N1-C2	-5.53	1.33	1.38
47	M0	8	CYS	CB-SG	-5.52	1.72	1.81
36	5	1159	A	N9-C4	-5.52	1.34	1.37
36	5	2627	C	N3-C4	-5.52	1.30	1.33
36	1	423	A	N3-C4	-5.51	1.31	1.34
36	5	1887	A	C5-C4	-5.49	1.34	1.38
36	5	1867	A	N3-C4	-5.49	1.31	1.34
36	5	92	G	C8-N7	-5.48	1.27	1.30
36	5	953	G	C5-C4	-5.48	1.34	1.38
36	5	2879	C	N1-C6	-5.48	1.33	1.37
36	5	345	G	N9-C8	-5.47	1.34	1.37
36	5	3048	A	N7-C5	-5.46	1.35	1.39
36	5	345	G	N7-C5	-5.46	1.35	1.39
36	5	3040	A	N9-C4	-5.46	1.34	1.37
36	5	2934	A	C6-N1	-5.45	1.31	1.35
36	1	206	G	C5-C4	-5.44	1.34	1.38
36	5	908	G	N7-C5	-5.43	1.35	1.39
37	7	88	G	C6-N1	-5.43	1.35	1.39
36	5	706	A	N9-C4	-5.42	1.34	1.37
36	1	2169	G	C5-C6	5.42	1.47	1.42
36	5	847	A	N9-C4	-5.42	1.34	1.37
36	5	2881	C	N1-C6	-5.41	1.33	1.37
36	5	366	A	N3-C4	-5.40	1.31	1.34
36	5	2409	G	C5-C4	-5.40	1.34	1.38
36	1	2419	A	N9-C4	-5.40	1.34	1.37
36	5	1116	G	N3-C4	-5.39	1.31	1.35
36	5	2847	A	N9-C4	-5.39	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1157	G	C6-N1	-5.39	1.35	1.39
36	5	802	C	N1-C6	-5.39	1.33	1.37
36	1	885	U	C2-N3	-5.38	1.33	1.37
36	5	3004	C	N1-C6	-5.38	1.33	1.37
36	5	2244	A	N9-C4	-5.37	1.34	1.37
36	1	2333	C	N3-C4	-5.35	1.30	1.33
36	5	971	G	N9-C8	-5.35	1.34	1.37
36	5	1174	G	C5-C4	-5.34	1.34	1.38
57	n1	104	GLU	CB-CG	5.32	1.62	1.52
36	5	2902	A	N3-C4	-5.32	1.31	1.34
36	1	1116	G	N7-C5	-5.31	1.36	1.39
36	5	421	G	C6-N1	-5.30	1.35	1.39
36	1	3208	G	N9-C4	-5.30	1.33	1.38
36	5	941	G	C6-N1	-5.28	1.35	1.39
36	1	1395	G	C5-C4	-5.27	1.34	1.38
1	6	1765	A	N9-C4	-5.27	1.34	1.37
36	1	2762	A	N3-C4	-5.25	1.31	1.34
36	1	2944	U	C4-O4	-5.25	1.19	1.23
36	1	699	A	N9-C4	-5.25	1.34	1.37
36	5	2733	A	N3-C4	-5.25	1.31	1.34
36	1	2846	U	N3-C4	-5.24	1.33	1.38
36	5	424	G	C5-C4	-5.24	1.34	1.38
36	1	2969	A	N7-C5	-5.23	1.36	1.39
36	1	2820	A	N9-C4	-5.23	1.34	1.37
36	5	1195	A	N9-C4	-5.23	1.34	1.37
1	6	119	A	N9-C4	-5.23	1.34	1.37
36	5	2134	G	C6-N1	-5.22	1.35	1.39
36	1	2761	G	N7-C5	-5.22	1.36	1.39
36	5	1152	G	C5-C6	-5.22	1.37	1.42
36	5	522	A	N7-C5	-5.22	1.36	1.39
36	5	2302	G	C6-N1	-5.21	1.35	1.39
36	5	417	A	N9-C4	-5.19	1.34	1.37
36	1	1905	G	C2-N3	-5.19	1.28	1.32
36	1	654	C	N1-C6	-5.19	1.34	1.37
36	5	3048	A	N9-C4	-5.18	1.34	1.37
1	6	1137	A	C5-C4	-5.18	1.35	1.38
36	5	2957	G	C8-N7	-5.18	1.27	1.30
36	5	1295	G	N3-C4	-5.18	1.31	1.35
36	1	2911	A	N9-C4	-5.17	1.34	1.37
36	5	2993	G	C5-C4	-5.17	1.34	1.38
36	5	2145	A	N7-C5	-5.17	1.36	1.39
36	5	2715	A	N3-C4	-5.17	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	3093	C	N1-C6	-5.17	1.34	1.37
36	5	1476	G	N9-C4	-5.16	1.33	1.38
36	1	71	A	N3-C4	-5.15	1.31	1.34
36	5	1184	A	N9-C4	-5.15	1.34	1.37
36	5	1506	A	N3-C4	-5.14	1.31	1.34
36	5	1177	G	N3-C4	-5.13	1.31	1.35
36	1	1367	G	C5-C6	-5.13	1.37	1.42
36	5	646	A	C6-N1	-5.12	1.31	1.35
1	2	1730	A	N9-C4	-5.11	1.34	1.37
37	3	82	G	C6-N1	-5.11	1.35	1.39
36	5	1435	A	C5-C4	-5.11	1.35	1.38
36	1	649	A	N3-C4	-5.11	1.31	1.34
36	5	914	A	N3-C4	-5.11	1.31	1.34
36	5	1897	G	N3-C4	-5.10	1.31	1.35
36	1	1134	G	N7-C5	-5.09	1.36	1.39
36	1	1142	G	N1-C2	-5.08	1.33	1.37
36	5	1199	C	N1-C6	-5.07	1.34	1.37
36	5	2403	G	N7-C5	-5.07	1.36	1.39
36	1	3306	U	C2-N3	-5.07	1.34	1.37
36	1	2377	G	C6-N1	-5.07	1.36	1.39
36	1	1865	A	N3-C4	-5.06	1.31	1.34
36	5	2910	A	N3-C4	-5.05	1.31	1.34
36	5	1462	A	N9-C4	-5.05	1.34	1.37
36	5	88	A	N9-C4	-5.05	1.34	1.37
36	5	818	C	N1-C6	-5.05	1.34	1.37
36	5	2943	G	C5-C6	-5.05	1.37	1.42
36	5	2953	U	C4-O4	5.05	1.27	1.23
36	1	3277	U	N1-C2	5.05	1.43	1.38
36	5	962	A	C5-C6	-5.04	1.36	1.41
36	1	2911	A	N3-C4	-5.04	1.31	1.34
36	1	754	G	N9-C8	-5.04	1.34	1.37
36	5	39	A	N9-C4	-5.04	1.34	1.37
36	1	422	A	N3-C4	-5.03	1.31	1.34
38	8	96	A	N9-C4	-5.03	1.34	1.37
36	1	948	C	N1-C6	-5.03	1.34	1.37
36	5	1587	A	N9-C4	-5.03	1.34	1.37
36	5	2797	C	N1-C6	-5.02	1.34	1.37
36	5	2279	A	N9-C4	-5.02	1.34	1.37
36	5	2976	A	N9-C4	-5.02	1.34	1.37
36	5	2316	G	N9-C8	-5.01	1.34	1.37
36	1	1142	G	C6-N1	-5.00	1.36	1.39
36	5	2370	G	C6-N1	-5.00	1.36	1.39

All (4359) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	p0	212	HIS	N-CA-CB	-47.24	25.57	110.60
36	5	1152	G	N3-C4-C5	23.22	140.21	128.60
36	5	1152	G	N3-C4-N9	-22.85	112.29	126.00
36	5	1152	G	C2-N3-C4	-18.92	102.44	111.90
36	5	780	A	O5'-P-OP1	-14.51	92.64	105.70
36	5	2971	A	O5'-P-OP2	-14.33	92.80	105.70
36	5	1116	G	O5'-P-OP1	-14.06	93.04	105.70
36	1	3306	U	N3-C4-O4	-13.94	109.64	119.40
36	5	2871	G	O5'-P-OP2	-13.44	93.61	105.70
36	1	2846	U	C5-C4-O4	13.32	133.89	125.90
1	6	163	G	N3-C4-N9	-13.07	118.16	126.00
36	1	3278	C	N1-C2-O2	12.85	126.61	118.90
36	5	2943	G	C6-C5-N7	-12.77	122.74	130.40
36	5	1897	G	N1-C6-O6	12.61	127.47	119.90
36	1	960	U	C5-C6-N1	-12.61	116.40	122.70
36	5	1152	G	C5-N7-C8	-12.56	98.02	104.30
36	5	580	C	C6-N1-C2	-12.55	115.28	120.30
36	5	424	G	C5-C6-O6	-12.31	121.21	128.60
36	1	2846	U	N3-C2-O2	-12.29	113.60	122.20
36	1	3306	U	C5-C4-O4	12.13	133.18	125.90
36	1	2617	U	C5-C4-O4	12.06	133.14	125.90
36	5	2117	A	N1-C6-N6	-12.04	111.38	118.60
36	5	2943	G	N1-C6-O6	12.03	127.11	119.90
36	1	2819	A	O5'-P-OP2	-12.01	94.89	105.70
36	1	960	U	C2-N1-C1'	-11.97	103.33	117.70
36	5	2147	A	N1-C6-N6	11.89	125.73	118.60
36	1	960	U	C6-N1-C2	11.84	128.10	121.00
36	1	2873	U	N3-C4-O4	-11.81	111.14	119.40
36	1	960	U	N3-C4-O4	-11.78	111.15	119.40
36	1	2412	G	C5-C6-O6	-11.74	121.55	128.60
36	5	1481	A	C8-N9-C4	-11.71	101.12	105.80
36	5	922	U	N3-C2-O2	-11.70	114.01	122.20
36	1	3212	C	C6-N1-C2	11.64	124.95	120.30
36	1	922	U	N1-C2-O2	11.57	130.90	122.80
36	5	2385	G	O5'-P-OP1	-11.55	95.31	105.70
36	1	1367	G	O5'-P-OP1	-11.52	95.33	105.70
36	1	1149	G	N1-C6-O6	11.49	126.80	119.90
36	1	1891	A	C8-N9-C4	11.44	110.38	105.80
36	5	3245	A	C2-N3-C4	-11.34	104.93	110.60
36	5	1152	G	C8-N9-C1'	11.34	141.74	127.00
36	1	639	G	N1-C6-O6	11.31	126.69	119.90
36	5	2648	G	N1-C6-O6	-11.17	113.20	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2609	A	O5'-P-OP2	-11.16	95.66	105.70
36	1	2714	G	N3-C4-C5	10.97	134.09	128.60
36	1	2283	G	N1-C6-O6	10.95	126.47	119.90
36	5	2852	C	C6-N1-C2	10.92	124.67	120.30
36	1	1495	U	C5-C6-N1	-10.91	117.24	122.70
37	7	101	G	N1-C6-O6	10.91	126.45	119.90
36	5	1589	A	N1-C6-N6	10.88	125.13	118.60
36	5	2403	G	O5'-P-OP2	-10.83	95.95	105.70
36	1	3181	C	C5-C4-N4	10.82	127.78	120.20
36	5	2354	C	N1-C2-O2	-10.82	112.41	118.90
1	2	553	G	N1-C6-O6	10.79	126.37	119.90
36	1	2379	U	C5-C4-O4	-10.79	119.43	125.90
1	6	1773	C	N3-C4-C5	-10.68	117.63	121.90
36	1	2714	G	N3-C4-N9	-10.66	119.60	126.00
36	5	1292	C	C6-N1-C2	10.62	124.55	120.30
36	5	227	G	O5'-P-OP2	-10.61	96.15	105.70
36	1	3095	U	O5'-P-OP1	-10.57	96.19	105.70
36	1	2352	A	O5'-P-OP2	-10.53	96.22	105.70
36	5	1160	C	N1-C2-O2	-10.48	112.61	118.90
36	5	2971	A	C2-N3-C4	10.44	115.82	110.60
36	5	3123	A	C8-N9-C4	10.41	109.97	105.80
36	5	2524	A	O4'-C1'-N9	10.36	116.49	108.20
36	1	282	G	C8-N9-C4	-10.35	102.26	106.40
36	1	1389	G	C4-C5-N7	10.34	114.93	110.80
36	1	2827	U	C5-C6-N1	-10.31	117.54	122.70
36	1	1367	G	N1-C6-O6	10.30	126.08	119.90
38	4	21	C	C6-N1-C2	10.29	124.42	120.30
36	1	1849	C	N1-C2-O2	-10.29	112.73	118.90
36	5	776	U	C5-C6-N1	-10.23	117.58	122.70
36	5	2879	C	C6-N1-C2	10.19	124.38	120.30
1	6	163	G	N3-C4-C5	10.19	133.69	128.60
36	1	2930	A	N1-C6-N6	10.18	124.71	118.60
36	1	709	A	C8-N9-C4	10.18	109.87	105.80
1	2	639	U	N3-C2-O2	-10.17	115.08	122.20
36	5	612	U	O5'-P-OP1	-10.17	96.55	105.70
36	1	3181	C	N3-C4-N4	-10.15	110.89	118.00
36	1	2873	U	C5-C4-O4	10.14	131.98	125.90
36	5	1158	A	C2-N3-C4	-10.13	105.53	110.60
36	1	1125	U	O5'-P-OP1	-10.12	96.59	105.70
36	1	2873	U	N3-C2-O2	-10.08	115.14	122.20
36	5	3306	U	O5'-P-OP2	-10.07	96.64	105.70
36	5	1481	A	N7-C8-N9	10.04	118.82	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2808	A	N9-C4-C5	-10.02	101.79	105.80
36	5	2726	C	C5-C4-N4	10.02	127.22	120.20
36	5	2797	C	N1-C2-O2	-10.01	112.89	118.90
1	2	1039	A	O4'-C1'-N9	9.99	116.19	108.20
36	5	2848	G	N1-C6-O6	9.95	125.87	119.90
1	6	543	C	N1-C2-O2	9.94	124.86	118.90
36	5	877	C	N3-C4-C5	9.94	125.87	121.90
36	5	1902	G	C5-C6-O6	-9.93	122.64	128.60
36	5	2820	A	N1-C6-N6	-9.93	112.64	118.60
36	1	1104	G	O5'-P-OP1	-9.92	96.78	105.70
36	1	1107	C	C6-N1-C2	9.91	124.26	120.30
36	1	2617	U	N1-C2-N3	9.89	120.84	114.90
37	7	101	G	C6-C5-N7	-9.89	124.46	130.40
36	1	2209	U	C5-C6-N1	9.88	127.64	122.70
36	5	3245	A	C5-N7-C8	-9.86	98.97	103.90
36	1	2964	G	O5'-P-OP2	-9.86	96.82	105.70
36	5	2726	C	C6-N1-C2	-9.84	116.36	120.30
36	1	218	G	O5'-P-OP2	-9.82	96.86	105.70
36	5	1852	G	C8-N9-C4	-9.82	102.47	106.40
1	6	352	A	O5'-P-OP2	-9.79	96.89	105.70
36	5	2351	U	N3-C2-O2	-9.75	115.38	122.20
36	5	1306	G	C5-C6-O6	-9.73	122.76	128.60
36	1	2169	G	C4-C5-N7	-9.69	106.92	110.80
36	5	398	A	O5'-P-OP2	-9.66	97.00	105.70
73	O7	45	ARG	NE-CZ-NH1	-9.66	115.47	120.30
36	5	2199	G	N1-C6-O6	9.61	125.67	119.90
36	5	2820	A	N9-C4-C5	9.58	109.63	105.80
1	6	385	A	N1-C6-N6	-9.56	112.87	118.60
1	6	453	U	N3-C2-O2	-9.55	115.52	122.20
36	5	1473	G	C8-N9-C4	9.52	110.21	106.40
36	1	2412	G	C4-C5-N7	9.50	114.60	110.80
36	5	2865	U	C2-N3-C4	9.48	132.69	127.00
36	1	2355	G	N1-C6-O6	9.48	125.59	119.90
36	5	3245	A	N7-C8-N9	9.48	118.54	113.80
36	5	1520	G	C5-C6-O6	-9.44	122.93	128.60
36	5	3217	C	C6-N1-C2	9.44	124.08	120.30
36	5	2383	C	N3-C4-C5	-9.43	118.13	121.90
36	5	2421	U	N1-C2-O2	-9.41	116.21	122.80
36	5	2943	G	C5-C6-O6	-9.41	122.95	128.60
36	5	1192	C	N3-C2-O2	-9.40	115.32	121.90
36	1	2983	C	C5-C6-N1	-9.40	116.30	121.00
36	5	2928	C	O5'-P-OP1	-9.38	97.26	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	395	A	O5'-P-OP2	-9.36	97.27	105.70
36	1	2870	C	C2-N1-C1'	-9.36	108.50	118.80
36	5	1433	A	C8-N9-C4	-9.36	102.06	105.80
36	5	3306	U	C5-C4-O4	-9.34	120.30	125.90
36	5	283	G	C5-C6-O6	-9.33	123.00	128.60
36	5	1841	A	O5'-P-OP1	-9.33	97.30	105.70
36	5	2117	A	C5-C6-N6	9.33	131.16	123.70
36	5	969	C	C6-N1-C2	9.31	124.02	120.30
36	5	1152	G	C4-N9-C1'	-9.31	114.40	126.50
36	5	2818	U	O5'-P-OP1	-9.31	97.32	105.70
36	1	3344	A	N7-C8-N9	9.27	118.44	113.80
36	1	671	U	O5'-P-OP2	-9.24	97.38	105.70
36	5	3270	U	O5'-P-OP1	-9.24	97.38	105.70
36	5	1148	G	C5-C6-O6	-9.23	123.06	128.60
1	6	756	A	C8-N9-C4	-9.23	102.11	105.80
36	5	3115	C	N1-C2-O2	-9.23	113.36	118.90
36	5	1881	A	N1-C6-N6	9.22	124.14	118.60
36	5	651	G	C8-N9-C4	-9.22	102.71	106.40
36	5	2948	C	N3-C4-C5	9.21	125.59	121.90
36	5	3143	C	N3-C4-N4	9.20	124.44	118.00
36	1	1192	C	N1-C2-O2	9.20	124.42	118.90
36	1	2800	G	N1-C6-O6	-9.19	114.38	119.90
36	5	2383	C	C6-N1-C2	-9.19	116.62	120.30
36	5	2290	C	C6-N1-C2	9.18	123.97	120.30
36	1	1381	A	O5'-P-OP1	-9.17	97.44	105.70
36	1	2617	U	C4-C5-C6	9.17	125.20	119.70
36	1	2816	G	C5-C6-O6	-9.17	123.10	128.60
73	O7	65	ARG	NE-CZ-NH1	9.16	124.88	120.30
36	1	3248	C	C6-N1-C2	-9.15	116.64	120.30
36	5	3140	G	C4-C5-N7	9.15	114.46	110.80
36	1	3217	C	N3-C2-O2	-9.13	115.51	121.90
36	5	2353	G	N1-C6-O6	9.13	125.38	119.90
36	5	2572	C	N1-C2-O2	9.13	124.38	118.90
36	1	2621	G	N3-C2-N2	-9.10	113.53	119.90
36	5	1116	G	N9-C4-C5	9.09	109.04	105.40
36	5	650	C	N1-C2-O2	-9.08	113.45	118.90
36	5	2905	U	C5-C6-N1	-9.08	118.16	122.70
1	6	1137	A	C8-N9-C4	9.06	109.42	105.80
36	1	2930	A	C5-C6-N6	-9.04	116.47	123.70
36	5	1150	A	O5'-P-OP2	-9.04	97.56	105.70
36	5	1178	G	N1-C6-O6	9.04	125.32	119.90
36	5	1189	C	N1-C2-O2	-9.03	113.48	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2309	A	N1-C6-N6	-9.03	113.18	118.60
36	1	922	U	N3-C2-O2	-9.01	115.89	122.20
36	5	546	C	N1-C2-O2	9.00	124.30	118.90
36	1	281	G	C5-C6-O6	-8.99	123.20	128.60
36	1	2621	G	N1-C6-O6	8.99	125.30	119.90
36	5	1192	C	N1-C2-O2	8.99	124.30	118.90
36	5	952	A	N1-C6-N6	8.99	123.99	118.60
36	5	952	A	C5-C6-N6	-8.98	116.52	123.70
36	1	1156	C	C4-C5-C6	8.97	121.88	117.40
36	1	3278	C	N3-C2-O2	-8.96	115.63	121.90
36	1	2808	A	N1-C6-N6	8.92	123.95	118.60
36	5	1306	G	N1-C6-O6	8.91	125.25	119.90
36	1	2314	U	C5-C4-O4	-8.91	120.55	125.90
1	6	47	A	O5'-P-OP1	-8.90	97.69	105.70
1	6	609	U	N1-C2-N3	8.89	120.24	114.90
36	1	1308	A	C8-N9-C4	-8.89	102.24	105.80
36	1	1367	G	C5-C6-O6	-8.89	123.27	128.60
36	5	2943	G	C4-C5-N7	8.89	114.36	110.80
36	1	1556	C	C6-N1-C2	-8.88	116.75	120.30
36	1	2317	A	O5'-P-OP2	-8.87	97.71	105.70
36	5	3218	A	N1-C6-N6	8.87	123.92	118.60
36	5	1879	A	N1-C6-N6	8.86	123.92	118.60
36	1	2370	G	C5-C6-O6	-8.85	123.29	128.60
36	1	2808	A	C8-N9-C4	8.85	109.34	105.80
37	7	73	C	C6-N1-C2	-8.85	116.76	120.30
36	1	2617	U	C5-C6-N1	-8.84	118.28	122.70
38	4	94	C	C6-N1-C2	8.84	123.83	120.30
36	5	1507	G	O5'-P-OP1	-8.82	97.76	105.70
36	5	2147	A	C5-C6-N6	-8.82	116.64	123.70
36	5	1589	A	C5-C6-N6	-8.81	116.65	123.70
36	1	2868	U	N1-C2-O2	8.80	128.96	122.80
36	5	1657	C	N1-C2-O2	8.80	124.18	118.90
36	5	2860	U	C6-N1-C2	8.80	126.28	121.00
1	6	1280	C	N3-C4-C5	-8.79	118.39	121.90
36	1	54	C	C6-N1-C2	8.78	123.81	120.30
36	1	2169	G	N1-C6-O6	-8.78	114.63	119.90
36	1	3181	C	N3-C2-O2	-8.78	115.76	121.90
36	5	3154	C	N1-C2-O2	8.78	124.17	118.90
36	1	398	A	O5'-P-OP2	-8.77	97.80	105.70
36	1	1450	G	C5-C6-O6	-8.77	123.34	128.60
36	5	48	A	C8-N9-C4	-8.77	102.29	105.80
36	1	1556	C	N3-C2-O2	-8.76	115.77	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2244	A	C8-N9-C4	8.75	109.30	105.80
1	6	1634	C	C2-N1-C1'	8.75	128.42	118.80
36	5	2953	U	N3-C4-O4	8.75	125.52	119.40
36	1	2306	C	N1-C2-O2	8.74	124.14	118.90
36	1	2846	U	N3-C4-O4	-8.73	113.29	119.40
36	1	3057	U	C5-C4-O4	8.73	131.14	125.90
1	6	1274	C	C6-N1-C2	-8.73	116.81	120.30
36	1	439	C	N1-C2-O2	8.73	124.14	118.90
36	1	648	C	O5'-P-OP1	-8.71	97.86	105.70
36	1	2831	G	N1-C6-O6	8.71	125.13	119.90
36	1	2602	G	C8-N9-C4	8.69	109.88	106.40
36	5	1158	A	N1-C2-N3	8.69	133.64	129.30
36	5	1902	G	N1-C6-O6	8.69	125.11	119.90
36	1	2815	G	C8-N9-C4	8.68	109.87	106.40
36	5	1152	G	C4-C5-N7	8.68	114.27	110.80
36	5	636	C	C5-C6-N1	-8.67	116.67	121.00
36	1	2983	C	C4-C5-C6	8.66	121.73	117.40
36	5	283	G	C4-C5-N7	8.66	114.26	110.80
36	5	2704	A	O5'-P-OP1	-8.65	97.92	105.70
36	5	2341	A	C8-N9-C4	8.62	109.25	105.80
1	2	639	U	N1-C2-O2	8.61	128.83	122.80
36	5	952	A	N9-C4-C5	-8.61	102.36	105.80
36	1	1103	A	C2-N3-C4	8.60	114.90	110.60
36	1	793	C	N1-C2-O2	-8.57	113.75	118.90
36	1	901	G	N1-C6-O6	8.57	125.05	119.90
36	5	2820	A	C8-N9-C4	-8.57	102.37	105.80
36	1	91	G	C5-C6-O6	-8.56	123.46	128.60
37	7	79	A	N1-C6-N6	8.56	123.74	118.60
36	1	3217	C	N1-C2-O2	8.55	124.03	118.90
36	1	3344	A	C5-N7-C8	-8.55	99.63	103.90
36	1	1326	A	C8-N9-C4	8.54	109.22	105.80
36	5	1305	U	O5'-P-OP1	-8.54	98.02	105.70
36	5	2147	A	C6-C5-N7	-8.54	126.32	132.30
36	1	2959	C	N1-C2-O2	-8.52	113.79	118.90
36	1	3180	A	C8-N9-C4	8.52	109.21	105.80
36	5	1132	C	O5'-P-OP1	-8.51	98.04	105.70
36	1	2314	U	N1-C2-N3	-8.51	109.79	114.90
36	1	3269	U	O5'-P-OP2	-8.51	98.05	105.70
36	5	2403	G	O5'-P-OP1	8.50	120.90	110.70
36	1	957	C	O5'-P-OP2	-8.50	98.05	105.70
36	1	3208	G	N3-C4-N9	-8.49	120.90	126.00
36	5	1875	G	N1-C6-O6	-8.49	114.80	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1308	A	N7-C8-N9	8.49	118.05	113.80
36	1	802	C	O5'-P-OP1	-8.48	98.07	105.70
1	6	453	U	N1-C2-O2	8.47	128.73	122.80
36	5	2152	A	N1-C6-N6	8.47	123.69	118.60
36	1	644	G	C6-C5-N7	-8.47	125.32	130.40
36	1	2121	G	N1-C6-O6	-8.47	114.82	119.90
36	5	2992	U	C5-C6-N1	8.47	126.93	122.70
36	5	2342	U	C5-C6-N1	-8.46	118.47	122.70
36	5	2403	G	N1-C6-O6	8.46	124.98	119.90
36	5	38	U	C6-N1-C2	8.46	126.07	121.00
36	5	3204	C	C6-N1-C2	8.46	123.68	120.30
36	1	1906	G	N1-C6-O6	8.44	124.96	119.90
36	1	2412	G	N1-C6-O6	8.44	124.96	119.90
1	2	1200	G	N1-C6-O6	8.43	124.96	119.90
12	C0	88	PRO	N-CA-CB	8.42	113.41	103.30
36	1	2944	U	N3-C4-C5	8.42	119.65	114.60
36	5	2392	C	C5-C6-N1	-8.41	116.79	121.00
36	5	411	U	C5-C6-N1	-8.41	118.50	122.70
36	1	3208	G	C4-N9-C1'	-8.40	115.57	126.50
36	1	1175	C	C6-N1-C2	8.40	123.66	120.30
36	1	2642	A	C5-C6-N1	-8.40	113.50	117.70
36	5	2385	G	C8-N9-C4	8.39	109.76	106.40
36	1	790	U	N3-C2-O2	-8.38	116.33	122.20
36	5	2345	A	C8-N9-C4	8.38	109.15	105.80
1	6	1	U	C2-N1-C1'	8.38	127.76	117.70
36	1	1838	G	C5-C6-O6	-8.38	123.57	128.60
36	5	2334	U	O5'-P-OP2	-8.37	98.16	105.70
36	1	2194	G	C6-C5-N7	-8.37	125.38	130.40
1	6	756	A	N7-C8-N9	8.35	117.98	113.80
36	5	1868	G	C6-C5-N7	-8.35	125.39	130.40
36	1	3242	G	O5'-P-OP2	-8.35	98.19	105.70
36	5	421	G	N3-C4-N9	8.34	131.00	126.00
36	5	2403	G	C5-C6-O6	-8.34	123.60	128.60
36	5	2385	G	C5-C6-O6	-8.33	123.60	128.60
36	5	3245	A	C8-N9-C4	-8.33	102.47	105.80
70	O4	51	LEU	CA-CB-CG	8.33	134.46	115.30
36	1	2572	C	C2-N1-C1'	8.32	127.95	118.80
36	1	2986	U	N1-C2-O2	-8.32	116.98	122.80
36	1	1838	G	N1-C6-O6	8.31	124.89	119.90
1	6	609	U	C4-C5-C6	8.31	124.69	119.70
36	5	2371	G	C8-N9-C4	8.31	109.72	106.40
36	5	647	A	C8-N9-C4	8.31	109.12	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1513	G	C8-N9-C4	-8.31	103.08	106.40
36	1	2761	G	N1-C6-O6	8.30	124.88	119.90
36	1	2412	G	C6-C5-N7	-8.30	125.42	130.40
36	5	1444	G	C5-C6-O6	-8.30	123.62	128.60
36	1	2642	A	C6-N1-C2	8.30	123.58	118.60
36	5	2283	G	C5-C6-O6	-8.29	123.63	128.60
36	5	2698	G	C8-N9-C4	8.29	109.72	106.40
36	5	546	C	N3-C2-O2	-8.28	116.10	121.90
36	5	2900	A	N1-C6-N6	-8.28	113.63	118.60
36	5	1117	G	O5'-P-OP1	-8.28	98.25	105.70
36	1	2946	A	N9-C4-C5	-8.28	102.49	105.80
36	1	91	G	N1-C6-O6	8.27	124.86	119.90
1	6	543	C	N3-C2-O2	-8.27	116.11	121.90
36	1	2169	G	N9-C4-C5	8.27	108.71	105.40
38	4	24	G	C8-N9-C4	8.27	109.71	106.40
36	5	3215	A	C2-N3-C4	-8.27	106.47	110.60
36	5	1307	G	P-O3'-C3'	8.26	129.62	119.70
36	5	1506	A	N9-C4-C5	8.26	109.11	105.80
36	5	776	U	N1-C2-N3	8.26	119.85	114.90
36	5	41	G	C4-C5-N7	8.25	114.10	110.80
36	5	1321	G	N1-C6-O6	8.25	124.85	119.90
36	5	2278	C	N1-C2-O2	8.25	123.85	118.90
36	5	1148	G	N1-C6-O6	8.24	124.84	119.90
36	1	2618	G	N1-C6-O6	-8.24	114.96	119.90
36	5	2819	A	O5'-P-OP2	-8.23	98.29	105.70
36	1	435	C	C6-N1-C2	8.23	123.59	120.30
36	1	716	A	N1-C6-N6	8.21	123.53	118.60
1	6	1596	C	N3-C2-O2	-8.21	116.15	121.90
1	2	380	U	N3-C2-O2	-8.20	116.46	122.20
1	6	552	G	C5-C6-O6	-8.19	123.69	128.60
36	5	3093	C	N1-C2-O2	-8.19	113.99	118.90
36	5	952	A	C8-N9-C4	8.19	109.08	105.80
1	6	453	U	C2-N1-C1'	8.18	127.52	117.70
36	5	424	G	N1-C6-O6	8.18	124.81	119.90
36	1	3217	C	C2-N1-C1'	8.18	127.80	118.80
36	5	85	A	C8-N9-C4	8.18	109.07	105.80
36	5	1496	C	C2-N1-C1'	8.18	127.80	118.80
1	2	590	C	C6-N1-C2	-8.17	117.03	120.30
36	5	914	A	C2-N3-C4	-8.17	106.52	110.60
36	5	2965	U	N1-C2-O2	-8.16	117.08	122.80
1	6	1773	C	N1-C2-O2	-8.16	114.00	118.90
1	6	609	U	C5-C6-N1	-8.16	118.62	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2379	U	C5-C6-N1	-8.16	118.62	122.70
38	4	9	A	O5'-P-OP2	-8.16	98.36	105.70
36	5	592	A	O5'-P-OP1	-8.15	98.36	105.70
38	8	80	A	C8-N9-C4	-8.15	102.54	105.80
38	8	8	C	N1-C2-O2	-8.14	114.02	118.90
36	1	1175	C	C5-C6-N1	-8.14	116.93	121.00
36	1	2816	G	N1-C6-O6	8.13	124.78	119.90
36	5	2354	C	N3-C2-O2	8.12	127.59	121.90
36	1	856	G	N1-C6-O6	8.11	124.76	119.90
36	1	1319	G	N1-C6-O6	-8.10	115.04	119.90
36	5	1146	C	C6-N1-C2	8.10	123.54	120.30
36	5	1316	C	N1-C2-O2	-8.09	114.04	118.90
36	5	2283	G	N1-C6-O6	8.09	124.75	119.90
36	5	2385	G	N1-C6-O6	8.09	124.76	119.90
36	5	3014	U	O5'-P-OP2	8.09	120.41	110.70
36	1	2585	G	N3-C4-C5	-8.09	124.56	128.60
1	2	507	U	N1-C2-O2	8.07	128.45	122.80
36	1	1846	C	N1-C2-O2	-8.07	114.06	118.90
1	2	507	U	N3-C2-O2	-8.06	116.56	122.20
36	1	2816	G	N9-C4-C5	-8.06	102.18	105.40
40	l3	4	ARG	NE-CZ-NH1	8.05	124.33	120.30
65	n9	23	LYS	C-N-CD	8.05	145.30	128.40
1	2	321	C	C6-N1-C2	-8.04	117.08	120.30
36	5	1506	A	N1-C6-N6	-8.04	113.78	118.60
36	5	2616	C	N3-C2-O2	8.04	127.53	121.90
36	1	3208	G	C8-N9-C1'	8.03	137.44	127.00
36	5	938	C	N3-C4-C5	8.03	125.11	121.90
36	1	2946	A	N1-C6-N6	8.03	123.42	118.60
36	5	437	G	C8-N9-C4	-8.02	103.19	106.40
36	1	1901	A	N1-C6-N6	-8.01	113.80	118.60
38	4	99	C	C6-N1-C2	8.01	123.50	120.30
36	1	3344	A	C8-N9-C4	-8.01	102.60	105.80
36	5	2245	C	C6-N1-C2	-8.01	117.10	120.30
36	5	2372	A	P-O3'-C3'	8.00	129.30	119.70
36	1	2982	A	C8-N9-C4	8.00	109.00	105.80
39	l2	246	LEU	CA-CB-CG	8.00	133.69	115.30
36	1	2408	U	O5'-P-OP1	-8.00	98.50	105.70
36	5	1160	C	C2-N1-C1'	-7.99	110.01	118.80
36	5	2849	C	N3-C2-O2	7.98	127.49	121.90
36	1	1495	U	C2-N3-C4	-7.97	122.22	127.00
36	1	2393	G	C5-C6-O6	-7.97	123.81	128.60
36	1	2606	G	N3-C4-N9	7.97	130.78	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1908	A	O5'-P-OP2	-7.97	98.52	105.70
36	1	1450	G	N1-C6-O6	7.97	124.68	119.90
36	1	1891	A	N7-C8-N9	-7.96	109.82	113.80
36	1	1043	C	C6-N1-C2	7.96	123.48	120.30
36	5	2406	C	N3-C2-O2	7.96	127.47	121.90
36	1	716	A	N9-C4-C5	-7.96	102.62	105.80
36	1	3362	A	N7-C8-N9	7.96	117.78	113.80
36	5	2152	A	C5-C6-N6	-7.96	117.34	123.70
36	5	2392	C	C6-N1-C2	7.95	123.48	120.30
36	5	2640	A	C2-N3-C4	-7.95	106.62	110.60
36	5	644	G	C4-C5-N7	-7.95	107.62	110.80
36	1	1510	G	C6-C5-N7	-7.94	125.64	130.40
36	5	3181	C	N3-C2-O2	-7.94	116.34	121.90
36	5	2848	G	C6-C5-N7	-7.94	125.64	130.40
36	1	1849	C	N3-C2-O2	7.94	127.45	121.90
36	1	2827	U	N3-C4-O4	-7.93	113.85	119.40
36	5	86	G	O5'-P-OP2	-7.93	98.56	105.70
36	1	706	A	C8-N9-C4	7.93	108.97	105.80
36	5	922	U	N1-C2-O2	7.93	128.35	122.80
36	1	1124	U	N3-C4-O4	-7.92	113.85	119.40
36	1	3139	A	OP1-P-OP2	7.92	131.49	119.60
36	1	1364	C	N3-C4-C5	7.92	125.07	121.90
36	1	3139	A	O5'-P-OP2	-7.91	98.58	105.70
36	5	1881	A	C5-C6-N6	-7.91	117.37	123.70
36	5	1846	C	C6-N1-C2	7.91	123.46	120.30
36	5	1803	C	C6-N1-C2	7.90	123.46	120.30
36	1	1792	C	N1-C2-O2	-7.90	114.16	118.90
37	7	32	U	C5-C6-N1	-7.90	118.75	122.70
1	6	1773	C	C6-N1-C2	-7.89	117.14	120.30
36	5	3377	G	C5-C6-O6	-7.89	123.87	128.60
1	6	976	G	C6-C5-N7	-7.89	125.67	130.40
36	5	1805	C	C6-N1-C2	7.89	123.45	120.30
36	1	1556	C	N1-C2-O2	7.89	123.63	118.90
36	1	2931	C	C6-N1-C2	7.88	123.45	120.30
36	5	1189	C	N3-C2-O2	7.88	127.42	121.90
36	5	2825	C	C6-N1-C2	7.87	123.45	120.30
36	5	3217	C	C2-N1-C1'	-7.86	110.16	118.80
36	5	3377	G	N1-C6-O6	7.86	124.61	119.90
36	5	3136	G	C2-N3-C4	-7.85	107.97	111.90
1	2	959	U	N3-C2-O2	-7.84	116.71	122.20
36	1	2870	C	C6-N1-C1'	7.84	130.21	120.80
1	6	571	G	C8-N9-C4	-7.83	103.27	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2145	A	O5'-P-OP2	-7.83	98.65	105.70
36	5	2353	G	C5-C6-O6	-7.83	123.90	128.60
36	1	2145	A	O5'-P-OP2	-7.83	98.66	105.70
36	1	406	G	O4'-C1'-N9	7.82	114.46	108.20
36	5	504	A	N1-C6-N6	7.82	123.29	118.60
36	1	3188	G	N1-C6-O6	7.81	124.59	119.90
52	m6	94	ARG	NE-CZ-NH1	-7.80	116.40	120.30
36	1	1365	G	C8-N9-C4	-7.79	103.28	106.40
36	1	3101	G	C8-N9-C4	7.78	109.51	106.40
36	1	339	C	N3-C4-N4	-7.77	112.56	118.00
1	6	1150	G	C8-N9-C4	7.77	109.51	106.40
36	5	2732	G	O5'-P-OP2	-7.77	98.71	105.70
36	1	1148	G	C8-N9-C4	7.76	109.50	106.40
36	1	1911	A	N1-C6-N6	7.76	123.26	118.60
36	1	3362	A	C5-N7-C8	-7.76	100.02	103.90
36	1	1389	G	N9-C4-C5	-7.75	102.30	105.40
36	5	1924	U	C6-N1-C2	7.75	125.65	121.00
36	1	1389	G	C5-C6-O6	-7.74	123.96	128.60
36	1	3125	U	C6-N1-C2	7.73	125.64	121.00
36	1	1303	A	N1-C6-N6	7.73	123.24	118.60
36	5	588	G	C5-C6-O6	-7.73	123.96	128.60
36	5	2865	U	C5-C4-O4	7.73	130.54	125.90
1	2	1100	G	C6-C5-N7	-7.72	125.77	130.40
1	2	1280	C	C6-N1-C2	-7.71	117.22	120.30
37	7	101	G	N9-C4-C5	-7.71	102.32	105.40
36	1	1835	A	C8-N9-C4	7.71	108.88	105.80
36	1	2283	G	C5-C6-O6	-7.71	123.98	128.60
36	5	1604	G	C8-N9-C1'	-7.71	116.98	127.00
1	6	976	G	C4-C5-N7	7.70	113.88	110.80
21	c9	57	ARG	NE-CZ-NH1	7.70	124.15	120.30
36	5	2899	C	N1-C2-N3	7.69	124.58	119.20
36	5	3050	U	N3-C2-O2	-7.69	116.82	122.20
1	6	1634	C	C5-C6-N1	7.69	124.84	121.00
36	5	390	G	N1-C6-O6	7.69	124.51	119.90
36	1	2572	C	N1-C2-O2	7.68	123.51	118.90
36	5	3204	C	N3-C2-O2	7.68	127.28	121.90
36	1	966	U	C5-C4-O4	-7.68	121.29	125.90
1	2	1745	G	N3-C4-N9	7.68	130.60	126.00
36	1	1397	C	C2-N3-C4	-7.68	116.06	119.90
36	1	2280	A	N1-C6-N6	7.67	123.20	118.60
36	5	1339	C	C6-N1-C2	-7.67	117.23	120.30
36	1	2156	C	C6-N1-C2	7.67	123.37	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2678	A	N1-C6-N6	-7.67	114.00	118.60
36	1	2379	U	N3-C4-O4	7.66	124.76	119.40
36	5	1116	G	N3-C2-N2	-7.66	114.54	119.90
36	5	2833	A	C8-N9-C4	7.66	108.86	105.80
36	5	3008	A	C2-N3-C4	-7.66	106.77	110.60
36	5	2699	G	C8-N9-C4	7.66	109.46	106.40
36	1	1165	A	C8-N9-C4	7.66	108.86	105.80
36	1	932	U	N1-C2-O2	-7.66	117.44	122.80
36	1	3248	C	C5-C6-N1	7.66	124.83	121.00
36	1	1192	C	C2-N1-C1'	7.65	127.22	118.80
36	1	1148	G	N1-C6-O6	7.65	124.49	119.90
36	1	914	A	N1-C6-N6	-7.64	114.01	118.60
36	1	343	U	O5'-P-OP2	-7.64	98.82	105.70
36	5	1116	G	C4-C5-N7	-7.62	107.75	110.80
1	6	1568	C	C6-N1-C2	-7.62	117.25	120.30
1	2	577	G	N3-C4-C5	7.62	132.41	128.60
36	1	2865	U	N3-C4-C5	7.62	119.17	114.60
36	5	838	G	N1-C6-O6	-7.61	115.33	119.90
38	4	111	A	N1-C6-N6	7.61	123.17	118.60
1	6	1085	G	N1-C6-O6	-7.61	115.33	119.90
36	5	3050	U	C5-C4-O4	7.61	130.47	125.90
36	1	1445	U	N1-C2-O2	-7.61	117.47	122.80
36	1	639	G	C2-N3-C4	-7.60	108.10	111.90
1	6	992	A	O5'-P-OP1	-7.60	98.86	105.70
36	1	3050	U	N3-C2-O2	-7.60	116.88	122.20
36	5	667	C	C6-N1-C2	7.60	123.34	120.30
36	1	1136	A	N1-C6-N6	7.59	123.16	118.60
36	5	648	C	O5'-P-OP1	-7.59	98.87	105.70
36	5	1367	G	N1-C6-O6	7.59	124.45	119.90
36	5	3217	C	C5-C6-N1	-7.59	117.20	121.00
36	1	1405	U	C6-N1-C2	7.59	125.55	121.00
36	1	409	A	O5'-P-OP2	-7.59	98.87	105.70
36	1	932	U	N3-C2-O2	7.59	127.51	122.20
36	1	2621	G	C5-C6-O6	-7.58	124.05	128.60
1	6	1748	G	C8-N9-C4	7.58	109.43	106.40
36	1	960	U	N3-C4-C5	7.58	119.15	114.60
36	5	59	G	C8-N9-C4	-7.58	103.37	106.40
1	2	1280	C	N3-C4-C5	-7.58	118.87	121.90
36	5	2808	A	O5'-P-OP2	-7.58	98.88	105.70
38	4	99	C	N3-C4-C5	7.57	124.93	121.90
36	5	2860	U	C5-C6-N1	-7.57	118.91	122.70
36	1	1417	G	C8-N9-C4	7.57	109.43	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2609	A	O5'-P-OP1	7.56	119.77	110.70
36	5	1370	G	N1-C6-O6	-7.56	115.37	119.90
36	5	1450	G	C5-C6-O6	-7.56	124.07	128.60
36	1	3344	A	O4'-C1'-N9	7.55	114.24	108.20
20	c8	15	LEU	CA-CB-CG	7.55	132.68	115.30
36	1	1417	G	N3-C4-C5	7.55	132.38	128.60
36	1	959	C	C6-N1-C2	7.55	123.32	120.30
36	5	1793	C	O5'-P-OP1	-7.55	98.91	105.70
36	5	1869	C	C6-N1-C2	7.54	123.32	120.30
36	5	3136	G	N3-C2-N2	-7.54	114.62	119.90
1	2	992	A	C2-N3-C4	-7.54	106.83	110.60
36	5	3298	C	O5'-P-OP2	-7.54	98.92	105.70
36	1	3214	U	N3-C2-O2	-7.53	116.93	122.20
1	6	163	G	N3-C2-N2	-7.53	114.63	119.90
36	5	1152	G	C5-C6-N1	-7.53	107.73	111.50
36	5	2327	U	C6-N1-C2	7.53	125.52	121.00
36	1	937	G	O5'-P-OP2	-7.53	98.93	105.70
36	1	3008	A	N1-C6-N6	-7.53	114.08	118.60
1	6	194	U	C2-N1-C1'	7.53	126.73	117.70
36	5	2832	C	C5-C6-N1	-7.53	117.24	121.00
36	5	3004	C	C6-N1-C2	7.52	123.31	120.30
51	m5	96	ARG	NE-CZ-NH1	7.52	124.06	120.30
36	5	709	A	N1-C6-N6	7.52	123.11	118.60
24	d2	93	LEU	CA-CB-CG	7.52	132.59	115.30
36	1	2827	U	C5-C4-O4	7.52	130.41	125.90
36	5	1519	G	N1-C6-O6	7.51	124.41	119.90
36	1	1429	G	N3-C4-N9	7.51	130.50	126.00
36	5	2941	A	O4'-C1'-N9	-7.51	102.19	108.20
36	5	2978	U	C4-C5-C6	7.50	124.20	119.70
36	1	1213	G	N3-C2-N2	-7.50	114.65	119.90
36	5	283	G	N9-C4-C5	-7.50	102.40	105.40
36	5	776	U	C4-C5-C6	7.49	124.20	119.70
36	5	1592	G	C5-C6-N1	-7.49	107.75	111.50
36	5	2726	C	N3-C4-N4	-7.49	112.75	118.00
36	1	1362	G	C8-N9-C4	7.49	109.40	106.40
1	6	610	G	C8-N9-C1'	-7.49	117.26	127.00
36	1	2606	G	N9-C4-C5	-7.49	102.40	105.40
36	5	1454	A	C8-N9-C4	7.49	108.80	105.80
36	1	1407	A	N1-C6-N6	-7.48	114.11	118.60
36	5	1178	G	C5-C6-O6	-7.48	124.11	128.60
31	D9	36	LEU	CA-CB-CG	7.48	132.50	115.30
36	1	1429	G	N3-C4-C5	-7.48	124.86	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2364	G	N1-C2-N2	-7.47	109.48	116.20
36	1	919	U	O5'-P-OP2	-7.47	98.98	105.70
36	5	404	G	O5'-P-OP2	-7.47	98.98	105.70
36	5	2928	C	N3-C4-N4	7.47	123.23	118.00
36	1	2954	U	C5-C6-N1	7.46	126.43	122.70
1	2	380	U	N1-C2-O2	7.46	128.02	122.80
36	1	1377	G	C8-N9-C4	7.46	109.38	106.40
36	1	639	G	C5-C6-N1	-7.46	107.77	111.50
36	5	1604	G	N3-C4-N9	7.46	130.47	126.00
36	1	1368	U	C6-N1-C2	7.45	125.47	121.00
36	1	636	C	N3-C4-C5	7.45	124.88	121.90
36	1	1445	U	C2-N1-C1'	-7.45	108.77	117.70
36	5	2572	C	C2-N1-C1'	7.45	126.99	118.80
36	1	1317	A	C8-N9-C4	-7.44	102.82	105.80
36	5	2989	U	O5'-P-OP1	-7.44	99.00	105.70
36	1	1484	U	P-O3'-C3'	7.44	128.63	119.70
1	6	687	G	N3-C4-N9	-7.44	121.53	126.00
36	1	1139	G	O5'-P-OP1	-7.44	99.00	105.70
1	6	976	G	N1-C6-O6	7.44	124.36	119.90
36	1	2714	G	C5-N7-C8	-7.43	100.58	104.30
36	5	2870	C	C2-N1-C1'	-7.43	110.62	118.80
1	2	577	G	C4-C5-N7	7.43	113.77	110.80
36	1	1163	A	N1-C2-N3	7.43	133.01	129.30
36	1	2996	U	C2-N1-C1'	7.42	126.61	117.70
36	5	1502	C	N1-C2-O2	7.42	123.36	118.90
36	5	1879	A	C6-C5-N7	-7.42	127.10	132.30
36	1	1495	U	C4-C5-C6	7.42	124.15	119.70
36	5	1117	G	N1-C6-O6	7.42	124.35	119.90
36	5	631	U	C6-N1-C2	7.42	125.45	121.00
36	5	2342	U	C2-N3-C4	-7.42	122.55	127.00
36	1	350	C	N3-C2-O2	-7.41	116.72	121.90
36	1	2395	G	N1-C6-O6	7.41	124.34	119.90
36	5	1426	C	C6-N1-C2	7.41	123.26	120.30
38	4	20	U	O5'-P-OP2	-7.41	99.03	105.70
36	1	2606	G	C6-C5-N7	-7.41	125.96	130.40
38	4	113	U	C5-C4-O4	7.41	130.34	125.90
36	5	2953	U	N3-C2-O2	7.40	127.38	122.20
36	5	2648	G	C5-C6-N1	7.40	115.20	111.50
1	2	421	A	C8-N9-C4	7.40	108.76	105.80
36	5	692	A	O5'-P-OP1	-7.40	99.04	105.70
36	5	2904	U	C5-C6-N1	-7.39	119.00	122.70
36	5	2385	G	N9-C4-C5	-7.39	102.44	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1519	G	C6-C5-N7	-7.39	125.97	130.40
36	1	907	G	N3-C4-N9	7.39	130.43	126.00
1	6	518	A	N1-C6-N6	-7.39	114.17	118.60
36	1	2180	G	C8-N9-C4	7.38	109.35	106.40
36	1	1307	G	N1-C6-O6	-7.38	115.47	119.90
36	1	24	G	C6-C5-N7	-7.38	125.97	130.40
1	6	421	A	C8-N9-C4	7.38	108.75	105.80
36	5	1311	G	O5'-P-OP2	-7.38	99.06	105.70
36	5	1208	U	N3-C2-O2	-7.37	117.04	122.20
36	1	281	G	N1-C6-O6	7.37	124.32	119.90
37	3	101	G	C8-N9-C4	7.37	109.35	106.40
36	5	1160	C	N3-C2-O2	7.37	127.06	121.90
36	5	2278	C	C4-C5-C6	-7.37	113.72	117.40
36	5	3092	C	C6-N1-C2	7.37	123.25	120.30
36	1	2241	U	O5'-P-OP1	-7.36	99.07	105.70
36	5	1305	U	C5-C4-O4	-7.36	121.48	125.90
36	1	406	G	N1-C6-O6	-7.36	115.48	119.90
36	5	2700	G	C5-C6-O6	-7.36	124.18	128.60
1	6	631	G	C5-C6-O6	-7.36	124.19	128.60
1	6	976	G	C5-C6-O6	-7.36	124.19	128.60
38	8	5	U	N1-C2-O2	-7.36	117.65	122.80
36	1	2859	U	C5-C6-N1	-7.35	119.02	122.70
1	2	73	U	O4'-C1'-N1	7.35	114.08	108.20
1	2	1782	A	C8-N9-C4	-7.34	102.86	105.80
36	1	2953	U	N1-C2-O2	-7.33	117.67	122.80
36	5	1156	C	N1-C2-O2	-7.33	114.50	118.90
38	4	46	G	N1-C6-O6	-7.33	115.50	119.90
36	5	636	C	C6-N1-C2	7.33	123.23	120.30
36	1	646	A	N1-C2-N3	7.32	132.96	129.30
36	1	3212	C	C5-C6-N1	-7.32	117.34	121.00
36	5	1903	U	OP1-P-OP2	-7.32	108.62	119.60
36	1	3177	G	C5-C6-O6	-7.32	124.21	128.60
36	5	342	A	O5'-P-OP2	-7.32	99.11	105.70
36	5	2944	U	N1-C2-O2	7.32	127.92	122.80
36	5	776	U	N3-C2-O2	-7.32	117.08	122.20
36	5	3056	U	N1-C2-O2	-7.32	117.68	122.80
1	6	314	C	C6-N1-C2	-7.31	117.37	120.30
38	4	43	A	O5'-P-OP1	-7.31	99.12	105.70
36	5	816	A	N1-C6-N6	-7.31	114.22	118.60
36	5	1604	G	C4-N9-C1'	7.30	136.00	126.50
36	5	3245	A	C4-C5-N7	7.30	114.35	110.70
36	1	2314	U	C6-N1-C2	7.30	125.38	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	215	G	N3-C4-C5	-7.30	124.95	128.60
36	5	3245	A	C6-C5-N7	-7.30	127.19	132.30
36	1	881	C	N1-C2-O2	7.30	123.28	118.90
36	1	2619	G	O5'-P-OP1	-7.29	99.14	105.70
36	1	651	G	N3-C4-N9	7.29	130.37	126.00
36	1	1179	A	O5'-P-OP1	-7.29	99.14	105.70
1	6	1119	G	O5'-P-OP2	-7.29	99.14	105.70
36	1	942	U	O5'-P-OP2	-7.29	99.14	105.70
36	5	859	G	C4-C5-N7	7.28	113.71	110.80
36	1	1307	G	C5-C6-O6	7.28	132.97	128.60
1	6	448	C	C6-N1-C2	-7.28	117.39	120.30
36	5	2943	G	N9-C4-C5	-7.28	102.49	105.40
36	1	1099	A	N1-C6-N6	7.28	122.97	118.60
36	1	1161	G	C8-N9-C4	7.28	109.31	106.40
36	5	2156	C	C6-N1-C2	7.27	123.21	120.30
36	5	2351	U	C6-N1-C2	-7.27	116.64	121.00
36	1	1604	G	C4-N9-C1'	7.27	135.95	126.50
36	5	1110	U	N1-C2-O2	7.26	127.89	122.80
36	5	2192	C	O5'-P-OP2	-7.26	99.16	105.70
36	1	1403	C	C6-N1-C2	7.26	123.20	120.30
36	1	62	A	O5'-P-OP2	-7.26	99.17	105.70
36	5	2965	U	N3-C4-O4	7.26	124.48	119.40
52	m6	78	ARG	NE-CZ-NH1	7.25	123.93	120.30
36	1	423	A	C4-C5-C6	7.25	120.62	117.00
36	5	776	U	C5-C4-O4	7.25	130.25	125.90
11	s9	3	ARG	NE-CZ-NH2	7.25	123.92	120.30
36	1	2811	A	N1-C6-N6	-7.24	114.26	118.60
1	2	1241	G	C6-C5-N7	-7.23	126.06	130.40
36	1	895	A	C2-N3-C4	-7.23	106.98	110.60
36	5	2869	U	N3-C2-O2	-7.23	117.14	122.20
36	1	229	G	N3-C2-N2	-7.23	114.84	119.90
36	5	799	G	O5'-P-OP1	-7.23	99.19	105.70
36	1	3057	U	N3-C4-O4	-7.22	114.34	119.40
36	5	2142	A	N1-C6-N6	-7.22	114.27	118.60
36	1	2374	C	N3-C2-O2	-7.22	116.85	121.90
1	6	433	C	C5-C4-N4	-7.22	115.15	120.20
38	8	6	U	C6-N1-C2	7.22	125.33	121.00
36	1	2873	U	N1-C2-N3	7.21	119.23	114.90
36	1	2358	A	C8-N9-C4	7.21	108.68	105.80
36	5	661	G	N9-C4-C5	-7.21	102.52	105.40
36	5	1897	G	C5-C6-O6	-7.21	124.28	128.60
36	5	981	U	C5-C6-N1	7.20	126.30	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	883	A	C6-N1-C2	-7.20	114.28	118.60
36	5	580	C	N3-C4-C5	-7.20	119.02	121.90
36	5	2978	U	C5-C6-N1	-7.20	119.10	122.70
36	1	2954	U	P-O3'-C3'	7.19	128.33	119.70
36	1	709	A	N7-C8-N9	-7.19	110.20	113.80
36	1	2874	G	C5-C6-N1	-7.19	107.91	111.50
36	1	776	U	C4-C5-C6	7.18	124.01	119.70
36	5	3080	G	N1-C6-O6	7.18	124.21	119.90
59	N3	48	ARG	NE-CZ-NH1	7.18	123.89	120.30
36	5	1897	G	N3-C2-N2	-7.18	114.87	119.90
37	7	77	G	N1-C6-O6	7.18	124.21	119.90
36	1	397	A	N1-C6-N6	-7.17	114.30	118.60
36	5	2971	A	N1-C2-N3	-7.17	125.71	129.30
36	1	14	U	O5'-P-OP2	-7.17	99.25	105.70
36	1	780	A	N1-C2-N3	7.17	132.88	129.30
36	1	2355	G	C5-C6-O6	-7.17	124.30	128.60
36	1	2726	C	N3-C4-N4	-7.17	112.98	118.00
36	1	2846	U	N1-C2-O2	7.17	127.82	122.80
36	1	885	U	C5-C6-N1	-7.17	119.11	122.70
36	1	1556	C	C2-N1-C1'	7.17	126.68	118.80
36	5	2860	U	O5'-P-OP2	-7.16	99.26	105.70
36	5	41	G	C5-C6-O6	-7.16	124.31	128.60
36	1	2996	U	N1-C2-O2	7.16	127.81	122.80
36	1	924	G	O5'-P-OP1	-7.15	99.26	105.70
36	1	908	G	O4'-C1'-N9	-7.15	102.48	108.20
36	1	2831	G	C5-C6-O6	-7.15	124.31	128.60
36	1	3188	G	C5-C6-O6	-7.14	124.31	128.60
36	5	3245	A	N1-C2-N3	7.14	132.87	129.30
36	1	1136	A	C5-C6-N6	-7.14	117.99	123.70
36	1	1134	G	C5-C6-O6	-7.14	124.31	128.60
1	2	1456	C	N3-C2-O2	-7.14	116.90	121.90
36	1	1581	C	N1-C2-O2	7.14	123.18	118.90
36	5	437	G	N7-C8-N9	7.14	116.67	113.10
36	1	1139	G	C2-N3-C4	-7.14	108.33	111.90
36	5	2283	G	O5'-P-OP2	-7.14	99.28	105.70
36	1	580	C	N1-C2-O2	-7.13	114.62	118.90
36	5	1710	C	C6-N1-C2	7.13	123.15	120.30
36	1	1495	U	N1-C2-N3	7.13	119.18	114.90
36	5	886	C	C5-C4-N4	-7.13	115.21	120.20
36	5	2848	G	C5-C6-O6	-7.13	124.32	128.60
36	1	3306	U	N3-C2-O2	-7.13	117.21	122.20
36	5	3020	U	N1-C2-O2	-7.12	117.81	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1820	U	P-O3'-C3'	7.12	128.25	119.70
36	1	2120	A	O5'-P-OP2	-7.12	99.29	105.70
36	5	2957	G	N9-C4-C5	-7.12	102.55	105.40
36	5	2849	C	O5'-P-OP1	-7.12	99.29	105.70
36	5	718	G	C6-C5-N7	-7.12	126.13	130.40
1	2	1241	G	O4'-C1'-N9	7.12	113.89	108.20
36	5	1444	G	N1-C6-O6	7.12	124.17	119.90
36	5	424	G	C4-C5-N7	7.11	113.64	110.80
36	5	911	C	C6-N1-C2	7.11	123.14	120.30
36	1	970	A	N1-C6-N6	-7.11	114.33	118.60
36	5	23	A	C5-C6-N6	-7.11	118.01	123.70
36	5	2307	G	N3-C2-N2	7.11	124.88	119.90
36	5	2272	G	O4'-C1'-N9	7.11	113.89	108.20
36	1	1168	U	O5'-P-OP1	7.10	119.22	110.70
1	2	1745	G	C5-C6-O6	-7.10	124.34	128.60
36	1	1132	C	O5'-P-OP1	-7.10	99.31	105.70
36	1	2884	C	N3-C4-C5	7.10	124.74	121.90
36	5	2662	G	N3-C4-C5	-7.10	125.05	128.60
36	1	2714	G	C2-N3-C4	-7.10	108.35	111.90
1	2	553	G	C5-C6-O6	-7.10	124.34	128.60
1	2	1100	G	N1-C6-O6	7.09	124.16	119.90
36	1	2114	C	O5'-P-OP2	-7.09	99.32	105.70
36	1	3261	C	N1-C2-O2	-7.09	114.65	118.90
36	1	47	C	C6-N1-C2	7.09	123.14	120.30
36	1	1149	G	N3-C2-N2	-7.09	114.94	119.90
1	6	452	A	N1-C6-N6	7.09	122.85	118.60
36	1	3269	U	N3-C2-O2	-7.08	117.24	122.20
36	5	1170	A	C8-N9-C4	7.08	108.63	105.80
36	5	3005	A	O5'-P-OP2	-7.08	99.33	105.70
36	1	1124	U	N3-C2-O2	-7.08	117.24	122.20
36	5	2953	U	N1-C2-O2	-7.08	117.84	122.80
37	7	32	U	C6-N1-C2	7.08	125.25	121.00
1	6	113	U	C5-C6-N1	-7.08	119.16	122.70
36	1	2298	U	N3-C4-O4	-7.07	114.45	119.40
1	6	19	A	N1-C6-N6	7.07	122.84	118.60
36	1	1131	G	N1-C6-O6	7.07	124.14	119.90
36	1	726	G	N7-C8-N9	7.06	116.63	113.10
36	5	1789	G	N3-C4-C5	7.06	132.13	128.60
36	5	2356	A	C2-N3-C4	-7.06	107.07	110.60
36	1	3101	G	N1-C6-O6	-7.06	115.66	119.90
36	5	718	G	C4-N9-C1'	7.06	135.68	126.50
36	5	2409	G	N3-C2-N2	-7.06	114.96	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1437	C	O5'-P-OP1	-7.06	99.35	105.70
36	5	1079	A	N1-C6-N6	-7.06	114.37	118.60
36	5	3188	G	N1-C6-O6	-7.06	115.67	119.90
36	5	578	A	N1-C6-N6	7.05	122.83	118.60
36	5	1897	G	C6-C5-N7	-7.05	126.17	130.40
36	5	222	A	O5'-P-OP2	-7.05	99.35	105.70
1	2	337	G	C5-C6-O6	-7.05	124.37	128.60
36	1	2361	A	O5'-P-OP1	-7.05	99.36	105.70
36	1	3050	U	N1-C2-O2	7.05	127.74	122.80
36	1	1530	U	C6-N1-C2	7.05	125.23	121.00
36	5	217	U	C5-C6-N1	-7.05	119.18	122.70
36	5	2351	U	N1-C2-N3	7.05	119.13	114.90
1	6	979	A	N1-C6-N6	-7.05	114.37	118.60
36	5	1137	C	C6-N1-C2	7.04	123.12	120.30
36	1	2760	C	N3-C4-C5	-7.04	119.08	121.90
36	1	1179	A	N1-C6-N6	7.04	122.82	118.60
36	1	2197	C	C6-N1-C2	7.04	123.12	120.30
36	1	2899	C	C2-N1-C1'	7.04	126.55	118.80
1	2	334	G	N3-C4-C5	7.03	132.12	128.60
36	1	2922	G	N9-C4-C5	-7.03	102.59	105.40
36	5	370	U	N3-C2-O2	-7.03	117.28	122.20
36	5	2572	C	N3-C2-O2	-7.03	116.98	121.90
36	5	2820	A	C6-N1-C2	-7.03	114.38	118.60
36	5	2865	U	C5-C6-N1	7.03	126.22	122.70
36	1	667	C	N3-C4-C5	7.03	124.71	121.90
36	5	1874	A	C2-N3-C4	-7.03	107.08	110.60
36	5	3043	C	C6-N1-C2	7.03	123.11	120.30
36	1	2636	A	C8-N9-C4	-7.03	102.99	105.80
36	5	2707	C	C6-N1-C2	7.03	123.11	120.30
36	1	1161	G	N9-C4-C5	-7.02	102.59	105.40
36	1	2714	G	O5'-P-OP1	-7.02	99.38	105.70
1	6	687	G	N3-C2-N2	-7.02	114.98	119.90
36	1	718	G	C4-C5-N7	7.02	113.61	110.80
36	1	406	G	O5'-P-OP2	-7.02	99.38	105.70
36	1	636	C	C5-C4-N4	-7.02	115.29	120.20
36	1	3344	A	C2-N3-C4	-7.02	107.09	110.60
37	7	15	C	C6-N1-C2	7.01	123.11	120.30
36	1	2868	U	N3-C2-O2	-7.01	117.29	122.20
36	5	2389	C	O5'-P-OP1	-7.01	99.39	105.70
36	1	1467	A	C8-N9-C4	-7.01	103.00	105.80
36	5	3078	U	N3-C2-O2	-7.01	117.30	122.20
36	5	1886	A	O5'-P-OP2	-7.00	99.39	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1399	A	N1-C6-N6	7.00	122.80	118.60
1	6	1634	C	C6-N1-C2	-7.00	117.50	120.30
36	5	313	A	N1-C6-N6	7.00	122.80	118.60
36	5	1589	A	N9-C4-C5	-7.00	103.00	105.80
6	s4	38	LEU	CA-CB-CG	7.00	131.39	115.30
36	5	2395	G	O5'-P-OP2	-7.00	99.40	105.70
1	6	1700	C	N1-C2-O2	7.00	123.10	118.90
36	1	833	G	C8-N9-C4	6.99	109.20	106.40
1	2	864	U	C5-C4-O4	6.99	130.09	125.90
36	5	942	U	N3-C4-O4	6.99	124.29	119.40
36	5	1379	G	C2-N3-C4	-6.99	108.41	111.90
36	5	2775	U	C5-C6-N1	-6.99	119.20	122.70
36	5	2288	G	N1-C2-N3	6.99	128.09	123.90
36	5	2978	U	O4'-C1'-N1	6.99	113.79	108.20
36	5	2756	C	N3-C4-C5	6.98	124.69	121.90
1	6	314	C	N3-C4-C5	-6.98	119.11	121.90
15	C3	22	ALA	C-N-CD	-6.98	105.24	120.60
1	6	858	G	O4'-C1'-N9	6.98	113.78	108.20
36	5	1725	C	N1-C2-O2	-6.98	114.71	118.90
38	4	32	C	N3-C2-O2	6.98	126.79	121.90
36	1	2800	G	N1-C2-N3	6.98	128.09	123.90
36	5	1852	G	N7-C8-N9	6.97	116.59	113.10
36	1	1296	C	N3-C4-C5	-6.97	119.11	121.90
36	1	2800	G	N1-C2-N2	-6.97	109.92	116.20
36	1	3269	U	C5-C4-O4	6.97	130.08	125.90
36	1	934	G	C4-N9-C1'	6.97	135.56	126.50
36	5	96	G	C2-N3-C4	-6.96	108.42	111.90
36	5	412	G	N3-C4-C5	-6.96	125.12	128.60
36	5	1222	G	P-O3'-C3'	6.96	128.06	119.70
36	5	1473	G	N7-C8-N9	-6.96	109.62	113.10
1	6	552	G	N1-C6-O6	6.96	124.08	119.90
36	5	2852	C	N3-C4-C5	6.96	124.68	121.90
36	1	1103	A	N1-C2-N3	-6.96	125.82	129.30
36	1	3362	A	N1-C6-N6	6.96	122.78	118.60
36	5	909	G	N1-C6-O6	-6.96	115.73	119.90
1	2	447	U	C6-N1-C2	-6.95	116.83	121.00
36	5	3150	A	C2-N3-C4	-6.95	107.12	110.60
36	5	832	G	N3-C4-C5	-6.95	125.12	128.60
1	2	507	U	C2-N1-C1'	6.95	126.04	117.70
36	1	1313	G	C4-C5-N7	6.94	113.58	110.80
1	2	542	A	O4'-C1'-N9	6.94	113.75	108.20
36	5	884	A	C4-C5-N7	6.94	114.17	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3123	A	N7-C8-N9	-6.94	110.33	113.80
36	1	1475	A	C8-N9-C4	6.94	108.58	105.80
36	5	2728	G	O4'-C1'-N9	6.94	113.75	108.20
36	5	2931	C	C6-N1-C2	6.93	123.07	120.30
36	5	2877	G	C5-C6-O6	6.93	132.76	128.60
36	5	2324	A	N1-C6-N6	6.92	122.75	118.60
36	5	2327	U	C5-C6-N1	-6.92	119.24	122.70
36	5	1200	A	N1-C6-N6	6.92	122.75	118.60
38	4	125	U	C2-N1-C1'	6.92	126.00	117.70
1	2	1426	C	N3-C2-O2	6.92	126.74	121.90
1	6	67	A	N1-C6-N6	6.92	122.75	118.60
1	6	1137	A	N7-C8-N9	-6.92	110.34	113.80
36	5	1116	G	C8-N9-C4	-6.91	103.64	106.40
36	1	1003	A	N1-C6-N6	6.91	122.75	118.60
36	5	1239	C	C5-C6-N1	6.91	124.45	121.00
36	5	2847	A	C8-N9-C4	6.91	108.56	105.80
36	5	718	G	N3-C2-N2	6.90	124.73	119.90
36	1	2944	U	C5-C4-O4	-6.90	121.76	125.90
1	2	577	G	C5-N7-C8	-6.90	100.85	104.30
36	1	2800	G	C5-C6-O6	6.90	132.74	128.60
1	6	622	A	O5'-P-OP1	-6.90	99.49	105.70
36	1	744	A	C8-N9-C4	6.90	108.56	105.80
47	M0	57	LEU	CA-CB-CG	6.89	131.16	115.30
36	5	2931	C	O5'-P-OP1	-6.89	99.50	105.70
1	6	603	U	N1-C2-O2	-6.89	117.97	122.80
1	6	1700	C	C2-N1-C1'	6.89	126.38	118.80
37	3	33	U	N3-C2-O2	-6.89	117.38	122.20
36	5	2821	C	O5'-P-OP1	-6.89	99.50	105.70
1	6	426	G	O5'-P-OP2	-6.88	99.50	105.70
36	5	2626	A	N1-C2-N3	6.88	132.74	129.30
36	5	2880	U	C6-N1-C2	-6.88	116.87	121.00
36	5	1160	C	C6-N1-C1'	6.88	129.05	120.80
36	5	2905	U	N1-C2-O2	-6.88	117.98	122.80
36	5	1424	C	O5'-P-OP1	-6.88	99.51	105.70
36	1	369	A	C8-N9-C4	-6.87	103.05	105.80
1	6	163	G	N9-C4-C5	6.87	108.15	105.40
36	1	636	C	C6-N1-C2	6.87	123.05	120.30
36	1	934	G	C8-N9-C1'	-6.87	118.07	127.00
36	5	2728	G	O5'-P-OP2	-6.87	99.52	105.70
36	1	979	U	N3-C2-O2	-6.87	117.39	122.20
36	1	2374	C	C6-N1-C2	-6.87	117.55	120.30
36	5	2764	C	C6-N1-C2	6.87	123.05	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	726	G	C8-N9-C4	-6.87	103.65	106.40
36	5	1316	C	N3-C4-N4	6.87	122.81	118.00
36	5	1321	G	C5-C6-N1	-6.87	108.07	111.50
36	5	2205	U	O4'-C1'-N1	6.86	113.69	108.20
36	1	1886	A	O5'-P-OP2	-6.86	99.53	105.70
1	6	1097	U	P-O3'-C3'	6.86	127.93	119.70
36	1	672	A	N1-C6-N6	6.85	122.71	118.60
36	1	1869	C	C6-N1-C2	6.85	123.04	120.30
36	1	790	U	N1-C2-N3	6.85	119.01	114.90
36	5	2291	A	N1-C6-N6	6.84	122.71	118.60
36	1	65	A	P-O3'-C3'	6.84	127.91	119.70
36	5	3143	C	N3-C4-C5	-6.84	119.16	121.90
36	1	811	U	N3-C2-O2	-6.84	117.41	122.20
36	5	2343	C	C2-N3-C4	-6.84	116.48	119.90
36	1	54	C	N3-C4-C5	6.84	124.64	121.90
36	1	2706	G	N1-C6-O6	6.84	124.00	119.90
36	5	90	C	C6-N1-C2	-6.84	117.57	120.30
36	5	804	C	C4-C5-C6	6.83	120.82	117.40
36	5	2943	G	C4-C5-C6	6.83	122.90	118.80
36	1	2169	G	C5-C6-O6	6.83	132.70	128.60
38	8	70	G	C5-C6-O6	6.83	132.70	128.60
36	5	216	G	N1-C6-O6	6.83	124.00	119.90
36	1	131	C	C6-N1-C2	-6.83	117.57	120.30
36	5	2147	A	N9-C4-C5	-6.83	103.07	105.80
36	5	2699	G	C5-C6-O6	-6.83	124.50	128.60
36	1	2373	A	C8-N9-C4	-6.82	103.07	105.80
36	5	963	G	O5'-P-OP2	-6.82	99.56	105.70
36	5	1301	A	N1-C6-N6	6.82	122.69	118.60
36	1	3101	G	C5-C6-N1	6.82	114.91	111.50
36	5	3307	A	N1-C6-N6	6.82	122.69	118.60
36	1	1437	C	C2-N1-C1'	6.82	126.30	118.80
1	6	552	G	C4-C5-N7	6.82	113.53	110.80
36	1	2874	G	C6-C5-N7	-6.82	126.31	130.40
36	5	2439	A	O5'-P-OP1	6.82	118.88	110.70
36	5	358	G	N3-C4-C5	6.81	132.01	128.60
36	1	979	U	C6-N1-C2	-6.81	116.91	121.00
36	5	3204	C	N1-C2-O2	-6.81	114.81	118.90
38	4	21	C	N3-C2-O2	6.81	126.67	121.90
36	5	2255	A	O5'-P-OP1	-6.81	99.57	105.70
36	1	884	A	N1-C6-N6	6.80	122.68	118.60
36	5	1897	G	N1-C2-N3	6.80	127.98	123.90
37	7	37	G	C4-C5-N7	6.80	113.52	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2773	C	N3-C4-C5	6.80	124.62	121.90
36	1	2349	U	N3-C4-O4	-6.80	114.64	119.40
36	1	3015	G	C8-N9-C4	6.80	109.12	106.40
36	5	2726	C	N1-C2-N3	6.80	123.96	119.20
36	5	1056	U	O5'-P-OP2	-6.80	99.58	105.70
36	5	2948	C	C2-N3-C4	-6.79	116.50	119.90
36	5	671	U	C6-N1-C2	6.79	125.08	121.00
36	5	804	C	N3-C4-C5	-6.79	119.18	121.90
36	5	2700	G	C4-C5-N7	6.78	113.51	110.80
36	1	1518	U	N1-C2-N3	6.78	118.97	114.90
36	5	2639	G	N1-C6-O6	6.78	123.97	119.90
36	1	3178	A	N1-C6-N6	6.78	122.67	118.60
36	5	1016	C	O5'-P-OP1	-6.78	99.60	105.70
36	1	2996	U	C6-N1-C1'	-6.78	111.71	121.20
1	2	1782	A	N9-C4-C5	6.78	108.51	105.80
36	1	2606	G	N1-C2-N2	-6.78	110.10	116.20
36	5	1837	U	O5'-P-OP1	-6.78	99.60	105.70
18	C6	40	GLU	C-N-CD	-6.78	105.69	120.60
36	1	1419	A	O5'-P-OP1	6.78	118.83	110.70
36	5	1879	A	C4-C5-N7	6.77	114.09	110.70
1	2	448	C	C6-N1-C2	-6.77	117.59	120.30
36	1	2761	G	C6-C5-N7	-6.77	126.34	130.40
38	4	32	C	N1-C2-O2	-6.77	114.84	118.90
36	5	2169	G	N1-C6-O6	-6.77	115.84	119.90
36	5	2850	G	C5-C6-O6	-6.77	124.54	128.60
36	5	345	G	N1-C6-O6	6.77	123.96	119.90
36	5	2707	C	C5-C4-N4	-6.76	115.46	120.20
36	1	394	G	C4-C5-N7	-6.76	108.09	110.80
36	5	92	G	N3-C4-N9	6.76	130.06	126.00
36	5	659	G	C5-C6-N1	6.76	114.88	111.50
36	5	640	U	N3-C2-O2	6.76	126.93	122.20
36	5	931	C	N3-C4-C5	6.76	124.61	121.90
36	5	2648	G	C6-C5-N7	6.76	134.46	130.40
36	5	1117	G	C5-C6-O6	-6.76	124.54	128.60
36	5	1520	G	N1-C6-O6	6.76	123.96	119.90
36	5	2147	A	C4-C5-N7	6.76	114.08	110.70
37	3	68	C	C6-N1-C2	6.76	123.00	120.30
36	5	2155	G	C8-N9-C4	6.76	109.10	106.40
36	5	3245	A	N1-C6-N6	6.76	122.66	118.60
36	1	362	U	N1-C2-N3	6.75	118.95	114.90
36	5	1430	U	C6-N1-C2	6.75	125.05	121.00
36	1	523	A	C8-N9-C4	6.75	108.50	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	702	C	N3-C4-C5	6.75	124.60	121.90
36	5	718	G	N3-C4-N9	6.75	130.05	126.00
36	5	3181	C	N1-C2-O2	6.74	122.95	118.90
1	2	1100	G	C5-C6-O6	-6.74	124.56	128.60
36	1	2343	C	C6-N1-C2	6.74	123.00	120.30
1	6	1739	C	N1-C2-O2	-6.74	114.86	118.90
36	1	421	G	C5-C6-N1	6.74	114.87	111.50
36	5	3080	G	C5-C6-O6	-6.74	124.56	128.60
36	1	2136	C	N1-C2-O2	-6.74	114.86	118.90
36	1	2983	C	C5-C4-N4	6.74	124.92	120.20
36	5	3137	C	C5-C6-N1	-6.74	117.63	121.00
36	1	648	C	C2-N1-C1'	6.73	126.21	118.80
38	8	80	A	N7-C8-N9	6.73	117.17	113.80
36	1	1390	A	C8-N9-C4	-6.73	103.11	105.80
1	6	308	C	C2-N1-C1'	-6.73	111.39	118.80
36	5	1516	C	N3-C4-C5	6.73	124.59	121.90
36	5	522	A	N1-C6-N6	6.73	122.64	118.60
36	5	2943	G	C8-N9-C1'	-6.73	118.25	127.00
36	5	961	C	O5'-P-OP1	-6.72	99.65	105.70
36	5	2886	U	C5-C6-N1	-6.72	119.34	122.70
38	8	103	G	N3-C4-N9	6.72	130.03	126.00
36	1	2893	C	N3-C4-C5	6.72	124.59	121.90
36	5	283	G	N3-C4-N9	6.72	130.03	126.00
36	5	3140	G	C5-C6-O6	-6.72	124.57	128.60
36	1	968	G	N3-C4-C5	-6.72	125.24	128.60
36	5	718	G	O4'-C1'-N9	6.72	113.58	108.20
36	1	2169	G	C6-C5-N7	6.72	134.43	130.40
36	5	1145	G	O5'-P-OP2	-6.72	99.65	105.70
36	1	1200	A	C6-N1-C2	-6.72	114.57	118.60
36	5	1480	G	N3-C4-C5	6.72	131.96	128.60
36	5	3107	U	C5-C6-N1	-6.72	119.34	122.70
36	5	1370	G	C5-C6-O6	6.71	132.63	128.60
38	4	125	U	N1-C2-O2	6.71	127.50	122.80
36	5	2309	A	N9-C4-C5	6.71	108.48	105.80
36	5	2385	G	C4-C5-N7	6.71	113.48	110.80
37	7	79	A	C5-C6-N6	-6.71	118.33	123.70
36	5	1513	G	N7-C8-N9	6.70	116.45	113.10
36	5	2283	G	C8-N9-C4	6.70	109.08	106.40
36	5	97	U	N3-C2-O2	6.70	126.89	122.20
36	1	300	G	O5'-P-OP1	-6.70	99.67	105.70
36	1	721	G	C4-C5-N7	6.70	113.48	110.80
36	5	406	G	O4'-C1'-N9	6.70	113.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2871	G	N3-C4-C5	-6.70	125.25	128.60
37	7	101	G	C4-C5-N7	6.70	113.48	110.80
48	m1	12	LEU	CA-CB-CG	6.70	130.71	115.30
36	5	1010	G	O5'-P-OP2	-6.70	99.67	105.70
1	2	1657	U	O4'-C1'-N1	6.70	113.56	108.20
36	1	3362	A	C6-C5-N7	-6.70	127.61	132.30
1	6	1745	G	C8-N9-C4	6.69	109.08	106.40
36	5	2874	G	O5'-P-OP2	-6.69	99.67	105.70
1	6	163	G	C8-N9-C1'	6.69	135.70	127.00
1	2	577	G	N1-C6-O6	6.69	123.92	119.90
36	5	2324	A	C5-N7-C8	-6.69	100.55	103.90
36	1	2646	C	C6-N1-C2	6.69	122.98	120.30
36	1	400	G	C5-C6-O6	-6.69	124.59	128.60
36	1	923	C	N3-C4-C5	-6.69	119.22	121.90
1	6	163	G	C2-N3-C4	-6.69	108.56	111.90
36	5	1410	U	C6-N1-C2	6.69	125.01	121.00
1	2	1745	G	C5-C6-N1	6.68	114.84	111.50
36	1	664	U	C5-C6-N1	-6.68	119.36	122.70
36	5	48	A	N9-C4-C5	6.68	108.47	105.80
36	5	941	G	N1-C6-O6	-6.68	115.89	119.90
36	1	644	G	N1-C6-O6	6.68	123.91	119.90
36	1	2410	U	N1-C2-O2	-6.68	118.12	122.80
36	5	1178	G	C4-C5-N7	6.68	113.47	110.80
36	5	2211	U	N3-C2-O2	-6.68	117.53	122.20
1	2	1777	G	C6-C5-N7	-6.67	126.39	130.40
36	1	651	G	C5-N7-C8	6.67	107.64	104.30
36	1	1321	G	O5'-P-OP1	-6.67	99.69	105.70
36	5	1156	C	N3-C4-N4	6.67	122.67	118.00
36	5	152	U	N3-C2-O2	-6.67	117.53	122.20
36	5	2369	G	C5-C6-O6	-6.67	124.60	128.60
36	5	3362	A	O4'-C1'-N9	6.67	113.54	108.20
36	5	1520	G	C4-C5-N7	6.67	113.47	110.80
36	5	3119	U	N3-C2-O2	6.67	126.87	122.20
36	1	1389	G	N1-C6-O6	6.67	123.90	119.90
36	1	2284	C	N1-C2-O2	6.67	122.90	118.90
36	5	610	G	O5'-P-OP1	-6.66	99.70	105.70
36	5	3153	U	N3-C2-O2	-6.66	117.53	122.20
38	8	82	U	C5-C4-O4	6.66	129.90	125.90
36	1	2813	A	OP1-P-OP2	-6.66	109.61	119.60
36	1	2869	U	N1-C2-O2	-6.66	118.14	122.80
36	1	667	C	C6-N1-C2	6.66	122.96	120.30
36	1	1100	U	C6-N1-C2	6.66	125.00	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2816	G	N3-C4-N9	6.66	130.00	126.00
36	5	1448	U	C6-N1-C2	6.66	125.00	121.00
36	1	1365	G	N3-C4-C5	-6.66	125.27	128.60
36	5	2244	A	N7-C8-N9	-6.66	110.47	113.80
36	1	2355	G	C6-C5-N7	-6.65	126.41	130.40
1	2	601	A	N1-C6-N6	6.65	122.59	118.60
1	2	831	U	C5-C6-N1	6.65	126.03	122.70
36	1	933	A	N1-C2-N3	6.65	132.63	129.30
36	1	2334	U	C5-C6-N1	-6.65	119.37	122.70
36	5	2875	U	O5'-P-OP2	-6.65	99.71	105.70
36	1	1269	U	C2-N1-C1'	6.65	125.68	117.70
36	1	1307	G	P-O3'-C3'	6.65	127.67	119.70
36	1	2624	G	N1-C6-O6	6.64	123.89	119.90
36	1	2899	C	N3-C2-O2	-6.64	117.25	121.90
1	6	1140	G	N1-C6-O6	-6.64	115.91	119.90
36	5	2278	C	C5-C6-N1	6.64	124.32	121.00
36	1	2283	G	C5-N7-C8	-6.64	100.98	104.30
36	5	2199	G	C6-C5-N7	-6.64	126.42	130.40
36	1	1849	C	C5-C4-N4	-6.64	115.55	120.20
36	5	3154	C	C2-N1-C1'	6.64	126.10	118.80
36	1	388	G	N3-C2-N2	-6.64	115.25	119.90
36	1	925	A	C6-N1-C2	-6.64	114.62	118.60
36	1	2653	C	N1-C2-O2	6.63	122.88	118.90
36	5	2283	G	N9-C4-C5	-6.63	102.75	105.40
36	5	2643	A	C8-N9-C4	6.63	108.45	105.80
36	5	2988	C	N1-C2-O2	-6.62	114.92	118.90
36	1	229	G	N1-C6-O6	6.62	123.87	119.90
36	5	871	U	C5-C4-O4	6.62	129.87	125.90
36	5	1897	G	C2-N3-C4	-6.62	108.59	111.90
36	5	546	C	C6-N1-C2	-6.62	117.65	120.30
1	2	864	U	N3-C2-O2	-6.62	117.57	122.20
38	4	49	G	C8-N9-C4	6.62	109.05	106.40
36	1	683	U	C6-N1-C2	6.62	124.97	121.00
36	1	2860	U	C4-C5-C6	-6.62	115.73	119.70
1	2	1241	G	N1-C6-O6	6.61	123.87	119.90
36	1	1116	G	C6-C5-N7	-6.61	126.43	130.40
36	1	2818	U	O5'-P-OP1	-6.61	99.75	105.70
36	5	358	G	C2-N3-C4	-6.61	108.60	111.90
36	1	2364	G	N9-C4-C5	-6.61	102.76	105.40
1	6	2	A	O5'-P-OP2	-6.61	99.75	105.70
36	5	3093	C	C6-N1-C2	6.61	122.94	120.30
36	1	1510	G	N3-C4-N9	6.61	129.96	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2211	U	C4-C5-C6	6.61	123.66	119.70
36	5	3317	U	C5-C4-O4	6.61	129.86	125.90
36	5	1209	G	C5-C6-O6	-6.60	124.64	128.60
36	5	1302	A	O5'-P-OP2	6.60	118.62	110.70
36	5	2359	C	C5-C6-N1	-6.60	117.70	121.00
36	5	3153	U	N1-C2-O2	6.60	127.42	122.80
36	5	1163	A	N1-C6-N6	-6.60	114.64	118.60
36	5	2231	C	O4'-C1'-N1	6.60	113.48	108.20
36	5	2928	C	N3-C4-C5	-6.60	119.26	121.90
36	1	1178	G	C5-C6-O6	-6.59	124.64	128.60
36	5	884	A	N1-C6-N6	6.59	122.56	118.60
36	1	29	C	C6-N1-C2	6.59	122.94	120.30
36	1	1166	G	N1-C6-O6	6.59	123.86	119.90
37	3	82	G	N1-C2-N3	6.59	127.85	123.90
36	5	3104	U	O5'-P-OP2	-6.59	99.77	105.70
37	7	49	G	N1-C6-O6	6.59	123.85	119.90
36	1	49	A	N1-C6-N6	6.59	122.55	118.60
36	5	838	G	C5-C6-O6	6.59	132.55	128.60
36	5	955	U	N3-C4-O4	-6.59	114.79	119.40
36	5	1448	U	C5-C6-N1	-6.59	119.41	122.70
36	1	2284	C	C2-N1-C1'	6.58	126.04	118.80
36	5	1519	G	C5-C6-O6	-6.58	124.65	128.60
36	1	396	A	O5'-P-OP1	-6.58	99.77	105.70
36	1	648	C	N3-C4-N4	6.58	122.61	118.00
36	1	1137	C	N3-C4-N4	6.58	122.61	118.00
1	6	539	G	N7-C8-N9	6.58	116.39	113.10
1	6	858	G	C4-N9-C1'	6.58	135.06	126.50
36	1	3049	A	C5-C6-N1	-6.58	114.41	117.70
1	6	116	U	N1-C2-N3	6.58	118.85	114.90
1	6	1634	C	N1-C2-O2	6.58	122.85	118.90
36	1	3209	A	C5-C6-N1	-6.58	114.41	117.70
36	5	2944	U	N3-C4-C5	6.58	118.55	114.60
1	2	1180	C	N3-C2-O2	-6.58	117.30	121.90
36	5	2818	U	C5-C4-O4	-6.58	121.95	125.90
36	1	959	C	C5-C4-N4	-6.58	115.60	120.20
36	5	2404	A	N1-C6-N6	6.57	122.55	118.60
36	5	3154	C	N3-C2-O2	-6.57	117.30	121.90
36	5	1158	A	N1-C6-N6	6.57	122.54	118.60
36	1	421	G	C2-N3-C4	6.57	115.18	111.90
36	1	1433	A	C8-N9-C4	-6.57	103.17	105.80
36	1	2816	G	C6-C5-N7	-6.57	126.46	130.40
36	1	2699	G	N1-C6-O6	6.57	123.84	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2943	G	C4-N9-C1'	6.57	135.03	126.50
36	1	1114	U	C4-C5-C6	-6.56	115.76	119.70
36	1	1897	G	N1-C6-O6	6.56	123.84	119.90
1	6	346	G	C8-N9-C4	-6.56	103.78	106.40
36	1	2306	C	N3-C4-N4	-6.56	113.41	118.00
36	5	3218	A	C4-C5-N7	6.56	113.98	110.70
36	5	1131	G	O5'-P-OP2	-6.56	99.80	105.70
36	5	1708	C	C6-N1-C2	6.56	122.92	120.30
36	1	325	A	OP1-P-OP2	-6.56	109.76	119.60
36	1	339	C	C5-C4-N4	6.56	124.79	120.20
36	5	421	G	C8-N9-C1'	-6.56	118.48	127.00
36	5	1449	A	N1-C6-N6	6.56	122.53	118.60
36	1	1604	G	C8-N9-C1'	-6.56	118.48	127.00
36	1	1801	U	C5-C6-N1	-6.55	119.42	122.70
36	1	2412	G	N9-C4-C5	-6.55	102.78	105.40
36	1	2283	G	C6-C5-N7	-6.55	126.47	130.40
69	O3	82	ARG	NE-CZ-NH2	-6.55	117.02	120.30
36	5	2643	A	N9-C4-C5	-6.55	103.18	105.80
36	1	1136	A	C6-C5-N7	-6.55	127.72	132.30
36	5	971	G	C8-N9-C4	6.55	109.02	106.40
1	2	458	G	N3-C4-C5	6.54	131.87	128.60
36	1	3344	A	C6-C5-N7	-6.54	127.72	132.30
36	5	1127	G	C5-C6-N1	6.54	114.77	111.50
36	5	2381	G	C5-C6-O6	-6.54	124.67	128.60
36	5	645	A	C6-N1-C2	-6.54	114.67	118.60
36	1	908	G	C8-N9-C1'	-6.54	118.50	127.00
36	1	2602	G	N7-C8-N9	-6.54	109.83	113.10
1	2	307	G	C8-N9-C4	6.54	109.02	106.40
36	1	776	U	N1-C2-N3	6.54	118.82	114.90
36	1	2139	A	N1-C6-N6	-6.54	114.68	118.60
36	5	1365	G	C6-C5-N7	-6.54	126.48	130.40
36	1	908	G	N3-C2-N2	-6.54	115.32	119.90
36	1	2194	G	N1-C6-O6	6.54	123.82	119.90
1	6	1490	C	O5'-P-OP1	-6.53	99.82	105.70
36	5	227	G	N1-C6-O6	6.53	123.82	119.90
36	5	3142	A	N1-C6-N6	6.53	122.52	118.60
36	1	1367	G	C8-N9-C4	6.53	109.01	106.40
36	1	1840	U	C5-C4-O4	-6.53	121.98	125.90
36	5	2931	C	OP1-P-OP2	6.53	129.39	119.60
1	2	553	G	C6-C5-N7	-6.52	126.49	130.40
36	5	1452	A	O5'-P-OP1	-6.52	99.83	105.70
36	5	3306	U	N3-C4-C5	6.52	118.51	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	922	U	C2-N1-C1'	6.52	125.52	117.70
35	SM	167	PRO	N-CA-CB	6.52	111.12	103.30
36	5	960	U	N3-C4-C5	6.52	118.51	114.60
1	2	728	U	C2-N1-C1'	6.51	125.52	117.70
36	5	2283	G	C4-C5-N7	6.51	113.41	110.80
36	5	1156	C	C5-C4-N4	-6.51	115.64	120.20
36	1	282	G	N1-C6-O6	-6.51	115.99	119.90
36	1	1156	C	N3-C2-O2	-6.51	117.34	121.90
1	6	565	C	C6-N1-C2	6.51	122.90	120.30
38	4	95	G	C8-N9-C4	6.50	109.00	106.40
1	6	619	A	N1-C6-N6	-6.50	114.70	118.60
36	5	809	G	N1-C6-O6	6.50	123.80	119.90
1	2	831	U	C2-N1-C1'	6.50	125.50	117.70
36	5	1897	G	C5-C6-N1	-6.50	108.25	111.50
36	5	2874	G	C5-C6-O6	6.50	132.50	128.60
1	2	704	C	N1-C2-O2	6.50	122.80	118.90
36	1	1196	C	C6-N1-C2	6.50	122.90	120.30
36	1	1604	G	N3-C4-N9	6.50	129.90	126.00
1	6	609	U	O5'-P-OP2	-6.50	99.85	105.70
1	2	1454	G	N1-C6-O6	-6.50	116.00	119.90
36	1	780	A	C4-C5-C6	6.50	120.25	117.00
36	5	610	G	C8-N9-C4	-6.50	103.80	106.40
1	6	1124	A	N1-C6-N6	6.50	122.50	118.60
36	5	840	C	C6-N1-C2	-6.50	117.70	120.30
36	5	2834	G	O5'-P-OP2	-6.50	99.85	105.70
1	2	74	U	O5'-P-OP1	-6.50	99.86	105.70
36	5	3213	A	C5-C6-N6	-6.50	118.50	123.70
36	1	3277	U	N3-C2-O2	-6.49	117.66	122.20
36	5	656	A	O5'-P-OP2	-6.49	99.86	105.70
36	5	2288	G	O5'-P-OP2	-6.49	99.86	105.70
36	1	1100	U	C5-C6-N1	-6.49	119.45	122.70
1	2	321	C	N3-C2-O2	-6.49	117.36	121.90
36	1	859	G	C5-C6-O6	6.49	132.49	128.60
1	6	1480	G	C6-C5-N7	-6.49	126.51	130.40
36	1	267	G	N1-C6-O6	6.48	123.79	119.90
36	5	23	A	N1-C6-N6	6.48	122.49	118.60
36	1	2710	C	N1-C2-O2	-6.48	115.01	118.90
36	5	2362	C	N3-C4-N4	-6.48	113.46	118.00
37	7	15	C	N3-C4-C5	6.48	124.49	121.90
1	6	767	U	N3-C2-O2	-6.48	117.67	122.20
1	2	1241	G	C4-C5-N7	6.48	113.39	110.80
1	6	1150	G	N9-C4-C5	-6.48	102.81	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	969	C	C5-C6-N1	-6.47	117.76	121.00
36	5	1057	A	C8-N9-C4	6.47	108.39	105.80
1	6	1274	C	C2-N1-C1'	6.47	125.92	118.80
36	1	3079	U	C2-N1-C1'	-6.47	109.94	117.70
37	3	89	G	N7-C8-N9	-6.47	109.86	113.10
1	6	1643	U	N3-C2-O2	-6.47	117.67	122.20
36	5	152	U	C2-N1-C1'	6.47	125.46	117.70
36	1	2662	G	N1-C6-O6	6.47	123.78	119.90
36	1	2812	C	O5'-P-OP2	6.47	118.46	110.70
36	5	2367	A	C8-N9-C4	-6.47	103.21	105.80
36	5	2165	G	N3-C4-N9	6.47	129.88	126.00
36	5	2324	A	C4-C5-N7	6.47	113.93	110.70
36	5	2923	U	N3-C2-O2	-6.47	117.67	122.20
36	1	2873	U	C5-C6-N1	-6.46	119.47	122.70
38	4	94	C	N3-C4-C5	6.46	124.49	121.90
36	5	2417	U	C5-C6-N1	-6.46	119.47	122.70
36	5	2821	C	N1-C2-O2	-6.46	115.02	118.90
36	1	1404	G	C5-C6-O6	6.46	132.48	128.60
1	6	1463	C	C6-N1-C2	6.46	122.89	120.30
36	5	3184	A	N1-C2-N3	-6.46	126.07	129.30
36	5	1480	G	C8-N9-C4	6.46	108.98	106.40
36	1	921	A	C6-N1-C2	-6.46	114.73	118.60
36	1	1845	G	OP2-P-O3'	6.46	119.40	105.20
36	1	2302	G	N1-C2-N2	-6.46	110.39	116.20
1	6	1124	A	N9-C4-C5	-6.46	103.22	105.80
36	5	1152	G	N7-C8-N9	6.46	116.33	113.10
36	1	2357	A	C5-C6-N6	-6.45	118.54	123.70
36	5	958	C	N3-C4-C5	6.45	124.48	121.90
36	1	2693	C	C5-C4-N4	-6.45	115.69	120.20
1	6	17	C	N1-C2-O2	6.45	122.77	118.90
38	4	46	G	N3-C4-C5	-6.45	125.38	128.60
36	1	2827	U	C2-N3-C4	-6.44	123.13	127.00
36	5	1496	C	C6-N1-C1'	-6.44	113.07	120.80
36	1	1189	C	N1-C2-O2	-6.44	115.03	118.90
36	1	1669	C	C6-N1-C2	6.44	122.88	120.30
1	6	119	A	C2-N3-C4	-6.44	107.38	110.60
36	5	1184	A	N1-C6-N6	-6.44	114.73	118.60
38	8	70	G	N1-C6-O6	-6.44	116.03	119.90
1	2	294	C	C6-N1-C2	6.44	122.88	120.30
36	1	3184	A	N1-C6-N6	6.44	122.47	118.60
1	6	558	U	N1-C2-O2	6.44	127.31	122.80
36	5	2927	C	OP2-P-O3'	6.44	119.37	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	73	C	C5-C6-N1	6.44	124.22	121.00
36	1	1007	U	C5-C4-O4	-6.44	122.04	125.90
1	2	56	U	N3-C2-O2	-6.44	117.69	122.20
36	1	2279	A	N9-C4-C5	-6.44	103.22	105.80
36	5	343	U	C5-C6-N1	-6.44	119.48	122.70
36	5	591	G	C8-N9-C4	6.44	108.97	106.40
1	6	610	G	N3-C4-N9	6.43	129.86	126.00
36	1	3278	C	C2-N1-C1'	6.43	125.88	118.80
38	4	24	G	N9-C4-C5	-6.43	102.83	105.40
36	5	2316	G	N1-C2-N3	6.43	127.76	123.90
36	1	368	G	C6-C5-N7	-6.43	126.54	130.40
36	1	2617	U	N3-C2-O2	-6.43	117.70	122.20
36	1	2811	A	C6-N1-C2	-6.43	114.74	118.60
36	5	1138	U	N1-C2-O2	-6.43	118.30	122.80
36	5	421	G	N9-C4-C5	-6.43	102.83	105.40
36	5	1420	C	N1-C2-O2	-6.43	115.05	118.90
36	1	2808	A	O4'-C1'-N9	-6.42	103.06	108.20
1	6	610	G	C4-N9-C1'	6.42	134.85	126.50
36	5	368	G	C5-C6-O6	6.42	132.45	128.60
36	5	3178	A	O5'-P-OP1	-6.42	99.92	105.70
1	2	694	U	N1-C2-O2	6.42	127.30	122.80
36	1	655	C	C4-C5-C6	6.42	120.61	117.40
36	1	923	C	C4-C5-C6	6.42	120.61	117.40
1	6	1773	C	N3-C4-N4	6.42	122.50	118.00
36	5	1328	C	C4-C5-C6	6.42	120.61	117.40
1	2	969	C	C6-N1-C2	6.42	122.87	120.30
36	5	3127	A	C5-C6-N1	6.42	120.91	117.70
36	1	2361	A	N1-C6-N6	-6.42	114.75	118.60
36	5	3197	G	N3-C4-N9	-6.42	122.15	126.00
1	2	93	A	O5'-P-OP2	-6.41	99.93	105.70
36	1	371	G	C5-C6-O6	-6.41	124.75	128.60
36	1	510	G	N3-C2-N2	-6.41	115.41	119.90
36	1	2585	G	N3-C4-N9	6.41	129.85	126.00
1	6	437	A	N1-C6-N6	-6.41	114.75	118.60
36	1	940	G	C5-C6-N1	6.41	114.71	111.50
36	1	1177	G	C5-C6-O6	-6.41	124.75	128.60
36	1	2836	C	N3-C2-O2	-6.41	117.41	121.90
69	O3	82	ARG	NE-CZ-NH1	6.41	123.50	120.30
36	5	1178	G	C5-N7-C8	-6.41	101.10	104.30
36	1	1207	G	C5-C6-O6	-6.41	124.76	128.60
36	5	2643	A	C5-C6-N6	-6.40	118.58	123.70
24	D2	104	LEU	CA-CB-CG	6.40	130.02	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2836	C	C5-C4-N4	6.40	124.68	120.20
36	5	412	G	N3-C4-N9	6.40	129.84	126.00
36	1	1148	G	N7-C8-N9	-6.40	109.90	113.10
36	1	43	A	C2-N3-C4	-6.40	107.40	110.60
36	5	1326	A	C2-N3-C4	6.40	113.80	110.60
36	1	59	G	N1-C6-O6	6.39	123.74	119.90
36	1	1117	G	O5'-P-OP1	-6.39	99.94	105.70
1	2	453	U	C2-N1-C1'	6.39	125.37	117.70
36	1	188	U	N3-C4-C5	-6.39	110.76	114.60
36	5	2928	C	C2-N1-C1'	6.39	125.83	118.80
36	5	2405	C	N3-C2-O2	-6.39	117.43	121.90
36	1	2661	G	C6-C5-N7	-6.39	126.57	130.40
1	6	1355	C	C6-N1-C2	-6.39	117.75	120.30
36	1	1297	C	C6-N1-C2	6.38	122.85	120.30
1	6	1747	G	O5'-P-OP2	-6.38	99.95	105.70
36	5	2812	C	C6-N1-C2	-6.38	117.75	120.30
36	1	699	A	C2-N3-C4	-6.38	107.41	110.60
36	1	1192	C	C5-C6-N1	6.38	124.19	121.00
36	5	264	G	C4-C5-N7	6.38	113.35	110.80
36	5	767	U	O4'-C1'-N1	6.38	113.31	108.20
36	5	3374	U	N3-C4-O4	-6.38	114.93	119.40
36	1	2802	A	OP2-P-O3'	6.38	119.23	105.20
36	5	1875	G	C5-C6-O6	6.38	132.43	128.60
36	5	2943	G	N3-C4-N9	6.38	129.83	126.00
36	5	3374	U	N3-C4-C5	6.38	118.43	114.60
36	1	1445	U	N3-C2-O2	6.38	126.66	122.20
36	5	3209	A	O4'-C1'-N9	6.38	113.30	108.20
36	1	961	C	C4-C5-C6	6.37	120.59	117.40
36	1	2916	U	N1-C2-O2	6.37	127.26	122.80
36	5	2715	A	N9-C4-C5	6.37	108.35	105.80
36	5	2772	C	P-O3'-C3'	6.37	127.34	119.70
36	1	2410	U	C5-C4-O4	-6.37	122.08	125.90
36	1	2626	A	C6-N1-C2	-6.37	114.78	118.60
1	6	767	U	C5-C4-O4	6.37	129.72	125.90
1	2	1086	A	O5'-P-OP2	-6.37	99.97	105.70
36	1	1395	G	C8-N9-C4	6.37	108.95	106.40
36	5	592	A	N9-C4-C5	-6.37	103.25	105.80
36	1	1414	G	C4-C5-N7	6.36	113.34	110.80
36	5	968	G	O5'-P-OP1	-6.36	99.97	105.70
1	2	123	G	C8-N9-C4	6.36	108.94	106.40
36	1	833	G	N7-C8-N9	-6.36	109.92	113.10
1	6	1124	A	C4-C5-N7	6.36	113.88	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	836	A	O5'-P-OP2	-6.36	99.97	105.70
36	5	3213	A	N1-C6-N6	6.36	122.42	118.60
36	1	2364	G	C6-C5-N7	-6.36	126.58	130.40
36	5	97	U	C6-N1-C2	6.36	124.81	121.00
36	5	1152	G	C8-N9-C4	-6.36	103.86	106.40
36	5	1496	C	N3-C4-N4	6.36	122.45	118.00
36	5	884	A	C2-N3-C4	-6.36	107.42	110.60
36	5	2808	A	N9-C4-C5	-6.36	103.26	105.80
36	1	1534	A	N1-C6-N6	6.35	122.41	118.60
36	5	911	C	N1-C2-O2	-6.35	115.09	118.90
36	5	2550	U	C5-C4-O4	6.35	129.71	125.90
36	5	2820	A	OP2-P-O3'	6.35	119.17	105.20
36	1	2671	A	O5'-P-OP2	-6.35	99.98	105.70
36	5	1368	U	O5'-P-OP1	-6.35	99.98	105.70
36	5	2873	U	C2-N3-C4	-6.35	123.19	127.00
1	6	1120	U	N3-C4-C5	-6.35	110.79	114.60
35	sM	167	PRO	N-CA-CB	6.35	110.92	103.30
36	5	1116	G	OP2-P-O3'	6.35	119.16	105.20
36	1	969	C	C4-C5-C6	6.34	120.57	117.40
36	1	1346	G	N3-C2-N2	-6.34	115.46	119.90
36	5	2325	G	N3-C2-N2	-6.34	115.46	119.90
36	5	2820	A	C5-C6-N1	6.34	120.87	117.70
36	1	2874	G	C4-C5-C6	6.34	122.61	118.80
36	1	3326	G	C8-N9-C4	6.34	108.94	106.40
36	5	2276	G	N1-C6-O6	-6.34	116.10	119.90
36	1	1149	G	C5-C6-N1	-6.34	108.33	111.50
36	1	1791	C	N1-C2-O2	-6.34	115.10	118.90
1	6	98	U	C5-C4-O4	6.34	129.70	125.90
36	1	1534	A	C5-C6-N6	-6.33	118.63	123.70
36	1	645	A	C6-N1-C2	-6.33	114.80	118.60
36	5	2935	U	O5'-P-OP2	-6.33	100.00	105.70
36	5	3136	G	N3-C4-C5	6.33	131.77	128.60
36	1	574	U	C5-C6-N1	-6.33	119.53	122.70
36	1	968	G	C5-C6-N1	6.33	114.67	111.50
36	1	2343	C	O5'-P-OP2	-6.33	100.00	105.70
36	5	2158	A	C5-C6-N1	6.33	120.87	117.70
36	1	960	U	C5-C4-O4	6.33	129.70	125.90
36	5	1881	A	C4-C5-N7	6.33	113.86	110.70
37	7	101	G	C5-C6-N1	-6.33	108.33	111.50
1	2	1761	U	P-O3'-C3'	6.33	127.29	119.70
36	5	1444	G	C6-C5-N7	-6.33	126.60	130.40
36	5	1723	A	C6-N1-C2	-6.33	114.80	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2140	U	N3-C4-C5	-6.32	110.81	114.60
36	5	2860	U	N3-C4-C5	6.32	118.39	114.60
36	5	3184	A	N1-C6-N6	6.32	122.39	118.60
36	5	598	A	C8-N9-C4	6.32	108.33	105.80
36	5	1848	G	C5-C6-N1	6.32	114.66	111.50
36	5	3177	G	C8-N9-C4	6.32	108.93	106.40
36	5	2808	A	C8-N9-C4	6.32	108.33	105.80
1	6	1796	C	C4-C5-C6	6.31	120.56	117.40
36	1	2761	G	C5-C6-O6	-6.31	124.81	128.60
36	5	799	G	N1-C6-O6	-6.31	116.11	119.90
36	5	1316	C	N3-C4-C5	-6.31	119.38	121.90
36	5	1124	U	N3-C4-O4	-6.31	114.98	119.40
36	5	2129	U	N3-C2-O2	-6.31	117.78	122.20
36	1	2656	A	N1-C6-N6	-6.31	114.82	118.60
37	7	84	A	OP1-P-O3'	6.31	119.07	105.20
36	5	2678	A	C5-C6-N6	6.30	128.74	123.70
36	5	2836	C	O4'-C1'-N1	6.30	113.24	108.20
36	1	2121	G	C5-C6-O6	6.30	132.38	128.60
36	1	3344	A	C4-C5-N7	6.30	113.85	110.70
1	6	1280	C	C6-N1-C2	-6.30	117.78	120.30
36	5	637	C	C2-N3-C4	-6.30	116.75	119.90
36	1	2978	U	O4'-C1'-N1	6.30	113.24	108.20
1	6	1568	C	P-O3'-C3'	6.30	127.26	119.70
36	5	1143	A	C2-N3-C4	-6.30	107.45	110.60
36	5	1548	C	N1-C2-O2	-6.30	115.12	118.90
1	2	1324	G	N3-C4-N9	-6.30	122.22	126.00
36	1	398	A	C8-N9-C4	6.30	108.32	105.80
36	1	1606	U	C2-N1-C1'	-6.30	110.14	117.70
36	5	1209	G	C4-C5-N7	6.30	113.32	110.80
36	5	1900	A	O5'-P-OP1	-6.30	100.03	105.70
36	5	3195	U	N1-C2-O2	6.30	127.21	122.80
36	1	2395	G	C5-C6-O6	-6.29	124.82	128.60
36	1	2811	A	N9-C4-C5	6.29	108.32	105.80
36	5	189	G	N1-C6-O6	-6.29	116.12	119.90
36	1	197	G	C5-C6-O6	-6.29	124.82	128.60
36	1	2850	G	C4-C5-N7	6.29	113.32	110.80
1	6	65	A	C2-N3-C4	-6.29	107.45	110.60
36	5	25	U	N1-C2-O2	-6.29	118.39	122.80
36	5	718	G	C4-C5-N7	6.29	113.32	110.80
36	5	2403	G	N3-C2-N2	-6.29	115.50	119.90
1	6	457	G	N1-C6-O6	6.29	123.67	119.90
36	5	706	A	C8-N9-C4	6.29	108.32	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2883	U	O5'-P-OP2	-6.29	100.04	105.70
36	1	1606	U	C6-N1-C2	6.29	124.77	121.00
1	2	994	G	C5-C6-N1	-6.29	108.36	111.50
36	1	3362	A	O4'-C1'-N9	6.29	113.23	108.20
36	5	2941	A	N1-C6-N6	-6.29	114.83	118.60
36	5	2944	U	C4-C5-C6	-6.29	115.93	119.70
36	1	2139	A	C6-N1-C2	-6.29	114.83	118.60
36	5	343	U	O5'-P-OP1	-6.29	100.04	105.70
36	1	810	A	N1-C6-N6	-6.29	114.83	118.60
36	5	1437	C	C2-N1-C1'	6.29	125.71	118.80
36	1	2391	G	N1-C2-N3	6.28	127.67	123.90
36	5	1365	G	N1-C2-N3	6.28	127.67	123.90
36	5	2643	A	C4-C5-N7	6.28	113.84	110.70
1	6	1311	U	N1-C2-O2	-6.28	118.40	122.80
1	2	772	G	N1-C6-O6	6.28	123.67	119.90
36	1	503	C	C6-N1-C2	6.28	122.81	120.30
36	1	960	U	C2-N3-C4	-6.28	123.23	127.00
1	2	831	U	C6-N1-C2	-6.28	117.23	121.00
36	1	57	A	C2-N3-C4	-6.28	107.46	110.60
36	1	716	A	C4-C5-N7	6.28	113.84	110.70
38	4	53	A	C5-C6-N1	6.28	120.84	117.70
36	1	1547	G	N7-C8-N9	-6.27	109.96	113.10
36	5	2385	G	N3-C4-C5	6.27	131.74	128.60
36	1	67	A	O5'-P-OP1	-6.27	100.06	105.70
36	1	2344	U	C5-C6-N1	-6.27	119.57	122.70
1	6	1763	A	N1-C6-N6	6.27	122.36	118.60
36	1	1330	A	C2-N3-C4	-6.27	107.47	110.60
36	5	390	G	C5-C6-O6	-6.27	124.84	128.60
36	5	995	U	O5'-P-OP1	-6.27	100.06	105.70
36	5	2553	U	N3-C2-O2	-6.27	117.81	122.20
36	5	1907	C	O5'-P-OP2	-6.26	100.06	105.70
36	1	226	C	N3-C4-N4	6.26	122.38	118.00
1	6	886	U	N3-C2-O2	-6.26	117.82	122.20
36	1	1439	U	C2-N3-C4	6.26	130.76	127.00
36	5	969	C	N3-C4-N4	-6.26	113.62	118.00
52	m6	78	ARG	NE-CZ-NH2	-6.26	117.17	120.30
36	1	1303	A	C5-C6-N6	-6.26	118.69	123.70
36	1	2660	G	C5-C6-O6	-6.26	124.84	128.60
36	5	3056	U	N3-C2-O2	6.26	126.58	122.20
36	1	2930	A	C4-C5-N7	6.26	113.83	110.70
36	5	2914	G	C8-N9-C1'	-6.26	118.87	127.00
37	3	89	G	C8-N9-C4	6.25	108.90	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2191	U	N3-C4-O4	-6.25	115.02	119.40
36	1	40	A	O5'-P-OP1	-6.25	100.07	105.70
36	1	1149	G	C5-C6-O6	-6.25	124.85	128.60
49	M3	85	LEU	CA-CB-CG	6.25	129.68	115.30
36	5	2349	U	OP1-P-O3'	6.25	118.96	105.20
1	6	387	A	O5'-P-OP2	-6.25	100.08	105.70
36	5	2340	U	C5-C4-O4	-6.25	122.15	125.90
36	5	2905	U	C2-N3-C4	-6.25	123.25	127.00
36	5	3050	U	N1-C2-O2	6.25	127.17	122.80
36	5	2531	C	C2-N1-C1'	6.25	125.67	118.80
36	5	2879	C	C5-C4-N4	-6.25	115.83	120.20
36	1	2418	G	OP1-P-O3'	6.25	118.94	105.20
1	6	1000	C	C2-N1-C1'	6.25	125.67	118.80
1	6	1499	G	C5-C6-O6	6.25	132.35	128.60
36	1	1213	G	N1-C2-N2	6.25	121.82	116.20
36	5	2816	G	C8-N9-C4	6.25	108.90	106.40
36	1	2401	A	C5-C6-N1	-6.24	114.58	117.70
36	1	2823	G	C4-C5-N7	-6.24	108.30	110.80
36	5	2707	C	N3-C4-C5	6.24	124.40	121.90
36	1	361	A	N1-C6-N6	-6.24	114.86	118.60
36	1	1081	U	C5-C6-N1	6.24	125.82	122.70
1	2	92	A	N1-C6-N6	-6.24	114.86	118.60
36	1	62	A	C5-C6-N1	6.24	120.82	117.70
36	5	810	A	O5'-P-OP1	-6.24	100.08	105.70
36	5	1782	U	C5-C6-N1	6.24	125.82	122.70
36	5	3107	U	O5'-P-OP2	-6.24	100.08	105.70
36	1	2230	C	C6-N1-C2	-6.24	117.80	120.30
36	1	2283	G	N3-C2-N2	-6.24	115.53	119.90
36	1	2797	C	C6-N1-C2	6.24	122.80	120.30
36	5	1589	A	C4-C5-N7	6.24	113.82	110.70
81	p0	212	HIS	CB-CA-C	6.24	122.88	110.40
37	3	63	A	O5'-P-OP1	-6.24	100.09	105.70
36	1	545	U	C2-N1-C1'	6.24	125.18	117.70
36	5	283	G	C5-C6-N1	6.24	114.62	111.50
36	1	24	G	N9-C4-C5	-6.23	102.91	105.40
36	1	2715	A	O5'-P-OP1	-6.23	100.09	105.70
36	5	88	A	C8-N9-C4	6.23	108.29	105.80
1	2	959	U	N1-C2-O2	6.23	127.16	122.80
36	1	558	U	O5'-P-OP1	-6.23	100.09	105.70
1	6	1108	G	C4-C5-N7	6.23	113.29	110.80
36	1	2172	A	C5-N7-C8	-6.23	100.78	103.90
36	1	2174	G	C6-C5-N7	-6.23	126.66	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2323	G	C8-N9-C4	-6.23	103.91	106.40
37	7	68	C	N3-C2-O2	-6.23	117.54	121.90
37	7	77	G	C5-C6-O6	-6.23	124.86	128.60
36	1	3378	C	C6-N1-C2	6.23	122.79	120.30
1	6	1000	C	N3-C2-O2	-6.23	117.54	121.90
36	5	264	G	C5-C6-O6	-6.23	124.86	128.60
36	5	1419	A	O5'-P-OP2	-6.23	100.10	105.70
36	5	2897	A	N1-C2-N3	6.23	132.41	129.30
57	n1	106	LEU	CA-CB-CG	-6.23	100.98	115.30
78	q2	17	CYS	CA-CB-SG	6.23	125.21	114.00
36	5	3308	C	N1-C2-O2	-6.23	115.16	118.90
1	2	782	U	P-O3'-C3'	6.22	127.17	119.70
36	1	3272	C	C6-N1-C2	-6.22	117.81	120.30
36	5	1219	C	C6-N1-C2	6.22	122.79	120.30
1	2	942	G	N1-C6-O6	-6.22	116.17	119.90
36	1	1114	U	O5'-P-OP2	-6.22	100.10	105.70
36	1	2827	U	N3-C2-O2	-6.22	117.84	122.20
36	1	2872	A	C6-N1-C2	-6.22	114.87	118.60
36	5	2394	G	C8-N9-C4	6.22	108.89	106.40
36	1	867	G	C5-C6-O6	6.22	132.33	128.60
36	5	960	U	N1-C2-O2	6.22	127.15	122.80
1	2	1291	G	N3-C4-N9	-6.22	122.27	126.00
36	1	281	G	C6-C5-N7	-6.22	126.67	130.40
36	5	1316	C	N3-C2-O2	6.22	126.25	121.90
36	1	2177	G	C5-C6-N1	6.22	114.61	111.50
1	6	1528	U	N1-C2-O2	-6.22	118.45	122.80
36	5	869	G	N1-C6-O6	-6.22	116.17	119.90
38	4	143	U	O5'-P-OP1	-6.21	100.11	105.70
36	5	718	G	C8-N9-C1'	-6.21	118.92	127.00
41	L4	327	LEU	CA-CB-CG	6.21	129.59	115.30
36	5	1006	A	O5'-P-OP2	-6.21	100.11	105.70
36	5	1116	G	N1-C2-N3	6.21	127.63	123.90
36	5	1868	G	C4-C5-N7	6.21	113.28	110.80
36	1	510	G	N1-C6-O6	6.21	123.63	119.90
36	5	2203	U	C6-N1-C2	-6.21	117.28	121.00
36	1	1780	G	C5-C6-O6	-6.21	124.88	128.60
36	1	1364	C	C6-N1-C2	6.20	122.78	120.30
36	5	2795	U	N1-C2-O2	-6.20	118.46	122.80
36	5	2372	A	OP2-P-O3'	6.20	118.84	105.20
36	1	1118	C	N1-C2-O2	-6.20	115.18	118.90
36	1	1534	A	N9-C4-C5	-6.20	103.32	105.80
36	5	889	U	C5-C4-O4	-6.20	122.18	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2301	U	O5'-P-OP2	-6.20	100.12	105.70
36	5	884	A	C5-N7-C8	-6.20	100.80	103.90
36	5	1846	C	C6-N1-C1'	-6.20	113.36	120.80
1	2	1651	A	C8-N9-C4	6.20	108.28	105.80
36	5	1314	C	N3-C4-C5	6.20	124.38	121.90
36	5	2421	U	N1-C2-N3	6.20	118.62	114.90
1	6	1672	G	C6-C5-N7	-6.19	126.68	130.40
36	5	2806	U	C5-C6-N1	-6.19	119.60	122.70
36	1	24	G	C2-N3-C4	-6.19	108.80	111.90
36	1	1094	U	C5-C6-N1	6.19	125.80	122.70
36	1	2172	A	C4-C5-N7	6.19	113.80	110.70
36	5	816	A	N9-C4-C5	6.19	108.28	105.80
36	5	1144	U	OP1-P-OP2	6.19	128.89	119.60
36	5	2115	G	C5-C6-O6	-6.19	124.89	128.60
36	1	350	C	C6-N1-C2	-6.19	117.82	120.30
36	1	2527	G	N3-C4-N9	-6.19	122.29	126.00
36	1	2306	C	N3-C2-O2	-6.19	117.57	121.90
73	O7	67	LEU	CA-CB-CG	6.19	129.53	115.30
36	5	1782	U	C6-N1-C2	-6.19	117.29	121.00
1	2	623	A	O5'-P-OP1	-6.18	100.13	105.70
36	1	636	C	C5-C6-N1	-6.18	117.91	121.00
36	1	1175	C	C2-N3-C4	-6.18	116.81	119.90
36	5	644	G	C5-N7-C8	6.18	107.39	104.30
36	1	720	A	C8-N9-C4	-6.18	103.33	105.80
36	1	394	G	N1-C6-O6	-6.18	116.19	119.90
36	5	961	C	N3-C4-N4	6.18	122.33	118.00
36	5	2759	U	N1-C2-N3	6.18	118.61	114.90
36	5	2836	C	C4-C5-C6	6.18	120.49	117.40
37	7	101	G	C2-N3-C4	-6.18	108.81	111.90
36	1	1331	U	C6-N1-C2	6.18	124.71	121.00
36	5	943	U	O5'-P-OP1	-6.18	100.14	105.70
36	1	369	A	O5'-P-OP2	-6.18	100.14	105.70
36	1	1389	G	C6-C5-N7	-6.18	126.69	130.40
38	4	100	U	C2-N1-C1'	6.18	125.11	117.70
36	5	306	A	O4'-C1'-N9	-6.18	103.26	108.20
36	5	1116	G	C5-C6-N1	-6.18	108.41	111.50
36	5	3218	A	C6-C5-N7	-6.18	127.98	132.30
36	1	908	G	C4-N9-C1'	6.17	134.53	126.50
36	5	661	G	O5'-P-OP1	-6.17	100.14	105.70
36	1	856	G	C4-C5-N7	6.17	113.27	110.80
38	4	113	U	C2-N1-C1'	-6.17	110.29	117.70
1	2	1657	U	OP2-P-O3'	6.17	118.77	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1180	A	O4'-C1'-N9	-6.17	103.26	108.20
36	1	2646	C	C5-C6-N1	-6.17	117.92	121.00
36	1	3309	G	C6-C5-N7	-6.17	126.70	130.40
1	6	337	G	N3-C2-N2	6.17	124.22	119.90
36	1	2706	G	C5-C6-O6	-6.17	124.90	128.60
36	5	92	G	N1-C2-N2	-6.17	110.65	116.20
36	5	313	A	C5-C6-N6	-6.17	118.77	123.70
36	5	1450	G	N1-C6-O6	6.17	123.60	119.90
36	1	618	C	C6-N1-C2	-6.16	117.83	120.30
36	1	3092	C	C6-N1-C2	6.16	122.77	120.30
36	5	2134	G	C8-N9-C4	6.16	108.86	106.40
36	5	2374	C	N1-C2-O2	-6.16	115.20	118.90
36	5	677	A	N1-C6-N6	6.16	122.30	118.60
36	5	2807	U	C6-N1-C2	6.16	124.70	121.00
36	1	669	U	O5'-P-OP1	-6.16	100.16	105.70
36	1	2153	U	N1-C2-N3	6.16	118.60	114.90
36	1	3209	A	N1-C6-N6	6.16	122.30	118.60
36	5	2117	A	N9-C4-C5	6.16	108.26	105.80
36	1	969	C	C5-C6-N1	-6.16	117.92	121.00
36	1	2706	G	C6-C5-N7	-6.16	126.71	130.40
36	1	2874	G	N1-C6-O6	6.16	123.59	119.90
38	4	32	C	N3-C4-C5	6.16	124.36	121.90
36	5	964	G	N1-C2-N3	6.16	127.59	123.90
36	5	2392	C	C2-N3-C4	-6.16	116.82	119.90
50	m4	135	LEU	CA-CB-CG	6.16	129.46	115.30
36	5	2430	A	C2-N3-C4	-6.15	107.52	110.60
1	2	1600	A	C2-N3-C4	-6.15	107.52	110.60
36	5	651	G	OP2-P-O3'	6.15	118.73	105.20
36	5	2298	U	C5-C6-N1	-6.15	119.62	122.70
36	5	2899	C	C6-N1-C2	-6.15	117.84	120.30
36	5	2931	C	C5-C4-N4	-6.15	115.89	120.20
36	5	1496	C	O5'-P-OP2	-6.15	100.17	105.70
36	1	25	U	N1-C2-O2	-6.15	118.50	122.80
36	1	2412	G	N3-C4-N9	6.15	129.69	126.00
1	6	1124	A	C5-C6-N6	-6.15	118.78	123.70
37	7	91	G	N3-C4-C5	-6.15	125.53	128.60
1	2	16	G	N3-C4-N9	6.14	129.69	126.00
36	5	2191	U	N1-C2-O2	6.14	127.10	122.80
36	5	2359	C	C6-N1-C2	6.14	122.76	120.30
36	5	2868	U	C2-N3-C4	6.14	130.69	127.00
37	7	29	C	C6-N1-C2	6.14	122.76	120.30
36	1	340	C	N3-C4-C5	6.14	124.36	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	937	G	C8-N9-C4	6.14	108.86	106.40
36	1	1838	G	C4-C5-N7	6.14	113.26	110.80
1	6	1007	C	N3-C4-C5	6.14	124.36	121.90
1	6	1200	G	N1-C6-O6	6.14	123.58	119.90
36	5	2639	G	C6-C5-N7	-6.14	126.72	130.40
36	5	3306	U	C6-N1-C2	6.14	124.68	121.00
36	1	2846	U	N1-C2-N3	6.14	118.58	114.90
1	6	17	C	N3-C2-O2	-6.14	117.60	121.90
36	1	1117	G	N3-C4-N9	-6.14	122.32	126.00
36	5	2991	A	C5-C6-N1	6.14	120.77	117.70
36	1	704	U	O5'-P-OP2	-6.13	100.18	105.70
36	1	1156	C	C5-C6-N1	-6.13	117.93	121.00
36	1	1380	G	C2-N3-C4	-6.13	108.83	111.90
37	3	117	A	N1-C6-N6	6.13	122.28	118.60
36	1	2314	U	N3-C4-C5	6.13	118.28	114.60
36	5	3306	U	N1-C2-N3	-6.13	111.22	114.90
36	1	1000	C	N3-C4-C5	6.13	124.35	121.90
36	1	2399	A	C5-N7-C8	-6.13	100.83	103.90
36	1	2876	C	N3-C4-C5	-6.13	119.45	121.90
36	5	973	A	N1-C6-N6	6.13	122.28	118.60
36	5	2343	C	C5-C6-N1	-6.13	117.93	121.00
36	5	2763	U	C5-C4-O4	-6.13	122.22	125.90
36	5	2870	C	C6-N1-C1'	6.13	128.16	120.80
36	1	1306	G	C8-N9-C4	6.13	108.85	106.40
36	1	1798	A	C8-N9-C4	6.13	108.25	105.80
36	5	832	G	N3-C4-N9	6.13	129.68	126.00
1	2	447	U	C5-C6-N1	6.13	125.76	122.70
36	5	1852	G	N9-C4-C5	6.13	107.85	105.40
36	5	2856	G	C4-C5-N7	6.13	113.25	110.80
36	5	2868	U	C5-C6-N1	6.13	125.76	122.70
36	1	1424	C	C6-N1-C2	-6.13	117.85	120.30
36	1	2899	C	C2-N3-C4	-6.12	116.84	119.90
36	5	1847	A	O5'-P-OP2	-6.12	100.19	105.70
36	1	2550	U	C5-C4-O4	6.12	129.57	125.90
36	1	3213	A	N1-C2-N3	6.12	132.36	129.30
36	5	2877	G	N1-C6-O6	-6.12	116.22	119.90
36	5	607	A	N1-C6-N6	-6.12	114.93	118.60
36	5	2613	U	N1-C2-O2	-6.12	118.52	122.80
1	6	1749	A	C2-N3-C4	-6.12	107.54	110.60
36	1	2364	G	N3-C4-N9	6.12	129.67	126.00
36	5	1323	G	C4-C5-N7	6.12	113.25	110.80
1	2	1241	G	C4-N9-C1'	6.12	134.45	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1659	A	C8-N9-C4	-6.12	103.35	105.80
36	5	2341	A	N7-C8-N9	-6.12	110.74	113.80
36	1	510	G	C5-C6-O6	-6.12	124.93	128.60
36	1	612	U	N3-C4-O4	-6.11	115.12	119.40
36	1	968	G	C6-N1-C2	-6.11	121.43	125.10
36	1	1134	G	C6-C5-N7	-6.11	126.73	130.40
36	1	2410	U	C2-N3-C4	-6.11	123.33	127.00
1	2	13	C	C2-N3-C4	-6.11	116.84	119.90
1	2	1324	G	N3-C2-N2	-6.11	115.62	119.90
36	5	2250	G	O5'-P-OP2	-6.11	100.20	105.70
36	5	1420	C	C2-N1-C1'	-6.10	112.08	118.80
36	1	2284	C	C6-N1-C1'	-6.10	113.48	120.80
36	5	2134	G	N1-C6-O6	-6.10	116.24	119.90
38	8	39	G	N3-C4-N9	6.10	129.66	126.00
1	6	19	A	C8-N9-C4	6.10	108.24	105.80
1	6	1736	G	N3-C4-N9	-6.10	122.34	126.00
36	5	686	G	OP1-P-OP2	-6.10	110.45	119.60
36	5	2311	G	C8-N9-C4	6.10	108.84	106.40
36	5	2333	C	N3-C4-C5	6.10	124.34	121.90
36	1	1390	A	N9-C4-C5	6.10	108.24	105.80
36	5	1064	A	P-O3'-C3'	6.10	127.02	119.70
36	1	663	C	N3-C4-N4	6.09	122.27	118.00
1	6	610	G	C5-C6-O6	-6.09	124.94	128.60
1	6	558	U	C2-N1-C1'	6.09	125.01	117.70
1	6	1102	G	N3-C4-C5	6.09	131.65	128.60
36	5	2195	C	C6-N1-C2	-6.09	117.86	120.30
36	5	2115	G	N1-C6-O6	6.09	123.56	119.90
1	2	334	G	N3-C4-N9	-6.09	122.35	126.00
36	1	1115	G	C6-C5-N7	-6.09	126.75	130.40
36	1	1151	U	N1-C2-O2	-6.09	118.54	122.80
1	6	1641	C	N1-C2-O2	-6.09	115.25	118.90
36	5	2257	C	C6-N1-C2	-6.09	117.86	120.30
36	5	2257	C	C5-C6-N1	6.09	124.04	121.00
12	c0	83	PRO	N-CA-CB	6.08	110.60	103.30
36	5	2328	U	N1-C2-O2	-6.08	118.54	122.80
36	1	770	G	O4'-C1'-N9	6.08	113.07	108.20
36	1	2916	U	N1-C2-N3	-6.08	111.25	114.90
36	5	2641	U	C2-N1-C1'	6.08	125.00	117.70
36	5	2904	U	C2-N3-C4	-6.08	123.35	127.00
38	4	79	A	C8-N9-C4	-6.08	103.37	105.80
36	5	2811	A	C8-N9-C4	6.08	108.23	105.80
36	1	2231	C	C6-N1-C2	6.08	122.73	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	41	G	N1-C6-O6	6.08	123.55	119.90
1	6	1592	A	C2-N3-C4	-6.08	107.56	110.60
38	8	84	C	C6-N1-C2	-6.08	117.87	120.30
36	1	2952	G	C5-C6-O6	-6.08	124.95	128.60
36	5	1710	C	N3-C4-C5	6.08	124.33	121.90
36	1	93	C	O5'-P-OP1	-6.08	100.23	105.70
36	1	1858	A	C8-N9-C4	-6.08	103.37	105.80
36	5	153	U	N3-C4-C5	-6.08	110.95	114.60
36	5	2273	G	C8-N9-C4	6.08	108.83	106.40
36	5	2927	C	C2-N3-C4	-6.08	116.86	119.90
36	5	3137	C	C2-N3-C4	-6.08	116.86	119.90
36	5	2726	C	N3-C2-O2	-6.07	117.65	121.90
36	5	2950	G	O4'-C1'-N9	6.07	113.06	108.20
36	1	796	U	N1-C2-N3	6.07	118.54	114.90
36	1	907	G	N9-C4-C5	-6.07	102.97	105.40
36	1	1134	G	N1-C6-O6	6.07	123.54	119.90
36	1	2966	G	C6-C5-N7	-6.07	126.76	130.40
36	1	2177	G	C5-C6-O6	-6.07	124.96	128.60
36	1	2297	U	C5-C4-O4	6.07	129.54	125.90
36	1	2833	A	C8-N9-C4	6.07	108.23	105.80
36	5	1077	U	C6-N1-C2	6.07	124.64	121.00
36	5	2634	U	O5'-P-OP1	-6.07	100.24	105.70
36	1	1391	C	N3-C4-N4	6.07	122.25	118.00
1	6	1085	G	C5-C6-O6	6.07	132.24	128.60
36	5	1302	A	N9-C4-C5	6.07	108.23	105.80
36	5	1339	C	N3-C4-N4	6.07	122.25	118.00
36	1	1369	A	O5'-P-OP1	-6.06	100.24	105.70
36	1	2296	A	C2-N3-C4	-6.06	107.57	110.60
25	d3	132	LEU	CA-CB-CG	-6.06	101.36	115.30
36	5	1710	C	C5-C6-N1	-6.06	117.97	121.00
36	1	1145	G	C6-C5-N7	-6.06	126.76	130.40
51	M5	152	CYS	CA-CB-SG	-6.06	103.09	114.00
1	6	144	U	N3-C2-O2	-6.06	117.96	122.20
36	5	2194	G	N1-C2-N3	6.06	127.54	123.90
36	5	2307	G	N9-C4-C5	-6.06	102.97	105.40
36	5	2314	U	N3-C4-O4	6.06	123.64	119.40
36	1	2250	G	N7-C8-N9	-6.06	110.07	113.10
36	5	403	C	C6-N1-C2	-6.06	117.88	120.30
36	1	1346	G	N3-C4-N9	-6.06	122.36	126.00
1	6	1340	U	N3-C2-O2	-6.06	117.96	122.20
36	5	1433	A	OP2-P-O3'	6.06	118.53	105.20
1	2	192	U	N1-C2-O2	6.05	127.04	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1581	C	N3-C4-C5	6.05	124.32	121.90
36	5	1194	G	O5'-P-OP1	-6.05	100.25	105.70
36	5	1197	A	N1-C6-N6	6.05	122.23	118.60
36	5	41	G	N9-C4-C5	-6.05	102.98	105.40
36	5	1370	G	C4-C5-N7	-6.05	108.38	110.80
1	2	579	A	O4'-C1'-N9	6.05	113.04	108.20
36	1	406	G	N3-C2-N2	6.05	124.14	119.90
36	1	701	G	N1-C6-O6	6.05	123.53	119.90
36	1	1117	G	N3-C4-C5	6.05	131.62	128.60
36	1	2660	G	C8-N9-C4	6.05	108.82	106.40
36	1	3181	C	C6-N1-C2	-6.05	117.88	120.30
1	6	1629	G	OP2-P-O3'	6.05	118.52	105.20
36	5	651	G	N9-C4-C5	6.05	107.82	105.40
36	5	2807	U	C5-C6-N1	-6.05	119.67	122.70
36	1	716	A	C2-N3-C4	-6.05	107.58	110.60
36	1	3275	U	C5-C6-N1	6.05	125.72	122.70
36	1	545	U	N1-C2-O2	6.05	127.03	122.80
36	1	2688	U	N1-C2-N3	-6.05	111.27	114.90
36	5	962	A	N1-C6-N6	6.05	122.23	118.60
36	5	1392	G	C8-N9-C4	6.05	108.82	106.40
1	2	1761	U	C6-N1-C2	-6.04	117.37	121.00
36	1	2297	U	N3-C2-O2	-6.04	117.97	122.20
36	5	56	G	N1-C6-O6	-6.04	116.27	119.90
36	1	1508	C	C6-N1-C2	-6.04	117.88	120.30
1	6	1614	A	C2-N3-C4	-6.04	107.58	110.60
36	5	2231	C	C2-N1-C1'	6.04	125.45	118.80
36	5	2435	G	N9-C4-C5	-6.04	102.98	105.40
36	5	2724	U	C6-N1-C2	-6.04	117.37	121.00
36	5	3004	C	C5-C4-N4	-6.04	115.97	120.20
36	1	281	G	N9-C4-C5	-6.04	102.98	105.40
36	1	651	G	C8-N9-C4	6.04	108.82	106.40
36	1	1906	G	C5-C6-O6	-6.04	124.97	128.60
36	1	3217	C	C6-N1-C2	-6.04	117.88	120.30
37	3	94	C	N3-C2-O2	6.04	126.13	121.90
1	6	1	U	C6-N1-C1'	-6.04	112.74	121.20
1	6	1634	C	C2-N3-C4	6.04	122.92	119.90
36	5	969	C	N3-C4-C5	6.04	124.32	121.90
36	1	920	A	N1-C2-N3	6.04	132.32	129.30
1	6	1082	C	C5-C6-N1	6.04	124.02	121.00
36	5	962	A	C5-C6-N6	-6.04	118.87	123.70
36	1	2188	A	C8-N9-C4	6.04	108.22	105.80
36	1	2958	A	C5-C6-N6	-6.04	118.87	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3307	A	N1-C6-N6	6.04	122.22	118.60
36	5	886	C	N1-C2-O2	-6.04	115.28	118.90
36	5	2608	G	N1-C6-O6	-6.04	116.28	119.90
36	5	3308	C	C4-C5-C6	6.04	120.42	117.40
1	6	1736	G	N3-C2-N2	-6.04	115.67	119.90
36	1	1441	G	C4-C5-N7	-6.04	108.39	110.80
37	3	89	G	C5-N7-C8	6.04	107.32	104.30
36	5	1116	G	C4-C5-C6	6.04	122.42	118.80
38	8	38	U	C2-N1-C1'	6.04	124.94	117.70
36	1	3277	U	N1-C2-O2	6.03	127.02	122.80
36	5	2552	C	N3-C2-O2	-6.03	117.68	121.90
36	5	3055	U	O5'-P-OP2	-6.03	100.27	105.70
38	8	17	A	N1-C6-N6	6.03	122.22	118.60
36	5	1306	G	C6-N1-C2	-6.03	121.48	125.10
36	5	2412	G	N3-C4-N9	6.03	129.62	126.00
36	1	285	A	N1-C6-N6	6.03	122.22	118.60
36	1	1165	A	N7-C8-N9	-6.03	110.78	113.80
36	1	2281	A	O4'-C1'-N9	6.03	113.02	108.20
1	6	555	A	C8-N9-C4	-6.03	103.39	105.80
36	5	91	G	C4-C5-N7	6.03	113.21	110.80
36	5	429	U	O5'-P-OP2	-6.03	100.27	105.70
36	5	2227	C	O5'-P-OP1	-6.03	100.27	105.70
36	1	957	C	N1-C2-O2	-6.03	115.28	118.90
1	6	433	C	N3-C4-N4	6.03	122.22	118.00
36	5	640	U	N1-C2-O2	-6.03	118.58	122.80
37	3	94	C	N1-C2-O2	-6.03	115.28	118.90
36	5	366	A	N1-C2-N3	6.03	132.31	129.30
36	5	3214	U	N3-C2-O2	-6.03	117.98	122.20
36	1	232	G	N3-C4-C5	-6.03	125.59	128.60
36	1	648	C	OP1-P-OP2	6.03	128.64	119.60
36	5	718	G	N1-C2-N2	-6.03	110.78	116.20
36	5	3120	C	O5'-P-OP1	-6.03	100.28	105.70
37	7	78	U	O5'-P-OP2	-6.03	100.28	105.70
36	1	2257	C	O4'-C1'-N1	6.02	113.02	108.20
36	5	2316	G	N3-C4-C5	-6.02	125.59	128.60
36	1	910	G	O5'-P-OP2	-6.02	100.28	105.70
1	6	1150	G	N3-C4-C5	6.02	131.61	128.60
36	5	2354	C	N3-C4-C5	-6.02	119.49	121.90
36	5	2413	A	C2-N3-C4	-6.02	107.59	110.60
36	5	278	U	N1-C2-O2	-6.02	118.59	122.80
36	5	1305	U	N3-C4-O4	6.02	123.61	119.40
36	5	1457	U	N1-C2-O2	-6.02	118.59	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1473	U	C5-C4-O4	6.02	129.51	125.90
36	1	229	G	C5-C6-O6	-6.01	124.99	128.60
36	1	2305	G	C5-C6-O6	-6.01	124.99	128.60
36	1	2722	U	N3-C2-O2	-6.01	117.99	122.20
1	2	1122	G	N1-C6-O6	6.01	123.51	119.90
36	1	116	A	N1-C6-N6	6.01	122.21	118.60
36	1	915	A	O5'-P-OP1	-6.01	100.29	105.70
1	2	830	U	N3-C2-O2	-6.01	117.99	122.20
1	2	1386	G	C8-N9-C4	6.01	108.80	106.40
36	1	661	G	C5-C6-O6	6.01	132.21	128.60
38	4	44	A	C8-N9-C4	6.01	108.20	105.80
36	5	661	G	C4-C5-N7	6.01	113.20	110.80
36	5	1389	G	C5-C6-O6	-6.01	124.99	128.60
36	5	2245	C	N3-C2-O2	-6.01	117.69	121.90
36	5	2421	U	C5-C6-N1	-6.01	119.69	122.70
36	5	3001	C	C2-N1-C1'	-6.01	112.19	118.80
1	2	1473	U	N1-C2-O2	6.01	127.00	122.80
36	1	45	A	O5'-P-OP1	6.01	117.91	110.70
36	1	878	G	N3-C4-N9	-6.01	122.40	126.00
36	5	1306	G	C6-C5-N7	-6.01	126.80	130.40
36	5	1440	G	C5-C6-O6	6.01	132.20	128.60
36	5	1604	G	C6-C5-N7	-6.01	126.80	130.40
36	5	3035	A	C8-N9-C4	6.00	108.20	105.80
38	4	19	C	N1-C2-O2	-6.00	115.30	118.90
36	1	350	C	N1-C2-O2	6.00	122.50	118.90
36	1	1116	G	C8-N9-C4	-6.00	104.00	106.40
36	5	640	U	N3-C4-O4	6.00	123.60	119.40
38	4	107	G	N1-C6-O6	-6.00	116.30	119.90
36	1	941	G	C8-N9-C4	-6.00	104.00	106.40
36	1	1367	G	N9-C4-C5	-6.00	103.00	105.40
36	1	2246	G	C2-N3-C4	6.00	114.90	111.90
36	1	1269	U	N1-C2-O2	6.00	127.00	122.80
36	5	800	G	N3-C4-N9	6.00	129.60	126.00
36	5	2957	G	O5'-P-OP1	-6.00	100.30	105.70
36	1	1112	A	C5-C6-N1	6.00	120.70	117.70
36	1	2257	C	C6-N1-C2	-6.00	117.90	120.30
36	5	2140	U	C4-C5-C6	6.00	123.30	119.70
36	5	3394	U	N3-C4-O4	-6.00	115.20	119.40
36	1	1103	A	O5'-P-OP1	-5.99	100.31	105.70
36	5	283	G	O4'-C1'-N9	-5.99	103.41	108.20
36	5	2849	C	N1-C2-O2	-5.99	115.31	118.90
36	5	1208	U	N3-C4-O4	-5.99	115.21	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2130	G	C4-C5-N7	-5.99	108.41	110.80
1	2	144	U	N3-C2-O2	-5.99	118.01	122.20
36	5	371	G	C5-C6-O6	-5.99	125.01	128.60
36	5	1888	U	N3-C4-O4	5.99	123.59	119.40
36	5	2828	G	C4-N9-C1'	5.99	134.28	126.50
1	6	103	A	P-O3'-C3'	5.98	126.88	119.70
36	1	2886	U	N3-C4-O4	5.98	123.59	119.40
36	5	3317	U	N3-C2-O2	-5.98	118.01	122.20
36	1	315	C	N3-C4-N4	5.98	122.19	118.00
36	1	1174	G	C8-N9-C1'	-5.98	119.22	127.00
36	5	2710	C	N3-C2-O2	5.98	126.09	121.90
1	6	782	U	N3-C2-O2	-5.98	118.02	122.20
36	1	655	C	N3-C4-C5	-5.98	119.51	121.90
36	5	1141	C	N3-C4-C5	5.98	124.29	121.90
36	5	1156	C	N3-C2-O2	5.98	126.08	121.90
36	5	1141	C	C6-N1-C2	5.97	122.69	120.30
36	5	3188	G	N9-C4-C5	5.97	107.79	105.40
36	1	304	G	N9-C4-C5	5.97	107.79	105.40
36	1	1838	G	C6-C5-N7	-5.97	126.82	130.40
36	1	2730	G	N1-C6-O6	5.97	123.48	119.90
36	5	1152	G	N3-C2-N2	-5.97	115.72	119.90
36	1	97	U	OP2-P-O3'	5.97	118.34	105.20
1	6	136	C	C2-N1-C1'	5.97	125.37	118.80
36	5	1155	C	O5'-P-OP1	-5.97	100.33	105.70
36	5	1834	U	N3-C4-C5	-5.97	111.02	114.60
1	6	215	A	C8-N9-C4	-5.97	103.41	105.80
42	l5	110	LEU	CA-CB-CG	5.97	129.03	115.30
36	1	639	G	C6-C5-N7	-5.97	126.82	130.40
36	1	3188	G	C6-C5-N7	-5.97	126.82	130.40
36	1	1405	U	N3-C2-O2	5.96	126.38	122.20
36	1	3361	G	N3-C4-N9	5.96	129.58	126.00
36	5	1373	A	C5-C6-N1	5.96	120.68	117.70
36	5	1239	C	C6-N1-C2	-5.96	117.92	120.30
36	1	282	G	N9-C4-C5	5.96	107.78	105.40
36	1	1518	U	C4-C5-C6	5.96	123.28	119.70
1	6	941	A	C2-N3-C4	5.96	113.58	110.60
36	5	907	G	N9-C4-C5	-5.96	103.02	105.40
36	1	3142	A	O5'-P-OP1	-5.96	100.34	105.70
52	m6	69	GLY	N-CA-C	-5.96	98.20	113.10
1	6	421	A	N9-C4-C5	-5.96	103.42	105.80
37	7	7	G	N1-C6-O6	-5.96	116.33	119.90
36	1	2773	C	C6-N1-C2	5.96	122.68	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1200	G	N3-C4-C5	5.96	131.58	128.60
36	5	3188	G	N3-C4-C5	-5.96	125.62	128.60
36	1	606	C	N1-C2-O2	-5.96	115.33	118.90
1	6	194	U	N1-C2-O2	5.96	126.97	122.80
1	6	552	G	C6-C5-N7	-5.96	126.83	130.40
1	6	1573	A	P-O3'-C3'	5.96	126.85	119.70
36	1	2301	U	N1-C2-O2	5.95	126.97	122.80
36	1	2406	C	C6-N1-C2	5.95	122.68	120.30
36	1	2952	G	N1-C6-O6	5.95	123.47	119.90
1	6	1273	G	O4'-C1'-N9	5.95	112.96	108.20
36	5	1373	A	C5-C6-N6	-5.95	118.94	123.70
36	5	1589	A	C6-C5-N7	-5.95	128.13	132.30
36	1	856	G	C5-C6-O6	-5.95	125.03	128.60
36	1	2364	G	N1-C2-N3	5.95	127.47	123.90
36	1	430	U	N1-C2-N3	5.95	118.47	114.90
36	5	2724	U	N3-C2-O2	-5.95	118.03	122.20
37	7	93	C	N3-C2-O2	-5.95	117.73	121.90
1	2	321	C	N1-C2-O2	5.95	122.47	118.90
1	2	1145	U	N3-C4-O4	5.95	123.56	119.40
36	1	2298	U	C5-C6-N1	-5.95	119.73	122.70
36	5	2953	U	N3-C4-C5	-5.95	111.03	114.60
37	7	40	C	N1-C2-O2	-5.95	115.33	118.90
36	5	776	U	C2-N3-C4	-5.95	123.43	127.00
36	5	2345	A	N7-C8-N9	-5.95	110.83	113.80
1	6	385	A	C5-C6-N6	5.95	128.46	123.70
36	1	2366	C	C4-C5-C6	-5.94	114.43	117.40
36	1	2833	A	O5'-P-OP2	-5.94	100.35	105.70
36	1	3361	G	N3-C4-C5	-5.94	125.63	128.60
36	5	1846	C	OP2-P-O3'	5.94	118.27	105.20
36	5	2796	G	O5'-P-OP2	-5.94	100.35	105.70
1	2	1648	A	N1-C6-N6	5.94	122.16	118.60
36	1	968	G	C8-N9-C4	-5.94	104.02	106.40
36	1	2392	C	C6-N1-C2	5.94	122.68	120.30
1	6	1305	U	N1-C2-O2	-5.94	118.64	122.80
36	5	1789	G	N3-C4-N9	-5.94	122.44	126.00
36	5	3176	G	N3-C4-C5	-5.94	125.63	128.60
36	1	971	G	C8-N9-C4	5.94	108.78	106.40
36	5	802	C	C4-C5-C6	5.94	120.37	117.40
36	5	3298	C	C5-C6-N1	-5.94	118.03	121.00
36	1	2886	U	C5-C4-O4	-5.93	122.34	125.90
36	1	3049	A	N1-C6-N6	5.93	122.16	118.60
1	6	539	G	C8-N9-C4	-5.93	104.03	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	59	G	N9-C4-C5	5.93	107.77	105.40
36	5	3184	A	C4-C5-N7	5.93	113.67	110.70
36	5	886	C	N3-C4-N4	5.93	122.15	118.00
36	5	998	A	OP2-P-O3'	5.93	118.25	105.20
36	1	1791	C	N3-C2-O2	5.93	126.05	121.90
36	5	648	C	N3-C2-O2	-5.93	117.75	121.90
36	1	801	A	N1-C2-N3	-5.93	126.33	129.30
36	1	1116	G	OP2-P-O3'	5.93	118.25	105.20
36	1	2281	A	C2-N3-C4	-5.93	107.64	110.60
73	O7	65	ARG	NE-CZ-NH2	-5.93	117.33	120.30
36	5	96	G	N1-C6-O6	5.93	123.46	119.90
36	5	344	A	O5'-P-OP1	-5.93	100.36	105.70
36	5	2695	A	C5-C6-N6	-5.93	118.96	123.70
36	5	200	C	N1-C2-O2	-5.93	115.34	118.90
36	5	2828	G	C8-N9-C1'	-5.93	119.30	127.00
1	2	311	U	N3-C2-O2	-5.92	118.05	122.20
36	5	925	A	C8-N9-C4	5.92	108.17	105.80
36	5	970	A	C5-C6-N1	5.92	120.66	117.70
36	5	1294	A	N1-C6-N6	-5.92	115.05	118.60
36	5	3130	A	C8-N9-C4	5.92	108.17	105.80
36	1	406	G	C5-C6-O6	5.92	132.15	128.60
1	6	19	A	N9-C4-C5	-5.92	103.43	105.80
36	5	2931	C	N3-C4-C5	5.92	124.27	121.90
36	5	3317	U	P-O3'-C3'	5.92	126.81	119.70
37	7	97	A	C5-C6-N6	-5.92	118.96	123.70
36	1	2126	A	C8-N9-C4	5.92	108.17	105.80
36	5	109	A	O5'-P-OP2	-5.92	100.37	105.70
36	1	203	G	C6-C5-N7	5.92	133.95	130.40
36	1	1322	U	N1-C2-O2	-5.92	118.66	122.80
36	5	3324	C	O5'-P-OP2	-5.92	100.38	105.70
1	2	1456	C	C6-N1-C2	-5.92	117.93	120.30
36	5	3181	C	C2-N1-C1'	5.92	125.31	118.80
36	1	979	U	N1-C2-N3	5.91	118.45	114.90
36	1	2624	G	C5-C6-O6	-5.91	125.05	128.60
36	1	720	A	N1-C6-N6	-5.91	115.05	118.60
36	1	2283	G	C4-C5-N7	5.91	113.16	110.80
36	5	952	A	C4-C5-N7	5.91	113.66	110.70
36	5	2856	G	N1-C6-O6	5.91	123.45	119.90
1	2	192	U	C2-N1-C1'	5.91	124.79	117.70
25	D3	103	LEU	CA-CB-CG	5.91	128.89	115.30
36	1	364	G	N3-C4-N9	-5.91	122.45	126.00
36	1	2378	C	N1-C2-O2	-5.91	115.35	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	822	G	N3-C2-N2	-5.91	115.77	119.90
36	1	2954	U	N3-C4-O4	5.91	123.53	119.40
36	5	2662	G	N3-C4-N9	5.91	129.54	126.00
37	7	105	C	N3-C2-O2	-5.91	117.77	121.90
1	6	1058	U	OP1-P-O3'	5.91	118.19	105.20
36	1	515	C	N3-C4-N4	5.90	122.13	118.00
36	1	2636	A	N7-C8-N9	5.90	116.75	113.80
36	5	2356	A	C5-C6-N1	-5.90	114.75	117.70
36	1	104	G	C5-C6-O6	-5.90	125.06	128.60
36	1	817	A	C4-C5-C6	5.90	119.95	117.00
36	1	2250	G	C8-N9-C4	5.90	108.76	106.40
36	1	2772	C	P-O3'-C3'	5.90	126.78	119.70
36	1	3307	A	C5-N7-C8	-5.90	100.95	103.90
36	5	859	G	C6-C5-N7	-5.90	126.86	130.40
1	6	1043	A	N1-C6-N6	5.90	122.14	118.60
36	5	644	G	N3-C4-C5	-5.90	125.65	128.60
36	1	941	G	OP1-P-O3'	5.90	118.18	105.20
1	6	449	C	C6-N1-C2	5.90	122.66	120.30
36	5	1305	U	C6-N1-C1'	-5.90	112.94	121.20
36	1	335	G	O5'-P-OP2	5.90	117.78	110.70
36	1	1420	C	N3-C2-O2	-5.90	117.77	121.90
1	6	1642	G	C5-C6-O6	-5.90	125.06	128.60
36	5	1881	A	C6-C5-N7	-5.90	128.17	132.30
38	8	5	U	N3-C2-O2	5.90	126.33	122.20
36	1	304	G	C8-N9-C4	-5.89	104.04	106.40
36	1	635	G	C5-C6-O6	-5.89	125.06	128.60
36	1	1124	U	OP1-P-O3'	5.89	118.17	105.20
36	1	1154	A	O5'-P-OP1	-5.89	100.39	105.70
36	1	2980	U	N1-C2-N3	5.89	118.44	114.90
36	5	1315	U	N3-C4-C5	-5.89	111.06	114.60
36	5	229	G	N1-C6-O6	5.89	123.44	119.90
36	1	1518	U	N3-C2-O2	-5.89	118.08	122.20
36	5	2950	G	O5'-P-OP1	-5.89	100.40	105.70
36	5	1209	G	N1-C6-O6	5.89	123.43	119.90
1	6	639	U	C2-N1-C1'	5.89	124.76	117.70
36	5	1258	U	C5-C4-O4	5.89	129.43	125.90
36	5	3115	C	C6-N1-C2	-5.89	117.94	120.30
36	1	2846	U	C6-N1-C2	-5.88	117.47	121.00
36	5	2853	A	O5'-P-OP1	-5.88	100.41	105.70
1	6	364	G	N3-C4-C5	-5.88	125.66	128.60
37	7	79	A	N9-C4-C5	-5.88	103.45	105.80
36	1	347	G	C4-C5-N7	5.88	113.15	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	956	U	N1-C2-O2	-5.88	118.69	122.80
1	6	1697	G	N3-C4-C5	-5.88	125.66	128.60
36	5	1008	U	C2-N1-C1'	-5.88	110.65	117.70
36	5	1803	C	N3-C4-C5	5.88	124.25	121.90
36	1	1450	G	C4-C5-N7	5.88	113.15	110.80
1	6	620	A	O5'-P-OP2	-5.87	100.41	105.70
36	5	647	A	C8-N9-C1'	-5.87	117.13	127.70
36	5	3167	A	C8-N9-C4	-5.87	103.45	105.80
1	2	1776	A	C8-N9-C4	5.87	108.15	105.80
36	1	407	A	O5'-P-OP2	-5.87	100.42	105.70
36	1	3303	G	C8-N9-C4	5.87	108.75	106.40
1	6	364	G	C6-N1-C2	-5.87	121.58	125.10
36	1	47	C	C5-C6-N1	-5.87	118.07	121.00
36	1	335	G	C5-C6-N1	5.87	114.43	111.50
36	1	644	G	C4-C5-C6	5.87	122.32	118.80
36	1	2146	C	C6-N1-C2	-5.87	117.95	120.30
1	6	153	G	C4-C5-N7	5.87	113.15	110.80
36	5	1117	G	OP2-P-O3'	5.87	118.11	105.20
36	5	2914	G	C4-N9-C1'	5.87	134.13	126.50
36	5	890	C	O5'-P-OP2	-5.86	100.42	105.70
36	5	1301	A	C6-C5-N7	-5.86	128.20	132.30
36	1	959	C	N1-C2-O2	-5.86	115.38	118.90
36	1	2620	G	C2-N3-C4	-5.86	108.97	111.90
36	5	2914	G	N3-C4-N9	5.86	129.52	126.00
36	1	1586	G	O5'-P-OP2	-5.86	100.43	105.70
36	1	2899	C	C6-N1-C1'	-5.86	113.77	120.80
36	1	2988	C	O5'-P-OP2	-5.86	100.43	105.70
38	4	42	G	OP1-P-O3'	5.86	118.09	105.20
36	5	726	G	N1-C6-O6	5.86	123.42	119.90
36	5	1792	C	C5-C6-N1	-5.86	118.07	121.00
36	5	2865	U	N1-C2-O2	5.86	126.90	122.80
1	2	1100	G	C4-C5-N7	5.86	113.14	110.80
36	1	790	U	C5-C4-O4	5.86	129.41	125.90
36	1	895	A	C5-N7-C8	-5.86	100.97	103.90
36	1	2752	U	O4'-C1'-N1	-5.86	103.52	108.20
1	6	782	U	N1-C2-O2	5.86	126.90	122.80
1	6	1481	C	N3-C2-O2	-5.85	117.80	121.90
36	5	92	G	N9-C4-C5	-5.85	103.06	105.40
36	5	2346	C	C5-C4-N4	-5.85	116.10	120.20
36	5	3309	G	N3-C4-C5	-5.85	125.67	128.60
36	1	936	A	O5'-P-OP2	-5.85	100.43	105.70
36	5	592	A	C2-N3-C4	-5.85	107.67	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1510	G	C5-C6-O6	-5.85	125.09	128.60
36	5	808	A	C8-N9-C4	-5.85	103.46	105.80
36	5	1846	C	N3-C4-C5	5.85	124.24	121.90
36	1	1187	C	C6-N1-C2	5.85	122.64	120.30
36	1	2349	U	N3-C4-C5	5.85	118.11	114.60
38	4	138	A	N1-C2-N3	5.85	132.22	129.30
1	6	1635	A	N1-C6-N6	5.85	122.11	118.60
47	M0	24	ARG	NE-CZ-NH1	5.85	123.22	120.30
36	5	1725	C	N3-C2-O2	5.85	125.99	121.90
36	1	802	C	O5'-P-OP2	5.84	117.71	110.70
36	1	1306	G	N1-C6-O6	5.84	123.41	119.90
1	6	25	C	P-O3'-C3'	5.84	126.71	119.70
36	5	190	U	N3-C2-O2	-5.84	118.11	122.20
36	5	306	A	C8-N9-C1'	-5.84	117.18	127.70
36	1	878	G	C2-N3-C4	-5.84	108.98	111.90
36	5	1321	G	C2-N3-C4	-5.84	108.98	111.90
36	5	1909	A	C8-N9-C4	5.84	108.14	105.80
36	1	959	C	C5-C6-N1	-5.84	118.08	121.00
36	1	2121	G	N3-C2-N2	5.84	123.99	119.90
36	5	908	G	C6-C5-N7	-5.84	126.89	130.40
36	5	1307	G	C5-C6-N1	5.84	114.42	111.50
1	2	1761	U	C5-C4-O4	5.84	129.40	125.90
36	1	806	A	O4'-C1'-N9	-5.84	103.53	108.20
1	6	1030	A	O5'-P-OP1	-5.84	100.45	105.70
36	5	631	U	C5-C6-N1	-5.84	119.78	122.70
36	5	1122	U	N3-C2-O2	-5.84	118.11	122.20
36	5	694	C	N3-C2-O2	-5.83	117.82	121.90
36	1	1110	U	C5-C4-O4	-5.83	122.40	125.90
36	5	2284	C	N1-C2-O2	5.83	122.40	118.90
1	2	913	G	OP1-P-O3'	5.83	118.03	105.20
36	1	967	A	C2-N3-C4	-5.83	107.68	110.60
36	1	1404	G	C2-N3-C4	-5.83	108.98	111.90
36	1	2183	A	N1-C2-N3	5.83	132.22	129.30
1	6	412	A	C8-N9-C4	-5.83	103.47	105.80
36	5	1475	A	N1-C6-N6	5.83	122.10	118.60
36	5	2383	C	N3-C4-N4	5.83	122.08	118.00
36	5	1308	A	OP1-P-OP2	-5.83	110.86	119.60
1	2	192	U	N3-C2-O2	-5.83	118.12	122.20
36	1	25	U	N3-C4-O4	5.83	123.48	119.40
36	1	2357	A	N1-C6-N6	5.83	122.10	118.60
36	1	2808	A	C4-C5-N7	5.83	113.61	110.70
36	1	3124	G	OP1-P-O3'	5.83	118.02	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1387	G	N3-C2-N2	-5.83	115.82	119.90
36	1	124	U	N3-C2-O2	-5.83	118.12	122.20
36	1	3310	A	C8-N9-C4	5.83	108.13	105.80
36	5	1178	G	C6-C5-N7	-5.83	126.90	130.40
1	2	359	A	C8-N9-C4	5.83	108.13	105.80
36	1	965	A	N1-C6-N6	5.83	122.09	118.60
1	6	29	U	C5-C4-O4	5.83	129.40	125.90
1	6	1108	G	C5-N7-C8	-5.83	101.39	104.30
36	5	592	A	C8-N9-C4	5.83	108.13	105.80
36	1	2844	C	C6-N1-C2	5.82	122.63	120.30
36	1	3144	G	C5-C6-O6	-5.82	125.11	128.60
36	5	2552	C	N1-C2-O2	5.82	122.39	118.90
36	5	2991	A	C2-N3-C4	5.82	113.51	110.60
36	1	1404	G	C5-C6-N1	-5.82	108.59	111.50
36	1	2156	C	C5-C4-N4	-5.82	116.12	120.20
36	1	648	C	C6-N1-C1'	-5.82	113.81	120.80
36	1	765	C	N3-C2-O2	-5.82	117.83	121.90
36	1	1145	G	N1-C6-O6	5.82	123.39	119.90
36	5	2889	C	C2-N3-C4	-5.82	116.99	119.90
37	7	37	G	N9-C4-C5	-5.82	103.07	105.40
36	1	2301	U	N3-C2-O2	-5.82	118.13	122.20
36	1	2964	G	N3-C4-N9	-5.82	122.51	126.00
36	5	1433	A	N9-C4-C5	5.82	108.13	105.80
36	1	2302	G	N1-C6-O6	-5.82	116.41	119.90
1	2	1560	U	N3-C2-O2	-5.82	118.13	122.20
36	1	679	U	C5-C4-O4	5.82	129.39	125.90
36	1	2836	C	N3-C4-N4	-5.82	113.93	118.00
36	5	1313	G	O5'-P-OP2	-5.82	100.47	105.70
36	5	1842	A	O5'-P-OP2	-5.82	100.47	105.70
36	1	870	G	C4-C5-N7	-5.81	108.47	110.80
37	7	89	G	OP2-P-O3'	5.81	117.99	105.20
36	5	2531	C	C6-N1-C2	-5.81	117.97	120.30
36	5	2553	U	C2-N1-C1'	5.81	124.68	117.70
36	5	3080	G	C6-C5-N7	-5.81	126.91	130.40
1	6	1009	U	C5-C6-N1	-5.81	119.80	122.70
36	5	1307	G	C2-N3-C4	5.81	114.81	111.90
36	5	1451	C	N1-C2-O2	-5.81	115.41	118.90
1	2	42	G	C4-C5-N7	-5.81	108.48	110.80
36	1	1724	U	OP1-P-O3'	5.81	117.98	105.20
36	1	1820	U	N3-C2-O2	-5.81	118.13	122.20
36	5	2409	G	N9-C4-C5	5.81	107.72	105.40
36	1	646	A	C2-N3-C4	-5.81	107.70	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	767	U	O4'-C1'-N1	5.81	112.85	108.20
36	1	1121	U	C5-C6-N1	-5.81	119.80	122.70
36	1	1924	U	C5-C6-N1	-5.81	119.80	122.70
1	6	1180	C	C6-N1-C2	-5.81	117.98	120.30
36	5	1306	G	N3-C2-N2	-5.81	115.83	119.90
36	5	2996	U	N1-C2-O2	5.81	126.87	122.80
36	1	2572	C	C6-N1-C1'	-5.81	113.83	120.80
38	4	20	U	C2-N1-C1'	-5.80	110.73	117.70
36	5	345	G	C6-C5-N7	-5.80	126.92	130.40
36	5	588	G	C4-C5-N7	5.80	113.12	110.80
36	5	1373	A	O5'-P-OP2	-5.80	100.48	105.70
36	5	2951	G	N9-C4-C5	-5.80	103.08	105.40
38	8	39	G	N1-C2-N2	-5.80	110.98	116.20
36	1	281	G	C4-C5-N7	5.80	113.12	110.80
36	1	2604	U	N1-C2-N3	-5.80	111.42	114.90
36	1	2852	C	C6-N1-C2	5.80	122.62	120.30
36	1	3231	U	C5-C4-O4	5.80	129.38	125.90
36	5	945	C	N3-C2-O2	-5.80	117.84	121.90
36	5	2597	U	C6-N1-C2	5.80	124.48	121.00
36	1	933	A	C4-C5-C6	5.80	119.90	117.00
36	1	2873	U	C2-N3-C4	-5.80	123.52	127.00
36	5	740	G	N1-C6-O6	-5.80	116.42	119.90
1	2	458	G	N3-C4-N9	-5.80	122.52	126.00
1	6	308	C	C5-C6-N1	-5.80	118.10	121.00
36	1	942	U	O5'-P-OP1	5.80	117.66	110.70
36	1	1541	G	N9-C4-C5	-5.80	103.08	105.40
1	6	879	G	N1-C6-O6	-5.80	116.42	119.90
36	5	3136	G	N3-C4-N9	-5.80	122.52	126.00
37	7	11	A	N1-C6-N6	5.80	122.08	118.60
1	6	1118	G	OP2-P-O3'	5.79	117.95	105.20
36	1	716	A	C8-N9-C4	5.79	108.12	105.80
1	6	1000	C	C6-N1-C2	-5.79	117.98	120.30
1	6	1208	A	C8-N9-C4	-5.79	103.48	105.80
36	5	2992	U	C6-N1-C2	-5.79	117.52	121.00
51	m5	96	ARG	NE-CZ-NH2	-5.79	117.40	120.30
1	2	47	A	C8-N9-C4	-5.79	103.48	105.80
1	2	1456	C	O4'-C1'-N1	5.79	112.83	108.20
1	2	1473	U	N3-C2-O2	-5.79	118.15	122.20
36	1	2624	G	C6-C5-N7	-5.79	126.92	130.40
1	6	542	A	O4'-C1'-N9	5.79	112.83	108.20
36	5	1854	C	C6-N1-C2	-5.79	117.98	120.30
36	5	3215	A	C5-C6-N1	-5.79	114.80	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1196	A	P-O3'-C3'	5.79	126.65	119.70
36	5	591	G	OP1-P-O3'	5.79	117.94	105.20
1	6	1767	G	C8-N9-C4	5.79	108.72	106.40
36	5	610	G	N9-C4-C5	5.79	107.72	105.40
36	5	1115	G	N3-C4-N9	5.79	129.47	126.00
36	5	3308	C	C2-N3-C4	-5.79	117.00	119.90
36	5	2112	U	C2-N1-C1'	5.79	124.64	117.70
36	5	2834	G	OP1-P-OP2	5.79	128.28	119.60
36	1	359	U	N3-C4-C5	-5.79	111.13	114.60
36	5	2965	U	N3-C2-O2	5.79	126.25	122.20
36	1	2863	G	N1-C6-O6	-5.78	116.43	119.90
36	1	3022	G	O4'-C1'-N9	5.78	112.83	108.20
36	5	1900	A	OP1-P-OP2	5.78	128.27	119.60
37	7	110	G	N3-C4-C5	5.78	131.49	128.60
1	2	1782	A	C5-C6-N6	5.78	128.32	123.70
36	5	909	G	C5-C6-O6	5.78	132.07	128.60
36	5	395	A	N1-C6-N6	5.78	122.07	118.60
36	5	1324	U	N3-C2-O2	-5.78	118.15	122.20
36	1	1144	U	N3-C4-O4	-5.78	115.35	119.40
36	5	808	A	N9-C4-C5	5.78	108.11	105.80
36	5	2928	C	C4-C5-C6	5.78	120.29	117.40
36	1	3228	C	C2-N1-C1'	5.78	125.16	118.80
36	1	2850	G	N9-C4-C5	-5.78	103.09	105.40
36	1	933	A	C6-N1-C2	-5.77	115.14	118.60
36	5	3188	G	C4-C5-N7	-5.77	108.49	110.80
36	1	1376	C	C5-C6-N1	-5.77	118.11	121.00
36	1	2124	G	N1-C6-O6	5.77	123.36	119.90
36	1	1341	U	O5'-P-OP2	-5.77	100.51	105.70
1	6	1424	A	C8-N9-C4	5.77	108.11	105.80
36	5	882	A	N1-C2-N3	5.77	132.19	129.30
37	7	37	G	C6-C5-N7	-5.77	126.94	130.40
36	1	2527	G	C4-N9-C1'	-5.77	119.00	126.50
36	5	1200	A	OP1-P-O3'	5.77	117.89	105.20
36	5	2415	C	N3-C4-C5	5.77	124.21	121.90
1	2	1324	G	C8-N9-C1'	5.77	134.50	127.00
36	1	2816	G	C8-N9-C4	5.77	108.71	106.40
1	6	608	U	N3-C2-O2	-5.77	118.16	122.20
36	5	3313	U	O5'-P-OP2	-5.77	100.51	105.70
1	2	986	G	N3-C4-C5	-5.77	125.72	128.60
36	1	1411	C	OP1-P-O3'	5.77	117.89	105.20
37	3	90	U	O5'-P-OP2	-5.77	100.51	105.70
36	5	939	U	C5-C6-N1	-5.77	119.82	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1114	U	N3-C4-O4	-5.76	115.36	119.40
1	2	720	G	OP1-P-O3'	5.76	117.88	105.20
36	1	3362	A	C4-C5-N7	5.76	113.58	110.70
36	1	3208	G	N9-C4-C5	5.76	107.70	105.40
36	5	2156	C	N3-C4-C5	5.76	124.20	121.90
36	5	789	A	O5'-P-OP2	-5.76	100.52	105.70
36	5	2623	G	C5-C6-O6	-5.76	125.14	128.60
1	2	1033	C	N3-C2-O2	-5.76	117.87	121.90
36	1	2296	A	C8-N9-C4	5.76	108.10	105.80
36	1	1157	G	N1-C2-N3	5.75	127.35	123.90
1	6	158	U	P-O3'-C3'	5.75	126.61	119.70
36	1	2651	G	C4-C5-N7	-5.75	108.50	110.80
36	5	658	G	C8-N9-C4	-5.75	104.10	106.40
36	5	1495	U	C2-N1-C1'	5.75	124.60	117.70
36	5	1878	G	C4-N9-C1'	5.75	133.98	126.50
36	5	2850	G	N9-C4-C5	-5.75	103.10	105.40
36	5	3216	G	O5'-P-OP2	-5.75	100.52	105.70
36	1	18	G	C5-C6-O6	-5.75	125.15	128.60
36	1	1156	C	N1-C2-N3	5.75	123.23	119.20
1	6	1796	C	C5-C6-N1	-5.75	118.12	121.00
1	2	1291	G	C2-N3-C4	-5.75	109.03	111.90
36	1	586	C	N3-C2-O2	5.75	125.92	121.90
36	1	1163	A	OP1-P-OP2	5.75	128.22	119.60
36	5	1869	C	C2-N1-C1'	-5.75	112.48	118.80
36	1	3306	U	N1-C2-O2	5.74	126.82	122.80
36	5	33	G	C8-N9-C4	-5.74	104.10	106.40
36	5	423	A	C4-C5-C6	5.74	119.87	117.00
36	5	1379	G	C8-N9-C4	5.74	108.70	106.40
37	7	9	C	C2-N1-C1'	-5.74	112.48	118.80
36	1	2760	C	N1-C2-O2	-5.74	115.45	118.90
36	5	963	G	N1-C6-O6	-5.74	116.45	119.90
36	5	997	A	C8-N9-C4	-5.74	103.50	105.80
57	n1	136	ARG	NE-CZ-NH2	-5.74	117.43	120.30
36	1	1346	G	N3-C4-C5	5.74	131.47	128.60
36	1	2381	G	N3-C4-C5	-5.74	125.73	128.60
1	6	631	G	C6-C5-N7	-5.74	126.96	130.40
36	5	2699	G	N9-C4-C5	-5.74	103.10	105.40
37	7	92	A	N9-C4-C5	-5.74	103.50	105.80
1	2	913	G	P-O3'-C3'	5.74	126.58	119.70
36	1	651	G	O5'-P-OP2	-5.74	100.53	105.70
1	6	1030	A	C8-N9-C4	5.74	108.09	105.80
36	5	106	A	C8-N9-C4	5.74	108.09	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2246	G	C8-N9-C4	-5.74	104.11	106.40
36	5	969	C	C2-N1-C1'	-5.74	112.49	118.80
36	5	2120	A	N1-C6-N6	-5.74	115.16	118.60
36	5	2584	G	C5-C6-O6	-5.74	125.16	128.60
36	1	637	C	C6-N1-C2	5.74	122.59	120.30
36	1	1310	G	N1-C6-O6	-5.74	116.46	119.90
38	4	32	C	C2-N1-C1'	-5.74	112.49	118.80
1	6	1027	A	C2-N3-C4	-5.74	107.73	110.60
36	5	676	G	C8-N9-C4	-5.74	104.11	106.40
36	5	3142	A	C5-C6-N6	-5.74	119.11	123.70
36	5	809	G	C5-C6-O6	-5.73	125.16	128.60
36	5	2524	A	N9-C1'-C2'	5.73	121.45	114.00
40	l3	102	LEU	CA-CB-CG	5.73	128.49	115.30
36	1	96	G	C2-N3-C4	-5.73	109.03	111.90
36	5	970	A	C5-C6-N6	-5.73	119.11	123.70
36	5	1368	U	N3-C4-O4	5.73	123.41	119.40
37	7	40	C	N3-C2-O2	5.73	125.91	121.90
36	1	59	G	C6-C5-N7	-5.73	126.96	130.40
1	6	1560	U	C2-N1-C1'	5.73	124.58	117.70
36	5	2617	U	N3-C4-C5	-5.73	111.16	114.60
36	5	3004	C	N3-C4-N4	5.73	122.01	118.00
36	5	3140	G	C5-N7-C8	-5.73	101.43	104.30
63	n7	135	ARG	NE-CZ-NH2	5.73	123.17	120.30
36	5	981	U	C6-N1-C2	-5.73	117.56	121.00
36	1	2857	C	C6-N1-C2	-5.73	118.01	120.30
36	1	3268	A	N1-C6-N6	5.73	122.04	118.60
36	1	2376	G	C5-N7-C8	-5.73	101.44	104.30
36	5	1846	C	C5-C6-N1	-5.73	118.14	121.00
36	5	2957	G	C8-N9-C4	5.73	108.69	106.40
36	1	1397	C	N1-C2-O2	-5.72	115.47	118.90
36	5	835	G	O4'-C1'-N9	5.72	112.78	108.20
36	5	3101	G	N1-C2-N3	5.72	127.33	123.90
36	5	522	A	C5-C6-N6	-5.72	119.12	123.70
36	5	1336	U	O5'-P-OP2	-5.72	100.55	105.70
36	5	1507	G	N3-C4-N9	5.72	129.43	126.00
36	5	2531	C	N1-C2-O2	5.72	122.33	118.90
1	6	687	G	C4-N9-C1'	-5.72	119.06	126.50
36	5	96	G	N3-C4-C5	5.72	131.46	128.60
36	5	2358	A	C8-N9-C4	5.72	108.09	105.80
37	7	79	A	C4-C5-N7	5.72	113.56	110.70
36	1	515	C	O5'-P-OP2	-5.72	100.55	105.70
41	L4	198	ARG	NE-CZ-NH2	-5.72	117.44	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1239	C	C2-N1-C1'	5.72	125.09	118.80
76	q0	102	ARG	NE-CZ-NH1	-5.72	117.44	120.30
36	1	1116	G	C4-C5-C6	5.72	122.23	118.80
36	5	48	A	N1-C6-N6	-5.72	115.17	118.60
36	5	2383	C	C4-C5-C6	5.72	120.26	117.40
1	2	992	A	N3-C4-C5	5.72	130.80	126.80
1	2	1594	G	C5-C6-O6	-5.72	125.17	128.60
36	5	906	A	C6-N1-C2	-5.72	115.17	118.60
36	5	1146	C	N3-C2-O2	5.72	125.90	121.90
36	5	2869	U	N1-C2-N3	5.72	118.33	114.90
36	1	1516	C	N1-C2-O2	-5.71	115.47	118.90
36	1	2777	G	C8-N9-C4	-5.71	104.11	106.40
38	4	133	G	C8-N9-C4	5.71	108.69	106.40
1	6	1010	C	C6-N1-C2	-5.71	118.01	120.30
36	5	2309	A	C5-C6-N6	5.71	128.27	123.70
36	1	658	G	C8-N9-C1'	-5.71	119.57	127.00
36	1	807	A	C2-N3-C4	-5.71	107.74	110.60
36	1	895	A	C6-C5-N7	-5.71	128.30	132.30
36	1	2585	G	C2-N3-C4	5.71	114.76	111.90
36	1	2679	A	C2-N3-C4	-5.71	107.74	110.60
36	5	209	A	C5-C6-N6	-5.71	119.13	123.70
36	5	2288	G	C5-C6-O6	-5.71	125.17	128.60
36	1	1555	U	C2-N1-C1'	-5.71	110.85	117.70
36	1	3177	G	N1-C6-O6	5.71	123.33	119.90
36	5	1147	G	N3-C2-N2	-5.71	115.90	119.90
36	1	282	G	N3-C4-C5	-5.71	125.75	128.60
36	1	794	U	O5'-P-OP2	-5.71	100.56	105.70
36	1	2391	G	N1-C6-O6	-5.71	116.47	119.90
1	6	1736	G	N1-C2-N2	5.71	121.34	116.20
36	1	700	C	N3-C4-C5	-5.71	119.62	121.90
21	c9	57	ARG	NE-CZ-NH2	-5.71	117.45	120.30
36	5	1192	C	C2-N1-C1'	5.71	125.08	118.80
36	5	1617	G	N1-C6-O6	5.71	123.32	119.90
36	1	2194	G	C4-C5-N7	5.71	113.08	110.80
36	1	2403	G	O5'-P-OP1	5.71	117.55	110.70
36	1	27	C	O5'-P-OP1	-5.70	100.57	105.70
36	1	1192	C	C2-N3-C4	5.70	122.75	119.90
38	4	34	U	C5-C4-O4	-5.70	122.48	125.90
38	4	100	U	C6-N1-C1'	-5.70	113.21	121.20
36	5	913	A	N1-C6-N6	-5.70	115.18	118.60
36	5	989	A	C5-C6-N6	-5.70	119.14	123.70
36	5	2993	G	C5-C6-O6	-5.70	125.18	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1016	C	C5-C6-N1	5.70	123.85	121.00
36	5	2366	C	N3-C4-N4	5.70	121.99	118.00
1	2	1659	A	N7-C8-N9	5.70	116.65	113.80
36	5	882	A	C6-N1-C2	-5.70	115.18	118.60
1	2	685	A	P-O3'-C3'	5.70	126.54	119.70
36	1	1176	C	C5-C4-N4	-5.70	116.21	120.20
36	1	1346	G	O5'-P-OP2	-5.70	100.57	105.70
36	1	1906	G	C6-C5-N7	-5.70	126.98	130.40
36	5	1444	G	C4-C5-N7	5.70	113.08	110.80
36	5	2325	G	C2-N3-C4	-5.70	109.05	111.90
36	5	3026	G	C5-C6-O6	-5.70	125.18	128.60
36	1	655	C	N1-C2-N3	5.70	123.19	119.20
36	1	2198	A	N9-C4-C5	5.70	108.08	105.80
36	1	2777	G	O5'-P-OP2	-5.70	100.57	105.70
36	5	287	G	C8-N9-C4	-5.70	104.12	106.40
36	1	1154	A	C8-N9-C4	-5.70	103.52	105.80
36	1	2294	U	N1-C2-N3	5.70	118.32	114.90
36	1	2572	C	N3-C2-O2	-5.70	117.91	121.90
36	1	2725	U	N3-C2-O2	-5.70	118.21	122.20
1	6	565	C	C5-C6-N1	-5.70	118.15	121.00
36	5	1368	U	C5-C4-O4	-5.70	122.48	125.90
36	5	2757	U	N1-C2-N3	5.70	118.32	114.90
36	5	2818	U	P-O3'-C3'	5.70	126.53	119.70
36	5	3140	G	C6-C5-N7	-5.70	126.98	130.40
36	1	716	A	O4'-C1'-N9	-5.69	103.64	108.20
36	5	421	G	C8-N9-C4	5.69	108.68	106.40
36	5	3285	C	N1-C2-O2	5.69	122.32	118.90
37	7	77	G	C6-C5-N7	-5.69	126.98	130.40
36	1	2413	A	C5-C6-N1	5.69	120.55	117.70
36	1	2550	U	N3-C2-O2	-5.69	118.22	122.20
36	5	323	A	C8-N9-C4	-5.69	103.52	105.80
36	5	1888	U	N1-C2-O2	-5.69	118.81	122.80
37	3	81	U	C5-C6-N1	-5.69	119.85	122.70
36	1	1269	U	N3-C2-O2	-5.69	118.22	122.20
36	5	97	U	N1-C2-N3	-5.69	111.49	114.90
36	5	659	G	C2-N3-C4	5.69	114.74	111.90
36	5	1443	G	C8-N9-C1'	-5.69	119.61	127.00
37	3	39	C	N1-C2-O2	5.69	122.31	118.90
68	O2	19	ARG	NE-CZ-NH1	-5.69	117.46	120.30
36	5	199	A	N1-C6-N6	-5.69	115.19	118.60
36	5	1379	G	N1-C2-N2	-5.69	111.08	116.20
36	1	1838	G	N9-C4-C5	-5.68	103.13	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	364	G	N3-C4-N9	5.68	129.41	126.00
1	6	1073	G	C4-N9-C1'	-5.68	119.11	126.50
1	2	1241	G	N7-C8-N9	5.68	115.94	113.10
36	1	1510	G	C4-C5-N7	5.68	113.07	110.80
36	1	2969	A	N1-C6-N6	5.68	122.01	118.60
1	2	61	A	C5-N7-C8	-5.68	101.06	103.90
36	1	1366	A	N1-C2-N3	-5.68	126.46	129.30
36	1	1443	G	C8-N9-C4	-5.68	104.13	106.40
36	5	971	G	N7-C8-N9	-5.68	110.26	113.10
36	5	2192	C	N3-C4-C5	-5.68	119.63	121.90
36	5	2239	G	N1-C6-O6	-5.68	116.49	119.90
36	5	1372	C	C5-C6-N1	-5.68	118.16	121.00
44	17	232	ARG	NE-CZ-NH1	-5.68	117.46	120.30
1	6	609	U	N3-C2-O2	-5.68	118.23	122.20
1	6	864	U	O4'-C1'-N1	5.68	112.74	108.20
36	5	640	U	C5-C4-O4	-5.68	122.49	125.90
36	1	2811	A	C8-N9-C4	-5.67	103.53	105.80
36	5	1863	G	N1-C6-O6	-5.67	116.50	119.90
36	5	2715	A	C8-N9-C4	-5.67	103.53	105.80
36	1	1097	G	P-O3'-C3'	5.67	126.51	119.70
36	5	1608	C	N1-C2-O2	5.67	122.30	118.90
36	1	857	G	C5-C6-N1	-5.67	108.66	111.50
36	1	2526	C	C6-N1-C2	-5.67	118.03	120.30
37	7	92	A	C8-N9-C4	5.67	108.07	105.80
38	8	14	C	N3-C4-C5	-5.67	119.63	121.90
1	2	1241	G	C5-C6-O6	-5.67	125.20	128.60
36	1	372	A	O5'-P-OP2	-5.67	100.60	105.70
36	5	264	G	N3-C4-N9	5.67	129.40	126.00
36	5	1496	C	C5-C6-N1	5.67	123.83	121.00
36	5	3137	C	N3-C4-N4	-5.67	114.03	118.00
36	1	1153	A	C6-C5-N7	-5.67	128.33	132.30
1	6	1539	G	O4'-C1'-N9	-5.67	103.67	108.20
36	5	892	U	N3-C4-O4	-5.67	115.43	119.40
36	1	1279	C	C6-N1-C2	-5.67	118.03	120.30
36	1	3188	G	C4-C5-N7	5.67	113.07	110.80
36	5	36	C	OP2-P-O3'	5.67	117.67	105.20
36	1	1376	C	C4-C5-C6	5.67	120.23	117.40
36	5	636	C	OP1-P-O3'	5.67	117.66	105.20
36	5	1924	U	C5-C6-N1	-5.67	119.87	122.70
36	5	2332	A	N1-C6-N6	5.67	122.00	118.60
36	5	3107	U	N1-C2-N3	5.67	118.30	114.90
1	6	1596	C	N1-C2-O2	5.66	122.30	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1634	C	C6-N1-C1'	-5.66	114.00	120.80
36	1	800	G	N3-C4-C5	-5.66	125.77	128.60
36	5	1460	A	O5'-P-OP2	-5.66	100.60	105.70
36	5	3197	G	N3-C2-N2	-5.66	115.94	119.90
1	2	1389	C	C2-N1-C1'	5.66	125.03	118.80
36	1	53	G	O5'-P-OP2	-5.66	100.61	105.70
36	1	651	G	C8-N9-C1'	-5.66	119.64	127.00
36	5	1129	A	O5'-P-OP1	5.66	117.49	110.70
36	1	2901	G	N1-C6-O6	5.66	123.30	119.90
38	8	39	G	C6-C5-N7	-5.66	127.00	130.40
36	1	1083	G	N3-C4-N9	5.66	129.39	126.00
36	1	2726	C	N3-C2-O2	-5.66	117.94	121.90
36	1	3079	U	N1-C2-O2	-5.66	118.84	122.80
36	1	3208	G	C6-C5-N7	5.66	133.79	130.40
36	5	521	A	C2-N3-C4	-5.66	107.77	110.60
36	5	2144	A	O4'-C1'-N9	5.66	112.72	108.20
37	7	1	G	C6-C5-N7	-5.66	127.01	130.40
36	1	2635	A	O5'-P-OP2	-5.65	100.61	105.70
36	5	980	A	C2-N3-C4	5.65	113.43	110.60
36	5	1892	G	O5'-P-OP2	-5.65	100.61	105.70
36	5	2849	C	N3-C4-C5	-5.65	119.64	121.90
1	6	1274	C	C5-C6-N1	5.65	123.83	121.00
36	5	1222	G	C8-N9-C1'	-5.65	119.65	127.00
36	1	715	A	O4'-C1'-N9	5.65	112.72	108.20
1	6	687	G	N1-C2-N2	5.65	121.28	116.20
36	5	1789	G	C4-N9-C1'	-5.65	119.15	126.50
36	5	3081	C	N3-C4-N4	-5.65	114.04	118.00
36	1	281	G	N3-C4-N9	5.65	129.39	126.00
36	1	574	U	C6-N1-C2	5.65	124.39	121.00
36	1	650	C	OP2-P-O3'	5.65	117.62	105.20
38	4	125	U	C6-N1-C1'	-5.65	113.29	121.20
1	6	564	G	N3-C4-N9	-5.65	122.61	126.00
36	1	1000	C	C6-N1-C1'	-5.64	114.03	120.80
36	1	1911	A	C5-C6-N6	-5.64	119.18	123.70
36	1	1926	C	N3-C4-C5	5.64	124.16	121.90
36	1	3344	A	N1-C6-N6	5.64	121.99	118.60
40	L3	102	LEU	CA-CB-CG	5.64	128.28	115.30
36	5	1306	G	N1-C2-N3	5.64	127.29	123.90
36	5	1390	A	C8-N9-C4	-5.64	103.54	105.80
1	2	946	U	N1-C2-O2	5.64	126.75	122.80
38	4	4	C	C6-N1-C2	5.64	122.56	120.30
1	6	1600	A	N9-C1'-C2'	5.64	121.33	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	661	G	N3-C2-N2	5.64	123.85	119.90
36	5	2848	G	C4-C5-N7	5.64	113.06	110.80
36	1	1891	A	N9-C4-C5	-5.64	103.54	105.80
36	1	2850	G	C5-C6-O6	-5.64	125.22	128.60
36	1	2967	A	C8-N9-C4	5.64	108.06	105.80
36	5	1180	A	O4'-C1'-N9	-5.64	103.69	108.20
36	5	2961	G	C8-N9-C4	-5.64	104.14	106.40
1	6	1514	U	N3-C4-O4	-5.64	115.45	119.40
36	5	96	G	O5'-P-OP2	-5.64	100.62	105.70
36	5	2263	C	C5-C6-N1	5.64	123.82	121.00
36	5	2361	A	OP2-P-O3'	5.64	117.61	105.20
37	7	101	G	C5-C6-O6	-5.64	125.22	128.60
36	5	1014	U	C2-N1-C1'	5.64	124.47	117.70
36	1	2653	C	N3-C2-O2	-5.64	117.95	121.90
36	5	1519	G	C8-N9-C4	-5.64	104.14	106.40
36	1	60	A	C8-N9-C4	5.63	108.05	105.80
36	1	969	C	N1-C2-O2	-5.63	115.52	118.90
36	1	1541	G	C4-C5-N7	5.63	113.05	110.80
1	6	323	A	C8-N9-C4	-5.63	103.55	105.80
1	6	1640	C	C5-C4-N4	-5.63	116.26	120.20
36	5	886	C	N3-C2-O2	5.63	125.84	121.90
38	8	103	G	N9-C4-C5	-5.63	103.15	105.40
36	5	2820	A	C2-N3-C4	5.63	113.42	110.60
36	1	1430	U	N1-C2-N3	5.63	118.28	114.90
36	5	287	G	O5'-P-OP1	-5.63	100.63	105.70
36	5	306	A	N9-C4-C5	-5.63	103.55	105.80
36	5	881	C	C2-N1-C1'	5.63	125.00	118.80
36	1	2946	A	C8-N9-C4	5.63	108.05	105.80
1	6	1614	A	O4'-C1'-N9	5.63	112.70	108.20
36	1	2410	U	N3-C2-O2	5.63	126.14	122.20
36	1	2425	G	C5-C6-O6	-5.63	125.22	128.60
36	5	101	G	O4'-C1'-N9	5.63	112.70	108.20
36	5	330	G	O5'-P-OP1	-5.63	100.63	105.70
37	7	44	C	OP2-P-O3'	5.63	117.58	105.20
36	1	1053	A	C8-N9-C4	5.63	108.05	105.80
36	1	2375	G	C2-N3-C4	-5.63	109.09	111.90
36	5	1914	G	N1-C6-O6	-5.63	116.53	119.90
36	5	2774	C	C4-C5-C6	5.63	120.21	117.40
36	5	2927	C	C5-C6-N1	-5.63	118.19	121.00
36	5	2936	A	C2-N3-C4	5.63	113.41	110.60
36	5	1129	A	N1-C6-N6	5.62	121.97	118.60
36	1	2827	U	C2-N1-C1'	-5.62	110.95	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	43	A	N9-C4-C5	-5.62	103.55	105.80
1	6	425	A	OP2-P-O3'	5.62	117.57	105.20
1	2	1389	C	N1-C2-O2	5.62	122.27	118.90
36	1	39	A	C4-C5-N7	5.62	113.51	110.70
36	1	81	C	C6-N1-C2	5.62	122.55	120.30
36	1	2958	A	N1-C6-N6	5.62	121.97	118.60
1	6	1648	A	N1-C6-N6	5.62	121.97	118.60
36	5	83	U	OP1-P-OP2	5.62	128.03	119.60
36	5	3000	A	C2-N3-C4	-5.62	107.79	110.60
1	2	334	G	C2-N3-C4	-5.62	109.09	111.90
36	5	739	G	N1-C6-O6	-5.62	116.53	119.90
36	5	2832	C	C6-N1-C2	5.62	122.55	120.30
1	2	532	U	C6-N1-C2	-5.62	117.63	121.00
1	2	736	C	C2-N1-C1'	5.62	124.98	118.80
36	1	2624	G	C4-C5-N7	5.62	113.05	110.80
36	1	2773	C	O5'-P-OP2	-5.62	100.64	105.70
36	1	2725	U	N1-C2-O2	5.62	126.73	122.80
1	2	1596	C	N3-C2-O2	-5.62	117.97	121.90
36	1	1487	G	N9-C4-C5	5.62	107.65	105.40
36	5	3115	C	C6-N1-C1'	5.62	127.54	120.80
36	1	883	A	N1-C2-N3	5.61	132.11	129.30
36	1	1604	G	N3-C4-C5	-5.61	125.79	128.60
36	1	2197	C	N1-C2-N3	-5.61	115.27	119.20
1	6	646	C	C6-N1-C2	-5.61	118.06	120.30
36	5	57	A	N1-C6-N6	5.61	121.97	118.60
36	5	273	A	C8-N9-C4	5.61	108.05	105.80
36	5	2315	G	O5'-P-OP1	-5.61	100.65	105.70
36	5	2526	C	C2-N1-C1'	5.61	124.97	118.80
1	6	1039	A	O4'-C1'-N9	5.61	112.69	108.20
36	5	992	A	C2-N3-C4	-5.61	107.79	110.60
36	1	1156	C	C2-N3-C4	-5.61	117.09	119.90
1	6	425	A	C4-C5-C6	-5.61	114.19	117.00
1	6	1745	G	C5-C6-O6	-5.61	125.23	128.60
36	5	1047	A	C5-C6-N6	-5.61	119.21	123.70
36	5	2373	A	OP1-P-OP2	-5.61	111.19	119.60
36	5	3382	U	C2-N1-C1'	5.61	124.43	117.70
36	1	1127	G	C4-C5-N7	5.61	113.04	110.80
36	1	2572	C	C6-N1-C2	-5.61	118.06	120.30
37	7	49	G	O4'-C1'-N9	5.61	112.68	108.20
36	1	285	A	OP1-P-O3'	5.60	117.53	105.20
36	1	326	U	O5'-P-OP2	-5.60	100.66	105.70
36	1	1900	A	N1-C6-N6	-5.60	115.24	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1413	G	N1-C6-O6	5.60	123.26	119.90
36	1	40	A	C4-C5-C6	5.60	119.80	117.00
36	1	100	A	N1-C2-N3	5.60	132.10	129.30
36	5	394	G	C8-N9-C4	5.60	108.64	106.40
1	6	92	A	C8-N9-C4	5.60	108.04	105.80
1	6	1347	U	N1-C2-N3	5.60	118.26	114.90
36	5	588	G	N1-C6-O6	5.60	123.26	119.90
36	1	701	G	N3-C2-N2	-5.60	115.98	119.90
1	6	1473	U	N3-C2-O2	-5.60	118.28	122.20
36	5	683	U	N3-C4-C5	-5.60	111.24	114.60
36	5	835	G	N1-C6-O6	-5.60	116.54	119.90
36	5	1057	A	N9-C4-C5	-5.60	103.56	105.80
36	5	2152	A	C6-C5-N7	-5.60	128.38	132.30
36	1	2796	G	C5-N7-C8	-5.60	101.50	104.30
37	7	97	A	N1-C6-N6	5.60	121.96	118.60
1	2	428	A	C8-N9-C4	-5.59	103.56	105.80
36	1	1144	U	C5-C6-N1	-5.59	119.90	122.70
36	5	1599	G	C8-N9-C4	5.59	108.64	106.40
36	1	2352	A	N1-C6-N6	5.59	121.96	118.60
41	L4	206	LEU	CA-CB-CG	5.59	128.16	115.30
1	2	348	U	O5'-P-OP2	-5.59	100.67	105.70
1	2	368	U	C5-C4-O4	-5.59	122.55	125.90
36	1	2662	G	C6-C5-N7	-5.59	127.05	130.40
36	5	637	C	N1-C2-O2	-5.59	115.55	118.90
36	5	3218	A	C5-N7-C8	-5.59	101.11	103.90
36	5	3362	A	N7-C8-N9	5.59	116.60	113.80
1	2	1276	U	C5-C4-O4	-5.59	122.55	125.90
36	1	1155	C	N3-C4-C5	5.59	124.14	121.90
36	1	2827	U	N1-C2-N3	5.59	118.25	114.90
1	6	557	G	N1-C6-O6	-5.59	116.55	119.90
36	5	2897	A	C6-N1-C2	-5.59	115.25	118.60
36	1	961	C	N3-C4-N4	5.59	121.91	118.00
12	c0	97	PRO	N-CA-CB	5.59	110.00	103.30
36	5	593	C	OP2-P-O3'	5.59	117.49	105.20
36	5	2878	G	C5-C6-N1	5.59	114.29	111.50
36	5	3317	U	C6-N1-C2	-5.59	117.65	121.00
36	5	2394	G	N9-C4-C5	-5.58	103.17	105.40
1	2	1027	A	C8-N9-C4	-5.58	103.57	105.80
36	1	346	C	C6-N1-C2	5.58	122.53	120.30
36	1	1000	C	C5-C4-N4	-5.58	116.29	120.20
36	1	2406	C	C5-C4-N4	-5.58	116.29	120.20
36	1	2617	U	N3-C4-C5	-5.58	111.25	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2868	U	C2-N1-C1'	5.58	124.40	117.70
36	1	3208	G	N3-C4-C5	5.58	131.39	128.60
38	4	95	G	N3-C4-C5	5.58	131.39	128.60
36	5	281	G	C5-C6-O6	-5.58	125.25	128.60
36	5	339	C	N1-C2-O2	-5.58	115.55	118.90
36	5	2860	U	C2-N3-C4	-5.58	123.65	127.00
36	5	2914	G	N1-C6-O6	5.58	123.25	119.90
1	2	421	A	N9-C4-C5	-5.58	103.57	105.80
36	1	1389	G	C5-N7-C8	-5.58	101.51	104.30
36	1	2126	A	N9-C4-C5	-5.58	103.57	105.80
36	1	2722	U	N1-C2-O2	5.58	126.71	122.80
41	L4	195	ARG	NE-CZ-NH2	-5.58	117.51	120.30
1	6	1113	A	N1-C2-N3	5.58	132.09	129.30
1	6	1764	C	C6-N1-C2	5.58	122.53	120.30
36	1	1502	C	C5-C6-N1	-5.58	118.21	121.00
36	1	1662	G	C6-C5-N7	-5.58	127.05	130.40
1	2	794	U	P-O3'-C3'	5.58	126.39	119.70
36	5	353	G	C8-N9-C1'	5.58	134.25	127.00
36	5	2856	G	C6-C5-N7	-5.58	127.05	130.40
1	2	734	A	P-O3'-C3'	5.58	126.39	119.70
1	2	1324	G	C4-N9-C1'	-5.58	119.25	126.50
36	1	315	C	C6-N1-C2	-5.58	118.07	120.30
38	4	34	U	N3-C2-O2	5.58	126.10	122.20
36	1	364	G	N1-C2-N2	5.58	121.22	116.20
36	1	1414	G	N1-C6-O6	5.58	123.25	119.90
1	6	543	C	C6-N1-C2	-5.58	118.07	120.30
36	5	699	A	C2-N3-C4	-5.58	107.81	110.60
36	5	945	C	N1-C2-O2	5.58	122.25	118.90
36	1	730	C	C5-C4-N4	-5.57	116.30	120.20
36	1	2139	A	N9-C4-C5	5.57	108.03	105.80
36	1	2738	A	N1-C6-N6	-5.57	115.26	118.60
36	5	1481	A	P-O3'-C3'	5.57	126.39	119.70
36	5	1506	A	C8-N9-C4	-5.57	103.57	105.80
36	5	1888	U	C5-C4-O4	-5.57	122.56	125.90
36	5	2281	A	O4'-C1'-N9	5.57	112.66	108.20
36	5	3340	G	N1-C6-O6	-5.57	116.56	119.90
1	2	187	G	OP1-P-O3'	5.57	117.46	105.20
36	1	314	U	N1-C2-O2	5.57	126.70	122.80
36	1	2425	G	C4-C5-N7	5.57	113.03	110.80
36	5	1481	A	C4-C5-C6	5.57	119.78	117.00
36	5	2129	U	N1-C2-O2	5.57	126.70	122.80
36	5	3306	U	C4-C5-C6	-5.57	116.36	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2970	C	N3-C4-C5	5.57	124.13	121.90
37	7	74	C	N3-C2-O2	5.57	125.80	121.90
1	2	73	U	OP1-P-O3'	5.57	117.45	105.20
36	1	972	A	C8-N9-C4	5.57	108.03	105.80
36	1	1904	C	C6-N1-C2	-5.57	118.07	120.30
36	5	355	A	C8-N9-C4	-5.57	103.57	105.80
36	5	921	A	OP2-P-O3'	5.57	117.45	105.20
36	1	86	G	O4'-C1'-N9	5.57	112.65	108.20
36	1	315	C	C5-C6-N1	5.57	123.78	121.00
36	1	2779	A	N1-C6-N6	5.57	121.94	118.60
36	5	3230	G	N1-C6-O6	-5.57	116.56	119.90
37	7	88	G	N1-C2-N2	-5.57	111.19	116.20
36	1	1200	A	N1-C2-N3	5.56	132.08	129.30
36	5	888	A	N1-C6-N6	5.56	121.94	118.60
36	5	2818	U	N1-C2-N3	-5.56	111.56	114.90
36	5	2945	G	N1-C6-O6	5.56	123.24	119.90
1	2	864	U	N3-C4-O4	-5.56	115.51	119.40
1	2	1051	G	P-O3'-C3'	5.56	126.37	119.70
36	1	648	C	C5-C4-N4	-5.56	116.31	120.20
36	1	927	C	N3-C4-C5	5.56	124.12	121.90
36	1	3137	C	C2-N1-C1'	-5.56	112.68	118.80
36	5	651	G	N7-C8-N9	5.56	115.88	113.10
36	1	2325	G	C4-C5-N7	5.56	113.02	110.80
36	5	580	C	C5-C6-N1	5.56	123.78	121.00
1	2	412	A	N1-C6-N6	5.56	121.94	118.60
36	1	765	C	N1-C2-O2	5.56	122.24	118.90
36	1	2930	A	C6-C5-N7	-5.56	128.41	132.30
36	1	2982	A	N9-C4-C5	-5.56	103.58	105.80
1	6	571	G	N3-C4-C5	-5.56	125.82	128.60
36	5	2631	U	N3-C2-O2	-5.56	118.31	122.20
36	5	2814	G	C5-C6-O6	5.56	131.94	128.60
37	7	8	G	C8-N9-C4	-5.56	104.18	106.40
1	2	782	U	OP2-P-O3'	5.56	117.42	105.20
36	1	496	C	C6-N1-C2	-5.56	118.08	120.30
36	1	2257	C	C2-N1-C1'	5.56	124.91	118.80
1	6	755	A	C3'-C2'-C1'	5.56	105.95	101.50
36	5	1476	G	N3-C4-N9	-5.56	122.67	126.00
36	1	2651	G	C5-C6-O6	5.56	131.93	128.60
38	4	32	C	C6-N1-C2	5.56	122.52	120.30
36	5	625	G	N1-C6-O6	5.56	123.23	119.90
36	1	584	G	N9-C4-C5	5.55	107.62	105.40
36	1	1385	C	N1-C2-O2	-5.55	115.57	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1927	G	C5-C6-O6	5.55	131.93	128.60
1	6	858	G	C8-N9-C1'	-5.55	119.78	127.00
36	1	1153	A	C4-C5-C6	5.55	119.78	117.00
36	1	1326	A	N7-C8-N9	-5.55	111.02	113.80
36	5	2550	U	N3-C2-O2	-5.55	118.31	122.20
1	2	1761	U	N3-C2-O2	-5.55	118.31	122.20
36	5	361	A	C8-N9-C4	5.55	108.02	105.80
36	5	630	A	C8-N9-C4	5.55	108.02	105.80
36	5	1367	G	N3-C2-N2	-5.55	116.01	119.90
36	5	2255	A	C4-C5-C6	-5.55	114.22	117.00
36	5	2325	G	C5-C6-N1	-5.55	108.72	111.50
36	1	9	U	C2-N1-C1'	-5.55	111.04	117.70
36	5	650	C	N3-C2-O2	5.55	125.78	121.90
1	2	440	U	C5-C6-N1	-5.55	119.93	122.70
36	5	1657	C	N3-C2-O2	-5.55	118.02	121.90
79	q3	29	LEU	CA-CB-CG	-5.55	102.54	115.30
36	1	919	U	N3-C2-O2	-5.55	118.32	122.20
36	1	1145	G	C4-C5-N7	5.55	113.02	110.80
36	1	3143	C	N1-C2-O2	-5.55	115.57	118.90
1	6	1141	G	C5-C6-O6	-5.55	125.27	128.60
36	5	2155	G	C4-N9-C1'	-5.55	119.29	126.50
36	1	652	G	C6-C5-N7	-5.54	127.07	130.40
1	2	1433	G	N3-C4-C5	-5.54	125.83	128.60
36	5	1902	G	C4-C5-N7	5.54	113.02	110.80
36	5	2149	A	C8-N9-C4	5.54	108.02	105.80
1	2	61	A	N7-C8-N9	5.54	116.57	113.80
37	3	115	G	O5'-P-OP2	-5.54	100.71	105.70
36	5	1438	U	C4-C5-C6	5.54	123.03	119.70
36	5	1519	G	C4-C5-N7	5.54	113.02	110.80
36	5	2245	C	N3-C4-C5	-5.54	119.68	121.90
36	5	2756	C	C6-N1-C2	5.54	122.52	120.30
1	2	447	U	N3-C4-C5	-5.54	111.28	114.60
36	1	2174	G	N1-C6-O6	5.54	123.22	119.90
36	1	2891	U	C5-C4-O4	-5.54	122.58	125.90
36	5	2614	G	C5-C6-O6	5.54	131.92	128.60
36	1	914	A	C5-N7-C8	5.54	106.67	103.90
36	1	2710	C	N3-C2-O2	5.54	125.78	121.90
59	N3	48	ARG	NE-CZ-NH2	-5.54	117.53	120.30
1	2	34	G	N1-C6-O6	-5.53	116.58	119.90
1	2	385	A	OP1-P-O3'	5.53	117.38	105.20
1	2	968	U	C5-C6-N1	-5.53	119.93	122.70
36	5	61	A	C8-N9-C4	-5.53	103.59	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	926	A	N1-C2-N3	5.53	132.07	129.30
36	5	1449	A	C2-N3-C4	-5.53	107.83	110.60
36	5	2973	G	C5-C6-O6	5.53	131.92	128.60
1	2	388	G	N1-C6-O6	5.53	123.22	119.90
36	1	2410	U	C5-C6-N1	-5.53	119.94	122.70
1	6	1126	G	N1-C6-O6	-5.53	116.58	119.90
36	5	264	G	C6-C5-N7	-5.53	127.08	130.40
36	1	1609	C	N1-C2-O2	-5.53	115.58	118.90
36	1	1780	G	N1-C6-O6	5.53	123.22	119.90
52	M6	110	PRO	C-N-CD	-5.53	108.44	120.60
36	5	1390	A	N9-C4-C5	5.53	108.01	105.80
36	1	718	G	C5-C6-O6	-5.53	125.28	128.60
36	1	1297	C	C2-N1-C1'	-5.53	112.72	118.80
36	5	2145	A	C4-C5-C6	5.53	119.76	117.00
36	5	2698	G	N9-C4-C5	-5.53	103.19	105.40
36	1	2281	A	O5'-P-OP2	-5.52	100.73	105.70
36	5	1200	A	P-O3'-C3'	5.52	126.33	119.70
36	1	394	G	N9-C4-C5	5.52	107.61	105.40
1	6	65	A	N1-C6-N6	5.52	121.91	118.60
36	5	2892	A	C2-N3-C4	-5.52	107.84	110.60
36	5	2902	A	O5'-P-OP2	-5.52	100.73	105.70
36	5	406	G	C6-N1-C2	-5.52	121.79	125.10
37	3	94	C	O5'-P-OP1	-5.52	100.73	105.70
36	5	641	C	OP2-P-O3'	5.52	117.34	105.20
36	5	2199	G	C5-C6-N1	-5.52	108.74	111.50
12	c0	88	PRO	N-CA-CB	5.52	109.92	103.30
36	5	1212	A	N1-C6-N6	5.52	121.91	118.60
36	1	27	C	OP1-P-OP2	5.51	127.87	119.60
36	1	2416	U	C6-N1-C2	-5.51	117.69	121.00
36	1	2659	G	C8-N9-C4	5.51	108.61	106.40
36	5	42	C	N3-C4-C5	5.51	124.11	121.90
36	1	1514	G	OP1-P-OP2	5.51	127.87	119.60
36	1	2356	A	C4-C5-N7	5.51	113.45	110.70
36	5	589	A	N7-C8-N9	-5.51	111.05	113.80
1	2	1124	A	C2-N3-C4	-5.51	107.85	110.60
36	1	3093	C	C2-N1-C1'	-5.51	112.74	118.80
36	5	927	C	C6-N1-C2	-5.51	118.10	120.30
36	1	1153	A	C2-N3-C4	-5.51	107.85	110.60
38	4	43	A	C8-N9-C4	5.51	108.00	105.80
36	5	1126	G	N1-C6-O6	5.51	123.20	119.90
36	1	96	G	N1-C6-O6	5.51	123.20	119.90
1	6	1656	U	O5'-P-OP1	5.51	117.31	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	896	A	C8-N9-C4	-5.51	103.60	105.80
36	5	1850	A	N1-C6-N6	-5.51	115.30	118.60
1	2	783	G	C4-C5-N7	5.50	113.00	110.80
36	5	2625	C	N3-C4-N4	5.50	121.85	118.00
36	1	24	G	N1-C2-N2	-5.50	111.25	116.20
1	6	1661	U	O5'-P-OP2	-5.50	100.75	105.70
36	5	2612	U	C5-C6-N1	-5.50	119.95	122.70
1	6	1027	A	N3-C4-C5	5.50	130.65	126.80
36	5	395	A	C6-C5-N7	-5.50	128.45	132.30
36	5	3045	G	N3-C2-N2	-5.50	116.05	119.90
36	1	655	C	N1-C2-O2	-5.50	115.60	118.90
36	5	2621	G	C4-C5-N7	5.50	113.00	110.80
36	1	989	A	C8-N9-C4	5.50	108.00	105.80
36	5	39	A	C2-N3-C4	-5.50	107.85	110.60
36	5	681	U	C2-N1-C1'	5.50	124.30	117.70
36	5	2161	G	N3-C2-N2	-5.50	116.05	119.90
36	1	104	G	C4-C5-N7	5.50	113.00	110.80
36	1	2198	A	N1-C2-N3	5.50	132.05	129.30
36	5	594	U	O5'-P-OP1	-5.50	100.75	105.70
36	5	1171	G	N1-C6-O6	-5.50	116.60	119.90
36	5	2865	U	N1-C2-N3	-5.50	111.60	114.90
36	1	2101	C	P-O3'-C3'	5.50	126.29	119.70
36	5	2900	A	C5-C6-N6	5.50	128.10	123.70
36	1	2279	A	C8-N9-C4	5.49	108.00	105.80
36	5	2130	G	C5-C6-O6	5.49	131.90	128.60
36	5	2421	U	C4-C5-C6	5.49	123.00	119.70
36	5	1419	A	N1-C6-N6	-5.49	115.31	118.60
36	1	131	C	C5-C6-N1	5.49	123.75	121.00
36	1	2309	A	N1-C6-N6	5.49	121.89	118.60
1	6	687	G	N3-C4-C5	5.49	131.34	128.60
1	6	1141	G	N1-C6-O6	5.49	123.19	119.90
1	6	1440	C	C6-N1-C2	-5.49	118.10	120.30
36	5	340	C	C5-C6-N1	-5.49	118.25	121.00
36	5	591	G	N9-C4-C5	-5.49	103.20	105.40
36	5	792	G	C8-N9-C4	5.49	108.60	106.40
36	5	2965	U	C5-C4-O4	-5.49	122.61	125.90
1	2	1779	U	N3-C2-O2	5.49	126.04	122.20
36	1	1296	C	C6-N1-C2	-5.49	118.10	120.30
36	1	1397	C	C6-N1-C2	5.49	122.50	120.30
36	1	1591	G	C5-C6-O6	-5.49	125.31	128.60
36	5	519	A	N1-C6-N6	5.49	121.89	118.60
36	5	1496	C	C5-C4-N4	-5.49	116.36	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1432	C	N1-C2-O2	5.49	122.19	118.90
36	5	2623	G	N9-C4-C5	-5.49	103.20	105.40
36	1	1331	U	N3-C2-O2	5.49	126.04	122.20
36	1	2434	U	C5-C4-O4	5.49	129.19	125.90
36	1	3133	C	N3-C4-N4	5.49	121.84	118.00
36	1	3188	G	N9-C4-C5	-5.49	103.20	105.40
41	L4	139	GLY	N-CA-C	-5.49	99.38	113.10
36	5	2353	G	N3-C2-N2	-5.48	116.06	119.90
36	5	2727	A	O5'-P-OP1	-5.48	100.77	105.70
36	5	3137	C	C2-N1-C1'	-5.48	112.77	118.80
79	q3	50	GLY	N-CA-C	-5.48	99.39	113.10
1	2	428	A	N1-C6-N6	-5.48	115.31	118.60
36	1	1405	U	N3-C4-C5	5.48	117.89	114.60
36	1	2620	G	N9-C1'-C2'	-5.48	105.97	112.00
36	1	2912	G	C8-N9-C4	5.48	108.59	106.40
1	6	687	G	C8-N9-C1'	5.48	134.13	127.00
36	5	1792	C	C4-C5-C6	5.48	120.14	117.40
36	5	3028	G	N3-C2-N2	5.48	123.74	119.90
1	2	610	G	C4-N9-C1'	5.48	133.62	126.50
36	1	2278	C	N1-C2-O2	5.48	122.19	118.90
36	1	2772	C	C3'-C2'-C1'	-5.48	97.12	101.50
1	6	66	U	P-O3'-C3'	5.48	126.28	119.70
36	5	1456	A	C8-N9-C4	5.48	107.99	105.80
1	2	358	U	N3-C2-O2	-5.48	118.36	122.20
36	1	1179	A	C5-C6-N6	-5.48	119.32	123.70
36	1	2764	C	C6-N1-C2	-5.48	118.11	120.30
1	6	1779	U	N1-C2-O2	5.48	126.64	122.80
36	1	45	A	OP1-P-OP2	-5.48	111.38	119.60
36	1	1392	G	N3-C4-C5	-5.48	125.86	128.60
36	1	2139	A	C5-C6-N1	5.48	120.44	117.70
36	5	91	G	C6-C5-N7	-5.48	127.11	130.40
36	5	3374	U	C5-C6-N1	-5.48	119.96	122.70
38	8	125	U	C2-N1-C1'	5.48	124.27	117.70
36	1	2121	G	N1-C2-N2	-5.48	111.27	116.20
36	5	2927	C	N1-C2-O2	-5.48	115.61	118.90
36	1	803	C	OP2-P-O3'	5.47	117.25	105.20
36	1	2302	G	C5-C6-O6	5.47	131.88	128.60
36	1	2815	G	C5-C6-O6	-5.47	125.31	128.60
36	5	884	A	C5-C6-N6	-5.47	119.32	123.70
36	5	1716	U	P-O3'-C3'	5.47	126.27	119.70
36	5	2407	C	O5'-P-OP2	-5.47	100.77	105.70
36	5	3137	C	N3-C4-C5	5.47	124.09	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3208	G	N3-C2-N2	-5.47	116.07	119.90
1	2	287	G	O4'-C1'-N9	5.47	112.58	108.20
36	1	439	C	C2-N1-C1'	5.47	124.82	118.80
36	1	2117	A	C6-N1-C2	-5.47	115.32	118.60
36	1	3362	A	C2-N3-C4	-5.47	107.86	110.60
47	M0	189	GLU	N-CA-C	5.47	125.78	111.00
1	6	1535	U	C2-N1-C1'	5.47	124.27	117.70
36	1	1306	G	N3-C4-N9	5.47	129.28	126.00
1	6	337	G	C4-N9-C1'	5.47	133.61	126.50
36	5	42	C	N1-C2-O2	5.47	122.18	118.90
36	1	901	G	C5-C6-N1	-5.47	108.77	111.50
36	1	2408	U	N3-C2-O2	-5.47	118.37	122.20
36	5	709	A	N9-C4-C5	-5.47	103.61	105.80
36	5	776	U	N3-C4-O4	-5.47	115.57	119.40
36	5	3245	A	C5-C6-N1	-5.47	114.97	117.70
1	2	499	U	P-O3'-C3'	5.47	126.26	119.70
36	1	1349	G	N3-C4-C5	-5.47	125.87	128.60
36	1	2637	A	O5'-P-OP1	-5.47	100.78	105.70
36	1	2796	G	C4-C5-N7	5.47	112.99	110.80
1	6	3	U	C6-N1-C2	5.47	124.28	121.00
36	5	1200	A	C5-C6-N6	-5.47	119.33	123.70
1	2	1432	U	C6-N1-C2	5.47	124.28	121.00
36	1	721	G	C5-N7-C8	-5.47	101.57	104.30
36	1	793	C	OP2-P-O3'	5.47	117.22	105.20
36	1	1101	G	C5-C6-O6	5.47	131.88	128.60
36	1	2983	C	N3-C4-N4	-5.47	114.17	118.00
36	1	3326	G	N7-C8-N9	-5.47	110.37	113.10
36	5	52	A	C6-N1-C2	5.47	121.88	118.60
1	2	694	U	N3-C2-O2	-5.46	118.37	122.20
36	1	640	U	N3-C4-O4	5.46	123.22	119.40
36	1	744	A	N7-C8-N9	-5.46	111.07	113.80
36	5	660	A	C5-C6-N6	5.46	128.07	123.70
36	5	2749	G	N1-C6-O6	-5.46	116.62	119.90
36	5	3339	A	C5-C6-N6	-5.46	119.33	123.70
36	5	2906	C	O5'-P-OP2	-5.46	100.78	105.70
36	1	1344	G	C8-N9-C4	5.46	108.58	106.40
1	6	1648	A	C5-C6-N6	-5.46	119.33	123.70
36	5	709	A	C8-N9-C4	5.46	107.98	105.80
36	5	1412	G	C8-N9-C4	-5.46	104.22	106.40
36	5	2974	U	N3-C2-O2	-5.46	118.38	122.20
36	1	25	U	N3-C4-C5	-5.46	111.32	114.60
36	1	3170	A	N1-C6-N6	5.46	121.88	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2231	C	C6-N1-C2	-5.46	118.12	120.30
1	2	1490	C	C6-N1-C2	-5.46	118.12	120.30
36	1	306	A	C8-N9-C4	5.46	107.98	105.80
36	1	1373	A	OP2-P-O3'	5.46	117.21	105.20
36	1	1606	U	C5-C6-N1	-5.46	119.97	122.70
36	1	2527	G	N3-C2-N2	-5.46	116.08	119.90
36	1	3180	A	N9-C4-C5	-5.46	103.62	105.80
1	6	578	U	C5-C6-N1	-5.46	119.97	122.70
1	6	910	C	C6-N1-C2	-5.46	118.12	120.30
36	5	182	U	C5-C6-N1	5.46	125.43	122.70
1	2	325	G	N3-C4-C5	5.46	131.33	128.60
1	2	1489	U	N3-C2-O2	-5.46	118.38	122.20
36	5	2273	G	C4-N9-C1'	-5.46	119.41	126.50
36	5	2689	A	C6-N1-C2	-5.46	115.33	118.60
36	1	659	G	N3-C2-N2	5.46	123.72	119.90
1	2	992	A	N3-C4-N9	-5.45	123.04	127.40
36	1	81	C	C5-C6-N1	-5.45	118.27	121.00
36	1	91	G	C4-C5-N7	5.45	112.98	110.80
1	6	541	A	P-O3'-C3'	-5.45	113.16	119.70
36	5	39	A	N1-C6-N6	5.45	121.87	118.60
36	5	1875	G	C6-C5-N7	5.45	133.67	130.40
36	5	3041	U	OP2-P-O3'	5.45	117.20	105.20
44	17	83	LEU	CA-CB-CG	5.45	127.84	115.30
1	6	1113	A	C2-N3-C4	-5.45	107.87	110.60
36	1	518	G	O4'-C1'-N9	5.45	112.56	108.20
36	1	1513	G	N3-C4-C5	-5.45	125.88	128.60
36	1	2688	U	C6-N1-C2	5.45	124.27	121.00
36	1	2869	U	O5'-P-OP2	5.45	117.24	110.70
36	5	2991	A	N1-C6-N6	-5.45	115.33	118.60
36	1	2912	G	C5-C6-N1	5.45	114.22	111.50
36	1	3179	U	N3-C4-C5	5.45	117.87	114.60
1	2	1324	G	N1-C2-N2	5.45	121.10	116.20
36	1	508	U	OP2-P-O3'	5.45	117.18	105.20
36	1	1904	C	N3-C4-N4	5.45	121.81	118.00
36	1	2880	U	C6-N1-C2	-5.45	117.73	121.00
36	1	3217	C	C6-N1-C1'	-5.45	114.27	120.80
36	1	3368	U	C2-N1-C1'	-5.45	111.17	117.70
36	5	1376	C	OP1-P-OP2	5.45	127.77	119.60
36	5	2132	C	C6-N1-C2	-5.45	118.12	120.30
36	5	1331	U	O5'-P-OP2	-5.44	100.80	105.70
1	6	1745	G	N9-C4-C5	-5.44	103.22	105.40
36	5	2862	U	OP2-P-O3'	5.44	117.17	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	14	339	LEU	CA-CB-CG	5.44	127.82	115.30
36	1	870	G	C5-C6-O6	5.44	131.86	128.60
36	1	1199	C	N3-C4-N4	-5.44	114.19	118.00
1	6	27	U	N3-C2-O2	-5.44	118.39	122.20
36	5	1139	G	C8-N9-C4	5.44	108.58	106.40
36	5	1449	A	C6-C5-N7	-5.44	128.49	132.30
62	n6	76	LEU	CA-CB-CG	5.44	127.81	115.30
1	2	1745	G	C6-N1-C2	-5.44	121.84	125.10
36	1	787	G	N1-C6-O6	-5.44	116.64	119.90
36	1	679	U	OP1-P-O3'	5.44	117.16	105.20
36	1	1306	G	N9-C4-C5	-5.44	103.22	105.40
1	6	1027	A	C5-N7-C8	-5.44	101.18	103.90
1	6	1560	U	O4'-C1'-N1	5.44	112.55	108.20
51	m5	187	ARG	NE-CZ-NH1	-5.44	117.58	120.30
1	2	1180	C	N1-C2-O2	5.44	122.16	118.90
36	1	281	G	C6-N1-C2	-5.44	121.84	125.10
36	1	672	A	C4-C5-N7	5.44	113.42	110.70
36	1	1379	G	N1-C2-N3	5.44	127.16	123.90
1	6	1651	A	C8-N9-C4	-5.44	103.62	105.80
36	5	3143	C	C5-C4-N4	-5.44	116.39	120.20
36	1	314	U	N3-C2-O2	-5.43	118.40	122.20
36	1	371	G	N1-C6-O6	5.43	123.16	119.90
36	1	851	C	C2-N1-C1'	5.43	124.78	118.80
36	1	2810	C	C6-N1-C2	5.43	122.47	120.30
1	6	782	U	C2-N1-C1'	5.43	124.22	117.70
36	5	712	G	O5'-P-OP2	-5.43	100.81	105.70
36	5	1141	C	C2-N3-C4	-5.43	117.18	119.90
36	5	2910	A	C8-N9-C4	-5.43	103.63	105.80
36	1	1395	G	N9-C4-C5	-5.43	103.23	105.40
36	1	1491	A	N1-C6-N6	5.43	121.86	118.60
36	1	2617	U	N3-C4-O4	-5.43	115.60	119.40
38	4	103	G	C5-C6-N1	5.43	114.22	111.50
1	6	89	G	N1-C6-O6	5.43	123.16	119.90
36	5	2155	G	N3-C4-C5	5.43	131.32	128.60
36	5	2204	C	N3-C4-N4	-5.43	114.20	118.00
1	6	1138	A	O5'-P-OP2	-5.43	100.81	105.70
36	5	2211	U	C5-C6-N1	-5.43	119.98	122.70
24	D2	93	LEU	CA-CB-CG	5.43	127.79	115.30
36	1	1213	G	C5-C6-O6	-5.43	125.34	128.60
1	6	542	A	P-O3'-C3'	5.43	126.22	119.70
36	5	220	G	O5'-P-OP2	-5.43	100.81	105.70
36	5	2764	C	N3-C4-C5	5.43	124.07	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	221	A	N1-C6-N6	-5.43	115.34	118.60
36	1	1793	C	O5'-P-OP1	-5.43	100.81	105.70
1	6	1119	G	N1-C6-O6	-5.43	116.64	119.90
1	6	1654	G	O5'-P-OP2	-5.43	100.81	105.70
38	8	109	A	C5-C6-N1	5.43	120.41	117.70
36	1	1331	U	O4'-C1'-N1	-5.43	103.86	108.20
36	1	1351	U	N1-C2-O2	5.43	126.60	122.80
36	1	1887	A	C8-N9-C4	5.43	107.97	105.80
1	6	1120	U	OP2-P-O3'	5.43	117.14	105.20
36	5	660	A	OP1-P-O3'	5.43	117.14	105.20
36	5	1461	A	O5'-P-OP2	-5.43	100.82	105.70
36	5	2993	G	C5-C6-N1	5.43	114.21	111.50
36	1	1395	G	OP2-P-O3'	5.42	117.14	105.20
36	5	2751	G	C8-N9-C4	-5.42	104.23	106.40
36	1	633	C	C4-C5-C6	5.42	120.11	117.40
36	1	1481	A	C6-C5-N7	-5.42	128.50	132.30
36	1	2175	U	N1-C2-N3	5.42	118.15	114.90
36	1	2795	U	O5'-P-OP1	-5.42	100.82	105.70
36	5	1413	G	C5-C6-O6	-5.42	125.35	128.60
37	7	92	A	N1-C6-N6	5.42	121.85	118.60
37	7	101	G	C4-C5-C6	5.42	122.05	118.80
1	2	321	C	O4'-C1'-N1	5.42	112.54	108.20
36	1	860	G	N1-C6-O6	5.42	123.15	119.90
36	1	2327	U	N3-C2-O2	5.42	126.00	122.20
36	1	3079	U	C6-N1-C1'	5.42	128.79	121.20
36	5	609	G	N3-C2-N2	-5.42	116.11	119.90
36	1	2634	U	C2-N3-C4	-5.42	123.75	127.00
36	5	589	A	C8-N9-C4	5.42	107.97	105.80
36	5	1098	A	N1-C6-N6	5.42	121.85	118.60
1	2	1274	C	N3-C4-N4	-5.42	114.21	118.00
1	2	1779	U	N1-C2-O2	-5.42	119.01	122.80
36	1	3137	C	N1-C2-O2	-5.42	115.65	118.90
36	1	3202	G	C8-N9-C4	5.42	108.57	106.40
36	5	2362	C	C4-C5-C6	-5.42	114.69	117.40
1	2	608	U	N1-C2-N3	5.42	118.15	114.90
36	1	1148	G	N9-C4-C5	-5.42	103.23	105.40
36	1	1352	A	P-O3'-C3'	5.42	126.20	119.70
1	6	383	G	C8-N9-C4	-5.42	104.23	106.40
36	5	639	G	N3-C2-N2	-5.42	116.11	119.90
36	1	2632	G	OP1-P-O3'	5.42	117.11	105.20
36	5	2334	U	C5-C4-O4	-5.42	122.65	125.90
36	5	2992	U	N3-C4-O4	5.42	123.19	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3216	G	C5-C6-O6	-5.42	125.35	128.60
1	2	1652	C	C4-C5-C6	-5.41	114.69	117.40
36	1	2527	G	C8-N9-C1'	5.41	134.04	127.00
1	6	402	C	O5'-P-OP2	-5.41	100.83	105.70
36	5	665	A	N1-C6-N6	5.41	121.85	118.60
36	5	2413	A	N1-C6-N6	5.41	121.85	118.60
36	1	1115	G	N1-C6-O6	5.41	123.15	119.90
36	1	1365	G	N7-C8-N9	5.41	115.81	113.10
36	1	2175	U	C5-C4-O4	5.41	129.15	125.90
1	6	609	U	C2-N3-C4	-5.41	123.75	127.00
1	6	1724	U	N3-C4-O4	-5.41	115.61	119.40
36	5	1184	A	N9-C4-C5	5.41	107.97	105.80
1	2	75	U	O5'-P-OP2	5.41	117.19	110.70
1	2	720	G	P-O3'-C3'	5.41	126.19	119.70
36	1	2688	U	C5-C4-O4	-5.41	122.65	125.90
36	5	80	G	OP1-P-OP2	-5.41	111.49	119.60
36	5	3184	A	N9-C4-C5	-5.41	103.64	105.80
1	2	829	A	P-O3'-C3'	5.41	126.19	119.70
1	2	1568	C	P-O3'-C3'	5.41	126.19	119.70
36	1	1381	A	O5'-P-OP2	5.41	117.19	110.70
36	1	1815	U	P-O3'-C3'	5.41	126.19	119.70
36	1	2989	U	C5-C4-O4	-5.41	122.66	125.90
38	4	24	G	C5-C6-O6	-5.41	125.36	128.60
1	6	1141	G	O5'-P-OP1	-5.41	100.83	105.70
36	5	994	G	O5'-P-OP2	-5.41	100.83	105.70
36	5	2381	G	C5-N7-C8	-5.41	101.59	104.30
36	5	2871	G	C8-N9-C4	-5.41	104.24	106.40
36	5	3151	U	C6-N1-C2	5.41	124.25	121.00
36	1	59	G	C4-C5-N7	5.41	112.96	110.80
36	1	303	G	C4-C5-N7	-5.41	108.64	110.80
1	6	421	A	N1-C6-N6	5.41	121.84	118.60
1	6	1127	G	N1-C6-O6	5.41	123.14	119.90
36	5	1064	A	N1-C6-N6	5.41	121.84	118.60
36	5	2704	A	OP2-P-O3'	5.41	117.10	105.20
36	5	2917	G	O5'-P-OP2	-5.41	100.83	105.70
1	2	606	A	C8-N9-C4	5.41	107.96	105.80
36	1	700	C	N3-C4-N4	5.41	121.78	118.00
1	2	1456	C	N1-C2-O2	5.40	122.14	118.90
1	6	75	U	O4'-C1'-N1	5.40	112.52	108.20
36	5	1006	A	N1-C6-N6	-5.40	115.36	118.60
36	5	1142	G	O5'-P-OP2	-5.40	100.84	105.70
36	1	1924	U	C6-N1-C2	5.40	124.24	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1587	A	N1-C6-N6	5.40	121.84	118.60
1	2	1595	U	N3-C4-C5	-5.40	111.36	114.60
1	6	10	G	C4-C5-N7	-5.40	108.64	110.80
36	5	1703	U	N1-C2-O2	-5.40	119.02	122.80
36	1	2557	A	N1-C6-N6	5.40	121.84	118.60
36	1	2979	U	N3-C2-O2	-5.40	118.42	122.20
36	5	668	G	C5-C6-N1	5.40	114.20	111.50
36	5	892	U	C5-C4-O4	5.40	129.14	125.90
36	5	1141	C	C5-C4-N4	-5.40	116.42	120.20
36	5	1493	G	O5'-P-OP1	-5.40	100.84	105.70
36	5	1496	C	O5'-P-OP1	5.40	117.18	110.70
36	1	43	A	N3-C4-C5	5.40	130.58	126.80
1	6	1487	A	C8-N9-C4	5.40	107.96	105.80
36	5	1115	G	C8-N9-C1'	-5.40	119.98	127.00
36	5	2983	C	O5'-P-OP1	-5.40	100.84	105.70
1	2	704	C	C2-N1-C1'	5.39	124.73	118.80
36	1	880	G	N1-C6-O6	-5.39	116.66	119.90
36	1	1163	A	C2-N3-C4	-5.39	107.90	110.60
36	5	1869	C	N3-C4-C5	5.39	124.06	121.90
36	5	2398	A	N1-C6-N6	-5.39	115.36	118.60
36	1	283	G	O4'-C1'-N9	-5.39	103.89	108.20
36	1	1192	C	N3-C2-O2	-5.39	118.13	121.90
36	5	504	A	C5-C6-N6	-5.39	119.39	123.70
36	5	1012	G	C4-N9-C1'	-5.39	119.49	126.50
36	5	1885	U	N1-C2-O2	-5.39	119.03	122.80
36	1	1305	U	OP2-P-O3'	5.39	117.06	105.20
38	4	4	C	N3-C4-C5	5.39	124.06	121.90
36	5	2234	G	C5-C6-O6	-5.39	125.36	128.60
1	2	1777	G	C4-C5-N7	5.39	112.96	110.80
36	1	2126	A	N1-C6-N6	5.39	121.83	118.60
36	1	2203	U	N3-C4-C5	-5.39	111.37	114.60
36	1	2324	A	C5-N7-C8	-5.39	101.20	103.90
1	6	17	C	O5'-P-OP2	-5.39	100.85	105.70
1	6	905	A	N1-C6-N6	-5.39	115.37	118.60
36	5	41	G	C5-N7-C8	-5.39	101.61	104.30
36	5	390	G	C6-C5-N7	-5.39	127.17	130.40
36	5	961	C	C2-N1-C1'	5.39	124.73	118.80
1	6	361	C	C6-N1-C2	5.39	122.45	120.30
36	5	2889	C	C5-C6-N1	-5.39	118.31	121.00
36	1	675	C	N3-C4-N4	5.39	121.77	118.00
36	1	979	U	O4'-C1'-N1	5.39	112.51	108.20
36	1	1297	C	N1-C2-O2	-5.39	115.67	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1369	A	N1-C6-N6	5.39	121.83	118.60
36	1	706	A	N9-C4-C5	-5.38	103.65	105.80
36	1	1510	G	N1-C6-O6	5.38	123.13	119.90
36	1	2699	G	C5-C6-O6	-5.38	125.37	128.60
36	5	924	G	O4'-C1'-N9	-5.38	103.89	108.20
36	5	1292	C	N3-C4-C5	5.38	124.05	121.90
36	5	3208	G	N3-C4-C5	5.38	131.29	128.60
36	1	2986	U	N3-C2-O2	5.38	125.97	122.20
45	L8	189	LEU	CA-CB-CG	5.38	127.68	115.30
36	1	935	U	N1-C2-N3	5.38	118.13	114.90
1	6	1582	U	C5-C6-N1	-5.38	120.01	122.70
36	5	2362	C	N3-C4-C5	5.38	124.05	121.90
36	1	1879	A	O4'-C1'-N9	5.38	112.50	108.20
36	5	2753	G	N3-C2-N2	-5.38	116.13	119.90
36	1	1362	G	N7-C8-N9	-5.38	110.41	113.10
36	1	1556	C	P-O3'-C3'	5.38	126.16	119.70
36	5	343	U	C5-C4-O4	5.38	129.13	125.90
36	5	639	G	N1-C6-O6	5.38	123.13	119.90
36	5	2593	A	P-O3'-C3'	5.38	126.16	119.70
1	2	1651	A	C2-N3-C4	-5.38	107.91	110.60
36	1	9	U	C5-C6-N1	-5.38	120.01	122.70
36	1	1106	G	N1-C2-N2	5.38	121.04	116.20
36	1	2311	G	N1-C6-O6	5.38	123.13	119.90
1	6	815	G	N1-C6-O6	5.38	123.13	119.90
36	5	1330	A	C5-C6-N6	-5.38	119.40	123.70
36	5	2353	G	C6-C5-N7	-5.38	127.17	130.40
36	5	2858	U	N3-C2-O2	-5.38	118.44	122.20
36	5	3090	U	N3-C4-O4	-5.38	115.64	119.40
1	2	704	C	N3-C2-O2	-5.38	118.14	121.90
36	1	3178	A	C4-C5-C6	5.38	119.69	117.00
36	5	85	A	N7-C8-N9	-5.38	111.11	113.80
36	5	1077	U	C5-C6-N1	-5.38	120.01	122.70
36	1	368	G	C2-N3-C4	-5.37	109.21	111.90
36	1	755	A	C2-N3-C4	-5.37	107.91	110.60
38	4	22	U	C5-C6-N1	-5.37	120.01	122.70
36	5	220	G	N1-C2-N2	-5.37	111.36	116.20
1	2	1114	G	N3-C4-N9	5.37	129.22	126.00
36	1	428	A	N1-C6-N6	-5.37	115.38	118.60
36	1	2177	G	N3-C4-N9	5.37	129.22	126.00
36	5	644	G	C5-C6-O6	5.37	131.82	128.60
36	5	1127	G	C6-N1-C2	-5.37	121.88	125.10
36	5	3285	C	C2-N1-C1'	5.37	124.71	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	41	G	OP2-P-O3'	5.37	117.01	105.20
36	1	89	A	C6-N1-C2	-5.37	115.38	118.60
1	6	1595	U	O4'-C1'-N1	5.37	112.50	108.20
36	5	2325	G	N1-C6-O6	5.37	123.12	119.90
36	1	2370	G	N1-C6-O6	5.37	123.12	119.90
36	5	2801	A	C2-N3-C4	5.37	113.28	110.60
36	1	1510	G	N3-C4-C5	-5.37	125.92	128.60
36	5	1396	C	C6-N1-C2	5.37	122.45	120.30
36	5	3040	A	C8-N9-C4	5.37	107.95	105.80
1	2	1455	G	N3-C2-N2	-5.36	116.14	119.90
36	1	2306	C	C5-C4-N4	5.36	123.95	120.20
1	6	194	U	C5-C6-N1	5.36	125.38	122.70
36	5	859	G	C8-N9-C4	-5.36	104.25	106.40
36	5	2215	A	C2-N3-C4	-5.36	107.92	110.60
36	5	3278	C	C6-N1-C2	5.36	122.45	120.30
36	5	2856	G	C5-C6-O6	-5.36	125.38	128.60
36	1	1581	C	N3-C2-O2	-5.36	118.15	121.90
36	1	2662	G	C4-C5-N7	5.36	112.94	110.80
36	1	2725	U	C5-C4-O4	5.36	129.12	125.90
36	1	3362	A	C8-N9-C4	-5.36	103.66	105.80
1	6	1026	A	O5'-P-OP1	-5.36	100.88	105.70
36	5	1879	A	C5-N7-C8	-5.36	101.22	103.90
36	5	2146	C	C6-N1-C2	5.36	122.44	120.30
36	1	2695	A	C8-N9-C4	-5.36	103.66	105.80
36	1	2979	U	N1-C2-O2	5.36	126.55	122.80
36	1	2988	C	N1-C2-O2	-5.36	115.68	118.90
36	5	2643	A	N1-C6-N6	5.36	121.81	118.60
36	5	3132	C	N1-C2-O2	-5.36	115.69	118.90
36	1	2922	G	OP1-P-O3'	5.36	116.98	105.20
36	5	2818	U	C5'-C4'-O4'	-5.36	102.67	109.10
36	1	534	U	N3-C2-O2	-5.36	118.45	122.20
36	1	1307	G	OP1-P-O3'	5.36	116.98	105.20
36	1	2933	A	C5-N7-C8	-5.36	101.22	103.90
36	5	334	A	N7-C8-N9	-5.36	111.12	113.80
36	5	790	U	N3-C4-O4	5.36	123.15	119.40
36	5	2513	U	P-O3'-C3'	5.36	126.13	119.70
36	1	424	G	O5'-P-OP2	-5.35	100.88	105.70
36	5	2775	U	C6-N1-C2	5.35	124.21	121.00
36	1	2811	A	N1-C2-N3	5.35	131.98	129.30
36	5	2123	G	N1-C6-O6	-5.35	116.69	119.90
36	5	2318	U	N3-C4-O4	-5.35	115.65	119.40
36	1	1834	U	C4-C5-C6	5.35	122.91	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	N0	40	ARG	NE-CZ-NH2	5.35	122.98	120.30
36	5	209	A	N1-C6-N6	5.35	121.81	118.60
36	5	2169	G	C4-C5-N7	-5.35	108.66	110.80
36	1	811	U	N1-C2-O2	5.35	126.55	122.80
1	6	1653	C	N1-C2-N3	5.35	122.94	119.20
36	1	404	G	N3-C2-N2	-5.35	116.16	119.90
36	5	1435	A	C2-N3-C4	5.35	113.27	110.60
36	5	2369	G	N1-C6-O6	5.35	123.11	119.90
1	2	1291	G	N3-C4-C5	5.35	131.27	128.60
36	1	690	A	C8-N9-C4	5.35	107.94	105.80
36	1	1319	G	C5-C6-O6	5.35	131.81	128.60
36	1	922	U	C6-N1-C1'	-5.34	113.72	121.20
36	1	1822	C	C6-N1-C2	-5.34	118.16	120.30
36	1	1902	G	C5-N7-C8	-5.34	101.63	104.30
36	1	3101	G	C6-C5-N7	5.34	133.61	130.40
1	6	1614	A	C5-N7-C8	-5.34	101.23	103.90
36	5	2696	A	C4-C5-C6	-5.34	114.33	117.00
36	5	2945	G	C5-C6-O6	-5.34	125.39	128.60
37	7	68	C	N3-C4-C5	5.34	124.04	121.90
36	1	683	U	N3-C2-O2	5.34	125.94	122.20
1	6	543	C	N3-C4-N4	-5.34	114.26	118.00
36	5	1440	G	C8-N9-C4	5.34	108.54	106.40
36	5	2194	G	C2-N3-C4	-5.34	109.23	111.90
1	2	1122	G	C5-C6-O6	-5.34	125.39	128.60
36	1	2795	U	OP1-P-OP2	5.34	127.61	119.60
1	6	305	C	N1-C2-O2	-5.34	115.69	118.90
36	5	970	A	C6-N1-C2	-5.34	115.39	118.60
36	5	2403	G	C8-N9-C4	-5.34	104.26	106.40
36	5	3015	G	OP2-P-O3'	5.34	116.95	105.20
36	1	24	G	C8-N9-C1'	-5.34	120.06	127.00
36	1	2881	C	C4-C5-C6	5.34	120.07	117.40
36	5	637	C	C5-C6-N1	-5.34	118.33	121.00
36	5	717	C	N1-C2-O2	5.34	122.10	118.90
36	5	1191	U	N1-C2-O2	-5.34	119.06	122.80
36	5	1420	C	N3-C2-O2	5.34	125.64	121.90
36	5	3304	U	N3-C2-O2	5.34	125.94	122.20
1	2	74	U	P-O3'-C3'	5.34	126.11	119.70
36	1	1653	G	OP2-P-O3'	5.34	116.94	105.20
36	5	227	G	C8-N9-C1'	-5.34	120.06	127.00
36	5	385	A	N1-C6-N6	5.34	121.80	118.60
36	5	1162	U	OP1-P-OP2	5.34	127.61	119.60
38	8	34	U	N1-C2-N3	5.34	118.10	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	M1	112	LEU	CA-CB-CG	5.34	127.58	115.30
36	5	2791	G	N3-C2-N2	-5.34	116.16	119.90
36	1	2920	U	N1-C2-O2	-5.33	119.07	122.80
36	5	2246	G	O5'-P-OP1	-5.33	100.90	105.70
36	5	2371	G	N9-C4-C5	-5.33	103.27	105.40
1	2	17	C	N3-C4-C5	-5.33	119.77	121.90
1	2	1595	U	O4'-C1'-N1	5.33	112.47	108.20
36	1	919	U	O5'-P-OP1	5.33	117.10	110.70
36	5	788	C	N1-C2-O2	-5.33	115.70	118.90
36	5	2948	C	C6-N1-C2	5.33	122.43	120.30
36	1	1156	C	C2-N1-C1'	5.33	124.66	118.80
36	1	1192	C	C6-N1-C2	-5.33	118.17	120.30
36	5	889	U	C6-N1-C2	5.33	124.20	121.00
1	2	436	A	O5'-P-OP2	-5.33	100.90	105.70
36	5	1208	U	C5-C4-O4	5.33	129.10	125.90
36	5	1604	G	N9-C4-C5	-5.33	103.27	105.40
1	2	36	C	C6-N1-C2	5.33	122.43	120.30
1	2	734	A	OP1-P-O3'	5.33	116.92	105.20
1	2	1120	U	C5-C4-O4	5.33	129.10	125.90
1	2	1426	C	C6-N1-C2	5.33	122.43	120.30
36	1	48	A	C2-N3-C4	-5.33	107.94	110.60
52	M6	78	ARG	NE-CZ-NH1	5.33	122.96	120.30
36	5	961	C	O5'-P-OP2	5.33	117.09	110.70
36	1	3049	A	O5'-P-OP2	5.33	117.09	110.70
36	1	619	A	N9-C4-C5	-5.33	103.67	105.80
36	1	1367	G	N7-C8-N9	-5.33	110.44	113.10
36	5	315	C	N3-C4-C5	5.33	124.03	121.90
36	1	503	C	N3-C4-C5	5.32	124.03	121.90
36	1	714	G	C2-N3-C4	-5.32	109.24	111.90
36	1	1297	C	C2-N3-C4	-5.32	117.24	119.90
36	5	1321	G	C6-C5-N7	-5.32	127.21	130.40
36	5	1900	A	N1-C6-N6	5.32	121.79	118.60
36	5	2345	A	N1-C6-N6	5.32	121.79	118.60
1	2	556	A	C8-N9-C4	-5.32	103.67	105.80
36	1	2983	C	N1-C2-N3	5.32	122.92	119.20
1	6	1023	A	OP1-P-O3'	5.32	116.91	105.20
36	5	200	C	N3-C4-N4	5.32	121.72	118.00
36	5	802	C	N3-C4-C5	-5.32	119.77	121.90
36	5	2314	U	C5-C4-O4	-5.32	122.71	125.90
37	7	16	U	C2-N1-C1'	-5.32	111.32	117.70
36	1	652	G	O5'-P-OP2	-5.32	100.91	105.70
36	5	1341	U	C5-C4-O4	5.32	129.09	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1924	U	N3-C4-C5	5.32	117.79	114.60
1	2	13	C	C6-N1-C2	5.32	122.43	120.30
1	2	551	G	C8-N9-C4	-5.32	104.27	106.40
1	2	1041	G	C8-N9-C4	-5.32	104.27	106.40
36	1	925	A	N1-C2-N3	5.32	131.96	129.30
1	6	1164	G	C5-C6-N1	5.32	114.16	111.50
36	5	3159	C	N3-C2-O2	-5.32	118.18	121.90
36	1	1190	A	C8-N9-C4	-5.32	103.67	105.80
36	5	878	G	N3-C2-N2	5.32	123.62	119.90
36	1	277	G	C2-N3-C4	5.31	114.56	111.90
36	1	1863	G	C4-C5-N7	5.31	112.92	110.80
36	1	2527	G	N3-C4-C5	5.31	131.26	128.60
1	6	1597	A	C8-N9-C4	5.31	107.93	105.80
36	5	1389	G	C8-N9-C4	5.31	108.53	106.40
36	1	1505	C	O5'-P-OP2	-5.31	100.92	105.70
36	5	1047	A	N1-C6-N6	5.31	121.79	118.60
36	5	1191	U	N3-C2-O2	5.31	125.92	122.20
36	5	2381	G	C4-C5-N7	5.31	112.92	110.80
1	6	1736	G	N1-C6-O6	5.31	123.09	119.90
36	5	938	C	C6-N1-C2	5.31	122.42	120.30
36	5	1114	U	N3-C4-C5	-5.31	111.41	114.60
36	5	2164	A	C8-N9-C4	-5.31	103.67	105.80
36	5	3098	G	O5'-P-OP2	-5.31	100.92	105.70
36	1	1185	C	C6-N1-C2	5.31	122.42	120.30
1	6	976	G	C5-N7-C8	-5.31	101.64	104.30
1	6	1459	C	O5'-P-OP2	-5.31	100.92	105.70
36	5	1152	G	N1-C6-O6	5.31	123.09	119.90
36	5	1536	G	N3-C2-N2	-5.31	116.18	119.90
36	5	2117	A	C4-C5-N7	-5.31	108.05	110.70
1	2	1772	C	N1-C2-O2	-5.31	115.72	118.90
36	1	1396	C	O5'-P-OP1	5.31	117.07	110.70
36	5	215	G	C8-N9-C4	-5.31	104.28	106.40
36	5	3343	G	N3-C2-N2	5.31	123.62	119.90
36	1	921	A	O4'-C1'-N9	-5.30	103.96	108.20
36	5	3351	U	N3-C2-O2	-5.30	118.49	122.20
36	1	187	A	C8-N9-C4	-5.30	103.68	105.80
36	1	815	G	N3-C2-N2	-5.30	116.19	119.90
36	1	2800	G	C6-N1-C2	-5.30	121.92	125.10
1	6	794	U	C2-N1-C1'	5.30	124.06	117.70
36	5	2512	C	C2-N1-C1'	5.30	124.63	118.80
38	4	58	G	N1-C2-N2	-5.30	111.43	116.20
1	6	765	G	C8-N9-C4	5.30	108.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1305	U	C2-N1-C1'	5.30	124.06	117.70
37	7	87	G	N1-C6-O6	5.30	123.08	119.90
36	1	927	C	C2-N3-C4	-5.30	117.25	119.90
36	5	3278	C	C2-N1-C1'	-5.30	112.97	118.80
36	5	756	U	C5-C6-N1	-5.30	120.05	122.70
36	1	3093	C	C6-N1-C1'	5.30	127.16	120.80
36	5	111	C	O5'-P-OP2	-5.30	100.93	105.70
36	5	880	G	N7-C8-N9	-5.30	110.45	113.10
36	5	967	A	O5'-P-OP2	-5.30	100.93	105.70
36	5	1917	C	N3-C4-C5	-5.30	119.78	121.90
36	1	1377	G	N9-C4-C5	-5.29	103.28	105.40
36	1	3005	A	N1-C6-N6	-5.29	115.42	118.60
1	6	146	U	OP1-P-OP2	5.29	127.54	119.60
1	6	452	A	C4-C5-N7	5.29	113.35	110.70
36	5	2239	G	C5-C6-O6	5.29	131.78	128.60
1	2	380	U	C2-N1-C1'	5.29	124.05	117.70
36	1	945	C	C6-N1-C2	5.29	122.42	120.30
36	5	698	U	N3-C4-C5	-5.29	111.42	114.60
36	5	888	A	C5-C6-N6	-5.29	119.47	123.70
36	5	1910	A	OP2-P-O3'	5.29	116.85	105.20
36	5	2958	A	O5'-P-OP2	-5.29	100.94	105.70
36	1	339	C	C6-N1-C1'	5.29	127.15	120.80
36	1	2153	U	N3-C2-O2	-5.29	118.50	122.20
1	6	1129	U	C5-C4-O4	5.29	129.07	125.90
36	5	660	A	N9-C4-C5	5.29	107.92	105.80
36	5	701	G	C4-C5-N7	-5.29	108.68	110.80
36	5	2415	C	C5-C4-N4	-5.29	116.50	120.20
36	5	2881	C	C6-N1-C2	5.29	122.42	120.30
1	6	194	U	N3-C2-O2	-5.29	118.50	122.20
36	5	2113	A	O4'-C1'-N9	-5.29	103.97	108.20
36	5	3123	A	N9-C4-C5	-5.29	103.68	105.80
36	1	1119	C	C6-N1-C2	5.29	122.42	120.30
36	1	2836	C	C4-C5-C6	5.29	120.04	117.40
36	1	3319	U	P-O3'-C3'	5.29	126.05	119.70
36	5	424	G	N9-C4-C5	-5.29	103.28	105.40
36	5	1432	C	O5'-P-OP2	-5.29	100.94	105.70
36	5	2145	A	N1-C2-N3	5.29	131.94	129.30
36	5	2870	C	O4'-C1'-N1	5.29	112.43	108.20
36	1	706	A	O5'-P-OP1	-5.29	100.94	105.70
36	5	2291	A	C5-C6-N6	-5.29	119.47	123.70
1	2	433	C	O5'-P-OP1	-5.29	100.94	105.70
1	2	1458	G	C4-N9-C1'	5.29	133.37	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	43	A	N3-C4-N9	-5.29	123.17	127.40
36	1	1148	G	C5-C6-O6	-5.29	125.43	128.60
36	1	2406	C	N3-C4-N4	5.29	121.70	118.00
1	6	858	G	C6-C5-N7	-5.29	127.23	130.40
36	5	2414	G	C8-N9-C4	5.29	108.51	106.40
36	5	2683	U	N1-C2-O2	5.29	126.50	122.80
36	5	3111	U	C5-C4-O4	5.29	129.07	125.90
37	7	88	G	C5-C6-N1	5.29	114.14	111.50
1	2	189	C	N1-C2-O2	5.28	122.07	118.90
36	1	641	C	C2-N1-C1'	-5.28	112.99	118.80
36	1	1301	A	O5'-P-OP1	-5.28	100.94	105.70
36	5	170	G	C4-N9-C1'	5.28	133.37	126.50
36	5	820	A	N1-C2-N3	5.28	131.94	129.30
36	5	1308	A	O5'-P-OP1	-5.28	100.94	105.70
36	5	1481	A	C5-N7-C8	-5.28	101.26	103.90
36	1	1906	G	C4-C5-N7	5.28	112.91	110.80
36	1	2374	C	N1-C2-N3	5.28	122.90	119.20
1	6	385	A	C4-C5-N7	-5.28	108.06	110.70
36	5	2797	C	C4-C5-C6	5.28	120.04	117.40
36	1	1381	A	N1-C6-N6	5.28	121.77	118.60
36	1	1800	A	C2-N3-C4	5.28	113.24	110.60
36	1	2187	G	C8-N9-C4	-5.28	104.29	106.40
36	1	2245	C	N3-C2-O2	-5.28	118.20	121.90
36	1	2312	A	C5-C6-N6	-5.28	119.48	123.70
36	5	383	G	C8-N9-C4	5.28	108.51	106.40
1	2	1741	U	N3-C2-O2	-5.28	118.50	122.20
36	1	2860	U	N1-C2-N3	-5.28	111.73	114.90
36	1	3313	U	OP1-P-O3'	5.28	116.81	105.20
36	5	3185	U	C5-C6-N1	-5.28	120.06	122.70
1	2	1580	C	C6-N1-C2	5.28	122.41	120.30
36	1	2173	U	N1-C2-N3	5.28	118.07	114.90
1	2	1274	C	C5-C4-N4	5.28	123.89	120.20
36	1	639	G	N9-C1'-C2'	-5.28	106.20	112.00
36	5	1465	A	C2-N3-C4	-5.28	107.96	110.60
36	5	3182	G	C5-C6-N1	-5.28	108.86	111.50
36	1	277	G	N9-C4-C5	5.27	107.51	105.40
1	6	1082	C	C6-N1-C2	-5.27	118.19	120.30
36	5	2333	C	C6-N1-C2	5.27	122.41	120.30
1	6	1653	C	C4-C5-C6	5.27	120.04	117.40
36	5	1303	A	C8-N9-C4	5.27	107.91	105.80
37	7	94	C	O5'-P-OP2	5.27	117.03	110.70
1	2	606	A	N3-C4-C5	5.27	130.49	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1124	U	N3-C4-C5	5.27	117.76	114.60
36	1	1203	A	C5-C6-N6	-5.27	119.48	123.70
36	1	3228	C	C6-N1-C1'	-5.27	114.48	120.80
36	5	19	U	C6-N1-C2	-5.27	117.84	121.00
36	5	840	C	N3-C4-N4	5.27	121.69	118.00
36	5	1212	A	C5-N7-C8	-5.27	101.27	103.90
36	5	2295	A	C2-N3-C4	5.27	113.23	110.60
37	7	112	G	C8-N9-C4	-5.27	104.29	106.40
1	2	1780	G	N1-C6-O6	5.27	123.06	119.90
36	1	155	G	N3-C4-N9	5.27	129.16	126.00
36	1	2354	C	C5-C6-N1	-5.27	118.37	121.00
36	1	2876	C	C6-N1-C2	-5.27	118.19	120.30
36	5	647	A	N7-C8-N9	-5.27	111.17	113.80
36	1	2943	G	C5-N7-C8	-5.27	101.67	104.30
1	6	187	G	P-O3'-C3'	5.27	126.02	119.70
36	1	831	G	N1-C6-O6	5.26	123.06	119.90
36	1	1442	U	OP1-P-O3'	5.26	116.78	105.20
36	1	2179	C	N1-C2-O2	5.26	122.06	118.90
36	1	2871	G	C5-C6-O6	-5.26	125.44	128.60
36	1	2974	U	N3-C2-O2	-5.26	118.52	122.20
51	M5	164	LEU	CA-CB-CG	-5.26	103.19	115.30
36	1	187	A	N7-C8-N9	5.26	116.43	113.80
36	1	640	U	N1-C2-O2	-5.26	119.12	122.80
36	1	1107	C	C5-C4-N4	-5.26	116.52	120.20
36	5	709	A	C5-C6-N6	-5.26	119.49	123.70
36	5	1128	U	C2-N3-C4	-5.26	123.84	127.00
1	2	1370	U	P-O3'-C3'	5.26	126.01	119.70
36	1	716	A	C6-C5-N7	-5.26	128.62	132.30
36	1	900	G	C8-N9-C4	5.26	108.50	106.40
36	1	1317	A	N7-C8-N9	5.26	116.43	113.80
36	1	2361	A	N9-C4-C5	5.26	107.91	105.80
36	1	188	U	C4-C5-C6	5.26	122.86	119.70
36	1	2249	G	C3'-C2'-C1'	-5.26	97.29	101.50
1	6	1793	G	N1-C6-O6	-5.26	116.75	119.90
36	5	996	A	C8-N9-C4	5.26	107.90	105.80
36	5	3014	U	O5'-P-OP1	-5.26	100.97	105.70
36	5	911	C	N3-C2-O2	5.26	125.58	121.90
36	1	315	C	C2-N1-C1'	5.26	124.58	118.80
36	1	651	G	N3-C4-C5	-5.26	125.97	128.60
36	1	943	U	N1-C2-N3	5.26	118.05	114.90
1	6	1150	G	N1-C6-O6	5.26	123.05	119.90
36	5	1386	A	C5-C6-N1	-5.26	115.07	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2572	C	C6-N1-C1'	-5.26	114.49	120.80
1	2	15	U	C6-N1-C2	-5.25	117.85	121.00
1	2	1636	C	N1-C2-O2	-5.25	115.75	118.90
36	1	2249	G	N3-C4-C5	-5.25	125.97	128.60
36	5	1205	A	OP1-P-OP2	5.25	127.48	119.60
36	5	1413	G	C6-C5-N7	-5.25	127.25	130.40
1	2	736	C	C5-C6-N1	5.25	123.63	121.00
1	2	971	A	C4-C5-C6	5.25	119.63	117.00
36	1	683	U	C5-C4-O4	-5.25	122.75	125.90
36	1	1611	G	C5-C6-N1	-5.25	108.87	111.50
36	1	2427	U	C5-C6-N1	-5.25	120.07	122.70
36	5	911	C	C5-C6-N1	-5.25	118.37	121.00
36	5	2874	G	C5-C6-N1	-5.25	108.87	111.50
36	1	881	C	C2-N3-C4	5.25	122.53	119.90
36	1	893	C	N1-C2-O2	5.25	122.05	118.90
36	1	2201	G	C6-C5-N7	-5.25	127.25	130.40
36	1	2639	G	C6-C5-N7	-5.25	127.25	130.40
1	6	1588	G	N1-C6-O6	-5.25	116.75	119.90
36	5	1238	C	P-O3'-C3'	5.25	126.00	119.70
36	5	1367	G	OP2-P-O3'	5.25	116.75	105.20
36	5	2748	A	C2-N3-C4	-5.25	107.97	110.60
36	5	2866	U	C5-C6-N1	5.25	125.33	122.70
36	1	2953	U	N3-C2-O2	5.25	125.88	122.20
36	5	1770	G	C4-N9-C1'	5.25	133.32	126.50
1	2	404	G	C8-N9-C4	5.25	108.50	106.40
1	2	1642	G	N1-C6-O6	5.25	123.05	119.90
36	1	3062	G	N3-C2-N2	-5.25	116.23	119.90
36	5	337	G	N3-C4-C5	-5.25	125.98	128.60
36	5	2906	C	O5'-P-OP1	5.25	117.00	110.70
36	5	3151	U	N1-C2-N3	-5.25	111.75	114.90
36	1	2619	G	N1-C6-O6	-5.25	116.75	119.90
36	1	2891	U	C5-C6-N1	-5.25	120.08	122.70
1	6	1787	C	C6-N1-C2	-5.25	118.20	120.30
38	4	103	G	N3-C4-N9	5.25	129.15	126.00
1	2	167	U	C5-C6-N1	-5.24	120.08	122.70
1	2	499	U	C3'-C2'-C1'	5.24	105.70	101.50
36	1	948	C	C4-C5-C6	5.24	120.02	117.40
36	5	959	C	O4'-C1'-N1	5.24	112.40	108.20
36	5	2426	U	C5-C4-O4	5.24	129.05	125.90
36	5	3140	G	N9-C4-C5	-5.24	103.30	105.40
1	2	402	C	C6-N1-C2	5.24	122.40	120.30
15	C3	22	ALA	C-N-CA	5.24	144.02	122.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	267	G	C2-N3-C4	-5.24	109.28	111.90
36	1	361	A	N9-C4-C5	5.24	107.90	105.80
36	1	2828	G	N3-C2-N2	5.24	123.57	119.90
1	6	991	G	N1-C6-O6	5.24	123.05	119.90
36	1	188	U	N1-C2-N3	5.24	118.04	114.90
36	1	400	G	C4-C5-N7	5.24	112.90	110.80
36	1	706	A	C2-N3-C4	-5.24	107.98	110.60
36	1	3125	U	C2-N1-C1'	-5.24	111.41	117.70
1	6	347	G	C5-C6-O6	-5.24	125.46	128.60
36	5	2851	A	N1-C2-N3	5.24	131.92	129.30
36	1	722	G	C4-C5-N7	5.24	112.90	110.80
36	1	1217	A	C8-N9-C4	-5.24	103.70	105.80
36	1	1419	A	N1-C6-N6	5.24	121.74	118.60
36	1	2927	C	N1-C2-O2	-5.24	115.76	118.90
47	M0	36	LEU	CA-CB-CG	5.24	127.35	115.30
36	5	35	A	O5'-P-OP1	5.24	116.98	110.70
36	5	1554	U	OP1-P-O3'	5.24	116.72	105.20
36	5	2108	C	N1-C2-O2	-5.24	115.76	118.90
36	5	2186	U	O5'-P-OP2	-5.24	100.98	105.70
38	8	6	U	N3-C2-O2	5.24	125.87	122.20
1	2	455	C	C5-C4-N4	-5.24	116.53	120.20
36	5	3339	A	N1-C6-N6	5.24	121.74	118.60
36	1	346	C	C2-N1-C1'	-5.24	113.04	118.80
36	1	609	G	O5'-P-OP2	-5.24	100.99	105.70
36	1	1154	A	C4-C5-C6	5.24	119.62	117.00
36	1	1483	G	O4'-C1'-N9	5.24	112.39	108.20
36	1	2169	G	C8-N9-C4	-5.24	104.31	106.40
36	1	2606	G	C8-N9-C1'	-5.24	120.19	127.00
36	1	2660	G	N9-C4-C5	-5.24	103.31	105.40
36	5	100	A	N1-C6-N6	5.24	121.74	118.60
36	5	2815	G	C8-N9-C4	5.24	108.49	106.40
36	5	1152	G	N9-C4-C5	5.23	107.49	105.40
36	5	2318	U	N1-C2-O2	5.23	126.46	122.80
36	1	634	C	C6-N1-C2	5.23	122.39	120.30
36	1	793	C	C6-N1-C2	-5.23	118.21	120.30
36	1	948	C	N1-C2-O2	-5.23	115.76	118.90
36	1	2243	A	N1-C6-N6	-5.23	115.46	118.60
36	1	2922	G	C8-N9-C4	5.23	108.49	106.40
1	6	515	A	C8-N9-C4	-5.23	103.71	105.80
36	5	1394	A	O4'-C1'-N9	5.23	112.39	108.20
36	1	1929	G	N3-C4-N9	5.23	129.14	126.00
36	1	2235	C	N3-C4-C5	5.23	123.99	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2640	A	N1-C2-N3	5.23	131.91	129.30
36	5	2930	A	C4-N9-C1'	-5.23	116.89	126.30
36	1	1137	C	C5-C4-N4	-5.23	116.54	120.20
36	1	1405	U	C5-C6-N1	-5.23	120.09	122.70
36	1	2638	C	C5-C4-N4	5.23	123.86	120.20
38	4	103	G	N3-C4-C5	-5.23	125.99	128.60
1	6	1388	A	C8-N9-C4	-5.23	103.71	105.80
36	5	2222	A	O5'-P-OP2	-5.23	101.00	105.70
36	5	2648	G	C4-C5-C6	-5.23	115.66	118.80
1	2	13	C	N1-C2-O2	-5.23	115.77	118.90
36	1	3212	C	N3-C2-O2	5.23	125.56	121.90
36	5	960	U	N3-C4-O4	-5.23	115.74	119.40
36	5	2403	G	C6-C5-N7	-5.23	127.26	130.40
36	1	1114	U	N1-C2-O2	5.22	126.46	122.80
36	1	1135	A	C8-N9-C4	5.22	107.89	105.80
36	1	1149	G	C6-C5-N7	-5.22	127.27	130.40
36	5	61	A	N9-C4-C5	5.22	107.89	105.80
1	6	512	A	P-O3'-C3'	5.22	125.97	119.70
1	6	646	C	C5-C6-N1	5.22	123.61	121.00
1	2	1745	G	N3-C4-C5	-5.22	125.99	128.60
36	1	2714	G	C4-C5-N7	5.22	112.89	110.80
36	5	1854	C	N3-C4-C5	-5.22	119.81	121.90
36	1	81	C	C2-N3-C4	-5.22	117.29	119.90
36	1	1603	A	C8-N9-C4	5.22	107.89	105.80
36	1	2356	A	C5-N7-C8	-5.22	101.29	103.90
36	1	2818	U	C5'-C4'-O4'	-5.22	102.84	109.10
1	6	1058	U	P-O3'-C3'	5.22	125.96	119.70
1	6	1600	A	C5-N7-C8	-5.22	101.29	103.90
36	5	890	C	N3-C4-N4	5.22	121.65	118.00
36	5	2333	C	OP2-P-O3'	5.22	116.69	105.20
36	5	2959	C	OP2-P-O3'	5.22	116.68	105.20
36	1	2150	G	N1-C6-O6	5.22	123.03	119.90
36	1	2764	C	N3-C4-C5	-5.22	119.81	121.90
38	4	33	A	O4'-C1'-N9	-5.22	104.03	108.20
1	6	1150	G	C2-N3-C4	-5.22	109.29	111.90
36	5	3362	A	C8-N9-C4	-5.22	103.71	105.80
37	7	68	C	N1-C2-O2	5.22	122.03	118.90
1	2	1573	A	P-O3'-C3'	5.21	125.96	119.70
36	1	3183	A	O5'-P-OP1	-5.21	101.01	105.70
36	1	3369	G	C8-N9-C4	-5.21	104.31	106.40
1	6	1124	A	C5-N7-C8	-5.21	101.29	103.90
36	5	1064	A	O4'-C1'-N9	-5.21	104.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	87	G	C6-C5-N7	-5.21	127.27	130.40
36	1	184	U	C5-C4-O4	5.21	129.03	125.90
36	1	757	C	N1-C2-O2	-5.21	115.77	118.90
36	1	1307	G	O5'-P-OP2	-5.21	101.01	105.70
36	1	1590	G	N1-C6-O6	-5.21	116.77	119.90
36	1	2643	A	C8-N9-C4	5.21	107.89	105.80
1	6	765	G	C6-C5-N7	5.21	133.53	130.40
36	5	1370	G	N1-C2-N3	5.21	127.03	123.90
36	5	2632	G	OP1-P-O3'	5.21	116.67	105.20
36	5	3382	U	N1-C2-O2	5.21	126.45	122.80
1	2	934	C	C2-N1-C1'	5.21	124.53	118.80
36	1	2645	G	C8-N9-C4	5.21	108.48	106.40
36	5	2145	A	C8-N9-C4	-5.21	103.72	105.80
36	5	2996	U	C5-C4-O4	5.21	129.03	125.90
36	5	3111	U	N3-C4-O4	-5.21	115.75	119.40
36	1	654	C	C4-C5-C6	5.21	120.00	117.40
1	6	993	A	N1-C2-N3	-5.21	126.69	129.30
1	6	1044	U	C5-C4-O4	5.21	129.03	125.90
36	1	1182	A	C4-C5-C6	5.21	119.60	117.00
36	1	1595	U	C6-N1-C2	5.21	124.13	121.00
36	1	2283	G	C2-N3-C4	-5.21	109.30	111.90
36	1	2314	U	N3-C2-O2	5.21	125.85	122.20
36	1	2541	U	P-O3'-C3'	5.21	125.95	119.70
36	1	2969	A	C4-C5-C6	5.21	119.61	117.00
1	6	767	U	N3-C4-O4	-5.21	115.75	119.40
36	5	1146	C	C5-C4-N4	-5.21	116.55	120.20
1	6	901	G	C5-C6-O6	-5.21	125.48	128.60
1	6	1097	U	N3-C2-O2	-5.21	118.56	122.20
36	5	2422	C	N3-C4-N4	-5.21	114.36	118.00
36	1	1741	A	O5'-P-OP1	-5.21	101.02	105.70
38	4	121	U	C5-C4-O4	5.21	129.02	125.90
36	5	53	G	C8-N9-C4	5.21	108.48	106.40
1	6	122	U	C6-N1-C2	5.20	124.12	121.00
1	6	163	G	C8-N9-C4	-5.20	104.32	106.40
36	5	2612	U	N3-C2-O2	-5.20	118.56	122.20
36	1	1127	G	C5-C6-O6	-5.20	125.48	128.60
36	1	2606	G	C4-C5-N7	5.20	112.88	110.80
36	5	907	G	C5-C6-O6	-5.20	125.48	128.60
36	5	2245	C	N1-C2-O2	5.20	122.02	118.90
1	2	458	G	C5-C6-N1	-5.20	108.90	111.50
36	1	883	A	C5-C6-N1	5.20	120.30	117.70
36	1	2112	U	P-O3'-C3'	5.20	125.94	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2852	C	N3-C4-C5	5.20	123.98	121.90
39	L2	128	ARG	NE-CZ-NH1	-5.20	117.70	120.30
36	5	895	A	C8-N9-C4	5.20	107.88	105.80
1	2	621	A	O4'-C1'-N9	-5.20	104.04	108.20
36	1	1199	C	C5-C6-N1	-5.20	118.40	121.00
62	N6	126	LEU	CA-CB-CG	5.20	127.26	115.30
1	6	631	G	N1-C6-O6	5.20	123.02	119.90
1	6	1736	G	C8-N9-C4	-5.20	104.32	106.40
36	5	907	G	N3-C4-N9	5.20	129.12	126.00
36	5	1520	G	C6-C5-N7	-5.20	127.28	130.40
38	8	38	U	N3-C2-O2	-5.20	118.56	122.20
1	2	1200	G	N3-C2-N2	-5.20	116.26	119.90
36	1	2969	A	C6-C5-N7	-5.20	128.66	132.30
36	1	3184	A	N9-C4-C5	-5.20	103.72	105.80
36	1	3379	C	O5'-P-OP2	-5.20	101.02	105.70
36	5	214	G	N3-C4-N9	-5.20	122.88	126.00
36	5	283	G	C6-C5-N7	-5.20	127.28	130.40
36	5	3028	G	N1-C2-N2	-5.20	111.52	116.20
62	N6	57	LEU	CA-CB-CG	5.20	127.25	115.30
1	6	789	A	N1-C6-N6	-5.20	115.48	118.60
36	5	834	U	C6-N1-C2	5.20	124.12	121.00
36	5	2858	U	C5-C4-O4	5.20	129.02	125.90
1	2	1596	C	O5'-P-OP2	5.19	116.93	110.70
36	1	359	U	OP2-P-O3'	5.19	116.63	105.20
36	1	1055	A	C8-N9-C4	5.19	107.88	105.80
36	5	349	A	O5'-P-OP2	-5.19	101.03	105.70
36	5	2393	G	C5-C6-O6	-5.19	125.48	128.60
1	2	986	G	N3-C4-N9	5.19	129.12	126.00
36	1	1379	G	C2-N3-C4	-5.19	109.30	111.90
36	1	1799	A	N1-C6-N6	-5.19	115.48	118.60
57	N1	31	LEU	CA-CB-CG	-5.19	103.36	115.30
1	6	29	U	C4-C5-C6	5.19	122.81	119.70
36	5	2885	C	N3-C4-C5	5.19	123.98	121.90
37	7	1	G	C4-N9-C1'	5.19	133.25	126.50
37	7	85	G	OP2-P-O3'	5.19	116.62	105.20
38	8	70	G	C4-C5-N7	-5.19	108.72	110.80
41	14	190	GLY	N-CA-C	5.19	126.08	113.10
36	1	33	G	C2-N3-C4	-5.19	109.30	111.90
36	1	2973	G	C5-C6-O6	-5.19	125.48	128.60
36	1	3178	A	C6-C5-N7	-5.19	128.67	132.30
1	6	484	C	C5-C6-N1	5.19	123.60	121.00
36	1	364	G	N3-C2-N2	-5.19	116.27	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2169	G	C2-N3-C4	5.19	114.49	111.90
36	1	2381	G	C8-N9-C4	-5.19	104.32	106.40
36	1	3307	A	C4-C5-N7	5.19	113.29	110.70
36	5	1445	U	C5-C6-N1	-5.19	120.11	122.70
36	5	2147	A	C4-C5-C6	5.19	119.59	117.00
36	5	3238	G	N3-C4-C5	5.19	131.19	128.60
36	1	43	A	C5-C6-N1	-5.19	115.11	117.70
36	1	765	C	C2-N1-C1'	5.19	124.51	118.80
36	1	1367	G	N1-C2-N2	5.19	120.87	116.20
36	1	2658	G	C4-C5-N7	-5.19	108.72	110.80
38	4	113	U	C6-N1-C1'	5.19	128.46	121.20
1	6	365	G	N1-C2-N3	5.19	127.01	123.90
36	5	1151	U	N3-C4-O4	5.19	123.03	119.40
36	5	2706	G	C8-N9-C1'	-5.19	120.25	127.00
1	2	1182	U	N3-C2-O2	-5.19	118.57	122.20
36	1	1339	C	N1-C2-O2	-5.19	115.79	118.90
36	5	300	G	N3-C4-N9	-5.19	122.89	126.00
1	2	307	G	C8-N9-C1'	-5.18	120.26	127.00
36	1	39	A	N9-C4-C5	-5.18	103.73	105.80
36	1	776	U	N3-C2-O2	-5.18	118.57	122.20
36	1	1432	C	N3-C2-O2	-5.18	118.27	121.90
36	1	3015	G	N7-C8-N9	-5.18	110.51	113.10
36	1	3154	C	C6-N1-C2	-5.18	118.23	120.30
36	5	1502	C	N3-C2-O2	-5.18	118.27	121.90
1	2	1600	A	N1-C6-N6	5.18	121.71	118.60
36	1	92	G	N3-C2-N2	5.18	123.53	119.90
36	1	1121	U	C2-N3-C4	-5.18	123.89	127.00
36	1	2364	G	C4-C5-N7	5.18	112.87	110.80
1	6	1776	A	N1-C6-N6	5.18	121.71	118.60
36	5	229	G	N3-C2-N2	-5.18	116.27	119.90
36	1	1497	C	N3-C4-C5	-5.18	119.83	121.90
1	6	436	A	N1-C6-N6	5.18	121.71	118.60
36	5	1881	A	C5-N7-C8	-5.18	101.31	103.90
36	1	420	G	O4'-C1'-N9	5.18	112.34	108.20
43	L6	26	ARG	NE-CZ-NH1	-5.18	117.71	120.30
1	6	10	G	C5-C6-O6	5.18	131.71	128.60
36	5	152	U	N1-C2-O2	5.18	126.42	122.80
36	5	1490	A	N1-C6-N6	-5.18	115.49	118.60
36	1	869	G	N1-C2-N3	5.18	127.01	123.90
36	1	1306	G	C8-N9-C1'	-5.18	120.27	127.00
36	5	58	G	O5'-P-OP2	-5.18	101.04	105.70
36	1	721	G	C6-C5-N7	-5.18	127.29	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2871	G	C5-N7-C8	-5.18	101.71	104.30
36	1	3214	U	N1-C2-O2	5.18	126.42	122.80
1	6	1117	U	C6-N1-C2	-5.18	117.89	121.00
1	6	1697	G	N3-C4-N9	5.18	129.10	126.00
36	5	1378	U	C5-C6-N1	-5.18	120.11	122.70
36	5	2399	A	C8-N9-C4	5.17	107.87	105.80
1	2	1572	G	N9-C4-C5	-5.17	103.33	105.40
36	1	332	C	C5-C6-N1	-5.17	118.41	121.00
36	1	943	U	C6-N1-C2	-5.17	117.90	121.00
36	1	2183	A	C2-N3-C4	-5.17	108.01	110.60
36	1	3268	A	C6-C5-N7	-5.17	128.68	132.30
1	6	1340	U	C5-C4-O4	5.17	129.00	125.90
36	5	420	G	C4-C5-N7	5.17	112.87	110.80
36	1	1399	A	O4'-C1'-N9	-5.17	104.06	108.20
36	1	2662	G	N9-C4-C5	-5.17	103.33	105.40
36	1	2815	G	C2-N3-C4	-5.17	109.31	111.90
36	1	2871	G	O5'-P-OP2	-5.17	101.05	105.70
36	5	395	A	C5-C6-N6	-5.17	119.56	123.70
36	5	2598	G	C8-N9-C4	5.17	108.47	106.40
36	5	3216	G	N1-C6-O6	5.17	123.00	119.90
38	8	47	C	C4-C5-C6	5.17	119.98	117.40
38	4	4	C	C5-C6-N1	-5.17	118.42	121.00
1	6	990	C	OP1-P-O3'	5.17	116.57	105.20
1	6	1307	U	C2-N1-C1'	-5.17	111.50	117.70
35	SM	134	ASP	CB-CG-OD2	5.17	122.95	118.30
1	2	13	C	C5-C6-N1	-5.17	118.42	121.00
36	1	56	G	C4-N9-C1'	-5.17	119.78	126.50
36	1	1809	A	C2-N3-C4	-5.17	108.02	110.60
38	4	34	U	N3-C4-O4	5.17	123.02	119.40
36	5	649	A	C8-N9-C4	5.17	107.87	105.80
1	2	1448	G	O5'-P-OP1	-5.17	101.05	105.70
36	1	625	G	O5'-P-OP2	-5.17	101.05	105.70
36	1	905	U	O5'-P-OP2	-5.17	101.05	105.70
36	5	1690	C	C6-N1-C2	-5.17	118.23	120.30
36	5	1844	C	C6-N1-C2	-5.17	118.23	120.30
1	2	1431	C	C6-N1-C2	5.16	122.36	120.30
36	1	870	G	N1-C6-O6	-5.16	116.80	119.90
36	1	1190	A	C4-N9-C1'	5.16	135.59	126.30
36	1	1368	U	C6-N1-C1'	-5.16	113.97	121.20
36	1	2301	U	O5'-P-OP2	-5.16	101.05	105.70
36	1	2918	G	N1-C6-O6	5.16	123.00	119.90
36	1	3025	C	C5-C6-N1	-5.16	118.42	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1274	C	N3-C4-C5	-5.16	119.83	121.90
36	5	3078	U	N1-C2-N3	5.16	118.00	114.90
36	5	30	G	N3-C4-C5	-5.16	126.02	128.60
36	5	880	G	C4-N9-C1'	-5.16	119.79	126.50
1	2	624	G	N1-C6-O6	-5.16	116.80	119.90
36	1	646	A	C4-C5-C6	5.16	119.58	117.00
36	1	1124	U	N1-C2-O2	5.16	126.41	122.80
36	1	1192	C	C6-N1-C1'	-5.16	114.61	120.80
36	5	644	G	N9-C4-C5	5.16	107.46	105.40
36	5	1780	G	N1-C6-O6	-5.16	116.80	119.90
1	2	966	A	N1-C2-N3	5.16	131.88	129.30
36	1	2622	C	C6-N1-C2	-5.16	118.24	120.30
1	6	1781	A	N1-C2-N3	5.16	131.88	129.30
36	5	2207	A	O4'-C1'-N9	5.16	112.33	108.20
36	5	2248	C	N1-C2-O2	-5.16	115.81	118.90
1	2	1491	U	N3-C2-O2	-5.16	118.59	122.20
36	5	2893	C	N1-C2-O2	-5.16	115.81	118.90
1	2	103	A	P-O3'-C3'	5.16	125.89	119.70
36	1	817	A	N3-C4-N9	5.16	131.53	127.40
36	1	1456	A	OP1-P-O3'	5.16	116.54	105.20
36	1	2828	G	C4-N9-C1'	5.16	133.20	126.50
36	5	227	G	C4-N9-C1'	5.16	133.20	126.50
36	5	1065	A	C8-N9-C4	5.16	107.86	105.80
36	5	2775	U	C2-N1-C1'	-5.16	111.51	117.70
36	1	856	G	C6-C5-N7	-5.15	127.31	130.40
1	6	571	G	N7-C8-N9	5.15	115.68	113.10
36	5	1826	C	C6-N1-C2	5.15	122.36	120.30
36	1	1728	G	N3-C4-N9	5.15	129.09	126.00
1	6	105	A	C8-N9-C4	5.15	107.86	105.80
1	6	1560	U	N3-C2-O2	-5.15	118.59	122.20
36	5	1115	G	C4-N9-C1'	5.15	133.20	126.50
36	5	1125	U	N3-C4-O4	-5.15	115.79	119.40
36	5	2827	U	OP1-P-O3'	5.15	116.54	105.20
1	2	542	A	C4-N9-C1'	5.15	135.57	126.30
36	1	2201	G	C4-C5-N7	5.15	112.86	110.80
36	1	2280	A	C4-C5-N7	5.15	113.28	110.70
49	M3	165	SER	N-CA-C	5.15	124.91	111.00
1	6	406	U	C5-C6-N1	-5.15	120.12	122.70
36	5	643	U	N1-C2-O2	5.15	126.41	122.80
36	5	2619	G	C5-C6-O6	-5.15	125.51	128.60
36	5	2879	C	C5-C6-N1	-5.15	118.42	121.00
36	5	2914	G	C6-C5-N7	-5.15	127.31	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2280	A	C5-C6-N6	-5.15	119.58	123.70
36	1	2959	C	N3-C2-O2	5.15	125.50	121.90
36	5	2882	U	O5'-P-OP2	-5.15	101.07	105.70
36	1	676	G	OP2-P-O3'	5.15	116.53	105.20
36	1	2868	U	OP2-P-O3'	5.15	116.52	105.20
1	6	1489	U	C2-N1-C1'	5.15	123.88	117.70
36	5	892	U	C2-N1-C1'	-5.15	111.52	117.70
36	5	984	G	N3-C4-C5	-5.15	126.03	128.60
36	5	1292	C	C5-C6-N1	-5.15	118.43	121.00
36	5	1309	U	O5'-P-OP1	-5.15	101.07	105.70
36	5	2613	U	N3-C2-O2	5.15	125.80	122.20
36	5	2898	G	C5-C6-O6	5.15	131.69	128.60
1	2	802	G	N3-C4-C5	-5.15	126.03	128.60
36	1	3215	A	C8-N9-C4	5.15	107.86	105.80
36	5	941	G	C5-C6-N1	5.15	114.07	111.50
36	5	1389	G	N9-C4-C5	-5.15	103.34	105.40
36	5	1832	C	C6-N1-C2	5.15	122.36	120.30
36	1	1508	C	C5-C4-N4	5.14	123.80	120.20
36	1	2191	U	C5-C4-O4	5.14	128.99	125.90
38	4	6	U	C4-C5-C6	-5.14	116.61	119.70
1	6	308	C	C6-N1-C1'	5.14	126.97	120.80
36	5	706	A	C2-N3-C4	-5.14	108.03	110.60
36	5	2278	C	N3-C4-C5	5.14	123.96	121.90
36	5	2828	G	N3-C4-N9	5.14	129.09	126.00
36	1	2939	G	C4-C5-N7	-5.14	108.74	110.80
36	5	726	G	C6-C5-N7	-5.14	127.31	130.40
36	5	1064	A	C4-C5-N7	5.14	113.27	110.70
36	5	2819	A	C8-N9-C4	5.14	107.86	105.80
36	5	3184	A	N3-C4-C5	5.14	130.40	126.80
37	7	58	C	O5'-P-OP2	-5.14	101.07	105.70
37	7	74	C	N1-C2-O2	-5.14	115.81	118.90
36	1	644	G	C2-N3-C4	-5.14	109.33	111.90
36	1	1128	U	N3-C2-O2	-5.14	118.60	122.20
36	1	2309	A	C8-N9-C4	5.14	107.86	105.80
36	5	1509	A	N1-C6-N6	5.14	121.69	118.60
36	5	3261	C	N1-C2-O2	-5.14	115.81	118.90
18	C6	40	GLU	C-N-CA	5.14	143.59	122.00
36	1	18	G	N9-C4-C5	-5.14	103.34	105.40
36	5	403	C	N1-C2-O2	-5.14	115.82	118.90
36	5	860	G	OP1-P-O3'	5.14	116.51	105.20
36	5	2651	G	C8-N9-C4	5.14	108.46	106.40
37	7	64	A	C8-N9-C4	5.14	107.86	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1843	C	N1-C2-O2	-5.14	115.82	118.90
36	1	2856	G	N3-C4-N9	-5.14	122.92	126.00
36	1	3088	G	N1-C6-O6	-5.14	116.82	119.90
36	5	993	G	O5'-P-OP2	-5.14	101.08	105.70
1	2	1004	U	N3-C2-O2	-5.14	118.60	122.20
36	1	654	C	N3-C4-C5	-5.14	119.84	121.90
36	1	701	G	OP2-P-O3'	5.14	116.50	105.20
36	1	1131	G	C4-C5-N7	5.14	112.85	110.80
36	1	2425	G	N9-C4-C5	-5.14	103.34	105.40
38	4	53	A	C6-N1-C2	-5.14	115.52	118.60
1	6	1102	G	N3-C4-N9	-5.14	122.92	126.00
36	5	974	G	N1-C6-O6	-5.14	116.82	119.90
36	1	91	G	C6-C5-N7	-5.13	127.32	130.40
36	1	1604	G	N1-C2-N2	-5.13	111.58	116.20
36	1	1823	A	C4-C5-C6	5.13	119.57	117.00
1	6	315	A	C2-N3-C4	5.13	113.17	110.60
1	6	631	G	N3-C4-N9	5.13	129.08	126.00
36	5	1339	C	N1-C2-O2	-5.13	115.82	118.90
36	5	2999	U	C5-C6-N1	-5.13	120.13	122.70
1	2	783	G	N9-C4-C5	-5.13	103.35	105.40
36	1	582	G	N3-C4-C5	5.13	131.17	128.60
1	6	38	C	C6-N1-C2	5.13	122.35	120.30
36	5	1506	A	C5-C6-N6	5.13	127.81	123.70
36	5	1882	G	C5-C6-N1	5.13	114.07	111.50
1	2	404	G	N3-C4-C5	5.13	131.17	128.60
36	1	2287	C	N3-C2-O2	-5.13	118.31	121.90
36	1	2426	U	OP2-P-O3'	5.13	116.49	105.20
1	6	475	A	N1-C6-N6	5.13	121.68	118.60
1	6	925	G	C8-N9-C4	5.13	108.45	106.40
36	5	1330	A	N1-C6-N6	5.13	121.68	118.60
36	5	2959	C	N3-C4-C5	-5.13	119.85	121.90
37	7	93	C	O5'-P-OP1	5.13	116.86	110.70
36	1	2772	C	N1-C1'-C2'	5.13	120.67	114.00
36	5	616	G	N1-C6-O6	-5.13	116.82	119.90
36	5	677	A	C5-C6-N6	-5.13	119.60	123.70
36	5	810	A	C2-N3-C4	5.13	113.17	110.60
36	5	2308	C	N1-C2-O2	-5.13	115.82	118.90
1	2	1399	C	C5-C6-N1	5.13	123.56	121.00
36	1	1501	U	C6-N1-C2	5.13	124.08	121.00
36	1	2679	A	O4'-C1'-N9	5.13	112.30	108.20
36	1	3242	G	C5-C6-O6	-5.13	125.52	128.60
1	6	631	G	C4-C5-N7	5.13	112.85	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	842	G	N3-C4-N9	5.13	129.08	126.00
36	5	2382	G	OP1-P-OP2	-5.13	111.91	119.60
1	2	1744	A	O5'-P-OP1	-5.13	101.09	105.70
36	1	801	A	C2-N3-C4	5.13	113.16	110.60
36	1	2216	G	C5-C6-O6	5.13	131.68	128.60
36	1	2988	C	C5-C6-N1	-5.13	118.44	121.00
1	6	1120	U	N3-C2-O2	-5.13	118.61	122.20
36	5	834	U	C2-N1-C1'	-5.13	111.55	117.70
36	5	834	U	N3-C4-O4	-5.13	115.81	119.40
36	5	1507	G	C6-C5-N7	-5.13	127.32	130.40
1	6	718	U	C2-N1-C1'	5.12	123.85	117.70
36	5	92	G	C5-C6-N1	5.12	114.06	111.50
1	2	403	G	C4-N9-C1'	5.12	133.16	126.50
1	2	1255	G	N1-C6-O6	-5.12	116.83	119.90
36	1	788	C	C6-N1-C2	5.12	122.35	120.30
37	3	92	A	C2-N3-C4	-5.12	108.04	110.60
1	6	1535	U	C6-N1-C1'	-5.12	114.03	121.20
36	5	914	A	N1-C2-N3	5.12	131.86	129.30
1	2	532	U	C5-C6-N1	5.12	125.26	122.70
36	1	3041	U	N3-C2-O2	5.12	125.78	122.20
36	1	3088	G	C4-C5-N7	-5.12	108.75	110.80
1	6	1131	A	C5-C6-N6	-5.12	119.60	123.70
36	5	1043	C	OP2-P-O3'	5.12	116.47	105.20
36	1	1377	G	C4-C5-N7	5.12	112.85	110.80
36	1	2388	U	C5-C4-O4	-5.12	122.83	125.90
36	5	3008	A	C5-C6-N1	-5.12	115.14	117.70
36	1	2593	A	P-O3'-C3'	5.12	125.84	119.70
36	5	1085	A	C2-N3-C4	-5.12	108.04	110.60
36	1	282	G	C2'-C3'-O3'	5.12	121.89	113.70
36	1	1595	U	C2-N1-C1'	-5.12	111.56	117.70
36	1	2370	G	OP2-P-O3'	5.12	116.46	105.20
36	5	2364	G	N9-C4-C5	5.12	107.45	105.40
1	2	1559	A	O4'-C1'-N9	5.12	112.29	108.20
1	6	399	A	C8-N9-C4	5.12	107.85	105.80
1	6	1751	C	C6-N1-C2	5.12	122.35	120.30
36	5	800	G	N9-C4-C5	-5.12	103.35	105.40
36	5	933	A	N1-C2-N3	5.12	131.86	129.30
36	1	1487	G	C4-C5-N7	-5.11	108.75	110.80
36	1	1534	A	C4-C5-N7	5.11	113.26	110.70
38	4	111	A	C8-N9-C4	5.11	107.85	105.80
14	c2	58	LEU	CA-CB-CG	5.11	127.06	115.30
36	5	971	G	N3-C2-N2	-5.11	116.32	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2295	A	C5-C6-N1	5.11	120.26	117.70
36	5	2541	U	C2-N1-C1'	5.11	123.84	117.70
36	5	2993	G	C8-N9-C4	5.11	108.44	106.40
36	1	726	G	C5-N7-C8	-5.11	101.74	104.30
36	1	2935	U	O5'-P-OP2	-5.11	101.10	105.70
36	1	2964	G	OP1-P-O3'	5.11	116.45	105.20
36	1	3054	U	C5-C4-O4	5.11	128.97	125.90
36	5	800	G	C6-C5-N7	-5.11	127.33	130.40
36	5	2916	U	N3-C4-O4	5.11	122.98	119.40
36	1	221	A	O4'-C1'-N9	5.11	112.29	108.20
36	1	2282	U	O5'-P-OP1	5.11	116.83	110.70
36	1	2704	A	C2-N3-C4	-5.11	108.05	110.60
36	1	2930	A	N9-C4-C5	-5.11	103.76	105.80
36	1	2943	G	C6-C5-N7	-5.11	127.33	130.40
1	6	13	C	C4-C5-C6	5.11	119.95	117.40
36	5	38	U	C5-C6-N1	-5.11	120.14	122.70
36	5	800	G	C8-N9-C1'	-5.11	120.36	127.00
36	5	2980	U	N3-C2-O2	-5.11	118.62	122.20
36	5	3020	U	N3-C2-O2	5.11	125.78	122.20
36	1	940	G	N1-C6-O6	-5.11	116.83	119.90
36	5	306	A	N1-C6-N6	5.11	121.67	118.60
36	1	72	C	C2-N1-C1'	-5.11	113.18	118.80
36	1	2396	G	N7-C8-N9	-5.11	110.55	113.10
53	M7	3	ARG	NE-CZ-NH2	-5.11	117.75	120.30
36	5	798	G	N3-C4-N9	-5.11	122.94	126.00
36	5	1548	C	C6-N1-C1'	5.11	126.93	120.80
36	5	2320	A	C2-N3-C4	-5.11	108.05	110.60
47	m0	57	LEU	CA-CB-CG	5.11	127.05	115.30
36	1	2335	G	C8-N9-C4	5.11	108.44	106.40
36	1	2813	A	O5'-P-OP1	5.11	116.83	110.70
36	5	2141	U	OP2-P-O3'	5.11	116.43	105.20
36	5	2211	U	N1-C2-N3	5.11	117.96	114.90
36	5	2325	G	N1-C2-N3	5.11	126.96	123.90
36	5	2818	U	C5-C6-N1	5.11	125.25	122.70
36	5	2993	G	N9-C4-C5	-5.11	103.36	105.40
1	2	601	A	C5-C6-N6	-5.10	119.62	123.70
36	1	901	G	N3-C2-N2	-5.10	116.33	119.90
36	1	1834	U	N3-C4-C5	-5.10	111.54	114.60
1	6	664	U	C2-N1-C1'	5.10	123.82	117.70
36	5	1476	G	C5-C6-O6	5.10	131.66	128.60
36	5	3197	G	C8-N9-C1'	5.10	133.63	127.00
37	7	50	U	N1-C2-O2	-5.10	119.23	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	639	G	C5-C6-O6	-5.10	125.54	128.60
36	1	801	A	O4'-C1'-N9	-5.10	104.12	108.20
36	1	1061	A	C8-N9-C4	5.10	107.84	105.80
36	5	421	G	N3-C2-N2	5.10	123.47	119.90
36	5	635	G	C2-N3-C4	-5.10	109.35	111.90
36	5	971	G	C5-N7-C8	5.10	106.85	104.30
36	5	2961	G	C5-C6-N1	-5.10	108.95	111.50
36	5	3004	C	N1-C2-O2	-5.10	115.84	118.90
36	1	2352	A	C5-C6-N6	-5.10	119.62	123.70
36	5	546	C	C3'-C2'-C1'	5.10	105.58	101.50
36	5	2725	U	C4-C5-C6	-5.10	116.64	119.70
36	5	2914	G	C5-C6-O6	-5.10	125.54	128.60
38	8	45	C	C6-N1-C2	-5.10	118.26	120.30
36	1	353	G	C5-C6-O6	-5.10	125.54	128.60
36	1	2434	U	N3-C2-O2	-5.10	118.63	122.20
1	6	1782	A	C8-N9-C4	-5.10	103.76	105.80
36	5	1163	A	C5-C6-N6	5.10	127.78	123.70
36	5	2992	U	C2-N1-C1'	5.10	123.82	117.70
36	1	2615	G	C4-C5-N7	5.10	112.84	110.80
1	6	63	G	C5-C6-N1	5.10	114.05	111.50
1	6	965	U	N1-C2-O2	5.10	126.37	122.80
37	7	11	A	C6-C5-N7	-5.10	128.73	132.30
36	1	843	A	C2-N3-C4	-5.09	108.05	110.60
36	1	2148	U	C5-C4-O4	-5.09	122.84	125.90
36	1	2796	G	N7-C8-N9	5.09	115.65	113.10
36	5	1521	G	N1-C6-O6	-5.09	116.84	119.90
36	5	1595	U	C2-N1-C1'	-5.09	111.58	117.70
36	5	2199	G	C4-C5-C6	5.09	121.86	118.80
36	5	2202	C	N3-C4-N4	5.09	121.57	118.00
36	5	2406	C	N1-C2-O2	-5.09	115.84	118.90
36	5	2917	G	C5-C6-O6	-5.09	125.54	128.60
36	5	3008	A	N3-C4-N9	-5.09	123.33	127.40
1	2	545	A	OP1-P-O3'	5.09	116.41	105.20
36	5	2891	U	C5-C4-O4	-5.09	122.84	125.90
1	2	1258	U	C2-N1-C1'	5.09	123.81	117.70
1	2	1273	G	O4'-C1'-N9	5.09	112.27	108.20
6	S4	193	GLY	N-CA-C	5.09	125.83	113.10
36	1	97	U	C5-C6-N1	-5.09	120.16	122.70
36	1	1391	C	C2-N1-C1'	5.09	124.40	118.80
36	1	3208	G	N1-C2-N2	5.09	120.78	116.20
36	5	38	U	C5-C4-O4	-5.09	122.84	125.90
36	5	750	G	C5-C6-O6	-5.09	125.55	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1324	U	O5'-P-OP2	-5.09	101.12	105.70
36	5	2524	A	N7-C8-N9	5.09	116.34	113.80
36	5	3307	A	C5-C6-N6	-5.09	119.63	123.70
36	1	511	G	OP2-P-O3'	5.09	116.40	105.20
36	5	6	A	C8-N9-C4	5.09	107.84	105.80
36	5	427	C	C5-C6-N1	-5.09	118.45	121.00
36	5	816	A	C5-C6-N6	5.09	127.77	123.70
36	5	1887	A	N7-C8-N9	-5.09	111.25	113.80
36	5	2972	G	C5-C6-O6	5.09	131.65	128.60
36	5	3136	G	N1-C2-N3	5.09	126.95	123.90
36	1	2726	C	C5-C4-N4	5.09	123.76	120.20
37	3	86	U	O4'-C1'-N1	-5.09	104.13	108.20
36	5	2608	G	C5-C6-O6	5.09	131.65	128.60
36	1	1310	G	C5-C6-O6	5.09	131.65	128.60
37	3	82	G	N1-C2-N2	-5.09	111.62	116.20
1	6	1774	G	N1-C6-O6	-5.09	116.85	119.90
36	5	1456	A	N1-C6-N6	5.09	121.65	118.60
36	5	2213	A	OP2-P-O3'	5.09	116.39	105.20
36	5	3093	C	C5-C6-N1	-5.09	118.46	121.00
1	2	460	A	N1-C6-N6	-5.08	115.55	118.60
36	1	663	C	N1-C2-O2	-5.08	115.85	118.90
36	1	2249	G	N9-C1'-C2'	-5.08	106.41	112.00
36	5	105	C	C6-N1-C2	5.08	122.33	120.30
36	5	588	G	C6-C5-N7	-5.08	127.35	130.40
36	5	3304	U	N3-C4-O4	5.08	122.96	119.40
36	1	335	G	O5'-P-OP1	-5.08	101.12	105.70
36	1	715	A	OP1-P-O3'	5.08	116.39	105.20
36	1	1003	A	C6-C5-N7	-5.08	128.74	132.30
36	1	1199	C	C6-N1-C2	5.08	122.33	120.30
36	1	1397	C	N3-C4-C5	5.08	123.93	121.90
36	1	2639	G	C5-C6-O6	-5.08	125.55	128.60
36	5	942	U	N3-C4-C5	-5.08	111.55	114.60
36	5	1117	G	N3-C2-N2	-5.08	116.34	119.90
36	5	1512	U	OP2-P-O3'	5.08	116.38	105.20
36	5	2850	G	C5-C6-N1	5.08	114.04	111.50
1	6	75	U	P-O3'-C3'	5.08	125.80	119.70
1	6	337	G	C4-C5-N7	5.08	112.83	110.80
36	5	304	G	C8-N9-C4	-5.08	104.37	106.40
36	5	955	U	C5-C4-O4	5.08	128.95	125.90
36	5	1372	C	C6-N1-C2	5.08	122.33	120.30
36	5	1450	G	N1-C2-N2	5.08	120.77	116.20
36	5	2725	U	C2-N1-C1'	-5.08	111.60	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1366	A	C4-C5-N7	5.08	113.24	110.70
1	6	571	G	N9-C4-C5	5.08	107.43	105.40
36	5	1133	A	C5-C6-N1	5.08	120.24	117.70
36	1	368	G	C4-C5-N7	5.08	112.83	110.80
36	1	2201	G	N1-C6-O6	5.08	122.95	119.90
36	1	2810	C	N3-C2-O2	5.08	125.45	121.90
36	1	2833	A	N7-C8-N9	-5.08	111.26	113.80
1	6	89	G	C5-C6-O6	-5.08	125.55	128.60
36	5	559	A	C8-N9-C4	-5.08	103.77	105.80
36	5	1134	G	O5'-P-OP2	-5.08	101.13	105.70
37	7	112	G	C5-C6-O6	5.08	131.65	128.60
36	5	2301	U	N1-C2-O2	-5.08	119.25	122.80
36	5	2772	C	OP2-P-O3'	5.08	116.37	105.20
36	1	1458	U	C5-C6-N1	-5.08	120.16	122.70
36	1	2633	U	C4-C5-C6	5.08	122.75	119.70
36	1	2868	U	C6-N1-C1'	-5.08	114.09	121.20
1	6	1150	G	C4-C5-N7	5.08	112.83	110.80
36	1	320	G	C8-N9-C4	5.07	108.43	106.40
36	1	2706	G	N9-C4-C5	-5.07	103.37	105.40
1	6	438	A	C8-N9-C4	5.07	107.83	105.80
1	6	1522	U	O4'-C1'-N1	5.07	112.26	108.20
36	5	1888	U	C4-C5-C6	5.07	122.74	119.70
1	2	1244	A	P-O3'-C3'	5.07	125.79	119.70
36	1	695	C	C5-C6-N1	-5.07	118.46	121.00
36	1	2298	U	C5-C4-O4	5.07	128.94	125.90
36	5	964	G	C4-N9-C1'	5.07	133.09	126.50
36	5	1372	C	C2-N3-C4	-5.07	117.36	119.90
36	5	2346	C	N3-C4-N4	5.07	121.55	118.00
36	1	233	C	C6-N1-C2	5.07	122.33	120.30
36	1	3103	A	C2-N3-C4	-5.07	108.06	110.60
36	5	649	A	N9-C4-C5	-5.07	103.77	105.80
36	1	2215	A	C2-N3-C4	-5.07	108.07	110.60
36	1	2364	G	C6-N1-C2	-5.07	122.06	125.10
36	5	1314	C	N1-C2-O2	5.07	121.94	118.90
36	5	2836	C	C2-N1-C1'	5.07	124.38	118.80
1	2	90	C	C6-N1-C2	-5.07	118.27	120.30
1	2	1572	G	C6-C5-N7	-5.07	127.36	130.40
36	1	865	U	OP2-P-O3'	5.07	116.35	105.20
36	1	2642	A	N3-C4-C5	5.07	130.35	126.80
36	1	2901	G	C5-C6-O6	-5.07	125.56	128.60
36	1	3361	G	N3-C2-N2	5.07	123.45	119.90
1	6	67	A	C6-C5-N7	-5.07	128.75	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	592	A	C4-C5-N7	5.07	113.23	110.70
36	5	617	G	C4-C5-N7	5.07	112.83	110.80
36	5	1197	A	C5-C6-N6	-5.07	119.65	123.70
36	5	1770	G	C8-N9-C1'	-5.07	120.41	127.00
36	5	2293	C	C5-C4-N4	-5.07	116.65	120.20
36	5	3184	A	C4-C5-C6	-5.07	114.47	117.00
36	1	81	C	N1-C2-O2	-5.07	115.86	118.90
36	1	1115	G	C4-C5-N7	5.07	112.83	110.80
36	1	2572	C	C5-C6-N1	5.07	123.53	121.00
71	O5	24	LEU	CB-CG-CD2	-5.07	102.39	111.00
36	1	642	U	OP1-P-OP2	-5.06	112.00	119.60
36	1	2142	A	N1-C2-N3	5.06	131.83	129.30
1	6	407	A	N1-C6-N6	5.06	121.64	118.60
1	6	610	G	N9-C4-C5	-5.06	103.37	105.40
36	5	543	C	C6-N1-C2	-5.06	118.27	120.30
36	5	2371	G	N7-C8-N9	-5.06	110.57	113.10
36	5	2649	A	OP2-P-O3'	5.06	116.34	105.20
36	5	2650	U	N1-C2-N3	5.06	117.94	114.90
36	1	1433	A	C2-N3-C4	5.06	113.13	110.60
36	1	1481	A	N1-C6-N6	5.06	121.64	118.60
1	6	338	C	C6-N1-C2	-5.06	118.28	120.30
1	6	755	A	P-O3'-C3'	5.06	125.78	119.70
36	5	303	G	N1-C6-O6	-5.06	116.86	119.90
36	5	1200	A	C6-C5-N7	-5.06	128.76	132.30
36	5	1879	A	N9-C4-C5	-5.06	103.78	105.80
36	5	2402	A	OP1-P-O3'	5.06	116.34	105.20
36	5	2687	G	N3-C4-N9	5.06	129.04	126.00
36	5	2695	A	C5-C6-N1	5.06	120.23	117.70
36	1	959	C	N3-C2-O2	5.06	125.44	121.90
1	6	1480	G	C4-N9-C1'	5.06	133.08	126.50
38	8	142	C	N3-C4-C5	5.06	123.92	121.90
36	1	2620	G	N1-C6-O6	5.06	122.94	119.90
36	1	2662	G	C2-N3-C4	-5.06	109.37	111.90
36	1	3208	G	N3-C2-N2	-5.06	116.36	119.90
1	6	1773	C	C4-C5-C6	5.06	119.93	117.40
36	5	2246	G	O5'-P-OP2	5.06	116.77	110.70
36	5	3014	U	C5-C4-O4	-5.06	122.86	125.90
37	7	77	G	N3-C4-N9	5.06	129.03	126.00
1	2	1482	C	C6-N1-C2	5.06	122.32	120.30
36	1	1447	G	N1-C6-O6	-5.06	116.86	119.90
36	1	2282	U	OP2-P-O3'	5.06	116.33	105.20
36	1	2394	G	N1-C6-O6	-5.06	116.87	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2410	U	C6-N1-C2	5.06	124.03	121.00
38	4	19	C	C4-C5-C6	5.06	119.93	117.40
1	6	678	A	P-O3'-C3'	5.06	125.77	119.70
36	5	1449	A	C5-C6-N6	-5.06	119.66	123.70
36	5	1848	G	C5-C6-O6	-5.06	125.56	128.60
36	5	2335	G	C8-N9-C4	5.06	108.42	106.40
1	2	975	C	N3-C4-C5	-5.06	119.88	121.90
1	2	1452	U	N3-C2-O2	-5.06	118.66	122.20
36	1	649	A	N1-C6-N6	-5.06	115.57	118.60
38	4	17	A	O5'-P-OP2	5.06	116.77	110.70
36	5	2154	U	N3-C2-O2	-5.06	118.66	122.20
36	5	3043	C	N3-C4-C5	5.06	123.92	121.90
38	8	103	G	N3-C2-N2	5.06	123.44	119.90
1	2	1749	A	C8-N9-C4	5.05	107.82	105.80
1	6	1423	U	C5-C6-N1	-5.05	120.17	122.70
36	5	653	A	N9-C4-C5	-5.05	103.78	105.80
36	5	1658	G	N1-C6-O6	-5.05	116.87	119.90
36	5	2381	G	N1-C6-O6	5.05	122.93	119.90
36	5	2398	A	N7-C8-N9	-5.05	111.27	113.80
36	5	2832	C	C4-C5-C6	5.05	119.93	117.40
37	7	81	U	OP2-P-O3'	5.05	116.32	105.20
36	5	859	G	C5-N7-C8	-5.05	101.77	104.30
36	5	1098	A	C5-C6-N6	-5.05	119.66	123.70
36	5	1165	A	O5'-P-OP2	-5.05	101.15	105.70
36	5	2729	U	C5-C4-O4	5.05	128.93	125.90
36	5	2797	C	C2-N3-C4	-5.05	117.37	119.90
36	1	651	G	OP2-P-O3'	5.05	116.31	105.20
36	1	1094	U	OP1-P-O3'	5.05	116.31	105.20
36	1	1741	A	C2-N3-C4	-5.05	108.07	110.60
1	6	1722	A	C8-N9-C4	5.05	107.82	105.80
36	1	1112	A	C5-C6-N6	-5.05	119.66	123.70
36	1	1364	C	C4-C5-C6	-5.05	114.88	117.40
1	6	317	C	C2-N3-C4	-5.05	117.38	119.90
36	5	815	G	C5-C6-O6	-5.05	125.57	128.60
36	5	2112	U	P-O3'-C3'	5.05	125.76	119.70
36	5	3065	G	O5'-P-OP1	-5.05	101.16	105.70
1	2	388	G	C5-C6-O6	-5.05	125.57	128.60
1	6	1696	G	C3'-C2'-C1'	5.05	105.54	101.50
36	5	2140	U	N1-C2-N3	5.05	117.93	114.90
36	1	39	A	N1-C6-N6	5.05	121.63	118.60
36	1	104	G	C6-C5-N7	-5.05	127.37	130.40
36	1	2371	G	N1-C2-N2	-5.05	111.66	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1080	A	C8-N9-C4	5.05	107.82	105.80
36	5	2190	U	N1-C2-O2	-5.05	119.27	122.80
1	6	687	G	C6-C5-N7	5.04	133.43	130.40
1	2	1241	G	C5-N7-C8	-5.04	101.78	104.30
36	1	3133	C	C5-C4-N4	-5.04	116.67	120.20
36	5	580	C	N3-C2-O2	-5.04	118.37	121.90
36	5	2316	G	C4-C5-N7	-5.04	108.78	110.80
36	1	217	U	C4-C5-C6	5.04	122.72	119.70
36	1	778	U	C5-C4-O4	5.04	128.93	125.90
36	1	817	A	N3-C4-C5	-5.04	123.27	126.80
36	1	1317	A	C4-C5-C6	5.04	119.52	117.00
36	1	2619	G	OP1-P-OP2	5.04	127.16	119.60
36	1	2830	G	N3-C2-N2	-5.04	116.37	119.90
36	1	2966	G	N3-C4-N9	5.04	129.02	126.00
36	5	53	G	O5'-P-OP2	-5.04	101.16	105.70
36	5	1846	C	C2-N3-C4	-5.04	117.38	119.90
36	5	3093	C	N3-C2-O2	5.04	125.43	121.90
1	6	1100	G	N3-C4-C5	-5.04	126.08	128.60
1	2	610	G	C8-N9-C1'	-5.04	120.45	127.00
36	1	233	C	N3-C4-C5	5.04	123.92	121.90
36	1	2859	U	OP2-P-O3'	5.04	116.28	105.20
36	5	428	A	C8-N9-C4	5.04	107.81	105.80
1	2	13	C	N3-C4-C5	5.04	123.92	121.90
64	N8	4	ARG	NE-CZ-NH1	-5.04	117.78	120.30
36	5	2191	U	N3-C2-O2	-5.04	118.67	122.20
1	2	403	G	C8-N9-C1'	-5.04	120.45	127.00
1	6	163	G	C4-N9-C1'	-5.04	119.95	126.50
1	6	565	C	C2-N3-C4	-5.04	117.38	119.90
36	5	395	A	N3-C4-N9	5.04	131.43	127.40
1	2	316	A	C5-C6-N1	5.03	120.22	117.70
36	1	365	A	N1-C6-N6	5.03	121.62	118.60
36	1	2513	U	P-O3'-C3'	5.03	125.74	119.70
38	4	111	A	N9-C4-C5	-5.03	103.79	105.80
36	5	55	G	OP1-P-O3'	5.03	116.27	105.20
36	5	334	A	C8-N9-C4	5.03	107.81	105.80
36	5	864	G	N1-C6-O6	5.03	122.92	119.90
36	5	1451	C	C2-N3-C4	-5.03	117.38	119.90
36	1	3127	A	OP1-P-O3'	5.03	116.27	105.20
36	5	583	G	C5-C6-O6	5.03	131.62	128.60
36	5	642	U	O5'-P-OP2	-5.03	101.17	105.70
36	5	2526	C	C6-N1-C1'	-5.03	114.76	120.80
36	1	821	U	C5-C6-N1	-5.03	120.18	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	932	U	C5-C4-O4	-5.03	122.88	125.90
36	1	2422	C	N3-C4-N4	-5.03	114.48	118.00
47	M0	146	ASP	CB-CG-OD1	-5.03	113.77	118.30
1	6	308	C	N3-C4-N4	-5.03	114.48	118.00
36	5	992	A	C5-C6-N1	-5.03	115.19	117.70
36	5	2134	G	C5-C6-O6	5.03	131.62	128.60
36	5	2967	A	C2-N3-C4	-5.03	108.08	110.60
36	5	3343	G	N3-C4-N9	5.03	129.02	126.00
38	4	6	U	N1-C2-N3	-5.03	111.88	114.90
25	d3	33	LEU	CA-CB-CG	-5.03	103.73	115.30
1	2	1743	U	N1-C2-O2	-5.03	119.28	122.80
36	1	658	G	C4-N9-C1'	5.03	133.04	126.50
36	1	979	U	P-O3'-C3'	5.03	125.73	119.70
36	1	1032	C	N1-C2-O2	5.03	121.92	118.90
36	1	1161	G	C5-C6-O6	-5.03	125.58	128.60
36	1	1923	C	C6-N1-C2	5.03	122.31	120.30
36	1	2434	U	N3-C4-O4	-5.03	115.88	119.40
1	6	552	G	N9-C4-C5	-5.03	103.39	105.40
36	5	1344	G	C8-N9-C4	5.03	108.41	106.40
1	2	868	G	N1-C6-O6	5.03	122.92	119.90
36	1	619	A	C8-N9-C4	5.03	107.81	105.80
1	6	151	G	N9-C4-C5	5.03	107.41	105.40
36	5	859	G	N7-C8-N9	5.03	115.61	113.10
36	5	1047	A	C5-N7-C8	-5.03	101.39	103.90
36	5	2939	G	OP2-P-O3'	5.03	116.25	105.20
36	1	268	A	C8-N9-C4	5.02	107.81	105.80
36	5	35	A	O5'-P-OP2	-5.02	101.18	105.70
1	6	402	C	O4'-C1'-N1	5.02	112.22	108.20
1	6	755	A	O4'-C1'-N9	5.02	112.22	108.20
36	5	1443	G	C5-C6-O6	5.02	131.61	128.60
36	5	3009	G	N3-C2-N2	-5.02	116.38	119.90
36	1	832	G	C8-N9-C4	5.02	108.41	106.40
1	6	1603	U	OP2-P-O3'	5.02	116.25	105.20
1	6	1748	G	N9-C4-C5	-5.02	103.39	105.40
36	5	2204	C	P-O3'-C3'	5.02	125.73	119.70
36	1	2385	G	C8-N9-C4	5.02	108.41	106.40
1	6	948	G	N1-C6-O6	-5.02	116.89	119.90
36	5	500	C	C6-N1-C2	5.02	122.31	120.30
36	5	645	A	C8-N9-C4	-5.02	103.79	105.80
48	m1	112	LEU	CA-CB-CG	5.02	126.84	115.30
36	1	2798	C	N3-C4-C5	-5.02	119.89	121.90
38	4	147	U	C5-C4-O4	-5.02	122.89	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	518	A	C5-C6-N6	5.02	127.71	123.70
7	s5	42	LEU	CA-CB-CG	5.02	126.84	115.30
36	5	1363	A	O5'-P-OP2	-5.02	101.18	105.70
36	5	2988	C	C5-C6-N1	-5.02	118.49	121.00
36	1	2764	C	C2-N3-C4	5.02	122.41	119.90
1	2	389	G	C8-N9-C4	-5.01	104.39	106.40
36	1	1136	A	C6-N1-C2	-5.01	115.59	118.60
36	1	3180	A	O5'-P-OP1	-5.01	101.19	105.70
36	5	1208	U	N1-C2-N3	5.01	117.91	114.90
36	5	2914	G	N9-C4-C5	-5.01	103.39	105.40
36	5	3086	A	C6-C5-N7	-5.01	128.79	132.30
40	l3	4	ARG	CG-CD-NE	5.01	122.33	111.80
1	2	321	C	C2-N1-C1'	5.01	124.31	118.80
1	2	1595	U	C4-C5-C6	5.01	122.71	119.70
36	5	92	G	N3-C2-N2	5.01	123.41	119.90
36	5	411	U	C2-N1-C1'	-5.01	111.69	117.70
36	5	1209	G	C5-N7-C8	-5.01	101.79	104.30
1	2	453	U	N1-C2-O2	5.01	126.31	122.80
1	2	1622	G	C8-N9-C4	5.01	108.40	106.40
36	1	1099	A	C5-C6-N6	-5.01	119.69	123.70
36	1	2714	G	C8-N9-C1'	5.01	133.51	127.00
36	1	3137	C	C6-N1-C1'	5.01	126.81	120.80
36	5	971	G	N1-C6-O6	5.01	122.91	119.90
36	5	1008	U	C5-C6-N1	-5.01	120.19	122.70
36	5	1014	U	C6-N1-C1'	-5.01	114.18	121.20
36	5	1088	U	C5-C6-N1	5.01	125.20	122.70
36	5	2199	G	C5-C6-O6	-5.01	125.59	128.60
36	5	2257	C	P-O3'-C3'	5.01	125.71	119.70
36	5	2900	A	N9-C4-C5	5.01	107.81	105.80
36	5	3107	U	C2-N3-C4	-5.01	123.99	127.00
36	1	797	U	OP2-P-O3'	5.01	116.22	105.20
36	1	1081	U	C2-N1-C1'	5.01	123.71	117.70
36	1	1547	G	C5-N7-C8	5.01	106.81	104.30
36	1	3265	C	C4-C5-C6	-5.01	114.89	117.40
38	4	34	U	N1-C2-O2	-5.01	119.29	122.80
38	4	99	C	N3-C4-N4	-5.01	114.49	118.00
36	5	1129	A	O5'-P-OP2	-5.01	101.19	105.70
36	5	2903	A	C8-N9-C4	5.01	107.80	105.80
38	8	17	A	C6-C5-N7	-5.01	128.79	132.30
1	2	1745	G	N9-C4-C5	-5.01	103.40	105.40
36	1	3093	C	N1-C2-N3	5.01	122.71	119.20
36	5	798	G	N3-C4-C5	5.01	131.10	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	929	A	O5'-P-OP2	-5.01	101.19	105.70
36	5	949	C	C5-C6-N1	-5.01	118.50	121.00
1	2	107	C	N3-C4-C5	5.01	123.90	121.90
36	1	53	G	C8-N9-C1'	-5.01	120.49	127.00
36	1	807	A	N1-C2-N3	5.01	131.80	129.30
1	6	453	U	C6-N1-C1'	-5.01	114.19	121.20
36	5	1166	G	C4-C5-N7	5.01	112.80	110.80
36	5	2874	G	C8-N9-C4	-5.01	104.40	106.40
1	2	1117	U	N3-C4-O4	5.00	122.90	119.40
36	1	2395	G	C6-C5-N7	-5.00	127.40	130.40
1	6	1698	G	P-O3'-C3'	5.00	125.71	119.70
36	5	398	A	OP1-P-OP2	5.00	127.11	119.60
36	5	2152	A	C6-N1-C2	-5.00	115.60	118.60
36	5	2611	U	C5-C6-N1	-5.00	120.20	122.70
36	5	3184	A	C6-N1-C2	5.00	121.60	118.60
1	2	543	C	P-O3'-C3'	5.00	125.70	119.70
36	1	112	U	O4'-C1'-N1	5.00	112.20	108.20
36	1	405	U	C5-C4-O4	-5.00	122.90	125.90
36	1	574	U	C2-N1-C1'	-5.00	111.70	117.70
36	1	1487	G	C5-C6-O6	5.00	131.60	128.60
36	1	1505	C	O5'-P-OP1	5.00	116.70	110.70
36	1	2173	U	C6-N1-C2	-5.00	118.00	121.00
36	1	2661	G	C4-C5-N7	5.00	112.80	110.80
36	5	671	U	C5-C6-N1	-5.00	120.20	122.70
36	5	3080	G	N9-C4-C5	-5.00	103.40	105.40
36	1	645	A	C5-C6-N1	5.00	120.20	117.70
36	1	797	U	N3-C4-O4	5.00	122.90	119.40
38	4	4	C	C2-N3-C4	-5.00	117.40	119.90
1	6	1535	U	O4'-C1'-N1	5.00	112.20	108.20
36	5	592	A	N3-C4-C5	5.00	130.30	126.80
36	5	1888	U	C2-N3-C4	-5.00	124.00	127.00
36	5	2777	G	C5'-C4'-C3'	-5.00	108.00	116.00
37	7	10	C	C6-N1-C1'	-5.00	114.80	120.80

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
81	p0	212	HIS	CA

All (35) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	124	ASP	Peptide
19	C7	22	PRO	Peptide
19	C7	85	VAL	Peptide
27	D5	94	LYS	Peptide
28	D6	97	PRO	Peptide
33	E1	105	TYR	Peptide
41	L4	129	THR	Peptide
43	L6	89	THR	Peptide
45	L8	30	THR	Peptide
49	M3	164	GLU	Peptide
52	M6	110	PRO	Peptide
57	N1	16	GLN	Peptide
65	N9	20	GLY	Peptide
9	S7	131	PHE	Peptide
17	c5	52	LYS	Peptide
18	c6	41	PRO	Peptide
19	c7	87	GLU	Peptide
22	d0	70	THR	Peptide
39	l2	237	LEU	Peptide
40	l3	234	GLY	Peptide
42	l5	270	LYS	Peptide
43	l6	51	ARG	Peptide
44	l7	226	GLY	Peptide
52	m6	110	PRO	Peptide
54	m8	14	GLY	Peptide
54	m8	169	GLY	Peptide
56	n0	133	ALA	Peptide
56	n0	170	THR	Peptide
64	n8	26	ARG	Peptide
64	n8	66	ALA	Peptide
65	n9	19	ASN	Peptide
72	o6	63	ASN	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
9	s7	130	VAL	Peptide

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	37283	0	18757	1016	0
1	6	38238	0	19239	992	0
2	S0	1577	0	1567	175	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	151	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	127	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	129	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	171	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	171	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1878	134	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	117	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	152	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	67	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	80	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	64	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	92	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	95	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	92	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	117	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	82	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	126	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	123	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	90	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	d0	882	0	939	0	0
23	D1	684	0	672	69	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	92	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	98	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	97	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	61	0
27	d5	558	0	598	0	0
28	D6	769	0	814	104	0
28	d6	769	0	815	0	0
29	D7	610	0	630	45	0
29	d7	610	0	631	0	0
30	D8	497	0	535	58	0
30	d8	497	0	535	0	0
31	D9	442	0	428	34	0
31	d9	442	0	428	0	0
32	E0	475	0	525	36	0
33	E1	566	0	602	56	0
33	e1	608	0	655	0	0
34	SR	2441	0	2397	151	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	74	0
35	sM	680	0	607	0	0
36	1	67355	0	33845	1375	1
36	5	67376	0	33860	1431	0
37	3	2579	0	1304	54	0
37	7	2579	0	1303	55	0
38	4	3353	0	1695	82	0
38	8	3353	0	1695	84	0
39	L2	1914	0	1981	170	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	267	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	249	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	183	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	96	0
43	l6	1248	0	1339	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	L7	1784	0	1862	146	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	142	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	132	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1735	140	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	117	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	127	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	103	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	154	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	139	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	113	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	105	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	114	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	108	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	119	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	54	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	75	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	32	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	76	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	91	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	93	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1214	117	0
64	n8	1173	0	1215	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
65	N9	462	0	491	40	0
65	n9	462	0	491	0	0
66	O0	743	0	797	55	0
66	o0	767	0	816	0	0
67	O1	876	0	912	60	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	89	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	69	0
69	o3	850	0	880	0	0
70	O4	880	0	945	78	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	80	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	70	0
72	o6	770	0	846	0	0
73	O7	681	0	682	63	0
73	o7	681	0	683	0	0
74	O8	612	0	682	43	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	28	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	31	0
77	q1	233	0	284	0	0
78	Q2	847	0	916	56	0
78	q2	847	0	915	0	0
79	Q3	694	0	734	61	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	p0	1076	0	1040	0	0
82	m2	750	0	177	0	0
83	p1	235	0	50	0	0
84	p2	230	0	50	0	0
85	1	470	0	0	0	0
85	2	122	0	0	0	0
85	3	14	0	0	0	0
85	4	25	0	0	0	0
85	5	497	0	0	0	0
85	6	146	0	0	0	0
85	7	16	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	8	15	0	0	0	0
85	C1	1	0	0	0	0
85	D0	1	0	0	0	0
85	L2	2	0	0	0	0
85	L3	2	0	0	0	0
85	L4	2	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	1	0	0	0	0
85	M6	1	0	0	0	0
85	M7	3	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	2	0	0	0	0
85	N8	4	0	0	0	0
85	O2	1	0	0	0	0
85	O4	1	0	0	0	0
85	O7	1	0	0	0	0
85	Q2	1	0	0	0	0
85	S2	2	0	0	0	0
85	S4	1	0	0	0	0
85	S8	1	0	0	0	0
85	SM	1	0	0	0	0
85	c1	1	0	0	0	0
85	c7	1	0	0	0	0
85	c8	1	0	0	0	0
85	c9	1	0	0	0	0
85	d3	3	0	0	0	0
85	d4	1	0	0	0	0
85	d6	1	0	0	0	0
85	l2	3	0	0	0	0
85	l3	3	0	0	0	0
85	l4	2	0	0	0	0
85	l5	1	0	0	0	0
85	l7	2	0	0	0	0
85	l8	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	m1	2	0	0	0	0
85	m5	3	0	0	0	0
85	m6	1	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	1	0	0	0	0
85	n8	5	0	0	0	0
85	n9	1	0	0	0	0
85	o1	1	0	0	0	0
85	o3	1	0	0	0	0
85	o4	2	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
85	s1	1	0	0	0	0
85	s6	1	0	0	0	0
85	s8	2	0	0	0	0
85	sM	2	0	0	0	0
86	1	2443	0	0	228	0
86	2	1099	0	0	110	0
86	3	84	0	0	4	0
86	4	112	0	0	12	0
86	5	2478	0	0	227	0
86	6	1106	0	0	118	0
86	7	84	0	0	4	0
86	8	112	0	0	15	0
86	C3	7	0	0	1	0
86	C5	7	0	0	3	0
86	C8	7	0	0	0	0
86	D9	7	0	0	1	0
86	L3	21	0	0	4	0
86	L4	7	0	0	2	0
86	M0	7	0	0	0	0
86	M5	7	0	0	0	0
86	M7	14	0	0	2	0
86	M9	7	0	0	1	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	3	0
86	Q2	7	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	S6	7	0	0	2	1
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	21	0	0	0	0
86	l4	14	0	0	0	0
86	l5	14	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
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	n6	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	o7	14	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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	36	0	34	3	0
88	5	36	0	34	4	0
All	All	411230	0	297349	10957	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 16.

All (10957) 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	1.43
28:D6:26:CYS:SG	28:D6:77:CYS:SG	3.33	1.26
62:N6:71:SER:HB3	62:N6:83:ASP:HB2	1.33	1.09
36:5:2273:G:O6	86:5:4192:OHX:N5	1.88	1.07
36:5:3274:A:H3'	36:5:3275:U:H5''	1.38	1.05
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.39	1.04
36:5:2732:G:OP2	86:5:4212:OHX:N1	1.94	1.00
70:O4:74:ARG:NH2	36:5:1639:C:OP2	199.55	1.00
1:6:1588:G:H1	1:6:1608:U:H3	1.09	0.99
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.14	0.98
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.22	0.96
36:5:2822:U:OP2	86:5:3946:OHX:N1	1.97	0.96
36:1:3182:G:OP1	52:M6:160:ARG:NH2	1.98	0.95
68:O2:19:ARG:HH11	68:O2:28:VAL:HG13	3.14	0.95
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	2.25	0.95
36:5:3153:U:H4'	36:5:3154:C:H5'	1.45	0.95
6:S4:49:ARG:NH1	1:6:448:C:OP2	378.65	0.95
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.76	0.95
53:M7:69:ARG:HG2	53:M7:79:THR:HG23	4.47	0.95
36:1:3050:U:OP2	86:1:4180:OHX:N4	2.01	0.94
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.01	0.94
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	2.62	0.93
1:2:1585:U:H3	1:2:1611:A:H2	1.16	0.93
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.50	0.93
36:1:1951:C:H42	36:1:2095:G:H1	1.16	0.93
64:N8:21:ARG:NH2	36:5:640:U:OP1	181.36	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:140:A:N6	1:2:281:G:OP1	2.01	0.91
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.02	0.91
1:2:151:G:O6	26:D4:124:ARG:NH2	2.04	0.91
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.53	0.91
40:L3:296:THR:HG22	40:L3:298:PHE:H	4.21	0.90
1:6:1765:A:OP1	86:6:2124:OHX:N2	2.05	0.90
1:2:992:A:OP1	86:2:2034:OHX:N2	2.05	0.90
1:6:991:G:OP2	86:6:2169:OHX:N2	2.04	0.90
36:5:2823:G:O6	86:5:3946:OHX:N4	2.04	0.90
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.41	0.90
65:N9:50:THR:HG22	36:5:1073:U:H1'	204.60	0.89
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	3.85	0.89
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.13	0.89
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	1.55	0.89
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	1.52	0.89
47:M0:99:ILE:HD12	47:M0:101:LYS:HB2	6.53	0.89
36:1:978:G:O2'	36:1:979:U:O2	1.91	0.89
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.56	0.88
41:L4:89:ALA:O	41:L4:91:GLY:N	2.07	0.88
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.05	0.88
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.07	0.88
48:M1:94:ARG:O	48:M1:96:PHE:N	2.06	0.88
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.00	0.88
36:5:1015:U:O2'	36:5:1017:C:OP1	1.92	0.88
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.55	0.88
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.79	0.88
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.39	0.87
38:8:16:G:O6	86:8:217:OHX:N6	2.07	0.87
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	6.16	0.87
64:N8:6:THR:HG23	64:N8:8:THR:HG23	2.37	0.87
36:5:2255:A:H5'	36:5:2261:G:H22	1.40	0.87
1:2:1202:A:OP1	86:2:2110:OHX:N1	2.07	0.87
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.08	0.87
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.02	0.87
36:1:2836:C:H5	36:1:2852:C:H42	1.21	0.87
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.53	0.87
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.08	0.86
36:1:1898:G:OP2	86:1:3929:OHX:N4	2.09	0.86
36:1:1940:G:H21	36:1:3362:A:H8	1.21	0.86
42:L5:265:TYR:OH	37:7:121:U:OP2	310.83	0.86
72:O6:63:ASN:O	72:O6:65:GLY:N	4.49	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1564:U:OP1	21:C9:38:LYS:NZ	2.08	0.86
45:L8:75:ILE:O	45:L8:77:GLN:N	2.08	0.86
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	1.56	0.85
1:6:938:G:N7	86:6:2104:OHX:N3	2.25	0.85
36:1:2123:G:N7	86:1:4197:OHX:N2	2.24	0.85
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.40	0.85
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.09	0.85
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.58	0.85
1:6:235:G:H2'	1:6:236:A:H8	1.40	0.85
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.56	0.85
70:O4:29:ILE:HD11	70:O4:31:ARG:HH21	1.39	0.85
36:5:1239:C:H42	36:5:1249:G:H1	1.24	0.85
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.34	0.85
1:6:868:G:H1	1:6:960:U:H3	1.21	0.85
41:L4:329:PRO:O	41:L4:331:ALA:N	3.51	0.85
24:D2:70:ASN:ND2	24:D2:130:TYR:O	2.09	0.85
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.59	0.85
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	2.53	0.85
36:1:1362:G:H4'	44:L7:159:GLN:O	1.76	0.85
36:5:1555:U:O4	36:5:1557:A:N6	2.10	0.85
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	1.90	0.85
1:6:1698:G:N2	1:6:1699:G:N7	2.24	0.85
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.10	0.84
47:M0:3:ARG:NH2	36:5:2854:U:OP2	289.24	0.84
1:6:230:C:H42	1:6:235:G:H1	1.25	0.84
36:1:2356:A:H61	36:1:2983:C:H5	1.19	0.84
64:N8:42:ARG:NH2	36:5:2799:A:N3	192.24	0.84
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.41	0.84
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.59	0.84
36:5:2233:A:OP2	86:5:3955:OHX:N5	2.10	0.84
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.39	0.84
40:L3:291:GLU:OE1	40:L3:302:LYS:NZ	4.61	0.84
1:2:471:A:OP2	86:2:2075:OHX:N4	2.11	0.84
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.57	0.83
1:2:328:A:N3	10:S8:86:SER:OG	2.10	0.83
38:4:62:C:O2	86:4:230:OHX:N5	2.11	0.83
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.75	0.83
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.51	0.83
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	2.17	0.83
10:S8:52:ASN:OD1	86:6:2134:OHX:N3	309.68	0.83
36:5:272:G:OP2	86:5:4068:OHX:N6	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.41	0.83
41:L4:292:SER:OG	41:L4:293:SER:N	2.09	0.83
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.11	0.83
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	2.09	0.83
36:5:1231:A:H5''	36:5:1232:C:H5'	1.57	0.83
41:L4:283:THR:HG21	41:L4:288:ARG:HH22	7.29	0.83
7:S5:64:VAL:HG13	7:S5:89:ILE:HD11	4.53	0.83
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.67	0.83
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.61	0.83
54:M8:66:ARG:NH2	36:5:744:A:OP1	165.64	0.83
36:1:2535:A:H61	36:1:2544:U:H3	1.27	0.83
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.43	0.83
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.11	0.83
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.60	0.83
17:C5:68:PRO:O	86:C5:201:OHX:N1	7.47	0.83
74:O8:44:LYS:HG2	74:O8:53:THR:HB	2.00	0.82
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.11	0.82
28:D6:24:VAL:HG21	28:D6:71:LEU:HD12	1.61	0.82
24:D2:2:THR:N	1:6:1034:C:HO2'	337.23	0.82
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	1.42	0.82
69:O3:75:HIS:HB3	69:O3:80:VAL:HG12	1.60	0.82
36:1:2548:C:OP2	39:L2:93:LYS:NZ	2.12	0.82
10:S8:10:LYS:NZ	1:6:339:C:OP2	283.01	0.82
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.84	0.82
64:N8:9:ARG:NH2	36:5:1431:G:N7	147.64	0.82
36:1:2208:A:N1	86:1:4042:OHX:N2	2.26	0.82
27:D5:71:ILE:HG23	27:D5:73:GLY:H	7.36	0.82
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.12	0.82
49:M3:165:SER:O	49:M3:167:PHE:N	2.12	0.82
36:5:1657:C:O2'	36:5:1797:A:OP2	1.96	0.82
14:C2:89:ILE:HG23	14:C2:90:LYS:H	1.43	0.82
36:1:2207:A:H2'	36:1:2208:A:H8	1.43	0.82
36:5:1466:G:O6	86:5:3905:OHX:N5	2.12	0.82
39:L2:193:ARG:NH2	36:5:2181:C:OP1	196.76	0.82
36:1:410:U:O4	86:1:4054:OHX:N5	2.13	0.82
36:1:3343:G:H21	36:1:3362:A:H2	1.26	0.82
64:N8:116:GLY:O	64:N8:137:LYS:NZ	5.52	0.82
36:5:510:G:O6	86:5:4017:OHX:N2	2.13	0.82
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.39	0.82
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.73	0.82
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.27	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1533:C:H4'	1:2:1539:G:N1	1.95	0.81
50:M4:132:LYS:HD3	36:5:3230:G:H4'	285.75	0.81
16:C4:50:ALA:O	16:C4:52:ARG:N	2.20	0.81
63:N7:102:GLU:H	63:N7:107:ARG:HH21	3.79	0.81
1:6:1097:U:H4'	1:6:1098:U:H5'	1.60	0.81
36:1:979:U:H1'	36:1:980:A:C8	2.15	0.81
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.65	0.81
13:C1:133:LYS:NZ	1:6:324:U:OP1	291.48	0.81
1:6:485:A:N6	1:6:502:U:O4	2.12	0.81
1:2:1559:A:H5''	20:C8:135:GLY:HA3	1.62	0.81
47:M0:142:ASP:OD1	47:M0:178:ARG:NH2	2.13	0.81
86:2:2038:OHX:N1	25:D3:64:PRO:O	2.13	0.81
1:6:1680:G:O6	86:6:2187:OHX:N4	2.14	0.81
66:O0:9:SER:OG	66:O0:10:ILE:N	2.11	0.81
36:5:155:G:H5''	36:5:156:G:C8	2.16	0.81
36:1:1790:G:O6	86:1:4167:OHX:N4	2.13	0.81
36:1:1222:G:HO2'	36:1:1285:G:H1	1.23	0.81
36:5:2236:G:OP1	86:5:4242:OHX:N3	2.13	0.81
21:C9:57:ARG:NH1	1:6:1479:A:OP1	390.51	0.81
73:O7:14:LYS:HD2	75:O9:51:ILE:HD11	1.82	0.81
38:4:46:G:OP2	75:O9:15:LYS:NZ	2.14	0.81
61:N5:137:ASN:HB3	61:N5:142:ILE:HD12	3.99	0.81
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	1.86	0.80
36:5:2977:G:OP1	86:5:4146:OHX:N4	2.13	0.80
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.14	0.80
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.35	0.80
1:2:1592:A:H2'	1:2:1593:A:C8	2.16	0.80
1:2:1010:C:OP2	86:2:2131:OHX:N6	2.14	0.80
43:L6:158:TYR:OH	50:M4:114:ASP:OD2	2.00	0.80
25:D3:64:PRO:O	86:6:2157:OHX:N2	359.57	0.80
36:5:2372:A:H5''	36:5:2373:A:H5'	1.62	0.80
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.63	0.80
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	2.02	0.80
1:6:301:A:OP2	86:6:2091:OHX:N1	2.14	0.80
86:1:4078:OHX:N1	72:O6:28:TYR:O	2.15	0.80
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.61	0.80
52:M6:110:PRO:O	52:M6:112:TYR:N	2.94	0.80
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	1.63	0.80
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.62	0.80
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.15	0.80
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:23:PHE:HE2	16:C4:91:THR:HG21	1.46	0.80
36:5:343:U:OP2	86:5:3917:OHX:N3	2.14	0.80
47:M0:55:ASN:ND2	47:M0:162:GLN:OE1	2.56	0.80
36:5:3343:G:H21	36:5:3362:A:H2	1.28	0.80
36:5:1414:G:O6	86:5:4140:OHX:N1	2.14	0.80
72:O6:30:LYS:NZ	36:5:316:U:O2'	102.31	0.80
36:5:314:U:O4	86:5:4185:OHX:N5	2.14	0.80
11:S9:163:PRO:O	11:S9:165:GLY:N	2.14	0.80
1:2:1500:C:N4	1:2:1507:G:O6	2.11	0.80
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.64	0.80
36:1:2818:U:H6	36:1:2818:U:H5'	1.44	0.80
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.26	0.80
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.15	0.80
36:1:1233:G:H1	36:1:1255:C:H42	1.29	0.80
36:1:1233:G:N2	36:1:1255:C:N3	2.29	0.80
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.15	0.80
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.14	0.80
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.08	0.80
67:O1:31:ARG:HH11	67:O1:31:ARG:HB3	1.47	0.79
53:M7:172:GLN:OE1	69:O3:60:ARG:NH1	2.15	0.79
9:S7:131:PHE:O	9:S7:133:THR:N	2.15	0.79
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	2.00	0.79
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.16	0.79
36:5:2207:A:H62	36:5:2236:G:H1	1.30	0.79
36:5:2258:U:OP2	86:5:3941:OHX:N4	2.15	0.79
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	1.63	0.79
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	2.59	0.79
1:2:104:A:OP2	1:2:308:C:N4	2.15	0.79
78:Q2:50:PHE:O	86:Q2:503:OHX:N2	2.15	0.79
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.23	0.79
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.63	0.79
1:2:1588:G:H1	1:2:1608:U:H3	1.29	0.79
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.01	0.79
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.16	0.79
36:5:2444:C:H42	36:5:2503:G:H1	1.28	0.79
1:6:1011:G:OP2	86:6:2118:OHX:N3	2.14	0.79
1:6:1699:G:H22	1:6:1701:A:H3'	1.48	0.79
53:M7:62:ARG:O	86:M7:204:OHX:N1	2.16	0.79
36:1:371:G:O6	86:1:4179:OHX:N4	2.15	0.79
41:L4:339:LEU:HA	41:L4:342:LYS:HB3	4.73	0.79
8:S6:135:PRO:HB2	8:S6:141:ILE:HG12	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:182:LYS:NZ	64:N8:55:LYS:O	2.15	0.79
1:2:1508:U:O4	86:2:2030:OHX:N5	2.16	0.79
36:1:3103:A:OP2	86:1:4166:OHX:N1	2.16	0.78
18:C6:123:ARG:HG3	18:C6:124:PRO:HD2	1.65	0.78
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.63	0.78
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.49	0.78
71:O5:90:ARG:NH1	36:5:20:A:OP2	85.46	0.78
46:L9:49:ASN:O	46:L9:51:GLN:N	2.17	0.78
36:5:2234:G:O6	86:5:3955:OHX:N1	2.17	0.78
54:M8:147:ARG:NH2	36:5:670:C:OP1	162.29	0.78
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.65	0.78
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.64	0.78
1:6:1208:A:N1	1:6:1455:G:N2	2.31	0.78
1:2:868:G:H1	1:2:960:U:H3	1.31	0.78
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.64	0.78
46:L9:34:LEU:HD21	46:L9:149:ASN:HB2	1.79	0.78
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.66	0.78
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.47	0.78
36:5:2818:U:H6	36:5:2818:U:H5'	1.46	0.78
36:5:3194:C:O2	36:5:3197:G:N2	2.17	0.78
1:6:1230:A:H2	1:6:1255:G:H21	1.31	0.78
38:8:79:A:H3'	38:8:80:A:C8	2.19	0.78
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	2.12	0.78
35:SM:68:ARG:NH2	1:6:1460:A:OP2	330.96	0.78
34:SR:109:ASP:OD2	34:SR:127:ARG:NH1	2.17	0.78
36:1:2766:U:O4	86:1:4036:OHX:N2	2.17	0.78
64:N8:96:LYS:O	64:N8:98:THR:N	2.17	0.78
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.17	0.78
19:C7:14:LYS:NZ	19:C7:18:GLU:OE2	2.17	0.77
1:2:7:G:O6	4:S2:205:ARG:NH2	2.16	0.77
36:1:1170:A:OP2	86:1:3957:OHX:N5	2.16	0.77
36:1:1310:G:O6	86:1:4026:OHX:N1	2.17	0.77
73:O7:52:LYS:HA	73:O7:55:ARG:HD2	1.67	0.77
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.65	0.77
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.53	0.77
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.36	0.77
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.16	0.77
36:1:1243:G:N2	36:1:1244:A:N7	2.33	0.77
36:1:917:A:OP2	86:1:4142:OHX:N2	2.17	0.77
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.67	0.77
22:D0:27:THR:HB	22:D0:88:LYS:HG2	2.13	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1202:A:OP1	86:6:2128:OHX:N2	2.17	0.77
36:5:1487:G:H1	36:5:1855:U:H3	1.32	0.77
39:L2:193:ARG:NH1	36:5:2174:G:OP2	189.95	0.77
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	3.19	0.77
1:6:1130:G:OP2	86:6:2111:OHX:N1	2.17	0.77
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.17	0.77
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.66	0.77
1:6:1649:G:N7	86:6:2108:OHX:N2	2.33	0.77
20:C8:134:ARG:O	20:C8:136:GLN:N	3.84	0.77
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.47	0.77
1:2:820:U:H2'	1:2:821:U:H4'	1.67	0.77
1:6:484:C:H42	1:6:503:G:H1	1.30	0.77
40:L3:139:GLN:O	40:L3:141:GLY:N	2.17	0.77
1:2:823:G:H2'	1:2:824:G:C8	2.19	0.77
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.02	0.77
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.66	0.77
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.15	0.77
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.17	0.77
38:4:70:G:O6	86:O7:103:OHX:N4	2.18	0.77
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.65	0.77
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.16	0.77
1:2:583:C:OP1	86:2:2025:OHX:N3	2.18	0.77
36:1:284:A:OP2	78:Q2:41:ARG:NH1	2.18	0.77
39:L2:172:GLY:HA3	79:Q3:68:ALA:H	4.28	0.77
1:2:1291:G:N2	1:2:1324:G:H22	1.83	0.77
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.67	0.77
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.40	0.77
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.66	0.77
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.20	0.77
36:1:1878:G:OP1	86:1:3925:OHX:N4	2.18	0.77
1:6:1670:G:O6	86:6:2188:OHX:N4	2.18	0.77
1:6:1395:G:O6	86:6:2087:OHX:N3	2.17	0.77
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	2.00	0.77
1:2:991:G:OP2	86:2:2131:OHX:N1	2.16	0.77
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.17	0.77
40:L3:2:SER:N	36:5:2943:G:N7	235.71	0.77
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.67	0.77
39:L2:137:ILE:HG12	39:L2:147:ARG:HG3	4.58	0.77
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.67	0.77
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	2.05	0.76
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	3.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1207:G:N7	86:1:4060:OHX:N2	2.31	0.76
68:O2:80:LYS:NZ	36:5:1386:A:OP2	135.88	0.76
5:S3:133:GLY:HA2	5:S3:155:GLY:HA3	3.12	0.76
36:1:685:G:N2	36:1:695:C:O2	2.17	0.76
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.18	0.76
86:1:3957:OHX:N6	44:L7:217:PRO:O	2.18	0.76
32:E0:29:LYS:HG3	32:E0:30:PRO:HD2	4.77	0.76
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.95	0.76
49:M3:58:VAL:HG13	36:5:75:G:H5'	87.08	0.76
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	3.87	0.76
1:2:702:G:O6	1:2:736:C:N4	2.19	0.76
36:5:439:C:H4'	36:5:440:A:H5'	1.67	0.76
7:S5:143:ARG:NH1	7:S5:218:GLU:OE1	2.18	0.76
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.67	0.76
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	1.67	0.76
36:1:1308:A:C8	36:1:1308:A:OP2	2.37	0.76
36:5:1759:C:N4	36:5:1766:G:O6	2.16	0.76
36:5:23:A:OP1	86:5:3899:OHX:N4	2.19	0.76
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.19	0.76
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	5.57	0.76
1:2:1339:C:O2'	1:2:1341:A:N7	2.19	0.76
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.76	0.76
86:1:3868:OHX:N2	73:O7:46:SER:OG	2.19	0.76
36:5:299:G:N7	86:5:4183:OHX:N1	2.34	0.76
1:6:1041:G:OP1	86:6:2173:OHX:N4	2.18	0.76
36:1:2732:G:OP2	86:1:4201:OHX:N2	2.17	0.76
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.67	0.76
37:3:4:U:H2'	37:3:5:G:C8	2.20	0.76
36:5:1024:G:O6	36:5:1029:G:N2	2.19	0.76
62:N6:112:ASP:HB2	62:N6:115:ARG:H	1.51	0.76
17:C5:122:THR:HG22	1:6:1558:U:H3	365.07	0.76
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	1.55	0.76
1:6:1595:U:H3	1:6:1600:A:H2	1.29	0.76
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	5.46	0.76
69:O3:86:ARG:NH2	36:5:497:C:O3'	214.26	0.76
41:L4:327:LEU:HA	44:L7:166:ASN:HD21	1.76	0.76
34:SR:102:ARG:NH2	1:6:1341:A:O2'	457.57	0.75
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.36	0.75
36:5:3225:C:N4	36:5:3260:G:O6	2.17	0.75
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	1.95	0.75
60:N4:9:SER:HA	60:N4:52:THR:HG22	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:20:ASP:HB3	8:S6:23:ARG:HG3	2.64	0.75
1:2:992:A:H2	1:2:1012:U:H3	1.31	0.75
40:L3:2:SER:HA	36:5:2940:A:N7	238.47	0.75
1:6:479:C:O2	1:6:510:G:N2	2.17	0.75
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	1.68	0.75
50:M4:113:THR:HB	50:M4:116:GLU:HG3	2.60	0.75
65:N9:23:LYS:HE3	65:N9:24:PRO:HD3	1.68	0.75
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.18	0.75
38:4:136:G:OP1	61:N5:48:SER:OG	2.04	0.75
1:6:275:C:N4	1:6:281:G:O6	2.18	0.75
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	2.41	0.75
34:SR:160:GLU:O	34:SR:162:ALA:N	2.19	0.75
52:M6:160:ARG:NH2	36:5:3182:G:OP1	279.39	0.75
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.02	0.75
53:M7:25:SER:O	53:M7:29:THR:HG23	1.87	0.75
61:N5:46:TYR:HD2	71:O5:75:TYR:HB3	1.51	0.75
62:N6:3:LYS:NZ	62:N6:5:SER:O	3.16	0.75
63:N7:67:LYS:NZ	36:5:1630:U:OP1	196.22	0.75
3:S1:157:GLN:O	3:S1:159:SER:N	2.20	0.75
36:5:2211:U:O4	86:5:3955:OHX:N4	2.20	0.75
10:S8:11:ARG:NH1	10:S8:15:GLY:O	3.18	0.75
9:S7:51:VAL:HG23	9:S7:53:GLY:H	1.52	0.75
1:6:1695:G:H21	1:6:1706:C:H41	1.35	0.75
41:L4:152:VAL:HG22	41:L4:172:VAL:HG21	1.68	0.75
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.09	0.75
36:1:1543:G:O6	86:1:4055:OHX:N2	2.19	0.75
36:1:2924:U:O4	86:1:4016:OHX:N1	2.20	0.75
1:6:1294:G:O6	86:6:2067:OHX:N5	2.20	0.75
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.73	0.75
1:2:1542:G:N2	1:2:1569:A:OP2	2.19	0.75
73:O7:59:THR:HG22	38:8:41:A:O2'	91.92	0.75
36:1:3376:A:OP2	86:1:3904:OHX:N5	2.18	0.75
5:S3:42:THR:OG1	5:S3:45:LYS:O	2.76	0.75
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.29	0.75
64:N8:21:ARG:NH1	36:5:1369:A:OP1	182.46	0.75
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.19	0.75
36:5:419:G:N7	86:8:216:OHX:N3	2.35	0.75
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.31	0.75
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.69	0.75
38:4:103:G:O6	86:4:227:OHX:N4	2.20	0.75
1:6:471:A:OP2	86:6:2101:OHX:N5	2.18	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.69	0.75
17:C5:77:ARG:NH1	1:6:1241:G:OP2	382.51	0.75
1:2:1620:C:OP2	86:2:2165:OHX:N6	2.19	0.75
36:1:1815:U:O2'	36:1:1816:A:OP2	2.04	0.75
36:1:2664:C:OP2	48:M1:142:LYS:NZ	2.19	0.75
33:E1:87:THR:O	1:6:1445:G:N1	377.14	0.75
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.20	0.75
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.20	0.75
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.69	0.75
36:5:979:U:H1'	36:5:980:A:C4	2.22	0.74
36:1:1674:G:OP2	86:1:3946:OHX:N2	2.19	0.74
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.22	0.74
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.20	0.74
25:D3:134:ALA:HB1	25:D3:140:LYS:HB2	2.25	0.74
1:6:1735:U:O4	86:6:2121:OHX:N5	2.20	0.74
86:2:2134:OHX:N6	10:S8:52:ASN:OD1	2.20	0.74
1:2:1599:C:O2	86:2:2110:OHX:N3	2.21	0.74
73:O7:87:SER:O	86:O7:103:OHX:N3	2.20	0.74
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.20	0.74
7:S5:59:VAL:O	7:S5:61:TYR:N	2.75	0.74
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.61	0.74
1:6:75:U:O2'	1:6:76:A:O5'	2.05	0.74
26:D4:122:GLY:O	26:D4:124:ARG:N	3.21	0.74
17:C5:43:ARG:NH2	1:6:1552:U:OP2	401.58	0.74
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.70	0.74
6:S4:191:ARG:HD3	6:S4:245:LYS:HB3	2.32	0.74
57:N1:104:GLU:OE1	57:N1:130:ARG:NH1	2.20	0.74
36:1:276:U:O2	51:M5:93:LYS:NZ	2.21	0.74
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.00	0.74
36:5:3276:G:OP2	36:5:3276:G:H2'	1.86	0.74
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.20	0.74
1:6:140:A:N6	1:6:281:G:OP1	2.20	0.74
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.51	0.74
36:5:789:A:H2'	36:5:790:U:C6	2.22	0.74
34:SR:293:ALA:HB3	34:SR:302:PHE:HB2	2.88	0.74
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.51	0.74
4:S2:132:ALA:O	4:S2:135:SER:OG	2.05	0.74
51:M5:42:PRO:HG3	51:M5:61:ILE:HG13	1.70	0.74
1:2:895:G:H1	1:2:917:U:H3	1.34	0.74
44:L7:217:PRO:O	86:5:3995:OHX:N6	258.71	0.74
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.19	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.22	0.74
33:E1:97:LYS:NZ	1:6:1253:U:O4	439.03	0.74
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.69	0.74
38:4:79:A:H2'	38:4:80:A:H1'	1.68	0.74
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.70	0.74
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.01	0.74
24:D2:82:LYS:O	24:D2:84:GLY:N	2.18	0.74
1:6:1726:G:N7	86:6:2145:OHX:N5	2.36	0.74
1:6:86:A:OP2	86:6:2186:OHX:N1	2.21	0.74
48:M1:53:THR:HG23	48:M1:60:ARG:HA	1.68	0.74
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.01	0.74
2:S0:140:ASN:ND2	4:S2:60:SER:O	4.16	0.74
36:5:410:U:O4	86:5:4096:OHX:N1	2.21	0.74
37:7:91:G:H2'	37:7:92:A:H8	1.52	0.74
66:O0:46:ALA:HB2	66:O0:72:GLY:H	1.50	0.74
1:6:1579:U:OP1	86:6:2180:OHX:N4	2.20	0.74
5:S3:94:ARG:O	5:S3:101:GLN:NE2	3.88	0.74
7:S5:74:ALA:O	18:C6:122:ARG:NH2	2.21	0.73
44:L7:140:SER:OG	44:L7:143:THR:HG23	1.88	0.73
41:L4:22:LEU:HD11	41:L4:26:PHE:HB2	1.69	0.73
36:5:191:U:H2'	36:5:192:C:H6	1.51	0.73
37:7:57:G:H3'	37:7:58:C:H6	1.51	0.73
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.28	0.73
36:1:132:C:H2'	36:1:133:U:H5''	1.70	0.73
36:5:2620:G:O6	86:5:4236:OHX:N4	2.21	0.73
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	3.64	0.73
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.19	0.73
43:L6:43:LEU:HD21	43:L6:85:ILE:HG13	1.69	0.73
28:D6:12:LYS:HE2	28:D6:16:GLY:H	2.25	0.73
42:L5:54:ARG:NH2	42:L5:147:ASP:OD1	2.98	0.73
36:1:3166:C:H42	36:1:3284:G:H1	1.35	0.73
36:1:2897:A:H2'	36:1:2899:C:H5''	1.68	0.73
1:2:1537:C:N3	86:2:2154:OHX:N3	2.37	0.73
36:1:410:U:O4	86:1:4054:OHX:N2	2.21	0.73
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.65	0.73
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.69	0.73
36:1:3375:A:O2'	36:1:3378:C:OP2	2.05	0.73
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	2.24	0.73
1:2:452:A:OP2	86:2:2037:OHX:N5	2.21	0.73
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.16	0.73
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	3.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.21	0.73
1:6:755:A:O2'	1:6:756:A:O4'	2.06	0.73
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.69	0.73
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	2.15	0.73
36:1:839:C:O2	36:1:854:G:N2	2.17	0.73
1:2:109:G:N2	1:2:305:C:O2	2.17	0.73
86:5:3935:OHX:N5	86:5:4227:OHX:N6	2.37	0.73
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	1.56	0.73
26:D4:62:THR:HA	26:D4:69:SER:HA	2.00	0.73
36:1:1119:C:OP2	86:1:3953:OHX:N1	2.21	0.73
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.70	0.73
77:Q1:23:ARG:O	86:5:3994:OHX:N2	263.69	0.73
64:N8:3:SER:OG	36:5:1430:U:O4	138.97	0.73
1:2:1034:C:HO2'	24:D2:2:THR:N	1.86	0.73
39:L2:181:LYS:NZ	36:5:860:G:O5'	211.97	0.73
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.22	0.73
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG12	1.70	0.73
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	1.89	0.73
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.70	0.73
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.73	0.73
13:C1:128:CYS:O	13:C1:129:ARG:HB3	4.50	0.73
7:S5:51:VAL:O	7:S5:65:ARG:NH1	3.95	0.73
49:M3:73:ARG:NH1	36:5:110:G:OP2	74.68	0.73
46:L9:2:LYS:NZ	46:L9:59:ASN:OD1	2.15	0.73
10:S8:36:THR:HB	10:S8:57:ALA:O	1.89	0.73
1:2:1081:A:O2'	1:2:1082:C:O2	2.06	0.73
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.22	0.73
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	3.30	0.72
36:5:1734:G:O6	86:5:3962:OHX:N5	2.22	0.72
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	5.59	0.72
36:1:1564:U:H2'	36:1:1565:G:H8	1.53	0.72
28:D6:6:ALA:H	1:6:1796:C:H5	343.63	0.72
57:N1:13:TYR:O	86:5:3903:OHX:N4	260.10	0.72
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.24	0.72
1:2:1592:A:H2'	1:2:1593:A:H8	1.52	0.72
65:N9:17:HIS:HA	65:N9:20:GLY:HA3	4.84	0.72
36:1:1596:C:H2'	36:1:1597:C:C6	2.24	0.72
25:D3:91:GLY:O	25:D3:93:LEU:N	2.21	0.72
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.22	0.72
41:L4:181:VAL:O	41:L4:182:LEU:HB2	1.89	0.72
51:M5:138:GLN:HA	51:M5:143:ARG:HH11	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3066:U:O4	86:1:4133:OHX:N5	2.21	0.72
19:C7:30:THR:HG22	34:SR:127:ARG:HH22	4.99	0.72
2:S0:10:THR:HB	2:S0:12:GLU:HG2	1.71	0.72
59:N3:2:SER:HA	59:N3:56:ASP:HA	4.20	0.72
8:S6:164:LYS:HB3	8:S6:167:LYS:HB3	1.71	0.72
1:6:1392:U:H2'	1:6:1393:C:C6	2.23	0.72
79:Q3:4:ARG:NH2	36:5:838:G:O6	235.72	0.72
1:2:359:A:C2	25:D3:38:PHE:HB3	2.25	0.72
40:L3:347:SER:O	40:L3:349:LYS:N	2.24	0.72
2:S0:62:ARG:HE	23:D1:39:VAL:HG13	1.52	0.72
56:N0:90:MET:HG2	36:5:1213:G:H4'	317.64	0.72
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.70	0.72
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	9.15	0.72
36:1:2940:A:N7	40:L3:2:SER:N	2.38	0.72
36:5:2264:U:OP2	86:5:3949:OHX:N4	2.21	0.72
1:2:770:A:OP2	86:2:2138:OHX:N6	2.22	0.72
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.71	0.72
71:O5:45:LYS:NZ	38:8:49:G:OP1	47.07	0.72
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.72	0.72
40:L3:284:ARG:HH21	40:L3:359:ILE:HD11	2.83	0.72
1:2:1203:A:OP2	86:2:2110:OHX:N5	2.23	0.72
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.23	0.72
28:D6:35:ALA:HB3	28:D6:37:LYS:HE2	1.71	0.72
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.84	0.72
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.23	0.72
40:L3:37:ARG:HG3	40:L3:186:GLY:HA2	2.41	0.72
42:L5:270:LYS:HD3	37:7:22:A:N6	323.03	0.72
11:S9:78:ARG:HH22	11:S9:82:ARG:HE	1.36	0.72
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.71	0.72
1:6:1643:U:O2	1:6:1780:G:N2	2.22	0.72
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.90	0.72
10:S8:161:SER:OG	36:5:3353:G:OP1	232.72	0.72
36:5:2249:G:OP1	86:5:4192:OHX:N6	2.22	0.72
1:6:895:G:H1	1:6:917:U:H3	1.37	0.72
36:1:1817:G:OP1	86:1:4088:OHX:N1	2.23	0.72
4:S2:53:ILE:HD12	4:S2:53:ILE:H	4.15	0.72
41:L4:301:PRO:O	54:M8:39:ARG:NH1	3.97	0.72
36:5:1919:G:N7	86:5:4066:OHX:N4	2.38	0.72
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.23	0.72
39:L2:149:ARG:NH2	39:L2:252:THR:O	4.49	0.72
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.72	0.72
64:N8:19:LYS:HD2	64:N8:25:HIS:HD2	4.66	0.72
49:M3:128:ARG:NH1	71:O5:109:ILE:O	3.66	0.72
15:C3:127:ARG:NH2	1:6:629:U:OP1	306.92	0.72
63:N7:95:VAL:O	63:N7:100:THR:OG1	2.06	0.72
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.71	0.72
36:5:3074:G:OP1	86:5:4112:OHX:N4	2.23	0.72
36:1:1466:G:O6	86:1:3877:OHX:N4	2.23	0.72
36:5:1025:A:H3'	36:5:1026:A:H4'	1.69	0.72
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.71	0.72
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	1.70	0.72
57:N1:28:SER:OG	37:7:9:C:OP1	265.61	0.72
7:S5:110:ALA:HA	7:S5:113:ILE:HD12	1.70	0.72
53:M7:29:THR:HG22	53:M7:87:SER:OG	2.08	0.71
71:O5:81:ARG:NH2	36:5:18:G:OP1	76.44	0.71
36:1:2771:U:O2'	36:1:2772:C:O4'	2.08	0.71
36:1:2108:C:H1'	36:1:3344:A:C8	2.25	0.71
20:C8:27:LYS:O	20:C8:31:ALA:N	3.16	0.71
36:1:409:A:OP2	86:1:4054:OHX:N5	2.22	0.71
1:2:1291:G:H5'	4:S2:119:LYS:HE2	1.70	0.71
30:D8:36:THR:OG1	30:D8:37:SER:N	2.23	0.71
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.16	0.71
63:N7:17:ARG:HG2	70:O4:73:SER:O	1.91	0.71
12:C0:51:SER:OG	1:6:1219:A:N3	430.82	0.71
1:6:1010:C:OP2	86:6:2169:OHX:N3	2.23	0.71
7:S5:57:SER:O	7:S5:59:VAL:N	2.23	0.71
36:5:899:U:O4	86:5:3956:OHX:N5	2.24	0.71
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	2.46	0.71
36:5:408:A:N6	38:8:15:G:H1'	2.05	0.71
6:S4:104:ASP:HB3	6:S4:106:LYS:H	2.22	0.71
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.31	0.71
11:S9:106:GLU:O	11:S9:111:THR:OG1	3.36	0.71
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.72	0.71
53:M7:41:LEU:HD12	53:M7:150:VAL:HG11	5.42	0.71
1:2:1535:U:O2'	1:2:1536:G:N3	2.24	0.71
52:M6:65:ASN:HB3	52:M6:68:ARG:HD3	2.00	0.71
36:5:1236:G:N2	36:5:1244:A:OP1	2.23	0.71
23:D1:24:ILE:HD13	23:D1:31:SER:HB2	2.66	0.71
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.23	0.71
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	2.01	0.71
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.03	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:153:VAL:O	8:S6:156:PHE:N	2.23	0.71
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.16	0.71
1:2:584:C:H1'	32:E0:18:THR:HG21	1.73	0.71
36:1:544:C:H1'	36:1:548:G:H22	1.55	0.71
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.53	0.71
36:5:1238:C:O2'	36:5:1239:C:OP1	2.08	0.71
41:L4:337:GLU:O	41:L4:339:LEU:N	2.23	0.71
37:3:4:U:H2'	37:3:5:G:H8	1.55	0.71
57:N1:130:ARG:NH1	36:5:1098:A:OP2	252.30	0.71
71:O5:83:LYS:HA	38:8:38:U:H5	64.97	0.71
39:L2:130:SER:HB3	39:L2:174:ARG:HH21	1.55	0.71
1:2:656:G:O2'	1:2:657:U:O4'	2.07	0.71
36:5:1898:G:OP2	86:5:3938:OHX:N5	2.24	0.71
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	5.30	0.71
1:2:377:G:O6	86:2:2077:OHX:N5	2.22	0.71
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	2.86	0.71
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	1.55	0.71
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.44	0.71
1:6:1765:A:OP2	86:6:2124:OHX:N4	2.24	0.71
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.72	0.71
40:L3:37:ARG:HG2	40:L3:187:SER:H	1.54	0.71
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.74	0.71
40:L3:194:TRP:O	40:L3:198:HIS:ND1	2.23	0.71
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.72	0.71
30:D8:10:ALA:HA	30:D8:32:PHE:HA	1.71	0.71
46:L9:20:ILE:HG12	46:L9:25:VAL:HG22	3.91	0.71
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.23	0.71
1:6:1417:A:OP1	86:6:2085:OHX:N4	2.24	0.71
57:N1:68:THR:OG1	57:N1:69:LYS:N	2.24	0.71
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.73	0.71
37:7:95:A:OP2	86:7:227:OHX:N1	2.24	0.71
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.26	0.71
1:6:372:G:OP2	86:6:2184:OHX:N6	2.24	0.71
36:5:2996:U:OP1	36:5:2996:U:H4'	1.91	0.71
6:S4:242:LYS:HE3	6:S4:242:LYS:H	1.55	0.71
54:M8:56:LYS:NZ	36:5:787:G:O6	142.16	0.71
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.91	0.71
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	2.17	0.71
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.71	0.71
50:M4:24:LYS:NZ	50:M4:61:GLY:O	2.24	0.71
36:1:1409:G:N7	86:1:4064:OHX:N3	2.39	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1488:G:O2'	1:6:1494:C:O2	2.07	0.71
36:1:3155:U:H3'	36:1:3156:U:H4'	1.73	0.71
48:M1:143:ARG:NH2	37:7:5:G:OP1	290.44	0.70
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.20	0.70
33:E1:102:VAL:O	33:E1:104:SER:N	2.24	0.70
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	2.17	0.70
57:N1:90:ASN:HD22	36:5:2736:A:H1'	220.45	0.70
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	1.93	0.70
38:4:16:G:O6	86:4:226:OHX:N3	2.24	0.70
1:6:1542:G:N2	1:6:1569:A:OP2	2.22	0.70
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	2.87	0.70
62:N6:39:LEU:HD12	62:N6:43:TYR:HE2	4.62	0.70
36:5:980:A:H2'	36:5:981:U:C2	2.26	0.70
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.73	0.70
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.55	0.70
13:C1:14:GLN:HB3	13:C1:54:ILE:HG21	1.72	0.70
36:5:2841:G:OP2	86:5:4131:OHX:N1	2.24	0.70
1:6:822:U:H2'	1:6:823:G:H5''	1.70	0.70
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.90	0.70
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	5.88	0.70
51:M5:153:ASP:HB3	51:M5:155:VAL:HG23	2.98	0.70
26:D4:76:TYR:OH	26:D4:86:GLU:OE2	2.76	0.70
69:O3:45:LEU:HD21	69:O3:74:THR:HG23	2.68	0.70
36:5:3274:A:H3'	36:5:3275:U:C5'	2.16	0.70
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.36	0.70
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.72	0.70
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.73	0.70
4:S2:53:ILE:HG23	4:S2:72:LEU:HD23	1.73	0.70
36:1:2503:G:H1'	36:1:2504:U:H5	1.57	0.70
55:M9:13:SER:OG	55:M9:38:ARG:NH1	4.16	0.70
58:N2:59:ASP:O	58:N2:61:THR:N	2.23	0.70
36:1:3148:U:O4	86:1:4107:OHX:N2	2.25	0.70
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.24	0.70
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	3.64	0.70
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.24	0.70
1:6:9:U:O4	86:6:2144:OHX:N3	2.25	0.70
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.73	0.70
49:M3:15:ARG:NH2	36:5:96:G:OP1	153.16	0.70
51:M5:12:ARG:HG2	36:5:268:A:C4	127.34	0.70
34:SR:258:THR:O	34:SR:275:ARG:NH1	2.19	0.70
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:91:ASP:OD1	20:C8:92:ILE:N	2.41	0.70
1:2:1101:G:O3'	24:D2:76:SER:OG	2.09	0.70
73:O7:72:ARG:NH1	38:8:95:G:OP2	51.88	0.70
25:D3:62:LYS:H	25:D3:116:ASP:HB2	1.57	0.70
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	3.93	0.70
36:1:2794:G:N7	86:1:3932:OHX:N2	2.40	0.70
1:6:453:U:O4	86:6:2060:OHX:N4	2.25	0.70
42:L5:43:LYS:O	42:L5:46:THR:OG1	2.66	0.70
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.20	0.70
41:L4:126:ILE:HG13	41:L4:238:LEU:HD11	1.72	0.70
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.68	0.70
1:6:1239:U:O4	86:6:2095:OHX:N2	2.25	0.70
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.85	0.70
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	2.24	0.70
36:1:3122:A:N1	46:L9:70:THR:HG21	2.07	0.70
1:6:1727:G:H2'	1:6:1728:A:C8	2.27	0.70
1:6:538:A:H8	1:6:543:C:H41	1.39	0.70
41:L4:7:THR:OG1	41:L4:147:GLU:OE2	3.32	0.70
1:6:1150:G:O6	86:6:2113:OHX:N5	2.25	0.70
36:5:1696:A:OP2	86:5:4179:OHX:N6	2.25	0.70
36:5:658:G:OP1	86:5:4085:OHX:N5	2.25	0.70
47:M0:84:ALA:O	47:M0:140:THR:HG22	1.92	0.70
11:S9:149:ARG:HH11	11:S9:149:ARG:HG3	4.39	0.70
1:6:484:C:N4	1:6:503:G:H1	1.89	0.70
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	2.48	0.70
55:M9:88:ARG:NH1	36:5:2103:U:OP1	212.81	0.70
1:2:652:G:H1	1:2:682:C:H42	1.39	0.70
1:6:158:U:O2'	1:6:160:C:OP2	2.06	0.70
63:N7:115:LYS:NZ	63:N7:119:GLU:OE2	2.24	0.70
1:6:1452:U:H2'	1:6:1453:G:H8	1.56	0.70
48:M1:41:SER:O	48:M1:75:LYS:NZ	2.19	0.70
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.56	0.70
62:N6:39:LEU:HD12	62:N6:43:TYR:CE2	5.43	0.70
48:M1:77:GLU:OE2	48:M1:166:LYS:NZ	3.18	0.70
36:5:679:U:O4	86:5:4008:OHX:N2	2.25	0.70
79:Q3:84:ARG:NH1	79:Q3:88:GLU:OE1	2.25	0.70
18:C6:32:ASN:N	18:C6:67:VAL:O	2.23	0.70
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.74	0.70
36:1:155:G:H5''	36:1:156:G:C8	2.27	0.70
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.56	0.70
35:SM:34:LYS:NZ	36:1:2707:C:OP1	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:52:ILE:HD12	25:D3:75:GLN:HB3	5.69	0.70
36:1:1238:C:N4	36:1:1245:A:OP2	2.25	0.70
36:1:1719:G:OP1	55:M9:110:ARG:NH2	2.25	0.70
39:L2:70:ARG:CZ	39:L2:72:ARG:HH21	5.93	0.70
1:2:248:U:OP1	86:2:2092:OHX:N6	2.25	0.70
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.72	0.70
36:1:402:A:OP1	75:O9:36:ARG:NH2	2.24	0.70
44:L7:217:PRO:O	86:5:3995:OHX:N3	259.05	0.69
62:N6:5:SER:HB3	62:N6:8:VAL:HG13	3.41	0.69
33:E1:126:CYS:HB3	33:E1:130:VAL:HG21	2.83	0.69
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.25	0.69
8:S6:87:ARG:N	8:S6:91:GLU:OE1	2.18	0.69
36:5:2836:C:H5	36:5:2852:C:N4	1.90	0.69
36:5:863:C:OP1	86:5:3909:OHX:N3	2.25	0.69
36:5:3055:U:O2'	36:5:3057:U:OP1	2.10	0.69
53:M7:69:ARG:HD3	36:5:3309:G:H1'	185.29	0.69
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	4.24	0.69
27:D5:43:ASP:HB2	27:D5:46:LYS:HE3	2.27	0.69
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	3.12	0.69
36:5:3372:A:OP2	86:5:4231:OHX:N3	2.25	0.69
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.92	0.69
20:C8:94:ASP:OD1	20:C8:98:TYR:OH	2.09	0.69
36:1:3087:A:OP1	86:1:4180:OHX:N5	2.25	0.69
36:5:314:U:H2'	36:5:315:C:C6	2.27	0.69
21:C9:57:ARG:HH21	21:C9:80:TYR:HB3	1.57	0.69
1:6:58:U:O2'	1:6:451:A:N3	2.25	0.69
2:S0:56:LYS:NZ	2:S0:159:ALA:O	2.25	0.69
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.74	0.69
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.24	0.69
57:N1:126:VAL:HG23	57:N1:127:GLN:H	1.57	0.69
21:C9:69:LYS:NZ	1:6:1368:G:OP1	433.71	0.69
36:1:3344:A:H2	36:1:3361:G:H21	1.38	0.69
5:S3:178:ARG:H	5:S3:178:ARG:HE	1.39	0.69
50:M4:37:GLU:HG2	56:N0:72:VAL:HG21	2.32	0.69
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.56	0.69
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.04	0.69
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.74	0.69
47:M0:72:ALA:HB2	47:M0:155:ALA:HB2	1.73	0.69
36:1:2310:U:OP1	86:1:4137:OHX:N2	2.25	0.69
36:5:2440:G:H2'	36:5:2441:A:C8	2.28	0.69
41:L4:93:MET:HB2	36:5:658:G:N2	145.12	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:3935:OHX:N1	86:5:4227:OHX:N3	2.40	0.69
36:5:1878:G:OP1	86:5:3950:OHX:N5	2.26	0.69
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.42	0.69
36:1:1752:A:OP2	86:1:4045:OHX:N3	2.25	0.69
63:N7:128:GLN:O	63:N7:130:PHE:N	2.52	0.69
36:5:1790:G:O6	86:5:4191:OHX:N4	2.26	0.69
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.57	0.69
37:3:49:G:N7	42:L5:58:LYS:HG3	2.07	0.69
36:1:562:C:H2'	36:1:563:U:H6	1.57	0.69
18:C6:32:ASN:HD21	18:C6:69:VAL:HG23	2.21	0.69
1:2:383:G:N7	86:2:2130:OHX:N4	2.40	0.69
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.73	0.69
6:S4:163:ASP:O	6:S4:165:ALA:N	2.25	0.69
79:Q3:62:LYS:NZ	36:5:2554:A:N7	218.23	0.69
36:1:799:G:O6	86:1:3980:OHX:N5	2.26	0.69
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	6.77	0.69
39:L2:44:ILE:HD13	39:L2:46:LYS:HD3	1.74	0.69
36:1:695:C:OP1	41:L4:271:LYS:NZ	2.23	0.69
2:S0:10:THR:OG1	2:S0:13:ASP:OD2	2.09	0.69
36:5:2128:C:OP1	86:5:4083:OHX:N3	2.25	0.69
1:2:197:A:H61	10:S8:138:ASN:ND2	1.90	0.69
36:1:2206:G:H1	36:1:2237:C:H42	1.38	0.69
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	3.05	0.69
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.02	0.69
54:M8:100:THR:HG22	54:M8:120:GLU:HB3	2.51	0.69
3:S1:40:ASN:ND2	3:S1:42:ASN:O	2.24	0.69
1:6:1282:U:OP1	86:6:2135:OHX:N4	2.25	0.69
36:5:1662:G:O6	86:5:3912:OHX:N1	2.26	0.69
48:M1:110:ILE:O	48:M1:112:LEU:N	2.43	0.69
1:6:833:U:OP2	86:6:2200:OHX:N5	2.25	0.69
77:Q1:9:ARG:HH11	77:Q1:9:ARG:HG3	1.80	0.69
1:2:1274:C:H5	35:SM:96:ARG:H	1.40	0.69
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.08	0.69
3:S1:70:LEU:O	3:S1:74:GLN:N	2.25	0.69
36:1:2356:A:N6	36:1:2983:C:H5	1.91	0.69
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.25	0.69
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.74	0.69
36:1:1024:G:N7	86:1:4164:OHX:N6	2.41	0.69
36:1:1631:C:OP2	63:N7:48:ARG:NH2	2.26	0.69
9:S7:50:ASP:OD1	9:S7:50:ASP:N	2.24	0.69
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:54:HIS:CE1	57:N1:55:LYS:HD3	2.27	0.69
9:S7:30:SER:HB2	9:S7:34:LEU:HB2	1.80	0.69
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.57	0.69
63:N7:3:LYS:HE3	66:O0:36:GLN:HA	1.75	0.69
5:S3:192:PRO:HB2	5:S3:201:ALA:HA	2.13	0.69
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.24	0.69
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	2.74	0.69
26:D4:83:LYS:HE2	26:D4:96:LEU:HB3	1.74	0.69
35:SM:83:LYS:HE2	1:6:1178:G:H4'	336.56	0.69
1:2:142:G:H22	1:2:173:A:H2	1.38	0.69
36:1:2573:G:O6	86:1:3996:OHX:N3	2.26	0.69
36:5:566:G:N7	86:5:4124:OHX:N5	2.41	0.69
50:M4:55:ARG:HD3	56:N0:70:THR:HB	1.75	0.69
1:2:399:A:OP1	10:S8:49:ARG:NH2	2.24	0.69
3:S1:62:LYS:O	3:S1:64:ARG:N	2.26	0.69
8:S6:153:VAL:O	8:S6:155:ASP:N	2.32	0.69
34:SR:50:ASP:O	34:SR:52:GLN:N	2.25	0.69
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.24	0.69
36:1:1808:G:O6	86:1:3981:OHX:N3	2.26	0.69
70:O4:65:VAL:HG12	70:O4:70:LYS:HE2	4.27	0.69
1:2:1151:A:H2'	1:2:1152:A:C8	2.28	0.69
36:5:2970:C:H4'	36:5:2971:A:N1	2.08	0.69
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.25	0.69
36:1:655:C:H2'	36:1:656:A:H8	1.56	0.69
36:5:1239:C:N3	36:5:1249:G:N2	2.37	0.69
1:2:1796:C:H5	28:D6:6:ALA:H	1.37	0.69
86:5:3935:OHX:N2	86:5:4227:OHX:N6	2.41	0.69
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.76	0.69
42:L5:269:SER:OG	37:7:1:G:N3	314.56	0.69
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	1.75	0.69
36:1:1211:U:H2'	36:1:1212:A:C8	2.27	0.69
36:1:223:U:O4	86:1:4194:OHX:N5	2.26	0.69
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.56	0.69
1:6:922:G:H2'	1:6:923:A:H8	1.58	0.69
1:6:1700:C:O2'	1:6:1701:A:OP1	2.11	0.68
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.75	0.68
34:SR:25:THR:OG1	34:SR:26:SER:N	3.71	0.68
5:S3:150:MET:HE2	35:SM:110:TRP:HB3	1.74	0.68
36:1:679:U:O4	86:1:3972:OHX:N1	2.26	0.68
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.25	0.68
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.11	0.68
21:C9:117:SER:HB2	21:C9:123:ARG:HD2	4.35	0.68
40:L3:53:MET:HG2	40:L3:77:THR:HG22	2.16	0.68
1:2:329:G:H5''	10:S8:98:LYS:HB3	1.74	0.68
36:1:2233:A:OP2	86:1:4042:OHX:N5	2.27	0.68
49:M3:166:ALA:N	64:N8:135:GLU:OE1	3.44	0.68
1:2:851:U:H2'	1:2:852:C:C6	2.28	0.68
6:S4:3:ARG:HG2	1:6:399:A:H4'	319.90	0.68
34:SR:37:SER:OG	34:SR:38:ARG:N	2.71	0.68
44:L7:151:ARG:NH1	44:L7:244:ASN:O	3.17	0.68
1:6:976:G:O6	86:6:2078:OHX:N6	2.26	0.68
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.87	0.68
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.26	0.68
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	2.98	0.68
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.29	0.68
64:N8:59:ARG:NH1	36:5:90:C:OP1	151.17	0.68
13:C1:21:ASN:N	13:C1:21:ASN:OD1	2.43	0.68
1:6:826:U:O4	86:6:2064:OHX:N3	2.26	0.68
63:N7:16:GLY:O	63:N7:18:TYR:N	2.19	0.68
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.26	0.68
49:M3:177:LYS:HA	72:O6:11:LEU:HD13	3.22	0.68
40:L3:332:ARG:HD3	40:L3:332:ARG:H	1.58	0.68
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	3.09	0.68
41:L4:283:THR:HG21	41:L4:288:ARG:NH2	6.55	0.68
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.26	0.68
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.76	0.68
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.26	0.68
61:N5:113:LEU:HD22	36:5:1522:U:H3'	100.68	0.68
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	2.71	0.68
36:5:2823:G:N7	86:5:3946:OHX:N2	2.41	0.68
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.26	0.68
1:6:1315:U:OP1	1:6:1328:G:N2	2.25	0.68
51:M5:125:SER:HB3	36:5:2433:U:H1'	160.21	0.68
86:1:4082:OHX:N4	55:M9:14:VAL:O	2.26	0.68
36:5:549:U:H2'	36:5:550:A:C8	2.29	0.68
39:L2:117:GLU:OE2	39:L2:121:GLY:N	2.26	0.68
1:6:1273:G:H4'	1:6:1274:C:H5''	1.75	0.68
15:C3:67:THR:O	15:C3:69:ASN:N	2.25	0.68
36:5:1409:G:O6	86:5:4156:OHX:N6	2.26	0.68
36:1:2767:U:OP2	86:1:4131:OHX:N2	2.27	0.68
36:1:1310:G:N7	86:1:4026:OHX:N5	2.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	4.28	0.68
36:1:3199:G:H5''	50:M4:6:ILE:HG21	1.76	0.68
38:4:77:A:OP2	86:4:228:OHX:N2	2.27	0.68
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.58	0.68
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.74	0.68
1:6:894:U:H2'	1:6:895:G:C8	2.28	0.68
11:S9:78:ARG:HH12	11:S9:82:ARG:HH21	1.38	0.68
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.76	0.68
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	6.13	0.68
1:2:1267:G:HO2'	1:2:1448:G:HO2'	1.41	0.68
1:6:1467:C:H2'	1:6:1468:U:H6	1.59	0.68
36:1:3136:G:OP2	86:1:4097:OHX:N6	2.27	0.68
7:S5:97:LEU:O	7:S5:99:MET:N	2.73	0.68
20:C8:145:ARG:HG3	35:SM:68:ARG:NH2	4.12	0.68
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	5.92	0.68
7:S5:41:LYS:O	7:S5:41:LYS:NZ	2.22	0.68
36:1:2207:A:H2'	36:1:2208:A:C8	2.28	0.68
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.26	0.68
58:N2:43:VAL:C	58:N2:45:GLY:H	2.78	0.68
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.75	0.68
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.27	0.68
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.64	0.68
36:5:2298:U:O4	36:5:2923:U:H5	1.76	0.68
13:C1:6:THR:O	13:C1:8:GLN:N	2.26	0.68
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	2.15	0.68
7:S5:64:VAL:HG12	7:S5:65:ARG:HD3	1.75	0.68
48:M1:28:ASP:HA	48:M1:31:THR:HG23	3.92	0.68
49:M3:76:THR:HG23	49:M3:101:ARG:NH1	2.09	0.68
86:5:3935:OHX:N1	86:5:4227:OHX:N4	2.42	0.68
52:M6:102:LEU:HD12	52:M6:103:LYS:H	1.58	0.68
41:L4:29:PRO:HG3	41:L4:279:HIS:CD2	3.02	0.68
39:L2:10:LYS:HA	39:L2:16:PHE:CD2	2.29	0.68
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.75	0.68
74:O8:5:ILE:HD11	74:O8:10:GLN:HE22	2.58	0.68
1:6:1230:A:H8	1:6:1258:U:C4	2.12	0.68
37:7:3:U:H2'	37:7:4:U:C6	2.29	0.68
36:5:2836:C:H5	36:5:2852:C:H42	1.42	0.68
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.75	0.68
41:L4:11:LEU:HD11	41:L4:155:ASP:HB2	2.29	0.68
72:O6:45:ARG:HH21	72:O6:50:LEU:HA	2.89	0.68
59:N3:48:ARG:NH2	36:5:3043:C:OP2	250.19	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:54:GLU:OE1	44:L7:186:HIS:NE2	3.10	0.68
36:5:955:U:H2'	36:5:956:U:C6	2.28	0.68
39:L2:64:ARG:HH12	45:L8:38:GLN:HA	1.58	0.68
62:N6:36:SER:HB2	62:N6:37:LYS:HE2	3.94	0.67
1:2:649:U:O2'	1:2:650:U:O5'	2.11	0.67
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.27	0.67
1:6:915:A:OP1	86:6:2069:OHX:N6	2.27	0.67
50:M4:113:THR:HG22	50:M4:115:PHE:H	1.59	0.67
86:5:3935:OHX:N2	86:5:4227:OHX:N4	2.42	0.67
34:SR:164:ASP:O	34:SR:166:SER:N	2.83	0.67
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.26	0.67
1:2:1041:G:H2'	1:2:1042:G:C8	2.29	0.67
36:5:3066:U:O4	86:5:4099:OHX:N4	2.27	0.67
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.76	0.67
36:5:408:A:H61	38:8:15:G:H1'	1.60	0.67
50:M4:47:ASP:HB2	50:M4:55:ARG:HG3	2.70	0.67
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.28	0.67
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.77	0.67
36:5:2730:G:OP2	86:5:3952:OHX:N4	2.27	0.67
36:1:781:G:N7	86:1:3939:OHX:N5	2.42	0.67
17:C5:130:ARG:NH1	35:SM:71:ASN:OD1	2.67	0.67
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.59	0.67
36:5:59:G:H4'	36:5:60:A:H4'	1.76	0.67
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	3.71	0.67
64:N8:21:ARG:HD2	36:5:1369:A:H5''	184.63	0.67
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	2.77	0.67
1:6:1665:U:O4	86:6:2121:OHX:N6	2.27	0.67
1:2:501:U:HO2'	1:2:502:U:H6	1.40	0.67
49:M3:44:ALA:O	49:M3:46:ILE:N	2.96	0.67
1:6:647:G:N2	1:6:687:G:H22	1.92	0.67
41:L4:354:VAL:O	41:L4:358:THR:HG23	3.22	0.67
1:6:800:U:H2'	1:6:801:G:H8	1.60	0.67
21:C9:52:GLY:O	21:C9:54:PHE:N	2.25	0.67
36:1:1724:U:H4'	36:1:1725:C:OP1	1.93	0.67
12:C0:44:LYS:NZ	12:C0:47:GLN:OE1	2.65	0.67
3:S1:183:GLN:O	3:S1:187:LYS:N	2.27	0.67
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.29	0.67
25:D3:69:ARG:NH2	1:6:568:G:N7	364.57	0.67
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.28	0.67
1:6:833:U:O4	86:6:2099:OHX:N2	2.28	0.67
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	1.58	0.67
21:C9:89:ARG:NH2	1:6:1562:G:OP1	375.02	0.67
67:O1:19:ARG:NH1	36:5:3324:C:OP1	173.78	0.67
86:1:3871:OHX:N5	38:4:2:A:OP2	2.27	0.67
40:L3:296:THR:HG21	40:L3:357:LYS:HA	3.84	0.67
28:D6:84:VAL:O	28:D6:86:VAL:N	2.26	0.67
36:5:1528:G:H1	36:5:1832:C:H42	1.43	0.67
49:M3:73:ARG:NH2	36:5:77:A:N7	79.99	0.67
55:M9:47:ASN:HB3	55:M9:49:THR:HG23	8.46	0.67
37:7:91:G:H2'	37:7:92:A:C8	2.29	0.67
39:L2:9:ARG:NH1	36:5:912:G:OP2	179.55	0.67
36:5:240:U:HO2'	36:5:241:G:H8	1.41	0.67
1:2:800:U:H2'	1:2:801:G:H8	1.58	0.67
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	1.87	0.67
67:O1:77:ARG:HD2	67:O1:89:LEU:HD23	1.97	0.67
4:S2:108:ASN:ND2	4:S2:108:ASN:O	3.33	0.67
48:M1:10:ARG:NH2	48:M1:151:SER:O	2.26	0.67
64:N8:34:MET:HB2	36:5:95:A:H5''	162.16	0.67
36:5:2442:G:H22	36:5:2506:U:H3	1.42	0.67
22:D0:58:LEU:HD22	1:6:1516:A:H5''	441.23	0.67
1:2:1537:C:O2'	1:2:1540:G:O6	2.12	0.67
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	3.66	0.67
36:1:3353:G:O2'	36:1:3356:G:H5'	1.95	0.67
36:1:2152:A:HO2'	36:1:2243:A:HO2'	1.40	0.67
40:L3:218:ILE:HG12	40:L3:276:THR:HG23	1.76	0.67
1:2:484:C:H42	1:2:503:G:H22	1.41	0.67
49:M3:39:ARG:NH1	36:5:107:A:OP1	73.38	0.67
45:L8:195:SER:O	45:L8:197:VAL:N	2.27	0.67
55:M9:21:LYS:O	55:M9:53:LYS:HB2	1.95	0.67
36:5:409:A:OP2	86:5:4096:OHX:N3	2.28	0.67
38:4:83:C:H1'	38:4:85:G:H21	1.59	0.67
21:C9:102:ARG:NH2	1:6:1502:G:N7	404.29	0.67
66:O0:99:ASP:O	66:O0:101:LEU:N	3.19	0.67
24:D2:119:LYS:HG3	1:6:687:G:H5''	391.99	0.67
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.76	0.67
36:1:425:G:O6	86:1:3873:OHX:N6	2.28	0.67
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.26	0.67
34:SR:109:ASP:O	34:SR:126:SER:OG	2.07	0.67
33:E1:126:CYS:HB3	33:E1:143:LYS:HG2	1.76	0.67
5:S3:68:GLU:OE2	12:C0:67:THR:OG1	3.22	0.67
53:M7:48:LEU:HD22	53:M7:88:VAL:HG13	2.85	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	2.30	0.67
69:O3:18:ARG:HD3	36:5:1178:G:H5'	237.67	0.67
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.48	0.67
42:L5:260:PHE:HB3	42:L5:264:GLN:HB2	2.15	0.67
72:O6:28:TYR:O	86:5:4183:OHX:N2	103.71	0.67
61:N5:114:VAL:HB	75:O9:10:LYS:NZ	2.10	0.67
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.76	0.67
37:7:86:U:O2	86:7:220:OHX:N4	2.28	0.67
36:1:2255:A:OP1	86:1:3931:OHX:N3	2.28	0.67
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	3.04	0.67
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.77	0.67
1:2:1783:C:H2'	1:2:1784:C:H6	1.59	0.67
55:M9:115:ILE:HD11	55:M9:123:LEU:HD12	1.77	0.67
6:S4:187:ARG:NH1	1:6:753:A:OP2	375.87	0.67
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.76	0.67
33:E1:106:TYR:H	33:E1:117:LEU:HD12	1.60	0.67
36:1:2402:A:OP2	86:1:4086:OHX:N6	2.28	0.67
36:5:2777:G:H5'	36:5:2778:G:OP1	1.95	0.66
1:2:1571:C:OP2	86:2:2154:OHX:N1	2.27	0.66
42:L5:270:LYS:HG3	42:L5:273:ARG:CB	5.80	0.66
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.76	0.66
28:D6:58:VAL:HG22	28:D6:59:TYR:H	2.62	0.66
53:M7:62:ARG:NH1	36:5:412:G:OP1	158.95	0.66
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.82	0.66
1:2:703:G:H2'	1:2:704:C:H5'	1.77	0.66
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	2.53	0.66
25:D3:70:LYS:HB3	25:D3:93:LEU:HD22	1.98	0.66
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.18	0.66
55:M9:4:LEU:HA	55:M9:7:GLN:HE21	5.73	0.66
1:2:741:C:O2	9:S7:107:ARG:NH1	2.28	0.66
1:2:759:U:OP1	86:2:2160:OHX:N1	2.28	0.66
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	5.35	0.66
3:S1:34:ALA:N	3:S1:41:ARG:O	2.28	0.66
15:C3:94:LYS:HE3	1:6:952:A:H5''	298.05	0.66
25:D3:87:VAL:HG22	25:D3:124:VAL:HG21	2.44	0.66
36:5:847:A:H2'	36:5:848:A:C8	2.30	0.66
72:O6:98:ARG:H	72:O6:98:ARG:HD2	1.58	0.66
36:1:2120:A:OP2	86:1:4007:OHX:N2	2.29	0.66
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.94	0.66
36:5:2824:G:N7	86:5:3946:OHX:N6	2.42	0.66
1:6:1239:U:O4	86:6:2095:OHX:N5	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2198:A:OP2	86:5:4186:OHX:N4	2.28	0.66
36:1:971:G:OP1	54:M8:8:LYS:NZ	2.27	0.66
1:2:341:A:H4'	10:S8:87:ASN:HD22	1.59	0.66
1:2:488:G:OP1	1:2:488:G:H4'	1.95	0.66
1:2:1600:A:H4'	1:2:1601:G:OP1	1.94	0.66
38:4:83:C:H1'	38:4:85:G:N2	2.11	0.66
1:2:264:G:N7	86:2:2033:OHX:N1	2.42	0.66
16:C4:125:SER:OG	16:C4:126:THR:N	2.88	0.66
1:2:480:G:H22	1:2:509:G:H1'	1.60	0.66
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.78	0.66
36:1:368:G:OP1	86:1:3882:OHX:N1	2.27	0.66
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.75	0.66
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	2.06	0.66
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.60	0.66
1:6:1198:G:OP1	1:6:1199:G:O2'	2.09	0.66
41:L4:4:PRO:HD2	41:L4:22:LEU:HB2	3.96	0.66
1:6:1240:U:O4	86:6:2095:OHX:N5	2.29	0.66
36:1:1278:A:O2'	36:1:1279:C:O5'	2.13	0.66
51:M5:68:ARG:HG3	36:5:291:C:OP1	144.62	0.66
61:N5:105:VAL:HG11	61:N5:126:LEU:HD22	2.24	0.66
53:M7:24:VAL:HG13	53:M7:86:LYS:HG2	1.76	0.66
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.78	0.66
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.77	0.66
41:L4:307:GLN:NE2	36:5:1346:G:O2'	201.67	0.66
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.10	0.66
1:6:194:U:O2	1:6:195:G:O2'	2.12	0.66
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	1.97	0.66
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.27	0.66
1:6:486:G:O6	1:6:488:G:N2	2.29	0.66
1:6:1680:G:O6	86:6:2187:OHX:N1	2.28	0.66
1:6:373:G:N7	86:6:2184:OHX:N3	2.43	0.66
21:C9:117:SER:OG	21:C9:118:PRO:O	2.12	0.66
36:5:541:U:O4	86:5:4006:OHX:N3	2.28	0.66
1:2:1194:A:H2'	1:2:1195:C:H5'	1.78	0.66
36:1:795:G:O6	86:1:3892:OHX:N3	2.28	0.66
41:L4:197:ARG:NH1	36:5:1381:A:OP1	108.44	0.66
51:M5:99:ARG:HD3	51:M5:167:THR:HB	1.76	0.66
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.29	0.66
36:5:3174:A:H2'	36:5:3175:U:H5'	1.77	0.66
1:6:383:G:N7	86:6:2147:OHX:N5	2.43	0.66
18:C6:50:GLU:OE2	18:C6:82:ARG:NH2	3.06	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:2:SER:N	59:N3:56:ASP:OD1	4.65	0.66
36:1:655:C:H2'	36:1:656:A:C8	2.31	0.66
1:2:61:A:H8	1:2:269:G:HO2'	1.38	0.66
39:L2:243:THR:OG1	36:5:2244:A:H5''	227.27	0.66
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.14	0.66
57:N1:2:GLY:N	36:5:2629:U:O4	234.13	0.66
36:1:3022:G:O2'	36:1:3031:G:O6	2.09	0.66
34:SR:184:ASN:HD22	34:SR:185:GLN:H	5.54	0.66
36:1:1015:U:O2'	36:1:1017:C:OP2	2.10	0.66
68:O2:19:ARG:NH1	68:O2:28:VAL:HG13	3.06	0.66
2:S0:27:ARG:HG3	2:S0:44:GLY:O	1.96	0.66
20:C8:135:GLY:HA3	1:6:1559:A:H5''	364.43	0.66
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	2.10	0.66
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.28	0.66
2:S0:179:ARG:HH11	2:S0:183:ARG:HH11	1.41	0.66
36:5:1662:G:N2	36:5:1788:C:O2	2.29	0.66
1:6:982:U:OP1	86:6:2074:OHX:N2	2.29	0.66
15:C3:103:GLU:HA	15:C3:106:ARG:HH22	1.61	0.66
6:S4:44:LEU:HD13	6:S4:65:LEU:HD21	1.77	0.66
51:M5:184:LYS:HG2	51:M5:185:ALA:N	3.26	0.66
41:L4:338:LYS:O	41:L4:340:GLY:N	2.26	0.66
39:L2:224:THR:HG21	36:5:2201:G:H21	221.80	0.66
35:SM:72:ARG:NH1	1:6:1460:A:O2'	321.13	0.66
36:1:1103:A:H4'	36:1:1103:A:OP2	1.96	0.66
36:1:3348:G:H1	36:1:3357:U:H3	1.44	0.66
40:L3:29:VAL:HG22	40:L3:218:ILE:HD12	1.77	0.66
36:5:1716:U:H5'	36:5:1716:U:H6	1.60	0.66
49:M3:63:VAL:HG22	36:5:72:C:H5'	112.57	0.66
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.77	0.66
36:5:2330:C:H2'	36:5:2331:C:H6	1.60	0.66
1:2:348:U:O4	86:2:2127:OHX:N5	2.28	0.66
70:O4:3:GLN:HB3	70:O4:30:LEU:HD12	1.76	0.66
78:Q2:45:ARG:NH2	36:5:283:G:OP2	145.97	0.66
1:2:734:A:H5''	1:2:735:C:OP1	1.94	0.66
5:S3:116:ARG:HH11	5:S3:116:ARG:HB2	4.71	0.66
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.23	0.66
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	2.76	0.66
41:L4:193:LYS:HA	41:L4:198:ARG:HA	1.77	0.66
1:2:1745:G:O6	86:2:2085:OHX:N6	2.28	0.66
36:1:3107:U:OP1	76:Q0:114:LYS:NZ	2.25	0.66
1:2:937:C:N4	28:D6:14:GLY:O	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:30:LYS:O	86:L3:405:OHX:N1	63.57	0.66
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.76	0.66
36:1:2842:U:OP1	36:1:2844:C:N4	2.29	0.66
1:2:1488:G:H3'	1:2:1515:A:H61	1.60	0.66
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.61	0.65
2:S0:184:LEU:O	2:S0:186:GLY:N	2.29	0.65
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.61	0.65
49:M3:124:ILE:HD11	49:M3:126:PHE:CZ	2.31	0.65
86:2:2035:OHX:N2	10:S8:17:LYS:O	2.29	0.65
40:L3:221:THR:HG22	40:L3:272:TYR:N	2.91	0.65
12:C0:53:GLY:O	12:C0:55:VAL:N	2.30	0.65
36:1:1809:A:OP1	63:N7:65:ARG:NH2	2.28	0.65
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.35	0.65
1:2:818:C:N4	1:2:819:G:O6	2.29	0.65
36:5:3372:A:OP2	86:5:4231:OHX:N6	2.29	0.65
1:2:209:U:H2'	1:2:210:A:C8	2.30	0.65
41:L4:60:THR:HG22	41:L4:62:ALA:H	2.46	0.65
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	1.78	0.65
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.31	0.65
10:S8:5:ARG:NH1	10:S8:29:LEU:O	2.26	0.65
1:2:514:G:O2'	1:2:515:A:H5'	1.96	0.65
33:E1:86:THR:O	33:E1:87:THR:OG1	2.70	0.65
86:5:4014:OHX:N5	86:5:4210:OHX:N1	2.45	0.65
1:6:1524:A:H2'	1:6:1525:A:C8	2.32	0.65
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.79	0.65
48:M1:117:ASP:OD2	48:M1:119:SER:OG	2.60	0.65
75:O9:12:LYS:HE3	38:8:45:C:OP1	101.94	0.65
1:6:1636:C:H4'	1:6:1637:C:H5''	1.77	0.65
36:1:3118:C:C4'	76:Q0:106:ARG:HH22	2.10	0.65
17:C5:68:PRO:O	86:C5:201:OHX:N5	7.57	0.65
1:6:500:C:O2'	1:6:501:U:O4'	2.15	0.65
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.31	0.65
1:6:823:G:H2'	1:6:824:G:O4'	1.96	0.65
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.77	0.65
36:1:2700:G:O2'	36:1:2705:A:N1	2.26	0.65
36:5:2705:A:OP2	86:5:3892:OHX:N2	2.30	0.65
1:2:530:C:O2	26:D4:61:ARG:NH2	2.29	0.65
51:M5:182:ASN:ND2	36:5:280:U:O2'	128.71	0.65
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	2.59	0.65
1:2:1533:C:H5	27:D5:77:ARG:HH21	1.42	0.65
1:6:1239:U:O4	86:6:2095:OHX:N1	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:88:ASP:OD1	6:S4:122:LYS:NZ	2.27	0.65
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.30	0.65
36:5:1387:G:OP1	86:5:4194:OHX:N3	2.30	0.65
54:M8:176:ARG:HG3	36:5:2763:U:H5'	181.16	0.65
4:S2:140:ARG:HB3	4:S2:221:THR:HB	1.79	0.65
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.70	0.65
52:M6:62:THR:HA	36:5:1306:G:C6	232.68	0.65
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	1.60	0.65
20:C8:92:ILE:HG23	20:C8:93:THR:HG23	3.28	0.65
55:M9:84:THR:O	55:M9:88:ARG:HG2	3.98	0.65
39:L2:64:ARG:HH22	45:L8:38:GLN:HA	2.33	0.65
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	4.02	0.65
21:C9:86:ARG:HG3	21:C9:86:ARG:HH11	1.60	0.65
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.11	0.65
72:O6:4:LYS:O	72:O6:16:LYS:NZ	3.53	0.65
15:C3:93:LYS:HA	15:C3:150:VAL:HG21	2.57	0.65
36:5:2510:U:O2'	36:5:2511:A:H5''	1.96	0.65
67:O1:26:LYS:NZ	36:5:1456:A:N7	166.03	0.65
1:6:909:U:H2'	1:6:910:C:H6	1.60	0.65
25:D3:108:GLY:HA2	1:6:600:U:OP2	356.59	0.65
22:D0:55:PRO:HA	22:D0:91:ILE:HG12	1.77	0.65
42:L5:68:THR:HG22	42:L5:70:THR:H	1.62	0.65
1:6:138:A:H2'	1:6:139:C:H5'	1.77	0.65
34:SR:26:SER:OG	34:SR:75:ALA:O	2.15	0.65
41:L4:67:THR:HB	41:L4:73:ARG:HD3	4.91	0.65
36:5:3279:A:H2'	36:5:3280:U:H5'	1.79	0.65
1:6:1050:G:N2	1:6:1068:C:O2	2.28	0.65
1:2:489:C:H42	1:2:497:G:H22	1.42	0.65
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.32	0.65
25:D3:130:VAL:O	25:D3:131:SER:HB3	1.98	0.65
43:L6:100:LYS:HE2	43:L6:105:TYR:HE2	2.54	0.65
36:5:3194:C:H2'	36:5:3195:U:H3'	1.79	0.65
47:M0:76:MET:HE2	47:M0:148:VAL:HG22	1.79	0.65
20:C8:20:THR:OG1	20:C8:21:ASN:N	2.27	0.65
36:5:750:G:H2'	36:5:751:A:H8	1.62	0.65
1:2:814:A:H5''	55:M9:170:ARG:HH22	1.62	0.65
36:1:541:U:O4	86:1:4191:OHX:N2	2.29	0.65
1:2:1428:G:H5'	1:2:1428:G:H8	1.62	0.65
2:S0:52:LYS:NZ	23:D1:82:VAL:O	2.27	0.65
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.78	0.65
86:1:3868:OHX:N1	73:O7:44:THR:O	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:191:U:H2'	36:5:192:C:C6	2.31	0.65
42:L5:270:LYS:HG3	42:L5:273:ARG:HB3	4.94	0.65
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.79	0.65
41:L4:359:LEU:O	56:N0:26:ARG:NH2	2.29	0.65
36:1:1014:U:H2'	36:1:1015:U:H5''	1.79	0.65
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	1.79	0.65
1:2:406:U:O2'	8:S6:94:ARG:NH2	2.30	0.65
36:1:3317:U:O2'	86:1:4022:OHX:N4	2.30	0.65
1:6:815:G:H5'	1:6:815:G:H8	1.60	0.65
59:N3:33:ASN:HD22	59:N3:63:LYS:HB2	4.27	0.65
36:1:1933:A:OP2	86:1:3883:OHX:N6	2.30	0.65
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.79	0.65
68:O2:43:ARG:NH1	36:5:1368:U:H5'	192.46	0.65
36:5:1249:G:H2'	36:5:1250:G:H8	1.62	0.65
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.72	0.65
36:5:2897:A:H2'	36:5:2899:C:H5''	1.78	0.65
57:N1:17:ARG:O	57:N1:18:ASP:HB2	1.97	0.65
36:5:3103:A:OP2	86:5:4152:OHX:N4	2.30	0.65
9:S7:82:GLU:OE2	9:S7:165:LYS:NZ	2.25	0.65
17:C5:61:ARG:NH2	17:C5:88:GLU:OE1	2.29	0.65
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.79	0.65
8:S6:25:ARG:NH2	40:L3:298:PHE:O	2.29	0.64
1:2:1202:A:H1'	1:2:1207:C:H42	1.62	0.64
28:D6:36:ILE:HD12	28:D6:36:ILE:H	5.62	0.64
1:2:516:G:OP2	86:2:2069:OHX:N6	2.30	0.64
38:4:104:A:C8	38:4:105:A:C8	2.84	0.64
86:5:3935:OHX:N5	86:5:4227:OHX:N3	2.45	0.64
46:L9:2:LYS:HB3	46:L9:59:ASN:ND2	2.12	0.64
1:6:1452:U:H2'	1:6:1453:G:C8	2.31	0.64
36:1:1473:G:OP2	55:M9:8:LYS:NZ	2.30	0.64
52:M6:27:LEU:HD11	52:M6:102:LEU:HB2	1.78	0.64
36:5:2509:U:H2'	36:5:2510:U:H5''	1.78	0.64
1:6:1227:A:H4'	1:6:1228:G:H5'	1.79	0.64
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	2.14	0.64
36:1:2942:C:O2	86:1:4132:OHX:N3	2.30	0.64
1:2:373:G:N7	86:2:2159:OHX:N6	2.44	0.64
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	1.99	0.64
58:N2:82:LYS:NZ	36:5:1686:U:O4	163.31	0.64
68:O2:96:ILE:HG21	68:O2:105:ARG:HG2	1.78	0.64
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	1.78	0.64
67:O1:44:MET:O	67:O1:46:THR:N	2.72	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.78	0.64
43:L6:23:LYS:HD2	36:5:611:A:N3	237.01	0.64
66:O0:26:GLY:O	66:O0:30:THR:HG23	1.98	0.64
1:2:623:A:OP1	86:2:2157:OHX:N1	2.30	0.64
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	1.79	0.64
67:O1:53:PRO:O	67:O1:57:GLN:HG3	1.97	0.64
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.26	0.64
1:2:520:A:H2'	1:2:521:A:C8	2.32	0.64
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	2.10	0.64
70:O4:8:ARG:NH2	70:O4:31:ARG:HD2	2.89	0.64
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.78	0.64
10:S8:62:THR:HA	10:S8:76:THR:O	2.34	0.64
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.63	0.64
36:1:2108:C:H1'	36:1:3344:A:H8	1.61	0.64
3:S1:175:GLU:HG3	3:S1:193:ILE:HG23	1.80	0.64
36:1:2572:C:O2'	36:1:2573:G:O4'	2.14	0.64
69:O3:69:GLY:HA3	69:O3:85:PHE:HA	2.09	0.64
53:M7:50:GLN:O	53:M7:53:ASP:N	2.30	0.64
36:1:1230:G:H1	36:1:1279:C:H42	1.43	0.64
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	1.91	0.64
1:6:454:U:H5''	1:6:455:C:H5	1.62	0.64
36:5:1581:C:OP2	36:5:1581:C:H4'	1.97	0.64
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.04	0.64
18:C6:122:ARG:HB3	1:6:1584:G:H5''	395.57	0.64
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.40	0.64
36:5:368:G:OP1	86:5:3917:OHX:N4	2.30	0.64
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.57	0.64
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.23	0.64
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.79	0.64
44:L7:125:GLU:OE1	44:L7:128:LYS:HE2	1.98	0.64
14:C2:81:ASP:O	14:C2:83:GLU:N	2.91	0.64
46:L9:111:PHE:HD1	46:L9:127:PRO:HA	1.63	0.64
1:6:1314:U:OP2	86:6:2182:OHX:N4	2.31	0.64
73:O7:2:GLY:N	36:5:2138:A:HO2'	173.14	0.64
1:2:51:A:OP2	86:2:2071:OHX:N3	2.30	0.64
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.79	0.64
36:5:2248:C:OP2	86:5:3971:OHX:N6	2.31	0.64
1:2:992:A:O2'	1:2:1785:U:O2	2.14	0.64
41:L4:233:LEU:HD13	41:L4:238:LEU:HD11	2.85	0.64
5:S3:142:LEU:HD13	5:S3:182:LEU:HD21	1.77	0.64
5:S3:178:ARG:NE	5:S3:178:ARG:H	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:831:U:O2'	1:6:832:U:H5'	1.98	0.64
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	1.78	0.64
1:6:1508:U:O4	86:6:2053:OHX:N4	2.29	0.64
16:C4:128:LYS:NZ	28:D6:27:SER:OG	2.30	0.64
79:Q3:9:GLY:O	36:5:836:A:O2'	234.23	0.64
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	1.79	0.64
36:5:2112:U:O2	86:5:3969:OHX:N1	2.30	0.64
59:N3:54:LEU:HD21	59:N3:119:GLY:HA3	2.01	0.64
1:2:732:G:O2'	1:2:733:A:O4'	2.15	0.64
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.31	0.64
2:S0:167:LYS:HE3	2:S0:168:HIS:NE2	2.69	0.64
36:1:2899:C:C5	46:L9:171:ASP:HA	2.32	0.64
64:N8:19:LYS:HD2	64:N8:25:HIS:CD2	4.05	0.64
36:5:549:U:O4	86:5:4006:OHX:N4	2.30	0.64
1:2:1761:U:O2'	1:2:1762:A:OP2	2.15	0.64
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.80	0.64
48:M1:139:THR:O	48:M1:139:THR:OG1	2.13	0.64
36:1:1591:G:O2'	36:1:1799:A:N1	2.25	0.64
34:SR:135:THR:OG1	34:SR:139:GLN:N	2.89	0.64
36:5:1096:U:H4'	36:5:1097:G:O5'	1.98	0.64
25:D3:56:LYS:NZ	25:D3:96:VAL:O	5.49	0.64
1:2:1061:A:H2'	1:2:1062:A:H5'	1.80	0.64
26:D4:124:ARG:NH2	1:6:151:G:O6	318.75	0.64
37:7:57:G:H3'	37:7:58:C:C6	2.32	0.64
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	3.69	0.64
1:2:833:U:H5'	1:2:834:G:H5''	1.80	0.64
36:5:1066:G:OP1	86:5:4221:OHX:N2	2.30	0.64
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.03	0.64
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.62	0.64
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.30	0.64
1:2:1726:G:N7	86:2:2098:OHX:N4	2.46	0.64
36:1:2209:U:H6	36:1:2209:U:OP2	1.80	0.64
1:2:274:G:O6	1:2:282:C:N4	2.20	0.64
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.47	0.64
1:6:486:G:H22	1:6:501:U:H3	1.46	0.64
34:SR:25:THR:HG21	34:SR:295:SER:HA	2.38	0.64
48:M1:73:GLY:O	48:M1:75:LYS:N	2.31	0.64
21:C9:119:LYS:NZ	1:6:1369:U:OP1	440.24	0.64
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.63	0.64
51:M5:73:ARG:NH1	51:M5:92:LEU:HD21	2.13	0.64
72:O6:33:ALA:O	72:O6:34:SER:HB3	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:31:VAL:O	18:C6:33:GLY:N	2.31	0.64
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.72	0.64
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	1.78	0.64
19:C7:104:ASN:H	19:C7:106:THR:HG22	7.34	0.64
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.30	0.64
36:1:2284:C:N4	36:1:2308:C:OP2	2.31	0.64
52:M6:157:GLU:OE1	52:M6:160:ARG:NH1	3.03	0.64
68:O2:19:ARG:NH2	36:5:1433:A:OP1	165.61	0.64
78:Q2:71:ARG:HH21	78:Q2:80:ARG:NH1	1.96	0.64
24:D2:26:LEU:HD13	24:D2:27:ILE:H	5.62	0.64
36:1:2413:A:H2'	36:1:2414:G:H8	1.63	0.64
36:1:2236:G:OP1	86:1:4116:OHX:N6	2.31	0.64
40:L3:376:LYS:HG3	40:L3:380:MET:HG3	3.28	0.64
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.72	0.64
4:S2:206:THR:HG21	1:6:14:C:OP2	374.51	0.64
36:1:718:G:C2	36:1:721:G:H1'	2.32	0.64
1:6:1305:U:OP2	1:6:1306:C:N4	2.28	0.64
1:2:1564:U:H2'	1:2:1565:C:C6	2.33	0.64
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.80	0.64
1:6:139:C:H4'	1:6:140:A:O5'	1.97	0.64
1:2:190:C:N4	1:2:196:G:O6	2.30	0.64
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	6.80	0.64
36:1:3316:A:OP1	36:1:3318:G:N2	2.29	0.64
18:C6:140:LYS:NZ	1:6:1192:C:O2'	360.73	0.64
8:S6:49:VAL:HB	8:S6:115:LYS:HG2	4.49	0.64
7:S5:148:ARG:HE	30:D8:22:ARG:NH2	5.18	0.64
1:2:1523:G:H8	21:C9:79:LEU:HD13	1.61	0.64
13:C1:132:SER:O	13:C1:134:THR:N	3.20	0.64
11:S9:6:ARG:HB2	11:S9:6:ARG:HH11	3.39	0.64
36:5:1554:U:H4'	36:5:1555:U:OP1	1.98	0.63
41:L4:22:LEU:HD22	41:L4:23:PRO:HD2	1.80	0.63
36:5:789:A:H2'	36:5:790:U:H6	1.61	0.63
36:1:3155:U:H3'	36:1:3156:U:C4'	2.27	0.63
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.62	0.63
15:C3:63:ALA:O	15:C3:67:THR:OG1	2.68	0.63
19:C7:105:GLN:O	19:C7:109:LEU:N	2.68	0.63
41:L4:295:ILE:HG13	54:M8:36:LEU:HD21	4.30	0.63
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	2.03	0.63
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.80	0.63
1:2:1230:A:H2'	1:2:1258:U:H5	1.63	0.63
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:30:C:H2'	38:8:31:G:H8	1.64	0.63
64:N8:77:LYS:O	64:N8:79:TRP:N	2.36	0.63
38:4:85:G:O6	62:N6:112:ASP:HB3	1.98	0.63
11:S9:133:HIS:NE2	1:6:513:U:OP1	445.98	0.63
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.87	0.63
20:C8:113:LEU:HD21	20:C8:127:HIS:ND1	2.12	0.63
36:5:264:G:O2'	36:5:265:A:OP2	2.12	0.63
36:1:1564:U:H2'	36:1:1565:G:C8	2.33	0.63
47:M0:76:MET:CE	47:M0:148:VAL:HA	2.59	0.63
19:C7:104:ASN:O	19:C7:106:THR:N	3.35	0.63
36:1:3195:U:O2'	36:1:3197:G:N2	2.31	0.63
2:S0:126:PRO:HG2	2:S0:152:PRO:HD2	2.49	0.63
51:M5:15:GLN:HE21	72:O6:52:PRO:HD2	4.16	0.63
36:1:2560:C:O2	86:1:3924:OHX:N1	2.31	0.63
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.80	0.63
64:N8:85:ASP:OD1	64:N8:86:LYS:N	2.31	0.63
36:1:3224:G:O6	86:1:3891:OHX:N4	2.30	0.63
39:L2:142:ASP:N	39:L2:142:ASP:OD2	2.30	0.63
1:6:1769:U:OP2	86:6:2142:OHX:N2	2.32	0.63
1:6:228:G:H1	1:6:236:A:H61	1.46	0.63
1:6:218:A:H2'	1:6:219:A:H5''	1.81	0.63
72:O6:86:LYS:NZ	36:5:296:A:OP1	139.61	0.63
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.33	0.63
72:O6:57:LEU:HD11	72:O6:73:ALA:HB2	2.51	0.63
38:8:68:G:OP1	86:8:218:OHX:N3	2.31	0.63
36:1:2850:G:O6	86:1:4073:OHX:N6	2.32	0.63
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.80	0.63
4:S2:199:GLN:HE21	1:6:2:A:H2	380.59	0.63
29:D7:37:CYS:O	29:D7:39:GLY:N	2.32	0.63
36:1:2361:A:N6	36:1:2376:G:O6	2.32	0.63
36:5:1863:G:N1	36:5:1866:C:OP2	2.28	0.63
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.33	0.63
36:5:1879:A:N3	36:5:1879:A:H2'	2.13	0.63
62:N6:50:ILE:HD13	62:N6:51:ARG:H	4.95	0.63
1:6:152:U:O2	1:6:163:G:N2	2.31	0.63
18:C6:82:ARG:HH22	18:C6:114:ARG:HG3	2.72	0.63
18:C6:47:LYS:NZ	18:C6:50:GLU:OE2	2.48	0.63
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.30	0.63
36:1:1240:A:H61	36:1:1244:A:H5''	1.63	0.63
79:Q3:6:LYS:HG2	79:Q3:7:LYS:HG3	5.08	0.63
20:C8:125:ILE:HG23	35:SM:61:ILE:HG23	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:346:THR:O	40:L3:348:ARG:N	2.30	0.63
36:1:1688:U:H2'	36:1:1689:U:C6	2.34	0.63
70:O4:91:ARG:HG3	70:O4:95:ILE:HD13	1.80	0.63
36:1:829:U:H3	36:1:895:A:N6	1.95	0.63
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.79	0.63
36:1:3087:A:P	86:1:4180:OHX:N5	2.72	0.63
2:S0:60:ALA:HB2	2:S0:160:ILE:HD11	1.81	0.63
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.12	0.63
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.66	0.63
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	1.81	0.63
1:2:1417:A:O3'	18:C6:128:LYS:HE2	1.98	0.63
37:3:112:G:H2'	37:3:113:C:C6	2.33	0.63
36:1:1740:U:H1'	36:1:1741:A:H2	1.63	0.63
54:M8:23:ASN:HB3	54:M8:26:LEU:HB2	2.15	0.63
1:6:1588:G:OP1	86:6:2122:OHX:N2	2.31	0.63
31:D9:22:ARG:HG2	31:D9:38:ILE:HG12	4.46	0.63
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.12	0.63
2:S0:148:ASP:HB2	2:S0:164:ASN:ND2	2.13	0.63
51:M5:96:ARG:HD2	36:5:31:C:H4'	123.65	0.63
5:S3:94:ARG:NH1	35:SM:130:GLU:OE2	2.30	0.63
58:N2:43:VAL:O	58:N2:45:GLY:N	3.12	0.63
43:L6:58:LEU:HD12	43:L6:78:ARG:HD3	1.81	0.63
40:L3:274:SER:OG	36:5:3139:A:OP1	227.94	0.63
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.32	0.63
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.47	0.63
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.79	0.63
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.13	0.63
38:4:11:C:OP2	86:4:241:OHX:N1	2.31	0.63
57:N1:40:VAL:HG21	57:N1:96:ILE:HG13	1.81	0.63
42:L5:85:ARG:HH12	42:L5:254:LYS:H	2.35	0.63
36:1:2294:U:OP2	59:N3:71:LYS:HE2	1.98	0.63
36:5:1638:A:N1	36:5:1736:G:O2'	2.20	0.63
36:1:1951:C:N4	36:1:2095:G:H1	1.91	0.63
22:D0:71:PRO:O	22:D0:72:ASN:ND2	5.89	0.63
36:5:1564:U:H2'	36:5:1565:G:C8	2.34	0.63
1:2:549:G:OP2	86:2:2025:OHX:N2	2.31	0.63
75:O9:10:LYS:HD3	36:5:1833:G:H5''	106.22	0.63
1:6:922:G:H2'	1:6:923:A:C8	2.33	0.63
1:2:1166:A:H5''	7:S5:101:GLY:H	1.63	0.63
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.68	0.63
53:M7:88:VAL:O	53:M7:92:GLN:HG2	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.33	0.63
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.81	0.63
46:L9:44:THR:HG22	36:5:3186:A:C2	326.40	0.63
24:D2:90:THR:HB	24:D2:94:LEU:HD12	1.81	0.63
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.34	0.63
36:5:1563:C:O2	36:5:1577:G:N2	2.32	0.63
36:1:1383:G:O6	86:1:3879:OHX:N3	2.32	0.63
36:5:3165:A:H61	36:5:3285:C:H42	1.45	0.63
22:D0:28:SER:OG	22:D0:29:THR:N	2.40	0.63
51:M5:190:THR:O	51:M5:194:GLN:HG2	1.98	0.63
52:M6:3:VAL:HG13	52:M6:4:GLU:HG3	1.81	0.63
36:1:2960:C:OP1	86:1:4000:OHX:N4	2.32	0.63
8:S6:174:LYS:HG3	1:6:79:C:H1'	341.21	0.63
10:S8:29:LEU:HD12	1:6:400:A:N6	294.97	0.63
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.32	0.63
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.21	0.63
58:N2:43:VAL:HB	58:N2:49:ASN:HB3	1.79	0.63
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.79	0.63
34:SR:255:ALA:HB2	34:SR:292:LEU:HD22	1.81	0.63
36:1:2510:U:O2'	36:1:2511:A:H5''	1.99	0.63
10:S8:2:GLY:N	1:6:393:C:OP2	291.62	0.63
54:M8:73:GLN:HB2	54:M8:76:ALA:HB2	2.76	0.63
1:6:1754:A:H4'	1:6:1755:A:O5'	1.99	0.63
36:1:160:G:O6	86:1:4193:OHX:N6	2.31	0.63
52:M6:110:PRO:O	52:M6:113:ASP:N	4.88	0.63
11:S9:78:ARG:HH12	11:S9:82:ARG:NH2	1.97	0.63
1:2:916:U:H3	16:C4:41:ARG:HH22	1.45	0.63
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.80	0.63
48:M1:7:ASN:OD1	48:M1:10:ARG:HD2	1.99	0.63
1:2:1002:G:N1	1:2:1761:U:OP1	2.30	0.63
37:3:112:G:OP2	86:3:221:OHX:N1	2.32	0.63
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.80	0.63
36:5:2371:G:O6	86:5:3901:OHX:N6	2.32	0.63
33:E1:119:ARG:O	33:E1:132:LEU:N	3.12	0.63
36:1:2561:A:N1	45:L8:32:LYS:HB2	2.13	0.63
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.64	0.63
36:1:3259:U:H6	36:1:3259:U:H5'	1.64	0.63
45:L8:48:ARG:NH2	36:5:2588:U:OP1	182.71	0.63
54:M8:21:SER:OG	36:5:673:U:OP1	150.15	0.63
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.37	0.63
51:M5:116:LEU:HB3	51:M5:133:ILE:HG13	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:916:U:H3	16:C4:41:ARG:NH2	1.96	0.62
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.64	0.62
47:M0:76:MET:HE2	47:M0:148:VAL:HA	2.17	0.62
63:N7:89:VAL:HG13	63:N7:93:LYS:HG2	1.98	0.62
63:N7:135:ARG:O	36:5:2555:G:N2	210.17	0.62
36:1:3377:G:H21	40:L3:332:ARG:HH21	1.46	0.62
67:O1:80:ASN:N	67:O1:88:PRO:O	2.31	0.62
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.80	0.62
20:C8:33:THR:HA	20:C8:38:VAL:HG22	3.88	0.62
1:6:770:A:OP2	86:6:2136:OHX:N3	2.31	0.62
36:5:742:G:N7	86:5:3996:OHX:N4	2.46	0.62
36:1:3131:U:H2'	36:1:3132:C:H6	1.64	0.62
48:M1:137:ARG:HG2	37:7:28:C:H5''	306.55	0.62
15:C3:73:ARG:HD3	1:6:859:A:C5	330.22	0.62
48:M1:155:THR:O	48:M1:159:THR:HG23	5.56	0.62
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.27	0.62
1:6:1696:G:H2'	1:6:1698:G:O6	1.99	0.62
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.71	0.62
41:L4:177:ASP:OD1	41:L4:180:LYS:HE3	1.99	0.62
26:D4:29:HIS:O	26:D4:31:ASN:N	3.61	0.62
6:S4:11:ARG:O	6:S4:12:LEU:HB2	1.98	0.62
27:D5:58:ARG:HA	27:D5:103:ARG:HB2	6.05	0.62
9:S7:173:TYR:CE1	9:S7:181:ILE:HD13	2.35	0.62
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.81	0.62
36:1:1064:A:H5''	36:1:1066:G:O4'	1.99	0.62
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.81	0.62
68:O2:94:ALA:O	68:O2:120:THR:HG23	2.35	0.62
1:6:626:U:H2'	1:6:627:C:H6	1.64	0.62
1:2:1067:C:H2'	1:2:1068:C:H6	1.64	0.62
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.64	0.62
36:5:127:G:H2'	36:5:128:G:C8	2.34	0.62
56:N0:82:ASP:OD1	56:N0:87:THR:HB	2.00	0.62
36:5:408:A:OP1	86:5:4096:OHX:N6	2.33	0.62
9:S7:10:SER:O	9:S7:11:GLN:HB2	2.44	0.62
41:L4:143:GLU:O	86:L4:403:OHX:N2	2.32	0.62
36:1:1245:A:N6	36:1:1272:C:O2'	2.32	0.62
1:2:740:A:H2'	1:2:741:C:H5''	1.80	0.62
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	2.82	0.62
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	2.98	0.62
32:E0:17:GLN:OE1	1:6:563:U:H4'	382.20	0.62
49:M3:15:ARG:CZ	36:5:96:G:H5'	151.37	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.80	0.62
63:N7:10:VAL:HB	63:N7:83:THR:HG21	1.86	0.62
58:N2:42:LYS:HG2	58:N2:46:ALA:HA	3.13	0.62
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.82	0.62
36:1:2510:U:HO2'	36:1:2511:A:H8	1.45	0.62
36:1:2734:A:OP1	86:1:4005:OHX:N3	2.33	0.62
6:S4:148:ARG:NH1	8:S6:201:GLN:OE1	2.30	0.62
2:S0:112:THR:HG22	2:S0:115:PHE:HB2	2.81	0.62
36:1:1556:C:H5''	36:1:2169:G:N2	2.15	0.62
1:2:365:G:N7	86:2:2105:OHX:N5	2.48	0.62
23:D1:3:ASN:ND2	23:D1:7:GLN:HB3	4.86	0.62
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.82	0.62
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.81	0.62
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.81	0.62
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.80	0.62
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.48	0.62
36:1:3094:A:H2'	36:1:3095:U:C6	2.35	0.62
13:C1:5:LEU:O	13:C1:7:VAL:N	2.23	0.62
1:2:591:A:H2'	1:2:592:A:C8	2.35	0.62
26:D4:66:GLY:HA2	1:6:532:U:H4'	431.03	0.62
20:C8:83:ALA:HA	20:C8:86:LEU:HD22	2.02	0.62
17:C5:98:ASN:ND2	17:C5:121:ILE:O	2.30	0.62
58:N2:104:ARG:NH2	36:5:1758:G:H5'	119.63	0.62
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	1.80	0.62
36:5:1170:A:OP2	86:5:3995:OHX:N4	2.32	0.62
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.63	0.62
36:5:1595:U:C2	36:5:1596:C:C5	2.88	0.62
57:N1:18:ASP:O	57:N1:21:LYS:N	2.81	0.62
59:N3:125:LEU:HB3	59:N3:126:TRP:CD1	2.34	0.62
36:5:1103:A:H3'	36:5:1104:G:H5'	1.80	0.62
77:Q1:7:LYS:HE3	77:Q1:11:ARG:NH2	4.01	0.62
24:D2:105:THR:HG22	1:6:804:A:N3	365.59	0.62
40:L3:383:LEU:HD12	40:L3:385:LYS:HE2	5.51	0.62
1:2:1320:U:O2	1:2:1322:A:H5'	2.00	0.62
2:S0:200:ASP:N	2:S0:200:ASP:OD1	2.32	0.62
1:2:420:A:OP1	8:S6:96:SER:OG	2.17	0.62
1:6:1767:G:OP1	1:6:1770:U:H4'	2.00	0.62
25:D3:60:GLU:CD	32:E0:3:LYS:HB2	2.36	0.62
17:C5:122:THR:OG1	1:6:1454:G:O3'	366.98	0.62
1:6:1203:A:OP2	86:6:2128:OHX:N1	2.32	0.62
49:M3:46:ILE:HD13	49:M3:49:ARG:NH1	4.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.32	0.62
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	2.96	0.62
1:2:623:A:OP2	86:2:2157:OHX:N4	2.32	0.62
1:6:454:U:H5''	1:6:455:C:C5	2.35	0.62
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.15	0.62
36:1:3346:U:H3	36:1:3359:A:H61	1.47	0.62
1:6:973:A:H2'	1:6:974:A:H8	1.65	0.62
34:SR:206:PRO:HG2	34:SR:247:PRO:HA	2.51	0.62
48:M1:95:ASN:HD22	48:M1:95:ASN:N	2.40	0.62
38:8:74:U:O2	86:8:221:OHX:N5	2.32	0.62
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.85	0.62
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.26	0.62
36:1:2592:G:H4'	36:1:2594:C:C2	2.34	0.62
32:E0:55:ARG:HB3	32:E0:58:PRO:HG3	1.82	0.62
36:1:2818:U:C6	36:1:2818:U:H5'	2.31	0.62
1:2:1570:A:OP1	86:2:2154:OHX:N5	2.32	0.62
42:L5:46:THR:HG21	36:5:1078:U:H4'	236.30	0.62
36:5:1716:U:H5'	36:5:1716:U:C6	2.35	0.62
1:2:1657:U:H5	36:1:2125:A:O3'	1.83	0.62
1:2:959:U:C6	15:C3:61:THR:HB	2.35	0.62
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.08	0.62
36:5:900:G:H1'	36:5:1589:A:N6	2.13	0.62
36:1:440:A:OP2	36:1:440:A:H8	1.83	0.62
31:D9:21:CYS:HB2	31:D9:39:CYS:HB2	2.85	0.62
36:5:2256:A:OP2	36:5:2256:A:H2'	2.00	0.62
36:1:1103:A:N3	36:1:1103:A:H2'	2.15	0.62
36:5:2211:U:H5	36:5:2234:G:O6	1.81	0.62
62:N6:39:LEU:HD22	62:N6:43:TYR:HE2	1.62	0.62
1:2:1097:U:O2'	4:S2:159:THR:OG1	2.12	0.62
12:C0:46:LEU:O	12:C0:50:THR:HG23	1.99	0.62
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.85	0.62
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.33	0.62
46:L9:126:VAL:HG21	46:L9:161:LEU:HA	1.82	0.62
1:2:1680:G:O6	86:2:2109:OHX:N5	2.33	0.62
51:M5:18:VAL:HG22	51:M5:19:LEU:HD12	3.32	0.62
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.31	0.62
36:5:2820:A:C4	88:5:4246:3L2:H12	2.35	0.62
17:C5:63:ALA:HA	17:C5:66:ALA:HB3	2.62	0.62
1:6:442:C:N4	1:6:462:G:O6	2.17	0.62
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.44	0.62
73:O7:60:GLY:O	86:O7:104:OHX:N6	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2528:G:N7	86:5:4201:OHX:N3	2.48	0.62
36:5:145:G:O6	86:5:4011:OHX:N5	2.33	0.62
53:M7:69:ARG:NH1	36:5:3308:C:N3	189.60	0.62
1:6:1595:U:N3	1:6:1600:A:H2	1.98	0.62
54:M8:30:VAL:O	54:M8:34:THR:HG23	2.00	0.62
11:S9:117:GLY:O	11:S9:119:ALA:N	2.51	0.62
47:M0:78:THR:OG1	47:M0:79:VAL:N	2.99	0.62
56:N0:161:LYS:NZ	36:5:3208:G:O3'	278.50	0.62
14:C2:56:GLU:OE1	14:C2:124:LYS:NZ	2.95	0.62
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	1.82	0.62
36:1:1712:G:N2	36:1:1731:A:OP2	2.33	0.62
36:1:1895:A:O2'	36:1:3053:G:H4'	2.00	0.62
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.82	0.62
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.34	0.62
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.00	0.62
26:D4:56:SER:O	26:D4:74:LEU:N	2.51	0.61
7:S5:128:ASN:O	7:S5:131:GLN:N	2.76	0.61
1:2:542:A:H5''	1:2:544:A:C8	2.34	0.61
36:5:3164:C:H1'	36:5:3165:A:H5'	1.82	0.61
49:M3:140:SER:OG	49:M3:141:ALA:N	2.33	0.61
36:5:629:U:H2'	36:5:630:A:C8	2.35	0.61
19:C7:4:VAL:HG22	1:6:1402:G:H5'	398.99	0.61
46:L9:91:ARG:NH2	46:L9:141:LYS:O	5.32	0.61
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.12	0.61
26:D4:12:VAL:HG22	26:D4:23:PHE:HB3	2.30	0.61
41:L4:93:MET:HB2	36:5:658:G:H21	144.59	0.61
36:5:1528:G:H2'	36:5:1529:A:C8	2.35	0.61
49:M3:126:PHE:CD2	71:O5:115:LYS:HG2	2.47	0.61
8:S6:164:LYS:N	8:S6:167:LYS:O	2.31	0.61
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.81	0.61
20:C8:91:ASP:HB3	20:C8:95:GLY:H	1.87	0.61
37:3:49:G:C5	42:L5:58:LYS:HG3	2.34	0.61
73:O7:45:ARG:NH2	36:5:361:A:O3'	123.73	0.61
43:L6:60:ASP:OD1	43:L6:62:THR:OG1	2.16	0.61
5:S3:10:LYS:HG2	5:S3:11:LEU:HD23	2.82	0.61
54:M8:85:GLY:O	54:M8:104:LEU:HB2	2.84	0.61
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.80	0.61
36:1:2585:G:N7	45:L8:47:SER:OG	2.32	0.61
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.67	0.61
36:1:263:C:H2'	36:1:264:G:O4'	2.00	0.61
52:M6:110:PRO:O	52:M6:111:PRO:C	3.43	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:64:HIS:CE1	34:SR:84:SER:HB3	2.50	0.61
36:5:1170:A:OP2	86:5:3995:OHX:N6	2.33	0.61
45:L8:90:THR:HG22	45:L8:214:LEU:HG	4.43	0.61
58:N2:49:ASN:O	58:N2:51:GLY:N	2.62	0.61
63:N7:25:ILE:HG23	63:N7:41:ALA:HB1	3.06	0.61
40:L3:166:ILE:HD13	40:L3:173:GLN:HG2	1.80	0.61
24:D2:15:ASN:HD21	24:D2:71:LYS:HG3	1.76	0.61
38:8:145:U:H2'	38:8:146:U:C6	2.36	0.61
19:C7:71:PHE:HD1	19:C7:73:LEU:HB3	1.66	0.61
54:M8:170:ARG:O	54:M8:171:LYS:HB2	2.91	0.61
36:1:3251:U:H2'	36:1:3252:G:C8	2.35	0.61
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.00	0.61
50:M4:21:VAL:HG12	50:M4:65:LEU:HA	1.83	0.61
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.81	0.61
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.20	0.61
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.66	0.61
36:1:837:A:OP1	79:Q3:5:THR:OG1	2.18	0.61
40:L3:53:MET:HB2	36:5:3049:A:H5'	234.02	0.61
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.30	0.61
44:L7:217:PRO:HA	86:5:3995:OHX:N5	261.74	0.61
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.04	0.61
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.65	0.61
51:M5:73:ARG:NH1	51:M5:88:GLY:O	2.33	0.61
37:3:28:C:OP1	48:M1:137:ARG:NH1	2.30	0.61
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.36	0.61
1:2:1325:A:OP2	19:C7:11:ARG:NH1	2.34	0.61
1:2:16:G:H2'	1:2:17:C:C6	2.36	0.61
36:1:792:G:H2'	36:1:793:C:C6	2.35	0.61
59:N3:17:LEU:HD21	59:N3:98:ASN:HD22	1.66	0.61
16:C4:90:ARG:O	16:C4:92:LYS:N	2.73	0.61
3:S1:128:LYS:HG3	3:S1:134:VAL:HG22	1.80	0.61
46:L9:22:SER:OG	46:L9:23:ARG:N	2.30	0.61
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.33	0.61
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.01	0.61
5:S3:135:GLU:HB3	5:S3:157:LEU:HD11	4.13	0.61
37:7:3:U:H2'	37:7:4:U:H6	1.63	0.61
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	1.82	0.61
2:S0:120:LEU:HD21	2:S0:144:ILE:HD11	1.99	0.61
35:SM:58:GLU:HA	35:SM:61:ILE:HD11	1.82	0.61
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	3.92	0.61
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:952:A:O2'	15:C3:114:ARG:HG3	2.00	0.61
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	2.16	0.61
36:5:92:G:H5'	36:5:93:C:H5''	1.82	0.61
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.00	0.61
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	2.81	0.61
59:N3:129:VAL:O	59:N3:133:SER:OG	2.18	0.61
50:M4:134:ALA:O	50:M4:136:ALA:N	2.53	0.61
9:S7:46:ILE:HD11	9:S7:60:ILE:HG12	1.82	0.61
36:5:1223:A:OP2	36:5:1285:G:N2	2.29	0.61
3:S1:48:VAL:HG13	3:S1:61:LEU:HD11	1.81	0.61
36:1:2107:A:H2	36:1:3344:A:C8	2.18	0.61
46:L9:70:THR:HG21	36:5:3122:A:N1	323.67	0.61
39:L2:131:GLY:H	39:L2:169:ILE:HG22	2.20	0.61
34:SR:184:ASN:HD22	34:SR:185:GLN:N	5.58	0.61
36:5:1717:U:H2'	36:5:1718:G:C8	2.35	0.61
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.65	0.61
38:8:145:U:H2'	38:8:146:U:H6	1.66	0.61
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	2.15	0.61
36:5:3317:U:H4'	36:5:3318:G:O5'	2.00	0.61
36:5:1818:U:H2'	36:5:1819:U:H6	1.65	0.61
40:L3:387:LEU:H	40:L3:387:LEU:HD12	1.65	0.61
36:1:3074:G:OP1	86:1:4037:OHX:N1	2.34	0.61
1:6:1117:U:H2'	1:6:1118:G:C8	2.35	0.61
1:2:1175:U:H3	1:2:1464:G:H1	1.45	0.61
3:S1:70:LEU:HD21	3:S1:79:HIS:CD2	2.36	0.61
42:L5:265:TYR:HE1	37:7:121:U:H5''	314.79	0.61
75:O9:4:GLN:HG2	36:5:1588:A:C2	125.85	0.61
2:S0:10:THR:HG22	2:S0:11:PRO:HD2	1.82	0.61
36:5:1597:C:H2'	36:5:1598:G:C8	2.35	0.61
1:2:1000:C:O2'	1:2:1002:G:N7	2.24	0.61
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	2.23	0.61
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.83	0.61
46:L9:50:ASN:HD21	50:M4:4:ASP:HA	1.65	0.61
9:S7:66:SER:O	9:S7:68:ALA:N	2.36	0.61
42:L5:23:ARG:NH2	36:5:2703:A:OP2	282.57	0.61
46:L9:62:ARG:NH2	36:5:3115:C:OP1	329.54	0.61
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.27	0.61
48:M1:94:ARG:C	48:M1:96:PHE:H	2.02	0.61
47:M0:177:ASP:OD1	47:M0:177:ASP:N	2.32	0.61
21:C9:68:ARG:NH1	1:6:1521:G:O6	412.33	0.61
35:SM:26:VAL:HG11	48:M1:49:LYS:HE3	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:57:LEU:H	18:C6:57:LEU:HD12	3.23	0.61
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	4.24	0.61
6:S4:36:HIS:NE2	6:S4:88:ASP:OD2	2.34	0.61
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.01	0.61
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.34	0.61
1:6:1235:C:OP2	1:6:1245:G:H8	1.84	0.61
4:S2:81:MET:HE2	4:S2:103:VAL:HB	1.81	0.61
53:M7:168:LEU:HD13	53:M7:173:ARG:HB3	1.81	0.61
36:1:1413:G:N7	86:1:4120:OHX:N4	2.49	0.61
1:6:1175:U:H2'	1:6:1176:G:C8	2.36	0.61
49:M3:50:PRO:O	49:M3:52:ASP:N	2.63	0.61
62:N6:14:LYS:HE3	36:5:335:G:OP2	76.51	0.61
36:5:2960:C:OP1	86:5:3965:OHX:N5	2.34	0.61
65:N9:14:ARG:NH1	65:N9:18:ARG:HD3	3.92	0.61
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.01	0.61
21:C9:57:ARG:NH2	21:C9:80:TYR:HB3	2.15	0.61
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	1.81	0.61
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.08	0.61
9:S7:25:VAL:HA	9:S7:28:GLU:HB2	1.86	0.61
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	2.89	0.61
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	1.83	0.61
86:5:4014:OHX:N5	86:5:4210:OHX:N2	2.49	0.61
45:L8:160:ILE:HD12	45:L8:164:VAL:HG13	5.63	0.61
36:5:127:G:H2'	36:5:128:G:H8	1.65	0.61
36:1:729:C:H2'	36:1:730:C:H6	1.65	0.61
36:1:595:G:N1	36:1:609:G:H5''	2.16	0.61
13:C1:79:LYS:HB3	1:6:346:G:H5'	280.40	0.61
1:6:709:C:O2	1:6:730:G:N2	2.34	0.61
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	1.86	0.61
15:C3:12:SER:HB3	1:6:956:C:OP2	333.45	0.61
27:D5:77:ARG:NH2	1:6:1534:G:N7	349.12	0.60
27:D5:37:GLN:N	27:D5:70:LYS:HZ3	11.64	0.60
36:5:1765:U:H4'	36:5:1765:U:OP1	2.01	0.60
15:C3:127:ARG:HH11	15:C3:127:ARG:HG2	1.66	0.60
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.34	0.60
1:6:825:U:O2'	1:6:826:U:H6	1.84	0.60
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.00	0.60
11:S9:17:ARG:NH1	1:6:4:C:O2'	388.19	0.60
36:1:1317:A:OP1	86:1:4061:OHX:N2	2.34	0.60
16:C4:19:ILE:HB	16:C4:83:ILE:HD12	1.82	0.60
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:32:HIS:NE2	12:C0:35:ILE:HB	2.16	0.60
36:1:816:A:H5''	36:1:920:A:H62	1.65	0.60
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.59	0.60
68:O2:4:LEU:HG	68:O2:5:PRO:HD3	3.62	0.60
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.34	0.60
52:M6:124:LEU:O	52:M6:128:ARG:HB2	2.88	0.60
28:D6:7:SER:O	28:D6:9:GLY:N	3.47	0.60
1:2:1480:G:H4'	21:C9:11:ALA:HB1	1.81	0.60
36:5:286:U:H2'	36:5:287:G:C8	2.36	0.60
42:L5:270:LYS:HB3	37:7:1:G:O2'	321.18	0.60
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	1.82	0.60
1:2:1178:G:H2'	1:2:1179:G:O4'	2.02	0.60
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.00	0.60
11:S9:9:SER:OG	1:6:771:A:OP1	388.97	0.60
47:M0:175:ASN:OD1	47:M0:176:LEU:N	5.00	0.60
7:S5:75:GLY:O	18:C6:122:ARG:NH2	4.14	0.60
2:S0:146:LEU:HB3	2:S0:162:CYS:SG	2.68	0.60
14:C2:60:VAL:HG13	14:C2:122:VAL:HG22	1.81	0.60
24:D2:66:ASN:OD1	24:D2:68:ARG:HG2	3.74	0.60
16:C4:91:THR:O	16:C4:93:THR:N	2.34	0.60
25:D3:30:LYS:HE2	25:D3:34:LEU:HD11	3.11	0.60
1:6:1160:A:O5'	86:6:2180:OHX:N2	2.34	0.60
66:O0:100:ILE:HG13	66:O0:101:LEU:HD22	3.76	0.60
7:S5:100:ASN:O	7:S5:102:ARG:N	2.33	0.60
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	1.82	0.60
47:M0:36:LEU:HD13	47:M0:87:LEU:HD13	1.83	0.60
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.29	0.60
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	2.52	0.60
1:6:1244:A:O2'	1:6:1245:G:O5'	2.18	0.60
1:2:218:A:O2'	1:2:219:A:OP1	2.16	0.60
52:M6:185:ALA:O	52:M6:188:SER:N	3.18	0.60
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.35	0.60
5:S3:7:LYS:NZ	22:D0:115:GLU:OE2	2.23	0.60
36:5:2572:C:O2'	36:5:2573:G:OP2	2.17	0.60
36:1:1887:A:OP1	86:1:4085:OHX:N3	2.34	0.60
3:S1:146:GLN:O	3:S1:148:ASN:N	2.91	0.60
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.82	0.60
60:N4:4:GLU:HG3	60:N4:30:ARG:NH1	4.29	0.60
1:6:473:A:H5'	1:6:769:A:H1'	1.84	0.60
1:6:152:U:C2	1:6:163:G:N2	2.70	0.60
3:S1:70:LEU:HG	3:S1:84:ILE:HD11	4.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.34	0.60
16:C4:16:VAL:HG21	16:C4:18:ARG:NH2	2.75	0.60
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	4.39	0.60
86:5:4014:OHX:N3	86:5:4210:OHX:N1	2.50	0.60
6:S4:93:ASP:O	6:S4:95:THR:N	3.54	0.60
40:L3:49:TYR:O	40:L3:80:ASP:N	2.62	0.60
1:2:1130:G:OP2	86:2:2073:OHX:N2	2.34	0.60
1:6:1573:A:H4'	1:6:1574:G:H5'	1.82	0.60
70:O4:37:LYS:HE3	36:5:1656:A:OP2	163.88	0.60
55:M9:167:ARG:HB3	55:M9:167:ARG:HH11	4.24	0.60
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	1.83	0.60
36:5:132:C:H2'	36:5:133:U:H5''	1.82	0.60
1:2:187:G:H4'	1:2:188:A:OP1	2.00	0.60
36:1:439:C:H3'	36:1:440:A:C8	2.36	0.60
48:M1:12:LEU:HD12	48:M1:131:MET:HE2	1.83	0.60
8:S6:202:ARG:NH2	1:6:127:G:N7	329.21	0.60
36:5:2734:A:OP1	86:5:4040:OHX:N6	2.34	0.60
79:Q3:56:THR:HG22	79:Q3:63:THR:HG23	1.84	0.60
49:M3:64:LYS:HG3	64:N8:69:TRP:CD1	2.37	0.60
47:M0:129:VAL:HG22	47:M0:133:GLN:HG2	1.81	0.60
1:6:845:G:H2'	1:6:846:G:H8	1.66	0.60
36:1:2947:G:H4'	36:1:2947:G:OP2	1.99	0.60
46:L9:163:GLN:O	46:L9:166:ARG:HG3	3.22	0.60
1:2:280:U:O2'	1:2:281:G:OP2	2.15	0.60
1:2:1595:U:N3	1:2:1600:A:H2	1.99	0.60
41:L4:89:ALA:C	41:L4:91:GLY:H	2.00	0.60
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.82	0.60
17:C5:122:THR:HG22	1:6:1558:U:N3	365.40	0.60
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.34	0.60
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.02	0.60
41:L4:16:THR:HG23	41:L4:18:ASN:N	3.83	0.60
48:M1:10:ARG:HH21	48:M1:152:HIS:H	4.22	0.60
24:D2:53:ILE:HB	24:D2:60:LYS:HB2	4.50	0.60
15:C3:124:ARG:NH2	1:6:967:A:OP2	318.25	0.60
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	1.83	0.60
1:2:717:C:H42	1:2:720:G:H22	1.47	0.60
36:5:1376:C:HO2'	36:5:1408:G:HO2'	1.44	0.60
26:D4:20:ARG:HD2	26:D4:74:LEU:HB3	1.84	0.60
1:2:1566:U:H5''	20:C8:39:GLY:H	1.67	0.60
38:4:41:A:H61	38:4:103:G:H1'	1.65	0.60
1:2:515:A:OP2	86:2:2069:OHX:N3	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:136:GLN:NE2	1:6:1544:U:OP1	353.61	0.60
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.33	0.60
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.35	0.60
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	5.73	0.60
21:C9:117:SER:HB2	21:C9:123:ARG:HB2	1.81	0.60
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.37	0.60
36:1:2747:A:H2'	36:1:2748:A:C8	2.37	0.60
1:2:932:U:OP2	3:S1:155:TYR:OH	2.15	0.60
36:1:2274:U:OP2	86:1:3964:OHX:N4	2.35	0.60
36:1:2371:G:O6	86:1:3870:OHX:N3	2.33	0.60
36:1:999:G:N3	36:1:1002:A:N6	2.50	0.60
36:1:929:A:H5''	41:L4:61:SER:HB3	1.82	0.60
78:Q2:10:THR:O	78:Q2:23:HIS:NE2	2.33	0.60
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.17	0.60
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.35	0.60
1:6:330:G:H2'	1:6:331:A:H8	1.66	0.60
8:S6:64:LYS:HZ1	8:S6:81:VAL:HG22	1.66	0.60
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	1.81	0.60
61:N5:46:TYR:CD2	71:O5:75:TYR:HB3	2.35	0.60
34:SR:63:GLY:HA3	34:SR:90:ARG:NH1	2.84	0.60
6:S4:3:ARG:HB3	1:6:93:A:H1'	325.24	0.60
1:6:219:A:H2'	1:6:831:U:O2	2.00	0.60
1:6:1783:C:H2'	1:6:1784:C:H6	1.67	0.60
36:1:900:G:H1'	36:1:1589:A:N6	2.16	0.60
47:M0:193:ASP:O	47:M0:195:ALA:N	2.39	0.60
36:1:1454:A:OP2	86:1:4206:OHX:N6	2.34	0.60
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	3.46	0.60
36:5:1724:U:H1'	36:5:1725:C:C6	2.37	0.60
44:L7:168:ILE:O	44:L7:172:ASN:ND2	2.35	0.60
50:M4:39:ILE:HB	50:M4:43:LYS:HB2	1.84	0.60
36:5:2514:U:OP1	36:5:2514:U:H6	1.85	0.60
36:1:3116:G:OP1	36:1:3116:G:N2	2.30	0.60
71:O5:30:GLU:O	71:O5:34:GLN:HG3	2.72	0.60
36:1:1899:G:N7	86:1:3929:OHX:N3	2.50	0.60
36:1:1171:G:O6	86:1:3957:OHX:N2	2.34	0.60
36:1:1308:A:H8	36:1:1308:A:OP2	1.82	0.60
4:S2:60:SER:OG	23:D1:15:ARG:NH2	2.34	0.60
3:S1:129:THR:OG1	3:S1:130:SER:N	3.22	0.60
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.36	0.60
17:C5:127:ARG:CZ	35:SM:66:ALA:HB2	4.64	0.60
40:L3:60:LEU:HD11	40:L3:62:ARG:HB2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:51:GLY:HA2	25:D3:77:ILE:HG13	1.83	0.60
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	1.68	0.60
36:1:2617:U:H5	36:1:2621:G:OP2	1.85	0.60
33:E1:82:LYS:O	33:E1:84:VAL:N	5.01	0.60
49:M3:185:LYS:O	49:M3:188:ARG:N	3.72	0.60
1:2:417:A:H4'	1:2:418:G:O5'	2.01	0.60
64:N8:128:ARG:HB3	72:O6:8:ALA:HB3	2.96	0.60
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.82	0.60
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.35	0.60
1:6:489:C:O2'	1:6:490:C:O4'	2.18	0.60
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.35	0.60
36:1:618:C:H5'	53:M7:169:THR:HG22	1.83	0.60
41:L4:74:ILE:HD11	41:L4:93:MET:HE3	5.18	0.60
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	6.13	0.60
63:N7:101:PHE:HA	63:N7:107:ARG:HE	1.98	0.60
21:C9:76:LEU:HD22	21:C9:80:TYR:HE2	1.66	0.60
1:2:1132:A:OP1	25:D3:30:LYS:HE2	2.01	0.60
36:1:1240:A:H3'	36:1:1241:U:H5'	1.83	0.60
1:6:1339:C:O2'	1:6:1341:A:N7	2.35	0.60
86:1:4204:OHX:N4	38:4:16:G:OP1	2.35	0.60
48:M1:166:LYS:O	48:M1:168:ASP:N	4.12	0.60
14:C2:47:GLU:HG3	1:6:1229:G:H1	459.14	0.60
1:2:494:U:O2'	1:2:495:C:O5'	2.17	0.60
1:2:472:U:H5''	11:S9:11:THR:HG23	1.83	0.60
3:S1:24:PHE:HA	3:S1:27:LYS:HG3	2.99	0.60
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.84	0.60
7:S5:223:SER:O	7:S5:224:ASN:ND2	2.35	0.60
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.34	0.60
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.84	0.60
1:2:138:A:O2'	8:S6:149:LYS:NZ	2.35	0.60
67:O1:55:LEU:HD23	67:O1:95:PRO:HB3	1.83	0.60
6:S4:158:ASP:N	6:S4:158:ASP:OD1	2.34	0.60
1:2:1736:G:O6	86:2:2136:OHX:N4	2.35	0.60
36:1:3276:G:H1	69:O3:60:ARG:HH12	1.47	0.59
28:D6:85:ARG:O	28:D6:86:VAL:HB	2.01	0.59
2:S0:32:HIS:ND1	2:S0:32:HIS:O	2.31	0.59
1:2:706:A:N1	1:2:734:A:N6	2.50	0.59
7:S5:164:PRO:HG3	30:D8:52:ASP:HB2	4.30	0.59
36:1:3066:U:H2'	36:1:3067:C:C6	2.36	0.59
41:L4:232:SER:OG	41:L4:233:LEU:N	2.34	0.59
1:6:1645:G:H22	1:6:1756:A:H2	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.02	0.59
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	1.83	0.59
36:1:1054:A:H5''	36:1:2637:A:H61	1.66	0.59
1:2:1642:G:O6	86:2:2022:OHX:N6	2.36	0.59
1:2:1585:U:N3	1:2:1611:A:H2	1.94	0.59
1:6:1766:A:H5''	86:6:2124:OHX:N3	2.17	0.59
1:6:328:A:H2'	1:6:329:G:C8	2.37	0.59
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.56	0.59
2:S0:148:ASP:HB2	2:S0:164:ASN:HD21	1.67	0.59
27:D5:77:ARG:NH1	1:6:1533:C:OP2	351.70	0.59
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.83	0.59
19:C7:45:ARG:NH2	1:6:1331:A:OP1	412.09	0.59
57:N1:101:CYS:HB3	36:5:990:U:H1'	250.47	0.59
3:S1:181:LEU:H	3:S1:181:LEU:HD13	1.68	0.59
1:6:1211:A:H61	1:6:1452:U:H3	1.51	0.59
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.72	0.59
36:5:864:G:OP2	86:5:3909:OHX:N4	2.35	0.59
9:S7:28:GLU:O	9:S7:30:SER:N	2.35	0.59
1:2:927:C:H2'	1:2:928:U:C6	2.37	0.59
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.62	0.59
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.84	0.59
36:1:3186:A:N3	46:L9:44:THR:OG1	2.34	0.59
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	2.33	0.59
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.02	0.59
22:D0:109:GLU:HB3	22:D0:112:VAL:HB	2.91	0.59
72:O6:35:ASN:OD1	72:O6:35:ASN:N	2.84	0.59
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.61	0.59
62:N6:82:VAL:O	62:N6:84:LYS:N	2.87	0.59
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	5.01	0.59
36:5:1239:C:N4	36:5:1249:G:H1	1.97	0.59
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	2.38	0.59
36:1:1447:G:N7	53:M7:25:SER:OG	2.32	0.59
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.83	0.59
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.91	0.59
36:5:787:G:H2'	36:5:788:C:C6	2.38	0.59
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.33	0.59
59:N3:48:ARG:HH22	36:5:3043:C:P	249.51	0.59
57:N1:17:ARG:HD3	57:N1:22:HIS:HA	3.97	0.59
36:5:783:A:OP2	86:5:4187:OHX:N6	2.36	0.59
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	4.08	0.59
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.18	0.59
36:1:1488:G:H5''	36:1:1838:G:O6	2.02	0.59
40:L3:18:PRO:HG2	40:L3:20:LYS:HD2	2.34	0.59
74:O8:14:LEU:HD23	74:O8:17:ARG:HD3	1.84	0.59
1:6:805:U:C2'	1:6:806:A:H5'	2.32	0.59
36:5:3242:G:H5'	36:5:3245:A:C8	2.37	0.59
1:6:906:A:H2'	1:6:907:A:C8	2.37	0.59
67:O1:36:ILE:O	67:O1:39:PHE:N	2.34	0.59
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.84	0.59
1:6:550:A:OP2	86:6:2048:OHX:N2	2.35	0.59
1:6:1371:A:H5'	1:6:1372:U:OP2	2.02	0.59
10:S8:8:ARG:NH2	10:S8:28:GLU:OE1	9.54	0.59
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.38	0.59
1:2:1584:G:H5''	18:C6:122:ARG:HG2	1.84	0.59
1:2:542:A:H2'	1:2:543:C:H3'	1.83	0.59
8:S6:176:GLN:HG2	1:6:169:A:H5'	327.68	0.59
11:S9:90:LYS:HB2	11:S9:95:TYR:CD1	2.37	0.59
40:L3:188:ILE:HD12	40:L3:188:ILE:H	2.47	0.59
3:S1:181:LEU:O	3:S1:185:THR:N	2.21	0.59
39:L2:13:GLY:HA2	39:L2:16:PHE:HB2	1.84	0.59
36:5:1438:U:H2'	36:5:1439:U:C6	2.38	0.59
45:L8:81:THR:OG1	45:L8:82:LEU:N	2.63	0.59
49:M3:168:ARG:HA	49:M3:171:ARG:HB2	1.83	0.59
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.36	0.59
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.67	0.59
46:L9:17:THR:HG21	50:M4:3:THR:HB	1.85	0.59
69:O3:103:TYR:HA	69:O3:105:SER:N	2.63	0.59
36:1:1363:A:OP2	86:1:4043:OHX:N6	2.35	0.59
27:D5:46:LYS:HA	27:D5:49:ARG:HB2	1.83	0.59
1:2:1479:A:P	21:C9:57:ARG:HH12	2.25	0.59
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.29	0.59
78:Q2:46:LYS:O	86:Q2:503:OHX:N6	2.35	0.59
17:C5:115:TYR:OH	1:6:1556:A:OP1	385.74	0.59
78:Q2:73:GLU:CD	78:Q2:80:ARG:HH21	2.06	0.59
42:L5:58:LYS:HD2	42:L5:93:THR:HG21	1.84	0.59
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.82	0.59
1:6:909:U:H2'	1:6:910:C:C6	2.37	0.59
36:5:1560:G:O2'	36:5:1561:G:OP1	2.18	0.59
36:1:3346:U:H3	36:1:3359:A:N6	2.00	0.59
36:1:722:G:O6	86:1:4014:OHX:N6	2.35	0.59
70:O4:81:CYS:O	70:O4:83:ASN:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:144:ILE:O	40:L3:148:LEU:HB2	2.03	0.59
36:1:2827:U:O4	86:1:3865:OHX:N4	2.35	0.59
36:1:437:G:H2'	36:1:438:A:O4'	2.02	0.59
40:L3:67:PHE:HD1	40:L3:72:VAL:HG12	1.67	0.59
39:L2:211:HIS:O	39:L2:213:GLY:N	3.81	0.59
36:5:129:U:H2'	36:5:130:A:C8	2.38	0.59
64:N8:3:SER:O	64:N8:6:THR:HG22	2.03	0.59
19:C7:59:LYS:NZ	1:6:1392:U:OP1	425.47	0.59
23:D1:60:ARG:HG2	23:D1:65:SER:OG	3.32	0.59
2:S0:56:LYS:HZ3	2:S0:158:VAL:HG23	1.67	0.59
28:D6:44:ILE:HD13	28:D6:65:PRO:HG2	4.15	0.59
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.33	0.59
36:1:1110:U:H2'	36:1:1111:U:C6	2.37	0.59
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.83	0.59
16:C4:131:GLY:O	16:C4:133:ARG:N	2.71	0.59
36:1:3248:C:O5'	36:1:3248:C:H6	1.84	0.59
36:5:953:G:H2'	36:5:1117:G:H5''	1.83	0.59
36:5:1310:G:O6	86:5:4020:OHX:N4	2.36	0.59
1:2:1202:A:H1'	1:2:1207:C:N4	2.16	0.59
10:S8:31:ARG:NH2	1:6:333:A:OP1	297.22	0.59
7:S5:73:THR:HG23	18:C6:114:ARG:HD2	1.84	0.59
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.42	0.59
38:4:103:G:H4'	73:O7:21:ARG:HG3	1.85	0.59
1:6:523:G:O2'	1:6:529:A:N6	2.35	0.59
36:5:2866:U:O4	86:5:3966:OHX:N6	2.36	0.59
7:S5:25:LEU:HD21	7:S5:29:ILE:HD12	4.10	0.59
1:6:833:U:O4	86:6:2099:OHX:N5	2.34	0.59
36:1:678:G:O6	86:1:3972:OHX:N4	2.36	0.59
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.36	0.59
86:2:2031:OHX:N3	15:C3:12:SER:O	2.35	0.59
36:5:602:A:H2'	36:5:603:A:C8	2.37	0.59
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	2.33	0.59
1:2:639:U:P	9:S7:117:THR:HG1	2.25	0.59
44:L7:40:LYS:HA	44:L7:43:ILE:HD12	3.35	0.59
4:S2:140:ARG:HH21	4:S2:226:THR:HG21	1.93	0.59
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.71	0.59
1:6:512:A:H2'	1:6:513:U:H6	1.66	0.59
86:2:2030:OHX:N6	86:2:2146:OHX:N5	2.50	0.59
36:1:3165:A:H61	36:1:3285:C:H42	1.51	0.59
1:6:755:A:O2'	1:6:756:A:H8	1.86	0.59
35:SM:123:ALA:O	35:SM:127:ALA:N	3.46	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:90:THR:O	4:S2:92:ALA:N	2.36	0.59
22:D0:26:LEU:O	22:D0:89:ARG:N	2.34	0.59
1:2:1783:C:H2'	1:2:1784:C:C6	2.37	0.59
31:D9:39:CYS:O	31:D9:43:PHE:N	2.67	0.59
6:S4:95:THR:OG1	6:S4:97:GLU:OE2	3.21	0.59
65:N9:38:LYS:NZ	36:5:1077:U:OP1	217.32	0.59
36:1:2643:A:H5'	65:N9:6:ASN:ND2	2.18	0.59
18:C6:11:GLY:HA2	18:C6:83:GLN:HE21	1.67	0.59
36:5:2960:C:H2'	36:5:2961:G:C8	2.38	0.59
1:6:330:G:H2'	1:6:331:A:C8	2.38	0.59
28:D6:87:ARG:NH2	28:D6:91:ASP:O	2.97	0.59
1:6:1600:A:H4'	1:6:1601:G:OP1	2.02	0.59
16:C4:38:THR:HG21	1:6:895:G:H21	262.11	0.59
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.18	0.59
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.68	0.59
43:L6:78:ARG:NH1	36:5:3272:C:OP2	246.47	0.59
5:S3:37:VAL:HG12	5:S3:50:ILE:HA	2.74	0.59
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.67	0.59
1:6:196:G:N3	1:6:197:A:H1'	2.18	0.59
63:N7:4:PHE:O	63:N7:5:LEU:HG	4.81	0.59
1:6:819:G:O2'	1:6:821:U:OP2	2.21	0.59
36:1:729:C:H2'	36:1:730:C:C6	2.38	0.59
36:5:3242:G:H5'	36:5:3245:A:H8	1.67	0.59
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.02	0.59
67:O1:82:GLU:O	67:O1:84:ASP:N	2.36	0.59
36:1:3169:U:H2'	36:1:3170:A:O4'	2.03	0.59
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	3.66	0.59
9:S7:122:HIS:CE1	9:S7:177:THR:HB	3.00	0.59
45:L8:73:PRO:HA	45:L8:76:ALA:HB3	1.85	0.59
34:SR:74:THR:OG1	34:SR:78:ALA:N	2.30	0.59
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	1.83	0.59
6:S4:112:HIS:NE2	6:S4:237:SER:O	2.36	0.59
11:S9:146:PHE:HZ	1:6:765:G:C2	429.49	0.59
10:S8:61:GLU:HG3	10:S8:62:THR:HG23	2.01	0.59
70:O4:65:VAL:O	70:O4:70:LYS:NZ	2.36	0.59
55:M9:8:LYS:NZ	36:5:1473:G:OP2	124.41	0.59
41:L4:361:HIS:CG	41:L4:362:ASP:N	2.90	0.59
36:1:2636:A:H5''	36:1:2637:A:H5'	1.85	0.59
36:5:604:G:N7	86:5:4162:OHX:N2	2.50	0.59
45:L8:109:LEU:O	45:L8:113:ALA:N	2.29	0.59
1:6:961:U:H2'	1:6:962:C:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.36	0.59
1:2:1122:G:O6	86:2:2170:OHX:N3	2.36	0.59
3:S1:154:SER:OG	3:S1:154:SER:O	2.20	0.59
1:2:1085:G:N2	1:2:1087:A:H3'	2.18	0.59
1:6:67:A:O2'	1:6:69:G:OP1	2.14	0.58
71:O5:101:THR:HG23	71:O5:104:GLN:H	2.51	0.58
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.03	0.58
18:C6:120:ASP:OD1	18:C6:122:ARG:HG3	3.33	0.58
1:2:1290:U:H2'	1:2:1291:G:C8	2.38	0.58
41:L4:16:THR:HG23	41:L4:18:ASN:H	2.98	0.58
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.84	0.58
30:D8:22:ARG:HH11	1:6:1619:C:H1'	338.85	0.58
86:8:218:OHX:N2	86:8:225:OHX:N1	2.51	0.58
51:M5:33:LYS:HB2	51:M5:37:HIS:CE1	2.39	0.58
58:N2:103:TYR:OH	36:5:1677:G:OP2	146.83	0.58
1:2:434:G:N7	86:2:2047:OHX:N4	2.50	0.58
1:2:301:A:OP2	86:2:2063:OHX:N2	2.35	0.58
52:M6:148:LYS:HB2	52:M6:149:TYR:CE2	2.38	0.58
52:M6:140:LYS:NZ	52:M6:150:GLU:OE1	2.30	0.58
1:2:539:G:OP2	1:2:539:G:H8	1.85	0.58
36:5:501:A:H2'	36:5:502:U:C6	2.38	0.58
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.03	0.58
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.51	0.58
21:C9:63:ARG:NH1	1:6:1481:C:OP2	404.53	0.58
1:6:755:A:O2'	1:6:756:A:C8	2.56	0.58
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.85	0.58
36:1:1093:A:N3	36:1:1096:U:N3	2.52	0.58
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.31	0.58
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	1.98	0.58
35:SM:48:ARG:HD3	35:SM:51:ARG:HB2	1.85	0.58
10:S8:37:LYS:HE3	10:S8:95:THR:OG1	4.16	0.58
36:1:532:A:H2	36:1:560:G:H22	1.50	0.58
21:C9:60:SER:OG	1:6:1480:G:OP1	398.35	0.58
36:1:2528:G:N7	86:1:4182:OHX:N3	2.50	0.58
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.03	0.58
13:C1:99:ARG:HB3	25:D3:9:LEU:O	2.03	0.58
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.85	0.58
2:S0:179:ARG:O	2:S0:183:ARG:HD3	4.26	0.58
36:1:3361:G:O6	86:1:4159:OHX:N6	2.36	0.58
36:1:3366:G:OP1	60:N4:61:LYS:NZ	2.25	0.58
52:M6:84:LEU:HD13	52:M6:102:LEU:HD21	2.28	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.18	0.58
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.67	0.58
36:1:595:G:H1	36:1:609:G:H5''	1.68	0.58
22:D0:109:GLU:HG3	22:D0:110:PRO:HD2	2.91	0.58
9:S7:49:ILE:O	9:S7:57:ALA:N	2.31	0.58
47:M0:168:SER:OG	57:N1:160:ILE:O	2.11	0.58
34:SR:134:TRP:CZ3	34:SR:140:CYS:HB2	2.72	0.58
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.56	0.58
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.03	0.58
36:1:1078:U:O4	86:1:3965:OHX:N2	2.36	0.58
1:6:987:G:O6	86:6:2117:OHX:N4	2.35	0.58
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.85	0.58
1:6:1486:G:N2	1:6:1522:U:O4	2.36	0.58
1:6:1398:U:H3'	1:6:1399:C:H4'	1.85	0.58
1:2:206:A:OP2	86:2:2100:OHX:N5	2.36	0.58
1:6:151:G:H1	1:6:163:G:H1	1.50	0.58
1:2:1006:C:O2	86:2:2145:OHX:N2	2.37	0.58
1:6:328:A:H2'	1:6:329:G:H8	1.66	0.58
10:S8:98:LYS:HD2	10:S8:172:ARG:HG3	3.25	0.58
52:M6:124:LEU:HD11	56:N0:167:ARG:HH21	1.68	0.58
52:M6:56:ASP:HA	52:M6:59:ARG:HG3	4.77	0.58
2:S0:13:ASP:O	2:S0:16:LEU:N	3.13	0.58
1:2:501:U:O2'	1:2:502:U:H6	1.86	0.58
42:L5:270:LYS:HE2	42:L5:273:ARG:HA	9.20	0.58
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.85	0.58
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.24	0.58
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.85	0.58
86:5:4014:OHX:N6	86:5:4210:OHX:N4	2.52	0.58
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.30	0.58
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.88	0.58
36:5:3110:C:H2'	36:5:3111:U:C6	2.39	0.58
24:D2:113:HIS:O	24:D2:117:ARG:N	2.36	0.58
36:1:3299:A:H61	36:1:3315:G:H1	1.50	0.58
36:5:1817:G:OP1	86:5:4174:OHX:N1	2.37	0.58
5:S3:31:GLU:O	5:S3:54:ARG:NH2	3.46	0.58
36:5:2580:A:O2'	86:5:4123:OHX:N1	2.37	0.58
36:1:916:G:N1	39:L2:207:VAL:HG11	2.18	0.58
51:M5:85:THR:HG23	36:5:44:U:H5''	160.52	0.58
1:2:354:C:OP1	10:S8:14:THR:OG1	2.14	0.58
1:6:363:G:OP1	86:6:2110:OHX:N1	2.36	0.58
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:43:ILE:HG22	52:M6:44:SER:O	2.02	0.58
1:2:545:A:H4'	1:2:546:U:OP1	2.02	0.58
36:5:2533:G:N2	36:5:2546:C:O2	2.29	0.58
65:N9:23:LYS:CE	65:N9:24:PRO:HD3	2.33	0.58
41:L4:93:MET:CE	41:L4:93:MET:H	2.71	0.58
39:L2:204:MET:HG2	39:L2:208:ASP:HB2	4.52	0.58
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.85	0.58
1:2:443:C:O2	1:2:445:A:N6	2.37	0.58
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.36	0.58
54:M8:122:ILE:HD11	54:M8:130:ARG:NH1	3.15	0.58
40:L3:50:LYS:HG2	40:L3:332:ARG:HA	2.17	0.58
18:C6:38:LEU:O	18:C6:40:GLU:N	2.37	0.58
52:M6:3:VAL:HG13	52:M6:4:GLU:H	1.69	0.58
1:6:1688:U:H2'	1:6:1689:A:C8	2.39	0.58
18:C6:7:VAL:HG22	18:C6:22:VAL:HB	1.85	0.58
36:5:1444:G:H1	36:5:2359:C:H42	1.49	0.58
56:N0:155:ARG:HD2	56:N0:172:TYR:HB2	1.84	0.58
36:1:314:U:H2'	36:1:315:C:C6	2.38	0.58
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.45	0.58
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	1.99	0.58
43:L6:69:PHE:HB2	43:L6:138:GLN:NE2	2.78	0.58
36:1:2795:U:O2	36:1:2800:G:O2'	2.13	0.58
36:1:911:C:N4	39:L2:3:ARG:HD3	2.19	0.58
21:C9:27:LYS:HB3	21:C9:111:ILE:HD11	1.86	0.58
20:C8:63:GLN:HA	20:C8:66:LEU:HD12	1.85	0.58
36:5:1944:U:H2'	36:5:1945:A:H8	1.68	0.58
36:5:595:G:H1	36:5:609:G:H5''	1.69	0.58
41:L4:82:THR:HG23	41:L4:84:ARG:H	1.68	0.58
28:D6:88:SER:O	28:D6:92:ARG:HG3	2.21	0.58
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.03	0.58
36:1:1108:U:H2'	36:1:1109:U:C6	2.38	0.58
53:M7:69:ARG:HD2	36:5:3308:C:O2	184.80	0.58
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.32	0.58
26:D4:122:GLY:O	26:D4:125:LEU:N	2.87	0.58
49:M3:165:SER:OG	49:M3:165:SER:O	2.19	0.58
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.85	0.58
86:6:2103:OHX:N5	86:6:2188:OHX:N6	2.51	0.58
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.04	0.58
36:5:1024:G:N2	36:5:1026:A:OP2	2.37	0.58
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	2.68	0.58
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	6.98	0.58
6:S4:199:GLU:OE2	6:S4:209:HIS:NE2	2.30	0.58
1:2:226:A:H2'	1:2:227:U:H5'	1.85	0.58
29:D7:67:THR:OG1	29:D7:70:LYS:O	2.28	0.58
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.03	0.58
1:6:1714:A:H2'	1:6:1715:G:O4'	2.02	0.58
1:2:698:U:O4	86:2:2096:OHX:N3	2.36	0.58
37:3:71:G:H2'	37:3:72:A:C8	2.39	0.58
36:5:3341:U:H5''	36:5:3342:A:OP2	2.04	0.58
1:6:913:G:N7	36:5:2205:U:C2	2.72	0.58
1:6:914:G:H5'	1:6:914:G:H8	1.69	0.58
3:S1:49:ASN:OD1	3:S1:49:ASN:N	3.77	0.58
1:2:1473:U:O2'	7:S5:103:ASN:OD1	2.22	0.58
3:S1:110:LEU:O	3:S1:113:MET:N	2.36	0.58
36:1:1493:G:O6	75:O9:2:ALA:HA	2.04	0.58
2:S0:185:ARG:H	23:D1:45:ALA:H	2.19	0.58
36:5:283:G:OP2	36:5:285:A:O2'	2.16	0.58
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.73	0.58
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.58	0.58
51:M5:44:ARG:NH1	36:5:269:G:OP1	124.72	0.58
1:6:1783:C:H2'	1:6:1784:C:C6	2.39	0.58
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.50	0.58
36:1:829:U:H3	36:1:895:A:H62	1.49	0.58
20:C8:35:ILE:HB	20:C8:38:VAL:HG13	4.06	0.58
54:M8:44:PHE:O	54:M8:48:VAL:HG23	2.03	0.58
14:C2:129:GLU:OE2	14:C2:130:THR:N	2.78	0.58
1:2:1788:G:P	16:C4:127:ARG:HH22	2.26	0.58
1:2:237:C:H4'	1:2:238:U:H5'	1.84	0.58
1:6:180:A:H2'	1:6:181:A:O4'	2.04	0.58
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	1.96	0.58
36:1:533:A:O2'	36:1:535:G:OP2	2.22	0.58
49:M3:59:ARG:HA	49:M3:69:VAL:HG23	1.86	0.58
36:5:1853:U:OP2	86:5:4050:OHX:N6	2.37	0.58
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.85	0.58
36:1:1408:G:OP2	68:O2:31:ASN:ND2	2.33	0.58
7:S5:43:PHE:N	7:S5:46:TRP:O	2.57	0.58
36:5:618:C:H2'	36:5:619:A:C8	2.39	0.58
1:6:1699:G:H22	1:6:1702:A:H5''	1.69	0.58
62:N6:36:SER:HB3	62:N6:106:ILE:O	2.04	0.58
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.85	0.58
36:1:13:A:H8	36:1:13:A:H5''	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:25:U:O4	86:1:3868:OHX:N6	2.37	0.58
1:2:485:A:H2'	1:2:486:G:O4'	2.04	0.58
32:E0:18:THR:HG21	1:6:584:C:H1'	388.13	0.58
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	2.14	0.58
36:5:549:U:H2'	36:5:550:A:H8	1.69	0.58
59:N3:48:ARG:HG2	36:5:2339:C:P	246.69	0.58
48:M1:16:LYS:HG2	48:M1:130:VAL:HG13	2.24	0.58
51:M5:74:PRO:O	51:M5:75:VAL:HG22	2.04	0.58
46:L9:44:THR:HG22	36:5:3186:A:N3	325.78	0.58
20:C8:35:ILE:HB	20:C8:38:VAL:HG21	1.85	0.58
36:1:582:G:O6	86:1:4171:OHX:N2	2.36	0.58
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.49	0.58
39:L2:143:GLU:O	39:L2:145:LYS:N	2.73	0.58
54:M8:86:THR:HB	54:M8:105:ARG:HB2	1.85	0.58
26:D4:3:ASP:O	26:D4:5:VAL:N	2.31	0.58
36:1:2812:C:H2'	36:1:2813:A:H8	1.67	0.58
52:M6:114:LYS:HG2	36:5:3180:A:C6	272.32	0.58
6:S4:200:ARG:NH2	6:S4:202:ASP:OD1	2.37	0.58
36:5:1506:A:H1'	36:5:1848:G:O6	2.03	0.58
86:2:2030:OHX:N4	86:2:2146:OHX:N2	2.51	0.58
36:1:924:G:OP1	86:1:4142:OHX:N5	2.37	0.58
55:M9:168:ALA:HB1	55:M9:172:ARG:NH1	2.19	0.58
3:S1:186:SER:O	3:S1:190:PRO:HD2	2.58	0.58
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.37	0.58
6:S4:160:VAL:HG21	6:S4:169:ILE:HD13	1.86	0.58
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.73	0.58
52:M6:102:LEU:HD12	52:M6:103:LYS:N	2.19	0.58
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.35	0.58
1:2:1488:G:H5'	1:2:1489:U:OP1	2.02	0.58
36:1:3317:U:O2'	86:1:4022:OHX:N3	2.37	0.58
36:1:2561:A:HO2'	36:1:2562:A:H8	1.52	0.58
2:S0:200:ASP:HB2	19:C7:85:VAL:HG22	1.86	0.58
15:C3:3:ARG:NH1	1:6:955:A:OP1	326.34	0.58
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.43	0.58
37:3:60:G:H2'	37:3:61:G:H8	1.69	0.58
6:S4:176:ASP:N	6:S4:176:ASP:OD2	3.20	0.58
78:Q2:33:ALA:HA	36:5:2767:U:OP1	183.72	0.58
36:5:999:G:O2'	36:5:1000:C:H5'	2.03	0.58
36:5:2513:U:H3	36:5:2593:A:H62	1.52	0.58
37:3:59:U:OP2	86:3:220:OHX:N3	2.36	0.58
36:5:3377:G:O6	86:5:4081:OHX:N2	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:159:THR:HG21	1:6:1097:U:O3'	382.28	0.58
1:2:1481:C:O2'	1:2:1482:C:O5'	2.17	0.58
10:S8:197:THR:HG22	10:S8:200:LYS:HD2	1.85	0.58
26:D4:37:LYS:HE3	1:6:523:G:OP2	412.31	0.58
34:SR:23:LEU:HB2	34:SR:293:ALA:HB2	2.24	0.58
1:2:888:U:H1'	16:C4:126:THR:HG21	1.85	0.58
39:L2:222:ALA:HB1	39:L2:224:THR:HG22	5.60	0.58
34:SR:195:HIS:CE1	34:SR:214:ALA:HA	2.39	0.58
36:1:2413:A:H2'	36:1:2414:G:C8	2.39	0.58
1:6:1175:U:H2'	1:6:1176:G:H8	1.68	0.58
79:Q3:37:TYR:HB2	79:Q3:47:VAL:HB	1.86	0.58
67:O1:36:ILE:HD12	67:O1:59:ILE:HD11	1.85	0.58
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.04	0.58
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.86	0.58
43:L6:38:THR:HA	43:L6:90:LYS:HG3	2.35	0.58
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.86	0.58
36:1:1750:A:H4'	36:1:1751:G:H5'	1.86	0.58
75:O9:20:ASN:ND2	75:O9:42:ARG:O	2.36	0.58
15:C3:84:ILE:HG22	15:C3:135:LEU:HD21	1.86	0.58
1:2:312:A:H4'	1:2:313:U:H5''	1.86	0.58
51:M5:159:ARG:HB2	51:M5:164:LEU:HB2	2.87	0.58
1:6:1267:G:H2'	1:6:1268:G:H8	1.68	0.58
39:L2:227:ARG:NH2	36:5:2155:G:O2'	205.12	0.58
36:5:1786:G:H2'	36:5:1787:A:C8	2.39	0.58
1:2:25:C:H4'	1:2:25:C:OP2	2.02	0.58
70:O4:52:GLN:HG2	36:5:1639:C:H5'	196.24	0.57
6:S4:75:LYS:HD3	6:S4:77:ARG:NH2	4.11	0.57
36:5:1528:G:H2'	36:5:1529:A:H8	1.68	0.57
72:O6:25:LYS:O	72:O6:28:TYR:HB2	2.04	0.57
2:S0:185:ARG:H	23:D1:44:ARG:HA	1.69	0.57
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.03	0.57
40:L3:152:LYS:HD3	40:L3:189:SER:HA	4.22	0.57
55:M9:23:TRP:HE3	55:M9:51:VAL:HG13	1.68	0.57
67:O1:19:ARG:HB3	67:O1:35:GLU:HG2	1.86	0.57
1:2:480:G:N2	1:2:509:G:H1'	2.19	0.57
71:O5:31:LEU:O	71:O5:35:LYS:N	2.80	0.57
36:1:911:C:H42	39:L2:3:ARG:HD3	1.69	0.57
32:E0:59:GLY:O	32:E0:61:SER:N	3.89	0.57
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.86	0.57
36:1:279:U:H2'	36:1:280:U:C6	2.39	0.57
25:D3:42:PRO:O	25:D3:79:ASN:ND2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1297:G:N2	1:2:1300:A:OP2	2.35	0.57
36:5:22:G:H1'	38:8:104:A:N3	2.19	0.57
46:L9:75:VAL:HA	46:L9:78:MET:HE2	2.25	0.57
62:N6:125:LYS:O	62:N6:126:LEU:HG	2.04	0.57
36:1:1581:C:C2	36:1:1582:C:H5'	2.39	0.57
16:C4:54:GLU:CD	1:6:901:G:H22	281.58	0.57
5:S3:208:ILE:HD12	19:C7:16:LEU:HD21	1.84	0.57
37:7:107:C:H2'	37:7:108:A:C8	2.38	0.57
62:N6:71:SER:N	62:N6:81:GLN:O	2.85	0.57
36:1:1407:A:H5'	68:O2:32:TRP:HB3	1.85	0.57
13:C1:99:ARG:HB2	25:D3:12:ALA:HB2	1.86	0.57
52:M6:121:PRO:HD2	56:N0:162:THR:O	2.38	0.57
18:C6:46:PHE:O	18:C6:50:GLU:HG3	2.04	0.57
28:D6:73:TYR:CE2	28:D6:82:ARG:HD2	2.39	0.57
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.85	0.57
50:M4:114:ASP:HA	50:M4:117:ARG:NH1	2.19	0.57
1:2:795:U:OP2	24:D2:82:LYS:NZ	2.37	0.57
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.37	0.57
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.69	0.57
69:O3:6:ARG:HG3	69:O3:8:TYR:CD1	3.20	0.57
36:1:1556:C:H5''	36:1:2169:G:H22	1.70	0.57
79:Q3:8:VAL:O	79:Q3:11:THR:HB	2.02	0.57
36:5:1818:U:H2'	36:5:1819:U:C6	2.39	0.57
14:C2:55:GLY:N	35:SM:172:VAL:O	2.37	0.57
36:1:874:U:H3	36:1:2978:U:H5''	1.69	0.57
49:M3:23:LYS:HE3	51:M5:196:THR:HG21	5.59	0.57
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.37	0.57
54:M8:87:VAL:O	54:M8:107:THR:HG23	2.04	0.57
55:M9:70:LYS:O	55:M9:73:GLY:N	2.34	0.57
8:S6:1:MET:N	8:S6:18:ILE:O	3.01	0.57
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.68	0.57
11:S9:145:SER:HB2	1:6:474:A:OP1	418.71	0.57
36:5:112:U:O2'	36:5:113:C:OP2	2.21	0.57
40:L3:244:ARG:O	40:L3:248:LYS:HE3	2.35	0.57
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.40	0.57
36:5:3343:G:N2	36:5:3362:A:H2	2.00	0.57
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.06	0.57
41:L4:330:TYR:O	41:L4:333:VAL:HG13	2.30	0.57
86:2:2030:OHX:N3	86:2:2146:OHX:N5	2.51	0.57
86:2:2030:OHX:N4	86:2:2146:OHX:N1	2.52	0.57
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.18	0.57
36:5:2840:C:OP1	86:5:4131:OHX:N3	2.37	0.57
6:S4:114:ILE:HB	6:S4:118:GLU:OE2	2.04	0.57
6:S4:173:ILE:HD11	6:S4:235:TYR:CE1	2.39	0.57
6:S4:147:ILE:HD13	6:S4:169:ILE:HD11	1.86	0.57
9:S7:58:LEU:N	9:S7:89:HIS:O	2.32	0.57
1:6:820:U:O2'	1:6:821:U:H5''	2.03	0.57
36:1:398:A:C4	53:M7:3:ARG:NH2	2.72	0.57
53:M7:19:GLY:HA3	53:M7:22:LEU:HD11	1.85	0.57
74:O8:42:LYS:HG2	74:O8:55:VAL:HG13	1.84	0.57
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.91	0.57
49:M3:9:ILE:HD11	64:N8:45:MET:HE1	2.33	0.57
69:O3:96:ALA:HB2	36:5:3173:G:C2	230.03	0.57
1:2:207:U:O2	10:S8:178:ARG:NH1	2.35	0.57
36:1:2778:G:H2'	36:1:2779:A:H5'	1.86	0.57
1:6:1120:U:H2'	1:6:1121:C:C6	2.40	0.57
2:S0:119:ARG:HH11	2:S0:119:ARG:HB3	2.38	0.57
50:M4:14:LEU:H	50:M4:19:ARG:HH11	2.11	0.57
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.32	0.57
1:2:478:A:O2'	11:S9:124:HIS:ND1	2.33	0.57
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.16	0.57
41:L4:126:ILE:HG13	41:L4:238:LEU:CD1	2.33	0.57
55:M9:100:ARG:NE	36:5:1722:U:OP1	214.18	0.57
36:1:801:A:O2'	86:1:3980:OHX:N2	2.38	0.57
43:L6:56:LYS:HG2	43:L6:58:LEU:HD23	2.60	0.57
51:M5:73:ARG:HG2	51:M5:75:VAL:HG13	1.87	0.57
44:L7:83:LEU:HD11	44:L7:116:PHE:HD1	1.70	0.57
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.03	0.57
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.35	0.57
59:N3:89:ASP:OD1	59:N3:91:VAL:HG12	3.85	0.57
1:6:1074:G:H5''	1:6:1074:G:H8	1.70	0.57
41:L4:128:ALA:HB1	41:L4:134:LEU:HD12	1.85	0.57
23:D1:9:VAL:HG22	23:D1:10:GLU:H	1.98	0.57
1:6:1699:G:N2	1:6:1702:A:O4'	2.37	0.57
77:Q1:6:ARG:NH2	1:6:1112:G:OP1	315.41	0.57
41:L4:144:LYS:HG2	41:L4:145:ILE:H	5.76	0.57
39:L2:181:LYS:HB2	36:5:860:G:C6	211.51	0.57
41:L4:125:ALA:HB1	41:L4:238:LEU:HB3	2.08	0.57
55:M9:125:LYS:NZ	36:5:1720:U:O4	240.17	0.57
57:N1:57:TYR:HA	57:N1:60:LYS:HD2	3.96	0.57
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.27	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:89:ASN:HB2	25:D3:92:CYS:SG	2.66	0.57
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.85	0.57
30:D8:22:ARG:NH1	1:6:1619:C:H1'	338.25	0.57
51:M5:21:PHE:HD2	51:M5:22:LEU:HD13	2.43	0.57
39:L2:47:GLN:HA	39:L2:84:THR:HG22	2.56	0.57
36:1:846:A:H2'	36:1:847:A:O4'	2.03	0.57
34:SR:218:GLY:HA2	34:SR:240:VAL:HG23	2.75	0.57
36:1:147:U:O2'	51:M5:41:ARG:NH1	2.37	0.57
49:M3:192:GLU:O	49:M3:194:GLU:N	2.38	0.57
20:C8:65:GLU:HG2	20:C8:68:ARG:NH2	3.73	0.57
77:Q1:13:LEU:HD11	77:Q1:17:ARG:CZ	2.35	0.57
31:D9:49:ASP:N	31:D9:49:ASP:OD1	2.58	0.57
36:5:2434:U:H4'	36:5:2435:G:H5''	1.87	0.57
8:S6:154:ARG:HD3	1:6:78:A:C8	339.39	0.57
50:M4:116:GLU:HA	50:M4:119:GLN:HG3	1.87	0.57
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	1.86	0.57
36:5:1597:C:H5'	36:5:1696:A:H1'	1.87	0.57
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.37	0.57
36:1:2206:G:OP2	36:1:2206:G:H8	1.88	0.57
21:C9:109:GLU:HG2	21:C9:115:GLU:HA	4.23	0.57
56:N0:26:ARG:HH11	57:N1:150:THR:HG21	2.40	0.57
70:O4:86:LYS:O	70:O4:90:ILE:HG12	2.05	0.57
1:6:189:C:H2'	1:6:190:C:H5'	1.87	0.57
49:M3:138:VAL:HB	71:O5:118:ILE:HB	1.85	0.57
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.22	0.57
36:5:1355:A:H1'	36:5:1356:U:OP2	2.02	0.57
1:6:1603:U:H2'	1:6:1604:U:H6	1.68	0.57
36:5:29:C:H4'	36:5:62:A:H4'	1.86	0.57
20:C8:36:LYS:HG2	20:C8:105:VAL:HG21	7.08	0.57
1:2:978:A:H2'	1:2:979:A:O4'	2.04	0.57
40:L3:219:ALA:HB2	40:L3:336:VAL:HG13	1.86	0.57
36:1:2681:U:H2'	36:1:2682:C:H6	1.68	0.57
1:6:1385:G:N7	86:6:2119:OHX:N6	2.52	0.57
12:C0:88:PRO:O	12:C0:90:THR:N	2.36	0.57
1:6:291:G:H2'	1:6:292:U:C6	2.39	0.57
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.36	0.57
8:S6:26:VAL:HG21	8:S6:40:ALA:HB1	1.85	0.57
3:S1:141:ALA:HA	3:S1:209:ASN:O	5.41	0.57
64:N8:42:ARG:HH21	36:5:2799:A:H1'	191.40	0.57
54:M8:62:VAL:HG13	54:M8:66:ARG:HD3	2.93	0.57
1:2:1234:A:O2'	33:E1:146:SER:HB3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:76:A:H3'	86:6:2190:OHX:N1	2.20	0.57
36:1:1565:G:H1'	36:1:1575:A:C2	2.40	0.57
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.86	0.57
1:2:1151:A:H2'	1:2:1152:A:H8	1.68	0.57
66:O0:99:ASP:O	66:O0:103:THR:HG23	2.05	0.57
36:5:1345:G:N7	86:5:4060:OHX:N5	2.53	0.57
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.04	0.57
1:2:1067:C:H2'	1:2:1068:C:C6	2.39	0.57
17:C5:90:ILE:HG21	17:C5:109:PRO:HG3	3.33	0.57
1:6:914:G:H5'	1:6:914:G:C8	2.40	0.57
36:1:209:A:H4'	36:1:211:A:C8	2.40	0.57
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.37	0.57
40:L3:171:LEU:O	86:L3:404:OHX:N6	2.37	0.57
36:1:2986:U:H2'	36:1:2987:A:C8	2.39	0.57
36:1:2611:U:H2'	36:1:2612:U:C6	2.40	0.57
36:5:3131:U:H2'	36:5:3132:C:C6	2.39	0.57
29:D7:23:THR:HG21	29:D7:29:ARG:NH2	3.01	0.57
17:C5:111:MET:HG2	20:C8:119:ILE:HD11	5.54	0.57
36:1:2652:U:OP1	78:Q2:65:THR:OG1	2.22	0.57
50:M4:38:ILE:HD11	56:N0:150:PHE:HE2	1.70	0.57
1:2:412:A:H2'	1:2:413:U:C6	2.40	0.57
36:1:265:A:O3'	51:M5:5:LYS:NZ	2.37	0.57
23:D1:27:ASP:N	23:D1:27:ASP:OD2	2.38	0.57
40:L3:129:ALA:O	36:5:3150:A:H5'	211.80	0.57
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.23	0.57
1:2:1595:U:H5	1:2:1596:C:C5	2.23	0.57
41:L4:269:SER:O	41:L4:271:LYS:N	2.38	0.57
71:O5:93:THR:OG1	71:O5:96:GLU:HG3	2.03	0.57
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.45	0.57
7:S5:119:ASP:O	7:S5:123:VAL:HG23	3.19	0.57
1:2:491:C:H42	1:2:496:G:H1	1.51	0.57
39:L2:104:LEU:HD11	39:L2:113:VAL:HG21	1.84	0.57
36:5:2171:G:H2'	36:5:2172:A:H8	1.69	0.57
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.40	0.57
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.69	0.57
36:5:1615:C:H2'	36:5:1616:U:C6	2.39	0.57
36:1:272:G:OP2	86:1:4028:OHX:N3	2.37	0.57
36:1:3281:U:H2'	36:1:3282:U:C6	2.39	0.57
66:O0:23:TYR:OH	66:O0:83:LYS:HE2	4.40	0.57
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.21	0.57
11:S9:65:LYS:HA	11:S9:70:LEU:HD21	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:220:PRO:O	5:S3:221:SER:OG	2.21	0.57
36:1:1073:U:H1'	65:N9:50:THR:HG22	1.85	0.57
20:C8:41:ARG:HD3	1:6:1565:C:OP1	367.34	0.57
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.36	0.57
75:O9:2:ALA:O	75:O9:4:GLN:N	2.38	0.57
36:1:299:G:N7	86:1:4078:OHX:N2	2.52	0.57
20:C8:127:HIS:CE1	20:C8:133:VAL:HG11	3.42	0.57
73:O7:46:SER:OG	86:5:3899:OHX:N2	110.69	0.57
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	2.40	0.57
15:C3:65:VAL:O	15:C3:67:THR:N	3.13	0.57
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.18	0.57
1:2:356:G:OP2	86:2:2035:OHX:N6	2.37	0.57
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.01	0.57
36:1:2745:G:O2'	36:1:2747:A:N7	2.29	0.57
1:2:1085:G:N2	1:2:1088:A:OP2	2.25	0.57
1:6:869:A:H2'	1:6:870:C:O4'	2.05	0.57
1:2:45:U:O2'	1:2:46:A:H2'	2.04	0.57
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.05	0.57
36:1:2718:U:OP2	86:1:3982:OHX:N3	2.38	0.57
56:N0:1:MET:HB2	56:N0:118:PHE:CD1	2.39	0.57
64:N8:10:LYS:HE3	36:5:1375:G:O6	158.37	0.57
36:5:1650:G:N7	86:5:4175:OHX:N3	2.53	0.57
1:6:282:C:H2'	1:6:283:U:O4'	2.05	0.57
68:O2:78:ASN:HA	68:O2:108:ILE:HD11	1.85	0.57
32:E0:46:ASN:OD1	32:E0:47:VAL:N	2.75	0.57
47:M0:47:PRO:HD2	47:M0:141:LYS:HA	1.86	0.57
20:C8:30:TYR:OH	20:C8:40:ARG:NH1	3.28	0.57
11:S9:172:VAL:HG22	1:6:511:A:H5''	456.94	0.57
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.37	0.57
34:SR:126:SER:OG	34:SR:127:ARG:N	2.36	0.57
36:1:1949:G:H2'	36:1:1950:U:C6	2.40	0.57
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.69	0.57
79:Q3:10:ILE:HD13	36:5:837:A:H1'	228.49	0.57
42:L5:290:ILE:O	42:L5:294:ALA:N	3.88	0.57
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	3.95	0.57
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	1.85	0.57
1:2:808:U:H2'	1:2:809:A:C8	2.40	0.57
1:2:939:A:H2'	1:2:940:A:C8	2.40	0.57
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.03	0.57
40:L3:107:ALA:HA	40:L3:199:PHE:CD2	2.60	0.57
36:5:1530:U:OP1	86:5:3984:OHX:N1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:345:G:OP1	36:1:1429:G:N1	2.36	0.57
39:L2:112:ILE:HG22	39:L2:135:ILE:HG23	6.20	0.57
36:1:726:G:H8	36:1:726:G:H5'	1.70	0.57
43:L6:134:ARG:HH11	43:L6:134:ARG:HG2	1.70	0.57
1:6:1218:G:N2	1:6:1443:U:H2'	2.19	0.57
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.70	0.56
51:M5:106:VAL:O	51:M5:109:ARG:N	2.38	0.56
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	3.41	0.56
1:6:73:U:H2'	1:6:74:U:C6	2.40	0.56
1:6:542:A:H1'	1:6:543:C:OP1	2.05	0.56
6:S4:121:TYR:CD2	6:S4:161:LYS:HE3	2.39	0.56
1:2:341:A:H4'	10:S8:87:ASN:ND2	2.18	0.56
21:C9:83:ALA:HB2	1:6:1525:A:H5''	381.89	0.56
1:2:17:C:H2'	1:2:18:C:C6	2.40	0.56
36:1:2812:C:H2'	36:1:2813:A:C8	2.40	0.56
1:2:412:A:H2'	1:2:413:U:H6	1.69	0.56
69:O3:30:ILE:HB	69:O3:81:VAL:HG12	1.86	0.56
36:1:256:G:H4'	71:O5:111:PHE:HZ	1.70	0.56
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.87	0.56
1:6:1623:C:H2'	1:6:1624:C:C6	2.40	0.56
1:2:131:C:O2'	1:2:132:U:OP1	2.23	0.56
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.74	0.56
36:1:1819:U:O4	86:1:4039:OHX:N4	2.37	0.56
36:5:118:U:O2	36:5:121:A:H5'	2.05	0.56
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.38	0.56
21:C9:53:TRP:HH2	21:C9:100:ILE:HD13	3.29	0.56
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.40	0.56
1:2:1516:A:O2'	1:2:1517:U:H5'	2.05	0.56
26:D4:2:SER:HA	26:D4:32:ARG:HD3	6.69	0.56
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.35	0.56
49:M3:46:ILE:CG2	49:M3:49:ARG:HB2	3.03	0.56
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	3.42	0.56
40:L3:35:ASP:OD2	40:L3:37:ARG:NH1	2.38	0.56
63:N7:97:SER:O	63:N7:100:THR:OG1	3.55	0.56
86:1:3937:OHX:N5	86:1:4196:OHX:N6	2.52	0.56
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.86	0.56
22:D0:16:GLN:NE2	22:D0:18:GLN:OE1	9.28	0.56
70:O4:80:ARG:HG3	70:O4:88:ARG:HH21	2.93	0.56
55:M9:4:LEU:O	55:M9:7:GLN:HG2	5.14	0.56
1:2:1266:U:H2'	1:2:1267:G:C8	2.40	0.56
86:1:4002:OHX:N6	86:1:4171:OHX:N5	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:4002:OHX:N3	86:1:4171:OHX:N5	2.53	0.56
36:5:3035:A:OP2	86:5:4045:OHX:N5	2.38	0.56
1:6:12:U:H2'	1:6:13:C:C6	2.40	0.56
36:5:3155:U:H4'	36:5:3156:U:OP2	2.05	0.56
36:5:2152:A:H2'	36:5:2153:U:H6	1.69	0.56
36:5:656:A:H2'	36:5:657:A:C8	2.40	0.56
43:L6:40:LEU:HD11	43:L6:54:TYR:HB2	2.70	0.56
1:2:323:A:OP2	10:S8:10:LYS:HA	2.05	0.56
20:C8:24:GLY:O	20:C8:26:ILE:N	2.34	0.56
36:5:1564:U:H2'	36:5:1565:G:H8	1.69	0.56
61:N5:57:LEU:HD23	61:N5:61:LYS:HG2	6.66	0.56
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	2.75	0.56
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.42	0.56
36:5:283:G:O6	36:5:304:G:H1'	2.05	0.56
1:2:1291:G:H1	1:2:1324:G:H1	1.53	0.56
41:L4:26:PHE:HE2	41:L4:258:LEU:HD23	2.19	0.56
1:2:702:G:N7	86:2:2129:OHX:N5	2.52	0.56
42:L5:52:VAL:HA	42:L5:147:ASP:HB3	1.91	0.56
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.30	0.56
1:2:304:U:H2'	1:2:305:C:H6	1.70	0.56
2:S0:140:ASN:HD22	4:S2:62:PRO:HD3	5.24	0.56
6:S4:11:ARG:NH1	6:S4:21:ASP:OD2	4.13	0.56
1:6:1488:G:N2	1:6:1495:C:O2	2.27	0.56
46:L9:70:THR:HB	36:5:3112:G:O2'	328.63	0.56
36:5:2102:U:H2'	36:5:2103:U:C6	2.41	0.56
5:S3:67:ASN:HA	5:S3:70:THR:OG1	2.57	0.56
36:1:291:C:H5''	51:M5:68:ARG:NH1	2.20	0.56
40:L3:30:LYS:NZ	36:5:3139:A:OP2	235.03	0.56
86:5:4014:OHX:N6	86:5:4210:OHX:N2	2.53	0.56
86:2:2043:OHX:N1	86:2:2098:OHX:N5	2.54	0.56
36:1:2296:A:OP1	86:1:4146:OHX:N2	2.38	0.56
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.41	0.56
39:L2:3:ARG:HD3	36:5:911:C:H42	178.60	0.56
86:1:4002:OHX:N6	86:1:4171:OHX:N1	2.53	0.56
25:D3:37:ALA:O	25:D3:41:SER:HB3	4.22	0.56
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.05	0.56
36:5:160:G:H2'	36:5:161:G:H8	1.71	0.56
1:2:1409:G:N2	1:2:1411:A:H3'	2.20	0.56
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.36	0.56
1:6:1535:U:O2'	1:6:1536:G:O5'	2.20	0.56
9:S7:158:ASP:O	9:S7:160:GLN:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:69:ARG:HG3	54:M8:69:ARG:HH11	2.41	0.56
36:1:1286:A:O2'	36:1:1287:A:OP2	2.19	0.56
36:1:1651:U:H5'	39:L2:71:LEU:HD13	1.87	0.56
1:6:1491:U:H4'	1:6:1492:A:H5''	1.86	0.56
36:5:1584:U:H2'	36:5:1585:C:C6	2.40	0.56
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	1.87	0.56
36:1:1524:A:OP1	61:N5:92:LYS:NZ	2.39	0.56
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	3.05	0.56
1:2:1169:G:N1	1:2:1575:G:OP2	2.34	0.56
36:5:2516:U:O2	36:5:2594:C:N4	2.39	0.56
36:1:735:A:H2'	36:1:736:A:H8	1.69	0.56
36:1:2659:G:O6	86:1:3878:OHX:N3	2.39	0.56
48:M1:138:VAL:HG22	48:M1:141:ARG:NH2	2.21	0.56
36:5:3153:U:H1'	36:5:3154:C:C6	2.39	0.56
40:L3:254:ALA:HB1	36:5:2943:G:H1'	229.19	0.56
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.70	0.56
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.40	0.56
57:N1:101:CYS:HB3	36:5:990:U:C1'	251.40	0.56
1:2:452:A:H3'	1:2:453:U:C5	2.40	0.56
3:S1:130:SER:OG	3:S1:131:ASP:N	2.38	0.56
22:D0:16:GLN:HG3	22:D0:17:GLN:H	3.99	0.56
70:O4:67:LYS:HA	70:O4:70:LYS:HE3	3.59	0.56
36:5:2820:A:H5''	36:5:2821:C:OP2	2.06	0.56
19:C7:7:LYS:O	19:C7:11:ARG:N	2.30	0.56
36:5:123:A:C6	36:5:150:A:C5	2.93	0.56
36:5:223:U:O4	86:5:4237:OHX:N4	2.38	0.56
36:5:434:U:H2'	36:5:435:C:C6	2.39	0.56
36:5:252:U:H4'	36:5:253:A:H5''	1.87	0.56
16:C4:80:HIS:ND1	16:C4:113:GLY:O	2.85	0.56
44:L7:239:LEU:O	44:L7:242:SER:N	2.37	0.56
45:L8:84:ARG:H	45:L8:84:ARG:NE	2.04	0.56
5:S3:126:VAL:HG12	5:S3:131:ALA:HB2	2.82	0.56
1:2:1450:U:H2'	1:2:1451:C:C6	2.40	0.56
65:N9:24:PRO:HD2	65:N9:25:LYS:H	2.92	0.56
36:1:1598:G:OP2	70:O4:31:ARG:NH2	2.39	0.56
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.75	0.56
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.40	0.56
32:E0:39:LEU:HD12	32:E0:43:ARG:NH2	2.60	0.56
48:M1:47:GLN:OE1	48:M1:64:LYS:NZ	3.46	0.56
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.49	0.56
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2723:U:H5'	57:N1:88:ARG:O	2.05	0.56
63:N7:135:ARG:HG2	63:N7:135:ARG:NH2	2.21	0.56
1:2:511:A:OP2	11:S9:176:ASN:ND2	2.28	0.56
33:E1:103:LEU:HA	33:E1:105:TYR:HD2	3.13	0.56
86:5:4014:OHX:N3	86:5:4210:OHX:N4	2.53	0.56
86:8:218:OHX:N5	86:8:225:OHX:N3	2.53	0.56
36:1:2648:G:O2'	36:1:2696:A:O2'	2.24	0.56
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	3.50	0.56
39:L2:177:LYS:O	36:5:1793:C:N4	220.90	0.56
11:S9:62:ARG:CZ	11:S9:68:LYS:HD3	3.51	0.56
11:S9:66:ASP:OD2	11:S9:68:LYS:N	3.36	0.56
72:O6:60:LEU:HD11	72:O6:68:ARG:HB3	1.86	0.56
1:6:1265:G:N7	86:6:2192:OHX:N6	2.54	0.56
36:5:1491:A:HO2'	36:5:1843:C:HO2'	1.54	0.56
35:SM:97:THR:HG22	35:SM:99:LYS:HB2	1.87	0.56
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.37	0.56
64:N8:16:SER:HA	36:5:942:U:N3	168.89	0.56
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.03	0.56
65:N9:26:THR:OG1	65:N9:26:THR:O	3.62	0.56
1:6:1280:C:H2'	1:6:1281:G:H8	1.71	0.56
1:6:1564:U:H2'	1:6:1565:C:C6	2.41	0.56
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.86	0.56
12:C0:12:HIS:CE1	12:C0:49:LEU:HD21	2.40	0.56
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.79	0.56
1:6:755:A:O2'	1:6:756:A:H5''	2.06	0.56
59:N3:13:ILE:HD12	59:N3:53:SER:HB2	3.80	0.56
20:C8:78:HIS:O	20:C8:80:LYS:N	2.38	0.56
13:C1:6:THR:HB	13:C1:9:SER:HB3	1.86	0.56
1:6:190:C:N4	1:6:196:G:O6	2.38	0.56
57:N1:129:LYS:NZ	36:5:1097:G:OP1	243.97	0.56
1:2:416:A:H4'	1:2:417:A:OP2	2.06	0.56
47:M0:194:GLY:HA3	36:5:1010:G:N3	335.28	0.56
36:1:2525:G:O2'	36:1:2526:C:OP2	2.19	0.56
28:D6:46:GLU:HG3	28:D6:47:ALA:HB3	3.88	0.56
36:1:2890:A:N1	36:1:2913:C:N3	2.54	0.56
44:L7:79:ALA:HB2	57:N1:138:SER:N	2.20	0.56
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.70	0.56
1:6:1563:C:H2'	1:6:1564:U:C6	2.40	0.56
49:M3:48:PRO:HA	49:M3:137:GLN:HB3	1.88	0.56
36:5:1361:U:H2'	36:5:1362:G:C8	2.40	0.56
36:5:271:C:H2'	36:5:272:G:O4'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1542:G:N2	1:2:1568:C:H1'	2.21	0.56
41:L4:141:ARG:O	41:L4:143:GLU:N	3.69	0.56
26:D4:36:SER:OG	26:D4:37:LYS:N	2.39	0.56
1:6:76:A:H2'	1:6:76:A:N3	2.20	0.56
1:2:894:U:H2'	1:2:895:G:C8	2.40	0.56
38:4:79:A:O3'	38:4:80:A:H4'	2.05	0.56
40:L3:169:THR:HG22	40:L3:171:LEU:H	1.69	0.56
1:6:591:A:H2'	1:6:592:A:C8	2.40	0.56
1:6:97:C:O2	1:6:425:A:O2'	2.22	0.56
49:M3:164:GLU:O	64:N8:139:ARG:NH2	5.97	0.56
51:M5:203:ARG:NH1	36:5:665:A:OP1	121.69	0.56
39:L2:200:ARG:C	39:L2:202:VAL:H	2.09	0.56
5:S3:202:LEU:O	19:C7:42:GLN:HG3	2.46	0.56
4:S2:169:LEU:HG	4:S2:217:ALA:HB1	1.87	0.56
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.72	0.56
36:5:2310:U:OP1	86:5:4192:OHX:N2	2.39	0.56
1:2:1186:U:O4	1:2:1200:G:N2	2.38	0.56
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.41	0.56
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	1.88	0.56
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.20	0.56
38:4:41:A:O2'	73:O7:59:THR:HB	2.06	0.56
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.87	0.56
77:Q1:6:ARG:NH1	1:6:1114:G:OP1	309.35	0.56
41:L4:144:LYS:CG	41:L4:145:ILE:H	4.83	0.56
51:M5:136:ASP:OD2	51:M5:138:GLN:NE2	2.38	0.56
2:S0:63:ILE:HG12	23:D1:36:VAL:HG22	2.34	0.56
54:M8:35:PHE:CE1	54:M8:39:ARG:HG3	3.42	0.56
22:D0:20:ILE:HG22	22:D0:21:LYS:H	5.31	0.56
4:S2:88:LYS:HB3	4:S2:95:ARG:HD2	4.65	0.56
36:5:2971:A:H3'	36:5:2971:A:N3	2.21	0.56
41:L4:206:LEU:HD23	41:L4:226:GLU:HG3	5.00	0.56
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.14	0.56
36:5:1580:A:O2'	36:5:1581:C:OP2	2.19	0.56
42:L5:84:PRO:O	42:L5:86:TYR:N	2.38	0.56
55:M9:166:ASN:HD22	55:M9:167:ARG:HG2	6.61	0.56
9:S7:118:LEU:N	1:6:639:U:OP1	365.57	0.56
72:O6:15:LYS:HB3	36:5:73:C:C6	99.06	0.56
86:1:3910:OHX:N5	45:L8:54:GLU:OE2	2.39	0.56
45:L8:130:TYR:HD1	45:L8:202:GLU:HB3	1.71	0.56
61:N5:34:LEU:HD22	61:N5:35:PRO:HD2	1.86	0.56
1:6:1477:G:H2'	1:6:1478:G:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:25:PRO:HG2	45:L8:27:THR:HB	1.88	0.56
6:S4:49:ARG:HG3	6:S4:50:ASN:N	4.22	0.56
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.34	0.56
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	1.95	0.56
1:6:1097:U:H4'	1:6:1098:U:C5'	2.34	0.56
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.91	0.56
45:L8:86:THR:O	45:L8:90:THR:HG23	4.95	0.56
86:1:3937:OHX:N3	86:1:4196:OHX:N4	2.54	0.56
7:S5:34:GLN:HG2	18:C6:57:LEU:HD13	1.88	0.56
36:1:1306:G:C6	52:M6:62:THR:HA	2.41	0.56
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	1.88	0.56
36:5:1661:G:H2'	36:5:1662:G:C8	2.41	0.56
36:5:90:C:H2'	36:5:91:G:H5'	1.88	0.56
14:C2:42:ALA:HB2	14:C2:124:LYS:HD2	1.88	0.56
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.87	0.56
49:M3:69:VAL:N	49:M3:149:GLN:OE1	2.86	0.56
1:2:1018:U:OP1	15:C3:107:LYS:NZ	2.38	0.56
36:1:2438:A:H2'	36:1:2439:A:C8	2.40	0.56
1:2:647:G:N2	1:2:687:G:H22	2.04	0.56
36:1:975:C:H2'	36:1:976:U:C6	2.41	0.56
41:L4:211:GLU:OE2	41:L4:213:ASN:ND2	2.29	0.56
1:2:1251:U:H4'	33:E1:133:ALA:HB1	1.87	0.56
29:D7:34:ASP:OD1	29:D7:34:ASP:N	2.39	0.56
28:D6:26:CYS:HB2	28:D6:28:LYS:HB2	4.55	0.56
56:N0:71:LYS:O	56:N0:71:LYS:HG3	4.59	0.56
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.71	0.56
36:5:1232:C:C5	36:5:1261:G:H2'	2.40	0.56
53:M7:67:ILE:HG13	53:M7:82:ARG:CZ	2.36	0.56
40:L3:247:ARG:NH1	36:5:1888:U:OP1	211.01	0.56
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.71	0.56
72:O6:58:ILE:HA	72:O6:61:ILE:HG13	3.75	0.56
1:2:1280:C:H2'	1:2:1281:G:C8	2.41	0.56
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CZ3	2.41	0.56
36:5:2875:U:C5	88:5:4246:3L2:H34	2.41	0.56
36:1:726:G:H8	36:1:726:G:C5'	2.19	0.56
67:O1:16:LEU:O	67:O1:20:LEU:N	2.37	0.56
1:2:1660:A:H2'	1:2:1661:U:C6	2.41	0.56
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.87	0.56
36:5:3041:U:H2'	36:5:3042:U:C6	2.41	0.56
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.88	0.56
36:5:1654:A:H2'	36:5:1655:G:H5'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:51:HIS:ND1	47:M0:134:ILE:HD13	2.21	0.56
36:5:2872:A:H4'	36:5:2873:U:OP1	2.06	0.56
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	2.38	0.56
36:5:3294:A:H2'	36:5:3295:A:O4'	2.05	0.56
41:L4:74:ILE:HG21	41:L4:93:MET:HE3	1.88	0.55
74:O8:46:ARG:HH21	74:O8:51:LEU:HB2	1.71	0.55
12:C0:77:ARG:HA	12:C0:82:LEU:HD12	1.88	0.55
36:1:1814:A:OP1	86:1:4088:OHX:N2	2.39	0.55
5:S3:55:THR:HG21	5:S3:90:ARG:HG2	2.60	0.55
5:S3:117:ARG:NH1	35:SM:126:ASP:OD1	2.38	0.55
3:S1:178:GLY:O	3:S1:179:SER:HB2	4.77	0.55
44:L7:132:PRO:HA	44:L7:229:PHE:CG	2.82	0.55
36:5:2726:C:O2'	36:5:2727:A:H2'	2.06	0.55
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.60	0.55
66:O0:24:THR:HG23	66:O0:91:SER:HB3	1.88	0.55
3:S1:229:MET:HA	3:S1:232:HIS:CE1	2.41	0.55
44:L7:40:LYS:HD3	44:L7:170:GLU:OE2	2.61	0.55
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	7.94	0.55
8:S6:47:GLY:C	8:S6:117:GLY:HA2	2.26	0.55
21:C9:139:THR:O	21:C9:142:GLU:HG3	5.06	0.55
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	2.16	0.55
58:N2:14:THR:HG23	58:N2:66:VAL:HG13	2.98	0.55
36:5:2115:G:H22	36:5:2120:A:H1'	1.71	0.55
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.88	0.55
39:L2:79:ASN:O	39:L2:82:VAL:HG13	2.05	0.55
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	1.88	0.55
28:D6:10:ARG:NH1	28:D6:36:ILE:HG13	5.09	0.55
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.50	0.55
20:C8:30:TYR:CE2	20:C8:40:ARG:HD2	2.61	0.55
46:L9:124:ARG:HB3	46:L9:164:ILE:HG13	3.26	0.55
11:S9:146:PHE:HZ	1:6:765:G:N1	430.39	0.55
34:SR:84:SER:OG	34:SR:85:TRP:N	2.55	0.55
51:M5:110:ALA:HB1	51:M5:113:LEU:HD22	1.88	0.55
1:6:157:A:O2'	1:6:158:U:H5'	2.07	0.55
36:1:2310:U:OP1	86:1:4137:OHX:N1	2.39	0.55
42:L5:58:LYS:HA	42:L5:93:THR:HB	1.88	0.55
34:SR:52:GLN:HG2	34:SR:53:LYS:H	2.40	0.55
36:1:2213:A:H2'	36:1:2214:A:C8	2.41	0.55
17:C5:86:VAL:O	17:C5:89:MET:HG3	2.05	0.55
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	3.67	0.55
36:5:1064:A:H4'	36:5:1065:A:O5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:18:ARG:NH1	36:5:1315:U:OP1	277.08	0.55
77:Q1:2:ARG:HG2	77:Q1:4:LYS:HB3	1.88	0.55
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	4.77	0.55
36:1:314:U:O4	86:1:4149:OHX:N4	2.40	0.55
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.88	0.55
44:L7:77:VAL:HG22	57:N1:139:ARG:O	2.24	0.55
36:1:578:A:H5''	36:1:579:G:O5'	2.07	0.55
10:S8:82:VAL:HB	10:S8:101:ILE:HG22	3.28	0.55
1:6:604:A:OP2	86:6:2149:OHX:N4	2.39	0.55
36:5:3238:G:H5''	36:5:3238:G:H8	1.71	0.55
29:D7:50:ALA:O	29:D7:52:THR:N	2.37	0.55
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.22	0.55
29:D7:41:LEU:H	29:D7:41:LEU:HD23	2.77	0.55
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.57	0.55
2:S0:27:ARG:HG2	2:S0:28:ASN:H	1.70	0.55
2:S0:184:LEU:C	2:S0:186:GLY:H	2.09	0.55
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.19	0.55
51:M5:96:ARG:CG	51:M5:96:ARG:HH11	2.25	0.55
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.88	0.55
1:6:542:A:H1'	1:6:543:C:P	2.46	0.55
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.07	0.55
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.26	0.55
1:6:1068:C:H2'	1:6:1069:A:C8	2.40	0.55
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.38	0.55
39:L2:144:ASN:O	39:L2:160:SER:N	2.80	0.55
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.06	0.55
36:1:2525:G:OP2	39:L2:37:ARG:NH1	2.40	0.55
1:6:694:U:H3'	1:6:695:U:O2	2.06	0.55
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	1.88	0.55
18:C6:9:THR:HG21	18:C6:88:GLY:HA2	1.88	0.55
1:2:1317:C:H2'	1:2:1318:G:O4'	2.06	0.55
1:2:1147:A:H2'	1:2:1148:C:C6	2.41	0.55
1:2:154:G:OP1	8:S6:2:LYS:NZ	2.39	0.55
2:S0:154:GLU:N	2:S0:154:GLU:OE1	2.36	0.55
6:S4:157:ASN:ND2	6:S4:222:LEU:HD11	3.49	0.55
36:1:49:A:OP1	49:M3:16:LYS:NZ	2.38	0.55
1:6:1214:U:OP1	1:6:1246:C:O2'	2.19	0.55
1:2:1769:U:O2	16:C4:136:ARG:HG3	2.06	0.55
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.41	0.55
41:L4:289:ILE:O	41:L4:292:SER:HB3	2.07	0.55
7:S5:187:ILE:HD13	27:D5:66:VAL:HG11	3.47	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:5:LYS:HD3	75:O9:13:MET:HE3	1.88	0.55
11:S9:149:ARG:HD2	1:6:765:G:N7	426.99	0.55
71:O5:83:LYS:HA	38:8:38:U:C5	65.77	0.55
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	1.88	0.55
36:1:2107:A:H2	36:1:3344:A:H8	1.55	0.55
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	1.88	0.55
36:5:541:U:H2'	36:5:542:G:C8	2.42	0.55
39:L2:114:SER:HB2	39:L2:169:ILE:CD1	2.55	0.55
35:SM:65:THR:OG1	35:SM:66:ALA:N	4.01	0.55
36:1:439:C:H5'	36:1:440:A:C8	2.41	0.55
36:1:300:G:O6	86:1:4149:OHX:N1	2.39	0.55
15:C3:70:LYS:NZ	1:6:963:A:OP2	330.59	0.55
36:1:3085:G:OP2	86:1:3885:OHX:N2	2.39	0.55
73:O7:28:HIS:CE1	73:O7:31:LYS:HG3	2.74	0.55
36:5:626:U:O4	86:5:3976:OHX:N4	2.39	0.55
1:6:521:A:H2'	1:6:522:U:O4'	2.05	0.55
36:5:2209:U:H4'	36:5:2210:G:OP1	2.06	0.55
36:5:193:C:H2'	36:5:194:U:C6	2.41	0.55
45:L8:156:ASP:O	45:L8:183:LYS:HE3	7.17	0.55
36:5:1289:G:H2'	36:5:1290:A:H8	1.72	0.55
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.05	0.55
64:N8:111:LYS:HE2	64:N8:113:LEU:HD21	1.88	0.55
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.40	0.55
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.38	0.55
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.06	0.55
1:2:1171:A:H2'	1:2:1172:G:C8	2.42	0.55
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.22	0.55
38:8:80:A:H2	38:8:83:C:H41	1.52	0.55
32:E0:37:ARG:NH1	1:6:478:A:OP1	439.29	0.55
1:2:398:G:OP1	10:S8:50:GLY:N	2.36	0.55
86:5:3994:OHX:N4	86:5:4083:OHX:N2	2.55	0.55
13:C1:14:GLN:HB3	13:C1:54:ILE:HG13	3.56	0.55
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.76	0.55
36:1:3119:U:OP2	86:1:3889:OHX:N4	2.39	0.55
66:O0:40:LYS:HB3	66:O0:101:LEU:HD21	1.88	0.55
36:1:2244:A:O2'	39:L2:223:SER:HB3	2.06	0.55
36:5:2177:G:O6	86:5:3968:OHX:N1	2.40	0.55
36:1:1235:U:H4'	36:1:1236:G:H5'	1.89	0.55
55:M9:89:LEU:HD12	55:M9:90:PRO:HD2	2.19	0.55
36:1:503:C:OP1	43:L6:26:ARG:NH1	2.39	0.55
24:D2:83:ILE:HG12	24:D2:117:ARG:HH12	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3377:G:O6	86:5:4081:OHX:N1	2.39	0.55
39:L2:241:ARG:HG2	36:5:2155:G:OP1	220.43	0.55
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.88	0.55
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.06	0.55
20:C8:29:VAL:O	20:C8:43:SER:OG	2.18	0.55
54:M8:109:GLY:O	54:M8:112:ALA:HB3	2.67	0.55
1:2:205:U:O4	86:2:2066:OHX:N3	2.40	0.55
21:C9:64:HIS:HE1	1:6:1523:G:N7	407.63	0.55
36:1:3035:A:OP2	86:1:4072:OHX:N4	2.40	0.55
39:L2:132:ASN:HD22	39:L2:151:PRO:HB3	1.71	0.55
59:N3:67:PRO:HA	59:N3:70:ARG:HG3	1.89	0.55
1:6:1318:G:N7	86:6:2163:OHX:N5	2.55	0.55
62:N6:71:SER:HB2	62:N6:83:ASP:OD1	3.97	0.55
26:D4:20:ARG:HE	26:D4:22:GLN:HB3	1.71	0.55
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	1.87	0.55
1:2:396:G:N2	1:2:399:A:OP2	2.38	0.55
27:D5:39:ALA:N	27:D5:70:LYS:O	5.57	0.55
3:S1:62:LYS:HD2	3:S1:91:VAL:HB	1.87	0.55
1:6:1257:U:O2'	1:6:1258:U:O4'	2.24	0.55
69:O3:86:ARG:O	86:O3:201:OHX:N1	2.40	0.55
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.46	0.55
29:D7:61:THR:OG1	29:D7:62:ILE:N	3.21	0.55
14:C2:124:LYS:O	14:C2:126:TRP:N	2.32	0.55
24:D2:15:ASN:ND2	24:D2:71:LYS:HG3	2.35	0.55
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.40	0.55
15:C3:3:ARG:NE	15:C3:3:ARG:HA	2.78	0.55
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.31	0.55
36:5:3237:U:H2'	36:5:3238:G:O4'	2.06	0.55
36:5:1289:G:H2'	36:5:1290:A:C8	2.42	0.55
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	1.86	0.55
36:1:3234:A:H2'	36:1:3235:C:O4'	2.06	0.55
6:S4:253:ASP:O	6:S4:257:ALA:N	2.40	0.55
36:5:1230:G:OP2	86:5:4000:OHX:N6	2.40	0.55
1:6:369:A:O2'	1:6:371:G:OP2	2.18	0.55
39:L2:220:GLY:O	39:L2:221:LYS:HG3	2.06	0.55
1:6:230:C:N4	1:6:235:G:H1	2.00	0.55
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.38	0.55
1:2:929:A:C8	16:C4:123:SER:HA	2.42	0.55
10:S8:76:THR:HB	10:S8:105:ASP:HB2	1.88	0.55
37:3:115:G:N2	42:L5:72:ASP:H	2.05	0.55
36:1:1544:G:O6	86:1:4055:OHX:N4	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.60	0.55
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.37	0.55
2:S0:66:ALA:HB1	23:D1:50:TYR:CD1	3.75	0.55
35:SM:46:LYS:HD3	36:1:1018:G:H5'	1.89	0.55
1:2:1720:G:O6	86:2:2081:OHX:N5	2.40	0.55
1:2:1774:G:N7	77:Q1:4:LYS:NZ	2.53	0.55
1:2:138:A:N6	1:2:266:A:H61	2.05	0.55
41:L4:158:SER:HA	41:L4:213:ASN:HB2	1.89	0.55
36:1:567:G:O6	86:1:4001:OHX:N1	2.39	0.55
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.33	0.55
42:L5:146:LEU:HB3	36:5:2746:A:H2	257.38	0.55
36:1:2810:C:OP1	86:1:4080:OHX:N6	2.39	0.55
5:S3:141:LYS:HD2	5:S3:180:GLY:HA3	1.88	0.55
36:1:608:A:N6	43:L6:22:ARG:HD3	2.22	0.55
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.07	0.55
36:5:2993:G:H2'	36:5:3142:A:N6	2.22	0.55
43:L6:48:ARG:NH2	36:5:3276:G:O2'	239.17	0.55
35:SM:72:ARG:NH1	1:6:1460:A:O3'	323.28	0.55
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	1.89	0.55
21:C9:33:TYR:CD1	21:C9:37:VAL:HG21	4.03	0.55
27:D5:46:LYS:HD3	27:D5:70:LYS:HD2	1.89	0.55
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.40	0.55
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.16	0.55
47:M0:81:GLY:C	47:M0:83:ASP:H	2.47	0.55
36:5:90:C:C2'	36:5:91:G:H5'	2.37	0.55
14:C2:74:LEU:HD11	33:E1:106:TYR:HB3	2.96	0.55
66:O0:22:LYS:HD3	66:O0:94:GLU:HG3	3.51	0.55
18:C6:39:VAL:HG21	18:C6:48:VAL:HG11	2.36	0.55
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	1.89	0.55
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.88	0.55
36:1:2747:A:OP1	86:1:3969:OHX:N4	2.39	0.55
1:6:1218:G:H22	1:6:1443:U:H2'	1.72	0.55
36:5:247:C:C2	36:5:248:U:H1'	2.42	0.55
4:S2:35:TRP:O	4:S2:46:LYS:HE2	6.47	0.55
45:L8:143:ILE:HG23	45:L8:175:VAL:HG21	2.50	0.55
28:D6:55:GLU:O	28:D6:57:SER:N	3.13	0.55
38:8:27:U:H2'	38:8:28:C:H6	1.71	0.55
45:L8:162:LEU:HA	51:M5:7:LEU:HD11	1.89	0.55
36:5:3081:C:H2'	36:5:3082:C:H6	1.72	0.55
48:M1:132:ASN:N	48:M1:132:ASN:HD22	4.50	0.55
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.17	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:124:ARG:O	26:D4:127:LYS:HB3	4.80	0.55
72:O6:62:ARG:O	72:O6:63:ASN:ND2	5.32	0.55
27:D5:42:LEU:O	27:D5:46:LYS:HB2	2.06	0.55
11:S9:129:ILE:HG22	11:S9:142:ASN:O	3.35	0.55
34:SR:171:SER:OG	34:SR:179:LYS:HB2	2.07	0.55
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.29	0.55
36:1:132:C:C2'	36:1:133:U:H5''	2.36	0.55
36:1:1724:U:H1'	36:1:1725:C:C6	2.42	0.55
1:6:538:A:C8	1:6:543:C:N4	2.74	0.55
36:1:1752:A:OP2	86:1:4045:OHX:N5	2.39	0.55
61:N5:103:TYR:O	61:N5:138:ARG:NH1	2.39	0.55
36:1:1126:G:OP2	47:M0:14:ASN:ND2	2.40	0.55
36:1:2244:A:H5''	39:L2:243:THR:OG1	2.07	0.55
36:5:1816:A:C2'	36:5:1817:G:H5''	2.36	0.55
36:1:873:C:H5''	36:1:874:U:O5'	2.07	0.55
36:5:1594:A:H1'	36:5:1615:C:H1'	1.88	0.55
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.42	0.55
36:1:1393:A:N3	36:1:1419:A:O2'	2.36	0.55
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.55	0.55
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.40	0.55
44:L7:60:ARG:NH2	36:5:516:A:O3'	303.28	0.55
36:5:528:U:H2'	36:5:529:A:C8	2.42	0.55
11:S9:7:THR:HG21	1:6:758:U:OP1	382.13	0.55
36:5:2299:A:OP2	86:5:3953:OHX:N1	2.40	0.55
11:S9:30:LEU:HD21	11:S9:102:GLU:HG3	1.88	0.55
74:O8:32:ASN:ND2	74:O8:32:ASN:O	2.40	0.55
1:2:1063:U:OP1	29:D7:72:LYS:NZ	2.40	0.55
36:1:1352:A:H4'	36:1:1353:U:OP1	2.07	0.55
86:1:3968:OHX:N1	38:4:31:G:OP2	2.40	0.55
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.35	0.55
1:6:352:A:H8	1:6:352:A:OP2	1.90	0.55
5:S3:8:LYS:HE2	22:D0:61:LYS:HD3	1.88	0.55
4:S2:145:GLY:HA3	24:D2:97:ARG:HD3	1.89	0.55
36:5:1045:C:OP2	86:5:4170:OHX:N1	2.40	0.55
40:L3:292:ALA:HA	40:L3:303:LYS:H	1.70	0.55
49:M3:101:ARG:HB2	36:5:76:G:N7	84.02	0.55
9:S7:71:HIS:HD2	9:S7:74:GLN:OE1	5.65	0.55
34:SR:16:HIS:CE1	34:SR:37:SER:HB3	2.67	0.55
26:D4:105:ARG:NH2	1:6:458:G:OP2	363.17	0.55
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.19	0.55
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:198:MET:SD	19:C7:85:VAL:HG11	2.46	0.55
1:6:973:A:H2'	1:6:974:A:C8	2.42	0.55
63:N7:23:VAL:HB	63:N7:43:VAL:HB	1.89	0.55
56:N0:73:LYS:NZ	56:N0:97:VAL:O	3.43	0.55
67:O1:84:ASP:OD1	67:O1:84:ASP:N	2.77	0.55
53:M7:2:ALA:O	53:M7:3:ARG:HB2	2.34	0.55
36:1:705:A:N7	64:N8:74:ASN:ND2	2.47	0.55
36:1:2970:C:H4'	36:1:2971:A:N1	2.22	0.55
1:2:1013:A:H2'	1:2:1014:G:O4'	2.07	0.55
36:1:863:C:H2'	36:1:864:G:O4'	2.07	0.55
1:6:719:U:C4	1:6:721:U:H5	2.25	0.55
44:L7:37:ASN:HB3	36:5:597:G:OP1	248.27	0.55
1:2:1207:C:H42	1:2:1456:C:H5	1.55	0.54
51:M5:109:ARG:NH1	38:8:140:G:O3'	118.73	0.54
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.47	0.54
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.35	0.54
34:SR:89:LEU:HD21	34:SR:110:VAL:HG11	1.89	0.54
43:L6:142:ASP:O	43:L6:146:ILE:HG13	3.41	0.54
7:S5:103:ASN:HA	7:S5:106:LYS:HD2	1.89	0.54
11:S9:143:ILE:HG22	11:S9:145:SER:H	1.71	0.54
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.44	0.54
36:1:715:A:H8	64:N8:115:LYS:HG2	1.72	0.54
4:S2:153:SER:OG	4:S2:172:ALA:N	2.73	0.54
47:M0:24:ARG:HB2	47:M0:24:ARG:HH11	1.71	0.54
8:S6:200:ALA:O	8:S6:203:GLU:HB2	2.92	0.54
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	3.73	0.54
36:1:742:G:N7	86:1:3974:OHX:N1	2.54	0.54
26:D4:112:LYS:O	26:D4:116:LYS:HG3	2.07	0.54
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.77	0.54
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	283.60	0.54
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.88	0.54
45:L8:49:TYR:HD2	36:5:2587:U:H4'	177.59	0.54
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.05	0.54
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.07	0.54
36:1:2534:G:H1	36:1:2545:C:H42	1.55	0.54
64:N8:133:LEU:HD11	64:N8:137:LYS:HE3	3.20	0.54
36:1:317:A:C2	36:1:318:A:C4	2.95	0.54
3:S1:61:LEU:O	3:S1:63:GLY:N	2.40	0.54
11:S9:87:SER:HG	11:S9:95:TYR:HE1	1.53	0.54
43:L6:89:THR:HG21	50:M4:115:PHE:CB	2.37	0.54
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:81:ARG:HB3	7:S5:82:PHE:CD2	3.50	0.54
1:2:109:G:C6	1:2:110:U:C2	2.95	0.54
5:S3:64:ARG:O	5:S3:67:ASN:N	2.33	0.54
22:D0:89:ARG:NH2	1:6:1383:G:OP1	445.07	0.54
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.88	0.54
1:2:341:A:H2'	1:2:342:C:C6	2.42	0.54
1:2:886:U:H2'	1:2:887:A:O4'	2.07	0.54
41:L4:77:VAL:HB	41:L4:85:SER:HA	1.88	0.54
47:M0:87:LEU:HA	47:M0:138:VAL:HG22	1.89	0.54
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	2.40	0.54
36:5:3318:G:OP2	86:5:4133:OHX:N5	2.40	0.54
1:2:1572:G:H8	7:S5:185:ARG:HH12	1.54	0.54
40:L3:243:HIS:NE2	36:5:878:G:O6	193.41	0.54
44:L7:80:GLN:OE1	57:N1:136:ARG:HB2	3.41	0.54
36:1:1667:A:H2'	36:1:1668:G:C8	2.42	0.54
61:N5:108:LEU:HG	61:N5:127:THR:HG22	3.15	0.54
24:D2:80:ASN:OD1	1:6:747:C:O2'	356.93	0.54
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.85	0.54
36:5:1480:G:O2'	36:5:1871:U:O4	2.22	0.54
45:L8:91:PHE:O	45:L8:95:ASN:HB2	2.63	0.54
7:S5:40:ILE:HG23	7:S5:42:LEU:HG	4.28	0.54
36:1:1362:G:H2'	36:1:1363:A:C8	2.42	0.54
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.52	0.54
63:N7:102:GLU:H	63:N7:107:ARG:NH2	4.25	0.54
1:2:1479:A:H2'	1:2:1480:G:H8	1.71	0.54
21:C9:63:ARG:HH12	1:6:1481:C:P	404.46	0.54
1:2:919:A:H5'	16:C4:18:ARG:HH12	1.70	0.54
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	3.95	0.54
26:D4:57:VAL:HG13	26:D4:60:PHE:HE2	1.72	0.54
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	4.66	0.54
59:N3:53:SER:N	59:N3:56:ASP:OD2	2.48	0.54
7:S5:33:VAL:HG13	7:S5:37:GLN:OE1	3.50	0.54
11:S9:33:GLU:HB2	11:S9:34:PHE:CD2	2.92	0.54
49:M3:158:ALA:O	64:N8:124:ILE:HD11	3.12	0.54
36:1:56:G:H21	51:M5:162:ARG:HD2	1.72	0.54
25:D3:65:ASN:ND2	25:D3:116:ASP:OD1	3.08	0.54
5:S3:61:GLU:O	5:S3:63:GLY:N	2.41	0.54
36:1:786:A:H4'	36:1:787:G:H5'	1.90	0.54
67:O1:88:PRO:HG2	67:O1:89:LEU:HD13	1.88	0.54
47:M0:16:PRO:HD3	47:M0:128:ARG:NH1	2.22	0.54
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.84	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:3:VAL:HG13	52:M6:4:GLU:N	2.22	0.54
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	235.73	0.54
38:8:58:G:H5'	38:8:98:U:O2	2.08	0.54
56:N0:23:LYS:HB3	56:N0:25:PHE:CZ	2.42	0.54
1:2:711:U:H1'	1:2:712:G:H5'	1.89	0.54
36:5:2568:C:O2'	36:5:2569:A:O5'	2.17	0.54
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	1.90	0.54
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	2.05	0.54
36:5:920:A:OP1	36:5:922:U:H5	1.90	0.54
57:N1:35:LYS:N	57:N1:38:ASP:OD2	2.54	0.54
40:L3:97:ARG:NH1	36:5:3244:A:C2	243.30	0.54
45:L8:248:LYS:HE2	36:5:2529:A:OP1	208.71	0.54
42:L5:285:ARG:NH1	37:7:62:U:O3'	339.52	0.54
36:5:1915:A:H2'	36:5:1916:U:C6	2.43	0.54
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	4.13	0.54
36:1:385:A:H2'	36:1:386:A:C8	2.42	0.54
76:Q0:113:ARG:O	76:Q0:113:ARG:HG3	2.66	0.54
36:1:2228:A:H2'	36:1:2229:A:C8	2.42	0.54
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.46	0.54
36:5:1572:U:HO2'	36:5:1573:G:H8	1.54	0.54
71:O5:86:ARG:O	71:O5:90:ARG:NE	2.71	0.54
13:C1:33:ARG:NH1	13:C1:53:TYR:O	3.57	0.54
26:D4:50:ALA:HB1	26:D4:54:ALA:HB3	3.25	0.54
36:5:240:U:O2'	36:5:241:G:H8	1.89	0.54
67:O1:44:MET:HB2	67:O1:46:THR:HG22	1.90	0.54
14:C2:54:ARG:O	14:C2:56:GLU:N	2.35	0.54
45:L8:45:ASN:OD1	61:N5:26:VAL:HA	2.07	0.54
36:1:735:A:H2'	36:1:736:A:C8	2.42	0.54
76:Q0:112:LYS:NZ	36:5:3107:U:OP2	303.77	0.54
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.42	0.54
1:2:1682:U:O2'	1:2:1683:C:H5'	2.07	0.54
25:D3:57:LEU:HD11	25:D3:73:ARG:HG3	1.90	0.54
36:1:210:U:C2	36:1:230:U:H4'	2.42	0.54
18:C6:66:ARG:NH2	18:C6:68:ARG:HD3	2.23	0.54
36:5:2681:U:O2'	36:5:2682:C:H5'	2.08	0.54
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.07	0.54
53:M7:178:ALA:O	53:M7:182:ILE:HB	2.06	0.54
1:6:653:C:N4	1:6:677:G:H1	2.05	0.54
36:5:1481:A:O4'	36:5:1481:A:OP1	2.24	0.54
51:M5:118:SER:HB3	51:M5:132:VAL:HG22	2.80	0.54
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.40	0.54

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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	0.54
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.07	0.54
1:2:1497:U:OP2	86:2:2030:OHX:N1	2.40	0.54
11:S9:89:ASP:HB2	11:S9:90:LYS:HE2	1.88	0.54
41:L4:321:LYS:HA	41:L4:324:LEU:HB3	2.34	0.54
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.23	0.54
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.06	0.54
45:L8:195:SER:O	45:L8:195:SER:OG	2.25	0.54
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.08	0.54
86:5:4060:OHX:N5	86:5:4136:OHX:N2	2.55	0.54
47:M0:36:LEU:HD11	47:M0:69:ARG:HD3	1.90	0.54
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.33	0.54
36:1:1095:U:H4'	36:1:1096:U:H5''	1.89	0.54
5:S3:40:ARG:HB2	5:S3:47:GLU:HB2	1.88	0.54
62:N6:33:ALA:HB2	62:N6:101:PRO:HB2	2.72	0.54
18:C6:7:VAL:HG21	18:C6:92:TYR:HA	3.67	0.54
1:6:913:G:H3'	1:6:914:G:C5'	2.37	0.54
11:S9:64:GLU:O	11:S9:65:LYS:HB2	2.37	0.54
32:E0:46:ASN:HD21	32:E0:48:THR:HG22	4.39	0.54
24:D2:55:ASP:O	24:D2:57:ARG:N	2.71	0.54
6:S4:98:ASN:ND2	6:S4:116:ASP:OD1	2.78	0.54
7:S5:132:VAL:HG13	7:S5:202:ALA:HB2	1.90	0.54
78:Q2:59:HIS:O	78:Q2:61:LYS:HG2	5.88	0.54
1:2:482:U:H2'	1:2:483:A:H8	1.72	0.54
38:8:106:C:O2'	86:8:230:OHX:N5	2.40	0.54
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.43	0.54
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.24	0.54
36:5:2795:U:O2	36:5:2800:G:O2'	2.17	0.54
1:2:38:C:C2'	1:2:39:A:H5'	2.38	0.54
9:S7:44:LYS:NZ	9:S7:95:GLU:HG2	2.23	0.54
22:D0:70:THR:O	31:D9:40:ARG:NH1	2.87	0.54
1:2:1433:G:N7	31:D9:41:GLN:HG2	2.23	0.54
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	1.89	0.54
1:6:1679:G:N7	86:6:2187:OHX:N3	2.55	0.54
37:3:47:C:H2'	37:3:48:U:C6	2.43	0.54
64:N8:95:SER:OG	64:N8:96:LYS:O	2.23	0.54
78:Q2:38:GLN:NE2	36:5:284:A:OP2	157.72	0.54
37:3:3:U:H2'	37:3:4:U:C6	2.42	0.54
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.42	0.54
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.08	0.54
53:M7:21:TYR:CE2	36:5:402:A:C6	115.94	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:150:GLU:HG3	47:M0:154:ARG:HD2	1.94	0.54
36:5:3065:G:O6	86:5:4099:OHX:N6	2.41	0.54
41:L4:361:HIS:CG	41:L4:362:ASP:H	2.25	0.54
36:1:1277:C:HO2'	36:1:1278:A:H8	1.54	0.54
1:2:286:C:H2'	1:2:287:G:H5'	1.89	0.54
52:M6:18:ARG:NH1	36:5:1314:C:O3'	275.29	0.54
13:C1:79:LYS:CB	1:6:346:G:H5'	281.32	0.54
8:S6:2:LYS:HB3	8:S6:108:VAL:HG22	1.89	0.54
36:5:2568:C:N4	36:5:2574:G:O6	2.41	0.54
48:M1:23:VAL:O	48:M1:25:GLU:N	2.34	0.54
1:2:1776:A:H2'	1:2:1777:G:C8	2.42	0.54
44:L7:137:GLY:HA3	44:L7:236:ILE:HB	2.16	0.54
1:6:357:G:OP2	86:6:2073:OHX:N6	2.39	0.54
1:6:1631:A:OP2	86:6:2166:OHX:N3	2.41	0.54
36:1:3191:G:H5''	52:M6:176:LYS:HE2	1.89	0.54
36:5:1049:C:H2'	36:5:1050:U:H6	1.71	0.54
69:O3:53:TYR:HE1	69:O3:67:MET:HG3	2.40	0.54
1:2:372:G:H1'	1:2:612:U:O2	2.07	0.54
62:N6:35:LEU:HA	62:N6:106:ILE:HB	1.89	0.54
1:2:565:C:O2	86:2:2038:OHX:N5	2.41	0.54
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.07	0.54
40:L3:4:ARG:NH1	40:L3:6:TYR:O	3.04	0.54
50:M4:113:THR:HB	50:M4:116:GLU:H	1.73	0.54
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	2.59	0.54
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.90	0.54
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	2.88	0.54
1:6:542:A:O2'	1:6:543:C:O5'	2.23	0.54
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.40	0.54
68:O2:122:PRO:O	68:O2:123:LYS:HG3	2.60	0.54
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	2.49	0.54
10:S8:89:GLU:O	10:S8:93:THR:HG23	2.39	0.54
56:N0:77:VAL:HG11	56:N0:106:LEU:HG	2.31	0.54
15:C3:54:LEU:HB3	15:C3:60:VAL:HG13	4.16	0.54
11:S9:70:LEU:O	11:S9:74:ASN:HB2	2.07	0.54
40:L3:107:ALA:HA	40:L3:199:PHE:HD2	2.08	0.54
1:2:1670:G:N7	86:2:2122:OHX:N5	2.56	0.54
36:1:213:A:OP1	62:N6:2:ALA:HB2	2.08	0.54
1:2:1015:U:OP1	86:2:2044:OHX:N3	2.41	0.54
38:4:29:U:H5''	49:M3:27:ASP:HB3	1.89	0.54
64:N8:2:PRO:HG2	64:N8:5:PHE:CD2	2.70	0.54
36:5:591:G:N2	36:5:612:U:OP1	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:880:C:OP2	86:6:2107:OHX:N2	2.40	0.54
46:L9:189:GLU:O	46:L9:191:LEU:N	2.38	0.54
36:5:2309:A:H4'	86:5:4192:OHX:N4	2.22	0.54
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	2.49	0.54
13:C1:99:ARG:HB3	25:D3:12:ALA:HB2	3.30	0.54
1:6:333:A:C6	1:6:334:G:C6	2.96	0.54
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.53	0.54
1:2:513:U:H2'	1:2:514:G:C8	2.43	0.54
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	2.27	0.54
1:2:1544:U:H4'	20:C8:132:ARG:NH2	2.23	0.54
1:6:1695:G:H21	1:6:1706:C:N4	2.03	0.54
43:L6:166:LYS:N	43:L6:169:ASP:OD2	2.94	0.54
7:S5:57:SER:OG	7:S5:58:LEU:N	2.88	0.54
3:S1:117:TRP:HE1	3:S1:152:ARG:NE	2.06	0.54
37:3:26:C:H2'	37:3:27:A:O4'	2.08	0.54
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.89	0.54
36:1:3199:G:C2	36:1:3200:G:C8	2.95	0.54
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.53	0.54
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	3.11	0.54
1:2:341:A:H2'	1:2:342:C:H6	1.73	0.54
29:D7:59:CYS:O	29:D7:61:THR:N	2.76	0.54
36:1:3060:C:OP1	86:1:4037:OHX:N4	2.41	0.54
43:L6:134:ARG:NH1	43:L6:134:ARG:HG2	2.22	0.54
1:6:754:A:N6	1:6:793:A:N7	2.55	0.54
36:5:2745:G:N2	36:5:2748:A:OP2	2.41	0.54
34:SR:221:MET:HG3	34:SR:233:THR:HG23	1.89	0.54
4:S2:37:PRO:HA	4:S2:65:GLU:OE1	2.18	0.54
9:S7:185:ILE:HG22	9:S7:186:PRO:HD3	1.90	0.54
39:L2:118:GLU:HG2	39:L2:156:LYS:NZ	2.22	0.54
42:L5:260:PHE:CE2	37:7:121:U:H5'	319.32	0.54
36:5:437:G:N2	36:5:622:A:H61	2.06	0.54
62:N6:45:ILE:HD11	62:N6:122:LYS:HE2	3.99	0.54
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.08	0.54
36:1:13:A:OP2	86:4:240:OHX:N5	2.41	0.54
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	1.90	0.54
10:S8:76:THR:HG23	10:S8:108:PRO:HG2	3.18	0.54
36:5:1307:G:C2	36:5:1308:A:C2	2.96	0.54
1:2:1618:C:O2'	86:2:2165:OHX:N3	2.41	0.54
71:O5:85:THR:HB	71:O5:88:LEU:HD12	1.89	0.54
36:5:3364:C:OP1	86:5:3935:OHX:N1	2.41	0.54
16:C4:42:VAL:HA	16:C4:46:MET:SD	2.48	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:46:ILE:HD11	63:N7:49:TYR:CD2	3.73	0.54
86:1:3937:OHX:N1	86:1:4196:OHX:N2	2.56	0.54
86:1:3937:OHX:N3	86:1:4196:OHX:N6	2.56	0.54
61:N5:114:VAL:HB	75:O9:10:LYS:HZ1	1.73	0.54
36:5:1877:U:H5''	36:5:1878:G:H5'	1.90	0.54
57:N1:14:MET:HE3	57:N1:15:PHE:CE2	3.38	0.54
1:6:826:U:H2'	1:6:827:C:C6	2.42	0.54
86:8:218:OHX:N6	86:8:225:OHX:N3	2.56	0.54
45:L8:45:ASN:HD21	45:L8:47:SER:HB3	1.71	0.54
70:O4:44:CYS:HB3	70:O4:49:SER:H	2.68	0.54
36:5:595:G:N1	36:5:609:G:H5''	2.23	0.54
36:5:173:G:H1'	36:5:174:C:H5'	1.89	0.54
42:L5:242:SER:OG	42:L5:243:ALA:N	2.40	0.54
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.63	0.54
43:L6:19:LYS:O	43:L6:21:THR:N	2.95	0.54
1:6:717:C:H42	1:6:720:G:H1	1.54	0.54
36:5:2676:A:H4'	36:5:2677:G:O5'	2.08	0.54
86:1:3971:OHX:N6	86:1:4155:OHX:N4	2.56	0.54
1:2:705:U:OP1	1:2:705:U:H4'	2.07	0.54
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.43	0.54
1:6:1699:G:N2	1:6:1701:A:H3'	2.20	0.54
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.39	0.54
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.28	0.54
1:2:896:U:O4'	16:C4:38:THR:HG21	2.08	0.54
36:5:286:U:H2'	36:5:287:G:H8	1.72	0.54
1:2:1619:C:H2'	1:2:1620:C:C6	2.43	0.54
39:L2:68:LYS:HE3	39:L2:70:ARG:HG2	1.90	0.54
6:S4:118:GLU:O	6:S4:120:SER:N	3.38	0.54
79:Q3:44:LYS:NZ	36:5:1727:G:OP1	229.62	0.54
40:L3:221:THR:HG22	40:L3:272:TYR:H	2.17	0.54
36:5:145:G:OP1	86:5:4218:OHX:N6	2.41	0.54
14:C2:56:GLU:HB3	14:C2:124:LYS:HE3	1.88	0.54
10:S8:81:VAL:HG21	10:S8:95:THR:O	2.33	0.54
2:S0:119:ARG:HE	4:S2:240:LEU:HD23	2.30	0.54
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.57	0.54
1:2:1144:U:H2'	1:2:1145:U:C6	2.42	0.54
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	1.90	0.54
1:6:1405:G:H2'	1:6:1406:A:C8	2.42	0.54
36:5:1119:C:OP2	86:5:3979:OHX:N2	2.41	0.54
53:M7:17:ALA:HB2	53:M7:98:ALA:HB2	3.22	0.54
36:1:1156:C:OP2	44:L7:94:LYS:NZ	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:29:GLN:HG3	34:SR:32:LEU:HD22	2.71	0.54
25:D3:28:ASN:O	25:D3:32:ARG:HB2	2.08	0.54
31:D9:40:ARG:HG2	31:D9:41:GLN:OE1	2.08	0.53
54:M8:179:ARG:HG3	54:M8:182:LYS:HB2	1.90	0.53
36:5:1940:G:H21	36:5:3362:A:H8	1.56	0.53
39:L2:204:MET:HE3	39:L2:208:ASP:HB3	1.90	0.53
2:S0:79:ARG:NH1	2:S0:164:ASN:O	3.20	0.53
86:2:2030:OHX:N3	86:2:2146:OHX:N1	2.55	0.53
36:1:2767:U:O2'	78:Q2:30:ALA:O	2.26	0.53
1:2:1544:U:OP1	20:C8:136:GLN:NE2	2.41	0.53
1:2:819:G:H22	1:2:853:G:H2'	1.73	0.53
1:2:819:G:O2'	1:2:821:U:OP2	2.16	0.53
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.44	0.53
41:L4:271:LYS:NZ	36:5:695:C:OP1	102.97	0.53
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	3.22	0.53
50:M4:23:ILE:HG22	50:M4:29:ALA:HA	1.89	0.53
36:1:3358:U:H2'	36:1:3359:A:O4'	2.08	0.53
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.40	0.53
40:L3:250:ALA:HB3	36:5:2880:U:H1'	223.73	0.53
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.43	0.53
27:D5:59:TYR:HD2	27:D5:60:VAL:N	2.06	0.53
36:1:3120:C:H3'	76:Q0:111:ARG:HH21	1.73	0.53
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.06	0.53
36:1:2675:C:H42	48:M1:22:SER:HB2	1.73	0.53
14:C2:125:ASN:O	14:C2:127:GLY:N	2.41	0.53
36:1:2989:U:H2'	36:1:2990:G:O4'	2.08	0.53
36:5:2659:G:H4'	36:5:2751:G:O2'	2.08	0.53
13:C1:22:ASN:OD1	13:C1:24:LYS:HB2	2.08	0.53
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	1.99	0.53
6:S4:117:GLU:O	6:S4:119:ALA:N	3.10	0.53
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	1.89	0.53
5:S3:46:THR:N	5:S3:83:THR:O	2.84	0.53
26:D4:20:ARG:HE	26:D4:22:GLN:NE2	3.94	0.53
36:5:1249:G:H2'	36:5:1250:G:C8	2.43	0.53
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	2.65	0.53
64:N8:73:LEU:HD21	64:N8:78:LEU:HA	1.90	0.53
36:1:353:G:N7	73:O7:55:ARG:HD3	2.23	0.53
41:L4:3:ARG:NH1	41:L4:27:SER:OG	2.38	0.53
1:6:138:A:N6	1:6:266:A:H61	2.06	0.53
36:1:289:A:C2	51:M5:93:LYS:HG3	2.44	0.53
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:172:ARG:HH11	36:5:30:G:P	106.76	0.53
77:Q1:9:ARG:NH1	77:Q1:9:ARG:HG3	2.41	0.53
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.37	0.53
36:5:3278:C:O2'	36:5:3279:A:OP2	2.21	0.53
19:C7:71:PHE:CE1	19:C7:74:GLN:HB2	5.08	0.53
10:S8:81:VAL:HA	10:S8:102:VAL:HG12	2.11	0.53
39:L2:241:ARG:HA	36:5:2203:U:H4'	220.10	0.53
1:6:880:C:H2'	1:6:881:A:O4'	2.08	0.53
36:5:3192:U:O4	86:5:4137:OHX:N2	2.41	0.53
1:6:1220:C:H42	1:6:1263:G:H1	1.55	0.53
1:6:886:U:H2'	1:6:887:A:C8	2.43	0.53
1:2:1672:G:H2'	1:2:1673:G:C8	2.44	0.53
61:N5:63:ILE:HD11	61:N5:84:PHE:CD1	2.43	0.53
36:1:2168:A:C6	36:1:2170:U:H1'	2.43	0.53
36:1:1347:U:H4'	41:L4:305:ALA:HB2	1.90	0.53
1:2:778:G:H22	26:D4:10:ARG:NH1	2.07	0.53
53:M7:38:GLY:H	53:M7:114:VAL:HG13	1.84	0.53
1:6:1035:G:O6	86:6:2178:OHX:N5	2.40	0.53
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.27	0.53
68:O2:33:ARG:NH1	36:5:944:C:H4'	160.80	0.53
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	1.96	0.53
86:6:2118:OHX:N2	86:6:2169:OHX:N1	2.56	0.53
86:6:2118:OHX:N6	86:6:2169:OHX:N3	2.56	0.53
27:D5:42:LEU:HD12	27:D5:43:ASP:H	1.72	0.53
36:5:1765:U:H2'	36:5:1766:G:O4'	2.09	0.53
36:5:3121:U:H1'	36:5:3122:A:H5''	1.89	0.53
36:1:1471:U:H2'	36:1:1472:U:C6	2.42	0.53
44:L7:186:HIS:O	44:L7:190:THR:HG23	2.19	0.53
63:N7:14:VAL:HG13	70:O4:86:LYS:HG2	1.90	0.53
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.24	0.53
68:O2:81:ASP:O	68:O2:84:THR:OG1	2.25	0.53
23:D1:62:ARG:HH21	1:6:1082:C:H1'	380.18	0.53
2:S0:88:LYS:HZ1	19:C7:82:ASP:HB3	1.73	0.53
32:E0:55:ARG:HB3	32:E0:55:ARG:NH1	3.98	0.53
52:M6:182:ASN:OD1	52:M6:186:ALA:HB2	4.93	0.53
36:5:2573:G:O6	86:5:4188:OHX:N6	2.40	0.53
1:2:1735:U:O4	86:2:2136:OHX:N2	2.42	0.53
36:1:230:U:H2'	36:1:231:G:O4'	2.08	0.53
7:S5:79:ASN:OD1	7:S5:79:ASN:N	2.41	0.53
48:M1:21:ILE:HG12	48:M1:125:MET:HB3	4.39	0.53
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:51:THR:HG22	4:S2:52:THR:HG23	1.90	0.53
36:5:345:G:O2'	38:8:25:G:N3	2.40	0.53
36:1:1803:C:H2'	36:1:1804:A:C8	2.43	0.53
50:M4:46:ILE:HD13	50:M4:58:ILE:HG21	2.67	0.53
10:S8:23:LYS:NZ	1:6:391:A:OP2	303.88	0.53
36:1:2683:U:H2'	36:1:2684:C:C6	2.43	0.53
36:5:3152:U:O2	86:5:4219:OHX:N5	2.42	0.53
36:1:2222:A:H2'	36:1:2223:A:C8	2.43	0.53
36:1:1841:A:O2'	36:1:1842:A:H5''	2.08	0.53
86:6:2118:OHX:N6	86:6:2169:OHX:N5	2.56	0.53
10:S8:29:LEU:HD12	1:6:400:A:H61	294.47	0.53
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.85	0.53
36:5:2777:G:C8	36:5:2777:G:H5''	2.43	0.53
36:5:284:A:H4'	36:5:285:A:C2	2.43	0.53
42:L5:33:ARG:HH12	42:L5:50:ARG:NH1	2.07	0.53
63:N7:46:ILE:HD13	63:N7:49:TYR:HA	2.87	0.53
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.74	0.53
32:E0:13:LYS:HE3	32:E0:14:VAL:HG23	5.75	0.53
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.86	0.53
36:1:2273:G:N2	36:1:2311:G:H2'	2.23	0.53
63:N7:26:VAL:HG12	63:N7:89:VAL:HG21	2.42	0.53
61:N5:132:ALA:HA	61:N5:135:ILE:HG22	1.89	0.53
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	7.73	0.53
86:5:4060:OHX:N3	86:5:4136:OHX:N4	2.56	0.53
36:1:1014:U:C2'	36:1:1015:U:H5''	2.39	0.53
56:N0:46:GLN:HG2	56:N0:51:VAL:O	2.37	0.53
1:6:1603:U:H2'	1:6:1604:U:C6	2.43	0.53
56:N0:1:MET:HE1	56:N0:32:SER:N	2.24	0.53
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.89	0.53
58:N2:33:TYR:CE1	58:N2:80:THR:HG23	4.77	0.53
38:8:141:C:H2'	38:8:142:C:C6	2.43	0.53
36:5:841:A:H2'	36:5:842:G:C8	2.43	0.53
36:1:2221:G:N2	36:1:2224:A:OP2	2.28	0.53
59:N3:23:MET:SD	59:N3:78:VAL:HG22	3.47	0.53
78:Q2:77:CYS:O	78:Q2:79:THR:HG23	2.09	0.53
3:S1:120:LEU:HG	3:S1:142:PHE:HE1	2.89	0.53
39:L2:217:GLN:NE2	36:5:2146:C:OP1	212.47	0.53
4:S2:230:TRP:CE2	24:D2:68:ARG:HD3	2.92	0.53
41:L4:26:PHE:HA	41:L4:127:ALA:HA	2.02	0.53
36:5:990:U:O4	86:5:4178:OHX:N6	2.42	0.53
1:6:1160:A:H2'	1:6:1161:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:35:ASP:OD1	30:D8:37:SER:HB3	6.54	0.53
36:1:1246:G:H8	36:1:1246:G:OP1	1.92	0.53
36:1:2282:U:O2	36:1:2310:U:H4'	2.09	0.53
36:1:677:A:H4'	36:1:678:G:O5'	2.08	0.53
14:C2:119:SER:OG	14:C2:120:VAL:N	2.41	0.53
67:O1:57:GLN:OE1	36:5:1474:A:O2'	142.19	0.53
36:1:2376:G:H2'	36:1:2377:G:C8	2.44	0.53
36:1:1712:G:N1	36:1:1731:A:OP2	2.40	0.53
40:L3:163:HIS:ND1	40:L3:164:THR:O	2.41	0.53
1:2:625:C:H2'	1:2:626:U:C6	2.42	0.53
51:M5:112:ASN:OD1	38:8:141:C:H1'	103.68	0.53
36:1:1662:G:O6	86:1:3884:OHX:N2	2.42	0.53
36:1:2264:U:OP2	86:1:3985:OHX:N5	2.41	0.53
1:6:1432:U:H4'	1:6:1433:G:H5''	1.89	0.53
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.44	0.53
36:1:1296:C:OP1	56:N0:84:ARG:NH2	2.40	0.53
36:1:8:C:H2'	36:1:9:U:O4'	2.08	0.53
7:S5:225:ARG:NH1	30:D8:58:GLU:OE1	5.61	0.53
47:M0:48:LEU:HA	47:M0:178:ARG:HH12	1.74	0.53
36:1:1222:G:O2'	36:1:1285:G:N1	2.24	0.53
33:E1:144:CYS:O	33:E1:146:SER:N	2.41	0.53
36:1:2732:G:OP2	86:1:4201:OHX:N5	2.42	0.53
59:N3:120:LYS:N	59:N3:137:VAL:HG23	2.23	0.53
5:S3:44:THR:HG22	5:S3:45:LYS:HG3	1.89	0.53
34:SR:293:ALA:O	34:SR:301:LEU:HD12	2.94	0.53
12:C0:47:GLN:O	1:6:1219:A:O2'	433.62	0.53
42:L5:64:ILE:HD12	42:L5:105:ILE:HD12	1.90	0.53
57:N1:78:LYS:HE3	36:5:2728:G:O6	217.49	0.53
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	2.37	0.53
45:L8:63:LYS:O	45:L8:67:ILE:HG12	3.87	0.53
70:O4:102:LYS:HB3	70:O4:103:LYS:HE3	2.53	0.53
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	3.98	0.53
36:1:770:G:O6	86:1:4093:OHX:N6	2.42	0.53
34:SR:74:THR:HG23	34:SR:79:TYR:HB2	1.90	0.53
36:5:1944:U:H2'	36:5:1945:A:C8	2.42	0.53
20:C8:62:THR:N	20:C8:65:GLU:OE1	2.37	0.53
1:2:1147:A:H2'	1:2:1148:C:H6	1.73	0.53
47:M0:20:SER:H	47:M0:23:ASN:HB3	1.73	0.53
1:6:1058:U:H4'	1:6:1059:U:OP1	2.08	0.53
48:M1:8:PRO:CG	48:M1:9:MET:H	2.70	0.53
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.53	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	2.73	0.53
36:1:1216:C:H6	36:1:1216:C:H5''	1.74	0.53
1:6:482:U:H3	1:6:505:A:H61	1.57	0.53
36:1:3335:A:C2	36:1:3336:A:C4	2.96	0.53
36:5:1781:C:H2'	36:5:1782:U:C6	2.44	0.53
60:N4:63:ILE:O	60:N4:65:GLU:N	2.51	0.53
37:3:121:U:H5''	42:L5:265:TYR:HE1	1.72	0.53
18:C6:115:THR:O	18:C6:117:LEU:N	3.34	0.53
28:D6:36:ILE:HG23	28:D6:73:TYR:HB2	1.89	0.53
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.10	0.53
1:2:700:C:H42	1:2:738:G:H1	1.55	0.53
5:S3:116:ARG:HG2	35:SM:123:ALA:HB3	9.05	0.53
26:D4:54:ALA:HB2	26:D4:79:VAL:HG22	1.91	0.53
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.39	0.53
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.09	0.53
35:SM:64:LYS:O	35:SM:66:ALA:N	3.28	0.53
86:8:218:OHX:N2	86:8:225:OHX:N4	2.56	0.53
39:L2:38:HIS:HE1	36:5:2526:C:OP1	201.49	0.53
44:L7:83:LEU:HD11	44:L7:116:PHE:CD1	2.43	0.53
49:M3:87:ALA:O	49:M3:91:ARG:HG2	2.08	0.53
1:6:649:U:H2'	1:6:650:U:H5	1.71	0.53
32:E0:48:THR:OG1	32:E0:49:LEU:N	2.97	0.53
46:L9:41:ILE:HD13	46:L9:41:ILE:O	2.09	0.53
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.29	0.53
36:5:1806:A:H2'	36:5:1807:G:O4'	2.09	0.53
25:D3:137:LYS:O	25:D3:138:GLU:HB2	2.07	0.53
75:O9:7:PHE:HB3	38:8:113:U:H5''	107.76	0.53
1:6:1469:A:H2'	1:6:1470:C:C6	2.44	0.53
36:1:650:C:H2'	36:1:651:G:C8	2.44	0.53
36:5:2267:C:H2'	36:5:2268:U:C6	2.44	0.53
41:L4:93:MET:H	41:L4:93:MET:HE2	2.06	0.53
36:5:2211:U:OP2	86:5:4216:OHX:N1	2.41	0.53
28:D6:79:ILE:HA	28:D6:84:VAL:HG11	1.90	0.53
24:D2:96:ALA:HB1	24:D2:98:GLN:HE21	2.65	0.53
12:C0:15:LEU:HD22	12:C0:68:LEU:HD13	4.35	0.53
1:2:1291:G:N2	1:2:1324:G:N2	2.53	0.53
40:L3:3:HIS:ND1	40:L3:3:HIS:O	2.42	0.53
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.48	0.53
36:1:2444:C:H3'	36:1:2445:A:H5''	1.91	0.53
86:1:3937:OHX:N1	86:1:4196:OHX:N4	2.56	0.53
66:O0:36:GLN:HG2	66:O0:38:LYS:HE2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2247:G:OP1	86:1:3880:OHX:N3	2.42	0.53
74:O8:17:ARG:NH2	36:5:1824:U:O3'	137.43	0.53
56:N0:171:PHE:O	56:N0:172:TYR:C	4.12	0.53
36:5:209:A:H4'	36:5:211:A:C8	2.44	0.53
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.90	0.53
45:L8:84:ARG:H	45:L8:84:ARG:HE	1.56	0.53
69:O3:73:ARG:HG3	69:O3:82:ARG:HD2	3.51	0.53
1:6:15:U:H2'	1:6:16:G:O4'	2.09	0.53
1:2:1402:G:OP1	19:C7:10:LYS:NZ	2.41	0.53
36:1:986:U:H2'	36:1:987:U:H6	1.73	0.53
36:5:2889:C:H42	36:5:2914:G:H1	1.57	0.53
6:S4:211:LYS:HA	6:S4:216:ASN:O	2.09	0.53
1:6:1297:G:N2	1:6:1300:A:OP2	2.38	0.53
36:5:1404:G:N2	36:5:1407:A:OP2	2.35	0.53
36:5:655:C:H2'	36:5:656:A:C8	2.44	0.53
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.23	0.53
1:2:1600:A:O2'	1:2:1602:C:N4	2.42	0.53
47:M0:177:ASP:OD2	47:M0:177:ASP:N	3.76	0.53
41:L4:283:THR:HB	41:L4:285:ASP:H	1.74	0.53
28:D6:5:ARG:NH2	1:6:1793:G:O2'	334.74	0.53
64:N8:75:LEU:HD12	64:N8:137:LYS:HD2	2.49	0.53
36:1:2407:C:H1'	36:1:2818:U:O2	2.09	0.53
19:C7:33:ARG:NH2	34:SR:109:ASP:OD2	2.93	0.53
36:1:31:C:H4'	51:M5:96:ARG:HD2	1.91	0.53
5:S3:69:LEU:O	5:S3:73:VAL:HG23	2.09	0.53
23:D1:28:ASP:HB3	23:D1:31:SER:HB3	4.39	0.53
36:5:1597:C:H2'	36:5:1598:G:H8	1.74	0.53
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.17	0.53
23:D1:32:VAL:HB	23:D1:60:ARG:HD3	1.89	0.53
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.08	0.53
86:8:218:OHX:N6	86:8:225:OHX:N4	2.56	0.53
36:1:2376:G:C6	36:1:2377:G:C6	2.97	0.53
48:M1:155:THR:HG23	48:M1:158:ASP:HB2	1.91	0.53
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.46	0.53
36:1:597:G:H2'	36:1:598:A:H8	1.74	0.53
3:S1:147:ALA:O	3:S1:148:ASN:HB3	2.09	0.53
1:2:1665:U:O4	86:2:2136:OHX:N4	2.41	0.53
1:6:640:U:H2'	1:6:641:G:C8	2.44	0.53
21:C9:25:GLN:HG3	21:C9:27:LYS:HG3	3.70	0.53
34:SR:274:LEU:O	34:SR:276:PRO:HD3	3.34	0.53
6:S4:86:PHE:CD1	6:S4:87:MET:HG2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2093:A:O2'	36:5:2094:C:O4'	2.20	0.53
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.41	0.53
53:M7:27:LYS:HG2	53:M7:63:PHE:CG	2.44	0.53
1:6:921:U:O4	86:6:2177:OHX:N3	2.42	0.53
20:C8:126:ARG:NE	20:C8:131:LEU:HD12	3.56	0.53
1:6:1022:C:H4'	1:6:1124:A:H61	1.74	0.53
62:N6:69:LYS:O	62:N6:83:ASP:N	2.71	0.53
1:2:1201:G:N2	1:2:1600:A:H5'	2.24	0.53
1:6:83:G:N7	86:6:2096:OHX:N1	2.56	0.53
4:S2:226:THR:OG1	4:S2:228:ASN:OD1	2.21	0.53
12:C0:16:PHE:HD2	12:C0:76:LEU:HB2	1.74	0.53
1:2:169:A:OP1	8:S6:137:ARG:HG3	2.08	0.53
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.31	0.53
1:6:1202:A:OP1	86:6:2128:OHX:N1	2.42	0.53
37:3:5:G:OP2	42:L5:27:LYS:NZ	2.40	0.53
36:1:3166:C:H2'	36:1:3167:A:O4'	2.09	0.53
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.90	0.53
63:N7:121:ARG:HB3	63:N7:131:PHE:HZ	2.42	0.53
13:C1:73:GLY:HA3	13:C1:86:ILE:HD12	1.90	0.53
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.91	0.53
52:M6:133:ARG:HD2	36:5:1315:U:O2'	290.78	0.53
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.43	0.53
36:5:2767:U:H2'	36:5:2768:U:C6	2.44	0.53
67:O1:20:LEU:HD11	67:O1:32:ALA:HB2	1.91	0.53
38:4:154:C:O2'	45:L8:185:ARG:HG3	2.08	0.53
36:5:1049:C:H2'	36:5:1050:U:C6	2.44	0.53
36:5:3192:U:O4	86:5:4137:OHX:N6	2.42	0.53
36:1:1760:A:N7	36:1:1761:C:N4	2.57	0.53
36:1:44:U:OP1	51:M5:84:PRO:HG2	2.09	0.53
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.09	0.53
38:8:59:A:H4'	38:8:60:U:H5''	1.91	0.53
45:L8:118:GLU:O	45:L8:120:LYS:N	2.42	0.53
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	1.91	0.53
29:D7:36:LYS:HG2	29:D7:43:ILE:HG21	1.91	0.53
41:L4:6:VAL:HG21	41:L4:255:PHE:CZ	2.44	0.53
2:S0:123:VAL:HG11	2:S0:133:ILE:HD11	1.91	0.53
36:1:2948:C:O2'	40:L3:242:THR:HG22	2.09	0.53
1:2:274:G:H3'	1:2:275:C:C6	2.44	0.52
36:1:662:U:OP1	64:N8:8:THR:HG21	2.08	0.52
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.24	0.52
1:2:327:U:O2'	13:C1:10:GLU:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:702:G:O2'	1:2:703:G:O4'	2.26	0.52
36:5:1733:G:H2'	36:5:1734:G:H8	1.73	0.52
71:O5:28:LEU:HD11	71:O5:48:ARG:NH1	6.27	0.52
7:S5:30:PRO:HB2	7:S5:33:VAL:HB	2.19	0.52
36:1:2707:C:H2'	36:1:2708:C:H6	1.73	0.52
47:M0:75:TYR:CE1	47:M0:150:GLU:HB3	2.82	0.52
1:2:511:A:H5'	11:S9:173:ALA:HB2	1.91	0.52
61:N5:135:ILE:O	61:N5:139:ILE:HG22	2.08	0.52
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.59	0.52
34:SR:176:LYS:HB3	34:SR:195:HIS:O	2.09	0.52
1:2:624:G:OP2	86:2:2157:OHX:N2	2.42	0.52
19:C7:107:SER:O	19:C7:110:VAL:HG23	2.74	0.52
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	1.90	0.52
63:N7:4:PHE:HE2	66:O0:63:SER:HB3	2.46	0.52
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.45	0.52
36:5:1784:G:H2'	36:5:1785:U:O4'	2.09	0.52
36:5:252:U:H4'	36:5:253:A:C5'	2.40	0.52
14:C2:125:ASN:C	14:C2:127:GLY:H	2.11	0.52
64:N8:22:ILE:HD13	36:5:1114:U:H5''	191.54	0.52
38:8:6:U:H2'	38:8:7:U:C6	2.45	0.52
38:4:24:G:OP2	62:N6:13:ARG:HD3	2.09	0.52
10:S8:104:ILE:O	10:S8:164:ARG:HA	4.79	0.52
36:1:1405:U:OP2	68:O2:59:SER:OG	2.27	0.52
88:1:4212:3L2:H22	88:1:4212:3L2:O5	2.08	0.52
1:2:793:A:H5''	1:2:794:U:C5	2.43	0.52
36:1:627:U:H2'	36:1:628:A:C8	2.44	0.52
52:M6:39:GLU:N	52:M6:39:GLU:OE1	2.32	0.52
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.58	0.52
1:2:635:A:H2'	1:2:636:A:H8	1.74	0.52
1:2:850:A:H5'	55:M9:165:LYS:HG2	1.91	0.52
21:C9:72:GLY:HA3	1:6:1498:G:H5''	419.16	0.52
1:2:912:U:H5'	1:2:913:G:H8	1.72	0.52
1:2:66:U:C5	8:S6:173:PRO:HG3	2.43	0.52
46:L9:49:ASN:O	46:L9:52:LEU:N	2.40	0.52
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.13	0.52
47:M0:142:ASP:OD2	47:M0:178:ARG:NH2	3.13	0.52
16:C4:23:PHE:CE2	16:C4:91:THR:HG21	2.36	0.52
41:L4:269:SER:C	41:L4:271:LYS:H	2.12	0.52
1:2:443:C:OP2	26:D4:105:ARG:HB3	2.09	0.52
23:D1:60:ARG:HA	23:D1:65:SER:HB2	1.93	0.52
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	2.80	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2427:U:H2'	36:1:2428:U:C6	2.44	0.52
24:D2:50:PHE:HB2	24:D2:63:VAL:HG22	2.95	0.52
56:N0:26:ARG:HB3	57:N1:150:THR:HG22	4.60	0.52
61:N5:132:ALA:O	61:N5:135:ILE:HG22	2.10	0.52
74:O8:64:LYS:HG3	74:O8:65:LEU:N	4.79	0.52
1:2:498:G:O2'	1:2:499:U:O5'	2.19	0.52
36:1:2754:G:OP2	86:1:4005:OHX:N6	2.42	0.52
45:L8:45:ASN:ND2	45:L8:47:SER:HB3	2.23	0.52
49:M3:50:PRO:HB3	49:M3:138:VAL:O	2.34	0.52
36:5:3241:G:H2'	36:5:3245:A:C8	2.44	0.52
11:S9:57:ARG:HG3	11:S9:97:LEU:HD21	1.92	0.52
40:L3:167:ARG:O	86:L3:404:OHX:N5	6.02	0.52
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.40	0.52
72:O6:56:ARG:O	72:O6:60:LEU:HB2	2.09	0.52
39:L2:200:ARG:O	39:L2:202:VAL:N	2.41	0.52
47:M0:20:SER:OG	47:M0:21:ARG:N	2.36	0.52
36:5:1808:G:O6	86:5:4018:OHX:N3	2.42	0.52
1:2:1754:A:H4'	1:2:1755:A:O4'	2.09	0.52
1:6:970:A:H2'	1:6:971:A:H5'	1.91	0.52
38:4:131:A:H5"	61:N5:93:TYR:CE2	2.45	0.52
1:2:1039:A:O2'	1:2:1040:G:OP2	2.21	0.52
46:L9:103:ILE:HD12	46:L9:136:PHE:HE2	4.12	0.52
59:N3:36:ILE:HG23	59:N3:58:VAL:HB	2.03	0.52
42:L5:114:GLY:O	42:L5:116:ASP:N	2.36	0.52
48:M1:80:LEU:HD22	48:M1:84:LEU:HG	1.91	0.52
27:D5:81:ARG:HB2	27:D5:81:ARG:HH11	4.37	0.52
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.09	0.52
63:N7:28:PRO:O	63:N7:30:ASP:N	3.82	0.52
58:N2:28:PHE:HE1	58:N2:83:TYR:HE2	2.16	0.52
28:D6:26:CYS:SG	28:D6:74:CYS:SG	3.53	0.52
36:1:3049:A:OP2	86:1:4180:OHX:N3	2.42	0.52
1:2:1785:U:H2'	1:2:1786:G:H8	1.74	0.52
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.43	0.52
78:Q2:29:LYS:HG2	78:Q2:30:ALA:H	1.73	0.52
11:S9:88:GLU:HG3	11:S9:91:LYS:NZ	2.24	0.52
4:S2:41:LEU:HD12	4:S2:68:ILE:HD13	1.90	0.52
4:S2:41:LEU:O	4:S2:45:VAL:HG23	2.49	0.52
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.43	0.52
5:S3:142:LEU:H	5:S3:142:LEU:HD22	5.41	0.52
70:O4:85:VAL:HA	70:O4:88:ARG:HB3	4.19	0.52
67:O1:43:HIS:O	67:O1:44:MET:HE2	4.64	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2532:U:H3	36:1:2547:A:H61	1.55	0.52
1:2:901:G:N2	16:C4:54:GLU:OE1	2.42	0.52
38:4:133:G:O6	86:4:231:OHX:N5	2.42	0.52
34:SR:29:GLN:HG3	34:SR:32:LEU:HB3	1.90	0.52
29:D7:36:LYS:O	29:D7:77:THR:HG22	2.78	0.52
41:L4:13:GLY:O	41:L4:14:GLU:HG2	4.81	0.52
36:1:1615:C:OP1	86:1:4178:OHX:N3	2.42	0.52
45:L8:215:VAL:O	45:L8:219:ASP:HB2	2.81	0.52
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.09	0.52
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.90	0.52
36:5:2944:U:H5''	36:5:2945:G:OP2	2.09	0.52
53:M7:126:ARG:HD2	53:M7:140:GLU:OE2	2.10	0.52
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	1.90	0.52
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.09	0.52
1:2:1615:C:H4'	1:2:1616:G:O5'	2.09	0.52
36:1:1217:A:H5''	36:1:1217:A:H8	1.74	0.52
22:D0:33:GLN:N	22:D0:33:GLN:OE1	2.42	0.52
41:L4:209:TYR:CZ	41:L4:229:ASN:HB2	2.45	0.52
9:S7:12:ALA:HB3	9:S7:13:PRO:HD3	1.91	0.52
28:D6:18:VAL:HG21	28:D6:33:ASP:OD1	2.08	0.52
21:C9:122:ARG:NH1	1:6:1499:G:OP1	419.78	0.52
1:6:168:A:H2'	1:6:169:A:C8	2.44	0.52
55:M9:168:ALA:HB1	55:M9:172:ARG:CZ	2.38	0.52
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.09	0.52
1:6:1413:U:O2'	1:6:1416:G:OP1	2.18	0.52
36:1:2103:U:OP2	55:M9:88:ARG:NH2	2.35	0.52
36:1:2273:G:N7	86:1:4137:OHX:N5	2.57	0.52
45:L8:36:ILE:O	45:L8:38:GLN:N	2.41	0.52
11:S9:168:ARG:HD3	11:S9:171:ARG:HH11	1.73	0.52
11:S9:171:ARG:HE	11:S9:174:ARG:CB	5.06	0.52
7:S5:117:THR:HG21	7:S5:194:LEU:HD13	3.08	0.52
11:S9:55:ALA:O	11:S9:59:LEU:HG	2.09	0.52
86:2:2043:OHX:N4	86:2:2098:OHX:N6	2.58	0.52
9:S7:173:TYR:HE1	9:S7:179:LYS:HB2	2.01	0.52
36:1:1064:A:H4'	36:1:1065:A:O5'	2.09	0.52
2:S0:88:LYS:HD2	2:S0:88:LYS:N	2.23	0.52
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	1.91	0.52
52:M6:182:ASN:HD21	52:M6:186:ALA:HB2	7.28	0.52
36:5:1725:C:H2'	36:5:1726:C:H6	1.74	0.52
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.10	0.52
24:D2:113:HIS:HA	24:D2:116:ALA:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:207:LEU:HD23	6:S4:221:ARG:HA	2.98	0.52
1:6:1267:G:H2'	1:6:1268:G:C8	2.44	0.52
16:C4:120:PRO:HB2	1:6:887:A:H5''	282.29	0.52
1:6:1592:A:H2'	1:6:1593:A:C8	2.43	0.52
36:1:1577:G:H2'	36:1:1578:C:O4'	2.09	0.52
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.09	0.52
36:5:701:G:H2'	36:5:702:C:C6	2.44	0.52
25:D3:22:ASN:O	1:6:609:U:H5	335.50	0.52
26:D4:106:GLN:HA	26:D4:109:LYS:HD2	1.89	0.52
36:1:45:A:O2'	36:1:95:A:N1	2.36	0.52
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.39	0.52
9:S7:144:VAL:HA	24:D2:42:GLN:NE2	2.25	0.52
56:N0:9:VAL:HG22	56:N0:61:ILE:HD13	1.91	0.52
1:6:1182:U:H3	1:6:1185:U:H5''	1.73	0.52
1:2:322:G:OP1	86:2:2090:OHX:N4	2.41	0.52
5:S3:215:GLU:N	5:S3:215:GLU:OE2	2.41	0.52
36:5:3006:A:H2'	36:5:3007:U:O4'	2.09	0.52
36:5:2537:U:O2'	36:5:2538:U:O4'	2.22	0.52
36:1:1639:C:H5'	70:O4:52:GLN:HG3	1.92	0.52
86:6:2118:OHX:N4	86:6:2169:OHX:N3	2.57	0.52
36:5:410:U:O4	86:5:4096:OHX:N3	2.42	0.52
43:L6:63:LEU:HB2	43:L6:79:VAL:HG12	1.91	0.52
62:N6:40:ARG:HG2	62:N6:45:ILE:O	2.10	0.52
2:S0:180:GLU:O	2:S0:184:LEU:HD23	2.09	0.52
38:8:85:G:H8	38:8:85:G:OP2	1.93	0.52
36:1:1170:A:OP2	86:1:3957:OHX:N3	2.43	0.52
36:1:1307:G:C4	52:M6:60:LYS:HD3	2.45	0.52
7:S5:57:SER:OG	7:S5:167:ARG:NH2	2.43	0.52
5:S3:90:ARG:HH22	5:S3:94:ARG:HE	10.51	0.52
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.90	0.52
1:2:159:U:H5'	26:D4:117:LYS:HB3	1.91	0.52
5:S3:70:THR:HG22	5:S3:86:LEU:HD13	2.00	0.52
1:6:829:A:H61	1:6:843:U:H3	1.58	0.52
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.42	0.52
49:M3:59:ARG:HD3	36:5:73:C:O2	91.80	0.52
45:L8:202:GLU:O	45:L8:203:VAL:HB	2.79	0.52
11:S9:102:GLU:CD	11:S9:102:GLU:H	2.96	0.52
36:1:2820:A:C4	88:1:4212:3L2:H12	2.45	0.52
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.43	0.52
13:C1:83:THR:HG21	1:6:325:G:H4'	288.67	0.52
36:5:392:G:O6	86:5:4061:OHX:N3	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:92:ILE:O	15:C3:96:VAL:HG23	2.09	0.52
75:O9:27:ILE:HD13	38:8:52:A:H62	78.12	0.52
36:5:2953:U:H2'	36:5:2954:U:H2'	1.91	0.52
58:N2:29:ASP:OD1	58:N2:31:ALA:HB3	2.09	0.52
36:5:917:A:OP2	86:5:4217:OHX:N3	2.43	0.52
7:S5:133:VAL:HA	7:S5:198:LEU:HD22	1.97	0.52
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.91	0.52
1:6:1271:G:H2'	1:6:1272:U:O4'	2.10	0.52
28:D6:41:ILE:HD13	28:D6:41:ILE:H	1.74	0.52
62:N6:62:SER:HB2	36:5:218:G:O6	84.34	0.52
45:L8:94:PHE:HB3	45:L8:189:LEU:HD21	3.54	0.52
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HD3	1.92	0.52
36:1:197:G:N2	36:1:372:A:C8	2.77	0.52
36:1:1273:A:O2'	36:1:1274:A:OP1	2.25	0.52
11:S9:27:GLU:OE1	11:S9:39:LYS:NZ	2.64	0.52
39:L2:5:ILE:HG12	39:L2:8:GLN:HG3	1.93	0.52
1:6:488:G:N2	1:6:499:U:H3	2.07	0.52
1:6:595:G:OP2	86:6:2101:OHX:N6	2.43	0.52
57:N1:130:ARG:O	36:5:1098:A:O2'	255.47	0.52
4:S2:53:ILE:HG13	4:S2:72:LEU:HG	4.64	0.52
86:1:3937:OHX:N5	86:1:4196:OHX:N2	2.58	0.52
44:L7:89:ILE:HD12	44:L7:214:TRP:CZ3	2.45	0.52
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.51	0.52
36:1:2364:G:N2	36:1:2396:G:O2'	2.42	0.52
2:S0:88:LYS:NZ	19:C7:82:ASP:HB3	2.25	0.52
36:5:3316:A:H5''	36:5:3318:G:N2	2.25	0.52
7:S5:220:VAL:HA	7:S5:223:SER:HB3	1.90	0.52
1:6:961:U:H2'	1:6:962:C:H6	1.74	0.52
51:M5:118:SER:HB3	51:M5:132:VAL:HG13	1.91	0.52
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.43	0.52
36:5:2626:A:C4	36:5:2644:C:H5'	2.44	0.52
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.10	0.52
1:2:9:U:O4	86:2:2155:OHX:N6	2.43	0.52
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	1.91	0.52
58:N2:27:VAL:HG21	58:N2:107:PHE:HE1	1.75	0.52
6:S4:180:LEU:N	6:S4:229:GLY:O	2.88	0.52
36:5:1927:G:N2	36:5:1928:G:C8	2.78	0.52
36:1:507:U:O2'	36:1:1166:G:H4'	2.10	0.52
1:6:463:U:OP1	86:6:2202:OHX:N1	2.43	0.52
36:1:352:A:H61	36:1:365:A:H5''	1.74	0.52
43:L6:14:ASP:N	43:L6:14:ASP:OD2	4.05	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:356:C:OP2	86:5:4202:OHX:N2	2.43	0.52
1:6:209:U:H2'	1:6:210:A:C8	2.44	0.52
36:5:1013:G:H2'	36:5:1014:U:O4'	2.09	0.52
38:8:15:G:C6	38:8:16:G:N1	2.78	0.52
20:C8:41:ARG:O	20:C8:44:ASN:HB3	2.49	0.52
11:S9:157:ASP:OD1	11:S9:158:PHE:N	3.94	0.52
51:M5:178:HIS:HD2	36:5:304:G:C6	123.22	0.52
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.60	0.52
56:N0:115:ARG:NH2	36:5:1320:C:O2	288.25	0.52
51:M5:91:GLU:O	51:M5:93:LYS:HE3	2.09	0.52
53:M7:128:ARG:HG2	53:M7:136:ILE:HG21	4.65	0.52
7:S5:29:ILE:HG22	7:S5:34:GLN:HG3	1.92	0.52
17:C5:99:GLY:O	1:6:1211:A:H1'	374.60	0.52
49:M3:180:ARG:HH22	36:5:2780:A:H4'	129.67	0.52
48:M1:139:THR:HG22	48:M1:146:GLY:O	2.11	0.52
13:C1:108:PRO:HG3	13:C1:134:THR:HB	2.45	0.52
63:N7:2:ALA:N	66:O0:63:SER:HA	2.24	0.52
39:L2:213:GLY:HA3	36:5:2967:A:OP1	207.64	0.52
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.28	0.52
37:3:20:A:C4	37:3:60:G:N2	2.78	0.52
36:5:3132:C:H2'	36:5:3133:C:C6	2.44	0.52
36:1:715:A:OP2	64:N8:113:LEU:HB3	2.10	0.52
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.54	0.52
26:D4:10:ARG:HD2	1:6:778:G:O6	428.92	0.52
13:C1:83:THR:HA	13:C1:111:VAL:HG12	1.91	0.52
46:L9:174:LYS:HB2	76:Q0:127:LEU:HD11	1.91	0.52
36:5:879:U:O2	36:5:2357:A:H1'	2.10	0.52
6:S4:208:VAL:HG11	6:S4:225:VAL:HG21	1.92	0.52
1:6:1500:C:H2'	1:6:1501:C:H6	1.74	0.52
36:5:430:U:H2'	36:5:431:U:O4'	2.10	0.52
36:5:1258:U:O2	36:5:1260:A:H8	1.92	0.52
6:S4:166:SER:O	6:S4:168:LYS:HG2	5.03	0.52
1:6:1071:U:H2'	1:6:1072:C:C6	2.44	0.52
43:L6:29:LYS:O	86:5:3896:OHX:N2	265.29	0.52
1:2:883:C:H2'	1:2:884:A:H8	1.74	0.52
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.24	0.52
32:E0:42:ARG:HB3	32:E0:42:ARG:HH11	1.75	0.52
36:5:2837:A:H8	36:5:2837:A:OP2	1.93	0.52
44:L7:55:TYR:O	44:L7:57:THR:N	3.47	0.52
49:M3:131:LYS:HE2	49:M3:131:LYS:H	1.75	0.52
1:2:826:U:H2'	1:2:827:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1186:U:OP2	1:2:1456:C:H1'	2.09	0.52
46:L9:9:GLN:O	46:L9:72:LYS:NZ	2.57	0.52
36:1:2534:G:H2'	36:1:2535:A:H8	1.74	0.52
18:C6:109:PHE:O	18:C6:113:ASP:N	2.43	0.52
74:O8:5:ILE:HD11	74:O8:10:GLN:NE2	2.51	0.52
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	4.73	0.52
36:5:2818:U:C6	36:5:2818:U:H5'	2.36	0.52
86:1:3957:OHX:N4	44:L7:217:PRO:HA	2.24	0.52
86:6:2058:OHX:N2	86:6:2145:OHX:N4	2.57	0.52
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.91	0.52
7:S5:69:PHE:CE2	18:C6:53:LEU:HD12	2.44	0.52
39:L2:174:ARG:NH2	36:5:2179:C:O2'	213.80	0.52
52:M6:88:VAL:O	52:M6:90:HIS:N	2.42	0.52
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.75	0.52
63:N7:10:VAL:O	63:N7:83:THR:HG22	2.10	0.52
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.44	0.52
36:1:3317:U:H4'	36:1:3318:G:O5'	2.09	0.52
36:5:1688:U:H2'	36:5:1689:U:C6	2.44	0.52
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.31	0.52
2:S0:193:GLN:O	2:S0:195:TRP:N	2.43	0.52
2:S0:135:GLU:O	2:S0:138:TYR:HB2	2.29	0.52
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.75	0.52
9:S7:46:ILE:HG12	9:S7:60:ILE:HG23	2.23	0.52
44:L7:165:ASP:O	44:L7:168:ILE:HG13	2.10	0.52
58:N2:22:PRO:HG3	58:N2:105:LEU:HB3	1.92	0.52
36:5:3107:U:H2'	36:5:3108:G:H8	1.74	0.52
40:L3:81:THR:O	40:L3:81:THR:CG2	3.15	0.52
36:1:65:A:H3'	36:1:111:C:N4	2.24	0.52
11:S9:135:ALA:HA	11:S9:139:GLN:O	3.35	0.52
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.91	0.52
36:1:1176:C:P	52:M6:25:LYS:HE2	2.50	0.52
42:L5:233:ALA:O	42:L5:235:SER:N	2.43	0.52
36:5:312:C:O5'	36:5:312:C:H6	1.93	0.52
55:M9:6:THR:HG23	55:M9:9:ARG:NH1	4.49	0.52
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.91	0.52
73:O7:72:ARG:O	73:O7:75:LYS:HB3	2.20	0.52
1:2:1498:G:OP1	21:C9:75:LYS:HD3	2.10	0.52
50:M4:113:THR:HG22	50:M4:115:PHE:N	2.36	0.52
76:Q0:78:ILE:HG23	76:Q0:83:LYS:HB2	1.92	0.52
15:C3:29:SER:OG	15:C3:32:SER:OG	2.20	0.52
36:1:1278:A:HO2'	36:1:1279:C:H6	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:36:LEU:O	54:M8:40:THR:OG1	2.19	0.52
48:M1:11:ASP:O	48:M1:12:LEU:HB3	4.49	0.52
9:S7:117:THR:OG1	1:6:639:U:OP1	363.01	0.52
4:S2:174:ARG:O	11:S9:53:ARG:NH2	2.66	0.52
56:N0:155:ARG:NH1	36:5:3206:C:O2	309.53	0.52
1:6:947:U:H2'	1:6:948:G:C8	2.45	0.52
36:1:2676:A:N1	48:M1:22:SER:HB3	2.25	0.52
38:8:142:C:H2'	38:8:143:U:C6	2.45	0.52
56:N0:84:ARG:HG3	36:5:1295:G:OP1	293.67	0.52
36:1:2973:G:N7	86:1:4096:OHX:N2	2.58	0.52
1:2:935:U:O2	86:2:2123:OHX:N5	2.42	0.52
42:L5:176:SER:OG	36:5:2747:A:OP1	243.07	0.52
48:M1:105:GLY:HA3	36:5:2674:A:H5''	331.75	0.52
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.92	0.52
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.44	0.52
55:M9:159:ALA:HB2	55:M9:162:ARG:HH22	1.75	0.52
68:O2:33:ARG:HH11	36:5:944:C:H4'	160.81	0.52
3:S1:144:ARG:HG3	3:S1:145:LYS:O	2.79	0.52
28:D6:12:LYS:HE2	28:D6:16:GLY:N	2.84	0.52
36:1:1588:A:C6	75:O9:4:GLN:HG2	2.44	0.52
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	1.96	0.52
37:7:4:U:H2'	37:7:5:G:C8	2.45	0.52
48:M1:143:ARG:HG2	48:M1:144:CYS:SG	2.50	0.52
7:S5:59:VAL:C	7:S5:61:TYR:H	2.41	0.52
45:L8:241:LYS:HD3	36:5:2586:G:C8	183.35	0.52
36:5:993:G:OP1	86:5:3903:OHX:N6	2.43	0.52
39:L2:56:ALA:HB2	39:L2:130:SER:HA	2.25	0.52
18:C6:67:VAL:HG21	18:C6:85:ILE:HG13	3.02	0.52
35:SM:61:ILE:HD12	35:SM:62:ARG:H	1.75	0.52
39:L2:117:GLU:HG2	39:L2:124:GLY:H	2.70	0.52
41:L4:193:LYS:O	41:L4:198:ARG:HG2	4.23	0.52
86:2:2043:OHX:N1	86:2:2098:OHX:N3	2.58	0.52
57:N1:40:VAL:HB	57:N1:96:ILE:HD12	4.75	0.52
36:5:3165:A:H61	36:5:3285:C:N4	2.07	0.52
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.48	0.52
86:1:4002:OHX:N3	86:1:4171:OHX:N1	2.57	0.52
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.72	0.52
36:5:1584:U:H2'	36:5:1585:C:H6	1.75	0.52
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.34	0.52
24:D2:57:ARG:NH2	29:D7:26:GLN:OE1	2.43	0.52
34:SR:32:LEU:HG	34:SR:33:LEU:N	2.51	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D9:18:SER:O	31:D9:19:ARG:HG3	4.40	0.52
71:O5:49:LYS:O	71:O5:52:ALA:N	3.35	0.52
1:2:289:U:H2'	1:2:290:G:O4'	2.10	0.52
36:1:2197:C:C2	36:1:2241:U:C4	2.98	0.52
13:C1:36:LYS:HD3	1:6:248:U:H4'	310.84	0.52
1:2:955:A:H4'	1:2:1073:G:O2'	2.10	0.52
5:S3:176:LEU:HA	5:S3:181:VAL:HG12	4.31	0.52
6:S4:57:ASN:HB2	6:S4:60:GLU:H	1.73	0.52
13:C1:37:ASN:HA	13:C1:44:THR:HG21	1.91	0.52
36:1:1237:G:N3	36:1:1237:G:H2'	2.25	0.52
36:1:634:C:O2'	68:O2:47:ARG:HD2	2.10	0.52
36:1:2226:U:H2'	36:1:2227:C:H6	1.74	0.52
1:6:1565:C:H2'	1:6:1566:U:O4'	2.10	0.51
18:C6:47:LYS:NZ	18:C6:114:ARG:HG2	2.22	0.51
18:C6:120:ASP:OD1	18:C6:121:SER:N	2.43	0.51
36:1:1492:G:N7	75:O9:2:ALA:HB2	2.25	0.51
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.43	0.51
39:L2:181:LYS:HB2	36:5:860:G:C5	210.59	0.51
37:3:7:G:OP1	42:L5:33:ARG:NH1	2.42	0.51
1:6:74:U:H3'	1:6:75:U:H3'	1.92	0.51
35:SM:124:GLN:O	35:SM:127:ALA:N	2.43	0.51
36:1:2443:A:O2'	36:1:2444:C:OP2	2.25	0.51
37:3:46:A:P	42:L5:158:ARG:HH11	2.33	0.51
26:D4:87:PRO:HB2	26:D4:90:ARG:HG3	1.91	0.51
1:6:453:U:O2	1:6:453:U:H3'	2.10	0.51
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.46	0.51
1:2:1514:U:H5''	1:2:1515:A:O4'	2.09	0.51
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.91	0.51
4:S2:203:LYS:O	4:S2:206:THR:HG23	3.69	0.51
41:L4:44:LYS:O	41:L4:47:ARG:HD2	2.10	0.51
58:N2:19:VAL:HG12	58:N2:105:LEU:HD22	3.09	0.51
36:5:174:C:H2'	36:5:175:C:O4'	2.10	0.51
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.45	0.51
36:1:3280:U:O2'	36:1:3281:U:OP2	2.26	0.51
68:O2:24:ARG:HG2	68:O2:25:TYR:CE1	2.56	0.51
36:1:431:U:OP1	69:O3:53:TYR:OH	2.24	0.51
1:6:794:U:H4'	1:6:795:U:OP2	2.09	0.51
40:L3:257:PRO:HG2	40:L3:261:MET:HE1	1.91	0.51
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	1.93	0.51
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.21	0.51
1:6:404:G:H2'	1:6:405:C:C6	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:116:U:H2'	1:2:117:U:C6	2.46	0.51
51:M5:150:TRP:CH2	51:M5:151:ILE:HG12	2.45	0.51
36:5:1265:U:O2	36:5:1277:C:H1'	2.11	0.51
36:1:2298:U:O4	36:1:2923:U:H5	1.93	0.51
1:2:246:G:C2	13:C1:40:LEU:HD22	2.45	0.51
42:L5:258:LYS:N	42:L5:258:LYS:HD3	3.83	0.51
36:1:40:A:N7	64:N8:29:PRO:O	2.44	0.51
44:L7:58:ALA:O	44:L7:62:ILE:HD12	3.43	0.51
70:O4:74:ARG:CZ	70:O4:74:ARG:HB3	2.41	0.51
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	3.14	0.51
36:5:2211:U:H2'	36:5:2212:C:O4'	2.11	0.51
1:2:1539:G:O4'	20:C8:40:ARG:NH1	2.43	0.51
36:5:1528:G:H1	36:5:1832:C:N4	2.07	0.51
1:2:852:C:OP1	55:M9:172:ARG:HD3	2.10	0.51
6:S4:11:ARG:HB2	6:S4:27:TYR:O	2.10	0.51
61:N5:114:VAL:HB	75:O9:10:LYS:HZ3	1.75	0.51
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.43	0.51
1:2:61:A:C8	1:2:269:G:O2'	2.59	0.51
1:2:1280:C:H2'	1:2:1281:G:H8	1.75	0.51
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.42	0.51
36:5:501:A:H2'	36:5:502:U:H6	1.75	0.51
4:S2:215:PHE:O	4:S2:218:ILE:HG13	2.11	0.51
1:2:901:G:H22	16:C4:54:GLU:CD	2.13	0.51
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.38	0.51
36:1:2971:A:N3	36:1:2971:A:H3'	2.25	0.51
36:5:181:U:H1'	36:5:236:G:N2	2.25	0.51
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	1.92	0.51
39:L2:7:ASN:O	36:5:2163:C:H4'	185.28	0.51
7:S5:152:GLY:O	7:S5:154:ALA:N	2.42	0.51
36:1:994:G:N2	36:1:1053:A:H2'	2.25	0.51
34:SR:54:PHE:CE2	34:SR:312:VAL:HG11	3.37	0.51
36:5:372:A:H2'	36:5:373:A:C8	2.45	0.51
53:M7:123:PRO:O	53:M7:143:PRO:HG2	2.10	0.51
36:1:707:U:H2'	36:1:708:G:H5''	1.93	0.51
1:6:30:G:H2'	1:6:31:C:C6	2.45	0.51
36:1:361:A:H5'	73:O7:35:SER:OG	2.10	0.51
66:O0:42:ILE:HG13	66:O0:67:VAL:HG13	3.08	0.51
1:6:1473:U:O2	1:6:1473:U:H2'	2.10	0.51
36:1:2953:U:H2'	36:1:2954:U:C6	2.44	0.51
71:O5:21:LEU:HD22	71:O5:25:LYS:HG3	1.92	0.51
1:2:23:G:O2'	1:2:368:U:OP1	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1183:A:C6	1:2:1184:A:N1	2.79	0.51
36:5:1778:G:O2'	36:5:1780:G:OP2	2.25	0.51
22:D0:67:THR:HB	1:6:1199:G:O6	400.92	0.51
1:6:329:G:H2'	1:6:330:G:C8	2.45	0.51
1:2:1534:G:OP2	27:D5:74:SER:OG	2.28	0.51
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.91	0.51
20:C8:109:LEU:HG	20:C8:113:LEU:HD12	1.91	0.51
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.25	0.51
1:2:1081:A:H2'	1:2:1083:G:N7	2.25	0.51
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.14	0.51
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.91	0.51
36:1:1464:G:O2'	86:1:3877:OHX:N4	2.44	0.51
3:S1:183:GLN:HG2	3:S1:187:LYS:HE3	1.92	0.51
42:L5:158:ARG:HD2	37:7:47:C:OP2	282.62	0.51
36:5:2103:U:H2'	36:5:2104:A:C8	2.46	0.51
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.10	0.51
1:6:217:A:C8	1:6:218:A:C8	2.99	0.51
15:C3:65:VAL:C	15:C3:67:THR:H	2.86	0.51
24:D2:25:VAL:HG23	24:D2:63:VAL:HB	1.91	0.51
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.75	0.51
47:M0:12:GLN:HG2	47:M0:128:ARG:CZ	2.39	0.51
1:6:1645:G:OP2	86:6:2181:OHX:N3	2.44	0.51
48:M1:54:VAL:HG11	48:M1:57:PHE:CG	2.45	0.51
62:N6:57:LEU:HB3	62:N6:105:VAL:HG12	2.26	0.51
16:C4:127:ARG:HG2	28:D6:22:ARG:HH12	1.74	0.51
11:S9:65:LYS:HE3	1:6:650:U:H4'	420.72	0.51
15:C3:20:ARG:NE	1:6:862:A:OP1	355.18	0.51
41:L4:10:SER:OG	41:L4:14:GLU:HG2	5.54	0.51
36:1:1495:U:H5	36:1:1835:A:N1	2.08	0.51
1:2:1645:G:H22	1:2:1756:A:H2	1.57	0.51
36:1:3393:U:H2'	36:1:3394:U:H6	1.74	0.51
1:6:1350:U:H2'	1:6:1351:G:C8	2.45	0.51
6:S4:55:ALA:HB2	6:S4:64:ILE:HD12	1.91	0.51
69:O3:13:HIS:HE2	69:O3:28:SER:HG	1.72	0.51
1:6:737:A:H2'	1:6:738:G:C8	2.45	0.51
59:N3:66:LYS:HB2	59:N3:69:LEU:HD22	1.92	0.51
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.29	0.51
36:5:1432:C:O2'	36:5:1433:A:H3'	2.10	0.51
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	4.49	0.51
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.46	0.51
70:O4:9:ARG:HH21	70:O4:34:HIS:HB2	2.96	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.25	0.51
36:5:1567:U:H2'	36:5:1568:U:H4'	1.92	0.51
37:3:115:G:H21	42:L5:72:ASP:H	1.58	0.51
51:M5:49:ARG:HD3	36:5:115:A:OP1	103.57	0.51
36:1:3165:A:H2'	36:1:3166:C:C6	2.45	0.51
36:1:3366:G:H2'	36:1:3367:C:C6	2.46	0.51
41:L4:126:ILE:HD11	41:L4:233:LEU:HD12	2.39	0.51
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.75	0.51
16:C4:85:ALA:HB2	16:C4:94:PRO:HA	2.34	0.51
5:S3:32:GLU:HG2	5:S3:57:ASP:HB2	2.71	0.51
3:S1:229:MET:O	3:S1:232:HIS:N	3.11	0.51
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.30	0.51
36:5:726:G:N2	36:5:745:C:N4	2.58	0.51
36:5:601:U:H2'	36:5:602:A:O4'	2.10	0.51
36:5:2569:A:H4'	36:5:2570:U:H5'	1.93	0.51
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.11	0.51
75:O9:27:ILE:HD13	38:8:52:A:N6	78.88	0.51
7:S5:133:VAL:O	7:S5:137:ILE:HG13	2.97	0.51
42:L5:279:LYS:NZ	37:7:110:G:OP2	325.31	0.51
38:4:26:U:H2'	38:4:27:U:C6	2.45	0.51
46:L9:106:LYS:HG3	46:L9:107:ASP:OD1	4.05	0.51
1:2:1530:C:C2	1:2:1531:G:C8	2.98	0.51
36:1:1508:C:C6	36:1:1880:U:H1'	2.45	0.51
68:O2:11:LYS:O	68:O2:13:HIS:N	2.39	0.51
47:M0:29:SER:HB2	47:M0:125:LEU:HD12	5.12	0.51
1:2:568:G:O5'	25:D3:90:ASP:HA	2.10	0.51
75:O9:44:TRP:CZ3	75:O9:45:ARG:HG3	2.52	0.51
8:S6:162:VAL:O	8:S6:169:TYR:N	2.36	0.51
1:2:1229:G:O2'	1:2:1255:G:N2	2.43	0.51
1:6:667:U:H4'	1:6:668:C:OP1	2.10	0.51
1:2:1549:C:OP2	17:C5:39:ALA:N	2.38	0.51
49:M3:85:LEU:HD13	49:M3:120:GLN:OE1	3.33	0.51
1:6:447:U:C4	1:6:448:C:C4	2.99	0.51
40:L3:296:THR:H	40:L3:299:ASP:HB3	1.75	0.51
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	1.92	0.51
76:Q0:106:ARG:HH11	76:Q0:106:ARG:HB2	4.20	0.51
28:D6:35:ALA:O	28:D6:36:ILE:HG22	2.10	0.51
36:5:1565:G:N2	36:5:1566:A:H1'	2.26	0.51
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.38	0.51
1:2:1606:C:H2'	1:2:1607:G:C8	2.45	0.51
25:D3:30:LYS:HG2	25:D3:34:LEU:HG	3.61	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:31:ARG:HD3	46:L9:149:ASN:OD1	3.34	0.51
9:S7:96:ARG:HB3	1:6:856:A:N6	364.41	0.51
36:5:71:A:C2	36:5:2778:G:H1'	2.46	0.51
6:S4:11:ARG:HB2	6:S4:27:TYR:C	2.37	0.51
8:S6:163:THR:HA	8:S6:168:THR:HA	1.91	0.51
61:N5:67:ILE:HB	61:N5:83:VAL:HG12	1.93	0.51
42:L5:105:ILE:O	42:L5:109:THR:HG23	2.09	0.51
1:2:1268:G:H1'	1:2:1448:G:H5''	1.91	0.51
53:M7:92:GLN:HA	53:M7:95:LEU:HD12	1.92	0.51
36:1:2400:G:OP1	86:1:4086:OHX:N2	2.43	0.51
1:6:407:A:H2'	1:6:408:C:C6	2.45	0.51
48:M1:15:GLU:OE1	48:M1:140:ARG:NH1	2.43	0.51
59:N3:80:ARG:NH1	59:N3:116:GLY:HA3	2.78	0.51
48:M1:155:THR:OG1	48:M1:156:LYS:N	2.42	0.51
52:M6:138:LEU:HD12	52:M6:141:LEU:HD23	2.59	0.51
1:2:1572:G:H8	7:S5:185:ARG:NH1	2.08	0.51
36:1:391:A:C5	36:1:392:G:C8	2.99	0.51
78:Q2:10:THR:HG22	78:Q2:23:HIS:CD2	2.46	0.51
62:N6:57:LEU:HD22	62:N6:58:VAL:H	2.81	0.51
36:5:595:G:C8	36:5:609:G:C6	2.98	0.51
36:5:2946:A:H5''	36:5:2947:G:H5'	1.92	0.51
1:6:970:A:H5'	1:6:970:A:H8	1.76	0.51
1:6:1182:U:N3	1:6:1185:U:OP2	2.37	0.51
36:1:3393:U:H2'	36:1:3394:U:C6	2.46	0.51
45:L8:108:ARG:O	45:L8:112:GLU:N	2.62	0.51
38:8:62:C:O2	86:8:222:OHX:N1	2.44	0.51
1:6:1511:U:H2'	1:6:1512:G:C8	2.46	0.51
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.22	0.51
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.22	0.51
51:M5:36:ILE:HG12	51:M5:64:VAL:HG23	2.72	0.51
36:1:2249:G:H3'	36:1:2249:G:C8	2.45	0.51
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.69	0.51
1:2:66:U:H5'	8:S6:173:PRO:HA	1.93	0.51
1:2:823:G:H2'	1:2:824:G:H8	1.69	0.51
14:C2:73:LYS:NZ	33:E1:108:VAL:HG13	2.26	0.51
36:1:1877:U:OP2	86:1:3925:OHX:N2	2.44	0.51
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.50	0.51
60:N4:49:ILE:O	60:N4:52:THR:OG1	2.29	0.51
50:M4:21:VAL:CG1	50:M4:65:LEU:HD23	2.41	0.51
8:S6:155:ASP:HB3	86:S6:301:OHX:N6	2.26	0.51
26:D4:110:GLN:HB3	26:D4:114:ARG:NH1	3.18	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.10	0.51
1:6:832:U:OP2	86:6:2200:OHX:N6	2.43	0.51
3:S1:97:LEU:HD13	3:S1:98:THR:H	1.75	0.51
53:M7:24:VAL:HG12	53:M7:86:LYS:HD3	3.53	0.51
40:L3:22:ALA:H	40:L3:272:TYR:HD1	2.20	0.51
52:M6:141:LEU:O	52:M6:144:SER:HB3	3.39	0.51
10:S8:21:PHE:CE1	10:S8:22:ARG:HD3	2.46	0.51
1:2:1066:C:O3'	3:S1:149:GLN:HG3	2.11	0.51
36:5:2152:A:H2'	36:5:2153:U:C6	2.46	0.51
54:M8:93:ILE:HG23	36:5:784:A:C6	149.70	0.51
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.32	0.51
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.39	0.51
45:L8:178:ALA:HB2	45:L8:218:ILE:HG23	1.92	0.51
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.74	0.51
40:L3:161:LEU:HD22	40:L3:178:LEU:HD11	1.93	0.51
46:L9:181:VAL:HB	76:Q0:89:TYR:OH	2.45	0.51
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.46	0.51
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.43	0.51
79:Q3:87:ARG:O	79:Q3:90:VAL:HG22	3.99	0.51
36:1:2218:G:H2'	36:1:2219:A:H8	1.74	0.51
71:O5:29:ALA:HA	71:O5:32:LYS:HE2	2.46	0.51
28:D6:23:CYS:HB3	28:D6:28:LYS:H	2.26	0.51
40:L3:76:VAL:HG21	40:L3:323:MET:HE3	2.79	0.51
18:C6:115:THR:HG23	18:C6:118:ILE:O	4.94	0.51
1:6:1558:U:O2'	1:6:1559:A:OP1	2.26	0.51
1:2:1607:G:H2'	1:2:1608:U:H6	1.75	0.51
25:D3:24:TRP:CE3	25:D3:30:LYS:HG3	4.34	0.51
1:2:1323:C:H2'	1:2:1324:G:O4'	2.11	0.51
5:S3:72:LEU:HD22	12:C0:65:TYR:CD1	3.13	0.51
24:D2:30:SER:HA	24:D2:34:ILE:HD12	2.71	0.51
1:6:542:A:H2'	1:6:542:A:OP1	2.11	0.51
16:C4:84:ARG:HG3	16:C4:85:ALA:O	3.36	0.51
44:L7:214:TRP:CD2	44:L7:219:LYS:HD2	3.28	0.51
40:L3:221:THR:HB	40:L3:273:HIS:O	2.60	0.51
36:1:594:U:H2'	36:1:609:G:O6	2.10	0.51
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	5.46	0.51
62:N6:57:LEU:HD22	62:N6:58:VAL:N	2.63	0.51
36:1:2181:C:OP1	39:L2:192:LYS:NZ	2.37	0.51
47:M0:206:LEU:HD13	37:7:64:A:C8	341.98	0.51
1:2:482:U:H2'	1:2:483:A:C8	2.46	0.51
36:1:2881:C:H2'	36:1:2882:U:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2881:C:H2'	36:1:2882:U:C6	2.45	0.51
36:1:1481:A:O2'	36:1:1858:A:C2	2.61	0.51
56:N0:131:LYS:HB2	56:N0:134:ASP:OD2	2.11	0.51
36:1:699:A:H2'	36:1:700:C:O4'	2.11	0.51
1:6:1105:C:H2'	1:6:1106:U:C6	2.45	0.51
36:5:1828:A:O2'	36:5:1829:G:H5'	2.10	0.51
1:2:1079:U:H2'	1:2:1080:U:C6	2.46	0.51
1:2:1079:U:H2'	1:2:1080:U:H6	1.75	0.51
36:5:1110:U:H2'	36:5:1111:U:C6	2.45	0.51
30:D8:21:SER:HB3	30:D8:67:ARG:HG2	6.83	0.51
42:L5:164:LYS:O	42:L5:164:LYS:HD2	2.75	0.51
1:2:730:G:H21	1:2:731:C:H5''	1.75	0.51
40:L3:53:MET:HE1	36:5:3047:U:O2'	236.16	0.51
1:6:992:A:O2'	1:6:1785:U:O2	2.28	0.51
47:M0:3:ARG:NH2	47:M0:63:GLU:HG3	2.25	0.51
1:6:66:U:H4'	1:6:67:A:OP1	2.11	0.51
1:6:1696:G:H5''	1:6:1696:G:H8	1.74	0.51
10:S8:48:THR:CG2	10:S8:54:LYS:HB2	2.40	0.51
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.17	0.51
75:O9:9:ILE:HD11	75:O9:51:ILE:CG2	2.64	0.51
44:L7:24:GLU:O	44:L7:26:VAL:N	2.43	0.51
25:D3:38:PHE:CE1	1:6:359:A:H1'	331.28	0.51
41:L4:301:PRO:C	54:M8:39:ARG:HH12	3.07	0.51
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.43	0.51
1:2:652:G:H1	1:2:682:C:N4	2.07	0.51
4:S2:89:GLN:HG3	4:S2:93:GLY:O	4.62	0.51
26:D4:53:ASP:HB3	26:D4:96:LEU:HD21	2.18	0.51
36:1:1807:G:C6	36:1:1808:G:N1	2.78	0.51
15:C3:26:PHE:HE1	15:C3:59:GLY:O	1.93	0.51
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	1.92	0.51
9:S7:154:LEU:HD11	9:S7:183:PHE:CD1	4.40	0.51
5:S3:18:TYR:HE1	5:S3:37:VAL:HG23	1.75	0.51
72:O6:97:SER:C	72:O6:99:ARG:H	2.14	0.51
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.42	0.51
36:1:2363:A:O2'	36:1:2364:G:H5'	2.11	0.51
1:6:805:U:H2'	1:6:806:A:H5'	1.91	0.51
36:5:1816:A:H2'	36:5:1817:G:H5''	1.92	0.51
1:2:226:A:C2'	1:2:227:U:H5'	2.40	0.51
10:S8:178:ARG:NH1	1:6:207:U:O2	287.59	0.51
17:C5:108:ARG:O	17:C5:111:MET:HG3	3.52	0.51
66:O0:83:LYS:HG2	66:O0:85:PHE:CZ	2.55	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:1:MET:N	56:N0:32:SER:OG	7.11	0.51
36:5:2288:G:OP1	86:5:3953:OHX:N3	2.44	0.51
6:S4:37:LYS:HG2	1:6:297:U:H5'	349.86	0.51
1:2:566:C:H2'	1:2:567:A:O4'	2.11	0.51
13:C1:93:TYR:O	13:C1:95:PRO:HD3	2.13	0.51
54:M8:60:PRO:HG3	54:M8:144:ARG:HA	1.91	0.51
36:5:1901:A:O3'	36:5:2918:G:H5'	2.11	0.51
44:L7:153:PHE:CE1	44:L7:162:PRO:HG3	2.46	0.51
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.75	0.51
41:L4:291:ASN:OD1	36:5:1350:A:H5'	176.56	0.51
1:6:1092:A:O2'	1:6:1093:A:H3'	2.11	0.51
36:1:2926:A:C2'	36:1:2927:C:H5'	2.41	0.51
41:L4:322:GLN:HB2	36:5:608:A:H5'	249.22	0.51
11:S9:28:LEU:HB3	32:E0:44:PHE:HZ	4.03	0.51
8:S6:63:MET:HA	8:S6:98:ARG:O	2.11	0.51
36:1:1789:G:N7	86:1:4167:OHX:N2	2.57	0.51
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	2.66	0.51
1:2:1483:A:C2	1:2:1607:G:H1'	2.46	0.51
1:2:1607:G:H2'	1:2:1608:U:C6	2.46	0.51
1:2:1498:G:C2	1:2:1510:U:O2	2.64	0.51
1:2:1347:U:O2	1:2:1516:A:H5'	2.11	0.51
1:2:1617:U:O4	86:2:2171:OHX:N2	2.44	0.51
5:S3:91:VAL:HG11	5:S3:94:ARG:HB3	3.82	0.51
2:S0:122:ILE:HA	2:S0:144:ILE:O	2.64	0.51
1:6:1211:A:N6	1:6:1452:U:H3	2.08	0.51
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.43	0.51
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.46	0.51
1:6:1155:G:O2'	86:6:2182:OHX:N3	2.43	0.51
70:O4:96:GLU:HA	70:O4:99:LYS:HE3	1.92	0.51
1:2:14:C:O2'	1:2:619:A:N1	2.40	0.51
1:6:955:A:H2'	1:6:956:C:O4'	2.11	0.51
50:M4:43:LYS:HE3	56:N0:96:ASP:OD2	3.69	0.51
43:L6:46:ARG:HG3	43:L6:46:ARG:O	2.85	0.51
63:N7:29:HIS:O	63:N7:31:GLU:N	2.43	0.51
39:L2:3:ARG:HD3	36:5:911:C:N4	178.27	0.51
1:2:38:C:H2'	1:2:39:A:H5'	1.92	0.51
43:L6:18:LEU:O	36:5:592:A:H4'	217.33	0.51
1:6:792:U:OP1	86:6:2191:OHX:N4	2.43	0.51
1:6:1263:G:H2'	1:6:1264:G:O4'	2.10	0.51
3:S1:216:LYS:NZ	1:6:886:U:OP2	276.03	0.51
36:1:2683:U:H2'	36:1:2684:C:H6	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:9:MET:O	48:M1:9:MET:HG3	2.10	0.51
36:1:3336:A:H8	36:1:3336:A:O5'	1.94	0.51
75:O9:27:ILE:HG23	75:O9:30:ARG:CZ	2.81	0.51
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	1.94	0.51
38:4:14:C:H5''	53:M7:123:PRO:HG3	1.93	0.51
36:1:2442:G:H22	36:1:2505:U:H3	1.59	0.51
36:5:2810:C:OP1	86:5:4073:OHX:N3	2.43	0.51
36:1:1029:G:H2'	36:1:1030:A:C8	2.45	0.51
36:1:2423:U:H2'	36:1:2424:A:C8	2.46	0.51
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.28	0.51
57:N1:122:GLN:HB3	57:N1:124:VAL:HG23	6.39	0.51
40:L3:7:GLU:HG2	36:5:2915:U:C5	257.14	0.51
36:5:3089:C:H2'	36:5:3090:U:O4'	2.11	0.51
36:5:305:U:C5	36:5:2776:C:H1'	2.46	0.51
36:1:1299:U:H2'	36:1:1300:G:O4'	2.11	0.51
8:S6:136:LYS:HD2	1:6:66:U:OP1	332.82	0.51
28:D6:60:PRO:C	28:D6:62:TYR:H	2.14	0.51
1:2:333:A:OP1	10:S8:31:ARG:NH2	2.44	0.51
1:2:1098:U:OP2	4:S2:168:ARG:NH2	2.44	0.51
46:L9:27:VAL:HG12	46:L9:82:VAL:HG11	1.92	0.51
51:M5:178:HIS:CE1	51:M5:179:LYS:HG3	4.05	0.51
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.93	0.51
55:M9:43:LYS:NZ	36:5:1765:U:H5'	92.87	0.51
7:S5:56:ALA:O	7:S5:57:SER:OG	2.21	0.51
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.76	0.51
36:1:2103:U:P	55:M9:88:ARG:HH21	2.33	0.51
6:S4:170:THR:OG1	6:S4:170:THR:O	3.55	0.51
36:1:3377:G:H21	40:L3:332:ARG:NH2	2.09	0.51
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	2.07	0.51
1:2:1230:A:H2'	1:2:1258:U:C5	2.43	0.51
86:8:218:OHX:N5	86:8:225:OHX:N1	2.58	0.51
26:D4:55:VAL:HG12	26:D4:75:VAL:HG22	7.49	0.51
36:5:2733:A:H2'	36:5:2734:A:O4'	2.11	0.51
17:C5:87:PRO:HD3	17:C5:112:LEU:HD22	1.92	0.51
75:O9:17:LYS:O	75:O9:20:ASN:N	2.68	0.51
17:C5:111:MET:HG2	20:C8:119:ILE:CD1	5.39	0.51
36:5:3295:A:H2'	36:5:3296:A:C8	2.45	0.51
58:N2:33:TYR:HE1	58:N2:80:THR:HG23	4.03	0.51
47:M0:21:ARG:NH2	47:M0:22:TYR:OH	2.43	0.51
38:4:113:U:H5''	75:O9:7:PHE:HB3	1.92	0.51
36:5:2656:A:O2'	86:5:3900:OHX:N1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:93:GLY:C	3:S1:95:ASN:H	2.75	0.51
36:1:1118:C:O2	36:1:1154:A:H2	1.93	0.51
36:1:1497:C:H2'	36:1:1498:A:C8	2.45	0.51
36:5:518:G:O6	86:5:4067:OHX:N3	2.44	0.51
1:6:1332:C:H42	1:6:1419:G:H1	1.58	0.51
71:O5:64:GLU:O	71:O5:68:GLN:HG3	2.11	0.51
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.11	0.51
1:6:250:C:H2'	1:6:251:A:H8	1.76	0.51
41:L4:31:ARG:HB3	41:L4:34:ILE:HG13	1.92	0.51
36:5:731:U:H2'	36:5:732:C:C6	2.46	0.51
55:M9:5:ARG:NH2	36:5:1471:U:OP1	121.80	0.51
36:1:530:G:N7	86:1:3918:OHX:N6	2.59	0.51
36:5:371:G:H4'	36:5:396:A:N1	2.26	0.51
36:1:3246:G:O6	86:1:4105:OHX:N4	2.43	0.51
69:O3:59:VAL:O	69:O3:61:GLY:N	2.85	0.51
11:S9:110:GLN:HE22	11:S9:126:ARG:HE	3.41	0.50
6:S4:15:PRO:HA	6:S4:39:ARG:HH12	3.90	0.50
1:2:331:A:H5'	10:S8:33:PRO:HA	1.92	0.50
7:S5:73:THR:HG22	7:S5:75:GLY:N	2.26	0.50
2:S0:29:VAL:HG13	2:S0:150:ASP:HB3	1.92	0.50
40:L3:5:LYS:HG3	40:L3:6:TYR:CD1	2.46	0.50
2:S0:9:LEU:HD13	2:S0:10:THR:C	3.25	0.50
71:O5:89:ARG:HD2	38:8:38:U:C4	68.06	0.50
33:E1:100:LEU:HD12	33:E1:102:VAL:HA	6.25	0.50
17:C5:19:GLY:N	20:C8:93:THR:O	2.44	0.50
36:5:3112:G:O6	36:5:3120:C:H5''	2.11	0.50
4:S2:89:GLN:HA	4:S2:94:GLN:HA	3.10	0.50
47:M0:76:MET:HB3	47:M0:85:PHE:CE2	2.46	0.50
9:S7:21:ALA:HA	9:S7:24:PHE:HB2	2.71	0.50
70:O4:84:CYS:O	70:O4:88:ARG:N	3.49	0.50
72:O6:45:ARG:NH2	72:O6:50:LEU:HD23	3.48	0.50
36:5:2442:G:N2	36:5:2506:U:H3	2.07	0.50
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.77	0.50
36:1:3039:C:OP1	40:L3:62:ARG:NH1	2.42	0.50
36:1:3039:C:OP1	59:N3:88:ARG:NH2	2.45	0.50
36:5:900:G:H1'	36:5:1589:A:H61	1.74	0.50
4:S2:103:VAL:HG22	4:S2:113:LEU:HD23	2.52	0.50
62:N6:100:HIS:CD2	62:N6:101:PRO:HD2	3.44	0.50
1:6:206:A:OP2	86:6:2129:OHX:N4	2.44	0.50
7:S5:192:GLU:OE2	27:D5:61:SER:OG	4.13	0.50
1:6:1469:A:OP2	86:6:2171:OHX:N1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:978:A:H2'	1:6:979:A:O4'	2.12	0.50
36:1:2948:C:H2'	36:1:2949:U:O4'	2.11	0.50
20:C8:13:HIS:O	20:C8:14:ILE:HG22	3.81	0.50
43:L6:55:LEU:HB3	43:L6:98:VAL:HG21	2.26	0.50
25:D3:107:PHE:CD2	25:D3:114:LYS:HB3	4.01	0.50
36:1:2261:G:H21	36:1:2262:A:N6	2.09	0.50
39:L2:95:SER:O	39:L2:100:ASN:ND2	3.18	0.50
40:L3:64:GLY:O	36:5:3038:U:H4'	287.92	0.50
1:6:578:U:O2	86:6:2152:OHX:N3	2.44	0.50
1:6:658:C:H5'	1:6:659:C:OP2	2.11	0.50
68:O2:7:PRO:HG2	68:O2:63:THR:HG23	3.16	0.50
25:D3:19:ARG:O	25:D3:23:ARG:HG2	2.10	0.50
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.10	0.50
6:S4:29:PRO:O	6:S4:31:PRO:HD3	2.11	0.50
68:O2:27:ARG:NH1	36:5:1433:A:N3	168.48	0.50
47:M0:97:LEU:O	47:M0:123:HIS:N	2.73	0.50
42:L5:107:ARG:NH2	42:L5:120:LYS:HA	2.22	0.50
18:C6:47:LYS:HZ3	18:C6:114:ARG:NH2	2.09	0.50
2:S0:22:THR:O	2:S0:24:LEU:N	3.73	0.50
72:O6:30:LYS:HG2	36:5:316:U:O2	103.58	0.50
1:2:1516:A:OP1	22:D0:88:LYS:NZ	2.33	0.50
18:C6:131:GLY:HA3	18:C6:136:SER:O	2.41	0.50
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.67	0.50
1:2:189:C:H2'	1:2:190:C:H5'	1.92	0.50
6:S4:159:THR:OG1	6:S4:160:VAL:N	2.65	0.50
21:C9:28:LEU:HD22	21:C9:30:VAL:HG13	1.93	0.50
30:D8:22:ARG:HD3	30:D8:22:ARG:N	2.98	0.50
20:C8:38:VAL:HG12	20:C8:42:TYR:HD2	1.77	0.50
2:S0:195:TRP:NE1	2:S0:197:ILE:HD13	2.33	0.50
66:O0:53:LYS:HZ3	66:O0:69:TYR:HE2	4.95	0.50
34:SR:122:ILE:O	34:SR:134:TRP:HD1	2.57	0.50
1:6:1268:G:H1'	1:6:1448:G:H5''	1.92	0.50
1:2:1168:U:H2'	1:2:1169:G:H5'	1.92	0.50
11:S9:36:LEU:HD11	11:S9:105:LEU:HD21	3.79	0.50
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.93	0.50
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.47	0.50
40:L3:239:PRO:O	40:L3:242:THR:HG23	2.11	0.50
36:5:235:A:H2'	36:5:236:G:O4'	2.11	0.50
36:1:3384:U:H2'	36:1:3385:U:C6	2.47	0.50
36:5:371:G:O6	86:5:4198:OHX:N5	2.44	0.50
1:6:315:A:O2'	86:6:2158:OHX:N1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:70:PRO:HD2	8:S6:71:THR:HG23	1.93	0.50
67:O1:103:GLY:HA2	36:5:3325:G:H5''	178.98	0.50
36:5:3053:G:O6	86:5:4166:OHX:N6	2.44	0.50
61:N5:131:ASP:HB3	61:N5:134:ASP:HB2	1.95	0.50
36:1:1505:C:OP1	53:M7:23:ARG:NH2	2.40	0.50
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.92	0.50
36:1:3100:U:O2'	36:1:3101:G:OP2	2.26	0.50
36:1:66:A:O4'	51:M5:176:LYS:NZ	2.44	0.50
60:N4:25:ASP:O	60:N4:26:SER:OG	3.04	0.50
36:1:1620:U:H2'	36:1:1621:A:C8	2.46	0.50
1:6:1483:A:C6	1:6:1484:G:C6	2.99	0.50
57:N1:83:ARG:HD2	57:N1:85:LEU:HD21	2.25	0.50
36:5:2689:A:C8	36:5:2702:A:N6	2.78	0.50
59:N3:62:VAL:CG2	59:N3:74:MET:HE1	2.41	0.50
7:S5:128:ASN:O	7:S5:130:ILE:N	3.24	0.50
20:C8:41:ARG:CZ	21:C9:46:PRO:HD3	2.42	0.50
28:D6:10:ARG:HD3	28:D6:34:LYS:HA	2.52	0.50
2:S0:148:ASP:OD2	2:S0:163:ASN:HA	2.50	0.50
1:6:1680:G:O6	86:6:2187:OHX:N3	2.45	0.50
1:6:1230:A:C8	1:6:1258:U:C4	2.97	0.50
38:8:77:A:H2'	38:8:78:G:O4'	2.12	0.50
1:2:1291:G:H22	1:2:1324:G:N2	2.09	0.50
26:D4:59:GLY:O	26:D4:60:PHE:HB2	2.11	0.50
36:1:224:C:O2	62:N6:103:LYS:NZ	2.44	0.50
2:S0:56:LYS:NZ	2:S0:158:VAL:HA	2.68	0.50
63:N7:121:ARG:HB3	63:N7:131:PHE:CZ	3.16	0.50
9:S7:35:LYS:O	9:S7:37:GLU:HG2	2.10	0.50
69:O3:6:ARG:HG3	69:O3:8:TYR:CE1	3.09	0.50
44:L7:186:HIS:CE1	44:L7:190:THR:HG21	3.12	0.50
36:5:3279:A:C2'	36:5:3280:U:H5'	2.41	0.50
1:2:499:U:O2'	1:2:500:C:O4'	2.29	0.50
36:1:2960:C:H2'	36:1:2961:G:C8	2.47	0.50
58:N2:98:THR:HG23	58:N2:104:ARG:HH21	6.88	0.50
1:6:1316:G:HO2'	1:6:1401:A:HO2'	1.58	0.50
39:L2:213:GLY:HA2	36:5:2967:A:H5''	204.60	0.50
36:1:1559:A:H4'	36:1:1560:G:OP2	2.11	0.50
55:M9:83:GLY:O	36:5:1915:A:H4'	214.97	0.50
36:1:1298:C:O3'	76:Q0:113:ARG:NH1	2.45	0.50
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.58	0.50
50:M4:108:ARG:NH2	52:M6:196:ALA:O	2.44	0.50
1:6:1248:C:H2'	1:6:1249:U:C6	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:117:ARG:NH2	40:L3:175:LYS:HG2	2.95	0.50
69:O3:11:GLY:O	69:O3:98:VAL:N	2.49	0.50
19:C7:61:ILE:C	19:C7:63:LYS:H	2.74	0.50
8:S6:158:ILE:HG23	60:N4:85:ALA:HB2	4.59	0.50
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.11	0.50
36:1:3027:A:H2'	36:1:3028:G:O4'	2.11	0.50
36:5:84:U:O2'	36:5:101:G:O6	2.25	0.50
36:5:2320:A:OP2	86:5:4069:OHX:N5	2.44	0.50
24:D2:37:PHE:CD2	24:D2:103:ILE:HD11	3.44	0.50
36:1:3078:U:H4'	36:1:3079:U:O5'	2.11	0.50
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.78	0.50
22:D0:73:GLY:HA3	1:6:1198:G:O4'	379.50	0.50
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.12	0.50
17:C5:123:TYR:HE1	20:C8:122:HIS:NE2	3.32	0.50
1:2:477:A:H2'	1:2:478:A:H8	1.77	0.50
24:D2:85:ASP:HA	24:D2:88:LYS:HG3	1.92	0.50
2:S0:140:ASN:ND2	4:S2:62:PRO:HD3	4.51	0.50
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.46	0.50
39:L2:70:ARG:NH2	36:5:2522:G:O6	175.69	0.50
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.77	0.50
72:O6:70:ARG:HD3	72:O6:84:LYS:HG2	3.10	0.50
45:L8:36:ILE:HG22	45:L8:37:GLY:N	2.27	0.50
86:5:4004:OHX:N6	86:5:4194:OHX:N2	2.60	0.50
51:M5:22:LEU:HG	51:M5:26:ARG:NH1	2.27	0.50
63:N7:41:ALA:HB2	63:N7:77:TYR:CE2	5.17	0.50
14:C2:67:THR:C	14:C2:69:ALA:H	2.15	0.50
72:O6:60:LEU:HD21	72:O6:68:ARG:CZ	2.42	0.50
1:2:1396:U:H3	1:2:1402:G:H1	1.58	0.50
55:M9:6:THR:O	55:M9:10:LEU:HB2	2.60	0.50
8:S6:162:VAL:HG21	8:S6:171:LYS:HD2	5.04	0.50
1:6:578:U:H4'	1:6:579:A:H5'	1.92	0.50
36:1:1394:A:H4'	36:1:1420:C:H4'	1.94	0.50
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.11	0.50
36:5:1263:A:N3	36:5:1263:A:H2'	2.26	0.50
1:2:1718:G:H2'	1:2:1719:A:H8	1.76	0.50
1:2:1301:U:H2'	1:2:1302:U:O4'	2.12	0.50
73:O7:8:PHE:O	73:O7:11:ARG:HG3	2.11	0.50
71:O5:13:SER:N	71:O5:16:GLN:OE1	3.02	0.50
57:N1:102:ARG:NH2	36:5:1061:A:O3'	236.86	0.50
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.94	0.50
64:N8:88:ASP:OD2	64:N8:88:ASP:N	4.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:49:ARG:HE	6:S4:50:ASN:HD21	1.60	0.50
39:L2:201:GLY:O	39:L2:204:MET:HB2	3.59	0.50
39:L2:204:MET:HG3	36:5:914:A:C2	194.73	0.50
74:O8:44:LYS:HB3	74:O8:51:LEU:HD11	2.29	0.50
62:N6:39:LEU:HD22	62:N6:43:TYR:CE2	2.45	0.50
12:C0:12:HIS:HA	12:C0:15:LEU:HB2	3.72	0.50
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.07	0.50
38:4:104:A:H3'	38:4:105:A:C5'	2.41	0.50
1:6:1166:A:H2'	1:6:1167:G:O4'	2.11	0.50
63:N7:95:VAL:O	63:N7:100:THR:HG21	3.37	0.50
36:1:547:G:O2'	36:1:548:G:C8	2.57	0.50
1:6:221:A:OP2	1:6:832:U:O2'	2.25	0.50
5:S3:18:TYR:CE1	5:S3:37:VAL:HG23	2.46	0.50
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.93	0.50
48:M1:95:ASN:O	36:5:2672:G:O2'	332.06	0.50
31:D9:42:CYS:O	31:D9:46:LYS:HG2	2.51	0.50
13:C1:46:LYS:HE2	1:6:846:G:H21	309.93	0.50
36:5:2204:C:H4'	36:5:2205:U:OP1	2.11	0.50
36:1:279:U:H2'	36:1:280:U:H6	1.76	0.50
62:N6:120:GLN:OE1	62:N6:126:LEU:HA	7.68	0.50
36:1:975:C:H2'	36:1:976:U:H6	1.75	0.50
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.47	0.50
86:1:3971:OHX:N3	86:1:4155:OHX:N4	2.60	0.50
1:2:635:A:H2'	1:2:636:A:C8	2.47	0.50
36:1:1563:C:O2	36:1:1577:G:N2	2.42	0.50
1:6:404:G:H2'	1:6:405:C:H6	1.77	0.50
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.53	0.50
36:1:2260:U:H2'	36:1:2261:G:C8	2.46	0.50
1:6:1773:C:H2'	1:6:1774:G:C8	2.47	0.50
68:O2:91:THR:HG22	68:O2:92:TYR:CD2	3.49	0.50
36:5:1192:C:H41	36:5:1302:A:P	2.33	0.50
5:S3:194:LYS:O	5:S3:196:ARG:N	2.45	0.50
37:3:89:G:N2	37:3:92:A:OP2	2.43	0.50
36:1:619:A:H4'	36:1:620:U:O4'	2.11	0.50
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.25	0.50
36:1:3301:U:O4	86:1:3894:OHX:N2	2.44	0.50
1:6:811:A:C2	1:6:858:G:H1'	2.46	0.50
36:1:565:U:H2'	36:1:566:G:H8	1.76	0.50
10:S8:185:GLU:HG2	13:C1:23:PRO:HG2	1.92	0.50
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	2.24	0.50
8:S6:136:LYS:HG3	8:S6:173:PRO:HB3	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:58:ARG:HG3	70:O4:58:ARG:NH1	2.18	0.50
27:D5:43:ASP:HB2	27:D5:46:LYS:HB2	3.31	0.50
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.82	0.50
41:L4:26:PHE:CE2	41:L4:258:LEU:HD23	2.97	0.50
36:1:1565:G:N2	36:1:1574:C:C2	2.80	0.50
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.77	0.50
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.28	0.50
49:M3:157:ARG:NH1	64:N8:146:GLU:OE2	3.10	0.50
76:Q0:77:ILE:HD12	76:Q0:78:ILE:H	4.25	0.50
36:5:2836:C:C5	36:5:2852:C:N4	2.78	0.50
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	2.32	0.50
36:5:59:G:H2'	38:8:33:A:O2'	2.12	0.50
61:N5:105:VAL:HG13	61:N5:130:TYR:CG	2.68	0.50
1:6:192:U:O2'	1:6:193:U:O5'	2.27	0.50
36:1:355:A:H2'	36:1:356:C:O4'	2.12	0.50
26:D4:61:ARG:NH2	1:6:530:C:O2	408.61	0.50
51:M5:120:TRP:CZ2	51:M5:122:ASN:HA	2.47	0.50
36:5:3165:A:H2'	36:5:3166:C:H6	1.75	0.50
1:6:489:C:O2'	1:6:490:C:O5'	2.30	0.50
36:5:2767:U:H2'	36:5:2768:U:H6	1.77	0.50
23:D1:71:ARG:O	23:D1:75:ASN:ND2	2.44	0.50
54:M8:153:PHE:O	54:M8:161:LYS:HG2	4.59	0.50
20:C8:50:ALA:HB2	20:C8:72:ILE:HD12	2.06	0.50
36:5:1933:A:OP2	86:5:3908:OHX:N6	2.44	0.50
47:M0:42:THR:HG23	47:M0:45:GLU:HG3	4.42	0.50
49:M3:170:LEU:HB3	72:O6:9:ILE:HD11	1.94	0.50
36:1:1618:G:H4'	38:4:129:C:H1'	1.94	0.50
42:L5:188:GLU:O	42:L5:188:GLU:HG3	2.11	0.50
10:S8:26:LYS:O	10:S8:26:LYS:HG3	2.12	0.50
40:L3:76:VAL:HA	40:L3:326:GLY:H	1.75	0.50
2:S0:55:GLU:HG2	23:D1:79:LEU:HD22	2.78	0.50
28:D6:4:LYS:O	28:D6:5:ARG:HG3	2.11	0.50
28:D6:36:ILE:N	28:D6:36:ILE:HD12	5.02	0.50
73:O7:21:ARG:HG3	38:8:103:G:H4'	104.09	0.50
1:6:1230:A:H2	1:6:1255:G:N2	2.03	0.50
1:2:1619:C:H2'	1:2:1620:C:H6	1.77	0.50
36:1:3166:C:N3	36:1:3284:G:N2	2.44	0.50
7:S5:112:ARG:HD3	27:D5:95:HIS:NE2	2.27	0.50
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.93	0.50
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.77	0.50
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:21:TYR:CD1	53:M7:145:HIS:HE1	2.98	0.50
57:N1:14:MET:CE	57:N1:55:LYS:HB2	3.00	0.50
57:N1:56:PHE:CZ	57:N1:78:LYS:HD2	2.80	0.50
1:2:800:U:H2'	1:2:801:G:C8	2.43	0.50
41:L4:193:LYS:NZ	36:5:1420:C:OP2	111.72	0.50
64:N8:13:GLY:O	68:O2:36:LYS:HE2	2.94	0.50
51:M5:19:LEU:HD12	51:M5:22:LEU:HD23	1.93	0.50
36:5:929:A:H2'	36:5:930:U:C6	2.46	0.50
52:M6:148:LYS:HB2	52:M6:149:TYR:CD2	2.47	0.50
36:5:2533:G:O6	86:5:4035:OHX:N1	2.45	0.50
15:C3:55:ARG:HA	15:C3:60:VAL:O	2.39	0.50
78:Q2:88:CYS:HA	36:5:2653:C:OP2	231.94	0.50
1:2:1451:C:H2'	1:2:1452:U:H6	1.77	0.50
36:5:1838:G:H4'	36:5:1839:A:N3	2.26	0.50
64:N8:117:ARG:NH2	36:5:718:G:OP1	159.08	0.50
1:6:1317:C:H2'	1:6:1318:G:O4'	2.11	0.50
36:1:1803:C:H2'	36:1:1804:A:H8	1.77	0.50
1:2:912:U:H4'	1:2:913:G:H2'	1.94	0.50
61:N5:93:TYR:CE2	38:8:131:A:H5''	105.15	0.50
36:1:1495:U:C5	36:1:1835:A:N1	2.79	0.50
20:C8:72:ILE:HG12	20:C8:79:TYR:CD1	2.54	0.50
36:5:231:G:O6	86:5:4126:OHX:N4	2.44	0.50
62:N6:19:TYR:CZ	36:5:216:G:H4'	72.01	0.50
57:N1:9:SER:O	57:N1:11:THR:HG23	2.29	0.50
36:1:1769:G:H5'	36:1:1770:G:OP2	2.10	0.50
1:6:1423:U:H2'	1:6:1424:A:O4'	2.12	0.50
59:N3:86:ARG:HG3	59:N3:92:PHE:CE2	2.47	0.50
1:2:780:A:H8	26:D4:8:ARG:HB3	1.76	0.50
44:L7:154:GLY:N	44:L7:161:VAL:O	2.76	0.50
36:1:2379:U:H2'	36:1:2380:U:H6	1.76	0.50
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.05	0.50
36:1:3278:C:H2'	36:1:3278:C:O2	2.11	0.50
70:O4:64:THR:O	70:O4:64:THR:OG1	2.75	0.50
71:O5:119:LYS:HA	71:O5:119:LYS:HE2	1.93	0.50
36:5:2436:U:H2'	36:5:2437:G:H5'	1.93	0.50
49:M3:28:GLN:OE1	51:M5:201:ARG:HD3	2.61	0.50
86:5:3971:OHX:N4	86:5:4192:OHX:N3	2.60	0.50
36:5:1639:C:O2'	36:5:1640:G:H5'	2.12	0.50
36:5:3047:U:O2'	36:5:3048:A:H5'	2.12	0.50
8:S6:24:ILE:O	8:S6:26:VAL:N	2.45	0.50
65:N9:46:ALA:O	65:N9:50:THR:HG23	2.70	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:86:ALA:H	69:O3:107:ILE:HG21	4.90	0.50
1:6:329:G:H2'	1:6:330:G:H8	1.77	0.50
18:C6:14:LYS:HE2	1:6:1584:G:N7	394.49	0.50
18:C6:82:ARG:NH1	18:C6:114:ARG:HB2	4.74	0.50
36:1:860:G:P	39:L2:181:LYS:HZ3	2.35	0.50
47:M0:77:THR:OG1	47:M0:78:THR:N	2.43	0.50
1:6:830:U:H2'	1:6:831:U:H5'	1.94	0.50
55:M9:25:ASP:HB3	55:M9:28:GLU:HB2	4.71	0.50
1:2:497:G:O2'	1:2:498:G:O4'	2.30	0.50
1:2:1282:U:OP1	86:2:2114:OHX:N5	2.45	0.50
9:S7:89:HIS:CE1	9:S7:165:LYS:HA	2.47	0.50
9:S7:150:GLN:HB2	9:S7:181:ILE:HD12	1.93	0.50
1:2:1294:G:O2'	1:2:1321:A:N1	2.31	0.50
14:C2:35:ALA:O	14:C2:40:GLY:N	3.25	0.50
54:M8:85:GLY:N	54:M8:104:LEU:HD12	2.27	0.50
62:N6:11:ASP:OD2	62:N6:14:LYS:N	2.39	0.50
36:1:3268:A:H3'	36:1:3269:U:H3'	1.92	0.50
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	1.77	0.50
62:N6:57:LEU:HD23	62:N6:67:GLU:HG2	3.10	0.50
36:1:1429:G:C5	41:L4:99:MET:HE1	2.47	0.50
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.47	0.50
40:L3:250:ALA:HB1	36:5:2947:G:N3	218.52	0.50
36:1:1419:A:H5'	38:4:20:U:O3'	2.12	0.50
54:M8:58:ASN:HB3	54:M8:144:ARG:NH2	2.94	0.50
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	3.88	0.50
1:2:1385:G:N7	86:2:2132:OHX:N3	2.60	0.50
68:O2:86:THR:HG22	68:O2:87:MET:HG2	1.94	0.50
8:S6:73:ILE:HD11	8:S6:75:LEU:HD21	3.55	0.50
14:C2:84:ASN:O	14:C2:86:VAL:HG22	2.63	0.50
1:6:882:U:H2'	1:6:883:C:C6	2.47	0.50
78:Q2:63:LYS:HD2	78:Q2:87:ARG:NH1	2.27	0.50
1:6:876:G:H2'	1:6:936:G:N2	2.27	0.50
1:2:931:C:O2'	3:S1:118:GLN:O	2.29	0.50
1:6:564:G:N2	1:6:577:G:OP1	2.45	0.50
21:C9:66:TYR:HE2	21:C9:129:GLN:HG3	5.05	0.50
1:6:1639:C:OP1	86:6:2154:OHX:N5	2.44	0.50
3:S1:142:PHE:O	3:S1:208:GLN:N	2.54	0.50
1:6:82:U:H2'	1:6:83:G:O4'	2.12	0.50
36:5:621:A:H2'	36:5:622:A:C8	2.47	0.50
10:S8:54:LYS:HD3	10:S8:175:GLN:OE1	2.11	0.50
7:S5:72:HIS:CD2	7:S5:107:LYS:HD3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:31:PRO:O	28:D6:33:ASP:N	2.45	0.50
1:6:1482:C:OP2	1:6:1521:G:N1	2.44	0.50
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.12	0.50
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.06	0.50
49:M3:58:VAL:CG1	36:5:75:G:H5''	86.30	0.50
25:D3:68:ILE:HG21	32:E0:7:SER:O	2.81	0.50
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.15	0.50
1:6:1540:G:C6	1:6:1541:G:C4	3.00	0.50
1:6:1542:G:N2	1:6:1568:C:H1'	2.27	0.50
57:N1:14:MET:HE1	57:N1:55:LYS:HB2	2.80	0.50
36:1:656:A:H2'	36:1:657:A:C8	2.47	0.50
16:C4:122:PRO:O	16:C4:124:ASP:N	2.45	0.50
36:5:1560:G:C6	36:5:1580:A:N6	2.80	0.50
1:6:1081:A:H1'	1:6:1082:C:H5	1.77	0.50
59:N3:98:ASN:N	59:N3:98:ASN:OD1	2.42	0.50
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.32	0.50
16:C4:51:ASP:O	16:C4:54:GLU:HB2	2.11	0.50
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.59	0.50
36:1:2218:G:H2'	36:1:2219:A:C8	2.47	0.50
7:S5:150:GLY:H	30:D8:67:ARG:C	2.98	0.50
1:6:1691:A:H2'	1:6:1692:G:C8	2.47	0.50
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.10	0.50
36:1:1595:U:OP2	70:O4:36:LYS:NZ	2.30	0.50
63:N7:104:PRO:O	63:N7:108:GLU:HG3	2.38	0.50
36:1:92:G:OP2	36:1:93:C:H5''	2.12	0.50
36:1:1629:U:P	63:N7:112:LYS:HE2	2.52	0.50
36:1:2278:C:OP1	86:1:3956:OHX:N3	2.45	0.50
26:D4:78:SER:HB3	26:D4:81:GLU:HB2	1.93	0.50
39:L2:129:ALA:HB3	36:5:2178:A:H5''	212.34	0.50
56:N0:86:GLY:O	56:N0:88:HIS:NE2	2.45	0.50
20:C8:130:GLY:O	20:C8:145:ARG:NH2	2.30	0.49
47:M0:174:THR:OG1	47:M0:175:ASN:N	3.16	0.49
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.45	0.49
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	1.93	0.49
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	4.24	0.49
1:6:138:A:H5''	1:6:138:A:N3	2.27	0.49
1:6:1241:G:N3	1:6:1241:G:H5'	2.27	0.49
51:M5:94:TYR:OH	51:M5:96:ARG:HD3	2.12	0.49
46:L9:1:MET:O	46:L9:2:LYS:HB2	2.11	0.49
1:2:1082:C:H2'	1:2:1083:G:H5'	1.94	0.49
40:L3:152:LYS:HE3	40:L3:192:VAL:HG22	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1550:A:P	17:C5:42:ARG:HH22	2.35	0.49
48:M1:110:ILE:C	48:M1:112:LEU:H	2.16	0.49
36:5:2555:G:H5'	36:5:2556:C:OP2	2.13	0.49
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.09	0.49
7:S5:120:ILE:HG22	7:S5:124:LEU:HD22	5.11	0.49
1:6:815:G:H5'	1:6:815:G:C8	2.45	0.49
51:M5:76:PRO:O	51:M5:77:LYS:HG3	4.04	0.49
64:N8:85:ASP:OD1	64:N8:86:LYS:HG2	2.12	0.49
24:D2:71:LYS:NZ	1:6:1099:U:OP1	374.11	0.49
6:S4:71:LYS:HE3	6:S4:93:ASP:OD2	2.11	0.49
47:M0:156:ARG:O	47:M0:158:LYS:N	3.21	0.49
44:L7:43:ILE:O	44:L7:47:ARG:HG3	2.12	0.49
8:S6:56:ASN:H	8:S6:108:VAL:HG23	4.68	0.49
36:1:7:C:H2'	36:1:8:C:C6	2.47	0.49
36:1:3335:A:H2'	36:1:3336:A:C8	2.46	0.49
1:6:1022:C:H4'	1:6:1124:A:N6	2.26	0.49
58:N2:28:PHE:O	58:N2:30:PRO:HD3	2.45	0.49
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	1.93	0.49
36:5:2951:G:O2'	36:5:2952:G:H5'	2.11	0.49
45:L8:94:PHE:HB3	45:L8:189:LEU:HD13	1.94	0.49
1:6:249:U:H3'	1:6:250:C:H5'	1.94	0.49
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.93	0.49
1:2:854:U:O4	55:M9:173:ARG:NH2	2.45	0.49
36:1:1227:C:H5'	36:1:1228:C:OP2	2.11	0.49
1:2:1142:A:H5''	28:D6:2:PRO:HG3	1.93	0.49
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.12	0.49
54:M8:18:ALA:HA	54:M8:53:PHE:CE1	2.96	0.49
36:5:960:U:H4'	36:5:963:G:N1	2.26	0.49
72:O6:91:ASN:O	72:O6:94:ILE:HG22	4.55	0.49
38:8:10:A:H2'	38:8:11:C:C6	2.47	0.49
36:5:3379:C:H2'	36:5:3380:U:O4'	2.12	0.49
1:6:585:A:H2'	1:6:586:G:C8	2.47	0.49
1:2:1433:G:C4	31:D9:41:GLN:HB3	2.47	0.49
23:D1:1:MET:HG2	23:D1:9:VAL:CG1	6.32	0.49
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	3.63	0.49
18:C6:113:ASP:CG	18:C6:114:ARG:H	2.15	0.49
1:2:1796:C:N1	28:D6:5:ARG:HG2	2.27	0.49
70:O4:58:ARG:HG2	70:O4:58:ARG:HH11	2.70	0.49
9:S7:133:THR:O	9:S7:134:GLU:HB2	2.11	0.49
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.94	0.49
2:S0:62:ARG:HH21	23:D1:39:VAL:HG22	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:629:U:OP1	15:C3:127:ARG:NH2	2.45	0.49
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.31	0.49
21:C9:112:GLY:O	21:C9:125:SER:OG	3.59	0.49
40:L3:25:ILE:CD1	40:L3:25:ILE:H	2.25	0.49
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.51	0.49
61:N5:100:LYS:NZ	61:N5:106:ASP:HA	2.27	0.49
36:1:1019:G:H2'	36:1:1020:G:O4'	2.13	0.49
47:M0:87:LEU:HD23	47:M0:138:VAL:HG22	3.15	0.49
56:N0:103:VAL:O	56:N0:106:LEU:HB3	2.75	0.49
36:1:2376:G:C6	36:1:2377:G:O6	2.65	0.49
1:2:1417:A:H2'	1:2:1418:G:O4'	2.12	0.49
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.42	0.49
2:S0:195:TRP:CD2	2:S0:197:ILE:HB	2.88	0.49
56:N0:161:LYS:HZ1	36:5:3209:A:P	278.40	0.49
42:L5:148:ILE:HG23	42:L5:151:GLN:HB3	2.38	0.49
42:L5:155:THR:HG23	37:7:36:C:H5''	268.20	0.49
36:5:2718:U:OP2	86:5:4062:OHX:N6	2.45	0.49
43:L6:50:LYS:HE3	43:L6:72:ASN:HB2	1.94	0.49
36:5:2358:A:H2'	36:5:2359:C:O4'	2.12	0.49
16:C4:14:PHE:HA	16:C4:78:ALA:O	2.47	0.49
1:6:1535:U:HO2'	1:6:1536:G:P	2.34	0.49
59:N3:43:GLY:HA3	36:5:3041:U:O2'	264.61	0.49
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.47	0.49
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.58	0.49
36:1:2970:C:HO2'	36:1:2971:A:H2	1.59	0.49
61:N5:38:LEU:O	61:N5:39:LYS:HB2	4.49	0.49
69:O3:13:HIS:CE1	69:O3:89:LEU:HB2	3.51	0.49
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.12	0.49
15:C3:128:TYR:CE1	1:6:964:U:H5''	321.72	0.49
36:5:3177:G:O2'	36:5:3179:U:OP1	2.24	0.49
36:5:3259:U:H6	36:5:3259:U:H5'	1.77	0.49
78:Q2:68:VAL:O	78:Q2:85:LEU:HB2	2.60	0.49
37:3:106:U:H2'	37:3:107:C:C6	2.47	0.49
35:SM:78:ASP:C	35:SM:80:ALA:H	2.56	0.49
1:2:438:A:H1'	1:2:466:U:O2	2.12	0.49
1:6:1673:G:O5'	1:6:1673:G:H8	1.94	0.49
36:5:1093:A:OP1	36:5:1093:A:H4'	2.12	0.49
20:C8:76:PRO:O	20:C8:81:ILE:HB	2.31	0.49
36:1:3152:U:O2'	36:1:3153:U:H5'	2.11	0.49
1:2:540:G:O3'	1:2:541:A:H3'	2.11	0.49
1:2:36:C:H2'	1:2:37:U:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:31:ARG:HD2	8:S6:34:GLN:HE21	1.76	0.49
36:5:655:C:H2'	36:5:656:A:H8	1.78	0.49
40:L3:292:ALA:HB1	40:L3:295:ALA:HB3	1.94	0.49
10:S8:33:PRO:HA	1:6:331:A:H5'	276.46	0.49
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.30	0.49
1:2:1532:U:O3'	20:C8:27:LYS:NZ	2.45	0.49
27:D5:41:ILE:HG13	27:D5:42:LEU:H	1.78	0.49
21:C9:88:VAL:HG13	1:6:1601:G:C2	360.50	0.49
41:L4:205:PRO:HG2	41:L4:225:VAL:HG22	1.94	0.49
36:1:2663:G:C5'	42:L5:152:ARG:HD3	2.41	0.49
3:S1:184:LEU:HD13	3:S1:188:LEU:HG	1.95	0.49
42:L5:75:LEU:HD23	42:L5:112:LYS:HE2	4.16	0.49
57:N1:57:TYR:OH	57:N1:87:LYS:HD2	2.12	0.49
57:N1:76:ILE:O	57:N1:87:LYS:N	3.00	0.49
41:L4:358:THR:O	56:N0:26:ARG:NE	2.71	0.49
36:1:2402:A:H2'	41:L4:67:THR:OG1	2.12	0.49
36:5:830:A:O2'	36:5:1866:C:H2'	2.13	0.49
46:L9:91:ARG:HG2	46:L9:182:SER:HB3	3.67	0.49
1:2:1140:G:OP2	86:2:2064:OHX:N6	2.45	0.49
6:S4:95:THR:O	6:S4:97:GLU:HG3	2.26	0.49
46:L9:17:THR:O	46:L9:17:THR:OG1	2.79	0.49
15:C3:55:ARG:NH1	15:C3:56:ASP:OD2	2.45	0.49
49:M3:91:ARG:CZ	49:M3:97:VAL:HB	2.76	0.49
53:M7:125:GLN:HB2	53:M7:141:SER:CB	2.41	0.49
86:1:3971:OHX:N5	86:1:4155:OHX:N2	2.61	0.49
16:C4:121:VAL:O	1:6:886:U:O2'	286.70	0.49
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.31	0.49
1:2:836:U:H2'	1:2:837:G:H8	1.77	0.49
36:5:2775:U:H2'	36:5:2776:C:H6	1.77	0.49
78:Q2:63:LYS:NZ	36:5:2761:G:N7	210.83	0.49
36:5:887:G:H2'	36:5:888:A:C8	2.46	0.49
36:1:3319:U:O2'	36:1:3320:A:OP1	2.26	0.49
74:O8:19:ASP:HB2	74:O8:48:SER:HB2	4.30	0.49
36:5:3084:C:H2'	36:5:3085:G:O4'	2.11	0.49
54:M8:67:ILE:HG23	54:M8:81:VAL:HG11	3.03	0.49
36:5:2317:A:OP2	86:5:4181:OHX:N6	2.45	0.49
20:C8:8:GLN:C	20:C8:10:SER:H	2.49	0.49
36:1:1355:A:H4'	36:1:1356:U:O5'	2.12	0.49
46:L9:150:SER:HB3	46:L9:153:ASP:HB2	2.18	0.49
21:C9:5:SER:OG	21:C9:6:VAL:N	2.45	0.49
1:6:1575:G:H2'	1:6:1576:A:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:33:GLU:OE1	12:C0:33:GLU:N	2.30	0.49
60:N4:5:ILE:HD12	60:N4:10:GLY:HA2	1.94	0.49
37:7:55:A:H2'	37:7:56:A:O4'	2.12	0.49
44:L7:104:GLN:O	44:L7:107:ARG:N	2.33	0.49
69:O3:60:ARG:HB3	69:O3:60:ARG:CZ	2.40	0.49
6:S4:49:ARG:HE	6:S4:50:ASN:ND2	2.11	0.49
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	1.93	0.49
1:6:85:A:OP1	86:6:2186:OHX:N4	2.44	0.49
36:1:2836:C:H5	36:1:2852:C:N4	2.00	0.49
47:M0:177:ASP:O	47:M0:180:GLU:N	2.71	0.49
74:O8:5:ILE:CG2	74:O8:54:LEU:HB2	2.39	0.49
2:S0:29:VAL:O	2:S0:30:GLN:HB3	4.19	0.49
4:S2:168:ARG:NE	1:6:1098:U:OP2	383.33	0.49
36:1:1809:A:H2'	36:1:1810:A:O4'	2.12	0.49
8:S6:176:GLN:HG2	1:6:169:A:C5'	327.24	0.49
8:S6:137:ARG:NH2	1:6:169:A:OP1	319.49	0.49
36:5:1171:G:N7	86:5:3995:OHX:N1	2.60	0.49
36:1:1385:C:OP2	41:L4:202:ARG:HD3	2.13	0.49
50:M4:123:LEU:HD13	52:M6:194:LEU:HG	1.94	0.49
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.50	0.49
6:S4:11:ARG:HH11	6:S4:20:LEU:HD22	1.77	0.49
79:Q3:51:ALA:O	79:Q3:54:ILE:HG23	5.44	0.49
79:Q3:4:ARG:HD2	36:5:837:A:OP2	237.91	0.49
36:1:2503:G:H1'	36:1:2504:U:C5	2.42	0.49
44:L7:132:PRO:HA	44:L7:229:PHE:CD1	2.78	0.49
20:C8:94:ASP:OD1	20:C8:96:LYS:HG3	3.20	0.49
67:O1:46:THR:HG23	67:O1:47:ASP:N	3.64	0.49
27:D5:56:THR:HB	27:D5:57:TYR:CD2	5.18	0.49
11:S9:69:ARG:O	11:S9:73:GLY:N	2.99	0.49
12:C0:1:MET:HG2	12:C0:2:LEU:N	2.27	0.49
1:2:219:A:H5'	1:2:831:U:O2'	2.11	0.49
1:2:720:G:H1'	1:2:721:U:H5''	1.95	0.49
58:N2:95:PHE:CE1	58:N2:103:TYR:CD1	5.24	0.49
1:2:238:U:O2'	1:2:239:C:H5'	2.12	0.49
36:5:119:U:H4'	36:5:120:G:H3'	1.94	0.49
44:L7:70:LYS:NZ	36:5:519:A:OP2	312.49	0.49
36:1:2224:A:N1	36:1:2783:U:O2'	2.44	0.49
40:L3:252:ILE:HG13	40:L3:266:ARG:NH2	3.51	0.49
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.56	0.49
25:D3:107:PHE:CE2	25:D3:114:LYS:HB2	2.47	0.49
60:N4:25:ASP:OD2	60:N4:25:ASP:N	4.14	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:192:U:O2'	1:2:193:U:O4'	2.30	0.49
14:C2:95:LYS:HA	14:C2:117:GLY:HA2	3.60	0.49
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.39	0.49
46:L9:4:ILE:HD11	56:N0:148:LEU:HD11	1.94	0.49
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	2.12	0.49
1:2:258:C:N4	1:2:259:U:O4	2.45	0.49
36:1:3006:A:C2	36:1:3141:A:C4	3.00	0.49
72:O6:51:SER:O	72:O6:55:ARG:HG3	2.88	0.49
63:N7:58:GLY:O	63:N7:62:VAL:HG23	2.88	0.49
36:1:3294:A:H2'	36:1:3295:A:O4'	2.13	0.49
1:2:595:G:H2'	1:2:596:C:C6	2.48	0.49
46:L9:77:ASN:HA	46:L9:80:THR:HG23	4.04	0.49
67:O1:24:SER:HB2	67:O1:27:LYS:HD2	3.92	0.49
36:5:2949:U:O2'	36:5:2950:G:H5'	2.12	0.49
3:S1:103:MET:HB3	3:S1:215:VAL:HG12	2.28	0.49
1:6:1001:A:C6	1:6:1002:G:C6	3.00	0.49
1:2:1163:A:N6	1:2:1164:G:C6	2.81	0.49
1:6:514:G:OP2	1:6:514:G:H8	1.95	0.49
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.77	0.49
36:1:193:C:H2'	36:1:194:U:H6	1.77	0.49
1:2:1369:U:O4	86:2:2094:OHX:N5	2.45	0.49
36:5:1194:G:OP1	86:5:4007:OHX:N6	2.45	0.49
1:6:678:A:H2'	1:6:679:U:C6	2.47	0.49
1:6:120:U:H2'	1:6:121:U:H6	1.75	0.49
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.47	0.49
1:2:337:G:H1'	10:S8:10:LYS:HZ1	1.77	0.49
2:S0:163:ASN:O	2:S0:165:ARG:N	2.51	0.49
14:C2:88:LEU:O	14:C2:89:ILE:HB	2.33	0.49
38:8:43:A:OP1	86:8:226:OHX:N3	2.46	0.49
33:E1:108:VAL:HA	33:E1:114:VAL:HA	1.94	0.49
36:1:1464:G:OP2	86:1:4196:OHX:N5	2.46	0.49
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.59	0.49
4:S2:90:THR:HG22	4:S2:93:GLY:N	2.28	0.49
5:S3:64:ARG:HG2	5:S3:65:ARG:H	2.76	0.49
36:5:1789:G:N7	86:5:4191:OHX:N2	2.60	0.49
1:2:197:A:H2'	1:2:198:A:C8	2.47	0.49
48:M1:82:ARG:HG3	48:M1:112:LEU:HB2	1.95	0.49
17:C5:128:HIS:HA	1:6:1181:U:H5'	333.67	0.49
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.93	0.49
17:C5:21:ASP:O	17:C5:24:LYS:N	3.02	0.49
86:5:4060:OHX:N1	86:5:4136:OHX:N2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2700:G:O2'	36:5:2705:A:N1	2.41	0.49
34:SR:242:SER:HB3	34:SR:292:LEU:HG	4.05	0.49
1:2:867:G:H5'	15:C3:4:MET:HE3	1.94	0.49
14:C2:67:THR:HG22	14:C2:68:GLU:HG3	1.94	0.49
36:5:3107:U:H2'	36:5:3108:G:C8	2.47	0.49
9:S7:184:GLU:HG2	9:S7:185:ILE:H	2.15	0.49
1:2:47:A:N1	1:2:386:G:H1'	2.27	0.49
45:L8:118:GLU:C	45:L8:120:LYS:H	2.16	0.49
1:6:1500:C:H2'	1:6:1501:C:C6	2.47	0.49
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.13	0.49
36:1:3174:A:H2'	36:1:3175:U:H5'	1.94	0.49
36:1:3082:C:H2'	36:1:3083:G:C8	2.46	0.49
78:Q2:54:THR:O	78:Q2:55:LYS:HG2	3.11	0.49
36:5:499:G:H2'	36:5:500:C:C6	2.48	0.49
29:D7:11:THR:O	29:D7:15:GLU:HB2	2.94	0.49
1:6:607:G:H5'	1:6:613:G:N2	2.26	0.49
1:2:855:A:C2	1:2:857:U:H1'	2.48	0.49
1:2:768:C:H2'	1:2:769:A:O4'	2.13	0.49
67:O1:17:HIS:HB2	67:O1:69:TYR:HB3	1.95	0.49
36:5:1728:G:H5''	36:5:1730:G:O4'	2.13	0.49
60:N4:45:ASN:O	60:N4:47:ARG:N	2.45	0.49
6:S4:42:LEU:HD22	6:S4:47:PHE:HB2	1.93	0.49
1:2:1157:A:H61	1:2:1621:U:H3	1.61	0.49
36:5:1396:C:H2'	36:5:1397:C:C6	2.48	0.49
73:O7:84:SER:O	73:O7:85:LYS:HB3	3.79	0.49
14:C2:32:LEU:O	14:C2:36:LEU:N	2.46	0.49
36:5:3330:A:H5''	36:5:3330:A:H8	1.77	0.49
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.12	0.49
43:L6:80:ASN:O	43:L6:82:ARG:N	2.46	0.49
78:Q2:20:HIS:ND1	36:5:2741:C:O2'	213.28	0.49
1:6:1557:U:O2'	1:6:1558:U:H2'	2.13	0.49
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.96	0.49
41:L4:333:VAL:HG23	41:L4:337:GLU:HG3	3.66	0.49
1:2:1509:C:H2'	1:2:1510:U:O4'	2.13	0.49
54:M8:34:THR:O	54:M8:38:ARG:HB2	2.62	0.49
36:1:1063:G:N7	36:1:1097:G:H2'	2.27	0.49
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	2.72	0.49
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	1.94	0.49
1:6:681:U:O2	1:6:682:C:H5	1.94	0.49
71:O5:57:VAL:HA	71:O5:60:GLU:HB2	1.95	0.49
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:103:TYR:HB3	61:N5:135:ILE:HD11	1.95	0.49
27:D5:50:ILE:O	27:D5:54:VAL:HG23	2.13	0.49
63:N7:10:VAL:HB	63:N7:83:THR:CG2	2.43	0.49
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.29	0.49
74:O8:61:LYS:O	74:O8:65:LEU:HB2	2.12	0.49
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.47	0.49
36:1:2562:A:H2	45:L8:31:PRO:HD3	1.78	0.49
63:N7:15:ARG:NH2	70:O4:83:ASN:OD1	2.46	0.49
40:L3:98:GLY:HA2	52:M6:149:TYR:HE1	1.76	0.49
36:5:2947:G:H4'	36:5:2947:G:OP2	2.13	0.49
58:N2:76:LEU:O	58:N2:80:THR:HG23	2.13	0.49
15:C3:88:LEU:O	15:C3:92:ILE:HG13	2.12	0.49
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.48	0.49
1:2:1107:G:O2'	1:2:1108:G:H5'	2.13	0.49
1:6:412:A:O5'	1:6:412:A:H8	1.96	0.49
36:1:2416:U:H2'	36:1:2417:U:C6	2.47	0.49
15:C3:76:LYS:HA	15:C3:81:ALA:HB2	2.01	0.49
21:C9:10:ALA:HB3	21:C9:13:ASP:HB2	4.70	0.49
36:1:239:G:O2'	36:1:240:U:OP1	2.25	0.49
34:SR:95:ALA:O	34:SR:97:GLY:N	4.70	0.49
36:5:2772:C:H1'	36:5:2773:C:OP2	2.13	0.49
38:8:155:A:H2'	38:8:156:U:O4'	2.11	0.49
71:O5:24:LEU:HA	71:O5:27:GLU:HB2	1.94	0.49
1:2:1362:U:O2'	1:2:1363:U:O2	2.30	0.49
51:M5:104:GLU:O	51:M5:108:ARG:HG3	2.16	0.49
1:6:1586:A:H2'	1:6:1587:A:O4'	2.13	0.49
1:6:230:C:N3	1:6:235:G:N2	2.54	0.49
65:N9:14:ARG:NH2	65:N9:18:ARG:HD2	2.28	0.49
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	2.45	0.49
41:L4:281:ILE:HG12	41:L4:282:SER:N	2.28	0.49
28:D6:4:LYS:HE2	28:D6:5:ARG:NH2	2.47	0.49
28:D6:36:ILE:HG21	28:D6:78:ALA:HB2	1.95	0.49
63:N7:51:LEU:HB2	63:N7:65:ARG:HD2	1.94	0.49
3:S1:88:VAL:HG11	3:S1:96:LEU:HD12	1.95	0.49
36:5:2818:U:H6	36:5:2818:U:C5'	2.22	0.49
76:Q0:83:LYS:O	76:Q0:87:SER:OG	2.56	0.49
22:D0:102:ARG:HG3	22:D0:103:ILE:N	4.37	0.49
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.95	0.49
36:5:2101:C:HO2'	36:5:2102:U:P	2.34	0.49
63:N7:115:LYS:O	63:N7:119:GLU:HB2	3.07	0.49
40:L3:332:ARG:HH11	40:L3:332:ARG:HG2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:119:GLU:OE1	15:C3:141:TYR:OH	2.23	0.49
1:2:1656:U:H5''	1:2:1657:U:O5'	2.12	0.49
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.71	0.49
36:1:1818:U:H2'	36:1:1819:U:O4'	2.13	0.49
7:S5:216:GLU:OE2	7:S5:219:ARG:HD3	3.03	0.49
13:C1:72:THR:O	13:C1:88:ARG:HD2	2.13	0.49
9:S7:39:ARG:HH12	55:M9:188:ASP:HB2	1.78	0.49
36:1:434:U:O4	86:1:4163:OHX:N5	2.45	0.49
1:6:25:C:H4'	1:6:25:C:OP2	2.11	0.49
1:2:1358:G:H2'	1:2:1359:C:C6	2.46	0.49
1:6:891:A:H2'	1:6:892:A:C8	2.48	0.49
36:1:2861:U:H2'	36:1:2862:U:O4'	2.12	0.49
47:M0:99:ILE:CD1	47:M0:101:LYS:HB2	5.61	0.49
53:M7:31:GLU:CG	53:M7:60:PHE:HA	3.65	0.49
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.21	0.49
37:7:4:U:H2'	37:7:5:G:H8	1.78	0.49
1:6:1695:G:N2	1:6:1706:C:H41	2.07	0.49
38:4:79:A:C6	38:4:80:A:C2	3.00	0.49
79:Q3:54:ILE:O	79:Q3:54:ILE:HG12	4.72	0.49
36:1:855:U:H2'	36:1:856:G:O4'	2.13	0.49
34:SR:159:ASN:O	34:SR:161:LYS:N	4.57	0.49
36:5:1235:U:H4'	36:5:1236:G:H5'	1.95	0.49
6:S4:242:LYS:N	6:S4:242:LYS:HE3	2.27	0.49
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.95	0.49
5:S3:132:LYS:HE3	5:S3:192:PRO:HD2	2.80	0.49
1:2:484:C:N4	1:2:503:G:H22	2.07	0.49
16:C4:17:ALA:HB3	16:C4:81:VAL:HB	1.95	0.49
24:D2:104:LEU:HB2	24:D2:124:LYS:O	2.12	0.49
86:5:4004:OHX:N6	86:5:4194:OHX:N5	2.60	0.49
14:C2:118:ALA:O	14:C2:120:VAL:N	2.46	0.49
23:D1:3:ASN:HD21	23:D1:7:GLN:HB3	5.10	0.49
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.77	0.49
36:1:2748:A:N3	42:L5:36:LEU:HD23	2.27	0.49
63:N7:35:SER:OG	63:N7:36:HIS:N	2.45	0.49
1:6:986:G:OP2	86:6:2117:OHX:N2	2.45	0.49
56:N0:155:ARG:NH2	56:N0:172:TYR:HA	2.28	0.49
36:5:2171:G:H2'	36:5:2172:A:C8	2.47	0.49
1:2:130:C:O2'	1:2:131:C:OP1	2.29	0.49
44:L7:79:ALA:HB1	57:N1:136:ARG:O	2.54	0.49
18:C6:8:GLN:O	1:6:1340:U:H5	437.48	0.49
64:N8:74:ASN:OD1	64:N8:113:LEU:HB2	2.14	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:210:U:P	41:L4:161:LYS:HD2	2.53	0.49
53:M7:39:TRP:O	53:M7:114:VAL:HG12	2.26	0.49
40:L3:81:THR:HG23	40:L3:81:THR:O	3.80	0.49
75:O9:45:ARG:NH2	36:5:1841:A:N3	127.23	0.49
36:1:565:U:H2'	36:1:566:G:C8	2.48	0.49
60:N4:6:ASP:HB3	60:N4:11:ALA:H	2.20	0.49
16:C4:35:GLY:HA3	1:6:919:A:H5'	268.72	0.49
59:N3:81:GLN:NE2	59:N3:83:LYS:O	2.90	0.49
25:D3:47:SER:HB2	25:D3:48:HIS:ND1	2.28	0.49
1:6:1321:A:H4'	1:6:1322:A:O5'	2.12	0.49
36:5:2560:C:O2	86:5:4025:OHX:N2	2.46	0.49
36:1:3000:A:H2'	36:1:3001:C:H6	1.78	0.49
1:2:1120:U:H2'	1:2:1121:C:C6	2.47	0.49
1:6:1216:C:O2'	1:6:1444:A:N1	2.33	0.49
42:L5:182:GLY:HA2	42:L5:194:LEU:HD13	2.15	0.49
1:2:1057:U:O2'	1:2:1058:U:OP2	2.25	0.49
36:1:2908:G:N7	86:1:3872:OHX:N4	2.61	0.49
36:1:2840:C:N4	36:1:2845:A:O2'	2.46	0.49
36:1:2859:U:H4'	36:1:2860:U:OP1	2.13	0.49
41:L4:311:HIS:HE1	41:L4:314:LYS:HB2	1.77	0.49
43:L6:68:PRO:HB2	43:L6:71:VAL:HG23	1.95	0.49
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	3.00	0.49
1:2:1769:U:OP2	86:2:2145:OHX:N1	2.46	0.49
47:M0:4:ARG:NH1	36:5:2828:G:O2'	263.41	0.49
13:C1:101:GLU:CD	25:D3:16:ARG:HH22	3.19	0.49
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.90	0.49
56:N0:71:LYS:NZ	36:5:563:U:OP1	340.10	0.49
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.07	0.49
1:2:1584:G:O2'	1:2:1610:G:O6	2.24	0.49
7:S5:73:THR:HG23	18:C6:114:ARG:CD	2.42	0.49
28:D6:94:ASN:OD1	28:D6:96:ALA:HB3	2.32	0.49
20:C8:3:LEU:HD23	20:C8:5:VAL:HG13	1.95	0.49
38:4:85:G:C8	38:4:85:G:H3'	2.47	0.49
1:2:990:C:H2'	1:2:991:G:O4'	2.13	0.49
11:S9:122:VAL:HG23	11:S9:123:HIS:CD2	2.48	0.49
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.37	0.49
2:S0:168:HIS:O	2:S0:172:LEU:N	2.41	0.49
36:1:2898:G:OP2	36:1:2899:C:H5'	2.11	0.49
62:N6:103:LYS:NZ	36:5:221:A:N6	79.24	0.49
53:M7:41:LEU:H	53:M7:113:TYR:HA	1.76	0.49
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3121:U:H1'	36:1:3122:A:H5''	1.95	0.49
47:M0:81:GLY:O	47:M0:83:ASP:N	2.82	0.49
1:2:1580:C:H2'	1:2:1581:C:O4'	2.12	0.49
41:L4:307:GLN:HE22	36:5:1346:G:H1'	200.75	0.49
86:5:4004:OHX:N3	86:5:4194:OHX:N1	2.61	0.49
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.78	0.49
8:S6:7:TYR:CD1	8:S6:125:THR:HA	3.30	0.49
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.48	0.49
1:2:25:C:O2	86:2:2083:OHX:N1	2.46	0.49
1:6:292:U:C4	1:6:293:U:C4	3.01	0.49
39:L2:83:HIS:NE2	39:L2:86:GLN:HB2	2.28	0.49
55:M9:102:LEU:O	55:M9:106:LEU:HD22	2.13	0.49
36:1:40:A:C2	64:N8:40:HIS:CE1	3.01	0.49
36:1:3000:A:H2'	36:1:3001:C:C6	2.48	0.49
36:5:1887:A:OP1	86:5:4107:OHX:N6	2.46	0.49
36:1:277:G:H2'	36:1:278:U:C6	2.48	0.49
10:S8:66:SER:HB3	10:S8:73:SER:OG	2.13	0.49
12:C0:10:LYS:HZ1	12:C0:36:ASP:C	4.39	0.49
1:2:872:G:H2'	1:2:873:U:O4'	2.13	0.49
56:N0:101:ALA:O	56:N0:104:GLU:HB3	2.12	0.49
36:5:1155:C:O2'	36:5:1197:A:N1	2.36	0.49
15:C3:34:ILE:O	15:C3:38:VAL:HG23	2.13	0.49
36:5:2319:U:O4	86:5:3989:OHX:N2	2.46	0.49
77:Q1:14:LYS:HD2	1:6:1115:U:H5''	294.74	0.49
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	1.94	0.49
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.86	0.49
86:5:3971:OHX:N2	86:5:4192:OHX:N1	2.60	0.49
36:1:3276:G:H1	69:O3:60:ARG:NH1	2.10	0.49
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.17	0.49
36:5:618:C:O2'	36:5:621:A:N3	2.30	0.49
2:S0:179:ARG:HD3	2:S0:183:ARG:CZ	3.96	0.49
36:1:1814:A:H4'	36:1:1815:U:H5'	1.95	0.49
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.24	0.49
36:1:3375:A:H5''	36:1:3378:C:H5	1.77	0.49
39:L2:48:ILE:HG13	39:L2:48:ILE:O	2.13	0.49
61:N5:115:ARG:HH11	61:N5:115:ARG:CG	2.26	0.49
63:N7:89:VAL:O	63:N7:93:LYS:N	2.89	0.49
41:L4:8:VAL:HB	41:L4:16:THR:HG21	3.92	0.49
63:N7:135:ARG:HH21	63:N7:135:ARG:CG	2.36	0.49
18:C6:94:GLN:HG3	18:C6:95:LYS:N	2.44	0.49
40:L3:313:HIS:O	40:L3:333:LYS:HE3	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:24:ALA:O	15:C3:27:LYS:HE2	6.59	0.49
15:C3:26:PHE:CE2	15:C3:66:ILE:HD13	2.48	0.49
17:C5:127:ARG:NH2	35:SM:65:THR:OG1	3.91	0.49
1:6:1081:A:O2'	1:6:1082:C:O5'	2.31	0.49
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.48	0.49
36:1:2677:G:OP2	86:1:4046:OHX:N4	2.45	0.49
40:L3:147:GLU:OE2	40:L3:150:ARG:NH1	2.34	0.49
36:1:1844:C:H2'	36:1:1845:G:H5''	1.94	0.49
39:L2:112:ILE:HD13	39:L2:135:ILE:HG12	1.95	0.49
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.24	0.49
34:SR:33:LEU:O	34:SR:45:TRP:HD1	2.07	0.49
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.13	0.49
36:1:2392:C:H5''	36:1:2393:G:OP2	2.12	0.49
54:M8:81:VAL:HG22	54:M8:101:VAL:HG22	1.95	0.49
56:N0:169:SER:HA	36:5:3185:U:O2	301.07	0.49
1:2:1:U:O4	11:S9:54:ARG:HD3	2.13	0.49
1:6:416:A:H4'	1:6:417:A:OP2	2.13	0.49
1:2:82:U:H2'	1:2:83:G:O4'	2.13	0.49
25:D3:14:LYS:HA	25:D3:17:VAL:HG12	4.72	0.49
36:1:98:G:N7	49:M3:13:HIS:NE2	2.57	0.49
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	3.85	0.49
47:M0:205:SER:OG	47:M0:205:SER:O	2.29	0.49
36:5:33:G:N1	36:5:50:U:OP2	2.35	0.49
64:N8:70:LYS:N	64:N8:71:PRO:HD3	2.28	0.49
55:M9:134:HIS:ND1	55:M9:136:ARG:HB3	2.71	0.49
36:1:629:U:H2'	36:1:630:A:C8	2.47	0.49
36:5:1591:G:O2'	36:5:1799:A:N1	2.41	0.49
39:L2:120:PRO:HD3	39:L2:159:SER:HB3	1.94	0.49
3:S1:113:MET:HE3	3:S1:211:HIS:CD2	4.21	0.48
3:S1:143:THR:HB	3:S1:205:PHE:HE1	1.78	0.48
22:D0:70:THR:HG22	22:D0:71:PRO:O	5.98	0.48
86:6:2118:OHX:N2	86:6:2169:OHX:N5	2.60	0.48
86:1:4030:OHX:N4	86:1:4043:OHX:N3	2.60	0.48
86:1:4030:OHX:N6	86:1:4043:OHX:N3	2.61	0.48
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	2.02	0.48
36:5:1573:G:C5	36:5:1574:C:H1'	2.48	0.48
3:S1:57:ALA:O	3:S1:61:LEU:HB2	5.60	0.48
20:C8:123:ARG:HG3	20:C8:133:VAL:CG2	2.43	0.48
41:L4:26:PHE:CD1	41:L4:130:ALA:HB2	3.44	0.48
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.06	0.48
1:2:894:U:H2'	1:2:895:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2107:A:C2	36:1:3344:A:H8	2.31	0.48
36:5:1523:U:OP2	36:5:1604:G:O2'	2.27	0.48
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.13	0.48
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.48	0.48
9:S7:107:ARG:NH1	1:6:743:U:OP2	342.88	0.48
15:C3:103:GLU:HA	15:C3:106:ARG:NH2	2.26	0.48
59:N3:33:ASN:ND2	59:N3:63:LYS:HB2	3.49	0.48
36:5:726:G:H5'	36:5:727:G:P	2.53	0.48
1:2:1053:G:C2	1:2:1067:C:C2	3.01	0.48
36:5:1725:C:H2'	36:5:1726:C:C6	2.46	0.48
1:2:415:C:O2'	1:2:418:G:O6	2.20	0.48
64:N8:128:ARG:HB3	72:O6:8:ALA:CB	3.28	0.48
29:D7:67:THR:O	1:6:871:G:O2'	326.70	0.48
37:3:60:G:H2'	37:3:61:G:C8	2.47	0.48
40:L3:169:THR:HG21	40:L3:171:LEU:HD12	1.95	0.48
22:D0:48:HIS:NE2	22:D0:50:LEU:HD11	2.28	0.48
1:6:1275:A:OP2	1:6:1275:A:H8	1.96	0.48
36:5:1479:U:C3'	36:5:1480:G:H5'	2.43	0.48
1:2:954:G:H2'	1:2:955:A:C8	2.48	0.48
36:5:370:U:OP1	86:5:4160:OHX:N5	2.46	0.48
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.95	0.48
1:2:579:A:H3'	5:S3:143:ARG:NH1	2.28	0.48
36:1:953:G:H2'	36:1:1117:G:H5''	1.95	0.48
1:6:968:U:H2'	1:6:969:C:O4'	2.13	0.48
36:1:1530:U:H5''	36:1:1531:C:OP2	2.13	0.48
1:6:427:C:O2'	1:6:459:G:N3	2.35	0.48
36:1:1593:A:C6	36:1:1594:A:C6	3.01	0.48
45:L8:121:SER:O	45:L8:123:GLN:N	2.99	0.48
44:L7:144:ILE:O	44:L7:148:VAL:HG23	2.22	0.48
51:M5:13:LYS:O	51:M5:16:SER:OG	2.13	0.48
44:L7:25:GLN:HA	44:L7:28:ALA:HB3	1.95	0.48
36:1:1908:A:O5'	36:1:1908:A:H8	1.96	0.48
36:1:281:G:C6	36:1:282:G:C6	3.01	0.48
38:4:137:C:OP2	86:4:235:OHX:N5	2.46	0.48
36:5:3374:U:O4	86:5:4029:OHX:N5	2.46	0.48
36:1:743:C:O2	54:M8:141:ARG:HD2	2.12	0.48
1:6:83:G:OP2	86:6:2096:OHX:N4	2.46	0.48
21:C9:39:THR:HA	21:C9:100:ILE:HD12	4.52	0.48
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.14	0.48
36:5:300:G:O6	86:5:4185:OHX:N2	2.46	0.48
86:2:2030:OHX:N6	86:2:2146:OHX:N2	2.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:90:LYS:O	11:S9:95:TYR:HB2	3.51	0.48
1:2:523:G:H5''	26:D4:59:GLY:O	2.13	0.48
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.13	0.48
50:M4:119:GLN:O	50:M4:123:LEU:HD12	3.17	0.48
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	3.30	0.48
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.13	0.48
41:L4:296:GLN:HA	41:L4:299:ILE:HG12	1.95	0.48
78:Q2:71:ARG:CZ	78:Q2:80:ARG:HD3	2.53	0.48
39:L2:21:ARG:HG2	39:L2:22:LEU:HD23	1.96	0.48
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.71	0.48
70:O4:85:VAL:HA	70:O4:88:ARG:CB	4.01	0.48
36:1:223:U:OP1	36:1:225:C:N4	2.40	0.48
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	1.95	0.48
72:O6:54:GLU:O	72:O6:58:ILE:HG23	2.12	0.48
21:C9:28:LEU:HD13	21:C9:29:GLU:H	1.77	0.48
5:S3:34:TYR:CE2	5:S3:37:VAL:HG13	3.09	0.48
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.49	0.48
36:1:1033:U:H2'	36:1:1034:U:C6	2.48	0.48
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	2.53	0.48
1:2:1062:A:OP2	86:2:2164:OHX:N4	2.46	0.48
36:5:173:G:N1	36:5:246:U:C2	2.81	0.48
86:1:4002:OHX:N3	86:1:4171:OHX:N3	2.60	0.48
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.77	0.48
47:M0:210:ILE:HA	47:M0:217:PHE:HE2	2.16	0.48
44:L7:136:TYR:O	44:L7:231:ASN:HA	2.13	0.48
56:N0:84:ARG:HD3	37:7:89:G:H4'	284.87	0.48
1:2:730:G:O6	86:2:2156:OHX:N4	2.46	0.48
41:L4:216:VAL:HG13	41:L4:227:THR:OG1	4.22	0.48
36:5:1329:U:HO2'	36:5:1330:A:P	2.37	0.48
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	1.95	0.48
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.94	0.48
1:2:755:A:HO2'	1:2:756:A:P	2.36	0.48
10:S8:59:ARG:O	10:S8:60:ILE:HG12	3.26	0.48
16:C4:11:SER:OG	16:C4:12:GLN:N	4.30	0.48
36:1:2353:G:C5	36:1:2354:C:C5	3.01	0.48
34:SR:130:THR:HG22	34:SR:145:LEU:HA	3.44	0.48
36:5:1541:G:OP2	86:5:4087:OHX:N4	2.46	0.48
7:S5:20:PHE:CE2	7:S5:22:PRO:HG3	3.77	0.48
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.33	0.48
45:L8:140:VAL:O	45:L8:144:GLU:HG3	2.18	0.48
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.04	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:558:U:O2'	1:2:559:C:O5'	2.30	0.48
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.96	0.48
64:N8:47:LYS:O	64:N8:47:LYS:HG2	2.13	0.48
36:1:1449:A:C2	36:1:2356:A:C4	3.01	0.48
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	2.40	0.48
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.59	0.48
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.37	0.48
3:S1:28:GLU:HB3	3:S1:94:LYS:NZ	5.91	0.48
1:2:1497:U:N3	1:2:1511:U:O2	2.46	0.48
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.28	0.48
1:2:704:C:OP2	1:2:704:C:H3'	2.12	0.48
66:O0:16:LEU:HD11	66:O0:97:ASP:HB3	1.96	0.48
36:1:1063:G:N1	57:N1:109:VAL:HG13	2.28	0.48
5:S3:162:GLN:O	5:S3:165:ASN:N	2.45	0.48
58:N2:50:LEU:O	58:N2:52:ASN:N	2.45	0.48
58:N2:59:ASP:N	58:N2:62:VAL:O	2.42	0.48
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.13	0.48
6:S4:36:HIS:HE2	6:S4:88:ASP:CG	2.16	0.48
49:M3:180:ARG:HD3	72:O6:11:LEU:HD21	1.95	0.48
40:L3:332:ARG:HD3	40:L3:332:ARG:N	2.27	0.48
36:5:1522:U:H4'	36:5:1523:U:OP2	2.13	0.48
9:S7:154:LEU:HD21	9:S7:183:PHE:CD1	2.44	0.48
1:6:800:U:H2'	1:6:801:G:C8	2.44	0.48
55:M9:20:ARG:NH1	36:5:1873:U:OP2	147.41	0.48
5:S3:34:TYR:OH	5:S3:37:VAL:HG22	2.21	0.48
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.31	0.48
61:N5:103:TYR:HE1	61:N5:139:ILE:HD13	1.78	0.48
36:1:3139:A:OP1	40:L3:274:SER:HB2	2.12	0.48
58:N2:75:TYR:CE1	58:N2:79:LEU:HD11	3.31	0.48
59:N3:79:VAL:HB	59:N3:118:VAL:HG13	2.44	0.48
54:M8:40:THR:O	54:M8:42:ALA:N	2.47	0.48
44:L7:176:TYR:HB3	44:L7:194:HIS:ND1	2.28	0.48
39:L2:47:GLN:HE21	39:L2:49:VAL:HG21	1.78	0.48
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	3.33	0.48
1:2:14:C:H2'	1:2:15:U:H6	1.78	0.48
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.23	0.48
25:D3:50:LYS:NZ	25:D3:101:GLU:OE1	4.03	0.48
36:5:3266:G:C6	36:5:3267:A:C6	3.01	0.48
36:5:999:G:C6	36:5:1000:C:N4	2.81	0.48
1:2:1017:U:H2'	1:2:1018:U:C6	2.48	0.48
36:5:1276:U:OP2	86:5:4000:OHX:N1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3081:C:H2'	36:5:3082:C:C6	2.48	0.48
36:5:1481:A:H2'	36:5:1858:A:N3	2.29	0.48
40:L3:305:ILE:HG12	40:L3:321:PHE:CZ	2.49	0.48
36:1:92:G:H5'	36:1:93:C:O5'	2.13	0.48
36:5:1195:A:H1'	36:5:1319:G:H4'	1.94	0.48
25:D3:47:SER:OG	25:D3:48:HIS:ND1	3.79	0.48
36:1:610:G:N7	41:L4:309:ARG:NH1	2.50	0.48
78:Q2:2:VAL:N	78:Q2:90:HIS:O	2.46	0.48
44:L7:224:ILE:HD13	56:N0:39:SER:HB2	2.11	0.48
8:S6:131:LYS:O	60:N4:82:ILE:HA	2.13	0.48
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.48	0.48
36:1:1509:A:O2'	36:1:1510:G:H5'	2.13	0.48
19:C7:13:SER:HA	19:C7:54:THR:HG22	3.16	0.48
36:5:926:A:H2'	36:5:927:C:C6	2.48	0.48
72:O6:21:THR:O	72:O6:21:THR:OG1	2.28	0.48
36:1:1338:C:OP2	86:1:4195:OHX:N2	2.46	0.48
36:5:2962:U:OP1	86:5:3971:OHX:N4	2.46	0.48
53:M7:69:ARG:HG2	53:M7:79:THR:HB	1.96	0.48
40:L3:53:MET:HE1	40:L3:327:CYS:CB	2.44	0.48
36:1:2854:U:OP1	47:M0:61:SER:OG	2.23	0.48
6:S4:54:TYR:O	26:D4:15:ASN:ND2	2.58	0.48
21:C9:85:SER:C	21:C9:87:GLY:H	2.16	0.48
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.69	0.48
1:2:512:A:H5''	11:S9:163:PRO:HG3	1.95	0.48
50:M4:19:ARG:NH2	50:M4:69:THR:HG23	2.50	0.48
1:6:146:U:OP2	86:6:2168:OHX:N6	2.46	0.48
1:2:1291:G:H8	1:2:1291:G:O5'	1.97	0.48
11:S9:92:LYS:O	11:S9:93:LEU:HD23	2.13	0.48
41:L4:144:LYS:HD2	41:L4:145:ILE:HG23	6.00	0.48
5:S3:127:MET:CE	5:S3:133:GLY:HA2	2.43	0.48
36:5:703:G:O2'	36:5:787:G:H4'	2.14	0.48
49:M3:153:ASP:OD2	49:M3:157:ARG:NH2	2.46	0.48
42:L5:56:THR:O	42:L5:58:LYS:N	2.43	0.48
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	2.46	0.48
1:2:800:U:O4	86:2:2053:OHX:N5	2.47	0.48
36:1:2247:G:OP1	86:1:4062:OHX:N2	2.47	0.48
54:M8:21:SER:OG	54:M8:22:ASP:N	2.47	0.48
46:L9:91:ARG:HD3	46:L9:143:GLU:HB2	1.96	0.48
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.46	0.48
7:S5:184:PHE:CD1	7:S5:185:ARG:HG3	3.02	0.48
36:1:595:G:O2'	36:1:596:C:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1788:G:OP2	16:C4:127:ARG:NH2	2.46	0.48
47:M0:210:ILE:HD13	47:M0:217:PHE:CD2	4.20	0.48
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	2.62	0.48
40:L3:261:MET:HG2	52:M6:64:PHE:CB	3.14	0.48
1:6:16:G:H2'	1:6:17:C:C6	2.49	0.48
36:1:1273:A:HO2'	36:1:1274:A:P	2.35	0.48
1:2:836:U:H2'	1:2:837:G:C8	2.48	0.48
36:1:2882:U:H2'	36:1:2883:U:C6	2.48	0.48
56:N0:131:LYS:HB2	56:N0:131:LYS:HE3	3.17	0.48
40:L3:315:GLY:HA2	36:5:3379:C:H4'	213.95	0.48
36:5:1317:A:OP1	86:5:4091:OHX:N1	2.46	0.48
13:C1:71:LEU:HB3	13:C1:88:ARG:NH1	2.82	0.48
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.13	0.48
1:2:1387:G:OP1	19:C7:32:LYS:NZ	2.47	0.48
22:D0:83:GLU:OE1	22:D0:85:ARG:NE	2.38	0.48
36:5:985:U:H2'	36:5:986:U:H6	1.78	0.48
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.13	0.48
1:2:838:G:H2'	1:2:839:U:O4'	2.13	0.48
21:C9:97:SER:OG	1:6:1504:G:OP1	392.58	0.48
7:S5:147:THR:O	7:S5:149:VAL:N	2.45	0.48
37:3:11:A:H8	42:L5:18:THR:HG1	1.59	0.48
36:1:2713:U:O2'	78:Q2:8:ARG:HD2	2.12	0.48
18:C6:71:GLY:O	18:C6:77:GLN:NE2	2.42	0.48
18:C6:20:ALA:HB2	18:C6:84:ALA:HB1	2.27	0.48
50:M4:93:LYS:HB2	50:M4:93:LYS:HE3	1.60	0.48
8:S6:4:ASN:HA	8:S6:15:THR:HG22	1.95	0.48
7:S5:206:SER:O	7:S5:212:LYS:NZ	2.38	0.48
35:SM:68:ARG:HH21	1:6:1460:A:P	330.72	0.48
42:L5:260:PHE:HA	42:L5:264:GLN:OE1	4.21	0.48
45:L8:74:THR:HA	45:L8:77:GLN:HE21	2.25	0.48
1:6:1700:C:HO2'	1:6:1701:A:P	2.32	0.48
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.48	0.48
62:N6:107:THR:O	62:N6:108:LYS:HD3	2.62	0.48
36:5:2207:A:N6	36:5:2236:G:H1	2.05	0.48
1:2:1542:G:H5''	21:C9:87:GLY:C	2.34	0.48
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.12	0.48
59:N3:93:LEU:HB2	60:N4:20:LEU:HD22	2.34	0.48
7:S5:164:PRO:HA	7:S5:167:ARG:HB2	1.96	0.48
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.14	0.48
86:5:3994:OHX:N3	86:5:4083:OHX:N5	2.61	0.48
39:L2:48:ILE:HD12	79:Q3:65:ALA:HB2	3.98	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:69:ASN:HB3	2:S0:71:GLU:OE2	2.13	0.48
5:S3:116:ARG:HG3	5:S3:120:TYR:CE2	6.14	0.48
70:O4:56:THR:HA	70:O4:62:TYR:OH	2.13	0.48
26:D4:86:GLU:OE1	26:D4:90:ARG:NH1	2.67	0.48
47:M0:77:THR:HG22	47:M0:85:PHE:CZ	2.88	0.48
36:1:2728:G:N7	57:N1:87:LYS:NZ	2.55	0.48
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.49	0.48
18:C6:31:VAL:N	18:C6:34:SER:O	2.43	0.48
34:SR:225:LEU:O	34:SR:228:LYS:HG3	2.14	0.48
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.12	0.48
36:5:3165:A:N6	36:5:3285:C:H42	2.10	0.48
10:S8:8:ARG:HD3	10:S8:21:PHE:HD1	1.78	0.48
43:L6:142:ASP:O	43:L6:146:ILE:HG12	2.14	0.48
62:N6:120:GLN:OE1	62:N6:126:LEU:HD23	4.03	0.48
1:2:474:A:OP1	11:S9:145:SER:HB2	2.13	0.48
36:5:112:U:O2'	36:5:113:C:P	2.71	0.48
36:1:3173:G:C2	69:O3:96:ALA:HB2	2.47	0.48
36:1:2717:U:H4'	78:Q2:13:LYS:HD3	1.96	0.48
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.53	0.48
44:L7:41:ARG:NH1	36:5:598:A:OP1	259.87	0.48
59:N3:74:MET:SD	59:N3:102:ILE:HD13	2.85	0.48
36:1:1770:G:H5'	36:1:1771:C:OP2	2.13	0.48
14:C2:36:LEU:HG	14:C2:41:LEU:HD12	2.30	0.48
44:L7:25:GLN:HG2	44:L7:29:GLU:HB2	1.96	0.48
1:2:119:A:H2'	1:2:120:U:O4'	2.14	0.48
52:M6:93:ALA:HB3	36:5:632:G:OP1	219.58	0.48
5:S3:105:MET:HE2	5:S3:184:ILE:HD12	1.93	0.48
36:1:250:U:H5	36:1:251:G:N7	2.11	0.48
67:O1:30:PRO:HD3	67:O1:60:TRP:CH2	2.49	0.48
59:N3:101:VAL:HG11	59:N3:114:ILE:HG12	1.95	0.48
54:M8:11:LYS:HB3	54:M8:11:LYS:HE3	1.76	0.48
1:6:675:U:H2'	1:6:676:G:C8	2.49	0.48
36:5:1135:A:C2	36:5:1136:A:C8	3.01	0.48
86:6:2118:OHX:N4	86:6:2169:OHX:N1	2.61	0.48
1:2:968:U:H5''	1:2:1033:C:O2'	2.12	0.48
42:L5:259:LYS:O	42:L5:265:TYR:OH	2.72	0.48
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.13	0.48
1:6:327:U:H2'	1:6:328:A:C8	2.48	0.48
36:1:2535:A:N6	36:1:2544:U:H3	2.04	0.48
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.38	0.48
36:5:303:G:C2	36:5:2778:G:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1113:A:H3'	77:Q1:6:ARG:HH22	1.77	0.48
41:L4:145:ILE:O	86:L4:403:OHX:N5	2.46	0.48
33:E1:86:THR:C	33:E1:87:THR:HG1	2.51	0.48
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.25	0.48
56:N0:152:LEU:N	56:N0:153:PRO:HD3	2.64	0.48
2:S0:147:THR:O	2:S0:161:PRO:HA	2.49	0.48
36:1:1941:C:O2'	36:1:3344:A:N6	2.44	0.48
50:M4:36:VAL:HG12	50:M4:75:GLY:HA2	2.46	0.48
37:3:49:G:O6	42:L5:58:LYS:HE2	2.14	0.48
1:6:221:A:C2'	1:6:222:A:H5'	2.43	0.48
1:6:197:A:H2'	1:6:198:A:C8	2.49	0.48
15:C3:99:ARG:HG3	15:C3:115:LEU:HD11	2.78	0.48
1:2:1518:C:OP1	86:2:2120:OHX:N5	2.46	0.48
1:6:1049:U:H2'	1:6:1050:G:C8	2.49	0.48
1:6:1427:A:O2'	1:6:1428:G:OP1	2.29	0.48
74:O8:60:GLY:O	74:O8:62:ALA:N	3.00	0.48
3:S1:148:ASN:OD1	3:S1:148:ASN:N	3.43	0.48
36:1:2616:C:H2'	36:1:2617:U:H5'	1.96	0.48
37:7:71:G:N2	37:7:107:C:O2	2.40	0.48
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.82	0.48
43:L6:134:ARG:CG	43:L6:134:ARG:HH11	2.25	0.48
36:1:817:A:H8	73:O7:15:SER:HG	1.59	0.48
42:L5:276:LYS:HG3	37:7:62:U:OP1	325.43	0.48
46:L9:151:VAL:O	46:L9:155:SER:OG	2.15	0.48
1:2:1756:A:O5'	1:2:1756:A:H8	1.97	0.48
36:1:3325:G:H5''	67:O1:103:GLY:HA2	1.96	0.48
57:N1:39:ILE:HD11	57:N1:102:ARG:HD2	1.95	0.48
1:6:1002:G:C6	1:6:1003:A:N7	2.81	0.48
1:2:1505:A:H5''	1:2:1506:G:OP2	2.14	0.48
12:C0:31:LYS:HE3	12:C0:36:ASP:OD1	2.14	0.48
44:L7:25:GLN:O	44:L7:28:ALA:N	2.47	0.48
69:O3:54:ARG:NH1	69:O3:64:ILE:HD11	2.29	0.48
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.15	0.48
36:5:801:A:O2'	86:5:4022:OHX:N1	2.46	0.48
36:1:1918:C:OP2	86:1:4012:OHX:N2	2.47	0.48
23:D1:72:LEU:HA	23:D1:72:LEU:HD23	1.89	0.48
40:L3:57:VAL:HG21	60:N4:15:PRO:HG2	2.43	0.48
36:1:3192:U:H2'	36:1:3193:C:C6	2.48	0.48
51:M5:140:LYS:O	51:M5:144:ARG:HG3	2.12	0.48
1:2:136:C:H4'	1:2:137:U:OP1	2.13	0.48
1:2:693:U:H5'	1:2:694:U:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:96:HIS:O	46:L9:98:PRO:HD3	2.14	0.48
36:1:612:U:H2'	36:1:613:G:H8	1.79	0.48
1:2:603:U:H2'	1:2:604:A:H8	1.78	0.48
36:1:660:A:H5''	41:L4:100:PHE:CD1	2.48	0.48
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	1.94	0.48
1:6:1744:A:N6	1:6:1745:G:C6	2.81	0.48
52:M6:78:ARG:HG2	52:M6:78:ARG:HH11	2.29	0.48
46:L9:176:LEU:HB3	76:Q0:86:ALA:CB	2.44	0.48
36:1:3160:U:H2'	36:1:3161:C:C6	2.48	0.48
14:C2:57:ALA:O	14:C2:85:LYS:HE3	3.15	0.48
36:1:1748:G:C6	36:1:1749:A:C6	3.02	0.48
36:5:1241:U:O2'	36:5:1242:G:O5'	2.26	0.48
30:D8:44:VAL:HG21	30:D8:48:VAL:CG2	3.53	0.48
36:1:77:A:H5'	49:M3:100:ARG:CZ	2.44	0.48
3:S1:61:LEU:HD12	3:S1:64:ARG:HD2	6.28	0.48
64:N8:95:SER:HB2	64:N8:97:GLU:HG2	5.45	0.48
55:M9:44:LEU:HD12	55:M9:49:THR:HB	1.95	0.48
41:L4:327:LEU:HA	44:L7:166:ASN:ND2	2.38	0.48
36:5:979:U:H1'	36:5:980:A:N9	2.27	0.48
33:E1:97:LYS:HE2	1:6:1231:U:C5	436.80	0.48
38:4:79:A:H5''	71:O5:43:LYS:NZ	2.29	0.48
36:1:1565:G:N2	36:1:1574:C:O2	2.47	0.48
3:S1:178:GLY:O	3:S1:180:THR:N	2.47	0.48
44:L7:214:TRP:CZ2	44:L7:219:LYS:HE3	2.49	0.48
1:2:1165:G:C6	1:2:1166:A:C6	3.01	0.48
36:1:2550:U:C6	45:L8:37:GLY:HA3	2.49	0.48
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.33	0.48
36:5:2330:C:H2'	36:5:2331:C:C6	2.45	0.48
8:S6:10:ASN:HB3	8:S6:128:THR:HB	2.86	0.48
50:M4:31:LYS:HE2	50:M4:51:ALA:O	2.13	0.48
50:M4:54:PRO:O	50:M4:56:GLN:HG2	2.13	0.48
1:2:1417:A:OP1	86:2:2070:OHX:N5	2.46	0.48
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.49	0.48
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.46	0.48
9:S7:111:LYS:HB3	9:S7:112:ARG:H	1.79	0.48
4:S2:139:ILE:CD1	4:S2:191:ALA:HB1	2.44	0.48
36:5:3205:G:H2'	36:5:3206:C:C5	2.48	0.48
36:1:1108:U:H2'	36:1:1109:U:H6	1.78	0.48
37:3:64:A:H5''	47:M0:206:LEU:H	1.78	0.48
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.14	0.48
36:5:3156:U:O2'	36:5:3157:U:O2	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1449:U:H2'	1:2:1450:U:C6	2.49	0.48
64:N8:74:ASN:HA	64:N8:113:LEU:O	2.14	0.48
36:5:247:C:N3	36:5:248:U:H1'	2.28	0.48
36:1:1668:G:C6	36:1:1669:C:C4	3.01	0.48
1:6:886:U:H2'	1:6:887:A:H8	1.79	0.48
1:2:1390:U:OP1	19:C7:5:ARG:HD2	2.12	0.48
40:L3:286:GLY:HA3	40:L3:321:PHE:CZ	2.49	0.48
45:L8:100:GLU:OE1	45:L8:108:ARG:HD3	2.14	0.48
14:C2:36:LEU:HD11	14:C2:101:ALA:O	2.12	0.48
50:M4:50:LYS:HE3	50:M4:86:ALA:HB2	1.94	0.48
6:S4:134:LYS:O	6:S4:136:VAL:N	3.54	0.48
36:1:1635:G:N2	36:1:1638:A:OP2	2.31	0.48
46:L9:92:TYR:CZ	46:L9:101:VAL:HG21	2.49	0.48
36:5:2290:C:O2'	36:5:2291:A:H5'	2.14	0.48
36:1:2623:G:H2'	36:1:2624:G:H8	1.78	0.48
1:6:1697:G:H8	1:6:1705:C:N3	2.11	0.48
36:1:2768:U:H2'	36:1:2769:A:C8	2.49	0.48
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.13	0.48
36:5:384:A:H2'	36:5:385:A:C8	2.48	0.48
1:2:1765:A:H5'	1:2:1767:G:N7	2.28	0.48
36:5:850:U:H2'	36:5:851:C:C6	2.49	0.48
1:6:760:A:H2'	1:6:761:G:O4'	2.14	0.48
34:SR:191:ASP:HB3	34:SR:193:ILE:CD1	3.70	0.48
1:2:1649:G:H2'	1:2:1650:U:C6	2.49	0.48
78:Q2:12:CYS:SG	78:Q2:17:CYS:CB	3.04	0.48
36:1:945:C:H2'	36:1:946:U:C6	2.49	0.48
68:O2:19:ARG:O	68:O2:22:SER:HB3	2.36	0.48
21:C9:37:VAL:HG12	21:C9:38:LYS:H	3.57	0.48
1:6:1699:G:C2'	1:6:1700:C:H5'	2.44	0.48
28:D6:4:LYS:HG3	28:D6:4:LYS:O	2.12	0.48
36:1:157:A:C8	72:O6:26:ILE:HG12	2.49	0.48
38:4:140:G:OP1	86:4:240:OHX:N4	2.47	0.48
51:M5:94:TYR:CZ	51:M5:96:ARG:HD3	2.66	0.48
1:2:795:U:H5	1:2:796:A:C5	2.31	0.48
46:L9:171:ASP:HA	36:5:2899:C:C5	322.09	0.48
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	1.97	0.48
37:7:23:A:H2'	37:7:24:A:C8	2.49	0.48
24:D2:6:VAL:HG13	24:D2:34:ILE:HD11	3.08	0.48
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.32	0.48
51:M5:44:ARG:HH12	36:5:269:G:P	125.83	0.48
36:1:1821:U:C4	70:O4:67:LYS:HD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.39	0.48
36:5:94:G:H2'	36:5:95:A:C8	2.48	0.48
58:N2:42:LYS:HB2	36:5:1687:U:H5	174.49	0.48
30:D8:22:ARG:HD2	1:6:1619:C:C2	342.85	0.48
36:1:2894:C:OP2	46:L9:168:ARG:NH2	2.47	0.48
1:2:639:U:H5''	9:S7:101:LYS:HB2	1.95	0.48
36:1:3298:C:H2'	36:1:3299:A:O4'	2.13	0.48
36:1:6:A:C2	38:4:154:C:C2	3.02	0.48
1:2:1764:C:H3'	1:2:1767:G:N7	2.29	0.48
16:C4:102:LEU:HD22	16:C4:105:LEU:HD11	1.96	0.48
36:5:2379:U:H2'	36:5:2380:U:C6	2.49	0.48
36:5:169:U:H4'	36:5:170:G:OP1	2.13	0.48
78:Q2:70:LEU:N	78:Q2:83:LEU:O	2.87	0.48
46:L9:146:LEU:HD23	46:L9:157:ASN:HB3	3.17	0.48
36:5:2186:U:H5'	36:5:2314:U:OP2	2.13	0.48
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	3.34	0.48
14:C2:88:LEU:HD12	14:C2:88:LEU:HA	2.02	0.48
75:O9:9:ILE:HD11	75:O9:51:ILE:HG22	2.10	0.48
1:2:103:A:H4'	1:2:104:A:OP2	2.13	0.48
1:6:1461:C:H2'	1:6:1462:G:H8	1.78	0.48
36:5:3194:C:O2'	36:5:3195:U:H5'	2.13	0.48
73:O7:55:ARG:HD3	36:5:353:G:N7	108.55	0.48
36:1:1549:U:O4	86:1:4055:OHX:N1	2.47	0.48
22:D0:103:ILE:HA	22:D0:106:ILE:HG22	2.97	0.48
48:M1:166:LYS:C	48:M1:168:ASP:H	2.98	0.48
1:2:142:G:N2	1:2:173:A:H2	2.09	0.48
21:C9:117:SER:HB2	21:C9:123:ARG:HB3	2.29	0.48
36:5:2921:U:H2'	36:5:2923:U:H5''	1.95	0.48
3:S1:97:LEU:HB3	3:S1:232:HIS:CD2	4.63	0.48
10:S8:87:ASN:OD1	10:S8:89:GLU:N	2.38	0.48
19:C7:82:ASP:O	19:C7:83:GLN:NE2	2.44	0.48
54:M8:170:ARG:HD2	64:N8:56:VAL:O	2.81	0.48
19:C7:56:HIS:NE2	1:6:1401:A:OP1	411.53	0.48
1:2:15:U:H2'	1:2:16:G:O4'	2.13	0.48
3:S1:134:VAL:HG12	3:S1:218:LEU:HB2	5.47	0.48
36:1:2636:A:H5''	36:1:2637:A:C5'	2.44	0.48
34:SR:74:THR:HG1	34:SR:78:ALA:H	1.58	0.48
36:5:1444:G:H1	36:5:2359:C:N4	2.11	0.48
23:D1:25:LYS:HD2	23:D1:27:ASP:OD2	2.13	0.48
1:2:1250:U:O2'	1:2:1251:U:OP1	2.28	0.48
8:S6:2:LYS:HE3	8:S6:2:LYS:HB2	1.57	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:793:A:H3'	1:6:794:U:H5'	1.96	0.48
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.14	0.48
36:5:3054:U:O4	86:5:4166:OHX:N4	2.47	0.48
36:5:1540:U:OP1	86:5:4087:OHX:N2	2.47	0.48
36:1:1695:U:O2'	36:1:1749:A:N1	2.41	0.48
44:L7:202:LEU:HD13	44:L7:205:PHE:CZ	2.90	0.48
41:L4:150:LEU:HD13	41:L4:249:ILE:HG23	2.53	0.48
1:2:102:U:O2	1:2:105:A:H2	1.96	0.48
45:L8:213:LYS:O	45:L8:217:THR:HG22	5.86	0.48
1:6:449:C:H42	1:6:457:G:H1	1.62	0.48
1:6:1173:C:H2'	1:6:1174:C:H6	1.79	0.48
43:L6:172:HIS:CD2	43:L6:173:MET:HG2	2.48	0.48
29:D7:20:LYS:NZ	1:6:958:U:OP2	346.18	0.48
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.49	0.48
36:5:2439:A:H62	36:5:2508:U:H3	1.62	0.48
36:5:2903:A:H2'	36:5:2904:U:O4'	2.14	0.48
45:L8:245:LYS:HG2	45:L8:245:LYS:O	2.76	0.48
39:L2:116:VAL:HG13	39:L2:126:LEU:HB2	2.46	0.48
1:6:1110:G:N2	1:6:1136:U:H1'	2.28	0.48
1:2:276:C:O2'	1:2:277:U:H5''	2.13	0.48
1:2:1585:U:O5'	1:2:1585:U:H6	1.97	0.48
1:2:79:C:H4'	8:S6:173:PRO:O	2.14	0.48
42:L5:244:HIS:O	42:L5:248:ARG:HG3	2.14	0.48
13:C1:136:ARG:NE	1:6:304:U:OP1	309.22	0.48
27:D5:43:ASP:O	27:D5:46:LYS:N	2.43	0.48
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.29	0.48
41:L4:330:TYR:CE2	44:L7:49:ALA:HA	2.49	0.48
2:S0:179:ARG:HH11	2:S0:183:ARG:NH1	2.11	0.48
25:D3:68:ILE:HD13	32:E0:6:GLY:HA3	1.95	0.48
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	3.61	0.48
30:D8:8:THR:HG21	30:D8:32:PHE:CE1	4.30	0.48
53:M7:139:TYR:CZ	36:5:2355:G:H4'	146.31	0.48
6:S4:187:ARG:NH2	1:6:753:A:N7	372.82	0.48
61:N5:100:LYS:HZ2	61:N5:106:ASP:HA	1.79	0.48
1:2:1370:U:O4	86:2:2120:OHX:N5	2.47	0.48
86:2:2043:OHX:N2	86:2:2098:OHX:N6	2.62	0.48
24:D2:94:LEU:HA	24:D2:95:PRO:HD2	1.69	0.48
55:M9:167:ARG:HB3	55:M9:167:ARG:NH1	4.89	0.48
11:S9:53:ARG:HB3	11:S9:53:ARG:CZ	2.86	0.48
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.13	0.48
14:C2:132:GLU:HA	14:C2:135:MET:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:862:A:C2	1:6:963:A:C4	3.01	0.48
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.49	0.48
86:1:3971:OHX:N6	86:1:4155:OHX:N2	2.61	0.48
46:L9:86:TYR:CZ	46:L9:151:VAL:HG22	3.34	0.48
36:5:181:U:H1'	36:5:236:G:H22	1.79	0.48
49:M3:25:HIS:O	51:M5:201:ARG:HD2	2.14	0.48
12:C0:31:LYS:HA	12:C0:37:THR:O	2.14	0.48
1:2:67:A:N6	1:2:83:G:O2'	2.46	0.48
36:5:1329:U:H4'	36:5:1330:A:OP1	2.14	0.48
36:1:29:C:H4'	36:1:62:A:H4'	1.96	0.48
36:1:1204:A:H2	36:1:2834:G:N3	2.12	0.48
36:1:1120:A:C2	36:1:1139:G:C2	3.02	0.48
13:C1:123:VAL:HG22	13:C1:142:VAL:HG22	3.70	0.48
1:2:1490:C:H4'	1:2:1491:U:OP1	2.14	0.48
36:1:3051:U:C2	36:1:3052:G:C8	3.01	0.48
36:5:2603:G:H2'	36:5:2604:U:O4'	2.14	0.48
36:1:1938:U:O2'	36:1:2114:C:H2'	2.13	0.48
1:2:122:U:O2'	6:S4:35:PRO:HG3	2.14	0.48
23:D1:12:TYR:CZ	23:D1:14:PRO:HG3	2.60	0.48
38:8:157:U:O2'	38:8:158:U:H5'	2.14	0.48
36:5:756:U:H2'	36:5:757:C:C6	2.49	0.48
48:M1:85:LYS:O	48:M1:88:GLU:N	2.46	0.48
36:5:3358:U:H2'	36:5:3359:A:H8	1.79	0.48
1:2:346:G:O6	86:2:2125:OHX:N5	2.47	0.48
1:2:799:A:H5''	6:S4:201:HIS:CD2	2.49	0.48
1:6:1671:A:H2'	1:6:1672:G:O4'	2.14	0.48
36:5:845:G:O6	86:5:4031:OHX:N6	2.46	0.48
36:1:750:G:P	65:N9:40:ARG:HH21	2.37	0.48
40:L3:292:ALA:HB2	40:L3:302:LYS:HA	1.96	0.47
2:S0:29:VAL:HG23	2:S0:30:GLN:H	3.28	0.47
62:N6:108:LYS:HD3	62:N6:108:LYS:HA	2.39	0.47
1:2:538:A:H8	1:2:543:C:N4	2.12	0.47
38:8:79:A:OP1	38:8:79:A:H4'	2.14	0.47
1:2:706:A:C6	1:2:734:A:N6	2.82	0.47
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	2.22	0.47
1:6:1579:U:H2'	1:6:1580:C:C6	2.49	0.47
5:S3:97:SER:O	5:S3:101:GLN:HG2	2.83	0.47
1:2:765:G:C6	11:S9:82:ARG:NH1	2.82	0.47
61:N5:115:ARG:NH1	61:N5:115:ARG:HG3	2.26	0.47
16:C4:84:ARG:HG2	16:C4:85:ALA:O	2.14	0.47
1:6:219:A:OP1	1:6:219:A:H4'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:41:ILE:O	55:M9:45:VAL:HG23	2.14	0.47
36:5:550:A:H2'	36:5:551:A:C8	2.49	0.47
22:D0:87:HIS:HB3	22:D0:89:ARG:NH1	2.29	0.47
41:L4:73:ARG:NH1	36:5:805:G:H1'	164.49	0.47
86:5:4060:OHX:N3	86:5:4136:OHX:N6	2.62	0.47
59:N3:80:ARG:HD3	59:N3:117:PRO:O	2.42	0.47
19:C7:106:THR:O	19:C7:110:VAL:HG22	3.12	0.47
88:5:4246:3L2:C25	88:5:4246:3L2:C9	2.92	0.47
1:2:829:A:O2'	1:2:830:U:OP2	2.24	0.47
36:1:2894:C:P	46:L9:168:ARG:NH2	2.87	0.47
14:C2:69:ALA:HA	14:C2:71:ILE:HG23	2.90	0.47
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.96	0.47
23:D1:70:ASN:HB3	23:D1:83:TRP:HB2	2.61	0.47
36:1:1819:U:O4	86:1:4039:OHX:N6	2.47	0.47
40:L3:250:ALA:HB1	36:5:2947:G:C2	219.74	0.47
5:S3:179:GLN:NE2	1:6:1438:G:O2'	393.57	0.47
46:L9:84:LYS:O	46:L9:188:THR:HG23	2.14	0.47
86:1:3971:OHX:N5	86:1:4155:OHX:N1	2.62	0.47
36:1:650:C:O2'	36:1:651:G:H5'	2.14	0.47
40:L3:183:LEU:HA	40:L3:183:LEU:HD12	1.83	0.47
36:5:937:G:N3	36:5:963:G:H1'	2.29	0.47
36:1:2623:G:C4	36:1:2624:G:C8	3.02	0.47
42:L5:229:ASP:O	42:L5:231:ILE:HG13	2.14	0.47
39:L2:188:LYS:HD2	39:L2:189:TYR:CZ	5.54	0.47
1:6:320:U:H2'	1:6:321:C:H2'	1.96	0.47
1:2:1240:U:OP2	86:2:2144:OHX:N1	2.47	0.47
1:6:1518:C:OP2	86:6:2141:OHX:N1	2.46	0.47
37:3:55:A:H2'	37:3:56:A:O4'	2.14	0.47
10:S8:18:ARG:NH1	1:6:105:A:OP1	304.16	0.47
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.36	0.47
36:5:553:U:H2'	36:5:554:A:O4'	2.14	0.47
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.14	0.47
1:2:28:A:H2'	1:2:29:U:C6	2.49	0.47
21:C9:7:ARG:HD2	1:6:1366:U:O2'	423.75	0.47
40:L3:92:TYR:HB2	40:L3:157:VAL:HG13	1.95	0.47
36:5:2249:G:C8	36:5:2272:G:C8	3.02	0.47
36:5:2960:C:H2'	36:5:2961:G:H8	1.76	0.47
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.14	0.47
36:5:2108:C:H1'	36:5:3344:A:N3	2.29	0.47
8:S6:98:ARG:NH1	8:S6:105:ASP:OD2	3.16	0.47
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	2.09	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:66:HIS:HB3	34:SR:85:TRP:HB2	1.96	0.47
55:M9:44:LEU:HA	55:M9:47:ASN:HB2	5.44	0.47
36:5:3225:C:H2'	36:5:3226:A:O4'	2.14	0.47
42:L5:53:VAL:O	42:L5:54:ARG:HD3	2.14	0.47
1:2:283:U:H2'	1:2:284:G:C8	2.50	0.47
57:N1:90:ASN:ND2	36:5:2736:A:H1'	220.36	0.47
3:S1:180:THR:OG1	3:S1:181:LEU:N	4.19	0.47
72:O6:11:LEU:HA	72:O6:11:LEU:HD12	1.91	0.47
69:O3:49:ILE:HA	69:O3:99:ARG:O	2.24	0.47
1:6:196:G:O2'	1:6:197:A:OP2	2.24	0.47
1:2:348:U:OP1	13:C1:85:VAL:HG11	2.14	0.47
19:C7:106:THR:O	19:C7:109:LEU:HB3	2.14	0.47
46:L9:91:ARG:HD2	46:L9:142:ASP:O	2.14	0.47
47:M0:193:ASP:OD1	47:M0:198:LYS:NZ	2.29	0.47
1:2:1236:A:H2'	1:2:1237:G:H8	1.79	0.47
45:L8:126:SER:O	36:5:120:G:N2	93.81	0.47
47:M0:51:HIS:CE1	47:M0:134:ILE:HD13	2.49	0.47
46:L9:188:THR:O	46:L9:189:GLU:HB2	4.52	0.47
36:1:1661:G:H2'	36:1:1662:G:C8	2.49	0.47
36:5:1952:G:H1	36:5:2094:C:H42	1.63	0.47
1:2:23:G:OP1	11:S9:14:THR:HG21	2.14	0.47
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.13	0.47
1:2:839:U:C2'	1:2:840:U:H5'	2.44	0.47
7:S5:126:ASP:HB3	7:S5:127:GLN:H	1.49	0.47
36:1:3057:U:H5'	36:1:3086:A:H61	1.79	0.47
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	2.60	0.47
6:S4:194:THR:O	6:S4:195:ILE:HB	2.13	0.47
38:4:121:U:H2'	38:4:122:U:C6	2.49	0.47
36:1:1194:G:OP1	86:1:3962:OHX:N1	2.47	0.47
62:N6:12:ARG:HG2	36:5:215:G:OP1	87.26	0.47
59:N3:128:ARG:CZ	59:N3:128:ARG:HB3	4.20	0.47
36:1:1443:G:O6	86:1:3976:OHX:N3	2.46	0.47
6:S4:18:TRP:HH2	6:S4:31:PRO:HD3	2.11	0.47
52:M6:157:GLU:O	52:M6:161:LYS:HG3	3.38	0.47
40:L3:21:ARG:NH2	36:5:3309:G:O6	198.58	0.47
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.49	0.47
18:C6:115:THR:HB	18:C6:118:ILE:O	2.15	0.47
75:O9:47:THR:HG22	75:O9:48:LYS:O	2.82	0.47
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.14	0.47
16:C4:31:THR:HA	16:C4:39:ILE:HG12	1.96	0.47
1:2:1483:A:H2'	1:2:1484:G:C8	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:82:U:H2'	38:8:83:C:H5''	1.96	0.47
8:S6:208:TYR:O	8:S6:211:LEU:N	2.87	0.47
2:S0:167:LYS:HE3	2:S0:168:HIS:CD2	3.40	0.47
71:O5:84:LYS:HG2	71:O5:88:LEU:HD13	1.95	0.47
1:2:442:C:H2'	1:2:443:C:H6	1.79	0.47
1:2:1218:G:P	12:C0:44:LYS:HZ2	2.36	0.47
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.15	0.47
1:6:583:C:H2'	1:6:584:C:C6	2.49	0.47
39:L2:21:ARG:HD3	36:5:824:C:H5''	169.88	0.47
44:L7:228:SER:HA	44:L7:232:ARG:NH2	3.21	0.47
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.32	0.47
41:L4:359:LEU:HD23	56:N0:8:GLN:NE2	6.25	0.47
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.38	0.47
1:2:503:G:O2'	1:2:504:U:OP1	2.29	0.47
53:M7:52:LEU:HD13	53:M7:88:VAL:HG11	1.96	0.47
63:N7:14:VAL:HG12	63:N7:79:HIS:O	3.34	0.47
15:C3:98:VAL:CG2	1:6:952:A:H5'	292.51	0.47
27:D5:88:ILE:O	27:D5:104:ALA:HA	3.06	0.47
27:D5:55:PRO:C	27:D5:57:TYR:H	2.17	0.47
1:2:1338:C:H1'	1:2:1410:A:C4	2.50	0.47
67:O1:55:LEU:HD22	67:O1:55:LEU:O	2.43	0.47
1:2:639:U:OP1	9:S7:117:THR:OG1	2.32	0.47
15:C3:56:ASP:HA	29:D7:47:PHE:HB3	2.01	0.47
14:C2:62:LEU:HB3	14:C2:75:VAL:HG11	1.96	0.47
62:N6:120:GLN:CD	62:N6:126:LEU:HA	8.17	0.47
54:M8:69:ARG:HG3	54:M8:69:ARG:NH1	2.76	0.47
45:L8:157:VAL:H	45:L8:183:LYS:HZ2	1.63	0.47
34:SR:278:PHE:CE1	34:SR:287:PRO:HD2	2.49	0.47
1:6:920:U:H2'	1:6:921:U:O4'	2.15	0.47
1:2:1615:C:O2'	1:2:1616:G:OP2	2.30	0.47
51:M5:151:ILE:HA	51:M5:151:ILE:HD13	1.64	0.47
1:2:246:G:H1'	13:C1:40:LEU:HD13	1.96	0.47
36:1:2925:C:H2'	36:1:2926:A:O4'	2.13	0.47
1:2:1767:G:OP1	1:2:1770:U:H4'	2.13	0.47
23:D1:11:LEU:HD12	23:D1:12:TYR:HB3	1.96	0.47
36:5:756:U:H2'	36:5:757:C:H6	1.79	0.47
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.29	0.47
36:5:2911:A:H4'	36:5:2912:G:C8	2.49	0.47
36:5:428:A:H2'	36:5:429:U:C6	2.49	0.47
27:D5:44:GLN:NE2	27:D5:48:ASP:OD2	2.47	0.47
26:D4:63:GLN:N	26:D4:68:LYS:O	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:N9:57:ALA:O	65:N9:58:LYS:HG2	5.12	0.47
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	4.81	0.47
36:5:568:G:N7	86:5:3932:OHX:N6	2.62	0.47
1:2:249:U:H4'	1:2:250:C:OP2	2.14	0.47
1:2:892:A:C5	1:2:893:U:C4	3.02	0.47
36:1:1445:U:H5''	36:1:1446:A:OP2	2.13	0.47
77:Q1:8:LYS:HD3	77:Q1:12:ARG:NH2	2.53	0.47
38:4:125:U:HO2'	38:4:126:A:P	2.37	0.47
36:1:1344:G:H1	36:1:1360:C:H42	1.62	0.47
33:E1:113:LYS:HE3	33:E1:113:LYS:HB3	2.85	0.47
36:1:2657:A:C2	36:1:2694:A:C8	3.02	0.47
78:Q2:77:CYS:O	78:Q2:78:LYS:HG2	2.15	0.47
26:D4:120:GLY:HA2	1:6:85:A:O3'	334.57	0.47
1:2:992:A:OP2	1:2:1011:G:N1	2.40	0.47
36:5:2234:G:N7	86:5:3955:OHX:N1	2.62	0.47
28:D6:10:ARG:NE	1:6:1795:U:O2	327.60	0.47
1:2:144:U:H5	8:S6:137:ARG:HH11	1.61	0.47
36:1:1170:A:H2'	36:1:1171:G:O4'	2.14	0.47
41:L4:3:ARG:HH11	41:L4:22:LEU:HD12	1.79	0.47
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.13	0.47
34:SR:61:PHE:HB3	34:SR:92:TRP:CZ3	3.38	0.47
66:O0:46:ALA:HB2	66:O0:70:PHE:O	3.34	0.47
71:O5:92:LEU:HB3	71:O5:96:GLU:O	2.14	0.47
3:S1:125:VAL:HG11	3:S1:173:THR:HG23	2.47	0.47
55:M9:99:LEU:O	55:M9:103:ARG:HB2	2.14	0.47
5:S3:139:SER:O	5:S3:182:LEU:HB3	2.15	0.47
37:3:27:A:P	42:L5:57:ASN:H	2.37	0.47
15:C3:29:SER:C	15:C3:66:ILE:HD11	2.35	0.47
1:6:647:G:N2	1:6:687:G:N2	2.60	0.47
21:C9:86:ARG:CG	21:C9:86:ARG:HH11	2.27	0.47
55:M9:123:LEU:O	55:M9:127:SER:OG	2.32	0.47
74:O8:58:ASP:HB3	74:O8:61:LYS:HG2	4.28	0.47
20:C8:54:LEU:C	20:C8:56:LYS:H	2.63	0.47
36:5:2526:C:H1'	36:5:2588:U:H5''	1.95	0.47
52:M6:184:THR:OG1	52:M6:185:ALA:N	4.49	0.47
22:D0:25:THR:HB	22:D0:115:GLU:OE2	5.65	0.47
36:5:1724:U:H4'	36:5:1725:C:OP1	2.14	0.47
1:2:1226:A:HO2'	1:2:1227:A:P	2.37	0.47
1:2:301:A:C6	1:2:302:U:C4	3.03	0.47
61:N5:92:LYS:HD3	61:N5:110:VAL:HG12	5.24	0.47
5:S3:141:LYS:HD3	5:S3:179:GLN:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:69:SER:HB2	13:C1:22:ASN:OD1	2.14	0.47
55:M9:161:ALA:O	55:M9:165:LYS:N	2.47	0.47
6:S4:125:LYS:NZ	6:S4:225:VAL:O	2.38	0.47
36:1:2254:U:H2'	36:1:2261:G:N2	2.30	0.47
1:2:580:A:C5'	5:S3:143:ARG:HH12	2.26	0.47
42:L5:140:ARG:NH2	36:5:1080:A:OP2	227.70	0.47
36:1:790:U:H2'	36:1:791:A:O4'	2.14	0.47
33:E1:149:LYS:HE3	33:E1:149:LYS:HB2	3.22	0.47
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	1.96	0.47
1:2:987:G:C2	39:L2:249:SER:HB2	2.49	0.47
36:1:1478:C:H2'	36:1:1479:U:C6	2.50	0.47
36:1:3276:G:H1	69:O3:60:ARG:HH22	1.62	0.47
1:2:1595:U:H3	1:2:1600:A:H2	1.61	0.47
1:6:1280:C:H2'	1:6:1281:G:C8	2.50	0.47
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.97	0.47
36:5:1573:G:C6	36:5:1574:C:H1'	2.50	0.47
38:4:41:A:N6	38:4:103:G:H1'	2.29	0.47
11:S9:133:HIS:CE1	1:6:512:A:O2'	445.75	0.47
16:C4:38:THR:OG1	16:C4:39:ILE:N	2.47	0.47
40:L3:3:HIS:O	40:L3:4:ARG:C	2.52	0.47
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.14	0.47
41:L4:140:HIS:H	41:L4:180:LYS:HE2	1.79	0.47
86:5:3966:OHX:N4	86:5:4236:OHX:N2	2.62	0.47
1:2:1536:G:H5'	1:2:1537:C:OP2	2.14	0.47
36:1:3375:A:O2'	36:1:3378:C:H5'	2.14	0.47
46:L9:1:MET:HG2	46:L9:3:TYR:CZ	3.21	0.47
37:3:22:A:H1'	42:L5:272:TYR:CE2	2.48	0.47
26:D4:114:ARG:HA	26:D4:117:LYS:NZ	2.29	0.47
55:M9:14:VAL:HG21	55:M9:41:ILE:HG22	1.96	0.47
15:C3:26:PHE:HE2	15:C3:66:ILE:HD13	1.79	0.47
15:C3:94:LYS:HG2	15:C3:118:ILE:HG21	1.96	0.47
1:6:1228:G:O2'	1:6:1229:G:OP1	2.30	0.47
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.14	0.47
36:5:726:G:H3'	36:5:742:G:N2	2.29	0.47
40:L3:205:VAL:O	40:L3:208:VAL:HG23	2.24	0.47
55:M9:90:PRO:HG2	55:M9:93:VAL:HG23	2.92	0.47
1:2:1464:G:C2	1:2:1465:C:C5	3.03	0.47
36:1:2635:A:H4'	36:1:2636:A:O5'	2.15	0.47
42:L5:240:TYR:O	42:L5:243:ALA:HB3	2.50	0.47
20:C8:115:ARG:O	20:C8:119:ILE:HB	2.15	0.47
1:2:1018:U:H2'	1:2:1019:A:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:387:A:OP1	10:S8:23:LYS:HE3	2.14	0.47
40:L3:238:LEU:O	40:L3:246:LEU:HD13	3.89	0.47
71:O5:49:LYS:HA	71:O5:49:LYS:HD3	1.44	0.47
36:1:2921:U:H2'	36:1:2923:U:OP2	2.13	0.47
36:1:1349:G:H5'	41:L4:291:ASN:OD1	2.14	0.47
36:5:370:U:O4	36:5:371:G:C6	2.67	0.47
1:6:25:C:H1'	1:6:26:A:OP2	2.14	0.47
1:2:102:U:H3'	1:2:360:A:H61	1.79	0.47
4:S2:156:THR:HG21	4:S2:224:PHE:CD1	2.50	0.47
36:5:186:U:OP2	86:5:3902:OHX:N4	2.47	0.47
1:2:5:U:H2'	1:2:6:G:H8	1.79	0.47
57:N1:43:LYS:HE2	36:5:992:A:H5''	255.79	0.47
53:M7:72:GLN:OE1	53:M7:83:TRP:HZ2	3.37	0.47
1:2:788:A:C4	6:S4:19:LEU:HD13	2.50	0.47
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	5.10	0.47
54:M8:133:LYS:HB2	54:M8:135:GLN:NE2	2.65	0.47
36:1:1365:G:OP2	86:1:3966:OHX:N6	2.48	0.47
1:6:539:G:H8	1:6:539:G:H5''	1.80	0.47
68:O2:3:SER:HB3	68:O2:71:HIS:NE2	2.59	0.47
67:O1:50:ARG:CZ	67:O1:90:PHE:CZ	3.99	0.47
36:1:3:U:C2	38:4:157:U:C2	3.03	0.47
50:M4:120:VAL:O	50:M4:124:ARG:HG3	2.14	0.47
8:S6:22:HIS:HA	8:S6:25:ARG:HH11	1.79	0.47
50:M4:73:PRO:HG2	50:M4:76:ALA:HB2	3.26	0.47
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.96	0.47
28:D6:36:ILE:CD1	28:D6:36:ILE:H	5.21	0.47
36:1:1441:G:O6	86:1:3923:OHX:N1	2.47	0.47
36:5:65:A:C4	36:5:110:G:N7	2.82	0.47
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.03	0.47
36:1:12:A:OP1	86:4:240:OHX:N6	2.48	0.47
26:D4:29:HIS:CD2	26:D4:29:HIS:N	3.82	0.47
2:S0:168:HIS:HB3	2:S0:203:PHE:CZ	2.50	0.47
7:S5:56:ALA:O	7:S5:58:LEU:N	3.71	0.47
79:Q3:49:ARG:HD3	79:Q3:51:ALA:O	2.76	0.47
2:S0:59:LEU:HA	2:S0:62:ARG:HB2	1.96	0.47
36:5:1658:G:O6	86:5:4191:OHX:N4	2.48	0.47
41:L4:206:LEU:HB2	41:L4:246:ARG:HD2	1.96	0.47
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.49	0.47
56:N0:8:GLN:HB3	56:N0:64:ILE:HD11	1.97	0.47
1:2:495:C:H3'	1:2:496:G:O4'	2.15	0.47
1:6:1314:U:OP1	86:6:2182:OHX:N1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:1:MET:HG3	12:C0:2:LEU:H	3.00	0.47
20:C8:46:VAL:HG21	20:C8:73:MET:HE2	4.35	0.47
36:5:1757:A:H2'	36:5:1758:G:C8	2.50	0.47
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	2.69	0.47
13:C1:46:LYS:HE2	1:6:846:G:N2	310.09	0.47
42:L5:155:THR:HA	42:L5:179:ARG:HA	2.08	0.47
36:1:929:A:H5''	41:L4:61:SER:CB	2.44	0.47
67:O1:13:THR:HG22	67:O1:72:ARG:NH2	4.74	0.47
36:5:2766:U:H2'	36:5:2767:U:C6	2.49	0.47
36:5:113:C:C2	36:5:319:A:C2	3.02	0.47
40:L3:243:HIS:C	40:L3:244:ARG:HG3	2.34	0.47
1:2:1405:G:OP1	7:S5:80:LYS:HE3	2.15	0.47
41:L4:305:ALA:HA	36:5:1347:U:O4'	194.94	0.47
6:S4:166:SER:OG	6:S4:167:GLY:N	2.47	0.47
36:1:2656:A:C8	36:1:2658:G:C8	3.03	0.47
51:M5:65:ARG:HB3	51:M5:127:TYR:CD1	2.60	0.47
36:5:1262:G:H5''	36:5:1263:A:OP2	2.14	0.47
44:L7:224:ILE:HG22	44:L7:224:ILE:O	2.51	0.47
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.09	0.47
1:2:1525:A:OP1	21:C9:93:HIS:ND1	2.44	0.47
36:1:1506:A:H1'	36:1:1848:G:O6	2.15	0.47
41:L4:71:VAL:HG22	41:L4:72:ALA:H	2.91	0.47
36:5:1203:A:H61	36:5:1300:G:H2'	1.80	0.47
44:L7:233:GLU:CD	56:N0:35:VAL:HG22	2.65	0.47
1:2:1043:A:C2	1:2:1076:A:C2	3.02	0.47
68:O2:12:LYS:HD3	68:O2:57:TYR:HA	1.97	0.47
1:6:1085:G:N2	1:6:1088:A:OP2	2.42	0.47
35:SM:89:ARG:C	35:SM:91:THR:H	2.17	0.47
36:1:1432:C:O2'	36:1:1433:A:H3'	2.15	0.47
36:5:2405:C:O2	36:5:2819:A:N1	2.47	0.47
30:D8:64:ARG:HH21	30:D8:65:ARG:HB3	8.48	0.47
1:2:1160:A:H2'	1:2:1161:C:C6	2.50	0.47
1:2:577:G:C8	1:2:577:G:H3'	2.50	0.47
78:Q2:9:LYS:HB2	78:Q2:9:LYS:HE3	1.79	0.47
11:S9:40:LYS:HA	11:S9:43:TYR:HB2	1.97	0.47
8:S6:20:ASP:OD2	8:S6:22:HIS:HB2	5.30	0.47
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	4.02	0.47
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.97	0.47
3:S1:70:LEU:HA	3:S1:73:LEU:HD23	1.96	0.47
36:5:1014:U:H3'	36:5:1015:U:H5'	1.97	0.47
46:L9:48:VAL:HG11	46:L9:52:LEU:HD13	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1584:G:H22	1:6:1611:A:P	2.38	0.47
74:O8:43:PHE:HB2	74:O8:54:LEU:HB3	2.38	0.47
20:C8:11:PHE:CZ	20:C8:59:GLY:HA3	4.02	0.47
36:5:1502:C:N3	36:5:1513:G:O6	2.47	0.47
4:S2:230:TRP:NE1	24:D2:68:ARG:HB2	3.96	0.47
12:C0:72:GLY:O	12:C0:76:LEU:HD22	2.13	0.47
9:S7:62:VAL:HG11	9:S7:67:LEU:HD23	1.96	0.47
9:S7:74:GLN:O	9:S7:78:THR:OG1	2.34	0.47
41:L4:219:LEU:O	41:L4:222:VAL:HG13	2.15	0.47
38:4:104:A:H3'	38:4:105:A:H5'	1.96	0.47
1:6:1579:U:OP2	86:6:2180:OHX:N6	2.48	0.47
36:5:191:U:H6	36:5:191:U:H5'	1.80	0.47
37:7:23:A:C6	37:7:24:A:C6	3.03	0.47
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	2.39	0.47
7:S5:68:ILE:HD12	7:S5:70:VAL:O	3.01	0.47
1:6:1541:G:C6	1:6:1542:G:N1	2.83	0.47
79:Q3:62:LYS:HZ2	36:5:2554:A:N6	216.84	0.47
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.46	0.47
36:1:2339:C:OP2	59:N3:48:ARG:NH1	2.48	0.47
3:S1:32:ILE:HD11	3:S1:46:THR:HB	4.15	0.47
51:M5:98:LEU:HD22	51:M5:128:LYS:NZ	4.71	0.47
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	1.97	0.47
39:L2:224:THR:HG23	39:L2:224:THR:O	4.53	0.47
46:L9:88:TYR:CZ	46:L9:184:LYS:HD3	4.38	0.47
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.13	0.47
68:O2:97:ALA:O	68:O2:100:ILE:HG12	2.51	0.47
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.56	0.47
8:S6:10:ASN:OD1	8:S6:10:ASN:N	2.77	0.47
36:1:2363:A:H1'	36:1:2376:G:N2	2.30	0.47
36:1:2584:G:O2'	45:L8:240:ASN:ND2	2.47	0.47
51:M5:33:LYS:HB2	51:M5:37:HIS:ND1	2.30	0.47
20:C8:99:HIS:HD2	20:C8:101:LEU:HD21	1.91	0.47
19:C7:7:LYS:N	1:6:1316:G:OP1	408.93	0.47
79:Q3:47:VAL:HA	79:Q3:56:THR:O	2.14	0.47
17:C5:90:ILE:HG23	17:C5:109:PRO:HD3	1.97	0.47
36:1:873:C:H2'	36:1:875:G:O4'	2.14	0.47
56:N0:1:MET:HE2	56:N0:4:PHE:CE1	2.50	0.47
20:C8:4:VAL:HG21	27:D5:82:HIS:ND1	2.88	0.47
36:5:715:A:H4'	36:5:716:A:OP1	2.15	0.47
61:N5:37:THR:OG1	61:N5:38:LEU:N	2.47	0.47
1:2:97:C:H2'	1:2:98:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:97:C:H2'	1:2:98:U:H6	1.80	0.47
1:2:793:A:OP2	1:2:793:A:H8	1.97	0.47
42:L5:111:GLN:NE2	42:L5:251:PRO:HD2	4.59	0.47
25:D3:22:ASN:O	1:6:609:U:C5	336.41	0.47
55:M9:6:THR:HG22	55:M9:10:LEU:HD22	3.20	0.47
36:1:1498:A:H2'	36:1:1499:C:C6	2.50	0.47
36:5:370:U:H5''	36:5:371:G:OP2	2.14	0.47
40:L3:116:ARG:NH2	40:L3:174:LYS:HD3	2.30	0.47
57:N1:102:ARG:O	57:N1:102:ARG:HG3	3.81	0.47
73:O7:8:PHE:HD2	36:5:1845:G:O2'	151.49	0.47
36:5:230:U:H2'	36:5:231:G:O4'	2.14	0.47
36:5:1396:C:H2'	36:5:1397:C:H6	1.80	0.47
42:L5:182:GLY:O	42:L5:190:ILE:HD12	2.15	0.47
19:C7:51:ALA:HA	19:C7:54:THR:HG23	1.97	0.47
34:SR:191:ASP:HB3	34:SR:193:ILE:HD11	3.00	0.47
1:2:1525:A:H2'	1:2:1526:A:O4'	2.15	0.47
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.44	0.47
34:SR:300:THR:HG23	34:SR:314:GLN:HG3	1.95	0.47
1:2:606:A:H4'	1:2:607:G:H3'	1.96	0.47
36:1:351:A:N6	75:O9:35:ILE:HG23	2.30	0.47
36:1:3228:C:H4'	36:1:3229:G:O5'	2.12	0.47
22:D0:101:LYS:HB2	22:D0:101:LYS:HE3	1.67	0.47
54:M8:25:TYR:N	54:M8:25:TYR:CD2	2.82	0.47
41:L4:320:ASN:HB3	41:L4:323:VAL:HG13	1.97	0.47
1:6:950:C:H2'	1:6:951:A:C8	2.50	0.47
86:5:4049:OHX:N1	86:5:4193:OHX:N2	2.63	0.47
50:M4:99:TRP:O	50:M4:103:ILE:HG13	2.27	0.47
39:L2:179:LEU:HD12	39:L2:184:ARG:HB2	2.72	0.47
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	1.97	0.47
37:3:39:C:O2'	48:M1:43:GLN:HB3	2.15	0.47
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.96	0.47
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	3.04	0.47
36:1:3019:U:C4	36:1:3020:U:C4	3.02	0.47
9:S7:148:LYS:O	9:S7:149:ILE:HG13	2.35	0.47
38:4:33:A:H4'	73:O7:74:PHE:CZ	2.50	0.47
73:O7:74:PHE:HA	73:O7:78:PHE:CE2	2.50	0.47
36:5:1939:G:C6	36:5:2110:G:O6	2.67	0.47
36:5:2693:C:H1'	36:5:2706:G:H5''	1.96	0.47
41:L4:325:LEU:HA	41:L4:325:LEU:HD23	1.57	0.47
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	1.96	0.47
17:C5:43:ARG:O	17:C5:47:ARG:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:303:LYS:NZ	40:L3:361:THR:HB	3.02	0.47
4:S2:227:PRO:HD3	24:D2:99:PHE:CD2	2.50	0.47
12:C0:75:TYR:HD2	12:C0:76:LEU:HD13	1.80	0.47
11:S9:116:LEU:O	11:S9:118:LEU:HD12	3.57	0.47
11:S9:85:VAL:HG12	11:S9:99:LEU:HD11	1.97	0.47
52:M6:60:LYS:HG2	52:M6:60:LYS:H	3.67	0.47
36:5:1764:U:H3'	36:5:1765:U:H5''	1.96	0.47
59:N3:87:ARG:NH2	59:N3:93:LEU:HD11	2.30	0.47
26:D4:2:SER:N	26:D4:32:ARG:HG3	2.30	0.47
36:1:1427:U:H5	64:N8:4:ARG:CZ	2.27	0.47
34:SR:23:LEU:HG	34:SR:291:SER:HB2	2.18	0.47
58:N2:43:VAL:C	58:N2:45:GLY:N	3.05	0.47
57:N1:71:SER:HB3	57:N1:91:LEU:O	2.15	0.47
50:M4:37:GLU:HB3	56:N0:72:VAL:HG21	1.95	0.47
13:C1:21:ASN:ND2	13:C1:31:THR:HA	2.52	0.47
1:6:1274:C:O2	1:6:1274:C:H2'	2.15	0.47
36:1:3356:G:H2'	36:1:3357:U:C6	2.50	0.47
36:5:1393:A:N3	36:5:1419:A:O2'	2.40	0.47
25:D3:130:VAL:HG11	25:D3:143:PRO:HD3	2.28	0.47
44:L7:176:TYR:O	44:L7:178:ILE:HG13	2.62	0.47
1:2:1496:U:H4'	1:2:1519:U:O2'	2.14	0.47
36:1:2162:U:OP1	39:L2:234:LYS:NZ	2.39	0.47
24:D2:8:ALA:HB2	24:D2:74:VAL:HG11	2.57	0.47
8:S6:116:LYS:HD2	8:S6:125:THR:HG21	2.00	0.47
62:N6:100:HIS:ND1	62:N6:102:SER:OG	5.17	0.47
62:N6:56:VAL:HG22	62:N6:104:LEU:HB3	1.95	0.47
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.35	0.47
36:1:1286:A:N3	36:1:1287:A:H1'	2.29	0.47
1:6:1492:A:O2'	1:6:1493:A:C8	2.66	0.47
36:5:1654:A:C2'	36:5:1655:G:H5'	2.44	0.47
40:L3:81:THR:HB	40:L3:321:PHE:HA	2.56	0.47
69:O3:13:HIS:ND1	69:O3:93:THR:HB	2.29	0.47
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.14	0.47
36:5:1192:C:N4	36:5:1301:A:O3'	2.47	0.47
12:C0:24:LYS:HD3	12:C0:63:TYR:CE1	4.17	0.47
36:5:48:A:O4'	36:5:50:U:C6	2.67	0.47
36:1:3159:C:H2'	36:1:3160:U:C6	2.49	0.47
4:S2:147:ASN:HB3	23:D1:4:ASP:HA	1.97	0.47
45:L8:60:ARG:O	45:L8:64:ILE:HG13	2.86	0.47
36:5:1938:U:O4	86:5:3943:OHX:N1	2.48	0.47
36:5:1070:U:C4	36:5:1071:U:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:97:SER:O	51:M5:100:ALA:HB3	2.53	0.47
1:6:1342:C:O2'	1:6:1343:U:H5'	2.15	0.47
11:S9:136:VAL:HG22	11:S9:156:ILE:HG12	4.04	0.47
38:8:91:C:H2'	38:8:92:A:C8	2.49	0.47
33:E1:90:LYS:HB2	33:E1:93:HIS:CE1	11.08	0.47
36:5:1190:A:C8	36:5:1193:A:H1'	2.50	0.47
57:N1:46:GLY:HA2	57:N1:52:MET:HE3	2.24	0.47
36:1:1532:C:H2'	36:1:1533:U:C6	2.49	0.47
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	1.93	0.47
11:S9:126:ARG:HG3	32:E0:33:ARG:HD2	1.96	0.47
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.15	0.47
47:M0:3:ARG:HH22	36:5:2854:U:P	290.12	0.47
47:M0:4:ARG:CZ	47:M0:99:ILE:HG22	6.49	0.47
41:L4:74:ILE:CD1	41:L4:93:MET:HE3	4.86	0.47
42:L5:261:THR:HG23	42:L5:264:GLN:NE2	4.03	0.47
1:6:168:A:C6	1:6:169:A:N6	2.83	0.47
9:S7:62:VAL:HG13	9:S7:63:PRO:HD2	2.09	0.47
19:C7:15:ALA:HA	19:C7:18:GLU:OE1	2.14	0.47
1:2:819:G:O6	1:2:853:G:C6	2.68	0.47
1:2:1339:C:O2'	1:2:1340:U:OP1	2.32	0.47
36:1:2111:G:C8	60:N4:49:ILE:HD13	2.50	0.47
4:S2:53:ILE:HB	4:S2:57:PHE:CZ	2.49	0.47
1:2:1586:A:H2'	1:2:1587:A:O4'	2.14	0.47
36:5:3334:U:OP2	86:5:4227:OHX:N6	2.48	0.47
65:N9:21:ILE:O	65:N9:22:LYS:HE2	7.30	0.47
35:SM:84:LYS:HG2	35:SM:86:ASN:N	2.30	0.47
36:1:1807:G:H5'	63:N7:135:ARG:NH2	2.30	0.47
31:D9:14:TYR:OH	1:6:1553:G:O2'	401.05	0.47
44:L7:208:SER:HB2	36:5:1334:U:H1'	240.36	0.47
36:1:2429:G:OP2	86:1:3986:OHX:N4	2.48	0.47
15:C3:114:ARG:HA	15:C3:114:ARG:HD3	1.51	0.47
1:6:1458:G:C2	1:6:1459:C:C4	3.03	0.47
36:1:1566:A:H2'	36:1:1567:U:H5''	1.97	0.47
43:L6:69:PHE:CZ	36:5:3267:A:H2'	258.71	0.47
36:5:1785:U:H2'	36:5:1786:G:C8	2.50	0.47
46:L9:75:VAL:O	46:L9:78:MET:HB2	2.52	0.47
37:7:64:A:H5'	37:7:65:G:H5''	1.96	0.47
47:M0:206:LEU:O	47:M0:210:ILE:HG13	2.15	0.47
36:5:817:A:H2'	36:5:920:A:C2	2.50	0.47
28:D6:68:TYR:N	28:D6:68:TYR:CD2	2.83	0.47
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:416:A:H5'	1:6:417:A:N7	2.30	0.47
1:2:755:A:O2'	1:2:756:A:OP1	2.29	0.47
7:S5:20:PHE:CZ	7:S5:22:PRO:HG3	3.65	0.47
5:S3:108:LYS:HG2	5:S3:113:LEU:HD12	1.97	0.47
58:N2:92:TRP:O	58:N2:108:TYR:N	4.45	0.47
13:C1:81:HIS:CE1	13:C1:82:ARG:HG3	2.50	0.47
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.96	0.47
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.23	0.47
13:C1:122:ILE:HG12	13:C1:122:ILE:H	4.04	0.47
35:SM:27:LYS:HD2	48:M1:68:HIS:CE1	5.41	0.47
46:L9:117:PHE:HE1	46:L9:178:GLY:HA2	1.80	0.47
6:S4:250:GLU:O	6:S4:254:ARG:HG2	3.65	0.47
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	2.41	0.47
1:2:1220:C:OP1	12:C0:48:SER:OG	2.24	0.47
36:5:374:A:N3	36:5:376:G:H5''	2.30	0.47
47:M0:130:ASP:OD1	47:M0:131:ILE:N	3.10	0.47
36:5:752:C:H2'	36:5:753:C:C6	2.50	0.47
43:L6:42:LEU:O	43:L6:49:GLY:N	2.35	0.47
36:1:2714:G:C8	36:1:2714:G:H5''	2.50	0.47
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	1.81	0.47
59:N3:109:MET:HE2	59:N3:132:ASN:HD22	2.38	0.47
68:O2:2:ALA:O	68:O2:90:LYS:HA	3.58	0.47
63:N7:22:LYS:HE2	63:N7:129:TRP:CH2	2.50	0.47
1:2:1732:A:H2'	1:2:1733:C:C6	2.50	0.47
86:5:3971:OHX:N6	86:5:4192:OHX:N5	2.62	0.47
18:C6:132:LYS:HE3	1:6:1588:G:OP2	370.22	0.47
1:2:446:A:N1	1:2:461:G:O2'	2.40	0.47
1:2:1594:G:C6	1:2:1595:U:N3	2.82	0.47
1:2:992:A:H2	1:2:1012:U:N3	2.06	0.47
4:S2:141:ARG:HG2	23:D1:10:GLU:OE2	2.15	0.47
21:C9:53:TRP:CH2	21:C9:100:ILE:HD13	4.06	0.47
49:M3:48:PRO:HA	49:M3:137:GLN:HB2	3.32	0.47
86:1:4030:OHX:N4	86:1:4043:OHX:N1	2.63	0.47
5:S3:168:ILE:H	5:S3:168:ILE:HG13	1.56	0.47
10:S8:48:THR:HG21	10:S8:54:LYS:HE3	1.97	0.47
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.15	0.47
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.80	0.47
21:C9:76:LEU:HD22	21:C9:80:TYR:CE2	2.48	0.47
3:S1:59:ASP:C	3:S1:61:LEU:H	3.95	0.47
61:N5:57:LEU:HD23	61:N5:57:LEU:HA	4.46	0.47
55:M9:104:ARG:HE	55:M9:105:LEU:N	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1347:U:O2	1:6:1516:A:H5'	2.15	0.47
54:M8:19:PRO:HD3	54:M8:30:VAL:HG21	1.98	0.47
41:L4:180:LYS:HE2	41:L4:180:LYS:HB3	3.64	0.47
71:O5:84:LYS:HB3	71:O5:85:THR:H	1.45	0.47
39:L2:57:PRO:HB3	79:Q3:54:ILE:HD11	1.97	0.47
42:L5:270:LYS:C	42:L5:272:TYR:H	2.66	0.47
12:C0:20:VAL:HG22	12:C0:66:TYR:O	2.15	0.47
50:M4:24:LYS:HE2	50:M4:25:LYS:NZ	2.30	0.47
22:D0:98:GLN:O	22:D0:102:ARG:HB3	3.05	0.47
36:1:1245:A:H3'	36:1:1246:G:H5''	1.96	0.47
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.48	0.47
57:N1:56:PHE:CE1	57:N1:60:LYS:HD3	4.04	0.47
6:S4:118:GLU:C	6:S4:120:SER:N	3.17	0.47
44:L7:151:ARG:NH2	36:5:1334:U:O2'	240.48	0.47
15:C3:28:LEU:O	15:C3:32:SER:HB3	6.19	0.47
21:C9:30:VAL:HG12	21:C9:54:PHE:CD2	2.50	0.47
10:S8:137:LYS:HD2	1:6:191:C:H42	268.31	0.47
86:5:4004:OHX:N4	86:5:4194:OHX:N1	2.63	0.47
38:8:30:C:H2'	38:8:31:G:C8	2.45	0.47
36:1:1094:U:O2	36:1:1096:U:O2'	2.20	0.47
40:L3:46:PHE:CD2	40:L3:205:VAL:HG13	3.00	0.47
42:L5:155:THR:HA	42:L5:179:ARG:HD3	2.22	0.47
71:O5:31:LEU:HD13	71:O5:47:VAL:HG11	2.40	0.47
1:2:638:U:OP2	24:D2:32:LYS:HD3	2.15	0.47
24:D2:32:LYS:HD3	1:6:638:U:OP2	363.13	0.47
1:2:301:A:H2'	1:2:302:U:O4'	2.14	0.47
36:5:2359:C:H2'	36:5:2360:C:H6	1.80	0.47
36:5:244:G:H8	36:5:244:G:OP2	1.99	0.47
38:8:37:A:C6	38:8:104:A:C5	3.03	0.47
36:1:2986:U:H2'	36:1:2987:A:H8	1.78	0.47
36:5:1615:C:H2'	36:5:1616:U:H6	1.78	0.47
25:D3:28:ASN:OD1	25:D3:28:ASN:N	2.45	0.47
36:1:1587:A:OP1	86:1:3941:OHX:N6	2.48	0.47
65:N9:7:HIS:O	36:5:1135:A:H5'	225.85	0.47
36:5:2906:C:H2'	36:5:2907:G:O4'	2.15	0.47
36:5:1701:C:H2'	36:5:1702:U:O4'	2.15	0.47
1:2:32:U:O4	86:2:2055:OHX:N3	2.47	0.47
36:1:1854:C:OP2	86:1:4031:OHX:N5	2.48	0.47
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.50	0.47
54:M8:165:ILE:HD12	54:M8:167:SER:O	5.27	0.47
36:1:1831:U:O2'	38:4:114:G:OP1	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:807:A:H61	36:1:934:G:H22	1.61	0.47
70:O4:10:ARG:O	36:5:1488:G:O2'	138.87	0.47
43:L6:5:LYS:HD2	43:L6:5:LYS:HA	1.57	0.47
17:C5:10:ARG:O	17:C5:12:PHE:N	2.48	0.47
70:O4:52:GLN:HB3	36:5:1639:C:OP1	196.69	0.46
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.62	0.46
56:N0:167:ARG:HG3	56:N0:168:PRO:HD2	1.97	0.46
64:N8:75:LEU:O	64:N8:77:LYS:N	2.63	0.46
36:5:3198:U:H4'	36:5:3199:G:OP2	2.15	0.46
33:E1:144:CYS:C	33:E1:146:SER:N	2.68	0.46
48:M1:49:LYS:HA	48:M1:64:LYS:H	1.80	0.46
36:1:1307:G:P	52:M6:59:ARG:HH11	2.37	0.46
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.25	0.46
6:S4:106:LYS:HG3	6:S4:108:ARG:NH1	2.30	0.46
36:5:115:A:H2'	36:5:265:A:N3	2.31	0.46
36:1:3164:C:HO2'	36:1:3165:A:H8	1.61	0.46
36:1:856:G:C6	36:1:857:G:N1	2.84	0.46
79:Q3:10:ILE:O	79:Q3:13:LYS:HG2	2.15	0.46
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.69	0.46
1:2:195:G:H2'	1:2:196:G:H5'	1.95	0.46
77:Q1:9:ARG:HH11	77:Q1:9:ARG:CG	2.43	0.46
57:N1:54:HIS:CD2	36:5:2724:U:H4'	228.10	0.46
52:M6:90:HIS:HE1	36:5:2382:G:OP2	234.12	0.46
21:C9:118:PRO:C	21:C9:120:GLY:H	2.35	0.46
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.33	0.46
67:O1:46:THR:HG23	67:O1:47:ASP:H	4.09	0.46
16:C4:81:VAL:HG22	16:C4:115:ILE:HG23	3.86	0.46
1:2:1489:U:H5'	1:2:1494:C:H1'	1.98	0.46
50:M4:28:SER:O	50:M4:31:LYS:HG3	3.84	0.46
39:L2:104:LEU:O	39:L2:139:HIS:HE1	2.18	0.46
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.69	0.46
1:2:1015:U:H5''	1:2:1016:C:OP2	2.15	0.46
1:2:778:G:H22	26:D4:10:ARG:HH12	1.63	0.46
55:M9:6:THR:HG23	55:M9:9:ARG:HH12	4.74	0.46
36:1:2163:C:H4'	39:L2:7:ASN:O	2.14	0.46
1:2:1:U:C4	1:2:369:A:C6	3.03	0.46
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.24	0.46
1:6:696:C:H4'	1:6:697:C:C6	2.49	0.46
37:7:74:C:H2'	37:7:75:G:O4'	2.15	0.46
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.16	0.46
36:1:956:U:OP1	86:1:4123:OHX:N1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1514:U:H5''	1:6:1515:A:O4'	2.14	0.46
36:1:3293:U:H5'	40:L3:128:LYS:NZ	2.29	0.46
36:1:2902:A:H2'	36:1:2903:A:O4'	2.15	0.46
36:1:2673:A:O2'	48:M1:126:ASP:OD2	2.20	0.46
53:M7:9:THR:HG23	53:M7:14:SER:OG	2.15	0.46
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.15	0.46
1:6:1327:C:H6	1:6:1327:C:O5'	1.98	0.46
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.88	0.46
40:L3:229:VAL:HG11	40:L3:249:VAL:HG12	5.83	0.46
79:Q3:20:SER:O	79:Q3:24:ARG:N	2.80	0.46
6:S4:9:LEU:HD23	6:S4:10:LYS:O	3.80	0.46
1:2:1199:G:C8	31:D9:40:ARG:HD2	2.51	0.46
56:N0:66:GLU:OE1	56:N0:99:ARG:N	2.39	0.46
52:M6:124:LEU:HD12	52:M6:124:LEU:HA	1.62	0.46
30:D8:44:VAL:HG11	30:D8:48:VAL:HG21	2.34	0.46
28:D6:82:ARG:O	28:D6:84:VAL:HG12	2.15	0.46
36:1:1240:A:H3'	36:1:1241:U:C5'	2.45	0.46
41:L4:119:ARG:NH1	41:L4:271:LYS:HB3	4.12	0.46
6:S4:104:ASP:OD1	6:S4:110:ALA:HB2	2.16	0.46
38:4:79:A:H2'	38:4:80:A:C1'	2.41	0.46
18:C6:139:GLN:HA	1:6:1579:U:O2'	359.21	0.46
49:M3:126:PHE:O	71:O5:114:ARG:NH2	2.48	0.46
8:S6:185:GLN:HA	8:S6:188:ARG:NH1	2.30	0.46
5:S3:69:LEU:O	5:S3:72:LEU:HB2	2.15	0.46
53:M7:109:ALA:O	53:M7:112:LEU:HB2	2.77	0.46
57:N1:68:THR:HG22	57:N1:71:SER:O	2.59	0.46
1:6:191:C:O2'	1:6:192:U:O5'	2.33	0.46
36:1:1017:C:O2'	36:1:1018:G:OP2	2.33	0.46
1:2:407:A:H2'	1:2:408:C:C6	2.50	0.46
58:N2:42:LYS:NZ	36:5:1686:U:OP1	176.30	0.46
1:2:1225:U:O2	1:2:1230:A:H4'	2.15	0.46
18:C6:128:LYS:NZ	18:C6:134:ALA:O	2.48	0.46
42:L5:148:ILE:HD11	42:L5:160:PHE:CE1	2.50	0.46
17:C5:33:PHE:CZ	17:C5:112:LEU:HD13	3.88	0.46
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	3.16	0.46
46:L9:87:LYS:NZ	46:L9:191:LEU:HD21	15.51	0.46
36:1:1295:G:OP1	56:N0:84:ARG:HG3	2.16	0.46
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.53	0.46
41:L4:326:ARG:NH1	36:5:608:A:O3'	240.94	0.46
6:S4:34:GLY:HA3	6:S4:83:PRO:CG	2.80	0.46
36:1:2694:A:C6	36:1:2695:A:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:533:U:C4'	26:D4:33:ALA:HB2	2.45	0.46
36:5:3298:C:H2'	36:5:3299:A:O4'	2.14	0.46
6:S4:255:ARG:NH2	1:6:787:G:OP1	405.82	0.46
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.98	0.46
36:5:3027:A:H2'	36:5:3028:G:O4'	2.16	0.46
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.15	0.46
15:C3:48:SER:OG	15:C3:86:GLU:OE1	2.88	0.46
1:2:1308:G:C6	1:2:1309:C:C4	3.03	0.46
9:S7:83:LYS:HA	9:S7:86:GLN:NE2	2.31	0.46
3:S1:105:PHE:O	3:S1:106:THR:OG1	4.88	0.46
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.25	0.46
36:5:308:A:H5'	36:5:2223:A:O2'	2.16	0.46
36:1:2385:G:OP1	86:1:4170:OHX:N4	2.48	0.46
36:5:2697:A:H2'	36:5:2698:G:C8	2.50	0.46
35:SM:129:ALA:HA	35:SM:132:ALA:HB3	2.16	0.46
36:1:3143:C:O2'	86:1:3898:OHX:N2	2.48	0.46
36:5:3182:G:H2'	36:5:3183:A:O4'	2.15	0.46
3:S1:109:LYS:HE3	3:S1:113:MET:HE3	1.98	0.46
36:5:1014:U:C3'	36:5:1015:U:H5'	2.45	0.46
64:N8:8:THR:HG21	36:5:662:U:OP1	148.82	0.46
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.31	0.46
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.15	0.46
64:N8:75:LEU:HA	64:N8:78:LEU:HB2	1.98	0.46
62:N6:36:SER:OG	62:N6:39:LEU:HD23	5.85	0.46
5:S3:134:CYS:SG	5:S3:135:GLU:N	3.08	0.46
57:N1:13:TYR:O	86:N1:201:OHX:N5	2.48	0.46
5:S3:72:LEU:HG	12:C0:20:VAL:HG21	3.07	0.46
1:6:156:A:C2'	1:6:157:A:H5'	2.46	0.46
5:S3:142:LEU:HD23	5:S3:148:LYS:HB2	6.65	0.46
36:1:658:G:OP1	86:4:232:OHX:N4	2.49	0.46
21:C9:70:GLN:HG3	21:C9:120:GLY:O	2.86	0.46
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.20	0.46
1:6:491:C:H42	1:6:497:G:H21	1.62	0.46
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.15	0.46
13:C1:125:VAL:HG12	13:C1:139:VAL:HA	1.96	0.46
1:6:1640:C:O5'	1:6:1640:C:H6	1.97	0.46
36:5:1715:A:H4'	36:5:1716:U:OP1	2.15	0.46
57:N1:129:LYS:HG3	36:5:1095:U:C2	252.51	0.46
1:6:1753:A:H3'	1:6:1754:A:H2'	1.98	0.46
46:L9:163:GLN:C	46:L9:165:CYS:H	2.37	0.46
36:5:1116:G:H3'	36:5:1117:G:H5''	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:62:LEU:H	14:C2:62:LEU:HD23	1.80	0.46
36:1:209:A:C4	41:L4:162:THR:HG21	2.51	0.46
36:1:266:A:P	51:M5:5:LYS:HZ1	2.38	0.46
38:8:27:U:O2'	38:8:28:C:H5'	2.16	0.46
86:1:3971:OHX:N3	86:1:4155:OHX:N1	2.62	0.46
5:S3:209:ILE:HG22	19:C7:38:ILE:O	2.74	0.46
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.16	0.46
57:N1:83:ARG:HH11	57:N1:85:LEU:HD21	1.80	0.46
36:5:3216:G:N1	36:5:3259:U:OP1	2.48	0.46
36:5:1366:A:C2	36:5:1367:G:C4	3.04	0.46
36:1:573:C:H2'	36:1:574:U:C6	2.51	0.46
1:2:751:G:H2'	1:2:752:A:C8	2.51	0.46
43:L6:136:GLU:O	43:L6:140:VAL:HG23	2.15	0.46
59:N3:40:LYS:HA	59:N3:40:LYS:HD2	1.74	0.46
45:L8:158:ASP:O	36:5:147:U:N3	130.74	0.46
26:D4:18:LEU:HD23	26:D4:18:LEU:HA	1.74	0.46
45:L8:150:LEU:HA	45:L8:176:PRO:O	2.15	0.46
36:5:2158:A:H5'	36:5:2160:G:O4'	2.16	0.46
11:S9:110:GLN:HE21	11:S9:110:GLN:HB2	2.89	0.46
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.98	0.46
6:S4:31:PRO:CG	6:S4:38:LEU:HD13	2.84	0.46
36:1:1375:G:N3	36:1:1407:A:H2	2.14	0.46
1:6:1636:C:C2	1:6:1765:A:N6	2.84	0.46
7:S5:51:VAL:O	7:S5:65:ARG:NH2	2.43	0.46
1:6:1539:G:H5'	1:6:1539:G:C8	2.51	0.46
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.14	0.46
42:L5:91:GLY:HA3	42:L5:94:ASN:ND2	3.19	0.46
3:S1:48:VAL:HG11	3:S1:57:ALA:HB1	2.32	0.46
19:C7:22:PRO:HA	34:SR:216:LYS:NZ	2.31	0.46
1:6:119:A:H1'	1:6:397:A:C5	2.50	0.46
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.64	0.46
1:2:304:U:H2'	1:2:305:C:C6	2.49	0.46
4:S2:53:ILE:HB	4:S2:57:PHE:CE2	2.51	0.46
36:1:3166:C:N4	36:1:3284:G:H1	2.07	0.46
71:O5:45:LYS:O	71:O5:48:ARG:HB2	5.26	0.46
54:M8:180:ARG:HD2	54:M8:185:LYS:HB2	3.38	0.46
36:5:268:A:O2'	36:5:269:G:OP2	2.31	0.46
33:E1:126:CYS:O	33:E1:128:ALA:N	2.49	0.46
5:S3:64:ARG:NH2	5:S3:65:ARG:HD3	7.63	0.46
68:O2:123:LYS:HA	68:O2:126:LEU:HB2	2.57	0.46
1:6:837:G:O6	86:6:2099:OHX:N1	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:109:GLU:C	21:C9:112:GLY:H	2.29	0.46
1:6:1273:G:H4'	1:6:1274:C:C5'	2.43	0.46
36:1:3200:G:C5	36:1:3201:C:C5	3.04	0.46
71:O5:59:ASN:O	71:O5:63:ARG:HG2	4.11	0.46
53:M7:86:LYS:HB2	36:5:2353:G:H5''	140.81	0.46
86:5:4004:OHX:N3	86:5:4194:OHX:N5	2.63	0.46
38:8:73:U:H2'	38:8:74:U:O4'	2.14	0.46
36:1:1049:C:H2'	36:1:1050:U:H6	1.79	0.46
36:1:2616:C:H3'	36:1:2617:U:O2	2.15	0.46
1:2:1226:A:O2'	1:2:1227:A:OP1	2.31	0.46
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	1.97	0.46
45:L8:78:PHE:O	45:L8:80:TYR:N	2.42	0.46
36:5:175:C:H2'	36:5:176:G:H8	1.80	0.46
36:5:176:G:C2	36:5:177:U:C2	3.03	0.46
62:N6:4:GLN:HB2	36:5:229:G:H5''	68.06	0.46
36:5:2297:U:C2	36:5:2299:A:C6	3.03	0.46
38:4:155:A:H5'	45:L8:185:ARG:CZ	2.46	0.46
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.50	0.46
36:1:2253:G:C2	36:1:2264:U:C2	3.03	0.46
46:L9:86:TYR:CG	46:L9:151:VAL:HG13	2.50	0.46
23:D1:17:CYS:SG	23:D1:56:SER:HB3	3.10	0.46
36:1:589:A:N7	36:1:610:G:O2'	2.44	0.46
36:1:613:G:C6	36:1:614:C:C4	3.04	0.46
36:1:2622:C:C2'	36:1:2623:G:H5'	2.45	0.46
36:5:508:U:H2'	36:5:509:U:C6	2.50	0.46
36:5:976:U:H2'	36:5:977:C:O4'	2.16	0.46
10:S8:42:ARG:NH1	1:6:1677:C:OP1	262.73	0.46
1:6:5:U:C2	1:6:20:G:N2	2.84	0.46
1:6:57:G:O6	86:6:2088:OHX:N6	2.49	0.46
53:M7:65:SER:O	53:M7:66:SER:HB2	2.14	0.46
36:1:1952:G:H3'	36:1:1953:G:H5''	1.98	0.46
1:2:1118:G:H2'	1:2:1119:G:O4'	2.16	0.46
61:N5:87:SER:OG	61:N5:88:MET:N	3.13	0.46
74:O8:30:LYS:NZ	74:O8:40:GLN:HE22	5.30	0.46
17:C5:69:GLU:OE1	17:C5:70:ASN:N	5.21	0.46
1:2:1030:A:H4'	1:2:1031:U:OP2	2.15	0.46
18:C6:28:LEU:HG	18:C6:64:ASP:OD2	2.15	0.46
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.42	0.46
36:1:381:U:O4	86:1:4059:OHX:N4	2.48	0.46
15:C3:151:ASN:O	86:C3:201:OHX:N6	2.81	0.46
1:6:716:C:H1'	1:6:723:G:N2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:694:C:OP2	41:L4:118:LYS:HE2	2.15	0.46
72:O6:5:THR:N	72:O6:12:ASN:O	2.39	0.46
7:S5:178:GLY:HA3	7:S5:209:TYR:CD2	2.50	0.46
40:L3:47:LEU:HG	40:L3:335:ILE:HD11	2.75	0.46
40:L3:53:MET:HE2	40:L3:77:THR:CG2	2.45	0.46
1:6:991:G:O2'	1:6:992:A:H5''	2.15	0.46
74:O8:45:VAL:O	74:O8:51:LEU:HD12	2.16	0.46
28:D6:34:LYS:O	28:D6:35:ALA:HB3	4.60	0.46
12:C0:46:LEU:O	12:C0:50:THR:N	2.47	0.46
24:D2:82:LYS:H	24:D2:85:ASP:HB2	1.81	0.46
86:6:2058:OHX:N5	86:6:2145:OHX:N3	2.64	0.46
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.55	0.46
36:1:542:G:H1	36:1:549:U:H3	1.63	0.46
36:5:1899:G:O2'	36:5:2334:U:O4	2.28	0.46
3:S1:129:THR:HB	3:S1:180:THR:HA	1.97	0.46
25:D3:61:SER:HB2	25:D3:116:ASP:HB2	1.96	0.46
36:1:2723:U:H2'	36:1:2724:U:C6	2.51	0.46
22:D0:34:LEU:HD21	22:D0:89:ARG:CZ	5.65	0.46
27:D5:55:PRO:O	27:D5:57:TYR:N	2.47	0.46
7:S5:123:VAL:HG12	7:S5:124:LEU:HD12	1.96	0.46
1:2:498:G:C4	1:2:499:U:N3	2.84	0.46
17:C5:86:VAL:HG22	17:C5:88:GLU:H	1.81	0.46
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.44	0.46
52:M6:114:LYS:HG2	36:5:3180:A:C5	272.19	0.46
36:5:22:G:O4'	38:8:104:A:H1'	2.16	0.46
1:6:1119:G:H2'	1:6:1120:U:O4'	2.15	0.46
1:2:1252:C:O4'	33:E1:133:ALA:HB2	2.15	0.46
36:5:359:U:H4'	36:5:817:A:N6	2.30	0.46
7:S5:129:PRO:O	7:S5:133:VAL:HG23	2.16	0.46
36:1:1495:U:H5	36:1:1835:A:C2	2.34	0.46
36:1:3384:U:H2'	36:1:3385:U:H6	1.79	0.46
20:C8:81:ILE:HG23	20:C8:82:PRO:HD2	1.97	0.46
1:6:678:A:O2'	1:6:679:U:OP1	2.33	0.46
1:2:1157:A:C8	1:2:1157:A:H3'	2.51	0.46
86:1:4130:OHX:N5	86:1:4163:OHX:N6	2.63	0.46
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	1.98	0.46
1:2:694:U:H2'	1:2:694:U:O2	2.15	0.46
41:L4:169:LEU:HD22	41:L4:249:ILE:HD12	2.51	0.46
50:M4:8:LYS:HB3	50:M4:9:ALA:H	1.45	0.46
36:5:163:C:H2'	36:5:164:A:H8	1.80	0.46
43:L6:41:ILE:HG12	43:L6:51:ARG:HG2	2.86	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:56:G:H2'	38:4:57:C:O4'	2.16	0.46
9:S7:142:TYR:HE1	24:D2:39:GLN:HE21	1.63	0.46
36:1:2373:A:N3	36:1:2824:G:O2'	2.38	0.46
36:5:651:G:C6	36:5:652:G:C6	3.04	0.46
11:S9:150:LEU:HA	11:S9:150:LEU:HD12	2.27	0.46
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.15	0.46
66:O0:25:LEU:HD22	66:O0:90:VAL:HG22	1.96	0.46
36:1:3276:G:H5'	43:L6:48:ARG:NH2	2.30	0.46
23:D1:74:GLN:OE1	23:D1:82:VAL:N	5.89	0.46
36:1:1072:G:O2'	36:1:1073:U:H5'	2.14	0.46
41:L4:91:GLY:HA3	41:L4:93:MET:CE	2.45	0.46
1:2:328:A:H2'	1:2:329:G:O4'	2.15	0.46
27:D5:38:HIS:HA	27:D5:70:LYS:HG2	9.32	0.46
11:S9:134:ILE:N	11:S9:134:ILE:HD12	4.19	0.46
37:3:48:U:OP2	42:L5:94:ASN:HB3	2.16	0.46
36:1:395:A:H5''	36:1:396:A:OP2	2.15	0.46
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.15	0.46
38:4:142:C:H2'	38:4:143:U:C6	2.50	0.46
36:5:304:G:N3	36:5:304:G:H5'	2.30	0.46
36:1:23:A:OP1	86:1:3868:OHX:N1	2.49	0.46
1:6:1161:C:H2'	1:6:1162:C:C6	2.51	0.46
2:S0:71:GLU:HG2	2:S0:72:ASP:N	2.60	0.46
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	2.45	0.46
1:2:190:C:O2'	1:2:191:C:OP2	2.27	0.46
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.45	0.46
17:C5:79:HIS:O	17:C5:81:ARG:N	2.47	0.46
36:1:677:A:C8	36:1:786:A:C6	3.04	0.46
55:M9:18:GLY:HA3	36:5:1874:A:H5''	136.21	0.46
36:1:425:G:C2	36:1:426:G:C8	3.03	0.46
36:1:1231:A:N1	36:1:1279:C:N4	2.64	0.46
37:3:110:G:C6	37:3:111:U:C4	3.03	0.46
36:1:1703:U:N3	36:1:1740:U:O2	2.48	0.46
23:D1:3:ASN:CG	23:D1:7:GLN:HB3	3.79	0.46
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.51	0.46
31:D9:21:CYS:CB	31:D9:24:CYS:SG	3.60	0.46
66:O0:68:TYR:HD2	66:O0:69:TYR:N	4.19	0.46
36:5:3245:A:H2	36:5:3246:G:N1	2.13	0.46
45:L8:78:PHE:C	45:L8:80:TYR:H	2.21	0.46
43:L6:69:PHE:N	43:L6:142:ASP:OD2	2.45	0.46
36:1:2800:G:H5''	36:1:2801:A:OP1	2.16	0.46
15:C3:70:LYS:HB3	15:C3:70:LYS:HE2	4.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:30:LEU:HD23	11:S9:30:LEU:HA	1.64	0.46
1:2:386:G:C6	1:2:387:A:C6	3.04	0.46
41:L4:210:ALA:HB2	41:L4:254:ALA:HA	1.97	0.46
36:1:193:C:H2'	36:1:194:U:C6	2.51	0.46
5:S3:172:THR:HA	5:S3:184:ILE:O	2.16	0.46
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.49	0.46
62:N6:12:ARG:HH11	62:N6:12:ARG:HG3	1.81	0.46
6:S4:247:SER:HB3	6:S4:250:GLU:OE1	2.99	0.46
56:N0:80:ARG:HH11	57:N1:156:TYR:HA	2.32	0.46
36:5:3203:U:H2'	36:5:3204:C:C6	2.51	0.46
36:1:310:U:H2'	36:1:311:C:O4'	2.16	0.46
36:1:407:A:C2	38:4:17:A:H1'	2.51	0.46
48:M1:38:GLU:O	48:M1:40:LEU:N	2.48	0.46
36:5:546:C:H2'	36:5:546:C:O2	2.14	0.46
56:N0:67:ALA:O	56:N0:69:PRO:HD3	2.90	0.46
38:4:107:G:C2	38:4:116:G:C5	3.04	0.46
3:S1:104:ASP:HA	3:S1:214:LYS:HE2	1.97	0.46
19:C7:77:GLU:O	19:C7:81:LYS:HB2	2.15	0.46
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.48	0.46
45:L8:170:CYS:O	45:L8:174:GLY:N	3.07	0.46
36:1:830:A:OP1	86:1:4009:OHX:N4	2.49	0.46
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	2.63	0.46
3:S1:70:LEU:HD12	3:S1:82:ARG:O	2.16	0.46
20:C8:23:ASP:O	20:C8:26:ILE:HG23	2.16	0.46
9:S7:133:THR:OG1	9:S7:134:GLU:N	2.45	0.46
61:N5:57:LEU:H	61:N5:61:LYS:HD2	4.70	0.46
7:S5:143:ARG:HG2	30:D8:55:VAL:HB	3.18	0.46
1:2:93:A:O2'	6:S4:4:GLY:HA3	2.16	0.46
6:S4:4:GLY:HA3	1:6:93:A:O2'	329.19	0.46
34:SR:22:SER:OG	34:SR:70:ASP:HA	3.23	0.46
86:6:2058:OHX:N5	86:6:2145:OHX:N6	2.64	0.46
23:D1:15:ARG:HB3	23:D1:16:LYS:H	1.63	0.46
6:S4:21:ASP:HB2	1:6:773:C:OP1	387.55	0.46
61:N5:115:ARG:HD3	61:N5:121:LYS:HE3	2.24	0.46
44:L7:229:PHE:CD1	44:L7:229:PHE:C	2.96	0.46
1:6:540:G:O2'	1:6:542:A:H5'	2.16	0.46
9:S7:35:LYS:O	9:S7:37:GLU:N	2.37	0.46
1:6:491:C:N4	1:6:497:G:H21	2.13	0.46
21:C9:28:LEU:O	21:C9:107:ALA:HB1	2.15	0.46
1:2:1762:A:C1'	1:2:1783:C:H5'	2.46	0.46
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:229:MET:HA	3:S1:232:HIS:ND1	2.31	0.46
25:D3:87:VAL:HG12	25:D3:92:CYS:HB3	1.98	0.46
36:1:1230:G:O6	36:1:1231:A:N6	2.49	0.46
38:8:45:C:H2'	38:8:46:G:O4'	2.16	0.46
23:D1:64:GLU:HG3	29:D7:3:LEU:HG	1.97	0.46
51:M5:77:LYS:O	36:5:2424:A:H1'	169.68	0.46
45:L8:161:GLU:CD	51:M5:26:ARG:HH12	2.17	0.46
38:4:11:C:H1'	53:M7:6:ALA:HB2	1.97	0.46
42:L5:85:ARG:NH1	42:L5:254:LYS:H	2.56	0.46
36:1:3039:C:H2'	36:1:3040:A:O4'	2.15	0.46
48:M1:137:ARG:NH2	37:7:44:C:OP2	294.85	0.46
63:N7:23:VAL:HA	63:N7:45:GLY:HA3	2.91	0.46
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.51	0.46
24:D2:5:SER:O	24:D2:7:LEU:N	2.96	0.46
68:O2:5:PRO:O	68:O2:6:HIS:CG	4.38	0.46
36:1:1054:A:H5''	36:1:2637:A:N6	2.30	0.46
63:N7:38:PHE:O	63:N7:40:HIS:ND1	2.43	0.46
74:O8:14:LEU:O	74:O8:17:ARG:HB2	2.15	0.46
16:C4:127:ARG:HD3	1:6:990:C:O2'	282.43	0.46
38:8:37:A:H5''	38:8:39:G:O4'	2.15	0.46
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.50	0.46
1:2:1018:U:H2'	1:2:1019:A:C8	2.50	0.46
52:M6:173:ALA:O	52:M6:176:LYS:HB3	2.70	0.46
1:2:707:A:H2	1:2:731:C:H2'	1.81	0.46
36:5:3:U:H3	38:8:156:U:H3	1.64	0.46
1:2:67:A:O3'	1:2:68:A:H3'	2.16	0.46
36:5:2696:A:H2'	36:5:2697:A:C8	2.51	0.46
2:S0:6:THR:C	2:S0:8:ASP:H	2.18	0.46
36:1:1781:C:H2'	36:1:1782:U:C6	2.50	0.46
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	1.79	0.46
10:S8:16:ALA:HB2	1:6:354:C:H5''	297.41	0.46
8:S6:14:LYS:HD3	8:S6:16:PHE:CZ	2.51	0.46
2:S0:108:THR:HA	4:S2:64:LYS:HE3	1.98	0.46
36:5:2694:A:C6	36:5:2695:A:C6	3.04	0.46
57:N1:65:TYR:HB3	57:N1:75:ILE:HG13	5.19	0.46
36:1:2660:G:N3	36:1:2744:U:O2'	2.47	0.46
52:M6:58:LEU:HD12	52:M6:58:LEU:HA	2.07	0.46
22:D0:19:ILE:HG13	22:D0:19:ILE:H	1.46	0.46
36:5:1020:G:H2'	36:5:1021:G:O4'	2.15	0.46
1:2:181:A:H2'	1:2:182:A:C8	2.50	0.46
40:L3:284:ARG:HG3	40:L3:285:VAL:N	2.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:113:MET:HE2	3:S1:142:PHE:HE2	5.08	0.46
22:D0:70:THR:HG23	1:6:1280:C:O2'	387.16	0.46
48:M1:96:PHE:CD1	48:M1:160:VAL:HG22	3.04	0.46
1:2:1556:A:C5	1:2:1560:U:C2	3.04	0.46
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.78	0.46
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.70	0.46
1:2:823:G:O2'	1:2:824:G:O5'	2.34	0.46
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.15	0.46
41:L4:178:LEU:HD21	41:L4:225:VAL:HG23	2.47	0.46
1:6:1240:U:H5'	1:6:1241:G:OP2	2.16	0.46
1:2:1586:A:OP1	18:C6:136:SER:N	2.45	0.46
36:1:3284:G:H2'	36:1:3285:C:C6	2.50	0.46
1:6:1390:U:O2'	1:6:1391:A:H8	1.98	0.46
18:C6:60:PHE:HA	18:C6:63:ILE:HG13	2.46	0.46
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.30	0.46
5:S3:182:LEU:H	5:S3:182:LEU:HD12	1.81	0.46
47:M0:72:ALA:O	47:M0:76:MET:HG2	3.99	0.46
36:1:2339:C:P	59:N3:48:ARG:HG3	2.56	0.46
17:C5:129:GLY:HA3	35:SM:74:LYS:HD2	6.21	0.46
67:O1:46:THR:HG21	67:O1:91:SER:CB	2.87	0.46
55:M9:20:ARG:HD2	36:5:1874:A:OP2	141.04	0.46
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.59	0.46
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.58	0.46
29:D7:44:THR:HB	29:D7:63:LEU:HD11	4.06	0.46
36:1:3131:U:H2'	36:1:3132:C:C6	2.46	0.46
40:L3:205:VAL:HG11	40:L3:322:ILE:HD13	3.24	0.46
20:C8:139:LYS:HB2	1:6:1458:G:OP2	351.80	0.46
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.27	0.46
47:M0:156:ARG:HG2	47:M0:163:GLN:HG2	1.97	0.46
40:L3:85:VAL:HG13	40:L3:163:HIS:CD2	2.51	0.46
36:1:398:A:C5	53:M7:3:ARG:NH2	2.80	0.46
40:L3:169:THR:HG23	40:L3:171:LEU:HG	2.87	0.46
45:L8:133:LYS:HB2	45:L8:199:ALA:O	4.02	0.46
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.50	0.46
39:L2:221:LYS:HE2	36:5:2417:U:H5''	208.10	0.46
1:6:1350:U:H2'	1:6:1351:G:H8	1.79	0.46
1:6:1105:C:H2'	1:6:1106:U:H6	1.80	0.46
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.15	0.46
36:1:1696:A:N6	36:1:1748:G:H2'	2.31	0.46
1:2:1749:A:H2'	1:2:1750:A:H5''	1.98	0.46
1:2:5:U:C2	1:2:20:G:N2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:506:U:H2'	36:5:507:U:O4'	2.16	0.46
4:S2:49:LYS:HD3	4:S2:49:LYS:HA	1.82	0.46
36:1:499:G:H2'	36:1:500:C:H6	1.81	0.46
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.64	0.46
29:D7:31:TYR:CE2	29:D7:48:SER:HB3	2.99	0.46
38:8:149:A:H2'	38:8:150:G:C8	2.51	0.46
36:1:2737:C:OP1	57:N1:70:SER:OG	2.28	0.46
36:5:1912:U:N3	36:5:2122:G:OP2	2.46	0.46
36:5:2123:G:N7	86:5:4093:OHX:N1	2.64	0.46
42:L5:281:GLU:O	42:L5:284:ALA:HB3	2.42	0.46
7:S5:177:ILE:HA	7:S5:180:ARG:HH12	1.80	0.46
1:2:157:A:O2'	1:2:158:U:H5'	2.16	0.46
1:6:1:U:H2'	1:6:1:U:O2	2.16	0.46
61:N5:49:LYS:O	61:N5:51:VAL:N	2.42	0.46
36:5:873:C:H5''	36:5:874:U:H4'	1.98	0.46
36:1:2405:C:O2	36:1:2819:A:N1	2.49	0.46
35:SM:32:SER:O	36:1:2692:A:H4'	2.16	0.46
36:5:3307:A:C5	36:5:3308:C:C5	3.03	0.46
2:S0:55:GLU:HG2	23:D1:79:LEU:HD23	1.98	0.46
26:D4:120:GLY:O	26:D4:122:GLY:N	3.87	0.46
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.47	0.46
7:S5:72:HIS:O	18:C6:47:LYS:HE2	2.42	0.46
1:2:1796:C:C6	28:D6:5:ARG:HG2	2.50	0.46
27:D5:43:ASP:O	27:D5:45:GLU:N	2.70	0.46
36:5:1528:G:O2'	36:5:1588:A:N3	2.45	0.46
53:M7:64:ASN:O	53:M7:67:ILE:HG12	4.11	0.46
20:C8:124:GLY:O	20:C8:127:HIS:N	2.48	0.46
52:M6:60:LYS:HE2	36:5:1307:G:OP1	252.27	0.46
55:M9:47:ASN:HB3	55:M9:49:THR:CG2	8.09	0.46
53:M7:75:GLU:HG2	53:M7:76:PHE:CE2	2.51	0.46
86:6:2058:OHX:N1	86:6:2145:OHX:N3	2.63	0.46
7:S5:26:ALA:N	18:C6:26:LYS:O	2.84	0.46
17:C5:37:ALA:O	17:C5:42:ARG:HD3	2.16	0.46
1:6:542:A:C8	1:6:543:C:H5'	2.51	0.46
26:D4:117:LYS:HG2	1:6:159:U:H5'	331.45	0.46
5:S3:178:ARG:HE	5:S3:178:ARG:N	2.12	0.46
70:O4:88:ARG:NH1	36:5:2556:C:OP1	199.86	0.46
59:N3:48:ARG:CG	59:N3:48:ARG:HH11	2.25	0.46
1:6:799:A:H2'	1:6:800:U:O4'	2.16	0.46
10:S8:162:ALA:HA	36:1:3353:G:C5'	2.46	0.46
14:C2:50:LYS:HE2	33:E1:103:LEU:HD11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:17:ARG:CG	57:N1:17:ARG:HH11	3.01	0.46
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.85	0.46
86:2:2043:OHX:N4	86:2:2098:OHX:N3	2.64	0.46
13:C1:107:VAL:HA	13:C1:108:PRO:HD2	1.98	0.46
20:C8:38:VAL:HG12	20:C8:42:TYR:CD2	2.50	0.46
58:N2:18:ASP:HB3	58:N2:104:ARG:CB	2.46	0.46
12:C0:14:TYR:CZ	12:C0:18:GLU:HG3	2.55	0.46
46:L9:168:ARG:O	46:L9:170:LYS:N	2.49	0.46
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	2.43	0.46
1:2:1248:C:H2'	1:2:1249:U:H6	1.81	0.46
62:N6:56:VAL:CG2	62:N6:104:LEU:HB3	2.46	0.46
36:1:73:C:C2	49:M3:59:ARG:HD3	2.51	0.46
1:2:312:A:C2	1:2:314:C:H2'	2.51	0.46
19:C7:20:TYR:O	19:C7:24:LEU:HD12	2.16	0.46
49:M3:107:GLU:HG2	49:M3:107:GLU:H	1.87	0.46
36:1:2394:G:H5'	40:L3:252:ILE:HG22	1.98	0.46
1:2:954:G:H2'	1:2:955:A:H8	1.81	0.46
43:L6:82:ARG:HH12	69:O3:106:ASN:HB2	3.44	0.46
73:O7:74:PHE:HB2	73:O7:78:PHE:CZ	3.64	0.46
11:S9:112:GLN:NE2	11:S9:153:GLU:OE1	2.49	0.46
1:6:722:G:O2'	1:6:723:G:H5''	2.16	0.46
4:S2:243:TYR:HB3	4:S2:246:GLU:HB2	1.98	0.46
36:5:873:C:H4'	36:5:874:U:OP2	2.15	0.46
4:S2:161:LYS:HA	4:S2:165:VAL:O	2.16	0.46
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	1.97	0.46
36:1:2993:G:H2'	36:1:3142:A:N6	2.31	0.46
41:L4:264:SER:OG	41:L4:267:VAL:HG12	2.52	0.46
36:1:1316:C:N4	52:M6:131:PRO:HD3	2.30	0.46
2:S0:102:PHE:O	2:S0:103:THR:HB	2.25	0.46
45:L8:135:GLY:O	45:L8:138:HIS:HB3	2.29	0.46
1:2:869:A:H2'	1:2:870:C:O4'	2.16	0.46
11:S9:71:PHE:O	11:S9:75:ALA:HB2	2.65	0.46
1:6:733:A:H2'	1:6:734:A:O4'	2.16	0.46
36:1:2750:U:C2'	36:1:2751:G:H5'	2.46	0.46
39:L2:58:LEU:HA	39:L2:58:LEU:HD23	2.00	0.46
49:M3:34:SER:O	49:M3:38:ALA:N	2.27	0.46
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.43	0.46
49:M3:130:GLY:O	49:M3:132:ALA:N	2.49	0.46
41:L4:74:ILE:HG13	41:L4:75:PRO:HD2	4.69	0.46
1:2:1456:C:H5''	1:2:1457:C:H5'	1.97	0.46
45:L8:230:LYS:HA	45:L8:230:LYS:HD2	1.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1795:U:O2	28:D6:10:ARG:HD2	2.16	0.46
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.81	0.46
13:C1:133:LYS:HG3	1:6:338:C:P	292.49	0.46
2:S0:162:CYS:HB2	2:S0:163:ASN:H	2.15	0.46
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	3.04	0.46
36:5:65:A:H4'	36:5:66:A:O5'	2.16	0.46
25:D3:31:LYS:HE2	1:6:1133:A:OP1	326.80	0.46
41:L4:180:LYS:HA	36:5:1386:A:N3	118.22	0.46
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	2.36	0.46
4:S2:53:ILE:O	4:S2:56:ILE:N	2.49	0.46
36:1:2897:A:H2'	36:1:2899:C:C5'	2.41	0.46
6:S4:11:ARG:H	6:S4:27:TYR:HA	1.81	0.46
13:C1:129:ARG:O	13:C1:129:ARG:HG2	3.35	0.46
59:N3:13:ILE:HD13	59:N3:14:SER:O	6.91	0.46
35:SM:123:ALA:O	35:SM:126:ASP:HB2	2.16	0.46
37:7:2:G:O2'	37:7:23:A:N1	2.42	0.46
1:2:899:G:H5'	16:C4:46:MET:HA	1.98	0.46
70:O4:55:SER:O	70:O4:62:TYR:OH	2.73	0.46
30:D8:32:PHE:O	30:D8:34:GLU:N	3.65	0.46
39:L2:59:ALA:HB3	39:L2:76:PHE:HB2	2.43	0.46
54:M8:100:THR:HG22	54:M8:120:GLU:CB	3.40	0.46
21:C9:117:SER:HB2	21:C9:123:ARG:CB	2.44	0.46
1:2:1001:A:H2'	1:2:1002:G:O4'	2.16	0.46
86:5:4060:OHX:N5	86:5:4136:OHX:N6	2.64	0.46
39:L2:128:ARG:NH1	36:5:2177:G:OP2	197.47	0.46
52:M6:83:ALA:CB	36:5:1313:G:H5'	258.17	0.46
1:2:1176:G:O6	20:C8:140:THR:HG21	2.15	0.46
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	2.32	0.46
46:L9:166:ARG:NH2	46:L9:168:ARG:HH12	11.77	0.46
36:1:1581:C:H2'	36:1:1582:C:H5''	1.97	0.46
1:2:412:A:H2	1:2:421:A:N1	2.14	0.46
45:L8:25:PRO:HB2	45:L8:26:LEU:H	1.53	0.46
36:5:2386:A:N6	36:5:2993:G:O2'	2.46	0.46
36:5:171:G:H1	36:5:247:C:H42	1.64	0.46
36:5:528:U:H2'	36:5:529:A:H8	1.80	0.46
40:L3:257:PRO:HG2	40:L3:261:MET:CE	2.46	0.46
36:1:1114:U:H5''	64:N8:22:ILE:HD12	1.98	0.46
40:L3:286:GLY:HA3	40:L3:321:PHE:CD2	2.99	0.46
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.19	0.46
40:L3:7:GLU:HG2	36:5:2915:U:H5	256.32	0.46
36:5:2689:A:N3	36:5:2689:A:H2'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.45	0.46
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.15	0.46
46:L9:134:ILE:HG12	46:L9:146:LEU:HG	3.77	0.46
36:5:546:C:H4'	36:5:547:G:OP1	2.15	0.46
36:5:2812:C:H2'	36:5:2813:A:C8	2.51	0.46
48:M1:91:LEU:O	48:M1:171:VAL:HA	4.33	0.46
37:7:118:A:C6	37:7:119:U:C4	3.04	0.46
1:2:107:C:H1'	1:2:362:G:O2'	2.16	0.46
26:D4:40:LEU:O	26:D4:44:LEU:HB2	2.62	0.46
4:S2:80:VAL:HG21	4:S2:83:ILE:HD11	2.96	0.46
36:1:2267:C:H2'	36:1:2268:U:O4'	2.16	0.46
61:N5:90:ALA:HA	61:N5:94:GLN:OE1	2.76	0.46
1:2:1138:A:C2	1:2:1139:A:C4	3.04	0.46
36:5:2584:G:H5'	36:5:2585:G:OP2	2.16	0.46
36:1:1075:A:C5	65:N9:45:HIS:CD2	3.04	0.46
36:5:561:C:H2'	36:5:562:C:C6	2.51	0.46
36:1:2297:U:C2	36:1:2299:A:C6	3.04	0.46
36:1:3030:G:N7	86:1:4071:OHX:N6	2.64	0.46
8:S6:30:LYS:O	8:S6:102:VAL:HG23	2.15	0.46
47:M0:63:GLU:HB3	36:5:2853:A:OP1	296.26	0.45
47:M0:3:ARG:NH1	47:M0:63:GLU:HG3	3.12	0.45
36:1:709:A:P	54:M8:179:ARG:HH22	2.40	0.45
7:S5:43:PHE:CD2	7:S5:46:TRP:HD1	6.80	0.45
39:L2:201:GLY:CA	39:L2:204:MET:HG3	2.45	0.45
39:L2:8:GLN:O	36:5:2164:A:H5'	176.35	0.45
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.20	0.45
70:O4:31:ARG:HB2	70:O4:31:ARG:HE	1.37	0.45
10:S8:5:ARG:NH2	1:6:334:G:O6	303.07	0.45
1:2:905:A:H5''	16:C4:52:ARG:HD3	1.98	0.45
36:5:301:G:H2'	36:5:302:U:O4'	2.16	0.45
1:2:1500:C:H5''	21:C9:102:ARG:HD3	1.98	0.45
73:O7:52:LYS:O	73:O7:56:ARG:HG3	2.15	0.45
25:D3:31:LYS:HA	25:D3:31:LYS:HD3	1.94	0.45
20:C8:113:LEU:O	20:C8:116:LEU:HD23	3.75	0.45
86:6:2058:OHX:N1	86:6:2145:OHX:N4	2.64	0.45
49:M3:44:ALA:C	49:M3:46:ILE:H	2.45	0.45
57:N1:12:ARG:HD2	57:N1:13:TYR:CE2	2.51	0.45
1:6:583:C:H2'	1:6:584:C:H6	1.80	0.45
3:S1:180:THR:HB	3:S1:182:ALA:H	1.81	0.45
44:L7:88:ARG:HG2	44:L7:111:ILE:HA	1.98	0.45
63:N7:119:GLU:O	63:N7:123:GLN:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:61:VAL:HG21	39:L2:76:PHE:CD2	2.51	0.45
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.16	0.45
26:D4:53:ASP:O	26:D4:79:VAL:HG22	4.00	0.45
70:O4:46:ASP:OD1	70:O4:80:ARG:HD2	2.16	0.45
6:S4:121:TYR:HA	6:S4:164:LEU:HG	1.97	0.45
45:L8:67:ILE:HG22	45:L8:237:ILE:HB	1.99	0.45
63:N7:24:VAL:HG21	63:N7:87:LEU:HD23	1.96	0.45
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	2.46	0.45
57:N1:17:ARG:HG3	36:5:2700:G:H5''	264.72	0.45
1:6:1068:C:H2'	1:6:1069:A:H8	1.80	0.45
1:2:1280:C:O2	1:2:1428:G:N2	2.32	0.45
58:N2:42:LYS:HB2	36:5:1687:U:C5	174.28	0.45
39:L2:105:GLY:HA2	39:L2:139:HIS:CE1	2.94	0.45
4:S2:103:VAL:HG22	4:S2:113:LEU:HD22	1.98	0.45
60:N4:4:GLU:HG3	60:N4:30:ARG:HH11	4.28	0.45
6:S4:71:LYS:O	6:S4:90:ILE:HA	2.88	0.45
46:L9:90:MET:HE1	46:L9:179:ILE:HG22	1.99	0.45
45:L8:82:LEU:HA	45:L8:82:LEU:HD12	1.64	0.45
40:L3:67:PHE:CD1	40:L3:72:VAL:HG12	2.49	0.45
49:M3:60:ALA:HA	49:M3:61:PRO:HD3	1.71	0.45
36:5:118:U:C5	36:5:119:U:C4	3.04	0.45
1:2:1168:U:C2'	1:2:1169:G:H5'	2.46	0.45
1:2:648:G:H2'	1:2:648:G:N3	2.31	0.45
2:S0:154:GLU:CD	2:S0:154:GLU:H	2.32	0.45
44:L7:147:LEU:HD11	44:L7:240:VAL:HG11	2.45	0.45
48:M1:21:ILE:HG21	48:M1:33:ALA:HB1	1.98	0.45
1:6:1057:U:O2'	1:6:1059:U:OP1	2.34	0.45
53:M7:27:LYS:HA	53:M7:63:PHE:CD2	2.51	0.45
19:C7:34:LEU:HD13	19:C7:38:ILE:HD13	6.73	0.45
44:L7:95:ILE:HA	44:L7:96:PRO:HD2	2.68	0.45
36:1:634:C:H5'	69:O3:21:ARG:O	2.17	0.45
45:L8:101:THR:CG2	45:L8:104:GLU:H	2.29	0.45
68:O2:86:THR:OG1	68:O2:115:LEU:HD22	2.16	0.45
1:6:964:U:H4'	1:6:965:U:O4'	2.16	0.45
1:6:1001:A:H2'	1:6:1002:G:O4'	2.16	0.45
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.16	0.45
1:2:1636:C:O2	1:2:1765:A:N6	2.49	0.45
6:S4:241:GLY:O	6:S4:243:GLY:N	2.49	0.45
1:6:723:G:H5'	1:6:724:C:OP2	2.15	0.45
25:D3:43:PHE:HZ	25:D3:104:LEU:HB2	1.81	0.45
36:1:3003:G:P	40:L3:26:ARG:HH22	2.39	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:43:GLY:O	39:L2:87:PHE:HA	2.31	0.45
36:5:25:U:H4'	36:5:26:A:N7	2.30	0.45
36:1:2738:A:H4'	65:N9:37:PRO:HB2	1.98	0.45
30:D8:31:GLU:O	30:D8:33:LEU:N	3.57	0.45
1:6:1746:A:OP2	86:6:2125:OHX:N1	2.50	0.45
36:5:2416:U:O4	86:5:4167:OHX:N5	2.48	0.45
36:5:1032:C:H5'	36:5:1033:U:OP2	2.16	0.45
65:N9:59:LYS:HD3	65:N9:59:LYS:H	1.81	0.45
1:2:12:U:H2'	1:2:13:C:C6	2.49	0.45
36:1:2775:U:H2'	36:1:2776:C:C6	2.51	0.45
1:2:1278:G:H2'	1:2:1279:C:O4'	2.15	0.45
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.42	0.45
41:L4:281:ILE:HG12	41:L4:282:SER:H	1.81	0.45
1:2:1533:C:H4'	1:2:1539:G:C2	2.51	0.45
36:1:270:U:O2'	36:1:318:A:H1'	2.17	0.45
34:SR:114:ASP:HB3	34:SR:156:VAL:HG23	2.60	0.45
3:S1:30:PHE:CD1	3:S1:94:LYS:HA	3.39	0.45
1:6:1202:A:H2'	1:6:1203:A:H5''	1.97	0.45
86:6:2103:OHX:N1	86:6:2188:OHX:N4	2.64	0.45
36:5:979:U:H4'	36:5:980:A:H5'	1.97	0.45
63:N7:97:SER:HB2	63:N7:99:GLU:HG3	1.97	0.45
64:N8:126:LYS:HG2	64:N8:146:GLU:HB2	1.97	0.45
6:S4:120:SER:O	6:S4:164:LEU:HB2	2.53	0.45
36:1:309:U:OP1	72:O6:84:LYS:NZ	2.45	0.45
36:5:956:U:H2'	36:5:957:C:C6	2.52	0.45
44:L7:73:GLY:O	57:N1:143:THR:HB	2.16	0.45
24:D2:94:LEU:HD11	24:D2:102:VAL:HG23	1.97	0.45
32:E0:55:ARG:HB3	32:E0:55:ARG:HH11	3.22	0.45
54:M8:170:ARG:O	54:M8:171:LYS:HB3	2.16	0.45
20:C8:140:THR:O	20:C8:143:ARG:HD3	4.16	0.45
22:D0:23:ARG:HD2	22:D0:90:TYR:CD1	2.52	0.45
1:6:1398:U:H4'	1:6:1399:C:OP2	2.15	0.45
1:2:957:G:O2'	29:D7:49:HIS:HD2	1.99	0.45
36:5:253:A:O2'	36:5:254:A:H8	1.99	0.45
6:S4:206:ASP:HB2	6:S4:222:LEU:HB2	2.27	0.45
45:L8:157:VAL:HG21	45:L8:163:VAL:HG21	2.73	0.45
76:Q0:112:LYS:NZ	36:5:3107:U:P	303.91	0.45
18:C6:68:ARG:HH12	18:C6:70:THR:HG23	6.79	0.45
14:C2:58:LEU:HD21	14:C2:125:ASN:H	1.80	0.45
40:L3:88:GLY:O	40:L3:161:LEU:N	2.51	0.45
1:6:1236:A:H2'	1:6:1237:G:C8	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1718:G:H2'	1:2:1719:A:C8	2.51	0.45
36:1:1769:G:H5'	36:1:1770:G:P	2.57	0.45
51:M5:140:LYS:HB3	51:M5:144:ARG:CZ	3.15	0.45
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.77	0.45
6:S4:127:LYS:HG3	6:S4:142:HIS:N	3.51	0.45
17:C5:34:VAL:HG21	17:C5:45:PHE:HB2	1.98	0.45
86:1:4192:OHX:N1	43:L6:129:GLU:HA	2.31	0.45
36:1:3007:U:OP1	52:M6:73:PHE:HA	2.17	0.45
1:6:1054:U:H2'	1:6:1055:U:O4'	2.16	0.45
36:5:2195:C:OP2	86:5:4199:OHX:N4	2.49	0.45
50:M4:101:LYS:O	50:M4:104:ALA:HB3	3.15	0.45
36:5:2924:U:O4	86:5:4053:OHX:N2	2.49	0.45
37:3:79:A:C2	37:3:102:A:C4	3.04	0.45
36:1:501:A:O3'	43:L6:28:GLN:HG3	2.16	0.45
30:D8:23:GLY:HA3	1:6:1617:U:H4'	353.51	0.45
1:2:517:U:H3	1:2:535:A:H61	1.63	0.45
79:Q3:75:ALA:O	79:Q3:79:VAL:HG23	2.16	0.45
36:1:1069:C:H2'	36:1:1070:U:C6	2.52	0.45
1:2:86:A:O2'	1:2:147:A:N3	2.37	0.45
36:1:346:C:C4	36:1:348:A:C8	3.04	0.45
55:M9:130:ASN:C	55:M9:132:PHE:H	2.20	0.45
36:5:1754:G:C6	36:5:1755:C:C4	3.04	0.45
67:O1:62:ARG:HB2	67:O1:66:GLY:O	2.17	0.45
1:2:1089:U:O2'	1:2:1090:C:H5'	2.17	0.45
26:D4:88:THR:O	26:D4:88:THR:OG1	2.64	0.45
31:D9:31:ILE:HD13	31:D9:31:ILE:HA	2.06	0.45
8:S6:180:THR:O	8:S6:184:LEU:HD12	4.37	0.45
1:6:1030:A:C5	1:6:1792:G:C6	3.04	0.45
68:O2:33:ARG:HG3	36:5:945:C:OP1	169.72	0.45
1:6:151:G:N2	1:6:163:G:N2	2.64	0.45
22:D0:72:ASN:HD22	22:D0:74:GLU:H	1.63	0.45
65:N9:50:THR:O	65:N9:54:LEU:HB2	2.33	0.45
16:C4:114:ARG:HA	28:D6:62:TYR:CZ	2.51	0.45
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.98	0.45
21:C9:38:LYS:O	21:C9:39:THR:OG1	2.34	0.45
39:L2:5:ILE:HG22	39:L2:208:ASP:O	2.17	0.45
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.17	0.45
10:S8:56:ARG:HH21	10:S8:175:GLN:NE2	2.14	0.45
7:S5:95:ASN:O	7:S5:98:MET:HG2	2.62	0.45
75:O9:2:ALA:N	36:5:1493:G:O6	122.07	0.45
20:C8:122:HIS:CD2	1:6:1558:U:C4	360.22	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.16	0.45
42:L5:33:ARG:NH2	37:7:7:G:O3'	269.08	0.45
7:S5:82:PHE:CE2	30:D8:49:ARG:HB3	2.51	0.45
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	3.21	0.45
51:M5:53:TYR:CD1	51:M5:61:ILE:HD11	2.65	0.45
1:6:1161:C:H2'	1:6:1162:C:H6	1.82	0.45
19:C7:26:LEU:HD21	19:C7:62:GLN:HG3	4.60	0.45
79:Q3:13:LYS:HE3	79:Q3:14:TYR:CE2	2.51	0.45
41:L4:299:ILE:HD12	54:M8:39:ARG:HB3	3.50	0.45
9:S7:50:ASP:OD2	9:S7:56:LYS:HE2	2.17	0.45
9:S7:56:LYS:HB2	9:S7:88:ARG:HH11	1.92	0.45
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.16	0.45
36:5:912:G:H8	36:5:912:G:O5'	1.99	0.45
5:S3:67:ASN:HA	5:S3:70:THR:HG1	2.59	0.45
6:S4:161:LYS:HB3	6:S4:170:THR:O	5.24	0.45
34:SR:199:ILE:HG13	34:SR:199:ILE:H	2.25	0.45
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	2.64	0.45
86:2:2043:OHX:N2	86:2:2098:OHX:N5	2.64	0.45
25:D3:51:GLY:O	25:D3:101:GLU:HA	2.67	0.45
48:M1:59:ILE:HB	48:M1:65:ILE:HD11	3.47	0.45
10:S8:21:PHE:HD1	10:S8:22:ARG:HG2	4.26	0.45
36:5:175:C:H2'	36:5:176:G:C8	2.51	0.45
37:3:64:A:H3'	47:M0:204:GLY:O	2.17	0.45
40:L3:169:THR:CG2	40:L3:171:LEU:HG	3.08	0.45
36:5:1839:A:N6	36:5:1843:C:C2	2.84	0.45
36:5:1655:G:H8	36:5:1655:G:OP2	2.00	0.45
34:SR:201:THR:OG1	34:SR:202:LEU:N	2.48	0.45
36:1:1305:U:N1	40:L3:257:PRO:HG3	2.30	0.45
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.69	0.45
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.51	0.45
39:L2:89:TYR:O	39:L2:100:ASN:HB3	2.16	0.45
36:5:3053:G:N7	86:5:4166:OHX:N3	2.65	0.45
1:2:1141:G:H2'	1:2:1142:A:C8	2.51	0.45
78:Q2:2:VAL:HG23	78:Q2:91:PHE:HD1	2.74	0.45
30:D8:64:ARG:HD2	30:D8:64:ARG:HA	1.65	0.45
6:S4:184:THR:C	6:S4:189:LEU:HD13	2.69	0.45
1:6:619:A:N3	1:6:1141:G:H1'	2.32	0.45
17:C5:56:PHE:CE1	17:C5:60:LEU:HD11	5.82	0.45
44:L7:139:PRO:HA	44:L7:237:ASN:OD1	2.19	0.45
36:5:35:A:O2'	36:5:36:C:H5'	2.17	0.45
48:M1:100:GLY:HA3	48:M1:154:THR:HB	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:731:U:H2'	36:1:732:C:C6	2.52	0.45
1:6:445:A:H2'	1:6:446:A:H8	1.81	0.45
56:N0:117:ARG:NH2	36:5:1321:G:O3'	281.62	0.45
86:1:3959:OHX:N1	86:1:4138:OHX:N3	2.65	0.45
61:N5:24:LEU:HB3	61:N5:25:LYS:H	1.95	0.45
10:S8:147:ALA:HA	10:S8:150:ALA:H	1.80	0.45
36:1:2665:U:H4'	36:1:2666:C:OP1	2.16	0.45
25:D3:63:GLN:OE1	25:D3:63:GLN:HA	2.85	0.45
56:N0:45:LEU:HD13	56:N0:45:LEU:HA	2.68	0.45
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.81	0.45
11:S9:39:LYS:HB3	11:S9:43:TYR:CE2	2.51	0.45
1:2:460:A:H5'	1:2:461:G:OP2	2.16	0.45
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.16	0.45
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.16	0.45
40:L3:58:ARG:HA	40:L3:357:LYS:HG3	2.71	0.45
1:2:274:G:C2	1:2:275:C:H1'	2.51	0.45
9:S7:9:LEU:HB3	9:S7:10:SER:H	3.12	0.45
70:O4:29:ILE:HD11	70:O4:31:ARG:NH2	2.19	0.45
7:S5:163:SER:HB2	30:D8:48:VAL:CG2	2.46	0.45
16:C4:91:THR:C	16:C4:93:THR:H	2.19	0.45
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	2.17	0.45
36:1:13:A:H5''	36:1:13:A:C8	2.50	0.45
1:6:483:A:H2'	1:6:484:C:O4'	2.16	0.45
11:S9:124:HIS:HD2	1:6:478:A:O2'	448.49	0.45
26:D4:34:ASN:HB3	26:D4:35:VAL:H	4.22	0.45
19:C7:25:THR:HB	19:C7:27:ASP:H	2.36	0.45
7:S5:81:ARG:NH2	30:D8:47:PRO:HB3	2.42	0.45
1:2:335:U:O2'	13:C1:129:ARG:HD2	2.17	0.45
1:2:629:U:OP2	1:2:969:C:N4	2.49	0.45
1:2:363:G:OP1	86:2:2077:OHX:N2	2.50	0.45
3:S1:139:ALA:HB2	3:S1:172:LEU:HD11	2.41	0.45
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.43	0.45
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	3.59	0.45
42:L5:22:ARG:NH1	42:L5:28:THR:OG1	5.00	0.45
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.26	0.45
38:4:98:U:H5'	71:O5:59:ASN:ND2	2.32	0.45
41:L4:338:LYS:C	41:L4:340:GLY:H	2.24	0.45
1:2:209:U:H2'	1:2:210:A:H8	1.78	0.45
56:N0:94:ILE:HD11	56:N0:106:LEU:HB2	2.80	0.45
36:1:99:A:OP1	51:M5:194:GLN:NE2	2.49	0.45
2:S0:105:GLY:O	2:S0:112:THR:HG21	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:83:GLN:O	19:C7:85:VAL:HG22	6.71	0.45
1:6:1309:C:O2	1:6:1401:A:H2	2.00	0.45
64:N8:66:ALA:HB1	64:N8:69:TRP:HB2	4.49	0.45
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.15	0.45
43:L6:50:LYS:NZ	43:L6:72:ASN:O	3.67	0.45
41:L4:37:THR:OG1	41:L4:38:VAL:N	2.49	0.45
49:M3:57:VAL:N	49:M3:112:ASN:OD1	2.48	0.45
1:6:1490:C:O2	1:6:1491:U:H1'	2.17	0.45
24:D2:55:ASP:C	24:D2:57:ARG:H	2.18	0.45
49:M3:116:LEU:O	49:M3:120:GLN:HB2	2.17	0.45
36:5:553:U:O4	86:5:3990:OHX:N3	2.50	0.45
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	3.04	0.45
1:2:180:A:H2'	1:2:181:A:O4'	2.15	0.45
10:S8:147:ALA:C	10:S8:149:SER:H	2.75	0.45
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.98	0.45
1:2:653:C:H2'	1:2:654:C:O4'	2.16	0.45
36:5:329:U:H4'	36:5:330:G:OP2	2.16	0.45
22:D0:82:TYR:HB3	31:D9:52:PHE:HB3	1.97	0.45
36:5:897:U:H2'	36:5:898:U:C6	2.51	0.45
36:1:2941:A:O5'	36:1:2943:G:H4'	2.16	0.45
36:5:558:U:H4'	36:5:559:A:OP2	2.16	0.45
73:O7:58:THR:O	73:O7:61:THR:HG23	2.17	0.45
60:N4:58:HIS:ND1	60:N4:58:HIS:O	3.49	0.45
50:M4:27:GLN:HG2	50:M4:27:GLN:H	1.38	0.45
63:N7:80:LEU:HD23	63:N7:80:LEU:HA	2.40	0.45
36:5:776:U:C5	36:5:2719:U:O2	2.70	0.45
25:D3:29:TYR:CZ	25:D3:33:LEU:HD13	2.65	0.45
36:5:2255:A:O2'	36:5:2256:A:OP2	2.27	0.45
1:2:1560:U:C4	1:2:1561:U:C4	3.05	0.45
28:D6:9:GLY:O	28:D6:10:ARG:HG3	2.16	0.45
1:6:486:G:O2'	1:6:487:G:H5'	2.16	0.45
3:S1:62:LYS:C	3:S1:64:ARG:H	2.19	0.45
22:D0:58:LEU:HD12	22:D0:88:LYS:HD2	1.99	0.45
40:L3:141:GLY:O	40:L3:143:GLY:N	3.30	0.45
41:L4:130:ALA:HA	41:L4:148:ILE:HG23	1.98	0.45
41:L4:219:LEU:HD22	41:L4:225:VAL:HG11	1.98	0.45
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.77	0.45
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	2.28	0.45
86:5:3994:OHX:N6	86:5:4083:OHX:N2	2.63	0.45
41:L4:182:LEU:HA	41:L4:182:LEU:HD13	3.69	0.45
51:M5:113:LEU:HD12	51:M5:136:ASP:HA	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:120:LEU:HD12	2:S0:120:LEU:HA	2.16	0.45
9:S7:56:LYS:HB2	9:S7:88:ARG:NH1	2.31	0.45
51:M5:155:VAL:HG23	51:M5:156:HIS:ND1	2.31	0.45
42:L5:43:LYS:HB3	42:L5:46:THR:OG1	2.97	0.45
1:6:829:A:OP1	1:6:829:A:H4'	2.15	0.45
1:2:1266:U:H2'	1:2:1267:G:H8	1.81	0.45
21:C9:86:ARG:HB2	21:C9:89:ARG:HB2	2.37	0.45
51:M5:167:THR:O	51:M5:170:LYS:N	2.49	0.45
15:C3:89:TYR:CE2	15:C3:150:VAL:HG22	2.52	0.45
1:2:1773:C:OP1	77:Q1:3:ALA:HB3	2.16	0.45
19:C7:79:GLU:O	19:C7:82:ASP:HB2	2.16	0.45
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	12.74	0.45
9:S7:49:ILE:HD12	9:S7:172:VAL:HA	2.13	0.45
29:D7:49:HIS:CE1	29:D7:70:LYS:HG2	2.51	0.45
86:1:4002:OHX:N4	86:1:4171:OHX:N1	2.64	0.45
42:L5:294:ALA:O	42:L5:296:GLN:N	2.41	0.45
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.98	0.45
1:2:386:G:C6	1:2:387:A:N6	2.84	0.45
1:2:912:U:H4'	1:2:913:G:O5'	2.16	0.45
36:5:3328:G:C2	36:5:3379:C:C2	3.03	0.45
20:C8:84:TRP:HA	20:C8:89:GLN:NE2	2.71	0.45
1:2:986:G:H2'	1:2:987:G:O4'	2.16	0.45
36:1:2744:U:OP1	86:1:4074:OHX:N1	2.50	0.45
36:5:871:U:H2'	36:5:872:U:C6	2.51	0.45
10:S8:113:PHE:O	10:S8:117:TYR:HB2	2.38	0.45
36:5:398:A:O2'	36:5:1416:C:OP1	2.23	0.45
41:L4:241:GLY:O	41:L4:242:ALA:HB3	2.70	0.45
36:1:1763:U:H3'	36:1:1764:U:C5	2.52	0.45
22:D0:80:GLU:HG3	31:D9:54:LYS:NZ	2.31	0.45
52:M6:7:VAL:HB	52:M6:33:ILE:HD13	4.69	0.45
52:M6:142:SER:HB3	52:M6:147:TRP:HB2	1.98	0.45
36:5:736:A:C5	36:5:737:G:H1'	2.52	0.45
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	2.03	0.45
36:1:374:A:HO2'	36:1:376:G:H8	1.61	0.45
42:L5:211:LEU:CD2	42:L5:215:ASP:HB3	3.19	0.45
8:S6:136:LYS:O	8:S6:175:ILE:HA	2.16	0.45
55:M9:77:GLY:O	55:M9:81:ARG:HD3	2.17	0.45
50:M4:55:ARG:NH2	50:M4:77:ARG:HA	2.31	0.45
1:2:333:A:C8	10:S8:49:ARG:HD2	2.52	0.45
28:D6:38:ARG:HE	28:D6:83:ILE:HG13	1.82	0.45
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:171:SER:HB3	34:SR:181:TRP:HE1	2.63	0.45
36:1:840:C:O4'	55:M9:128:LYS:HE2	2.17	0.45
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.76	0.45
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	1.99	0.45
18:C6:37:THR:O	18:C6:37:THR:OG1	3.22	0.45
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.39	0.45
22:D0:18:GLN:O	22:D0:96:PRO:HG3	5.38	0.45
46:L9:70:THR:HB	36:5:3112:G:HO2'	328.81	0.45
36:1:2707:C:H2'	36:1:2708:C:C6	2.51	0.45
47:M0:81:GLY:C	47:M0:83:ASP:N	2.98	0.45
63:N7:88:ASP:OD1	63:N7:89:VAL:N	2.47	0.45
1:2:651:G:N7	86:2:2103:OHX:N6	2.64	0.45
71:O5:60:GLU:O	71:O5:63:ARG:HB2	2.17	0.45
5:S3:34:TYR:HA	5:S3:52:ALA:HA	2.38	0.45
1:6:1640:C:O2'	1:6:1762:A:N1	2.38	0.45
1:2:927:C:H2'	1:2:928:U:H6	1.79	0.45
1:6:188:A:H2'	1:6:189:C:O4'	2.17	0.45
2:S0:17:LEU:HD13	2:S0:50:VAL:HG12	2.87	0.45
36:5:3165:A:H2'	36:5:3166:C:C6	2.52	0.45
48:M1:95:ASN:N	48:M1:95:ASN:ND2	3.03	0.45
36:1:3108:G:H21	46:L9:163:GLN:NE2	2.14	0.45
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.12	0.45
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	2.59	0.45
36:5:1815:U:O2'	36:5:1816:A:P	2.74	0.45
16:C4:24:ASN:O	16:C4:25:ASP:HB2	2.16	0.45
1:6:1477:G:H2'	1:6:1478:G:C8	2.50	0.45
54:M8:65:SER:HA	54:M8:93:ILE:HD13	1.99	0.45
1:2:1146:G:H2'	1:2:1147:A:C8	2.52	0.45
36:1:715:A:H4'	36:1:716:A:OP1	2.16	0.45
7:S5:79:ASN:HB2	7:S5:83:ARG:NH2	3.83	0.45
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.26	0.45
36:1:65:A:H3'	36:1:111:C:H41	1.82	0.45
31:D9:18:SER:OG	31:D9:18:SER:O	3.60	0.45
40:L3:161:LEU:HA	40:L3:161:LEU:HD23	1.66	0.45
36:1:2278:C:C2'	36:1:2279:A:H5''	2.46	0.45
1:2:192:U:H2'	1:2:192:U:O2	2.16	0.45
1:6:1320:U:O2	1:6:1322:A:H5'	2.16	0.45
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.32	0.45
36:1:659:G:H2'	36:1:1432:C:H42	1.82	0.45
26:D4:89:TYR:CD1	1:6:525:A:H5''	395.51	0.45
36:1:2501:U:H4'	36:1:2502:A:OP1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:19:CYS:SG	73:O7:34:CYS:HB2	2.56	0.45
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	2.10	0.45
1:2:72:A:C2	1:2:73:U:N3	2.85	0.45
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.33	0.45
36:5:2885:C:O2'	36:5:2886:U:H5'	2.16	0.45
1:2:1344:A:H4'	1:2:1345:A:OP1	2.15	0.45
6:S4:6:LYS:C	6:S4:7:LYS:HD2	2.36	0.45
42:L5:136:GLU:CD	42:L5:136:GLU:H	4.99	0.45
45:L8:200:LEU:HA	45:L8:200:LEU:HD23	1.80	0.45
25:D3:103:LEU:HA	25:D3:103:LEU:HD23	2.69	0.45
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.31	0.45
36:1:945:C:OP1	68:O2:33:ARG:HG3	2.16	0.45
68:O2:19:ARG:HD3	68:O2:28:VAL:HG13	3.45	0.45
3:S1:113:MET:CE	3:S1:142:PHE:HE2	5.02	0.45
70:O4:30:LEU:HD22	70:O4:31:ARG:H	4.07	0.45
43:L6:31:ARG:HH11	69:O3:107:ILE:HG22	5.33	0.45
10:S8:24:LYS:O	1:6:400:A:H5''	306.99	0.45
1:2:1541:G:C5	1:2:1542:G:C6	3.05	0.45
44:L7:26:VAL:HG23	44:L7:27:ALA:H	1.82	0.45
41:L4:222:VAL:HA	41:L4:223:PRO:HD3	1.78	0.45
41:L4:23:PRO:O	41:L4:24:ALA:HB3	3.75	0.45
39:L2:181:LYS:NZ	36:5:860:G:P	213.44	0.45
42:L5:270:LYS:HG2	37:7:2:G:H5'	318.22	0.45
11:S9:78:ARG:NH2	11:S9:82:ARG:HE	2.09	0.45
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.52	0.45
22:D0:20:ILE:HG22	22:D0:21:LYS:N	5.04	0.45
4:S2:90:THR:N	4:S2:93:GLY:O	2.49	0.45
4:S2:90:THR:C	4:S2:92:ALA:N	2.70	0.45
15:C3:27:LYS:HD2	15:C3:28:LEU:HG	1.97	0.45
53:M7:53:ASP:O	86:M7:205:OHX:N3	2.49	0.45
21:C9:23:GLN:HA	21:C9:55:TYR:CE1	2.87	0.45
17:C5:22:LEU:HD13	17:C5:26:LEU:HD21	1.98	0.45
1:6:190:C:O2'	1:6:191:C:O5'	2.35	0.45
7:S5:148:ARG:HE	30:D8:22:ARG:HH21	5.76	0.45
52:M6:83:ALA:O	52:M6:87:MET:HG3	2.66	0.45
1:6:1309:C:H2'	1:6:1310:U:O4'	2.16	0.45
1:2:1467:C:H2'	1:2:1468:U:H6	1.82	0.45
36:1:1567:U:H5	36:1:1568:U:C2	2.34	0.45
36:5:209:A:H4'	36:5:211:A:N7	2.32	0.45
36:1:726:G:H5'	36:1:726:G:C8	2.52	0.45
36:1:1818:U:H3'	36:1:1819:U:H5''	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.98	0.45
1:6:791:A:H2'	1:6:792:U:O4'	2.16	0.45
36:1:1155:C:H2'	36:1:1156:C:H6	1.81	0.45
3:S1:65:VAL:HG12	1:6:920:U:H5''	263.11	0.45
36:1:1615:C:H2'	36:1:1616:U:C6	2.51	0.45
31:D9:19:ARG:CD	31:D9:32:ARG:HD2	2.46	0.45
57:N1:124:VAL:HG12	57:N1:125:ALA:N	2.77	0.45
40:L3:117:ARG:CZ	40:L3:175:LYS:HG2	3.08	0.45
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.51	0.45
36:5:1194:G:HO2'	36:5:1319:G:HO2'	1.62	0.45
45:L8:136:LEU:O	45:L8:140:VAL:HG23	2.17	0.45
23:D1:72:LEU:O	23:D1:76:ASP:HB2	2.17	0.45
1:2:607:G:H5'	1:2:613:G:N2	2.32	0.45
86:5:4049:OHX:N1	86:5:4193:OHX:N4	2.65	0.45
36:1:3018:C:H2'	36:1:3019:U:O4'	2.17	0.45
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.81	0.45
54:M8:165:ILE:HG23	54:M8:167:SER:H	5.70	0.45
1:6:691:C:OP1	1:6:696:C:N4	2.33	0.45
36:1:509:U:O4	86:1:4006:OHX:N5	2.50	0.45
58:N2:93:ILE:HA	58:N2:106:ALA:O	2.32	0.45
36:5:2541:U:H4'	36:5:2542:U:OP1	2.17	0.45
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.17	0.45
40:L3:277:SER:HB2	40:L3:329:PRO:HG3	1.99	0.45
36:1:138:U:O4	86:1:3888:OHX:N3	2.49	0.45
6:S4:131:LEU:HD22	6:S4:131:LEU:HA	1.83	0.45
1:6:1628:U:H2'	1:6:1629:G:C8	2.52	0.45
9:S7:141:ARG:NH2	9:S7:143:LEU:HD21	3.71	0.45
47:M0:213:PHE:N	47:M0:214:PRO:HD3	2.32	0.45
36:1:522:A:OP1	86:1:3942:OHX:N5	2.50	0.45
1:6:1016:C:H2'	1:6:1017:U:H6	1.81	0.45
1:6:1186:U:H2'	1:6:1187:U:O4'	2.17	0.45
1:6:1554:U:H5''	1:6:1555:A:OP2	2.17	0.45
1:6:1287:A:H4'	1:6:1288:G:H5'	1.98	0.45
36:5:3354:U:H4'	36:5:3355:U:H5''	1.99	0.45
21:C9:91:TYR:N	21:C9:91:TYR:CD1	3.09	0.45
59:N3:75:PRO:HD2	59:N3:103:ALA:O	3.01	0.45
56:N0:38:LYS:HE3	56:N0:38:LYS:HB2	2.25	0.45
30:D8:16:LEU:HD22	30:D8:16:LEU:HA	3.17	0.45
36:5:2148:U:H2'	36:5:2149:A:C4	2.51	0.45
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.23	0.45
58:N2:81:LYS:HA	58:N2:84:LEU:HD12	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:69:ARG:HG2	53:M7:79:THR:CG2	3.56	0.45
1:2:140:A:P	8:S6:187:LYS:HZ2	2.37	0.45
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.42	0.45
7:S5:63:GLN:H	7:S5:89:ILE:HG13	1.82	0.45
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	1.98	0.45
47:M0:170:LYS:HD2	47:M0:176:LEU:N	3.71	0.45
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.98	0.45
2:S0:30:GLN:HE22	2:S0:37:VAL:HG21	1.82	0.45
73:O7:25:ARG:HG3	75:O9:51:ILE:HD12	2.50	0.45
12:C0:49:LEU:HB3	12:C0:55:VAL:CG1	2.47	0.45
72:O6:30:LYS:HZ2	36:5:316:U:HO2'	102.16	0.45
37:3:47:C:H2'	37:3:48:U:H6	1.81	0.45
4:S2:56:ILE:O	4:S2:60:SER:N	2.50	0.45
86:5:3994:OHX:N6	86:5:4083:OHX:N5	2.65	0.45
41:L4:302:ALA:HB2	54:M8:39:ARG:NH2	2.32	0.45
1:6:1542:G:O2'	1:6:1543:A:OP2	2.34	0.45
55:M9:103:ARG:HD2	55:M9:124:TYR:CE1	2.52	0.45
16:C4:82:LYS:HB3	16:C4:118:VAL:HG21	2.27	0.45
47:M0:76:MET:HE1	47:M0:148:VAL:HA	3.33	0.45
54:M8:99:THR:HB	54:M8:100:THR:H	1.55	0.45
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.16	0.45
52:M6:85:ARG:NH1	36:5:2382:G:OP1	238.09	0.45
36:5:782:U:H2'	36:5:783:A:O4'	2.17	0.45
36:5:1689:U:H2'	36:5:1690:C:H6	1.82	0.45
36:1:3209:A:OP2	56:N0:161:LYS:HD2	2.17	0.45
68:O2:5:PRO:HD2	68:O2:6:HIS:H	5.13	0.45
52:M6:182:ASN:ND2	52:M6:186:ALA:HB2	7.15	0.45
1:6:640:U:H2'	1:6:641:G:H8	1.82	0.45
36:1:716:A:C6	64:N8:117:ARG:HG3	2.52	0.45
45:L8:91:PHE:CZ	45:L8:185:ARG:HB3	2.56	0.45
36:1:386:A:C5	36:1:387:A:H1'	2.52	0.45
1:2:386:G:H5''	10:S8:23:LYS:HE2	1.98	0.45
13:C1:131:ILE:HD13	13:C1:131:ILE:HA	1.55	0.45
53:M7:116:HIS:NE2	53:M7:147:GLU:OE2	2.68	0.45
60:N4:5:ILE:HD12	60:N4:6:ASP:O	3.18	0.45
45:L8:140:VAL:HG21	51:M5:3:ALA:HB2	2.49	0.45
36:5:975:C:O2'	36:5:976:U:H5'	2.17	0.45
61:N5:88:MET:SD	61:N5:120:LYS:HB2	3.07	0.45
1:2:806:A:N6	9:S7:104:ARG:HH22	2.15	0.45
1:6:809:A:N1	1:6:810:G:C6	2.85	0.45
36:1:496:C:H2'	36:1:497:C:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3333:G:N2	36:1:3369:G:O2'	2.50	0.45
26:D4:49:LYS:HD3	26:D4:49:LYS:N	2.62	0.45
40:L3:316:GLU:O	40:L3:317:ILE:HB	2.16	0.45
41:L4:183:LYS:HA	41:L4:183:LYS:HD2	1.78	0.45
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.52	0.45
2:S0:65:ALA:C	2:S0:67:ILE:H	3.27	0.45
1:2:598:U:H2'	1:2:599:A:C8	2.51	0.45
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.60	0.45
40:L3:108:GLU:HG2	40:L3:109:HIS:CD2	3.13	0.45
36:5:3159:C:H2'	36:5:3160:U:C6	2.51	0.45
1:6:1572:G:H2'	1:6:1572:G:N3	2.32	0.45
36:5:2257:C:H6	36:5:2257:C:O5'	2.00	0.45
67:O1:70:ARG:O	67:O1:71:LEU:HD23	2.43	0.45
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.99	0.45
1:2:1433:G:H2'	1:2:1434:U:C6	2.51	0.45
56:N0:6:GLU:CD	56:N0:99:ARG:HH21	3.90	0.45
28:D6:61:GLU:HG3	28:D6:62:TYR:O	3.78	0.45
26:D4:15:ASN:HD22	26:D4:22:GLN:HE22	3.78	0.45
7:S5:52:GLU:N	7:S5:131:GLN:HE22	2.15	0.45
65:N9:14:ARG:HH12	65:N9:18:ARG:HD3	3.49	0.45
5:S3:168:ILE:HD11	5:S3:170:THR:HG23	6.99	0.45
1:2:1610:G:OP1	7:S5:72:HIS:NE2	2.40	0.45
27:D5:74:SER:OG	27:D5:77:ARG:NH2	4.92	0.45
36:5:1855:U:H2'	36:5:1856:C:H6	1.81	0.45
1:2:549:G:N2	1:2:590:C:C2	2.85	0.45
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.16	0.45
36:1:1307:G:H1'	36:1:1308:A:C8	2.52	0.45
8:S6:155:ASP:OD1	86:S6:301:OHX:N4	2.49	0.45
30:D8:10:ALA:HB1	30:D8:30:VAL:HB	1.98	0.45
17:C5:18:ARG:O	20:C8:95:GLY:HA3	2.17	0.45
1:6:220:A:H3'	1:6:832:U:H1'	1.99	0.45
57:N1:87:LYS:NZ	36:5:2728:G:N7	211.33	0.45
35:SM:84:LYS:HG2	35:SM:86:ASN:H	1.82	0.45
6:S4:100:ARG:O	6:S4:102:VAL:HG12	3.23	0.45
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.59	0.45
52:M6:23:VAL:HB	52:M6:84:LEU:HD11	1.99	0.45
36:1:2513:U:H4'	36:1:2514:U:OP1	2.17	0.45
45:L8:37:GLY:HA3	36:5:2550:U:C6	211.54	0.45
36:1:1874:A:OP2	55:M9:21:LYS:HE2	2.16	0.45
1:2:927:C:H1'	16:C4:125:SER:CB	2.47	0.45
36:1:356:C:OP2	86:1:4140:OHX:N1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:79:VAL:HG23	59:N3:80:ARG:HG3	1.98	0.45
36:5:1064:A:N6	36:5:1096:U:C4	2.85	0.45
36:5:2369:G:OP2	86:5:3901:OHX:N5	2.50	0.45
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.34	0.45
56:N0:161:LYS:NZ	36:5:3209:A:P	278.85	0.45
19:C7:71:PHE:C	19:C7:73:LEU:H	2.20	0.45
39:L2:105:GLY:CA	39:L2:160:SER:HB3	3.32	0.45
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	1.98	0.45
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.76	0.45
26:D4:3:ASP:C	26:D4:5:VAL:H	2.15	0.45
36:5:3155:U:H3'	36:5:3156:U:H5''	1.98	0.45
36:5:172:G:N3	36:5:172:G:H2'	2.32	0.45
36:5:916:G:H5'	36:5:917:A:OP1	2.17	0.45
49:M3:131:LYS:HB2	49:M3:133:PRO:HD3	1.98	0.45
36:1:361:A:O4'	36:1:814:U:H4'	2.16	0.45
52:M6:72:HIS:ND1	36:5:3008:A:OP1	244.52	0.45
1:2:1235:C:O2'	33:E1:149:LYS:HD2	2.16	0.45
35:SM:52:PRO:C	35:SM:54:PRO:HD3	4.46	0.45
3:S1:83:LYS:HE2	3:S1:104:ASP:HB3	1.99	0.45
17:C5:60:LEU:O	17:C5:64:LYS:HB2	2.87	0.45
36:1:497:C:O2	36:1:617:G:N2	2.50	0.45
68:O2:41:VAL:HG12	68:O2:46:PHE:CD2	2.69	0.45
36:5:1769:G:C2	36:5:1770:G:C8	3.04	0.45
36:5:258:G:H2'	36:5:259:C:C6	2.52	0.45
76:Q0:97:ARG:HB2	76:Q0:120:GLN:O	2.17	0.45
2:S0:117:GLU:O	4:S2:40:LYS:NZ	2.45	0.45
36:5:188:U:H1'	36:5:208:C:H1'	1.97	0.45
71:O5:77:PRO:HD2	71:O5:80:LEU:HD12	2.33	0.45
36:1:3042:U:OP2	36:1:3092:C:N4	2.36	0.45
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.35	0.45
49:M3:67:ARG:HG3	49:M3:67:ARG:H	1.76	0.45
44:L7:33:ARG:HG3	44:L7:33:ARG:HH11	3.54	0.45
36:5:2997:G:C6	36:5:2998:U:C4	3.04	0.45
36:5:3308:C:C4	36:5:3309:G:C5	3.04	0.45
22:D0:67:THR:OG1	22:D0:68:ARG:N	4.51	0.45
21:C9:37:VAL:HG12	21:C9:38:LYS:N	3.46	0.45
7:S5:222:LYS:HG3	7:S5:225:ARG:NH2	2.32	0.45
28:D6:87:ARG:HD2	1:6:1797:A:C6	343.37	0.45
1:2:514:G:N1	1:2:543:C:H5	2.15	0.45
1:2:1483:A:H61	1:2:1591:C:H1'	1.82	0.45
22:D0:53:LYS:HD2	1:6:1345:A:H5'	464.95	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.81	0.45
7:S5:158:GLN:HE21	30:D8:66:LEU:HD21	1.81	0.45
1:2:1545:A:C8	20:C8:134:ARG:NH2	2.85	0.45
57:N1:101:CYS:HB3	36:5:990:U:O4'	252.05	0.45
36:1:2724:U:OP1	57:N1:78:LYS:HE2	2.17	0.45
36:1:656:A:C6	36:1:657:A:C6	3.05	0.45
66:O0:13:LYS:HB3	66:O0:100:ILE:HG23	2.20	0.45
36:5:1870:C:O2	36:5:3066:U:O2'	2.34	0.45
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.77	0.45
28:D6:64:LEU:HA	28:D6:65:PRO:HD3	1.62	0.45
59:N3:35:TYR:HB2	59:N3:63:LYS:HD3	1.98	0.45
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.78	0.45
24:D2:86:ILE:O	24:D2:90:THR:HG23	2.19	0.45
36:5:3165:A:C6	36:5:3286:G:C6	3.05	0.45
36:1:2510:U:O2'	36:1:2511:A:H8	1.99	0.45
20:C8:35:ILE:HB	20:C8:38:VAL:CG1	4.09	0.45
1:2:1217:A:H5''	12:C0:1:MET:HG3	1.98	0.45
2:S0:198:MET:SD	2:S0:199:PRO:HD2	2.60	0.45
54:M8:181:SER:HB3	36:5:2790:A:OP2	182.58	0.45
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.47	0.45
36:5:603:A:H2'	36:5:604:G:O4'	2.17	0.45
36:1:1554:U:HO2'	36:1:1582:C:H5	1.65	0.45
36:5:211:A:O4'	36:5:229:G:H1'	2.17	0.45
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.35	0.45
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	2.43	0.45
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	2.32	0.45
36:1:2563:G:H5''	45:L8:27:THR:HG23	1.99	0.45
1:2:1146:G:C6	1:2:1147:A:C6	3.05	0.45
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.52	0.45
43:L6:18:LEU:HB3	36:5:591:G:H21	218.93	0.45
36:5:1047:A:C6	36:5:1048:A:C6	3.05	0.45
40:L3:261:MET:HG2	52:M6:64:PHE:HA	2.83	0.45
38:8:6:U:H2'	38:8:7:U:H6	1.80	0.45
36:1:2393:G:O2'	36:1:2394:G:OP2	2.31	0.45
86:1:3866:OHX:N1	43:L6:29:LYS:O	2.49	0.45
57:N1:122:GLN:OE1	57:N1:123:GLY:N	2.50	0.45
10:S8:184:LEU:HB3	10:S8:189:LEU:HB2	2.23	0.45
1:2:580:A:H5''	5:S3:143:ARG:HH12	1.81	0.45
36:5:985:U:H2'	36:5:986:U:C6	2.52	0.45
36:5:752:C:H2'	36:5:753:C:H6	1.82	0.45
61:N5:87:SER:O	61:N5:120:LYS:HD2	3.01	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1031:U:H4'	1:2:1032:G:OP2	2.16	0.45
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	1.99	0.45
21:C9:91:TYR:HD1	21:C9:91:TYR:N	2.48	0.45
62:N6:18:ALA:O	62:N6:22:ALA:HB2	2.17	0.45
1:6:411:C:H42	1:6:422:G:H1	1.65	0.45
36:1:2689:A:C8	36:1:2702:A:C6	3.05	0.45
46:L9:180:TYR:HB2	76:Q0:85:LEU:HD22	4.40	0.45
1:6:1685:G:O6	1:6:1716:C:N4	2.50	0.45
1:2:1781:A:OP1	86:2:2051:OHX:N3	2.50	0.45
36:5:785:G:N3	36:5:785:G:H2'	2.32	0.45
36:1:3203:U:H2'	36:1:3204:C:C6	2.52	0.45
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.47	0.45
79:Q3:18:TYR:HD2	36:5:2131:A:H61	223.58	0.45
59:N3:45:ARG:O	59:N3:46:LEU:C	2.71	0.45
36:1:2117:A:N7	36:1:3064:U:O2'	2.40	0.45
1:2:641:G:H2'	1:2:642:G:C8	2.52	0.45
1:2:446:A:H2'	1:2:447:U:H6	1.82	0.44
6:S4:29:PRO:O	6:S4:30:ARG:HB3	4.72	0.44
36:5:3154:C:O2	36:5:3154:C:H2'	2.16	0.44
6:S4:45:ILE:HD11	6:S4:49:ARG:HH21	1.81	0.44
1:6:1429:G:H2'	1:6:1430:U:C6	2.51	0.44
1:2:1203:A:C4	1:2:1556:A:C2	3.05	0.44
1:2:1207:C:N4	1:2:1456:C:H5	2.15	0.44
17:C5:40:ARG:NH2	1:6:1552:U:O4	390.97	0.44
21:C9:38:LYS:NZ	1:6:1564:U:OP1	375.54	0.44
70:O4:22:VAL:HG13	70:O4:30:LEU:HD22	1.98	0.44
38:4:62:C:H4'	38:4:63:G:O5'	2.17	0.44
47:M0:144:ASN:ND2	47:M0:147:VAL:HB	3.50	0.44
20:C8:11:PHE:CE1	27:D5:41:ILE:HG21	3.73	0.44
1:2:1542:G:H22	1:2:1568:C:HO2'	1.66	0.44
9:S7:133:THR:HG21	9:S7:162:ILE:HD11	1.98	0.44
1:2:1543:A:H2'	1:2:1544:U:O4'	2.17	0.44
1:2:1292:G:H2'	1:2:1293:U:C6	2.52	0.44
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	8.78	0.44
1:6:1580:C:H2'	1:6:1581:C:O4'	2.17	0.44
86:5:3994:OHX:N4	86:5:4083:OHX:N1	2.65	0.44
18:C6:49:TYR:O	18:C6:53:LEU:HG	2.17	0.44
12:C0:44:LYS:HD3	12:C0:44:LYS:HA	1.74	0.44
1:6:1489:U:H5'	1:6:1494:C:H1'	1.99	0.44
37:3:45:A:H2'	37:3:46:A:H8	1.82	0.44
36:1:1722:U:H5''	55:M9:99:LEU:HD12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:155:PHE:O	23:D1:60:ARG:NH2	3.74	0.44
5:S3:57:ASP:O	5:S3:65:ARG:HG2	4.94	0.44
5:S3:74:GLN:NE2	5:S3:81:PRO:HA	3.55	0.44
26:D4:96:LEU:HD12	26:D4:96:LEU:H	1.83	0.44
36:1:1471:U:H2'	36:1:1472:U:H6	1.81	0.44
2:S0:66:ALA:HB1	23:D1:50:TYR:HD1	3.09	0.44
1:6:1244:A:N3	1:6:1244:A:H3'	2.32	0.44
42:L5:148:ILE:HG12	42:L5:159:VAL:HG21	1.99	0.44
63:N7:36:HIS:HB2	63:N7:40:HIS:CE1	2.52	0.44
1:6:639:U:H1'	1:6:640:U:C5	2.52	0.44
5:S3:31:GLU:HA	5:S3:107:PHE:CZ	3.66	0.44
36:5:1443:G:C2	36:5:1444:G:C4	3.05	0.44
1:2:1450:U:H2'	1:2:1451:C:H6	1.82	0.44
11:S9:63:ASP:O	11:S9:66:ASP:N	2.93	0.44
18:C6:9:THR:HA	1:6:1340:U:O4	432.94	0.44
36:5:172:G:C6	36:5:247:C:N4	2.85	0.44
77:Q1:21:ARG:HH11	1:6:1654:G:P	282.14	0.44
40:L3:97:ARG:NH1	36:5:3244:A:N1	244.21	0.44
55:M9:143:ILE:HG13	36:5:2093:A:P	251.25	0.44
56:N0:40:ARG:HA	56:N0:40:ARG:HD2	1.56	0.44
1:2:872:G:O6	86:2:2126:OHX:N3	2.50	0.44
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.59	0.44
62:N6:87:LYS:HE3	62:N6:87:LYS:HB2	4.67	0.44
48:M1:70:THR:OG1	48:M1:70:THR:O	2.28	0.44
26:D4:48:TYR:O	26:D4:49:LYS:HB3	3.72	0.44
54:M8:88:THR:OG1	36:5:785:G:N2	144.85	0.44
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	2.48	0.44
36:1:72:C:C2	36:1:74:G:H1'	2.53	0.44
36:1:1680:G:H2'	36:1:1681:U:C6	2.52	0.44
1:2:185:U:O2	1:2:201:G:N2	2.50	0.44
36:1:871:U:H2'	36:1:872:U:C6	2.52	0.44
10:S8:70:GLU:HB3	10:S8:112:TRP:CH2	3.34	0.44
36:5:1549:U:O4	86:5:4195:OHX:N2	2.51	0.44
1:2:1442:U:H2'	1:2:1443:U:C6	2.52	0.44
36:5:3327:G:O6	86:5:3951:OHX:N1	2.50	0.44
1:2:1204:A:H61	31:D9:15:GLY:HA3	1.82	0.44
28:D6:49:ALA:O	28:D6:53:LEU:HB2	2.17	0.44
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.30	0.44
36:1:545:U:O2	36:1:545:U:H2'	2.17	0.44
39:L2:119:LYS:HE2	39:L2:119:LYS:HB2	4.27	0.44
38:4:88:A:H2'	38:4:89:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2610:G:H2'	36:5:2611:U:O4'	2.17	0.44
36:5:2663:G:N2	36:5:2708:C:C2	2.85	0.44
68:O2:103:LYS:O	68:O2:106:VAL:HG22	5.29	0.44
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.51	0.44
36:5:1138:U:H2'	36:5:1139:G:O4'	2.17	0.44
6:S4:49:ARG:HH11	6:S4:50:ASN:HD21	1.63	0.44
36:1:3308:C:C4	36:1:3309:G:C5	3.05	0.44
36:1:980:A:H2'	36:1:981:U:N1	2.32	0.44
36:1:1430:U:H2'	64:N8:9:ARG:NH2	2.32	0.44
69:O3:107:ILE:HD12	69:O3:107:ILE:HA	4.55	0.44
7:S5:95:ASN:OD1	7:S5:107:LYS:HD2	3.78	0.44
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.99	0.44
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.43	0.44
34:SR:169:ILE:HG13	34:SR:169:ILE:O	2.46	0.44
9:S7:96:ARG:CZ	9:S7:124:LYS:HB3	2.48	0.44
36:5:3194:C:C2	36:5:3197:G:N2	2.78	0.44
7:S5:158:GLN:OE1	7:S5:159:ALA:N	3.42	0.44
36:1:1240:A:H2	36:1:1248:C:H41	1.64	0.44
41:L4:3:ARG:NH2	41:L4:259:ASP:OD2	9.02	0.44
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.38	0.44
51:M5:49:ARG:NH1	51:M5:49:ARG:HB2	2.33	0.44
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.06	0.44
35:SM:61:ILE:HD12	35:SM:62:ARG:N	2.32	0.44
1:6:1283:U:OP1	86:6:2135:OHX:N5	2.50	0.44
70:O4:78:GLY:O	70:O4:80:ARG:N	4.86	0.44
5:S3:150:MET:HB2	5:S3:152:PHE:CE2	2.52	0.44
21:C9:70:GLN:NE2	21:C9:119:LYS:HD3	2.33	0.44
71:O5:53:CYS:O	71:O5:57:VAL:HG23	2.17	0.44
24:D2:25:VAL:HG22	24:D2:65:LEU:HD21	4.51	0.44
16:C4:81:VAL:O	16:C4:115:ILE:HB	2.16	0.44
36:1:2400:G:H5"	36:1:2401:A:OP2	2.17	0.44
41:L4:193:LYS:O	41:L4:193:LYS:HG2	2.30	0.44
34:SR:176:LYS:HZ3	34:SR:197:SER:HA	6.20	0.44
57:N1:17:ARG:HH11	57:N1:17:ARG:HG2	3.75	0.44
68:O2:101:SER:O	68:O2:105:ARG:HG3	2.38	0.44
36:5:1313:G:H2'	36:5:1314:C:H6	1.83	0.44
36:5:978:G:N2	36:5:1104:G:C4	2.86	0.44
1:6:442:C:N3	1:6:462:G:N1	2.50	0.44
36:1:595:G:C8	36:1:609:G:C6	3.05	0.44
50:M4:22:LEU:HD22	50:M4:94:TRP:CH2	2.59	0.44
74:O8:11:PHE:O	74:O8:14:LEU:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:770:G:OP1	49:M3:171:ARG:HG3	2.17	0.44
8:S6:132:ARG:NH1	1:6:149:C:O2'	333.08	0.44
37:3:62:U:O4	37:3:63:A:N6	2.51	0.44
73:O7:28:HIS:HB3	73:O7:31:LYS:HB2	2.00	0.44
28:D6:51:ARG:NH2	30:D8:60:GLU:OE1	8.09	0.44
7:S5:192:GLU:OE2	27:D5:63:SER:OG	3.68	0.44
68:O2:20:HIS:HB2	68:O2:50:ILE:HD11	2.58	0.44
50:M4:125:LYS:HE2	36:5:3215:A:N7	281.32	0.44
40:L3:92:TYR:HA	40:L3:100:ARG:O	2.57	0.44
68:O2:12:LYS:HD3	68:O2:57:TYR:O	2.63	0.44
86:5:4049:OHX:N5	86:5:4193:OHX:N2	2.65	0.44
71:O5:50:SER:O	71:O5:54:VAL:HG23	2.28	0.44
36:1:1069:C:H2'	36:1:1070:U:H6	1.82	0.44
26:D4:89:TYR:O	26:D4:92:VAL:HB	2.17	0.44
49:M3:24:VAL:HG12	51:M5:199:LEU:HB2	1.99	0.44
29:D7:13:ALA:O	29:D7:16:ALA:HB3	2.17	0.44
36:1:822:G:H4'	39:L2:194:ASN:HB2	1.99	0.44
36:5:1205:A:H4'	36:5:2835:U:O2'	2.17	0.44
36:1:104:G:H2'	36:1:105:C:O4'	2.17	0.44
35:SM:37:VAL:HG12	35:SM:38:PRO:O	2.16	0.44
76:Q0:99:CYS:O	76:Q0:100:TYR:HB2	2.29	0.44
30:D8:13:ILE:HG13	30:D8:29:ARG:O	2.17	0.44
36:1:898:U:H2'	36:1:899:U:O4'	2.17	0.44
36:5:2861:U:H2'	36:5:2862:U:O4'	2.17	0.44
36:5:2599:U:H2'	36:5:2600:C:C6	2.52	0.44
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.55	0.44
36:1:1313:G:O3'	52:M6:17:GLY:HA3	2.17	0.44
36:1:2567:C:C2'	36:1:2568:C:H5'	2.48	0.44
40:L3:209:PHE:HB3	40:L3:282:ILE:CD1	2.57	0.44
36:1:810:A:H2'	36:1:811:U:H6	1.81	0.44
36:1:828:A:H8	36:1:828:A:O5'	2.00	0.44
60:N4:54:LEU:HA	60:N4:54:LEU:HD12	2.91	0.44
36:5:1243:G:OP2	36:5:1243:G:H8	2.01	0.44
69:O3:47:LYS:HA	69:O3:104:PRO:HD2	2.53	0.44
40:L3:230:THR:HA	40:L3:235:THR:HG22	2.64	0.44
36:5:1039:U:H2'	36:5:1040:A:C8	2.52	0.44
11:S9:27:GLU:HB2	11:S9:39:LYS:NZ	2.32	0.44
6:S4:15:PRO:HG2	6:S4:18:TRP:CD2	2.53	0.44
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.24	0.44
24:D2:76:SER:HB3	24:D2:77:PRO:HD3	1.99	0.44
7:S5:52:GLU:H	7:S5:131:GLN:HE22	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:114:ARG:O	18:C6:115:THR:OG1	2.33	0.44
28:D6:31:PRO:O	28:D6:34:LYS:N	2.41	0.44
2:S0:170:ILE:HD12	2:S0:170:ILE:H	1.82	0.44
64:N8:79:TRP:CE3	64:N8:87:ARG:HG2	3.65	0.44
9:S7:73:VAL:HB	9:S7:74:GLN:H	1.53	0.44
1:2:929:A:N6	1:2:930:A:C6	2.85	0.44
11:S9:91:LYS:O	11:S9:92:LYS:HG3	3.96	0.44
1:2:736:C:H42	1:2:737:A:N6	2.16	0.44
42:L5:50:ARG:NH2	42:L5:147:ASP:OD2	2.49	0.44
36:1:1815:U:H1'	36:1:1816:A:O5'	2.17	0.44
1:2:452:A:H3'	1:2:453:U:C6	2.53	0.44
36:1:217:U:O2'	62:N6:103:LYS:HE2	2.16	0.44
42:L5:187:THR:O	42:L5:189:GLU:N	2.50	0.44
53:M7:136:ILE:HD11	36:5:1846:C:C4	143.45	0.44
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.51	0.44
1:6:272:U:O2'	1:6:273:G:OP2	2.29	0.44
7:S5:35:GLN:O	7:S5:37:GLN:N	2.79	0.44
36:5:1596:C:H2'	36:5:1597:C:C6	2.52	0.44
35:SM:34:LYS:HA	35:SM:34:LYS:HD3	3.73	0.44
44:L7:210:PRO:CA	44:L7:243:MET:HG2	2.47	0.44
34:SR:106:HIS:CD2	34:SR:110:VAL:HG22	2.53	0.44
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.31	0.44
55:M9:23:TRP:CE3	55:M9:51:VAL:HG13	2.51	0.44
17:C5:130:ARG:HH21	35:SM:66:ALA:HA	3.76	0.44
3:S1:97:LEU:CD1	3:S1:98:THR:H	2.29	0.44
51:M5:98:LEU:O	51:M5:102:ALA:N	2.93	0.44
61:N5:132:ALA:O	61:N5:136:ALA:N	2.59	0.44
61:N5:139:ILE:HG13	61:N5:139:ILE:O	2.16	0.44
41:L4:197:ARG:NH2	36:5:339:C:OP2	106.97	0.44
40:L3:221:THR:O	40:L3:272:TYR:HA	2.25	0.44
36:1:2700:G:OP1	57:N1:17:ARG:HB2	2.17	0.44
23:D1:62:ARG:HH22	24:D2:20:THR:HG22	2.31	0.44
51:M5:72:LYS:HG2	51:M5:73:ARG:O	2.17	0.44
18:C6:36:ILE:C	18:C6:38:LEU:H	2.46	0.44
1:2:1679:G:N7	86:2:2109:OHX:N6	2.65	0.44
56:N0:30:PHE:CE2	56:N0:103:VAL:HG21	2.52	0.44
72:O6:57:LEU:HA	72:O6:57:LEU:HD22	2.10	0.44
37:3:111:U:O2'	86:3:221:OHX:N1	2.51	0.44
9:S7:138:LYS:HD3	9:S7:150:GLN:OE1	4.29	0.44
36:1:1709:C:H2'	36:1:1710:C:H6	1.83	0.44
52:M6:51:LYS:HE2	52:M6:144:SER:OG	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1176:G:C5	1:2:1177:C:C5	3.06	0.44
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.52	0.44
71:O5:31:LEU:O	71:O5:34:GLN:HB2	2.17	0.44
36:1:2616:C:C2'	36:1:2617:U:H5'	2.47	0.44
1:2:393:C:H2'	1:2:394:C:C6	2.51	0.44
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.99	0.44
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.52	0.44
9:S7:158:ASP:O	9:S7:161:GLN:HG3	2.17	0.44
57:N1:138:SER:C	57:N1:139:ARG:HG3	4.81	0.44
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.17	0.44
36:1:864:G:O6	36:1:893:C:H3'	2.18	0.44
69:O3:73:ARG:HD3	69:O3:82:ARG:NE	2.31	0.44
68:O2:59:SER:OG	36:5:1405:U:OP2	184.30	0.44
40:L3:81:THR:OG1	40:L3:321:PHE:HA	2.18	0.44
1:6:970:A:C6	1:6:971:A:H1'	2.51	0.44
13:C1:36:LYS:HE3	13:C1:59:PRO:O	2.17	0.44
62:N6:28:ARG:O	62:N6:49:PRO:HB3	2.18	0.44
36:5:731:U:H2'	36:5:732:C:H6	1.82	0.44
1:2:81:G:C6	1:2:82:U:N3	2.85	0.44
25:D3:17:VAL:HG23	25:D3:20:ARG:NH2	4.17	0.44
1:2:755:A:H2'	1:2:756:A:C8	2.52	0.44
15:C3:14:SER:OG	1:6:958:U:H2'	338.90	0.44
68:O2:45:ARG:NH2	36:5:1366:A:O3'	199.70	0.44
7:S5:177:ILE:HA	7:S5:180:ARG:NH1	2.32	0.44
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.51	0.44
1:2:1003:A:H1'	1:2:1005:A:N7	2.32	0.44
34:SR:207:ASP:OD1	34:SR:209:THR:OG1	2.22	0.44
9:S7:129:LEU:HD22	9:S7:169:PHE:CD1	2.53	0.44
36:1:2359:C:H2'	36:1:2360:C:C6	2.52	0.44
47:M0:201:SER:OG	47:M0:203:LYS:HD2	2.17	0.44
19:C7:52:GLY:HA3	1:6:1389:C:O2'	421.76	0.44
64:N8:65:GLN:HG2	64:N8:65:GLN:H	1.55	0.44
52:M6:48:PHE:CE1	52:M6:52:LEU:HD21	2.90	0.44
62:N6:53:ASP:HB2	62:N6:110:HIS:CD2	2.53	0.44
43:L6:48:ARG:H	43:L6:48:ARG:HG2	2.34	0.44
1:2:447:U:C4	1:2:448:C:C4	3.06	0.44
36:1:2350:C:H4'	36:1:3308:C:O2'	2.18	0.44
8:S6:175:ILE:HG12	1:6:78:A:H1'	337.25	0.44
7:S5:36:ALA:HB1	7:S5:42:LEU:HD21	2.00	0.44
50:M4:47:ASP:OD1	50:M4:55:ARG:HB2	2.17	0.44
42:L5:261:THR:H	42:L5:264:GLN:CD	3.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:39:THR:O	21:C9:96:ALA:HB1	2.42	0.44
86:1:4030:OHX:N2	86:1:4043:OHX:N5	2.65	0.44
43:L6:54:TYR:CE2	43:L6:63:LEU:HD22	2.52	0.44
13:C1:10:GLU:HG2	1:6:327:U:O2'	269.82	0.44
62:N6:35:LEU:HD21	62:N6:48:LEU:HD12	1.98	0.44
8:S6:137:ARG:O	8:S6:141:ILE:HG13	2.17	0.44
36:1:860:G:O5'	39:L2:181:LYS:NZ	2.49	0.44
1:2:477:A:OP1	32:E0:30:PRO:HA	2.17	0.44
36:1:1307:G:C2	36:1:1308:A:C2	3.05	0.44
1:6:1294:G:C6	1:6:1295:G:N7	2.86	0.44
71:O5:85:THR:HG22	71:O5:87:ALA:H	1.82	0.44
36:1:1725:C:O2'	36:1:1726:C:H5'	2.18	0.44
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.83	0.44
1:2:442:C:H2'	1:2:443:C:C6	2.52	0.44
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.17	0.44
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.47	0.44
44:L7:232:ARG:O	44:L7:235:PHE:HB2	2.17	0.44
36:1:679:U:H2'	36:1:680:G:C8	2.53	0.44
7:S5:99:MET:O	7:S5:100:ASN:HB2	2.32	0.44
13:C1:109:VAL:HA	13:C1:135:VAL:HG13	1.98	0.44
41:L4:73:ARG:NH2	36:5:2814:G:OP1	171.43	0.44
36:5:1718:G:C2	36:5:1727:G:N1	2.86	0.44
36:5:279:U:H2'	36:5:280:U:C6	2.52	0.44
1:2:1285:U:OP1	86:2:2114:OHX:N4	2.51	0.44
36:5:2370:G:H2'	36:5:2371:G:O4'	2.17	0.44
52:M6:51:LYS:HD2	52:M6:144:SER:OG	3.89	0.44
1:2:53:G:H2'	1:2:54:C:C6	2.52	0.44
40:L3:150:ARG:HD2	36:5:3242:G:N7	252.61	0.44
1:6:913:G:O6	36:5:2205:U:H1'	2.18	0.44
39:L2:79:ASN:ND2	39:L2:166:ILE:O	2.62	0.44
4:S2:177:GLY:O	4:S2:195:ASP:HA	2.17	0.44
36:1:2948:C:H6	36:1:2948:C:O5'	2.00	0.44
13:C1:44:THR:OG1	13:C1:44:THR:O	2.25	0.44
51:M5:65:ARG:HB3	51:M5:127:TYR:HD1	1.93	0.44
1:2:780:A:C8	26:D4:8:ARG:HB3	2.52	0.44
36:1:1942:U:O2'	36:1:3345:G:O2'	2.16	0.44
1:6:412:A:H2'	1:6:413:U:H6	1.83	0.44
1:2:1504:G:C6	1:2:1505:A:C6	3.05	0.44
12:C0:31:LYS:O	12:C0:39:ASN:HB2	4.29	0.44
1:2:579:A:H3'	5:S3:143:ARG:HH11	1.82	0.44
36:1:250:U:C5	36:1:251:G:N7	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1366:U:O2'	21:C9:7:ARG:HD2	2.17	0.44
6:S4:16:HIS:O	6:S4:19:LEU:HD23	2.57	0.44
86:5:4049:OHX:N5	86:5:4193:OHX:N6	2.65	0.44
86:5:4049:OHX:N3	86:5:4193:OHX:N6	2.65	0.44
6:S4:103:TYR:CG	6:S4:189:LEU:HD11	3.27	0.44
86:1:3959:OHX:N1	86:1:4138:OHX:N4	2.66	0.44
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.53	0.44
1:2:1748:G:O6	86:2:2104:OHX:N4	2.50	0.44
1:2:1105:C:H41	25:D3:4:GLY:HA2	1.82	0.44
1:6:144:U:H2'	1:6:145:A:O4'	2.18	0.44
1:6:22:A:OP2	86:6:2146:OHX:N6	2.50	0.44
42:L5:127:GLY:HA3	42:L5:196:ARG:HB2	3.36	0.44
2:S0:134:LYS:O	2:S0:137:SER:OG	2.26	0.44
42:L5:99:TYR:CG	42:L5:199:ILE:HG23	2.86	0.44
52:M6:171:LYS:O	52:M6:175:THR:HG22	2.17	0.44
69:O3:57:LYS:HE2	69:O3:57:LYS:HB3	3.32	0.44
1:6:1577:A:H2'	1:6:1578:U:O4'	2.17	0.44
56:N0:109:ASP:OD1	56:N0:113:ARG:NH1	2.50	0.44
40:L3:93:VAL:O	40:L3:99:LEU:HA	2.17	0.44
36:1:1861:G:O6	86:1:3994:OHX:N2	2.50	0.44
3:S1:113:MET:HB3	3:S1:142:PHE:CE2	2.76	0.44
26:D4:127:LYS:O	26:D4:131:ARG:HG2	2.18	0.44
1:6:992:A:OP1	1:6:1786:G:H5'	2.18	0.44
21:C9:33:TYR:HD1	21:C9:34:VAL:N	2.55	0.44
10:S8:172:ARG:NH1	1:6:330:G:OP2	279.93	0.44
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.13	0.44
4:S2:230:TRP:CE2	24:D2:68:ARG:HB3	2.52	0.44
38:4:81:U:H1'	38:4:82:U:H5'	2.00	0.44
62:N6:39:LEU:HD21	62:N6:107:THR:O	3.63	0.44
11:S9:107:ARG:HA	11:S9:107:ARG:HD2	1.81	0.44
1:2:1499:G:C6	1:2:1500:C:C4	3.06	0.44
21:C9:73:VAL:HG21	21:C9:102:ARG:HG3	2.59	0.44
18:C6:131:GLY:HA2	18:C6:138:PHE:CD1	2.52	0.44
58:N2:43:VAL:HG21	58:N2:50:LEU:HD23	2.00	0.44
36:5:1235:U:C4'	36:5:1236:G:H5'	2.48	0.44
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.18	0.44
36:5:1696:A:H2'	36:5:1697:A:C8	2.53	0.44
36:5:1659:U:H2'	36:5:1660:C:C6	2.53	0.44
57:N1:14:MET:HE2	57:N1:14:MET:HB3	1.82	0.44
61:N5:50:ALA:O	71:O5:66:VAL:HG21	2.37	0.44
71:O5:63:ARG:O	71:O5:66:VAL:N	3.02	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:59:G:C4'	36:5:60:A:H4'	2.46	0.44
27:D5:54:VAL:HG13	27:D5:57:TYR:HD1	1.82	0.44
36:1:3139:A:C5'	36:1:3139:A:H8	2.31	0.44
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.25	0.44
5:S3:23:GLU:OE2	31:D9:46:LYS:NZ	2.33	0.44
41:L4:44:LYS:HA	41:L4:47:ARG:HD2	2.44	0.44
46:L9:91:ARG:NH2	46:L9:91:ARG:HG3	2.32	0.44
68:O2:4:LEU:HD12	68:O2:4:LEU:HA	1.85	0.44
42:L5:286:VAL:HG13	47:M0:206:LEU:HD22	2.00	0.44
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.48	0.44
27:D5:60:VAL:CG2	27:D5:101:TYR:HB2	2.48	0.44
36:5:2673:A:H61	36:5:2681:U:H3	1.65	0.44
36:1:1047:A:N3	36:1:2633:U:O2'	2.50	0.44
36:1:2945:G:O2'	36:1:2948:C:OP2	2.26	0.44
36:1:2226:U:H2'	36:1:2227:C:C6	2.52	0.44
1:6:1483:A:H2'	1:6:1484:G:C8	2.52	0.44
24:D2:35:ILE:O	24:D2:37:PHE:N	2.50	0.44
36:1:1618:G:H2'	36:1:1619:A:O4'	2.18	0.44
42:L5:194:LEU:HD23	42:L5:194:LEU:O	2.16	0.44
36:1:1593:A:O4'	70:O4:60:ARG:HD3	2.17	0.44
52:M6:22:VAL:HG11	52:M6:120:VAL:HG11	2.49	0.44
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.59	0.44
36:5:508:U:H2'	36:5:509:U:H6	1.82	0.44
36:5:872:U:H2'	36:5:873:C:C6	2.52	0.44
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.29	0.44
1:2:73:U:H4'	1:2:74:U:OP1	2.17	0.44
37:7:114:U:H2'	37:7:115:G:H8	1.82	0.44
36:1:2797:C:H4'	36:1:2798:C:OP2	2.17	0.44
36:5:1338:C:H2'	36:5:1339:C:H6	1.82	0.44
50:M4:92:GLU:N	50:M4:92:GLU:OE2	2.41	0.44
67:O1:33:VAL:HG13	67:O1:51:LEU:CD1	2.59	0.44
36:1:592:A:H5'	43:L6:17:ALA:O	2.18	0.44
34:SR:267:PRO:HD2	34:SR:269:TYR:HE1	2.42	0.44
36:5:2916:U:H5	36:5:2935:U:HO2'	1.60	0.44
56:N0:5:LYS:HB2	56:N0:7:TYR:CE2	2.64	0.44
11:S9:52:ILE:HG23	11:S9:76:LEU:HD21	2.40	0.44
64:N8:12:ARG:HH22	36:5:661:G:P	149.42	0.44
57:N1:97:LYS:HB2	57:N1:97:LYS:HE3	1.85	0.44
56:N0:158:LYS:HB3	56:N0:158:LYS:HE3	1.69	0.44
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.50	0.44
6:S4:25:GLY:HA3	1:6:447:U:O2'	373.95	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:296:THR:HG22	40:L3:297:SER:N	3.03	0.44
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.99	0.44
1:2:1503:A:H5'	21:C9:33:TYR:HE2	1.83	0.44
42:L5:107:ARG:NH2	42:L5:169:GLY:O	2.50	0.44
86:1:4030:OHX:N2	86:1:4043:OHX:N1	2.66	0.44
8:S6:58:LYS:HG3	8:S6:105:ASP:O	2.75	0.44
28:D6:6:ALA:N	1:6:1796:C:C5	343.19	0.44
1:6:486:G:H4'	1:6:486:G:OP1	2.18	0.44
75:O9:9:ILE:HD12	75:O9:9:ILE:HG23	1.86	0.44
73:O7:52:LYS:HG2	73:O7:55:ARG:HH11	1.83	0.44
36:5:24:G:OP2	86:5:3899:OHX:N6	2.50	0.44
1:2:93:A:H2'	1:2:398:G:N2	2.32	0.44
1:2:917:U:OP2	86:2:2147:OHX:N3	2.50	0.44
36:1:2303:A:OP2	77:Q1:23:ARG:NH2	2.49	0.44
79:Q3:49:ARG:HD3	79:Q3:51:ALA:N	2.32	0.44
57:N1:82:ASN:HA	65:N9:21:ILE:HD13	1.98	0.44
36:1:2503:G:HO2'	36:1:2504:U:H5	1.64	0.44
58:N2:50:LEU:HG	58:N2:50:LEU:H	2.20	0.44
52:M6:68:ARG:NH1	36:5:2988:C:P	215.98	0.44
70:O4:82:ALA:O	70:O4:86:LYS:N	2.78	0.44
3:S1:34:ALA:HB2	3:S1:43:VAL:CG2	2.48	0.44
36:1:1034:U:H2'	36:1:1035:G:O4'	2.18	0.44
17:C5:85:ILE:HG13	17:C5:114:HIS:O	2.72	0.44
58:N2:75:TYR:O	58:N2:78:TYR:HB3	2.18	0.44
1:6:454:U:H3'	1:6:455:C:C6	2.52	0.44
14:C2:81:ASP:HA	14:C2:82:PRO:HD2	2.43	0.44
44:L7:176:TYR:OH	44:L7:197:GLN:HG2	2.17	0.44
52:M6:188:SER:O	52:M6:192:LYS:HG2	2.63	0.44
6:S4:95:THR:HB	26:D4:16:PRO:HG2	3.87	0.44
36:1:2746:A:H2'	36:1:2747:A:O4'	2.18	0.44
42:L5:160:PHE:CD2	42:L5:179:ARG:HB3	2.62	0.44
36:1:1488:G:C2	36:1:1489:A:C8	3.06	0.44
9:S7:118:LEU:HB2	1:6:639:U:O2	368.98	0.44
40:L3:85:VAL:O	40:L3:162:VAL:HA	2.40	0.44
36:5:1443:G:O6	86:5:4002:OHX:N5	2.51	0.44
36:5:594:U:H5''	36:5:609:G:O6	2.17	0.44
1:2:237:C:C4'	1:2:238:U:H5'	2.47	0.44
36:1:1560:G:H2'	36:1:1561:G:H5'	1.98	0.44
36:1:2365:C:H5''	36:1:2986:U:H4'	2.00	0.44
61:N5:92:LYS:HD2	61:N5:112:THR:HG23	2.00	0.44
28:D6:47:ALA:O	28:D6:50:VAL:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.66	0.44
27:D5:59:TYR:HE2	27:D5:61:SER:HB3	1.83	0.44
4:S2:38:VAL:N	4:S2:65:GLU:OE1	3.07	0.44
36:1:2821:C:N3	88:1:4212:3L2:H25	2.33	0.44
1:2:1183:A:C5	1:2:1184:A:C6	3.06	0.44
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.32	0.44
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.54	0.44
78:Q2:9:LYS:O	36:5:2713:U:H3'	222.59	0.44
36:1:1584:U:H2'	36:1:1585:C:H6	1.83	0.44
18:C6:28:LEU:HG	18:C6:64:ASP:CG	2.37	0.44
1:6:722:G:HO2'	1:6:723:G:H8	1.65	0.44
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.18	0.44
36:1:1868:G:N2	36:1:2118:C:O2	2.51	0.44
36:5:2192:C:O2'	36:5:2312:A:N1	2.42	0.44
36:5:997:A:H4'	37:7:80:G:H5'	2.00	0.44
36:1:603:A:H2'	36:1:604:G:O4'	2.18	0.44
36:1:3056:U:C2	67:O1:25:PHE:CE2	3.06	0.44
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	4.72	0.44
36:1:820:A:OP1	86:1:3940:OHX:N5	2.51	0.44
36:1:703:G:C5	36:1:704:U:C5	3.06	0.44
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.16	0.44
1:6:358:U:O2'	1:6:360:A:H5''	2.16	0.44
12:C0:38:LYS:HB2	12:C0:41:TYR:CD2	3.71	0.44
41:L4:68:GLY:HA2	36:5:2401:A:O3'	172.95	0.44
36:5:2225:U:H2'	36:5:2226:U:C6	2.53	0.44
36:5:1120:A:H2'	36:5:1121:U:C6	2.53	0.44
42:L5:271:LYS:HD3	42:L5:271:LYS:HA	4.19	0.44
4:S2:59:HIS:NE2	4:S2:236:PRO:HB2	2.76	0.44
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.34	0.44
1:6:1009:U:H2'	1:6:1010:C:H6	1.83	0.44
36:1:1071:U:O2'	36:1:1072:G:OP2	2.28	0.44
64:N8:3:SER:O	64:N8:6:THR:HB	3.64	0.44
28:D6:85:ARG:HD3	28:D6:85:ARG:HA	1.75	0.44
36:1:409:A:H2	36:1:1441:G:N3	2.16	0.44
1:6:1558:U:H3'	1:6:1559:A:H4'	2.00	0.44
11:S9:109:LEU:HD22	11:S9:113:VAL:HG23	1.99	0.44
16:C4:37:GLU:HA	1:6:895:G:O2'	257.95	0.44
53:M7:60:PHE:HZ	53:M7:84:PRO:HG3	1.82	0.44
36:5:303:G:H5''	36:5:304:G:H5''	2.00	0.44
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.47	0.44
36:5:2943:G:O5'	36:5:2943:G:H8	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:104:A:O5'	38:4:105:A:H5''	2.18	0.44
62:N6:3:LYS:HD2	62:N6:10:SER:OG	2.18	0.44
1:2:795:U:C5	1:2:796:A:N7	2.86	0.44
36:1:3164:C:H1'	36:1:3165:A:H5'	2.00	0.44
61:N5:114:VAL:HG12	61:N5:115:ARG:O	2.17	0.44
51:M5:8:GLU:O	51:M5:12:ARG:HD2	3.59	0.44
55:M9:95:TRP:CZ2	55:M9:99:LEU:HG	2.52	0.44
20:C8:128:PHE:CD2	35:SM:61:ILE:HG22	2.53	0.44
70:O4:71:THR:HG22	70:O4:77:GLY:HA3	2.22	0.44
5:S3:115:ILE:HG13	5:S3:115:ILE:H	4.06	0.44
36:1:2213:A:H2	36:1:2601:A:N3	2.16	0.44
36:1:2213:A:N1	36:1:2429:G:H1'	2.32	0.44
1:2:1762:A:H1'	1:2:1783:C:H5'	1.99	0.44
6:S4:186:GLY:HA3	1:6:753:A:OP1	368.67	0.44
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.31	0.44
7:S5:123:VAL:O	27:D5:58:ARG:HD2	2.18	0.44
26:D4:61:ARG:HB2	26:D4:61:ARG:HE	1.63	0.44
36:1:3317:U:H1'	86:1:4022:OHX:N6	2.33	0.44
68:O2:75:LEU:HA	68:O2:75:LEU:HD23	1.89	0.44
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.18	0.44
30:D8:22:ARG:HA	30:D8:22:ARG:HD3	1.63	0.44
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.99	0.44
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.18	0.44
42:L5:155:THR:HG22	42:L5:179:ARG:NH1	2.32	0.44
36:1:2991:A:P	40:L3:20:LYS:HB2	2.58	0.44
1:2:1236:A:H2'	1:2:1237:G:C8	2.52	0.44
36:5:3340:G:H4'	36:5:3341:U:OP1	2.18	0.44
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.17	0.44
42:L5:79:TYR:O	42:L5:82:GLU:HG3	2.18	0.44
54:M8:89:ASP:HB3	36:5:677:A:OP1	133.22	0.44
77:Q1:21:ARG:NH1	1:6:1654:G:OP1	281.09	0.44
55:M9:106:LEU:HB3	55:M9:120:TYR:CD1	2.53	0.44
49:M3:120:GLN:C	49:M3:122:LYS:H	3.17	0.44
57:N1:9:SER:OG	57:N1:10:ARG:HG3	2.87	0.44
20:C8:82:PRO:HB2	20:C8:85:PHE:HB2	1.99	0.44
46:L9:77:ASN:N	46:L9:77:ASN:OD1	2.72	0.44
1:6:412:A:H2'	1:6:413:U:C6	2.52	0.44
45:L8:136:LEU:HD13	51:M5:3:ALA:CB	2.48	0.44
43:L6:173:MET:HB3	43:L6:173:MET:HE2	1.78	0.44
40:L3:123:TYR:CD1	36:5:3315:G:H2'	181.32	0.44
36:1:2834:G:N7	86:1:3900:OHX:N3	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3358:U:H2'	36:5:3359:A:C8	2.53	0.44
41:L4:118:LYS:O	41:L4:121:ALA:HB3	2.52	0.44
36:1:2374:C:C4	36:1:2941:A:C4	3.06	0.44
37:7:113:C:C4	37:7:114:U:C4	3.06	0.44
36:5:415:G:OP2	86:5:4214:OHX:N4	2.51	0.44
1:6:223:U:H3	1:6:838:G:H1	1.66	0.44
36:5:2308:C:O2	86:5:4233:OHX:N1	2.51	0.44
1:2:505:A:H2'	1:2:505:A:N3	2.33	0.44
45:L8:122:LYS:C	45:L8:124:ASP:H	2.78	0.44
1:2:861:U:H5'	1:2:862:A:OP2	2.18	0.44
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	2.87	0.44
47:M0:65:LEU:HA	47:M0:65:LEU:HD23	1.77	0.44
79:Q3:73:THR:HB	79:Q3:76:ALA:H	4.43	0.44
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	2.17	0.44
36:1:1439:U:H2'	36:1:1440:G:O4'	2.18	0.44
5:S3:102:ALA:HB2	5:S3:171:ALA:HB3	2.76	0.44
1:2:526:A:H2'	1:2:527:A:O4'	2.18	0.44
51:M5:54:LYS:O	51:M5:56:LYS:N	2.96	0.44
7:S5:40:ILE:HG12	7:S5:41:LYS:N	2.38	0.44
37:3:121:U:OP2	42:L5:265:TYR:OH	2.25	0.44
36:5:437:G:OP2	36:5:437:G:C8	2.71	0.44
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.00	0.44
47:M0:141:LYS:O	47:M0:144:ASN:N	2.80	0.44
47:M0:174:THR:HG23	47:M0:176:LEU:N	2.21	0.44
4:S2:227:PRO:HA	4:S2:230:TRP:NE1	2.32	0.44
86:2:2089:OHX:N5	86:2:2131:OHX:N6	2.66	0.44
36:5:1131:G:C4	36:5:2373:A:C2	3.05	0.44
1:2:542:A:HO2'	1:2:542:A:H8	1.64	0.44
41:L4:178:LEU:HD23	41:L4:178:LEU:HA	2.04	0.44
5:S3:75:LYS:HA	5:S3:75:LYS:HD3	2.45	0.44
27:D5:95:HIS:CG	27:D5:96:SER:N	2.85	0.44
8:S6:185:GLN:OE1	1:6:271:A:N6	352.21	0.44
64:N8:148:ILE:HB	64:N8:149:ALA:H	1.51	0.44
41:L4:232:SER:O	36:5:694:C:H4'	99.60	0.44
51:M5:172:ARG:NH1	36:5:30:G:OP1	106.79	0.44
51:M5:172:ARG:HH22	36:5:63:A:P	100.94	0.44
47:M0:73:ASN:O	47:M0:77:THR:HG23	2.35	0.44
63:N7:26:VAL:HG22	63:N7:42:LEU:O	2.17	0.44
17:C5:130:ARG:HD3	35:SM:74:LYS:HG2	2.00	0.44
36:5:1485:G:C2'	36:5:1486:G:H5'	2.47	0.44
11:S9:167:ALA:O	11:S9:168:ARG:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.35	0.44
41:L4:338:LYS:HA	41:L4:338:LYS:HD2	1.73	0.44
45:L8:149:LYS:HD2	45:L8:201:THR:O	5.18	0.44
51:M5:23:GLN:HG2	51:M5:122:ASN:HD21	1.83	0.44
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	2.06	0.44
36:5:830:A:H5'	36:5:831:G:OP2	2.18	0.44
48:M1:137:ARG:HD3	37:7:28:C:OP1	302.50	0.44
15:C3:73:ARG:HD3	1:6:859:A:C6	328.92	0.44
9:S7:140:VAL:HG22	9:S7:150:GLN:HG2	1.99	0.44
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.19	0.44
42:L5:242:SER:O	42:L5:245:GLU:HB2	3.62	0.44
36:5:1614:C:H2'	36:5:1615:C:C6	2.53	0.44
22:D0:95:ALA:HB1	22:D0:99:ILE:HG21	2.00	0.44
40:L3:121:ASN:HB2	36:5:3296:A:OP2	190.97	0.44
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.18	0.44
35:SM:43:ASP:HA	35:SM:44:PRO:HD3	2.49	0.44
44:L7:52:GLN:O	44:L7:56:GLU:HG2	2.17	0.44
1:2:170:U:H3	1:2:289:U:HO2'	1.66	0.44
64:N8:29:PRO:C	64:N8:31:GLY:H	2.20	0.44
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.17	0.44
57:N1:8:ARG:O	57:N1:11:THR:OG1	2.30	0.44
1:2:1107:G:C6	1:2:1108:G:C6	3.06	0.44
39:L2:116:VAL:O	39:L2:125:ALA:HB3	2.18	0.44
65:N9:58:LYS:NZ	65:N9:58:LYS:HA	4.18	0.44
1:2:1235:C:C2	33:E1:138:ARG:CZ	3.01	0.44
36:5:759:U:H2'	36:5:760:G:H5'	2.00	0.44
1:2:577:G:H3'	1:2:577:G:H8	1.82	0.44
13:C1:3:THR:OG1	13:C1:82:ARG:NE	2.46	0.44
59:N3:24:ASN:OD1	59:N3:32:ARG:NH1	10.11	0.44
1:2:481:A:H61	1:2:505:A:H62	1.65	0.44
79:Q3:34:HIS:NE2	36:5:1792:C:OP2	219.82	0.44
1:6:699:U:O4	86:6:2072:OHX:N1	2.51	0.44
1:2:395:U:O2'	8:S6:89:ASP:HB3	2.18	0.44
52:M6:134:LYS:NZ	36:5:3124:G:OP1	300.56	0.44
36:1:2618:G:O4'	65:N9:3:LYS:HE2	2.18	0.44
36:5:537:A:H2'	36:5:538:G:O4'	2.18	0.44
42:L5:143:LYS:HA	42:L5:172:TYR:HB3	2.45	0.44
55:M9:66:HIS:O	55:M9:69:SER:HB3	3.96	0.44
73:O7:64:MET:O	73:O7:68:LYS:HD2	3.49	0.44
36:5:1002:A:H2'	36:5:1003:A:H8	1.83	0.44
36:5:1008:U:C2	36:5:1043:C:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:129:LEU:HA	52:M6:129:LEU:HD12	1.80	0.44
36:1:1456:A:N1	36:1:1476:G:O2'	2.42	0.44
69:O3:50:ALA:HB1	69:O3:66:VAL:HG13	2.68	0.44
36:1:1408:G:P	68:O2:33:ARG:HH22	2.41	0.44
22:D0:74:GLU:HG2	1:6:1429:G:H1'	377.10	0.44
31:D9:36:LEU:HD12	31:D9:38:ILE:HG13	1.99	0.44
1:2:64:U:H2'	1:2:65:A:H5''	2.00	0.44
36:5:437:G:N2	36:5:622:A:N6	2.66	0.44
43:L6:85:ILE:HG23	69:O3:107:ILE:HB	2.00	0.44
1:6:333:A:C2	1:6:334:G:C2	3.06	0.44
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.90	0.44
3:S1:89:ASP:HB3	3:S1:223:PHE:HE2	1.82	0.44
34:SR:295:SER:HB3	34:SR:302:PHE:HE2	3.50	0.44
36:5:3334:U:P	86:5:4227:OHX:N6	2.91	0.44
40:L3:187:SER:OG	40:L3:190:GLU:HG3	2.18	0.44
63:N7:99:GLU:OE2	63:N7:100:THR:HG23	5.25	0.44
3:S1:168:ILE:O	3:S1:172:LEU:HG	2.50	0.44
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.86	0.44
36:1:3119:U:H2'	36:1:3121:U:OP1	2.18	0.44
34:SR:48:THR:HB	34:SR:50:ASP:OD1	2.17	0.44
36:5:956:U:H2'	36:5:957:C:H6	1.83	0.44
24:D2:65:LEU:HD13	24:D2:65:LEU:H	1.83	0.44
51:M5:68:ARG:HD2	51:M5:128:LYS:HG2	4.17	0.44
41:L4:195:ARG:NH1	36:5:339:C:OP1	111.91	0.44
36:5:2124:G:C2	36:5:2330:C:C2	3.06	0.44
34:SR:199:ILE:HG22	34:SR:214:ALA:O	3.30	0.44
17:C5:89:MET:O	17:C5:107:ILE:HG13	3.62	0.44
22:D0:28:SER:OG	22:D0:111:GLY:O	2.23	0.44
77:Q1:5:TRP:HA	77:Q1:5:TRP:CE3	2.85	0.44
24:D2:5:SER:C	24:D2:7:LEU:H	2.75	0.44
63:N7:38:PHE:CE2	63:N7:40:HIS:HB3	2.53	0.44
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.99	0.44
36:1:73:C:N3	49:M3:59:ARG:NH1	2.66	0.44
36:1:1751:G:H5''	74:O8:26:LYS:HE3	2.00	0.44
1:2:978:A:O2'	1:2:1787:C:O2	2.31	0.44
4:S2:217:ALA:C	4:S2:219:GLY:H	3.26	0.44
54:M8:151:ARG:HB2	54:M8:152:HIS:CD2	2.53	0.44
38:8:107:G:OP2	86:8:230:OHX:N1	2.51	0.44
64:N8:2:PRO:HG2	64:N8:5:PHE:CE2	2.74	0.44
1:6:1592:A:C2	1:6:1605:G:C2	3.06	0.44
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.72	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:916:G:O2'	36:5:917:A:H5''	2.18	0.44
36:5:1602:A:C6	36:5:1603:A:C6	3.05	0.44
36:5:1108:U:H2'	36:5:1109:U:C6	2.53	0.44
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	3.81	0.44
60:N4:47:ARG:H	60:N4:47:ARG:HG3	1.51	0.44
36:5:2904:U:H2'	36:5:2905:U:C6	2.53	0.44
6:S4:35:PRO:HD2	6:S4:83:PRO:HG2	2.37	0.44
1:2:1525:A:H5'	21:C9:93:HIS:HB2	1.99	0.44
33:E1:138:ARG:HD2	33:E1:149:LYS:HD2	7.06	0.44
48:M1:38:GLU:C	48:M1:40:LEU:H	2.21	0.44
42:L5:221:GLU:O	42:L5:224:LYS:HB2	2.18	0.44
1:2:803:A:H1'	9:S7:104:ARG:HH11	1.81	0.44
4:S2:59:HIS:CE1	4:S2:238:SER:HA	4.12	0.44
36:1:1579:C:N4	36:1:1580:A:H62	2.16	0.44
36:5:1675:G:H2'	36:5:1676:A:C8	2.53	0.44
45:L8:107:GLU:O	45:L8:110:THR:OG1	3.25	0.44
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.30	0.44
47:M0:188:GLY:O	47:M0:190:VAL:N	2.42	0.44
53:M7:111:LYS:HE2	53:M7:153:LYS:O	5.19	0.44
43:L6:165:LEU:HD11	69:O3:102:LEU:HD11	2.08	0.44
55:M9:27:ASN:O	86:M9:202:OHX:N6	2.51	0.44
38:4:5:U:H2'	38:4:6:U:O4'	2.17	0.44
1:6:259:U:HO2'	1:6:261:U:H6	1.65	0.44
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.83	0.44
42:L5:191:ASP:HA	42:L5:192:PRO:HD3	2.03	0.44
36:5:2964:G:N7	86:5:3975:OHX:N6	2.65	0.44
1:2:155:U:H4'	8:S6:59:GLN:H	1.83	0.44
70:O4:19:LYS:NZ	70:O4:38:LEU:HD13	3.17	0.44
36:1:1632:A:H2'	36:1:1633:C:C6	2.53	0.44
15:C3:53:LEU:HA	15:C3:53:LEU:HD12	1.70	0.44
10:S8:58:LEU:H	10:S8:58:LEU:HD12	4.40	0.44
28:D6:66:LYS:HB2	28:D6:66:LYS:HE2	1.68	0.44
1:2:1244:A:N3	1:2:1244:A:H3'	2.32	0.44
49:M3:7:LEU:HA	49:M3:7:LEU:HD23	1.58	0.44
5:S3:124:ARG:NH2	35:SM:128:ALA:HB2	8.76	0.44
43:L6:108:LYS:O	43:L6:109:GLU:HG2	2.18	0.44
67:O1:8:VAL:HB	67:O1:9:THR:H	3.82	0.44
36:5:1226:G:H2'	36:5:1227:C:C6	2.53	0.44
1:6:150:U:H2'	1:6:151:G:O4'	2.17	0.43
21:C9:33:TYR:O	21:C9:37:VAL:HB	2.18	0.43
21:C9:49:ASP:CB	21:C9:53:TRP:HB3	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:3:GLN:HG2	70:O4:4:ARG:N	2.99	0.43
44:L7:158:LYS:HE2	44:L7:159:GLN:N	2.21	0.43
5:S3:168:ILE:HD13	5:S3:187:LYS:HG3	3.95	0.43
10:S8:9:HIS:CD2	10:S8:10:LYS:HB2	2.53	0.43
1:2:1533:C:H4'	1:2:1539:G:C6	2.53	0.43
24:D2:23:ARG:HH11	24:D2:66:ASN:HA	2.98	0.43
36:5:2207:A:H2'	36:5:2208:A:O4'	2.18	0.43
55:M9:105:LEU:HD12	55:M9:135:LYS:HD2	2.00	0.43
20:C8:109:LEU:O	20:C8:113:LEU:HB2	2.18	0.43
41:L4:222:VAL:HG22	41:L4:225:VAL:HB	1.99	0.43
34:SR:19:TRP:O	34:SR:21:THR:HG22	3.39	0.43
2:S0:140:ASN:OD1	23:D1:29:HIS:HA	2.58	0.43
25:D3:68:ILE:HG22	25:D3:70:LYS:NZ	2.32	0.43
58:N2:47:VAL:C	58:N2:49:ASN:H	2.68	0.43
36:1:548:G:H2'	36:1:549:U:O4'	2.18	0.43
22:D0:104:THR:HG22	22:D0:116:VAL:HG11	4.15	0.43
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.18	0.43
36:1:2512:C:C4	36:1:2513:U:O4	2.71	0.43
15:C3:132:VAL:O	15:C3:133:ALA:HB3	2.18	0.43
36:5:1483:G:C8	36:5:1485:G:C8	3.06	0.43
36:1:2399:A:H2'	36:1:2400:G:O4'	2.18	0.43
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.43	0.43
86:5:4060:OHX:N1	86:5:4136:OHX:N4	2.66	0.43
63:N7:10:VAL:HG22	63:N7:24:VAL:HG13	2.00	0.43
36:5:1393:A:C8	36:5:1418:A:C6	3.06	0.43
40:L3:220:VAL:HG12	40:L3:221:THR:N	3.01	0.43
36:5:1580:A:HO2'	36:5:1581:C:P	2.37	0.43
39:L2:36:GLU:HG2	39:L2:91:GLY:HA2	2.60	0.43
52:M6:41:LEU:HD23	52:M6:138:LEU:HD22	1.99	0.43
13:C1:76:VAL:HA	13:C1:119:VAL:HG13	2.00	0.43
1:2:355:G:O6	86:2:2026:OHX:N6	2.51	0.43
36:1:1571:A:H2'	36:1:1572:U:O4'	2.18	0.43
40:L3:154:TYR:CD1	36:5:3242:G:H2'	260.67	0.43
40:L3:84:VAL:CG2	40:L3:162:VAL:HB	4.03	0.43
36:1:2180:G:H2'	36:1:2181:C:C6	2.53	0.43
43:L6:76:LEU:HD12	43:L6:138:GLN:HA	2.06	0.43
36:5:2766:U:H2'	36:5:2767:U:H6	1.81	0.43
36:1:1581:C:H2'	36:1:1582:C:C5'	2.48	0.43
17:C5:111:MET:HG2	20:C8:119:ILE:CG1	3.99	0.43
17:C5:111:MET:HG2	20:C8:119:ILE:HG13	3.37	0.43
67:O1:23:VAL:HB	67:O1:28:ARG:HG2	3.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:20:ARG:NH1	24:D2:56:HIS:CE1	3.88	0.43
36:1:705:A:N6	64:N8:74:ASN:OD1	2.49	0.43
61:N5:108:LEU:HA	61:N5:108:LEU:HD23	1.88	0.43
29:D7:74:SER:O	29:D7:77:THR:OG1	4.23	0.43
4:S2:102:VAL:HG11	4:S2:129:ILE:HA	3.12	0.43
6:S4:180:LEU:HD23	6:S4:180:LEU:HA	1.85	0.43
36:5:2656:A:C2	36:5:2658:G:C6	3.06	0.43
36:1:2862:U:H2'	36:1:2863:G:O4'	2.17	0.43
36:1:86:G:C5	49:M3:13:HIS:CE1	3.06	0.43
64:N8:27:LYS:HZ1	36:5:801:A:P	151.86	0.43
39:L2:126:LEU:HD13	39:L2:150:LEU:HD21	1.99	0.43
33:E1:93:HIS:HB3	33:E1:94:LYS:H	1.58	0.43
26:D4:44:LEU:HA	26:D4:47:VAL:HG13	5.07	0.43
1:2:534:A:H5'	1:2:535:A:OP2	2.18	0.43
10:S8:113:PHE:O	10:S8:117:TYR:N	2.50	0.43
1:6:1554:U:H3'	1:6:1555:A:H8	1.83	0.43
36:1:185:C:H2'	36:1:186:U:H6	1.83	0.43
34:SR:6:VAL:HG22	34:SR:7:LEU:H	1.97	0.43
36:5:423:A:H2'	36:5:424:G:O4'	2.18	0.43
36:1:2523:A:C2	36:1:2587:U:C4	3.06	0.43
1:2:976:G:N1	1:2:1023:A:O2'	2.49	0.43
36:5:2561:A:O2'	36:5:2562:A:H5''	2.18	0.43
36:5:1354:G:C6	36:5:1358:C:H5'	2.53	0.43
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.50	0.43
35:SM:85:SER:O	35:SM:87:THR:N	2.51	0.43
36:1:167:U:H2'	36:1:168:U:H6	1.83	0.43
1:6:848:C:H2'	1:6:849:C:C6	2.53	0.43
1:6:1194:A:H2'	1:6:1195:C:H5'	2.00	0.43
36:5:3263:G:O6	86:5:4113:OHX:N2	2.51	0.43
1:2:344:A:C5	1:2:345:U:C4	3.05	0.43
30:D8:54:LEU:HA	30:D8:54:LEU:HD12	1.87	0.43
34:SR:283:LYS:HE3	34:SR:283:LYS:HB2	1.73	0.43
1:6:863:A:H3'	1:6:863:A:OP2	2.18	0.43
36:1:3338:C:H2'	36:1:3339:A:C8	2.52	0.43
41:L4:136:LEU:C	41:L4:138:ARG:H	2.21	0.43
36:5:948:C:H2'	36:5:949:C:C6	2.53	0.43
11:S9:38:ASN:HB2	11:S9:41:GLU:H	1.83	0.43
1:2:65:A:OP1	8:S6:174:LYS:HG2	2.18	0.43
3:S1:39:GLU:HB3	3:S1:73:LEU:O	2.17	0.43
26:D4:15:ASN:OD1	26:D4:17:LEU:HB2	4.03	0.43
50:M4:72:LEU:HA	50:M4:73:PRO:HD3	1.88	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:33:GLN:HG3	2:S0:149:LEU:O	8.14	0.43
1:6:485:A:N6	1:6:486:G:N3	2.66	0.43
9:S7:41:LEU:HD13	9:S7:70:PHE:HD1	1.81	0.43
48:M1:26:SER:HB3	48:M1:64:LYS:O	2.18	0.43
11:S9:92:LYS:HE3	11:S9:92:LYS:HA	2.00	0.43
55:M9:43:LYS:O	55:M9:47:ASN:HB2	4.71	0.43
3:S1:89:ASP:OD1	3:S1:89:ASP:N	2.51	0.43
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.31	0.43
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.39	0.43
75:O9:10:LYS:NZ	36:5:1833:G:OP1	103.85	0.43
36:1:2206:G:OP2	36:1:2206:G:C8	2.69	0.43
6:S4:100:ARG:NH2	6:S4:122:LYS:HA	2.46	0.43
71:O5:63:ARG:HG2	71:O5:63:ARG:H	3.65	0.43
33:E1:106:TYR:HE2	33:E1:116:LYS:HG2	2.12	0.43
1:2:1189:A:N3	1:2:1194:A:O2'	2.41	0.43
77:Q1:16:LYS:NZ	1:6:1749:A:O3'	285.09	0.43
68:O2:77:ALA:HA	68:O2:100:ILE:HD11	2.00	0.43
54:M8:40:THR:C	54:M8:42:ALA:H	2.22	0.43
50:M4:48:GLY:O	50:M4:53:VAL:HG13	2.19	0.43
51:M5:194:GLN:HG2	51:M5:194:GLN:H	1.80	0.43
1:6:626:U:H2'	1:6:627:C:C6	2.50	0.43
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	2.00	0.43
46:L9:168:ARG:HD2	36:5:2894:C:OP1	305.26	0.43
1:2:717:C:H2'	1:2:718:U:H5''	1.99	0.43
41:L4:61:SER:HB3	36:5:929:A:H5''	131.97	0.43
1:6:1370:U:H4'	1:6:1371:A:H4'	2.00	0.43
1:2:638:U:O3'	9:S7:117:THR:OG1	2.35	0.43
36:1:2801:A:O2'	36:1:2802:A:H2'	2.18	0.43
37:7:106:U:H2'	37:7:107:C:O4'	2.19	0.43
66:O0:34:LEU:HD12	66:O0:34:LEU:HA	1.87	0.43
20:C8:36:LYS:HA	20:C8:36:LYS:HD3	1.83	0.43
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.18	0.43
36:1:121:A:C2	45:L8:129:PRO:HB3	2.53	0.43
45:L8:129:PRO:HB3	36:5:121:A:C2	101.30	0.43
1:2:647:G:H2'	1:2:648:G:H8	1.83	0.43
11:S9:120:LYS:O	11:S9:120:LYS:HD3	4.85	0.43
46:L9:190:ASP:OD1	46:L9:191:LEU:HD12	2.18	0.43
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	1.76	0.43
36:1:564:G:H2'	36:1:565:U:C6	2.54	0.43
36:1:2379:U:H2'	36:1:2380:U:C6	2.53	0.43
60:N4:45:ASN:OD1	60:N4:47:ARG:HB2	3.75	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:68:PRO:HG2	43:L6:71:VAL:CG2	3.57	0.43
36:1:1593:A:H2'	36:1:1594:A:C8	2.53	0.43
48:M1:17:LEU:HD12	48:M1:128:TYR:O	2.71	0.43
44:L7:123:THR:HA	44:L7:126:LEU:HD12	2.41	0.43
19:C7:51:ALA:O	19:C7:54:THR:OG1	4.42	0.43
5:S3:104:SER:OG	5:S3:105:MET:N	2.50	0.43
36:1:3159:C:H2'	36:1:3160:U:H6	1.83	0.43
41:L4:71:VAL:HG22	41:L4:72:ALA:N	3.34	0.43
56:N0:68:HIS:HA	56:N0:69:PRO:HD3	1.90	0.43
36:5:2400:G:H5''	36:5:2401:A:OP2	2.18	0.43
36:1:3178:A:C4	52:M6:6:VAL:HB	2.53	0.43
38:8:56:G:H2'	38:8:57:C:H6	1.83	0.43
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	2.00	0.43
3:S1:36:SER:H	3:S1:231:LEU:HD22	4.14	0.43
3:S1:36:SER:HB3	3:S1:231:LEU:O	3.92	0.43
36:1:1886:A:O4'	36:1:3307:A:H5'	2.18	0.43
1:6:1751:C:H2'	1:6:1752:U:O4'	2.17	0.43
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.89	0.43
55:M9:138:LEU:O	55:M9:142:ILE:HG13	2.17	0.43
18:C6:43:ILE:H	18:C6:43:ILE:HG12	1.56	0.43
44:L7:179:LEU:H	44:L7:179:LEU:HD22	1.89	0.43
13:C1:78:THR:HG21	13:C1:118:GLN:HA	3.26	0.43
10:S8:38:ILE:CD1	10:S8:80:GLY:HA2	2.58	0.43
1:2:1102:G:P	24:D2:76:SER:OG	2.77	0.43
1:6:228:G:N2	1:6:237:C:N3	2.66	0.43
36:5:437:G:H22	36:5:622:A:N6	2.16	0.43
1:6:1700:C:O2	1:6:1700:C:H2'	2.18	0.43
1:2:331:A:H4'	10:S8:31:ARG:O	2.18	0.43
52:M6:128:ARG:HA	52:M6:128:ARG:HD3	2.36	0.43
47:M0:170:LYS:HD2	47:M0:175:ASN:C	3.07	0.43
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.17	0.43
66:O0:9:SER:OG	66:O0:12:GLN:HB3	4.74	0.43
53:M7:25:SER:O	53:M7:26:PHE:C	2.80	0.43
61:N5:56:ARG:O	61:N5:57:LEU:HB2	2.98	0.43
1:6:1461:C:H2'	1:6:1462:G:C8	2.53	0.43
9:S7:70:PHE:HD1	9:S7:70:PHE:HA	1.66	0.43
48:M1:49:LYS:HD3	48:M1:62:ASN:HB3	2.00	0.43
59:N3:120:LYS:H	59:N3:137:VAL:CG2	2.29	0.43
36:5:1898:G:O2'	36:5:1899:G:H5'	2.18	0.43
3:S1:131:ASP:N	3:S1:131:ASP:OD1	4.28	0.43
55:M9:124:TYR:CE2	36:5:1720:U:C4	235.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:90:THR:HB	4:S2:93:GLY:O	2.18	0.43
21:C9:113:ILE:O	21:C9:124:ILE:HD12	2.18	0.43
36:5:750:G:H2'	36:5:751:A:C8	2.47	0.43
14:C2:119:SER:OG	1:6:1228:G:OP1	464.37	0.43
36:5:611:A:H4'	36:5:611:A:OP2	2.18	0.43
25:D3:56:LYS:NZ	25:D3:96:VAL:HG23	2.33	0.43
1:2:1523:G:OP1	1:2:1523:G:H2'	2.18	0.43
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.18	0.43
1:6:871:G:H2'	1:6:872:G:C8	2.54	0.43
41:L4:128:ALA:HB1	41:L4:134:LEU:CD1	2.48	0.43
36:1:733:G:O2'	36:1:735:A:N6	2.32	0.43
1:6:391:A:H2'	1:6:392:G:O4'	2.18	0.43
1:6:1269:U:H5'	1:6:1432:U:OP2	2.17	0.43
47:M0:22:TYR:CE1	36:5:1048:A:H2'	267.25	0.43
44:L7:96:PRO:HA	44:L7:97:PRO:HD3	1.82	0.43
1:2:883:C:H2'	1:2:884:A:C8	2.53	0.43
69:O3:91:ALA:C	69:O3:93:THR:H	2.20	0.43
36:5:395:A:H5''	36:5:396:A:OP2	2.18	0.43
15:C3:76:LYS:HE3	15:C3:76:LYS:HB3	1.71	0.43
5:S3:104:SER:O	5:S3:108:LYS:N	2.51	0.43
1:2:1220:C:O5'	1:2:1220:C:H6	2.01	0.43
1:2:85:A:H2'	1:2:86:A:O4'	2.18	0.43
59:N3:46:LEU:HG	59:N3:47:ASN:ND2	2.51	0.43
31:D9:15:GLY:O	31:D9:17:GLY:N	4.11	0.43
78:Q2:35:LEU:HA	78:Q2:40:LYS:HG2	2.00	0.43
36:1:167:U:H2'	36:1:168:U:C6	2.53	0.43
36:1:890:C:O2	36:1:2324:A:H2	2.02	0.43
46:L9:61:GLY:O	46:L9:65:VAL:HG23	4.98	0.43
36:1:1400:G:C2	36:1:1401:A:C8	3.06	0.43
1:2:620:A:O2'	1:2:621:A:H5'	2.18	0.43
36:1:2541:U:H1'	36:1:2542:U:OP2	2.19	0.43
36:1:2357:A:H2'	36:1:2358:A:H8	1.83	0.43
1:6:45:U:O2	1:6:434:G:H1'	2.18	0.43
36:5:1908:A:H2'	36:5:1909:A:O4'	2.19	0.43
36:1:883:A:O4'	53:M7:133:HIS:HA	2.18	0.43
1:6:1690:G:H1	1:6:1711:C:H42	1.65	0.43
1:2:176:C:OP1	86:2:2072:OHX:N3	2.50	0.43
71:O5:9:LEU:O	71:O5:17:LEU:HD21	2.50	0.43
47:M0:149:VAL:O	47:M0:153:ARG:HB2	3.08	0.43
36:1:3305:A:O2'	36:1:3306:U:H5'	2.18	0.43
69:O3:24:ASN:OD1	69:O3:26:ASN:HB2	3.13	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3342:A:OP1	36:1:3342:A:H3'	2.17	0.43
78:Q2:104:LEU:HD12	78:Q2:104:LEU:HA	2.23	0.43
74:O8:78:LEU:HA	74:O8:78:LEU:HD13	1.85	0.43
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.35	0.43
36:1:2871:G:H5'	36:1:2872:A:H5'	1.99	0.43
68:O2:22:SER:HA	68:O2:28:VAL:HG12	2.19	0.43
36:1:640:U:O4	68:O2:39:ASP:OD2	2.36	0.43
1:6:1758:U:H1'	36:5:2255:A:N3	2.34	0.43
7:S5:87:CYS:HA	7:S5:88:PRO:HD2	1.86	0.43
42:L5:265:TYR:CE1	37:7:121:U:H5'	314.25	0.43
1:2:1565:C:H2'	1:2:1566:U:O4'	2.19	0.43
41:L4:282:SER:O	41:L4:283:THR:HG23	2.17	0.43
28:D6:12:LYS:HB2	28:D6:33:ASP:OD2	2.18	0.43
1:2:1480:G:H3'	1:2:1481:C:C6	2.53	0.43
34:SR:171:SER:CB	34:SR:181:TRP:HE1	3.17	0.43
1:2:1497:U:O3'	21:C9:75:LYS:HE2	2.18	0.43
9:S7:73:VAL:O	9:S7:75:THR:N	2.57	0.43
19:C7:44:LYS:O	19:C7:47:ARG:HB3	2.82	0.43
36:1:2939:G:OP2	40:L3:3:HIS:HD2	2.02	0.43
62:N6:3:LYS:HE2	62:N6:8:VAL:O	2.19	0.43
7:S5:57:SER:HB3	30:D8:53:ILE:HB	2.00	0.43
34:SR:22:SER:O	34:SR:23:LEU:HD23	2.17	0.43
4:S2:127:ALA:O	4:S2:131:ILE:HG13	2.23	0.43
57:N1:12:ARG:HD3	57:N1:13:TYR:CZ	2.79	0.43
7:S5:35:GLN:C	7:S5:37:GLN:H	2.70	0.43
52:M6:65:ASN:C	52:M6:67:THR:H	2.22	0.43
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.53	0.43
36:5:3112:G:O6	86:5:3910:OHX:N6	2.51	0.43
36:1:1722:U:OP1	55:M9:100:ARG:NH1	2.35	0.43
47:M0:75:TYR:CZ	47:M0:79:VAL:HG21	2.88	0.43
36:5:2726:C:C2	36:5:2728:G:C2	3.07	0.43
36:1:1334:U:C1'	44:L7:208:SER:HB2	2.48	0.43
36:1:3200:G:C6	36:1:3201:C:C4	3.07	0.43
39:L2:64:ARG:NH2	45:L8:38:GLN:HA	2.93	0.43
67:O1:78:LYS:HG2	67:O1:79:ARG:HH21	1.82	0.43
1:2:887:A:H2'	1:2:888:U:C6	2.53	0.43
20:C8:53:ASP:OD2	20:C8:55:HIS:HB2	3.39	0.43
39:L2:32:LEU:HD23	39:L2:36:GLU:HB3	2.67	0.43
1:6:1459:C:OP2	1:6:1459:C:H6	2.02	0.43
1:6:181:A:C2	1:6:182:A:C4	3.06	0.43
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2946:A:C5'	36:5:2947:G:H5'	2.48	0.43
61:N5:37:THR:HG23	61:N5:38:LEU:N	3.32	0.43
73:O7:15:SER:OG	36:5:817:A:C8	140.03	0.43
68:O2:20:HIS:CG	68:O2:42:VAL:HG21	2.87	0.43
1:2:1405:G:P	7:S5:80:LYS:HE3	2.59	0.43
26:D4:10:ARG:HD2	26:D4:26:ASP:HB2	2.01	0.43
29:D7:36:LYS:HG2	29:D7:43:ILE:CG2	2.48	0.43
1:2:1754:A:H8	1:2:1754:A:OP1	2.01	0.43
1:6:1773:C:H2'	1:6:1774:G:H8	1.83	0.43
20:C8:8:GLN:HB3	20:C8:9:GLY:H	2.71	0.43
38:4:67:U:H5''	73:O7:84:SER:O	2.18	0.43
43:L6:82:ARG:NH1	69:O3:106:ASN:HB2	4.01	0.43
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.54	0.43
1:2:1091:A:H4'	1:2:1092:A:O5'	2.18	0.43
1:2:1092:A:C4	1:2:1094:G:C8	3.07	0.43
64:N8:28:HIS:CE1	64:N8:32:ARG:CZ	3.01	0.43
1:2:1636:C:C2	1:2:1765:A:N6	2.87	0.43
36:1:61:A:H2'	36:1:62:A:O4'	2.17	0.43
42:L5:227:LEU:O	42:L5:229:ASP:N	2.51	0.43
1:2:5:U:H2'	1:2:6:G:C8	2.53	0.43
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	2.75	0.43
67:O1:96:VAL:O	67:O1:98:VAL:N	2.52	0.43
39:L2:34:TYR:CD2	36:5:2525:G:C6	197.37	0.43
36:1:83:U:H2'	36:1:84:U:O4'	2.18	0.43
36:5:2927:C:H2'	36:5:2928:C:C6	2.53	0.43
62:N6:113:LYS:HB2	38:8:84:C:H1'	19.51	0.43
40:L3:44:THR:HG23	40:L3:184:ASN:HB2	2.19	0.43
46:L9:113:GLU:OE1	46:L9:115:ARG:NE	2.42	0.43
1:2:570:A:N1	25:D3:115:GLY:HA3	2.34	0.43
40:L3:45:SER:O	40:L3:181:ILE:HD13	2.80	0.43
4:S2:69:ILE:HD11	4:S2:133:LYS:HB3	2.00	0.43
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.19	0.43
37:3:33:U:C6	42:L5:207:TYR:CE2	3.06	0.43
30:D8:14:LYS:HE3	30:D8:14:LYS:HA	4.43	0.43
5:S3:190:ARG:HG2	5:S3:190:ARG:O	2.14	0.43
36:1:143:G:H4'	38:4:145:U:OP1	2.18	0.43
1:2:1729:C:H2'	1:2:1730:A:O4'	2.17	0.43
36:5:3049:A:H2'	36:5:3050:U:O4'	2.18	0.43
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.27	0.43
1:2:1201:G:H22	1:2:1600:A:H5'	1.83	0.43
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	3.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1238:C:H2'	36:5:1239:C:O4'	2.19	0.43
44:L7:157:ASN:O	44:L7:159:GLN:N	3.28	0.43
73:O7:69:HIS:HB3	73:O7:72:ARG:NH2	2.34	0.43
8:S6:103:GLY:O	8:S6:105:ASP:N	3.32	0.43
62:N6:48:LEU:HA	62:N6:48:LEU:HD23	2.31	0.43
1:2:1557:U:OP2	1:2:1559:A:O2'	2.20	0.43
36:1:317:A:C6	36:1:318:A:C6	3.06	0.43
60:N4:8:PHE:CZ	60:N4:39:LEU:HB3	2.53	0.43
34:SR:147:HIS:CD2	34:SR:151:VAL:HG22	2.53	0.43
11:S9:85:VAL:HG12	11:S9:99:LEU:HD21	3.37	0.43
3:S1:222:LYS:HD3	3:S1:223:PHE:H	1.83	0.43
42:L5:67:SER:OG	42:L5:72:ASP:OD1	2.31	0.43
42:L5:50:ARG:NH1	42:L5:72:ASP:OD2	2.74	0.43
1:6:1239:U:H2'	1:6:1240:U:O4'	2.19	0.43
1:2:109:G:C6	1:2:110:U:N3	2.87	0.43
1:2:109:G:O2'	1:2:796:A:N1	2.41	0.43
24:D2:31:SER:H	24:D2:34:ILE:HG13	4.18	0.43
1:6:219:A:C6	1:6:843:U:H1'	2.53	0.43
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.53	0.43
66:O0:100:ILE:HG13	66:O0:101:LEU:N	2.33	0.43
55:M9:17:VAL:HG13	55:M9:18:GLY:O	4.46	0.43
11:S9:169:PRO:HB2	11:S9:173:ALA:HB3	2.47	0.43
77:Q1:1:MET:HA	1:6:1783:C:OP1	312.32	0.43
1:2:926:A:H2'	1:2:927:C:O4'	2.18	0.43
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.17	0.43
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.19	0.43
62:N6:31:LEU:O	62:N6:50:ILE:HG22	2.18	0.43
40:L3:346:THR:C	40:L3:348:ARG:H	2.31	0.43
51:M5:133:ILE:O	51:M5:133:ILE:HG13	2.19	0.43
16:C4:92:LYS:HD3	28:D6:69:ASN:OD1	2.19	0.43
1:2:1465:C:C4	1:2:1466:G:C8	3.07	0.43
16:C4:19:ILE:HB	16:C4:83:ILE:HG13	3.91	0.43
36:5:3241:G:H2'	36:5:3245:A:H8	1.82	0.43
1:6:1346:A:HO2'	1:6:1371:A:H2	1.65	0.43
62:N6:58:VAL:HG22	62:N6:104:LEU:CD2	2.86	0.43
4:S2:139:ILE:HG13	4:S2:218:ILE:HB	3.26	0.43
49:M3:57:VAL:HG12	49:M3:69:VAL:HG22	2.00	0.43
14:C2:71:ILE:O	14:C2:75:VAL:HG23	2.18	0.43
37:7:107:C:H2'	37:7:108:A:H8	1.83	0.43
1:2:132:U:O2'	1:2:133:U:P	2.76	0.43
1:6:887:A:H2'	1:6:888:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1047:A:C6	36:1:1048:A:C6	3.06	0.43
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	2.01	0.43
55:M9:6:THR:HG22	55:M9:10:LEU:HD13	2.00	0.43
36:1:2287:C:C2	36:1:2298:U:O4'	2.71	0.43
49:M3:2:ALA:HB2	64:N8:31:GLY:O	2.18	0.43
45:L8:112:GLU:O	45:L8:116:VAL:HB	2.18	0.43
36:5:2437:G:H2'	36:5:2438:A:O4'	2.18	0.43
36:1:2278:C:O2'	36:1:2279:A:H5''	2.19	0.43
36:5:3218:A:H4'	36:5:3219:G:O5'	2.19	0.43
44:L7:130:ILE:HG21	44:L7:130:ILE:HD13	1.99	0.43
36:1:1637:A:H2'	36:1:1638:A:C8	2.54	0.43
36:5:772:U:OP1	86:5:4114:OHX:N3	2.52	0.43
1:2:1119:G:O6	86:2:2148:OHX:N1	2.51	0.43
37:7:119:U:H2'	37:7:120:C:H6	1.83	0.43
40:L3:55:THR:O	40:L3:56:ILE:HD12	2.19	0.43
1:2:641:G:H2'	1:2:642:G:H8	1.83	0.43
18:C6:143:ARG:O	1:6:1195:C:N4	346.66	0.43
36:5:1146:C:H4'	36:5:1331:U:C4	2.54	0.43
70:O4:97:GLU:HA	70:O4:100:ILE:HD12	4.75	0.43
73:O7:16:HIS:HA	73:O7:27:PHE:O	2.53	0.43
36:1:1039:U:H2'	36:1:1040:A:C8	2.53	0.43
7:S5:151:GLY:HA3	7:S5:155:ALA:HA	4.37	0.43
36:5:1631:C:H5''	36:5:1632:A:H5''	2.00	0.43
1:2:220:A:H5''	1:2:832:U:H1'	2.01	0.43
1:2:1335:U:H2'	1:2:1336:A:C8	2.54	0.43
36:1:1149:G:O6	86:1:4165:OHX:N6	2.50	0.43
40:L3:146:ARG:HA	40:L3:146:ARG:NE	2.60	0.43
5:S3:92:GLN:NE2	5:S3:92:GLN:O	2.51	0.43
74:O8:21:LYS:HD3	74:O8:21:LYS:HA	4.48	0.43
45:L8:238:LEU:HD12	45:L8:238:LEU:HA	1.85	0.43
22:D0:30:LYS:HE2	22:D0:30:LYS:HB3	1.95	0.43
36:5:3288:G:O2'	36:5:3289:G:P	2.77	0.43
68:O2:55:ILE:HB	36:5:947:G:H5'	186.08	0.43
7:S5:94:THR:HG22	7:S5:114:ILE:CG1	2.69	0.43
36:1:561:C:OP1	50:M4:77:ARG:HG3	2.18	0.43
36:5:1239:C:H3'	36:5:1240:A:H8	1.84	0.43
10:S8:84:HIS:NE2	10:S8:90:LEU:HD13	2.73	0.43
47:M0:141:LYS:O	47:M0:143:SER:N	2.79	0.43
73:O7:81:GLY:O	38:8:95:G:H1'	40.47	0.43
2:S0:23:HIS:CE1	2:S0:24:LEU:HD13	3.22	0.43
20:C8:30:TYR:CE1	1:6:1539:G:C2	351.60	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:46:LYS:HE3	27:D5:46:LYS:HB2	4.29	0.43
14:C2:60:VAL:O	14:C2:89:ILE:HG22	2.18	0.43
16:C4:50:ALA:HB3	16:C4:53:ASP:HB2	2.17	0.43
1:2:1479:A:H2'	1:2:1480:G:C8	2.53	0.43
1:2:1541:G:C6	1:2:1542:G:N1	2.87	0.43
11:S9:129:ILE:O	11:S9:142:ASN:HA	2.54	0.43
50:M4:16:GLU:O	50:M4:19:ARG:N	3.27	0.43
36:1:75:G:H5''	49:M3:58:VAL:HG22	2.01	0.43
5:S3:42:THR:O	5:S3:44:THR:N	3.72	0.43
34:SR:19:TRP:O	34:SR:21:THR:HG23	2.19	0.43
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.48	0.43
6:S4:106:LYS:HD2	6:S4:106:LYS:HA	3.85	0.43
1:2:795:U:C5	1:2:796:A:C8	3.07	0.43
18:C6:136:SER:O	18:C6:137:ARG:NE	3.57	0.43
62:N6:60:ARG:HD3	62:N6:60:ARG:HA	1.77	0.43
59:N3:2:SER:CA	59:N3:56:ASP:HA	4.33	0.43
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.61	0.43
7:S5:25:LEU:HB2	7:S5:26:ALA:H	1.57	0.43
57:N1:68:THR:CG2	57:N1:71:SER:HB2	2.48	0.43
53:M7:46:LYS:O	53:M7:50:GLN:HG3	2.35	0.43
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.31	0.43
3:S1:35:PRO:HG3	3:S1:98:THR:O	2.18	0.43
36:1:3106:A:H2'	36:1:3107:U:O4'	2.19	0.43
6:S4:66:MET:C	6:S4:68:ARG:H	2.65	0.43
59:N3:119:GLY:O	59:N3:122:CYS:N	2.86	0.43
56:N0:30:PHE:CD2	56:N0:103:VAL:HG21	2.53	0.43
38:8:68:G:H2'	38:8:69:U:O4'	2.19	0.43
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.54	0.43
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.63	0.43
36:5:1313:G:H2'	36:5:1314:C:C6	2.53	0.43
24:D2:126:LEU:HD23	24:D2:126:LEU:HA	2.43	0.43
1:2:959:U:H5'	29:D7:28:PRO:HB3	2.00	0.43
15:C3:124:ARG:NH1	1:6:628:G:OP1	310.33	0.43
36:5:3245:A:H2	36:5:3246:G:C2	2.37	0.43
49:M3:171:ARG:HA	49:M3:171:ARG:HD3	1.56	0.43
34:SR:71:CYS:HA	34:SR:81:LEU:O	2.17	0.43
1:6:872:G:H2'	1:6:873:U:O4'	2.19	0.43
36:1:2155:G:OP1	39:L2:241:ARG:HG2	2.19	0.43
1:6:1074:G:H5''	1:6:1074:G:C8	2.51	0.43
1:6:649:U:H2'	1:6:650:U:C5	2.51	0.43
36:5:597:G:C4	36:5:598:A:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:80:LYS:HE2	1:6:1406:A:OP2	391.63	0.43
19:C7:5:ARG:N	19:C7:5:ARG:HD3	2.33	0.43
1:6:811:A:N3	1:6:858:G:H1'	2.34	0.43
1:2:604:A:OP2	86:2:2167:OHX:N5	2.51	0.43
1:2:121:U:C4	1:2:122:U:C4	3.07	0.43
62:N6:12:ARG:HD3	36:5:215:G:H5''	87.49	0.43
36:1:2373:A:H3'	36:1:2373:A:OP2	2.19	0.43
36:1:2751:G:O6	86:1:4104:OHX:N6	2.50	0.43
36:5:1770:G:H5'	36:5:1771:C:OP2	2.18	0.43
36:5:259:C:H2'	36:5:260:C:H6	1.83	0.43
21:C9:141:GLU:C	21:C9:143:ASP:H	3.12	0.43
1:2:298:C:H5''	1:2:299:A:OP2	2.19	0.43
36:5:3113:A:H2'	36:5:3114:A:O4'	2.18	0.43
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	3.06	0.43
40:L3:308:MET:HE3	40:L3:370:PHE:HB2	5.41	0.43
1:6:1087:A:C2	1:6:1142:A:H4'	2.54	0.43
58:N2:36:TYR:O	58:N2:40:HIS:HB2	2.18	0.43
42:L5:183:TRP:CZ3	42:L5:185:PHE:HA	6.99	0.43
37:3:86:U:O2'	86:3:218:OHX:N6	2.52	0.43
20:C8:97:ASP:N	20:C8:97:ASP:OD2	2.51	0.43
36:5:420:G:O5'	36:5:420:G:OP1	2.36	0.43
47:M0:82:ARG:HG2	47:M0:82:ARG:O	3.66	0.43
59:N3:34:LEU:HA	59:N3:34:LEU:HD23	1.95	0.43
1:6:555:A:H3'	1:6:555:A:C8	2.54	0.43
9:S7:164:TYR:HD2	9:S7:164:TYR:H	1.82	0.43
1:2:1275:A:C6	1:2:1438:G:C4	3.07	0.43
40:L3:296:THR:HG21	40:L3:356:LEU:HB2	2.00	0.43
40:L3:364:LYS:HD2	40:L3:364:LYS:N	2.72	0.43
1:2:1595:U:C5	1:2:1596:C:C5	3.06	0.43
64:N8:47:LYS:HE2	64:N8:48:TYR:CE2	2.53	0.43
1:2:1599:C:O2	86:2:2110:OHX:N1	2.51	0.43
2:S0:163:ASN:C	2:S0:165:ARG:H	2.22	0.43
36:1:411:U:O4	86:1:4054:OHX:N2	2.52	0.43
1:6:1394:G:H1	1:6:1404:C:H42	1.67	0.43
34:SR:90:ARG:HG2	34:SR:102:ARG:HG3	5.17	0.43
36:5:3225:C:O2'	36:5:3226:A:H5'	2.18	0.43
79:Q3:6:LYS:HE2	79:Q3:7:LYS:HE3	3.86	0.43
58:N2:39:ASP:O	58:N2:47:VAL:HB	3.03	0.43
17:C5:17:TYR:O	17:C5:19:GLY:N	4.40	0.43
39:L2:70:ARG:NH2	39:L2:72:ARG:HH21	6.02	0.43
1:2:1238:A:H2'	1:2:1239:U:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:177:MET:SD	5:S3:182:LEU:HD11	2.59	0.43
39:L2:44:ILE:C	39:L2:61:VAL:HG23	5.88	0.43
48:M1:7:ASN:OD1	48:M1:7:ASN:N	3.64	0.43
14:C2:50:LYS:HZ1	33:E1:131:PHE:HE2	1.66	0.43
1:2:1194:A:C2'	1:2:1195:C:H5'	2.47	0.43
36:1:2248:C:OP2	86:1:3880:OHX:N6	2.51	0.43
36:1:2705:A:OP2	86:1:3867:OHX:N1	2.51	0.43
1:2:1428:G:H5'	1:2:1428:G:C8	2.50	0.43
31:D9:46:LYS:O	31:D9:50:ILE:HG13	2.52	0.43
79:Q3:5:THR:HG21	79:Q3:8:VAL:HG23	2.94	0.43
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.50	0.43
63:N7:36:HIS:HD2	63:N7:74:VAL:HG11	2.94	0.43
40:L3:84:VAL:HG13	40:L3:162:VAL:HB	2.00	0.43
45:L8:71:VAL:HA	45:L8:72:PRO:HD2	1.80	0.43
43:L6:73:GLY:O	36:5:3267:A:O2'	256.73	0.43
15:C3:54:LEU:O	15:C3:60:VAL:HB	2.17	0.43
49:M3:91:ARG:NH2	49:M3:97:VAL:O	2.65	0.43
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.47	0.43
1:6:17:C:H2'	1:6:18:C:C6	2.54	0.43
1:2:463:U:C2	1:2:464:A:C8	3.06	0.43
44:L7:181:ILE:O	44:L7:185:ILE:HG13	2.40	0.43
69:O3:2:ALA:HB1	36:5:3219:G:N7	259.89	0.43
36:1:3185:U:O2	56:N0:169:SER:HA	2.19	0.43
36:5:1591:G:O6	36:5:1592:G:C6	2.71	0.43
44:L7:127:LEU:O	44:L7:130:ILE:HG22	5.52	0.43
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.82	0.43
6:S4:195:ILE:HG22	6:S4:196:VAL:N	2.87	0.43
35:SM:27:LYS:HB2	48:M1:46:VAL:HG21	2.46	0.43
43:L6:51:ARG:NH2	43:L6:162:SER:O	2.52	0.43
64:N8:65:GLN:HA	64:N8:65:GLN:OE1	3.29	0.43
58:N2:13:LYS:NZ	36:5:1676:A:OP1	157.13	0.43
18:C6:143:ARG:HB2	18:C6:143:ARG:HE	1.33	0.43
36:1:2884:C:H2'	36:1:2885:C:H6	1.84	0.43
1:6:1781:A:H2'	1:6:1782:A:O4'	2.18	0.43
36:1:954:U:O4	36:1:1115:G:H1'	2.19	0.43
34:SR:264:SER:O	34:SR:268:GLN:HA	2.19	0.43
36:5:814:U:C2	36:5:815:G:C8	3.07	0.43
1:6:443:C:O2	1:6:461:G:N2	2.31	0.43
66:O0:41:LEU:HD23	66:O0:66:LYS:O	2.69	0.43
39:L2:109:GLU:OE1	39:L2:138:GLY:HA2	2.19	0.43
1:6:1528:U:O5'	1:6:1528:U:H6	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:159:LYS:NZ	54:M8:159:LYS:HB3	2.95	0.43
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.56	0.43
18:C6:73:GLY:H	18:C6:76:SER:HB3	1.83	0.43
34:SR:289:ALA:HA	34:SR:305:TYR:HA	2.07	0.43
36:1:2164:A:O2'	39:L2:12:ALA:HB2	2.18	0.43
36:5:1504:A:C5	36:5:1505:C:C5	3.07	0.43
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	2.01	0.43
65:N9:54:LEU:HD23	65:N9:54:LEU:HA	1.81	0.43
13:C1:97:TYR:O	13:C1:99:ARG:HG2	2.18	0.43
50:M4:72:LEU:HA	50:M4:73:PRO:HD2	2.63	0.43
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	3.13	0.43
74:O8:43:PHE:O	74:O8:53:THR:HA	2.19	0.43
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.25	0.43
21:C9:14:PHE:HE2	21:C9:63:ARG:HB2	1.83	0.43
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	3.24	0.43
1:2:144:U:H5	8:S6:137:ARG:NH1	2.17	0.43
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.52	0.43
1:6:1255:G:H4'	1:6:1256:A:OP1	2.19	0.43
1:2:1113:A:OP1	1:2:1113:A:H8	2.02	0.43
41:L4:217:LYS:CG	41:L4:220:ARG:HH21	2.32	0.43
3:S1:87:ARG:HE	3:S1:87:ARG:HB3	1.69	0.43
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	2.00	0.43
1:6:1392:U:H2'	1:6:1393:C:H6	1.79	0.43
64:N8:126:LYS:HA	64:N8:146:GLU:O	2.37	0.43
3:S1:176:VAL:C	3:S1:178:GLY:H	2.21	0.43
48:M1:166:LYS:O	48:M1:166:LYS:HD3	2.19	0.43
63:N7:26:VAL:HG12	63:N7:89:VAL:CG2	2.79	0.43
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.53	0.43
36:1:1334:U:H1'	44:L7:208:SER:HB2	2.01	0.43
34:SR:83:ALA:HB1	34:SR:110:VAL:HG12	2.00	0.43
66:O0:40:LYS:HD3	66:O0:93:LEU:O	2.19	0.43
55:M9:25:ASP:OD1	55:M9:25:ASP:N	2.51	0.43
7:S5:97:LEU:HA	7:S5:97:LEU:HD23	1.84	0.43
52:M6:102:LEU:O	52:M6:103:LYS:HG3	3.37	0.43
57:N1:142:SER:OG	57:N1:143:THR:N	2.67	0.43
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	2.01	0.43
36:5:3163:A:C6	36:5:3164:C:N4	2.87	0.43
39:L2:104:LEU:HD12	39:L2:104:LEU:HA	1.83	0.43
36:5:2717:U:OP1	86:5:4062:OHX:N3	2.52	0.43
9:S7:112:ARG:NH2	9:S7:117:THR:OG1	2.96	0.43
58:N2:95:PHE:HA	58:N2:105:LEU:HD12	3.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3298:C:OP1	53:M7:74:LYS:NZ	2.51	0.43
1:6:1045:C:C2	1:6:1074:G:C2	3.07	0.43
20:C8:36:LYS:O	20:C8:102:ALA:N	2.83	0.43
36:5:3102:G:N2	36:5:3133:C:C2	2.87	0.43
36:1:726:G:C8	36:1:726:G:C5'	3.01	0.43
36:5:2948:C:O5'	36:5:2948:C:H6	2.02	0.43
36:5:3237:U:C2	36:5:3251:U:C2	3.07	0.43
54:M8:150:VAL:HA	54:M8:153:PHE:CE1	2.53	0.43
56:N0:25:PHE:CD1	57:N1:151:LEU:HD21	3.07	0.43
58:N2:33:TYR:CE2	58:N2:63:VAL:HG21	2.59	0.43
45:L8:50:VAL:HG22	45:L8:52:TRP:CD2	2.54	0.43
36:1:1176:C:H2'	36:1:1177:G:N2	2.34	0.43
44:L7:62:ILE:O	44:L7:66:LYS:HG3	2.82	0.43
36:1:2927:C:H2'	36:1:2928:C:C6	2.54	0.43
41:L4:31:ARG:HG3	41:L4:31:ARG:HH11	1.83	0.43
55:M9:24:LEU:HD12	36:5:1472:U:H5''	116.35	0.43
36:5:2436:U:C2'	36:5:2437:G:H5'	2.48	0.43
68:O2:111:ARG:HG3	68:O2:115:LEU:HD12	2.01	0.43
36:5:182:U:H2'	36:5:183:G:C8	2.54	0.43
1:6:417:A:H8	1:6:417:A:O5'	2.02	0.43
1:2:358:U:O2'	1:2:360:A:OP1	2.30	0.43
36:1:789:A:H2'	36:1:790:U:C6	2.53	0.43
48:M1:40:LEU:HD11	48:M1:79:ILE:HG12	3.47	0.43
61:N5:25:LYS:HE3	61:N5:25:LYS:HB2	4.39	0.43
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.33	0.43
1:6:1087:A:H2	1:6:1142:A:H4'	1.83	0.43
72:O6:2:THR:OG1	72:O6:3:VAL:N	2.50	0.43
54:M8:110:ALA:O	54:M8:114:ILE:HG13	3.03	0.43
39:L2:2:GLY:N	36:5:2415:C:OP1	180.55	0.43
1:6:1354:G:H5'	1:6:1355:C:OP2	2.19	0.43
36:5:197:G:H2'	36:5:198:A:C8	2.53	0.43
36:1:2191:U:H2'	36:1:2192:C:O4'	2.19	0.43
36:1:1645:U:H2'	36:1:1646:G:H5'	2.00	0.43
32:E0:24:THR:O	32:E0:26:LYS:HD2	4.45	0.43
43:L6:131:LYS:HE2	43:L6:131:LYS:HA	5.25	0.43
36:5:729:C:O5'	36:5:729:C:H6	2.02	0.43
62:N6:23:PRO:HG2	62:N6:26:GLN:HB2	2.00	0.43
1:2:911:U:O2'	1:2:915:A:H1'	2.19	0.43
36:5:3291:G:H2'	36:5:3292:A:C8	2.53	0.43
40:L3:294:GLY:HA2	40:L3:359:ILE:HD12	2.00	0.43
1:2:1199:G:N2	1:2:1595:U:H5'	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:28:ARG:HH11	56:N0:99:ARG:NE	2.16	0.43
1:2:1554:U:H5''	17:C5:47:ARG:HH22	1.83	0.43
18:C6:114:ARG:O	18:C6:115:THR:HB	3.92	0.43
36:5:979:U:C2	36:5:980:A:N3	2.87	0.43
36:1:1675:G:H2'	36:1:1676:A:C8	2.54	0.43
36:1:3284:G:C6	36:1:3285:C:N4	2.87	0.43
36:1:1811:G:H2'	36:1:1812:G:O4'	2.19	0.43
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	1.81	0.43
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.18	0.43
36:1:402:A:C6	53:M7:21:TYR:CE2	3.07	0.43
1:6:219:A:O2'	1:6:220:A:O5'	2.35	0.43
55:M9:7:GLN:HG3	55:M9:41:ILE:HD11	2.01	0.43
38:8:65:A:H2'	38:8:66:A:O4'	2.19	0.43
51:M5:75:VAL:HA	51:M5:76:PRO:HD3	1.87	0.43
40:L3:61:ASP:OD1	40:L3:68:HIS:HE1	2.27	0.43
77:Q1:5:TRP:HE3	77:Q1:5:TRP:HA	2.15	0.43
31:D9:39:CYS:HB3	31:D9:42:CYS:HB2	3.48	0.43
1:6:1402:G:C6	1:6:1403:C:C4	3.07	0.43
1:6:1118:G:O6	86:6:2174:OHX:N2	2.52	0.43
1:2:1572:G:N3	1:2:1572:G:H2'	2.34	0.43
15:C3:3:ARG:HG2	15:C3:8:GLY:HA3	2.01	0.43
44:L7:83:LEU:HD21	44:L7:116:PHE:HB3	2.01	0.43
1:6:1170:G:C6	1:6:1574:G:C5	3.06	0.43
36:1:2369:G:H2'	36:1:2370:G:O4'	2.19	0.43
1:2:1226:A:C2	14:C2:116:VAL:HG11	2.53	0.43
1:2:637:C:OP1	24:D2:32:LYS:N	2.40	0.43
36:5:1627:U:H2'	36:5:1814:A:N6	2.34	0.43
1:6:206:A:C5	1:6:207:U:C5	3.07	0.43
36:1:725:G:H2'	36:1:726:G:H5''	2.01	0.43
36:5:2947:G:N2	36:5:2948:C:C2	2.87	0.43
28:D6:55:GLU:C	28:D6:57:SER:H	2.59	0.43
47:M0:24:ARG:O	47:M0:25:ALA:HB3	4.56	0.43
36:1:741:U:H2'	36:1:742:G:O4'	2.18	0.43
36:5:2952:G:H2'	36:5:2953:U:O4'	2.18	0.43
3:S1:111:ARG:HG3	28:D6:68:TYR:HB2	2.01	0.43
44:L7:153:PHE:HE1	44:L7:162:PRO:HG3	1.82	0.43
36:5:2950:G:C4	36:5:2979:U:C5	3.07	0.43
36:1:86:G:C5	49:M3:13:HIS:ND1	2.87	0.43
36:1:2712:U:H2'	36:1:2713:U:C6	2.54	0.43
36:5:2888:U:C6	36:5:2911:A:N6	2.87	0.43
36:1:1364:C:O2'	36:1:1365:G:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.52	0.43
37:7:119:U:O2'	37:7:120:C:H5'	2.18	0.43
26:D4:40:LEU:HD22	26:D4:40:LEU:HA	1.77	0.43
8:S6:30:LYS:HE3	8:S6:30:LYS:HB3	2.36	0.43
36:1:849:C:O2'	36:1:850:U:H5'	2.19	0.43
42:L5:222:LEU:O	42:L5:223:PHE:HB2	2.19	0.43
1:2:1746:A:H2'	1:2:1747:G:O4'	2.19	0.43
38:8:108:C:H2'	38:8:109:A:O4'	2.19	0.43
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.19	0.43
16:C4:107:ARG:NH2	28:D6:52:ASP:OD2	2.52	0.43
36:5:2551:U:H4'	36:5:2552:C:OP1	2.19	0.43
10:S8:163:GLY:HA3	36:1:3354:U:H1'	2.01	0.43
52:M6:8:VAL:HG13	52:M6:34:VAL:HG22	2.40	0.43
1:6:277:U:O2'	1:6:278:U:OP1	2.33	0.43
1:2:871:G:O2'	29:D7:66:PRO:HB2	2.19	0.43
39:L2:240:ALA:HB1	39:L2:242:ARG:O	2.61	0.43
15:C3:44:GLY:O	15:C3:45:LEU:HD23	3.68	0.43
1:2:1738:U:H2'	1:2:1739:C:C6	2.54	0.43
3:S1:144:ARG:HB3	3:S1:208:GLN:HG2	2.80	0.43
26:D4:124:ARG:O	26:D4:127:LYS:HG3	2.19	0.43
4:S2:228:ASN:ND2	23:D1:1:MET:HB3	2.34	0.43
1:2:1556:A:H2'	17:C5:40:ARG:NH1	2.34	0.43
1:2:1566:U:O2'	1:2:1567:U:H5'	2.19	0.43
9:S7:14:THR:HG22	9:S7:17:GLU:OE1	3.36	0.43
78:Q2:19:LYS:HA	36:5:2741:C:H4'	207.37	0.43
38:4:82:U:O2'	38:4:83:C:OP1	2.33	0.43
62:N6:122:LYS:HE2	62:N6:122:LYS:HB3	1.74	0.43
1:2:1558:U:OP2	1:2:1559:A:H1'	2.19	0.43
1:2:543:C:O2	1:2:543:C:H5'	2.19	0.43
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	2.01	0.43
36:1:670:C:P	54:M8:147:ARG:HH21	2.42	0.43
46:L9:31:ARG:HH21	46:L9:31:ARG:CG	4.62	0.43
9:S7:78:THR:HG23	9:S7:92:PHE:HE1	2.80	0.43
2:S0:70:PRO:O	2:S0:95:ALA:N	2.34	0.43
41:L4:180:LYS:HZ3	41:L4:202:ARG:HB2	1.83	0.43
34:SR:82:SER:OG	34:SR:90:ARG:HB2	2.99	0.43
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.36	0.43
1:6:93:A:C6	1:6:398:G:C6	3.07	0.43
1:2:1218:G:N2	1:2:1444:A:OP2	2.43	0.43
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.18	0.43
36:5:2101:C:H2'	36:5:2102:U:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1720:U:C4	55:M9:124:TYR:CE2	3.07	0.43
36:5:2441:A:N1	36:5:2507:C:C2	2.87	0.43
34:SR:52:GLN:HG2	34:SR:53:LYS:N	2.54	0.43
36:1:787:G:H2'	36:1:788:C:C6	2.54	0.43
6:S4:121:TYR:HB2	6:S4:162:ILE:O	2.37	0.43
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.48	0.43
71:O5:6:ALA:HB1	71:O5:10:ARG:NH2	2.61	0.43
1:2:887:A:H2'	1:2:888:U:H6	1.84	0.43
23:D1:35:ASN:HB3	23:D1:50:TYR:CD1	2.53	0.43
40:L3:384:LYS:O	86:L3:405:OHX:N3	2.52	0.43
1:2:1492:A:O2'	1:2:1493:A:C8	2.71	0.43
25:D3:130:VAL:O	25:D3:131:SER:CB	2.66	0.43
48:M1:139:THR:CG2	48:M1:147:THR:HA	2.46	0.43
62:N6:27:ARG:O	62:N6:31:LEU:HD12	2.19	0.43
74:O8:60:GLY:C	74:O8:62:ALA:H	2.62	0.43
36:1:2960:C:H2'	36:1:2961:G:H8	1.82	0.43
58:N2:18:ASP:HB3	58:N2:104:ARG:HA	2.95	0.43
1:2:1773:C:H2'	1:2:1774:G:C8	2.54	0.43
63:N7:5:LEU:HD22	63:N7:77:TYR:CE2	5.81	0.43
6:S4:95:THR:HG22	26:D4:16:PRO:HG2	2.00	0.43
1:2:639:U:O2'	1:2:640:U:OP2	2.28	0.43
18:C6:22:VAL:HG22	18:C6:65:ILE:HD13	2.01	0.43
6:S4:199:GLU:N	6:S4:207:LEU:O	3.12	0.43
46:L9:189:GLU:HA	46:L9:189:GLU:OE2	2.18	0.43
36:1:1387:G:OP1	86:1:4155:OHX:N6	2.52	0.43
1:6:926:A:H2'	1:6:927:C:O4'	2.18	0.43
36:5:1109:U:H2'	36:5:1110:U:O4'	2.19	0.43
1:6:250:C:H2'	1:6:251:A:C8	2.54	0.43
1:2:1780:G:H1'	36:1:2262:A:O3'	2.18	0.43
1:2:400:A:C4	10:S8:26:LYS:HB2	2.54	0.43
36:1:239:G:HO2'	36:1:240:U:P	2.41	0.43
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.65	0.43
46:L9:146:LEU:HD12	46:L9:146:LEU:N	2.90	0.43
4:S2:54:GLU:OE1	23:D1:11:LEU:HD13	2.18	0.43
42:L5:90:HIS:NE2	42:L5:229:ASP:OD2	2.51	0.43
59:N3:128:ARG:HD2	59:N3:128:ARG:HA	1.93	0.43
36:1:653:A:C2	36:1:1443:G:C4	3.07	0.43
1:6:1771:U:H2'	1:6:1772:C:C6	2.54	0.43
36:5:771:A:H2'	36:5:772:U:O4'	2.18	0.43
36:5:1700:G:H2'	36:5:1701:C:C6	2.54	0.43
73:O7:39:TYR:CG	73:O7:40:PRO:HA	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1308:G:C2	1:2:1309:C:C2	3.07	0.43
36:5:2222:A:H2'	36:5:2223:A:C8	2.53	0.43
1:2:1279:C:OP2	5:S3:185:LYS:NZ	2.52	0.43
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.94	0.43
36:5:996:A:H2'	36:5:997:A:O4'	2.19	0.43
1:2:1275:A:C6	1:2:1438:G:C5	3.07	0.43
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.19	0.43
47:M0:182:LEU:HD21	47:M0:185:ARG:NH1	3.30	0.43
36:1:858:A:C6	36:1:859:G:C6	3.07	0.43
1:2:1662:G:O2'	1:2:1663:G:H5'	2.19	0.43
4:S2:84:LYS:HA	4:S2:85:PRO:HD3	2.04	0.43
1:6:1163:A:N6	1:6:1164:G:C6	2.86	0.43
36:5:1185:C:H2'	36:5:1186:G:O4'	2.18	0.43
1:2:1350:U:H2'	1:2:1351:G:C8	2.53	0.43
36:1:334:A:C2	36:1:335:G:C5	3.07	0.43
34:SR:236:ALA:O	34:SR:238:ASP:N	2.83	0.43
55:M9:121:HIS:HE1	36:5:1719:G:N7	240.13	0.43
36:5:740:G:C6	36:5:741:U:C4	3.07	0.43
36:1:711:A:N7	36:1:712:G:H1'	2.33	0.43
34:SR:14:GLU:HB3	34:SR:309:VAL:HG13	2.00	0.43
1:2:252:U:H4'	6:S4:132:GLY:O	2.19	0.43
44:L7:38:LYS:HE3	44:L7:38:LYS:HB2	1.71	0.43
1:2:1646:C:H2'	1:2:1647:U:C6	2.54	0.43
36:1:1266:G:N2	36:1:1276:U:H1'	2.34	0.43
53:M7:169:THR:H	69:O3:60:ARG:HH11	1.67	0.42
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	2.01	0.42
3:S1:141:ALA:HB1	3:S1:207:LEU:HD22	3.65	0.42
1:2:1199:G:N7	31:D9:40:ARG:HD2	2.34	0.42
8:S6:157:VAL:HG22	8:S6:173:PRO:HD2	2.00	0.42
65:N9:18:ARG:NH1	36:5:951:A:OP1	204.76	0.42
12:C0:54:TYR:CE2	12:C0:75:TYR:HB2	3.61	0.42
12:C0:73:VAL:O	12:C0:77:ARG:HG3	4.82	0.42
34:SR:169:ILE:HG13	34:SR:181:TRP:HB2	2.00	0.42
50:M4:18:GLY:O	50:M4:69:THR:HA	2.19	0.42
1:6:1203:A:C4	1:6:1556:A:C2	3.07	0.42
41:L4:141:ARG:CZ	41:L4:180:LYS:HD3	2.48	0.42
1:2:702:G:O6	1:2:737:A:N6	2.52	0.42
36:1:1307:G:P	52:M6:59:ARG:NH1	2.92	0.42
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.19	0.42
2:S0:179:ARG:O	2:S0:183:ARG:HG3	2.19	0.42
50:M4:65:LEU:HD11	56:N0:152:LEU:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:40:SER:HA	38:8:49:G:O2'	54.53	0.42
53:M7:112:LEU:HG	53:M7:150:VAL:HB	2.81	0.42
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.83	0.42
22:D0:15:GLN:HB2	22:D0:16:GLN:H	4.58	0.42
36:5:2101:C:O2'	36:5:2102:U:OP1	2.28	0.42
53:M7:119:VAL:HA	53:M7:145:HIS:O	2.55	0.42
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.42	0.42
36:1:2572:C:OP2	36:1:2572:C:H3'	2.19	0.42
15:C3:32:SER:O	15:C3:35:GLU:HB3	2.63	0.42
36:1:3355:U:H3'	36:1:3356:G:H5''	2.01	0.42
36:1:1018:G:H2'	36:1:1019:G:O4'	2.18	0.42
8:S6:139:ASN:HA	8:S6:142:ARG:HB2	2.01	0.42
1:2:1370:U:H4'	1:2:1371:A:C5'	2.49	0.42
57:N1:18:ASP:O	57:N1:19:PHE:C	2.97	0.42
36:5:1686:U:O2	36:5:1688:U:H1'	2.19	0.42
46:L9:126:VAL:HG13	46:L9:127:PRO:HD2	2.01	0.42
36:5:2111:G:H4'	36:5:2112:U:OP2	2.19	0.42
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	3.75	0.42
10:S8:2:GLY:HA2	1:6:1729:C:O2'	287.15	0.42
24:D2:105:THR:OG1	24:D2:126:LEU:HG	2.55	0.42
63:N7:4:PHE:CE2	66:O0:63:SER:HB3	3.19	0.42
1:6:1234:A:HO2'	1:6:1235:C:H6	1.66	0.42
36:1:1317:A:O2'	36:1:1318:A:H3'	2.19	0.42
1:2:831:U:H2'	1:2:831:U:O2	2.18	0.42
36:1:2370:G:C6	36:1:2371:G:C5	3.07	0.42
1:2:1237:G:OP2	86:2:2046:OHX:N1	2.51	0.42
1:6:913:G:H3'	1:6:914:G:H5''	2.00	0.42
42:L5:88:ILE:HD12	42:L5:240:TYR:CE1	4.43	0.42
1:6:901:G:C6	1:6:902:G:C6	3.06	0.42
49:M3:54:LEU:HD23	49:M3:54:LEU:HA	1.92	0.42
1:2:413:U:H2'	1:2:414:C:C6	2.54	0.42
36:1:725:G:C3'	36:1:726:G:H5''	2.49	0.42
49:M3:14:PHE:CE1	36:5:665:A:H1'	133.02	0.42
1:6:1275:A:C5	1:6:1438:G:C2	3.07	0.42
1:2:711:U:H4'	1:2:712:G:OP1	2.19	0.42
34:SR:276:PRO:HG2	34:SR:278:PHE:CE1	2.54	0.42
8:S6:28:PHE:O	8:S6:29:ASP:HB2	2.18	0.42
69:O3:89:LEU:HD23	69:O3:89:LEU:HA	1.72	0.42
36:5:394:G:N2	36:5:396:A:H3'	2.34	0.42
1:2:782:U:H4'	1:2:783:G:OP2	2.18	0.42
36:5:2771:U:O2'	36:5:2772:C:O4'	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:249:U:O2	36:1:250:U:N3	2.50	0.42
36:5:507:U:H2'	36:5:508:U:C6	2.53	0.42
66:O0:25:LEU:O	66:O0:29:SER:OG	2.97	0.42
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.64	0.42
1:2:147:A:H2'	1:2:148:A:O4'	2.18	0.42
36:1:2567:C:H2'	36:1:2568:C:H5'	2.00	0.42
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	1.87	0.42
4:S2:99:LYS:HB2	4:S2:117:THR:HB	3.37	0.42
1:2:866:G:OP1	15:C3:2:GLY:HA2	2.19	0.42
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.06	0.42
36:1:587:U:C2'	36:1:588:G:H5'	2.49	0.42
45:L8:205:ALA:HA	45:L8:208:GLU:OE2	5.48	0.42
5:S3:13:ALA:HA	5:S3:16:VAL:HG23	3.02	0.42
36:5:69:C:H2'	36:5:70:A:O4'	2.19	0.42
36:1:2251:G:N2	36:1:2266:U:H1'	2.34	0.42
41:L4:55:LYS:HE2	41:L4:59:GLN:NE2	2.34	0.42
1:2:150:U:OP1	26:D4:123:LYS:NZ	2.51	0.42
9:S7:163:ASP:O	9:S7:166:LEU:HB2	2.20	0.42
69:O3:39:GLN:CD	69:O3:39:GLN:H	2.47	0.42
43:L6:159:LEU:HA	43:L6:159:LEU:HD23	1.80	0.42
49:M3:68:LYS:HE3	36:5:699:A:OP1	96.83	0.42
1:2:1671:A:C4	1:2:1731:A:C2	3.06	0.42
36:5:2271:A:H2'	36:5:2272:G:O4'	2.19	0.42
40:L3:283:TYR:CZ	40:L3:325:LYS:HD3	4.51	0.42
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.39	0.42
36:1:3362:A:H2'	36:1:3363:U:O4'	2.19	0.42
74:O8:45:VAL:HG23	74:O8:52:TYR:HB2	2.00	0.42
27:D5:45:GLU:O	27:D5:49:ARG:N	2.50	0.42
11:S9:172:VAL:HG13	1:6:512:A:OP2	454.02	0.42
1:2:1499:G:C2	1:2:1500:C:C2	3.07	0.42
34:SR:147:HIS:CE1	34:SR:179:LYS:HD2	2.54	0.42
86:5:4100:OHX:N5	38:8:140:G:O6	2.52	0.42
22:D0:27:THR:HB	22:D0:88:LYS:CG	2.54	0.42
35:SM:26:VAL:HG22	48:M1:47:GLN:HB2	2.01	0.42
36:1:1878:G:C2'	36:1:1879:A:H5'	2.50	0.42
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	2.02	0.42
86:6:2058:OHX:N2	86:6:2145:OHX:N6	2.67	0.42
36:1:1565:G:N2	36:1:1574:C:N3	2.67	0.42
51:M5:143:ARG:NH2	71:O5:92:LEU:HA	2.62	0.42
36:5:1213:G:N2	36:5:1293:U:C2	2.88	0.42
1:2:442:C:O2'	1:2:525:A:N1	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:190:ILE:HG12	7:S5:190:ILE:H	2.44	0.42
11:S9:111:THR:O	11:S9:114:TYR:HB3	2.44	0.42
3:S1:129:THR:HG22	3:S1:176:VAL:HG12	2.00	0.42
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.19	0.42
35:SM:23:LYS:HG3	35:SM:24:GLU:N	4.73	0.42
17:C5:18:ARG:HH21	17:C5:38:PRO:HG3	2.54	0.42
32:E0:28:LYS:HD3	1:6:542:A:N1	428.77	0.42
1:2:1211:A:H1'	17:C5:99:GLY:O	2.19	0.42
4:S2:88:LYS:HG3	1:6:1301:U:H5'	381.63	0.42
35:SM:83:LYS:HB3	35:SM:84:LYS:H	1.74	0.42
36:1:655:C:H5''	68:O2:26:HIS:HB2	2.02	0.42
1:6:1467:C:H2'	1:6:1468:U:C6	2.47	0.42
72:O6:54:GLU:OE2	72:O6:86:LYS:NZ	2.51	0.42
61:N5:100:LYS:HG3	61:N5:105:VAL:O	2.19	0.42
7:S5:124:LEU:HA	7:S5:124:LEU:HD12	3.51	0.42
36:1:666:A:H2'	36:1:667:C:H5''	2.01	0.42
1:2:269:G:C6	1:2:287:G:C6	3.07	0.42
41:L4:193:LYS:NZ	36:5:1419:A:H5''	109.49	0.42
1:2:489:C:H2'	1:2:490:C:C6	2.53	0.42
1:2:407:A:H5'	8:S6:94:ARG:NH2	2.34	0.42
1:2:622:A:H4'	1:2:623:A:OP1	2.19	0.42
19:C7:109:LEU:O	19:C7:113:LEU:HB2	4.85	0.42
2:S0:126:PRO:CG	2:S0:151:SER:HB3	2.96	0.42
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	2.16	0.42
39:L2:139:HIS:O	39:L2:141:PRO:HD3	2.19	0.42
79:Q3:56:THR:HA	79:Q3:63:THR:HA	2.31	0.42
36:5:3205:G:H2'	36:5:3206:C:C4	2.55	0.42
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.56	0.42
21:C9:64:HIS:CE1	1:6:1523:G:N7	408.18	0.42
36:1:2157:G:C6	39:L2:151:PRO:HD2	2.53	0.42
46:L9:93:VAL:HG22	76:Q0:82:LEU:HD13	2.00	0.42
34:SR:260:ILE:HB	34:SR:274:LEU:HD12	2.62	0.42
44:L7:95:ILE:HG22	44:L7:100:ARG:HB2	3.41	0.42
53:M7:147:GLU:O	53:M7:147:GLU:HG3	2.44	0.42
79:Q3:87:ARG:O	79:Q3:91:GLU:HG2	3.12	0.42
1:6:518:A:O2'	1:6:519:C:H5''	2.19	0.42
44:L7:104:GLN:O	44:L7:106:LEU:N	2.52	0.42
36:1:624:G:OP2	86:1:4130:OHX:N3	2.52	0.42
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.19	0.42
36:1:3159:C:OP1	86:1:4148:OHX:N1	2.52	0.42
59:N3:109:MET:CE	59:N3:132:ASN:HD22	2.64	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:35:ARG:O	49:M3:38:ALA:HB3	2.19	0.42
1:6:1030:A:H4'	1:6:1031:U:OP2	2.19	0.42
45:L8:134:TYR:CE1	45:L8:190:VAL:HG11	4.06	0.42
79:Q3:73:THR:HG22	79:Q3:76:ALA:HB2	2.00	0.42
36:5:2562:A:N6	36:5:2579:G:O2'	2.47	0.42
18:C6:4:VAL:HG11	18:C6:23:LYS:HG3	7.50	0.42
2:S0:177:LEU:HA	2:S0:177:LEU:HD23	1.83	0.42
1:6:689:G:H2'	1:6:690:G:O4'	2.19	0.42
36:1:3364:C:H2'	36:1:3365:U:H6	1.84	0.42
1:2:1576:A:H2'	1:2:1577:A:O4'	2.20	0.42
43:L6:153:PRO:O	43:L6:154:LEU:HB2	2.18	0.42
1:2:1798:U:C6	28:D6:97:PRO:HB3	2.55	0.42
40:L3:204:ALA:O	40:L3:207:SER:HB3	2.19	0.42
1:6:557:G:H4'	1:6:558:U:OP2	2.18	0.42
42:L5:5:LYS:HA	42:L5:5:LYS:HD2	1.73	0.42
36:5:2615:G:H2'	36:5:2616:C:O4'	2.18	0.42
36:1:727:G:H2'	36:1:728:G:O4'	2.20	0.42
3:S1:165:ARG:O	3:S1:169:SER:OG	2.33	0.42
86:5:3971:OHX:N2	86:5:4192:OHX:N5	2.67	0.42
1:2:1594:G:H5''	31:D9:33:LYS:HG3	2.02	0.42
48:M1:28:ASP:HA	48:M1:31:THR:CG2	4.30	0.42
36:5:1567:U:H2'	36:5:1568:U:C4'	2.49	0.42
1:6:1344:A:O2'	1:6:1345:A:P	2.77	0.42
35:SM:79:SER:O	1:6:1179:G:H4'	333.62	0.42
51:M5:178:HIS:CD2	36:5:304:G:C6	122.37	0.42
20:C8:133:VAL:HG13	1:6:1545:A:H5''	351.30	0.42
8:S6:211:LEU:O	8:S6:215:ARG:HB2	2.18	0.42
17:C5:95:GLY:C	17:C5:102:PHE:HB3	2.39	0.42
36:1:1813:A:O2'	36:1:1816:A:N3	2.51	0.42
6:S4:191:ARG:CZ	6:S4:245:LYS:HD2	4.50	0.42
56:N0:152:LEU:HA	56:N0:152:LEU:HD23	2.42	0.42
36:5:1733:G:H2'	36:5:1734:G:C8	2.53	0.42
18:C6:59:LYS:O	18:C6:63:ILE:HD11	2.94	0.42
30:D8:8:THR:HB	30:D8:56:LEU:HB2	2.02	0.42
47:M0:77:THR:O	47:M0:81:GLY:N	2.40	0.42
5:S3:70:THR:O	5:S3:74:GLN:N	2.38	0.42
37:3:26:C:H5''	42:L5:56:THR:HB	2.01	0.42
36:1:1472:U:H2'	36:1:1473:G:H8	1.84	0.42
39:L2:131:GLY:H	39:L2:169:ILE:CG2	2.88	0.42
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.44	0.42
45:L8:63:LYS:HE3	45:L8:63:LYS:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1179:G:C6	1:2:1180:C:C4	3.08	0.42
35:SM:65:THR:O	35:SM:70:ASN:ND2	4.92	0.42
1:6:647:G:O5'	1:6:647:G:H8	2.02	0.42
48:M1:150:ASN:HD21	37:7:17:A:P	325.21	0.42
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	2.01	0.42
36:1:1231:A:OP2	86:1:4083:OHX:N5	2.52	0.42
41:L4:195:ARG:NH1	36:5:340:C:OP2	112.63	0.42
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.28	0.42
36:1:1740:U:H1'	36:1:1741:A:C2	2.51	0.42
40:L3:60:LEU:O	40:L3:69:LYS:N	2.52	0.42
1:6:624:G:C8	1:6:1027:A:C6	3.07	0.42
1:2:1175:U:H2'	1:2:1176:G:C8	2.54	0.42
1:2:1466:G:C2	1:2:1467:C:C2	3.07	0.42
20:C8:143:ARG:O	20:C8:144:ARG:HB2	4.58	0.42
1:6:844:A:H2'	1:6:845:G:C8	2.54	0.42
36:1:2718:U:H2'	36:1:2719:U:C6	2.53	0.42
36:1:2717:U:OP1	86:1:3982:OHX:N6	2.52	0.42
11:S9:63:ASP:HB3	11:S9:66:ASP:HB2	2.01	0.42
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.19	0.42
36:5:1266:G:C6	36:5:1276:U:C2	3.07	0.42
4:S2:144:TRP:HB2	4:S2:172:ALA:O	2.63	0.42
48:M1:36:VAL:HG21	48:M1:123:PHE:CD2	2.54	0.42
1:6:463:U:H2'	1:6:464:A:C8	2.54	0.42
8:S6:70:PRO:HG2	60:N4:2:LYS:HE3	3.73	0.42
49:M3:174:ARG:NH1	72:O6:9:ILE:HD13	2.34	0.42
44:L7:101:LYS:HA	44:L7:104:GLN:OE1	2.18	0.42
12:C0:24:LYS:HB3	12:C0:24:LYS:HE2	1.91	0.42
36:5:1144:U:O3'	36:5:1145:G:H8	2.03	0.42
13:C1:55:ASP:HB2	13:C1:82:ARG:CZ	2.49	0.42
1:6:643:G:H1	1:6:691:C:H42	1.68	0.42
4:S2:82:ASN:C	4:S2:83:ILE:HG12	3.41	0.42
9:S7:141:ARG:HH22	9:S7:143:LEU:HD13	1.84	0.42
36:5:2192:C:H2'	36:5:2193:U:O4'	2.19	0.42
36:1:2190:U:C4	36:1:2191:U:C4	3.06	0.42
52:M6:119:VAL:HG23	56:N0:164:SER:HB3	2.01	0.42
36:5:3025:C:H2'	36:5:3026:G:O4'	2.19	0.42
66:O0:50:VAL:HB	36:5:2553:U:O4'	229.30	0.42
10:S8:106:ALA:O	10:S8:110:ARG:N	2.50	0.42
24:D2:72:CYS:HB3	24:D2:129:VAL:HG13	2.52	0.42
1:6:606:A:C8	1:6:608:U:H2'	2.54	0.42
36:1:1664:G:N2	36:1:1786:G:H1'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:76:A:H5'	1:2:77:U:OP2	2.19	0.42
36:5:3227:A:H2'	36:5:3228:C:H5'	2.01	0.42
7:S5:84:LYS:NZ	1:6:1614:A:OP2	364.66	0.42
56:N0:14:LEU:HD23	56:N0:57:GLU:HB3	2.00	0.42
1:6:1358:G:H2'	1:6:1359:C:C6	2.54	0.42
36:5:2762:A:OP2	86:5:3982:OHX:N5	2.52	0.42
11:S9:154:LYS:HB2	11:S9:154:LYS:HE3	1.79	0.42
79:Q3:22:LEU:HA	79:Q3:22:LEU:HD23	1.76	0.42
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.80	0.42
71:O5:73:LYS:HA	71:O5:73:LYS:HD2	5.12	0.42
50:M4:41:GLN:HG2	56:N0:143:PHE:HZ	1.85	0.42
36:5:1875:G:H2'	36:5:1876:U:H6	1.84	0.42
6:S4:213:SER:O	6:S4:214:LEU:HD12	2.96	0.42
45:L8:142:LEU:HD23	36:5:117:U:C4	106.33	0.42
56:N0:85:SER:OG	36:5:1294:A:H5''	300.81	0.42
1:6:1662:G:O6	86:6:2061:OHX:N6	2.52	0.42
36:1:108:A:O2'	36:1:109:A:H2'	2.20	0.42
68:O2:19:ARG:HB2	68:O2:31:ASN:O	2.30	0.42
1:2:1600:A:HO2'	1:2:1602:C:N4	2.18	0.42
36:1:2763:U:H5'	54:M8:176:ARG:HG3	2.01	0.42
3:S1:38:PHE:HB3	3:S1:74:GLN:OE1	2.18	0.42
36:1:1430:U:H2'	64:N8:9:ARG:HH22	1.84	0.42
1:6:1209:C:H42	1:6:1454:G:H1	1.66	0.42
86:5:4100:OHX:N5	38:8:139:U:O4	2.52	0.42
36:1:2766:U:H2'	36:1:2767:U:C6	2.55	0.42
41:L4:262:TRP:CZ3	41:L4:271:LYS:HE3	3.20	0.42
52:M6:60:LYS:NZ	36:5:1307:G:H5''	251.02	0.42
36:1:22:G:C2'	36:1:23:A:H5'	2.49	0.42
36:5:1024:G:H2'	36:5:1026:A:H8	1.83	0.42
36:1:1574:C:N4	36:1:1575:A:N7	2.68	0.42
40:L3:347:SER:HB2	40:L3:350:ALA:HB3	2.01	0.42
3:S1:193:ILE:H	3:S1:193:ILE:HG12	1.49	0.42
13:C1:54:ILE:HD12	13:C1:54:ILE:HG23	4.25	0.42
42:L5:75:LEU:HD22	42:L5:109:THR:HG22	3.58	0.42
18:C6:32:ASN:ND2	18:C6:69:VAL:HG23	2.87	0.42
36:5:3057:U:O2'	36:5:3059:G:OP1	2.37	0.42
39:L2:59:ALA:N	39:L2:76:PHE:O	2.48	0.42
38:4:65:A:O3'	71:O5:10:ARG:NH2	2.52	0.42
6:S4:66:MET:HG3	1:6:454:U:C6	373.10	0.42
8:S6:10:ASN:ND2	8:S6:127:THR:O	3.10	0.42
29:D7:62:ILE:CG1	29:D7:63:LEU:H	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	2.12	0.42
36:1:1094:U:H1'	36:1:1096:U:H2'	2.01	0.42
34:SR:158:PRO:HB2	34:SR:206:PRO:O	2.20	0.42
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.82	0.42
1:2:14:C:H2'	1:2:15:U:C6	2.54	0.42
1:2:830:U:C2	1:2:831:U:H5	2.38	0.42
1:2:1248:C:H2'	1:2:1249:U:C6	2.55	0.42
52:M6:140:LYS:HA	52:M6:140:LYS:HD2	2.14	0.42
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.42	0.42
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.87	0.42
74:O8:32:ASN:HD21	74:O8:34:ALA:HB3	6.03	0.42
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.01	0.42
1:2:1073:G:N7	86:2:2128:OHX:N2	2.67	0.42
49:M3:2:ALA:N	64:N8:33:GLY:O	4.91	0.42
40:L3:174:LYS:N	36:5:3314:A:OP1	203.69	0.42
40:L3:123:TYR:CE2	40:L3:124:LYS:HG2	3.38	0.42
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.49	0.42
36:1:1478:C:H2'	36:1:1479:U:H6	1.84	0.42
4:S2:148:LEU:HB3	4:S2:149:GLY:H	1.53	0.42
56:N0:89:ASN:ND2	57:N1:156:TYR:HB3	2.34	0.42
9:S7:109:VAL:HA	1:6:810:G:H21	342.10	0.42
22:D0:69:LYS:HB2	22:D0:78:THR:OG1	3.30	0.42
36:1:2357:A:H2'	36:1:2358:A:C8	2.54	0.42
36:1:3364:C:H2'	36:1:3365:U:C6	2.53	0.42
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	2.06	0.42
36:5:2942:C:O2	86:5:4048:OHX:N6	2.52	0.42
9:S7:98:ILE:HD11	9:S7:121:VAL:HG11	2.00	0.42
86:1:4053:OHX:N6	86:1:4162:OHX:N3	2.67	0.42
5:S3:195:SER:O	5:S3:197:THR:N	2.65	0.42
22:D0:40:ASN:O	22:D0:44:ASN:HB3	2.51	0.42
19:C7:115:LEU:HD13	19:C7:116:LYS:H	1.83	0.42
4:S2:207:LEU:HD23	4:S2:211:LEU:HG	2.01	0.42
36:1:21:G:C8	38:4:37:A:C6	3.07	0.42
33:E1:136:LYS:HD3	33:E1:136:LYS:HA	3.59	0.42
79:Q3:83:ILE:HD13	79:Q3:83:ILE:HA	1.83	0.42
1:6:187:G:O5'	1:6:187:G:H8	2.02	0.42
51:M5:187:ARG:HH11	51:M5:187:ARG:HD3	1.85	0.42
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.66	0.42
26:D4:20:ARG:NH1	26:D4:22:GLN:OE1	2.52	0.42
36:1:561:C:H2'	36:1:562:C:C6	2.54	0.42
10:S8:31:ARG:O	1:6:331:A:H4'	281.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:27:ARG:CG	2:S0:28:ASN:H	2.33	0.42
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.67	0.42
12:C0:49:LEU:HB3	12:C0:55:VAL:HG11	2.00	0.42
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	2.86	0.42
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	2.09	0.42
11:S9:88:GLU:HG3	11:S9:91:LYS:HZ2	1.85	0.42
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.19	0.42
41:L4:130:ALA:HA	41:L4:148:ILE:CG2	2.49	0.42
36:1:1307:G:OP2	52:M6:59:ARG:NH1	2.53	0.42
36:1:24:G:OP2	86:1:3868:OHX:N4	2.53	0.42
34:SR:43:ILE:HD13	34:SR:60:SER:HA	2.02	0.42
2:S0:63:ILE:HD13	23:D1:34:ILE:CG2	2.63	0.42
34:SR:159:ASN:ND2	34:SR:166:SER:O	2.52	0.42
63:N7:97:SER:HB2	63:N7:99:GLU:CG	2.50	0.42
54:M8:178:ARG:HD2	54:M8:178:ARG:HA	2.04	0.42
54:M8:185:LYS:HG2	54:M8:186:VAL:HG23	2.01	0.42
1:6:538:A:C8	1:6:543:C:C5	3.08	0.42
5:S3:67:ASN:O	5:S3:70:THR:OG1	2.34	0.42
1:2:190:C:O2'	1:2:191:C:H5'	2.19	0.42
9:S7:31:SER:O	9:S7:35:LYS:HB3	2.42	0.42
36:1:1211:U:H2'	36:1:1212:A:H8	1.81	0.42
6:S4:118:GLU:C	6:S4:120:SER:H	2.76	0.42
24:D2:47:ILE:HG22	24:D2:65:LEU:HD12	4.03	0.42
1:2:927:C:H1'	16:C4:125:SER:HB2	1.99	0.42
51:M5:67:ARG:O	51:M5:98:LEU:HD11	2.20	0.42
27:D5:57:TYR:CE2	27:D5:68:ARG:HD3	4.82	0.42
1:2:1348:A:OP1	86:2:2120:OHX:N1	2.52	0.42
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.20	0.42
62:N6:27:ARG:HG2	62:N6:78:PHE:CE1	2.76	0.42
74:O8:69:LEU:HA	74:O8:69:LEU:HD13	1.75	0.42
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.48	0.42
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.53	0.42
36:1:1010:G:N2	47:M0:193:ASP:OD2	2.52	0.42
36:1:2630:C:C5	57:N1:4:SER:HB2	2.54	0.42
58:N2:17:VAL:HG12	58:N2:19:VAL:HG13	2.62	0.42
36:1:1701:C:H2'	36:1:1702:U:O4'	2.19	0.42
1:6:1384:A:H2'	1:6:1385:G:O4'	2.19	0.42
1:2:413:U:C2	1:2:414:C:C5	3.07	0.42
17:C5:74:ALA:HA	17:C5:75:PRO:HD3	2.04	0.42
36:5:2880:U:H2'	36:5:2881:C:C6	2.54	0.42
73:O7:28:HIS:ND1	73:O7:31:LYS:HB2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:O9:21:ARG:CZ	75:O9:24:PRO:HG3	2.49	0.42
27:D5:59:TYR:CE2	27:D5:100:ILE:HG12	2.55	0.42
51:M5:31:ARG:HD3	51:M5:129:TYR:OH	2.20	0.42
5:S3:80:ALA:O	5:S3:83:THR:OG1	2.47	0.42
53:M7:27:LYS:HG2	53:M7:63:PHE:CD2	2.55	0.42
41:L4:157:GLU:HG3	41:L4:251:THR:HG21	2.00	0.42
40:L3:252:ILE:HD13	40:L3:252:ILE:HA	2.62	0.42
42:L5:233:ALA:O	42:L5:236:LEU:N	2.42	0.42
36:5:372:A:C6	36:5:373:A:C6	3.06	0.42
53:M7:142:SER:HA	53:M7:143:PRO:HD3	1.79	0.42
1:6:296:U:H2'	1:6:297:U:O4'	2.19	0.42
78:Q2:3:ASN:O	36:5:2655:U:H2'	237.18	0.42
12:C0:30:ALA:O	12:C0:31:LYS:HB2	2.66	0.42
1:2:67:A:C2	1:2:69:G:H1'	2.54	0.42
38:4:106:C:C5	38:4:138:A:C2	3.08	0.42
44:L7:126:LEU:O	44:L7:130:ILE:HB	4.94	0.42
18:C6:10:PHE:CE2	1:6:1379:C:H5'	430.67	0.42
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.19	0.42
48:M1:164:LYS:HE3	48:M1:171:VAL:HB	2.00	0.42
58:N2:89:LEU:HB3	58:N2:93:ILE:HD12	3.33	0.42
36:1:137:G:H2'	36:1:138:U:C6	2.54	0.42
45:L8:190:VAL:O	45:L8:190:VAL:HG12	3.73	0.42
7:S5:27:THR:CG2	18:C6:30:LYS:HE3	2.49	0.42
36:5:815:G:C6	36:5:906:A:C4	3.08	0.42
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.49	0.42
1:6:558:U:O2	1:6:558:U:H2'	2.19	0.42
36:1:107:A:H2'	36:1:108:A:O4'	2.19	0.42
55:M9:175:GLN:HA	55:M9:178:ALA:HB3	2.11	0.42
36:1:1665:C:H2'	36:1:1666:G:H8	1.85	0.42
36:5:3013:U:H2'	36:5:3014:U:C6	2.55	0.42
1:2:1742:U:C4	1:2:1743:U:C4	3.07	0.42
78:Q2:5:PRO:HB2	78:Q2:7:THR:O	2.20	0.42
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.20	0.42
34:SR:303:ALA:HB3	34:SR:313:TRP:HZ3	2.42	0.42
1:6:340:U:H2'	1:6:341:A:C8	2.54	0.42
46:L9:122:LYS:HG2	46:L9:123:ILE:N	2.68	0.42
1:6:1620:C:H2'	1:6:1621:U:H6	1.84	0.42
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.19	0.42
36:1:812:G:N7	86:1:3983:OHX:N1	2.67	0.42
54:M8:57:ILE:HG21	54:M8:57:ILE:HD13	1.74	0.42
52:M6:170:LYS:HB3	52:M6:170:LYS:HE2	4.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1390:A:N3	36:5:1390:A:H5'	2.34	0.42
36:5:3384:U:H2'	36:5:3385:U:C6	2.54	0.42
36:5:656:A:H2'	36:5:657:A:H8	1.82	0.42
36:5:3306:U:H2'	36:5:3307:A:H5''	2.02	0.42
36:5:3047:U:C4	36:5:3048:A:N1	2.87	0.42
3:S1:205:PHE:CG	3:S1:206:PRO:HD2	2.55	0.42
26:D4:125:LEU:O	26:D4:128:LYS:N	3.35	0.42
36:1:980:A:H2'	36:1:981:U:C1'	2.50	0.42
36:5:2263:C:H6	36:5:2263:C:O5'	2.02	0.42
7:S5:51:VAL:HA	7:S5:131:GLN:OE1	2.19	0.42
70:O4:30:LEU:HA	70:O4:30:LEU:HD23	1.92	0.42
17:C5:68:PRO:HG2	17:C5:71:GLU:OE2	2.21	0.42
27:D5:49:ARG:NH2	27:D5:53:GLU:OE2	3.69	0.42
24:D2:67:GLY:O	24:D2:68:ARG:HG2	4.47	0.42
38:4:45:C:H2'	38:4:46:G:O4'	2.19	0.42
86:2:2089:OHX:N1	86:2:2131:OHX:N4	2.67	0.42
1:2:1172:G:H21	21:C9:88:VAL:CG2	2.33	0.42
36:5:367:A:OP1	86:5:3917:OHX:N1	2.53	0.42
69:O3:86:ARG:NH2	36:5:498:A:H5'	216.46	0.42
2:S0:202:TYR:O	2:S0:203:PHE:CD2	3.55	0.42
43:L6:166:LYS:HZ2	36:5:3214:U:H6	273.93	0.42
1:2:452:A:H3'	1:2:453:U:H5	1.82	0.42
2:S0:120:LEU:CD1	2:S0:142:PRO:HB2	2.65	0.42
5:S3:116:ARG:HG2	35:SM:123:ALA:CB	8.79	0.42
54:M8:185:LYS:HD3	54:M8:186:VAL:HG23	4.18	0.42
39:L2:174:ARG:HA	79:Q3:69:TYR:CE2	2.76	0.42
1:6:1543:A:H1'	1:6:1569:A:C2	2.54	0.42
41:L4:238:LEU:HA	41:L4:238:LEU:HD23	1.78	0.42
36:1:3112:G:O2'	46:L9:70:THR:HB	2.19	0.42
36:5:2103:U:H2'	36:5:2104:A:H8	1.81	0.42
50:M4:36:VAL:HG12	50:M4:37:GLU:N	2.35	0.42
55:M9:14:VAL:HG12	55:M9:15:VAL:N	2.85	0.42
36:5:3043:C:H2'	36:5:3044:G:O4'	2.19	0.42
36:5:3066:U:H2'	36:5:3067:C:C6	2.55	0.42
36:1:290:G:H2'	36:1:291:C:C6	2.55	0.42
51:M5:98:LEU:O	51:M5:101:THR:N	3.25	0.42
1:2:1281:G:H2'	1:2:1282:U:H6	1.84	0.42
68:O2:105:ARG:HD2	68:O2:125:ARG:HD3	2.01	0.42
36:5:92:G:H5'	36:5:93:C:C5'	2.47	0.42
45:L8:181:LYS:HD3	38:8:154:C:H5''	149.78	0.42
25:D3:56:LYS:HZ2	25:D3:96:VAL:HG23	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:61:THR:HG23	29:D7:62:ILE:O	2.19	0.42
1:2:1294:G:C2	1:2:1322:A:C5	3.07	0.42
1:2:218:A:HO2'	1:2:219:A:P	2.37	0.42
1:6:844:A:O5'	1:6:844:A:H8	2.02	0.42
49:M3:168:ARG:O	49:M3:168:ARG:HG3	2.20	0.42
1:2:539:G:C8	1:2:539:G:OP2	2.69	0.42
9:S7:49:ILE:HG13	9:S7:57:ALA:HB3	2.70	0.42
36:5:2533:G:H2'	36:5:2534:G:C8	2.53	0.42
36:5:1785:U:H2'	36:5:1786:G:H8	1.85	0.42
46:L9:74:LEU:O	46:L9:78:MET:HG3	2.34	0.42
62:N6:126:LEU:HD12	71:O5:71:LYS:NZ	47.87	0.42
36:5:253:A:HO2'	36:5:254:A:P	2.43	0.42
1:2:647:G:N2	1:2:688:G:C4	2.88	0.42
46:L9:83:THR:OG1	46:L9:84:LYS:N	2.64	0.42
1:6:717:C:O2'	1:6:718:U:OP1	2.29	0.42
1:2:1057:U:H1'	1:2:1058:U:H2'	2.02	0.42
36:1:1530:U:OP1	86:1:3941:OHX:N2	2.53	0.42
45:L8:136:LEU:HA	45:L8:136:LEU:HD23	1.87	0.42
1:2:603:U:H2'	1:2:604:A:C8	2.53	0.42
36:1:1638:A:H2	36:1:1736:G:N3	2.18	0.42
46:L9:134:ILE:HD11	46:L9:146:LEU:HD23	2.02	0.42
40:L3:47:LEU:HA	40:L3:47:LEU:HD12	2.21	0.42
7:S5:173:ALA:O	7:S5:177:ILE:HG13	2.60	0.42
9:S7:143:LEU:HB2	9:S7:147:ASN:O	2.69	0.42
36:5:2148:U:H2'	36:5:2149:A:C5	2.55	0.42
41:L4:179:LEU:HD13	41:L4:183:LYS:HG3	2.70	0.42
36:1:2689:A:N3	36:1:2689:A:H2'	2.35	0.42
67:O1:33:VAL:HG13	67:O1:51:LEU:HD11	2.28	0.42
39:L2:50:HIS:CD2	36:5:1795:U:H2'	198.10	0.42
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.83	0.42
53:M7:58:ILE:O	53:M7:81:ALA:HB1	2.19	0.42
22:D0:66:SER:OG	22:D0:81:THR:HB	2.59	0.42
28:D6:11:ASN:HB3	1:6:934:C:H6	331.33	0.42
49:M3:159:VAL:HG13	64:N8:144:VAL:HG13	2.15	0.42
36:1:198:A:C6	36:1:219:A:C6	3.08	0.42
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.30	0.42
51:M5:165:THR:O	51:M5:169:LYS:HG3	2.20	0.42
29:D7:75:GLU:HB3	29:D7:76:GLY:H	1.77	0.42
40:L3:43:LEU:HD22	40:L3:203:VAL:HG11	2.02	0.42
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.49	0.42
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2100:A:N7	36:1:2101:C:N4	2.67	0.42
42:L5:6:ASP:O	42:L5:7:ALA:O	2.38	0.42
67:O1:61:LYS:HB3	67:O1:61:LYS:HE2	4.66	0.42
40:L3:255:TRP:O	40:L3:255:TRP:HD1	2.02	0.42
1:6:142:G:P	1:6:142:G:H21	2.43	0.42
47:M0:115:MET:O	47:M0:115:MET:HG3	2.20	0.42
1:6:178:U:H6	1:6:178:U:H2'	1.60	0.42
36:1:2554:A:H8	36:1:2554:A:H2'	1.69	0.42
31:D9:25:SER:HB2	86:D9:102:OHX:N4	2.34	0.42
36:1:806:A:C4	36:1:936:A:C2	3.08	0.42
62:N6:52:ARG:HG2	62:N6:53:ASP:N	3.35	0.42
7:S5:44:ASN:O	7:S5:45:LYS:HE3	2.19	0.42
36:5:2107:A:C2	36:5:2108:C:C2	3.08	0.42
46:L9:72:LYS:HE3	46:L9:76:ASP:OD2	2.84	0.42
1:6:1699:G:N1	1:6:1701:A:H5''	2.34	0.42
8:S6:64:LYS:HB2	8:S6:97:VAL:HG11	2.01	0.42
62:N6:36:SER:O	62:N6:40:ARG:N	2.51	0.42
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.20	0.42
32:E0:39:LEU:HD12	32:E0:43:ARG:CZ	3.09	0.42
26:D4:29:HIS:NE2	26:D4:34:ASN:HA	2.34	0.42
50:M4:21:VAL:HG11	50:M4:65:LEU:HD23	2.02	0.42
36:5:1710:C:H42	36:5:1734:G:H1	1.68	0.42
51:M5:137:PRO:HG2	51:M5:138:GLN:NE2	3.55	0.42
1:6:1391:A:H2'	1:6:1392:U:H6	1.84	0.42
1:6:273:G:H2'	1:6:274:G:O4'	2.19	0.42
18:C6:27:GLY:HA2	18:C6:60:PHE:O	2.19	0.42
7:S5:25:LEU:N	7:S5:25:LEU:HD22	2.34	0.42
3:S1:189:ILE:HB	3:S1:190:PRO:HD3	2.01	0.42
76:Q0:77:ILE:HG13	76:Q0:78:ILE:N	4.35	0.42
69:O3:42:GLN:HA	69:O3:45:LEU:HG	2.00	0.42
36:1:1245:A:C3'	36:1:1246:G:H5''	2.50	0.42
36:1:413:U:C4	36:1:414:U:C4	3.07	0.42
69:O3:49:ILE:HD12	69:O3:85:PHE:CZ	3.38	0.42
36:1:1278:A:O2'	36:1:1279:C:H6	2.03	0.42
41:L4:307:GLN:OE1	36:5:1345:G:N2	202.97	0.42
47:M0:12:GLN:NE2	47:M0:128:ARG:HB3	3.49	0.42
42:L5:68:THR:HB	42:L5:71:GLY:O	2.20	0.42
36:1:1934:G:O6	86:1:3883:OHX:N2	2.53	0.42
1:6:1436:A:OP2	1:6:1436:A:H4'	2.19	0.42
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.19	0.42
36:1:1741:A:C2	36:1:1742:U:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:123:VAL:CG1	14:C2:126:TRP:HB3	2.49	0.42
14:C2:56:GLU:HG2	35:SM:171:LYS:CB	5.61	0.42
1:2:1174:C:H2'	1:2:1175:U:O4'	2.19	0.42
68:O2:6:HIS:O	68:O2:6:HIS:ND1	3.09	0.42
44:L7:40:LYS:O	44:L7:44:ILE:HG13	2.19	0.42
40:L3:114:VAL:HG22	40:L3:163:HIS:CE1	3.04	0.42
9:S7:125:ILE:O	9:S7:128:ASP:N	2.40	0.42
1:2:25:C:O2'	1:2:366:A:O2'	2.33	0.42
2:S0:119:ARG:HE	4:S2:240:LEU:HB3	1.98	0.42
41:L4:162:THR:HG21	36:5:209:A:C4	84.67	0.42
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.41	0.42
27:D5:92:ILE:HG13	27:D5:92:ILE:O	2.20	0.42
1:6:653:C:H42	1:6:677:G:H1	1.63	0.42
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.55	0.42
1:2:792:U:C2'	1:2:793:A:H5'	2.49	0.42
36:5:916:G:N7	36:5:924:G:C5	2.88	0.42
36:1:2954:U:H5'	36:1:2954:U:H6	1.85	0.42
36:1:3392:U:H2'	36:1:3393:U:C6	2.54	0.42
36:5:1349:G:H2'	36:5:1350:A:C8	2.54	0.42
36:1:3026:G:O2'	36:1:3028:G:N7	2.46	0.42
1:6:882:U:H2'	1:6:883:C:H6	1.85	0.42
36:1:86:G:N7	49:M3:13:HIS:ND1	2.68	0.42
14:C2:57:ALA:HB3	14:C2:85:LYS:HZ1	1.84	0.42
20:C8:88:ARG:CZ	20:C8:108:LYS:HD2	4.66	0.42
6:S4:193:GLY:O	6:S4:194:THR:OG1	2.34	0.42
1:2:1043:A:H2'	1:2:1044:U:O4'	2.20	0.42
36:1:346:C:C2	36:1:348:A:N7	2.88	0.42
36:1:2148:U:H2'	36:1:2149:A:C4	2.54	0.42
50:M4:92:GLU:HA	50:M4:95:ALA:HB3	2.00	0.42
36:5:1794:G:O2'	36:5:1795:U:H5'	2.19	0.42
44:L7:63:ILE:HD13	36:5:517:G:H5'	301.74	0.42
36:1:664:U:H5'	41:L4:107:ARG:HA	2.00	0.42
79:Q3:28:LYS:O	79:Q3:32:GLN:HG3	4.97	0.42
43:L6:130:ILE:HG12	36:5:3269:U:C5	247.99	0.42
13:C1:124:THR:O	13:C1:140:VAL:HG12	2.18	0.42
36:5:1534:A:OP1	86:5:3915:OHX:N1	2.53	0.42
36:1:1006:A:C2	36:1:1045:C:C2	3.08	0.42
21:C9:17:ALA:O	21:C9:20:SER:OG	4.65	0.42
36:5:1088:U:H2'	36:5:1089:G:H8	1.85	0.42
1:2:1628:U:H2'	1:2:1629:G:C8	2.54	0.42
64:N8:18:GLY:O	36:5:1370:G:H5''	174.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:107:VAL:HB	39:L2:111:THR:HG21	2.41	0.42
36:1:1734:G:H2'	36:1:1735:G:O4'	2.20	0.42
36:5:381:U:O4	86:5:4119:OHX:N5	2.53	0.42
74:O8:16:ARG:NH1	74:O8:70:PRO:HG3	4.41	0.42
49:M3:139:LEU:HA	49:M3:139:LEU:HD23	1.64	0.42
13:C1:91:LEU:HA	13:C1:91:LEU:HD23	2.35	0.42
36:5:2973:G:N7	86:5:4110:OHX:N1	2.67	0.42
37:3:13:A:O2'	37:3:14:U:H5'	2.19	0.42
36:5:1220:U:O2	36:5:1222:G:N1	2.53	0.42
1:2:30:G:H2'	1:2:31:C:C6	2.55	0.42
7:S5:203:LYS:O	7:S5:205:SER:N	2.81	0.42
36:5:2530:G:H2'	36:5:2531:C:H5'	2.02	0.42
86:5:3971:OHX:N6	86:5:4192:OHX:N3	2.67	0.42
1:2:448:C:OP1	6:S4:29:PRO:HD3	2.19	0.42
68:O2:32:TRP:HB3	36:5:1407:A:H5'	170.18	0.42
1:6:151:G:H2'	1:6:152:U:C6	2.55	0.42
36:1:979:U:H4'	36:1:980:A:O5'	2.19	0.42
8:S6:173:PRO:HG3	1:6:66:U:H5	333.16	0.42
7:S5:89:ILE:HD12	7:S5:90:ILE:H	2.02	0.42
36:5:494:G:H3'	36:5:495:G:H8	1.85	0.42
43:L6:54:TYR:OH	43:L6:57:HIS:HB2	2.43	0.42
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	2.18	0.42
64:N8:133:LEU:O	64:N8:136:GLU:HB2	2.76	0.42
1:6:485:A:C6	1:6:486:G:H1'	2.55	0.42
21:C9:14:PHE:CZ	21:C9:132:LEU:HD13	5.73	0.42
21:C9:98:GLY:O	21:C9:102:ARG:HB2	2.69	0.42
38:8:83:C:H4'	38:8:85:G:N3	2.35	0.42
48:M1:89:TYR:O	48:M1:169:ALA:HB1	2.19	0.42
1:6:478:A:C2	1:6:479:C:C2	3.08	0.42
42:L5:50:ARG:NE	42:L5:147:ASP:OD2	2.51	0.42
51:M5:49:ARG:N	51:M5:53:TYR:HB3	2.94	0.42
36:5:3364:C:H2'	36:5:3365:U:C6	2.55	0.42
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.20	0.42
65:N9:21:ILE:HG22	65:N9:22:LYS:N	3.65	0.42
5:S3:116:ARG:HB2	5:S3:116:ARG:NH1	5.31	0.42
36:1:824:C:H2'	36:1:825:U:C6	2.55	0.42
36:5:2841:G:H2'	36:5:2844:C:H42	1.83	0.42
1:6:542:A:H1'	1:6:543:C:H5'	2.01	0.42
8:S6:87:ARG:HD3	8:S6:87:ARG:HA	2.08	0.42
36:1:2307:G:O2'	36:1:2310:U:OP2	2.37	0.42
36:1:2723:U:OP1	57:N1:87:LYS:HD3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:237:GLN:HB3	41:L4:246:ARG:HH21	2.43	0.42
17:C5:127:ARG:O	17:C5:130:ARG:NH1	4.84	0.42
36:5:107:A:H2'	36:5:108:A:O4'	2.20	0.42
39:L2:20:THR:HG22	39:L2:23:ARG:CZ	6.50	0.42
53:M7:48:LEU:HB3	53:M7:88:VAL:HG13	2.01	0.42
17:C5:15:HIS:O	17:C5:22:LEU:N	2.51	0.42
41:L4:340:GLY:HA3	36:5:577:C:O2'	282.88	0.42
25:D3:142:LYS:HA	25:D3:143:PRO:HD3	1.79	0.42
36:1:2209:U:P	36:1:2209:U:H6	2.43	0.42
57:N1:34:TYR:CZ	57:N1:96:ILE:HG22	3.06	0.42
36:5:1576:G:H5'	36:5:1577:G:OP2	2.19	0.42
36:5:928:C:H2'	36:5:929:A:C8	2.54	0.42
78:Q2:10:THR:HG1	36:5:2716:U:HO2'	215.04	0.42
51:M5:85:THR:HG21	36:5:45:A:P	155.87	0.42
36:1:2890:A:O2'	36:1:2933:A:N3	2.43	0.42
64:N8:115:LYS:HA	36:5:715:A:H3'	147.80	0.42
1:6:792:U:N3	1:6:793:A:N1	2.67	0.42
36:1:3334:U:H4'	36:1:3335:A:H5''	2.01	0.42
45:L8:218:ILE:HG22	45:L8:219:ASP:N	2.34	0.42
49:M3:133:PRO:O	49:M3:135:ALA:N	3.38	0.42
49:M3:95:ILE:HD13	49:M3:116:LEU:HD22	2.66	0.42
72:O6:90:MET:O	72:O6:94:ILE:HG13	2.20	0.42
20:C8:82:PRO:HB2	20:C8:84:TRP:CD1	4.38	0.42
14:C2:32:LEU:HD23	14:C2:41:LEU:HD21	2.70	0.42
42:L5:194:LEU:O	42:L5:197:SER:HB3	2.19	0.42
1:6:417:A:H4'	1:6:418:G:O5'	2.18	0.42
42:L5:122:VAL:HG23	42:L5:123:GLU:H	2.90	0.42
1:2:558:U:HO2'	1:2:559:C:P	2.43	0.42
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.55	0.42
19:C7:50:ILE:O	19:C7:54:THR:HG22	2.20	0.42
65:N9:7:HIS:CG	65:N9:8:THR:N	2.95	0.42
36:1:1138:U:H2'	36:1:1139:G:O4'	2.19	0.42
33:E1:135:HIS:NE2	33:E1:140:TYR:HB3	4.43	0.42
50:M4:120:VAL:O	50:M4:124:ARG:HB2	3.65	0.42
6:S4:250:GLU:O	6:S4:254:ARG:HG3	2.19	0.42
36:5:1415:U:H2'	36:5:1416:C:O4'	2.19	0.42
5:S3:17:PHE:O	5:S3:21:LEU:HB2	2.19	0.42
1:6:276:C:O2'	1:6:277:U:H5''	2.19	0.42
56:N0:10:ILE:O	56:N0:59:VAL:N	2.44	0.42
36:1:1947:G:N2	36:1:2102:U:C2	2.87	0.42
36:1:34:A:C8	36:1:51:A:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:9:LYS:HD2	74:O8:13:GLU:HG3	2.02	0.42
1:6:1410:A:H2'	1:6:1411:A:O4'	2.20	0.42
79:Q3:36:ARG:HG3	79:Q3:48:LYS:HD2	2.83	0.42
1:6:602:U:H2'	1:6:603:U:C6	2.54	0.42
58:N2:67:SER:OG	58:N2:69:ALA:N	3.01	0.42
26:D4:41:ARG:HB3	26:D4:52:LYS:HG2	2.02	0.42
75:O9:28:ARG:HA	75:O9:33:ASN:ND2	2.34	0.42
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.40	0.42
1:6:1650:U:H2'	1:6:1651:A:C8	2.55	0.42
64:N8:93:SER:OG	64:N8:93:SER:O	2.26	0.42
38:8:86:U:H6	38:8:86:U:H5'	1.83	0.42
36:5:770:G:N7	86:5:4090:OHX:N6	2.68	0.42
36:5:599:C:H2'	36:5:600:G:O4'	2.19	0.42
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	1.96	0.42
1:6:576:G:H4'	1:6:580:A:C4	2.55	0.42
13:C1:90:TYR:OH	1:6:307:G:OP1	325.39	0.42
1:6:213:A:OP2	86:6:2148:OHX:N1	2.53	0.42
52:M6:108:ILE:HD12	52:M6:160:ARG:CZ	2.50	0.42
26:D4:21:LYS:N	26:D4:21:LYS:HD2	2.35	0.42
1:2:330:G:H2'	1:2:331:A:O4'	2.19	0.42
10:S8:48:THR:OG1	10:S8:52:ASN:HB3	2.20	0.42
20:C8:6:GLN:O	20:C8:7:GLU:HB2	2.57	0.42
62:N6:40:ARG:NH2	62:N6:46:LYS:HE3	2.88	0.42
1:2:1482:C:OP2	1:2:1521:G:N2	2.53	0.42
2:S0:185:ARG:HA	23:D1:44:ARG:HA	2.00	0.42
11:S9:129:ILE:HG22	11:S9:142:ASN:C	3.04	0.42
1:6:895:G:H2'	1:6:896:U:C6	2.54	0.42
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.19	0.42
1:6:138:A:N6	1:6:266:A:N6	2.68	0.42
6:S4:104:ASP:HB3	6:S4:105:VAL:H	2.09	0.42
36:5:265:A:H5''	36:5:266:A:OP2	2.19	0.42
53:M7:59:PRO:HB3	53:M7:78:VAL:HG11	2.02	0.42
41:L4:181:VAL:HG11	41:L4:224:GLY:CA	3.07	0.42
2:S0:60:ALA:HB1	2:S0:144:ILE:HG21	2.81	0.42
36:1:549:U:H2'	36:1:550:A:C8	2.55	0.42
24:D2:28:ARG:HA	24:D2:29:PRO:HA	2.13	0.42
5:S3:63:GLY:O	5:S3:67:ASN:HB2	3.37	0.42
1:6:220:A:OP2	1:6:832:U:H5''	2.20	0.42
44:L7:150:LYS:HD2	44:L7:244:ASN:OD1	3.39	0.42
22:D0:34:LEU:HD21	22:D0:89:ARG:NH1	6.39	0.42
55:M9:56:THR:HG23	36:5:1873:U:P	152.09	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:64:LEU:HD22	28:D6:64:LEU:HA	1.87	0.42
17:C5:15:HIS:H	17:C5:22:LEU:HD22	4.90	0.42
36:5:3280:U:O2'	36:5:3281:U:OP2	2.34	0.42
59:N3:118:VAL:HG12	59:N3:119:GLY:N	2.62	0.42
54:M8:41:ASP:HB2	54:M8:42:ALA:H	4.57	0.42
57:N1:42:ILE:HG12	57:N1:96:ILE:HD11	2.04	0.42
25:D3:60:GLU:OE1	32:E0:3:LYS:HB2	2.57	0.42
36:1:596:C:H2'	36:1:597:G:O4'	2.19	0.42
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.65	0.42
45:L8:71:VAL:O	45:L8:234:GLY:N	2.41	0.42
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.64	0.42
14:C2:66:VAL:HB	14:C2:67:THR:H	1.58	0.42
25:D3:79:ASN:C	25:D3:81:LYS:H	2.22	0.42
1:2:901:G:C6	1:2:902:G:C6	3.08	0.42
36:1:847:A:H2'	36:1:848:A:C8	2.54	0.42
4:S2:217:ALA:O	4:S2:219:GLY:N	3.86	0.42
36:5:2882:U:H2'	36:5:2883:U:C6	2.55	0.42
39:L2:132:ASN:ND2	39:L2:151:PRO:HB3	2.32	0.42
36:1:607:A:H4'	36:1:608:A:OP2	2.19	0.42
51:M5:71:ARG:NH1	36:5:1546:A:N7	136.74	0.42
1:2:710:U:H2'	1:2:711:U:H5'	2.02	0.42
36:5:1481:A:O2'	36:5:1482:A:O5'	2.38	0.42
36:5:3191:G:H2'	36:5:3192:U:C6	2.55	0.42
44:L7:55:TYR:O	44:L7:56:GLU:C	2.87	0.42
1:6:246:G:C6	1:6:247:A:C6	3.07	0.42
36:5:3330:A:C8	36:5:3330:A:H5''	2.55	0.42
59:N3:81:GLN:HG2	59:N3:83:LYS:O	2.19	0.42
15:C3:38:VAL:HG13	15:C3:80:LEU:HD23	3.40	0.42
1:6:1504:G:H2'	1:6:1505:A:C8	2.55	0.42
39:L2:188:LYS:HD2	39:L2:189:TYR:CE2	6.36	0.42
59:N3:40:LYS:HG2	59:N3:57:MET:HG2	2.02	0.42
36:1:2660:G:O3'	36:1:2749:G:N2	2.52	0.42
36:5:2998:U:C4	36:5:2999:U:C4	3.07	0.42
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.48	0.42
1:2:1737:G:C6	1:2:1738:U:C4	3.08	0.42
86:1:4053:OHX:N2	86:1:4162:OHX:N1	2.68	0.42
36:5:320:G:C2	36:5:321:C:C5	3.08	0.42
1:6:776:G:N2	1:6:785:U:H1'	2.35	0.42
61:N5:58:ASP:OD2	61:N5:60:TYR:N	2.53	0.42
68:O2:66:LEU:HD23	68:O2:72:LYS:HG3	2.02	0.42
36:1:129:U:H3	36:1:139:G:H1	1.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:700:C:H2'	1:6:701:U:C6	2.55	0.42
36:5:3060:C:H1'	36:5:3332:U:H1'	2.01	0.42
1:6:660:G:H2'	1:6:661:A:H4'	2.01	0.42
1:2:1604:U:C4	1:2:1605:G:N7	2.87	0.42
36:1:1805:C:H2'	36:1:1806:A:H8	1.85	0.42
36:5:688:G:H8	36:5:688:G:O5'	2.02	0.42
38:8:35:C:H6	38:8:35:C:O5'	2.02	0.42
34:SR:288:HIS:O	34:SR:288:HIS:ND1	3.70	0.42
44:L7:188:ILE:HA	44:L7:188:ILE:HD13	2.12	0.42
68:O2:22:SER:HB2	68:O2:30:GLU:HA	2.23	0.42
40:L3:76:VAL:HG11	40:L3:323:MET:HE2	3.80	0.42
36:1:2735:U:H2'	36:1:2736:A:C8	2.55	0.42
1:2:1198:G:H4'	22:D0:72:ASN:O	2.20	0.42
25:D3:7:ARG:HD2	1:6:1102:G:OP2	350.83	0.42
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	3.55	0.42
20:C8:5:VAL:HG12	20:C8:6:GLN:H	3.11	0.42
36:1:1528:G:N3	36:1:1588:A:H2	2.18	0.42
36:1:1789:G:O6	86:1:4167:OHX:N2	2.52	0.42
36:1:2406:C:H2'	36:1:2407:C:C6	2.55	0.42
38:8:78:G:H5''	38:8:79:A:OP2	2.20	0.42
1:2:852:C:N4	1:2:853:G:C6	2.88	0.42
1:2:548:G:H2'	1:2:549:G:O4'	2.20	0.42
32:E0:35:TYR:CZ	32:E0:39:LEU:HD21	2.94	0.42
7:S5:59:VAL:HG12	7:S5:60:ASP:H	1.97	0.42
18:C6:138:PHE:HD1	18:C6:138:PHE:HA	1.79	0.42
36:1:839:C:H4'	36:1:1724:U:H2'	2.02	0.42
40:L3:95:THR:O	52:M6:152:VAL:HG11	3.48	0.42
41:L4:301:PRO:O	41:L4:302:ALA:HB2	4.41	0.42
12:C0:47:GLN:O	12:C0:47:GLN:HG3	3.29	0.42
75:O9:10:LYS:HE3	36:5:1834:U:OP2	106.19	0.42
36:1:2762:A:OP2	86:1:3932:OHX:N4	2.53	0.42
55:M9:99:LEU:HD22	55:M9:99:LEU:O	2.19	0.42
1:6:836:U:H2'	1:6:837:G:H8	1.85	0.42
57:N1:88:ARG:O	36:5:2723:U:H5'	219.22	0.42
36:1:657:A:H2'	36:1:658:G:H8	1.84	0.42
39:L2:14:SER:C	39:L2:16:PHE:H	2.23	0.42
33:E1:103:LEU:HA	33:E1:103:LEU:HD23	1.72	0.42
51:M5:66:VAL:HG11	51:M5:101:THR:HG22	2.21	0.42
36:1:364:G:OP1	41:L4:60:THR:HG23	2.20	0.42
1:2:1428:G:C8	1:2:1428:G:OP2	2.73	0.42
18:C6:93:HIS:HA	18:C6:97:VAL:CG2	3.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:85:ARG:HD3	42:L5:86:TYR:CZ	2.55	0.42
14:C2:40:GLY:O	14:C2:124:LYS:N	3.14	0.42
1:2:1471:A:N3	1:2:1474:G:O2'	2.35	0.42
50:M4:22:LEU:HD12	50:M4:22:LEU:HA	1.79	0.42
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.19	0.42
15:C3:83:GLU:HG3	15:C3:84:ILE:H	2.16	0.42
49:M3:54:LEU:HD13	49:M3:75:PHE:CZ	2.54	0.42
11:S9:143:ILE:HD12	1:6:767:U:C5	422.30	0.42
66:O0:55:GLU:O	66:O0:59:TYR:HD1	2.03	0.42
47:M0:187:ALA:O	47:M0:216:TYR:HD2	8.83	0.42
36:1:119:U:O3'	45:L8:133:LYS:NZ	2.53	0.42
1:2:625:C:O2'	1:2:939:A:N3	2.50	0.42
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	2.04	0.42
36:5:3041:U:H2'	36:5:3042:U:H6	1.84	0.42
1:2:1145:U:C4	1:2:1146:G:N7	2.88	0.42
45:L8:156:ASP:O	45:L8:157:VAL:HB	2.20	0.42
73:O7:15:SER:HG	36:5:817:A:H8	140.50	0.42
36:1:1802:C:H2'	36:1:1803:C:C6	2.54	0.42
1:6:120:U:H2'	1:6:121:U:C6	2.53	0.42
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	2.02	0.42
16:C4:101:ALA:O	16:C4:105:LEU:HG	2.19	0.42
36:5:1070:U:H2'	36:5:1071:U:O4'	2.20	0.42
13:C1:55:ASP:HA	13:C1:82:ARG:HH12	2.48	0.42
57:N1:49:GLN:HG2	36:5:2756:C:O4'	245.81	0.42
36:1:2692:A:O5'	36:1:2692:A:H8	2.03	0.42
1:6:1031:U:H4'	1:6:1032:G:OP2	2.20	0.42
61:N5:24:LEU:O	61:N5:25:LYS:HB2	4.68	0.42
59:N3:75:PRO:HB2	59:N3:103:ALA:O	2.20	0.42
1:6:808:U:H2'	1:6:809:A:C8	2.54	0.42
41:L4:136:LEU:HA	41:L4:136:LEU:HD23	1.76	0.42
3:S1:231:LEU:HD22	3:S1:231:LEU:O	4.45	0.42
1:2:1275:A:C5	1:2:1438:G:C2	3.07	0.42
16:C4:103:ARG:NH2	16:C4:107:ARG:HH22	2.18	0.42
10:S8:106:ALA:HB1	10:S8:160:PHE:CD1	2.64	0.42
36:5:3100:U:O2	36:5:3101:G:C8	2.73	0.42
36:5:767:U:H1'	36:5:768:C:C6	2.55	0.42
36:1:204:A:C6	36:1:205:C:C4	3.08	0.42
57:N1:154:VAL:HA	57:N1:155:PRO:HD3	2.06	0.42
1:6:703:G:H2'	1:6:704:C:C6	2.55	0.42
43:L6:160:SER:OG	43:L6:161:ALA:N	2.69	0.42
1:6:710:U:H5'	1:6:711:U:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:156:LEU:HD23	52:M6:156:LEU:HA	2.02	0.42
50:M4:34:ALA:HB2	50:M4:85:TRP:HZ3	1.84	0.42
69:O3:15:SER:HB3	69:O3:16:TYR:O	2.19	0.42
36:5:2409:G:H4'	36:5:2410:U:OP2	2.20	0.42
52:M6:49:ARG:HG2	52:M6:49:ARG:HH11	1.84	0.42
15:C3:58:HIS:N	15:C3:58:HIS:ND1	2.67	0.42
1:6:1353:U:H6	1:6:1353:U:O5'	2.03	0.42
36:5:1599:G:OP1	86:5:4130:OHX:N4	2.52	0.42
46:L9:85:GLY:O	46:L9:186:PHE:HA	2.55	0.42
36:5:697:A:H2'	36:5:698:U:O4'	2.18	0.42
3:S1:160:HIS:O	3:S1:164:ILE:HG13	2.70	0.42
32:E0:50:VAL:HA	32:E0:53:LYS:O	2.20	0.42
1:2:281:G:C6	1:2:282:C:C4	3.07	0.41
22:D0:70:THR:HB	22:D0:72:ASN:O	4.87	0.41
25:D3:13:ARG:HD2	25:D3:13:ARG:HH11	1.82	0.41
36:5:1013:G:C2	36:5:1014:U:H1'	2.54	0.41
1:2:1202:A:N6	1:2:1457:C:H5''	2.35	0.41
42:L5:167:SER:O	42:L5:169:GLY:N	3.70	0.41
43:L6:40:LEU:HB3	43:L6:84:VAL:HG13	2.45	0.41
28:D6:71:LEU:HD13	28:D6:73:TYR:OH	6.11	0.41
27:D5:38:HIS:O	27:D5:39:ALA:HB3	2.20	0.41
1:2:989:U:H2'	1:2:990:C:C6	2.54	0.41
1:2:1172:G:C5	1:2:1173:C:C4	3.08	0.41
21:C9:88:VAL:HG13	1:6:1601:G:N1	360.44	0.41
21:C9:105:LEU:HA	21:C9:105:LEU:HD23	1.84	0.41
1:2:144:U:H1'	1:2:145:A:H5'	2.02	0.41
1:6:1201:G:O2'	86:6:2128:OHX:N5	2.52	0.41
41:L4:144:LYS:H	41:L4:144:LYS:HE3	6.60	0.41
1:2:704:C:N4	1:2:734:A:N3	2.67	0.41
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.20	0.41
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	2.41	0.41
2:S0:63:ILE:HD13	23:D1:34:ILE:HG21	2.45	0.41
40:L3:188:ILE:CD1	40:L3:189:SER:H	2.32	0.41
1:6:763:G:C6	1:6:764:U:C4	3.08	0.41
7:S5:113:ILE:CG2	7:S5:190:ILE:HB	3.77	0.41
57:N1:68:THR:OG1	36:5:2737:C:H4'	222.49	0.41
31:D9:6:VAL:HB	31:D9:7:TRP:H	4.21	0.41
42:L5:46:THR:HA	42:L5:47:PRO:HD3	2.79	0.41
39:L2:70:ARG:NH2	36:5:2522:G:C6	174.69	0.41
1:6:825:U:O2'	1:6:826:U:P	2.78	0.41
55:M9:15:VAL:HG11	55:M9:52:LYS:HG3	2.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:686:C:H2'	1:6:687:G:C8	2.56	0.41
36:5:2442:G:C2	36:5:2443:A:N7	2.88	0.41
36:1:2259:A:OP2	86:1:3931:OHX:N2	2.53	0.41
33:E1:103:LEU:HD11	1:6:1252:C:H5'	454.24	0.41
51:M5:98:LEU:HD13	51:M5:98:LEU:HA	1.87	0.41
43:L6:4:GLN:HB2	68:O2:75:LEU:HB2	2.02	0.41
24:D2:20:THR:OG1	24:D2:22:LYS:HD3	2.20	0.41
62:N6:50:ILE:HD13	62:N6:51:ARG:N	4.91	0.41
1:2:1658:G:C4	1:2:1659:A:C8	3.07	0.41
36:5:1284:C:C5	36:5:1285:G:C6	3.08	0.41
8:S6:48:TYR:CD1	8:S6:116:LYS:HA	2.55	0.41
36:5:1438:U:H2'	36:5:1439:U:H6	1.82	0.41
58:N2:17:VAL:HA	58:N2:103:TYR:O	2.47	0.41
28:D6:22:ARG:HD2	28:D6:22:ARG:HA	1.85	0.41
16:C4:76:ILE:HG23	16:C4:78:ALA:O	2.20	0.41
52:M6:42:ASN:HA	52:M6:136:THR:O	2.35	0.41
52:M6:15:LEU:O	52:M6:16:VAL:C	2.64	0.41
1:2:647:G:N2	1:2:687:G:N2	2.66	0.41
54:M8:150:VAL:C	54:M8:152:HIS:H	2.80	0.41
36:5:172:G:C2	36:5:247:C:N3	2.88	0.41
35:SM:43:ASP:O	36:1:2678:A:H1'	2.20	0.41
36:1:1614:C:H2'	36:1:1615:C:H6	1.85	0.41
36:1:813:G:C4	36:1:814:U:C5	3.08	0.41
51:M5:126:THR:HB	51:M5:127:TYR:CD2	2.55	0.41
36:1:619:A:H5''	36:1:620:U:OP1	2.20	0.41
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.35	0.41
21:C9:4:VAL:HG13	21:C9:5:SER:O	2.20	0.41
79:Q3:19:GLY:HA2	36:5:1925:U:O2	238.95	0.41
12:C0:29:GLN:HB3	12:C0:39:ASN:HB3	2.98	0.41
44:L7:224:ILE:HD13	56:N0:39:SER:CB	2.64	0.41
40:L3:57:VAL:HB	40:L3:358:TRP:HB3	2.86	0.41
1:2:1767:G:P	1:2:1770:U:H4'	2.60	0.41
1:6:105:A:H2'	1:6:106:U:O4'	2.19	0.41
1:2:924:A:O2'	1:2:987:G:OP1	2.37	0.41
38:8:91:C:H2'	38:8:92:A:H8	1.85	0.41
36:5:2663:G:H2'	36:5:2664:C:O4'	2.19	0.41
36:5:1121:U:C4	36:5:1122:U:C4	3.07	0.41
66:O0:66:LYS:N	66:O0:66:LYS:HD2	3.70	0.41
6:S4:183:VAL:HG11	6:S4:220:THR:HG21	2.02	0.41
61:N5:68:THR:HG21	71:O5:36:LEU:HD11	2.47	0.41
36:1:2517:U:H2'	36:1:2518:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:115:ILE:HG23	34:SR:116:ASP:O	3.12	0.41
1:6:1761:U:O4	86:6:2185:OHX:N2	2.52	0.41
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	2.55	0.41
36:5:1440:G:H2'	36:5:1441:G:C8	2.55	0.41
36:1:2179:C:N3	39:L2:173:GLY:N	2.46	0.41
1:2:1222:C:H2'	1:2:1223:A:O4'	2.20	0.41
36:1:1915:A:H2'	36:1:1916:U:C6	2.55	0.41
40:L3:287:LYS:O	40:L3:290:ASP:HB3	2.19	0.41
50:M4:20:VAL:HG22	50:M4:66:THR:OG1	2.20	0.41
50:M4:66:THR:HG23	50:M4:66:THR:H	1.61	0.41
1:6:1324:G:N7	86:6:2102:OHX:N2	2.68	0.41
1:2:325:G:H2'	1:2:326:G:H8	1.85	0.41
36:5:2667:A:O2'	36:5:2691:A:OP1	2.28	0.41
36:5:306:A:C2	36:5:307:A:C8	3.08	0.41
74:O8:23:ALA:CB	74:O8:73:LEU:HD21	2.50	0.41
1:6:137:U:H6	1:6:137:U:H2'	1.46	0.41
47:M0:33:ILE:O	47:M0:33:ILE:HG12	2.16	0.41
34:SR:307:ASP:N	34:SR:307:ASP:OD1	2.79	0.41
43:L6:176:PHE:CD2	43:L6:176:PHE:N	2.88	0.41
42:L5:78:ALA:HB1	42:L5:104:LEU:HD23	2.01	0.41
36:1:1004:U:C4	36:1:1005:G:N7	2.87	0.41
1:6:1212:G:C2	1:6:1213:G:C8	3.08	0.41
1:2:448:C:OP1	6:S4:28:ALA:HA	2.20	0.41
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.25	0.41
8:S6:22:HIS:CE1	8:S6:25:ARG:HH22	4.77	0.41
4:S2:141:ARG:HG2	4:S2:141:ARG:H	2.39	0.41
39:L2:201:GLY:HA2	39:L2:204:MET:CG	2.46	0.41
36:1:1103:A:O2'	36:1:1104:G:OP1	2.35	0.41
36:5:2180:G:H2'	36:5:2181:C:C6	2.56	0.41
66:O0:9:SER:HG	66:O0:12:GLN:HB3	5.39	0.41
72:O6:28:TYR:OH	36:5:315:C:OP2	97.11	0.41
72:O6:26:ILE:H	72:O6:26:ILE:HG13	1.70	0.41
36:1:1789:G:O6	86:1:4167:OHX:N4	2.53	0.41
36:5:1566:A:H2'	36:5:1567:U:H5'	2.02	0.41
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.55	0.41
9:S7:62:VAL:HG22	9:S7:70:PHE:HE2	1.84	0.41
36:1:18:G:OP2	61:N5:46:TYR:OH	2.28	0.41
36:5:3226:A:C2	36:5:3260:G:C6	3.08	0.41
36:1:1674:G:H2'	36:1:1675:G:O4'	2.19	0.41
51:M5:94:TYR:CE2	51:M5:96:ARG:HB2	2.63	0.41
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:273:G:H8	1:6:273:G:O5'	2.03	0.41
69:O3:45:LEU:HA	69:O3:71:VAL:CG1	2.86	0.41
18:C6:19:VAL:O	18:C6:67:VAL:HA	2.25	0.41
36:1:1720:U:P	55:M9:110:ARG:HH12	2.43	0.41
5:S3:60:GLY:HA3	5:S3:65:ARG:HB2	2.93	0.41
36:5:2722:U:H2'	36:5:2723:U:H6	1.82	0.41
34:SR:91:LEU:HB2	34:SR:103:PHE:HE2	2.47	0.41
40:L3:332:ARG:NH1	40:L3:332:ARG:HG2	2.35	0.41
36:1:1472:U:H2'	36:1:1473:G:C8	2.55	0.41
22:D0:34:LEU:HD23	22:D0:35:GLU:N	4.52	0.41
38:4:97:A:C2	38:4:98:U:C2	3.09	0.41
36:1:2842:U:C4	36:1:2843:U:C4	3.08	0.41
57:N1:17:ARG:HD2	36:5:2701:U:P	264.52	0.41
23:D1:62:ARG:NH2	1:6:1082:C:H1'	380.50	0.41
29:D7:3:LEU:HD23	29:D7:3:LEU:HA	1.75	0.41
39:L2:27:ALA:HB3	39:L2:128:ARG:NH2	2.35	0.41
4:S2:206:THR:OG1	4:S2:209:ASN:HB2	3.11	0.41
50:M4:28:SER:O	50:M4:31:LYS:HB2	2.19	0.41
50:M4:28:SER:HB3	50:M4:53:VAL:HB	2.89	0.41
36:1:2294:U:O2	36:1:2296:A:H8	2.03	0.41
15:C3:17:PRO:HG3	1:6:959:U:C2	353.15	0.41
1:6:729:G:O2'	1:6:730:G:O5'	2.34	0.41
42:L5:148:ILE:HD12	42:L5:148:ILE:HA	4.49	0.41
63:N7:36:HIS:N	63:N7:37:PRO:HD3	2.84	0.41
36:5:2359:C:H2'	36:5:2360:C:C6	2.55	0.41
86:1:4002:OHX:N5	86:1:4171:OHX:N5	2.68	0.41
1:6:887:A:C2	1:6:926:A:N1	2.88	0.41
36:5:1806:A:OP2	86:5:4018:OHX:N5	2.53	0.41
36:5:2889:C:N4	36:5:2914:G:H1	2.18	0.41
46:L9:106:LYS:H	46:L9:109:ALA:HB3	1.85	0.41
51:M5:35:VAL:HG13	51:M5:65:ARG:HB2	2.04	0.41
1:6:1419:G:H2'	1:6:1420:C:O4'	2.21	0.41
50:M4:121:MET:O	50:M4:125:LYS:HG3	2.85	0.41
36:5:2689:A:C8	36:5:2702:A:C6	3.08	0.41
40:L3:117:ARG:HA	40:L3:175:LYS:HD2	4.46	0.41
20:C8:72:ILE:HG12	20:C8:79:TYR:CG	2.93	0.41
1:2:258:C:H6	1:2:258:C:O5'	2.04	0.41
46:L9:92:TYR:N	46:L9:92:TYR:CD2	3.94	0.41
36:1:1584:U:H2'	36:1:1585:C:C6	2.55	0.41
28:D6:19:LYS:HE3	28:D6:19:LYS:HB2	1.89	0.41
36:1:1781:C:H2'	36:1:1782:U:H6	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2117:A:C8	36:1:3064:U:H1'	2.54	0.41
1:2:1653:C:C2	1:2:1748:G:N2	2.89	0.41
73:O7:64:MET:O	73:O7:68:LYS:HG3	2.20	0.41
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.26	0.41
16:C4:103:ARG:HH12	28:D6:48:ALA:CB	3.42	0.41
40:L3:83:PRO:HB3	40:L3:202:THR:HG23	2.51	0.41
36:5:3301:U:O4	86:5:3919:OHX:N3	2.53	0.41
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	3.20	0.41
36:5:2563:G:H2'	36:5:2564:G:O4'	2.20	0.41
36:1:888:A:H2'	36:1:889:U:O4'	2.19	0.41
10:S8:85:PRO:O	13:C1:11:ARG:HD3	2.20	0.41
36:1:2787:G:OP2	86:1:3950:OHX:N3	2.53	0.41
1:2:601:A:H2'	1:2:602:U:C6	2.55	0.41
40:L3:112:ASP:HA	40:L3:115:LYS:HB2	2.02	0.41
70:O4:17:SER:OG	36:5:1590:G:OP1	152.89	0.41
40:L3:125:SER:OG	40:L3:126:LYS:N	3.82	0.41
74:O8:25:VAL:HB	74:O8:77:ARG:HD2	2.38	0.41
4:S2:162:CYS:SG	4:S2:212:LYS:HE2	2.75	0.41
36:1:1729:A:H4'	36:1:1730:G:OP2	2.20	0.41
15:C3:9:LYS:HA	15:C3:9:LYS:HD3	1.77	0.41
43:L6:93:VAL:O	43:L6:93:VAL:HG22	4.01	0.41
8:S6:39:GLU:HB2	8:S6:46:LYS:HG3	2.02	0.41
36:5:2520:A:H2'	36:5:2521:U:C6	2.55	0.41
36:5:3284:G:OP1	86:5:4176:OHX:N3	2.53	0.41
62:N6:53:ASP:HA	62:N6:69:LYS:HG2	3.07	0.41
36:5:2961:G:C6	36:5:2962:U:C4	3.08	0.41
8:S6:20:ASP:O	8:S6:24:ILE:HG13	2.20	0.41
1:6:151:G:H22	1:6:163:G:N2	2.18	0.41
16:C4:136:ARG:HD2	1:6:1769:U:O2	302.39	0.41
20:C8:145:ARG:HB3	20:C8:146:ALA:H	1.66	0.41
36:5:2763:U:H6	36:5:2763:U:O5'	2.03	0.41
8:S6:159:ARG:HG2	8:S6:172:ALA:HB2	3.52	0.41
36:5:914:A:O2'	36:5:2146:C:H4'	2.20	0.41
70:O4:9:ARG:NH2	70:O4:34:HIS:HB2	2.82	0.41
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.39	0.41
13:C1:133:LYS:O	13:C1:136:ARG:NH1	3.26	0.41
20:C8:24:GLY:C	20:C8:26:ILE:H	2.20	0.41
4:S2:168:ARG:O	4:S2:198:THR:HA	2.20	0.41
1:6:499:U:O2	1:6:500:C:N4	2.53	0.41
49:M3:99:HIS:CD2	36:5:156:G:C5	78.16	0.41
21:C9:11:ALA:HA	21:C9:63:ARG:HH21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.85	0.41
38:8:135:G:C6	38:8:136:G:C8	3.08	0.41
36:1:435:C:H2'	36:1:436:A:C8	2.55	0.41
1:6:1179:G:H2'	1:6:1180:C:O4'	2.20	0.41
1:6:1257:U:O2'	1:6:1258:U:O2	2.34	0.41
36:5:1171:G:O6	86:5:3995:OHX:N1	2.53	0.41
40:L3:4:ARG:CG	40:L3:4:ARG:HH11	2.61	0.41
41:L4:269:SER:O	41:L4:270:SER:OG	3.24	0.41
1:2:734:A:O2'	1:2:735:C:H5'	2.21	0.41
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	2.10	0.41
59:N3:93:LEU:H	59:N3:93:LEU:HD23	1.85	0.41
36:1:839:C:H2'	36:1:840:C:C6	2.55	0.41
7:S5:30:PRO:O	7:S5:34:GLN:N	2.36	0.41
52:M6:65:ASN:OD1	52:M6:67:THR:HG22	2.19	0.41
1:6:1413:U:C2	86:6:2085:OHX:N6	2.88	0.41
4:S2:90:THR:O	4:S2:93:GLY:N	2.46	0.41
1:2:1253:U:O2'	33:E1:143:LYS:HA	2.20	0.41
5:S3:65:ARG:HA	5:S3:68:GLU:HG3	2.02	0.41
1:2:1445:G:C6	33:E1:91:ILE:HB	2.54	0.41
15:C3:21:ASN:HB2	15:C3:22:ALA:H	1.64	0.41
7:S5:124:LEU:O	7:S5:125:THR:OG1	2.38	0.41
63:N7:10:VAL:HG23	63:N7:86:THR:HA	2.01	0.41
1:2:209:U:H5'	10:S8:171:SER:HB3	2.03	0.41
1:2:1657:U:C2	86:2:2088:OHX:N1	2.88	0.41
36:1:597:G:H2'	36:1:598:A:C8	2.55	0.41
42:L5:179:ARG:HA	42:L5:179:ARG:HD3	2.13	0.41
36:5:2717:U:C2	36:5:2740:A:C2	3.09	0.41
39:L2:140:ASN:ND2	39:L2:143:GLU:OE2	2.53	0.41
8:S6:2:LYS:HG3	8:S6:17:GLU:OE2	4.77	0.41
15:C3:70:LYS:H	15:C3:70:LYS:HG2	3.19	0.41
11:S9:30:LEU:HD22	11:S9:105:LEU:HD23	2.02	0.41
3:S1:195:LYS:O	3:S1:199:ASN:N	2.52	0.41
1:6:947:U:H2'	1:6:948:G:H8	1.86	0.41
46:L9:151:VAL:O	46:L9:152:GLU:C	2.94	0.41
49:M3:28:GLN:HB3	51:M5:201:ARG:HD2	2.41	0.41
1:2:1036:A:H2'	1:2:1037:C:O4'	2.21	0.41
36:1:1672:U:O2'	36:1:1673:G:H5'	2.20	0.41
36:1:249:U:H1'	36:1:250:U:C2	2.55	0.41
41:L4:100:PHE:CD1	36:5:660:A:H5''	141.37	0.41
6:S4:134:LYS:O	6:S4:136:VAL:HG23	3.53	0.41
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:43:PHE:C	25:D3:45:GLY:H	2.24	0.41
6:S4:6:LYS:HD2	1:6:95:G:OP1	342.21	0.41
1:6:252:U:H2'	1:6:253:A:H8	1.86	0.41
79:Q3:73:THR:HG22	79:Q3:76:ALA:CB	2.50	0.41
38:4:145:U:H2'	38:4:146:U:O4'	2.19	0.41
32:E0:26:LYS:HE2	32:E0:26:LYS:HB3	1.77	0.41
52:M6:156:LEU:O	52:M6:159:LYS:HB3	2.41	0.41
36:5:1332:A:H2'	36:5:1333:C:C6	2.55	0.41
24:D2:48:GLY:N	24:D2:64:GLN:O	2.53	0.41
70:O4:109:THR:HA	70:O4:112:ALA:HB3	4.42	0.41
36:5:1804:A:H2'	36:5:1805:C:C6	2.56	0.41
36:1:938:C:OP1	36:1:963:G:H5'	2.19	0.41
36:5:1176:C:H2'	36:5:1177:G:N2	2.34	0.41
1:6:1657:U:H4'	1:6:1658:G:OP2	2.19	0.41
36:5:543:C:H2'	36:5:544:C:O4'	2.20	0.41
53:M7:97:ASN:O	53:M7:101:ASN:N	3.45	0.41
62:N6:95:VAL:HA	62:N6:96:PRO:HD3	1.82	0.41
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	2.99	0.41
35:SM:101:ASP:HB3	35:SM:102:THR:H	1.58	0.41
57:N1:100:LYS:O	57:N1:103:GLN:N	3.12	0.41
36:1:644:G:H2'	36:1:2372:A:N7	2.35	0.41
70:O4:14:ASN:O	36:5:827:A:H5''	163.39	0.41
49:M3:190:LYS:HE2	49:M3:190:LYS:HB2	1.50	0.41
8:S6:21:GLU:H	8:S6:21:GLU:HG2	1.66	0.41
44:L7:120:THR:HB	57:N1:132:PRO:HB2	2.01	0.41
36:1:1926:C:H4'	36:1:1927:G:H5''	2.02	0.41
36:1:926:A:H2'	36:1:927:C:C6	2.55	0.41
1:6:86:A:O2'	1:6:87:C:H5'	2.21	0.41
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.53	0.41
36:5:1239:C:H3'	36:5:1240:A:C8	2.56	0.41
36:5:1240:A:H2'	36:5:1241:U:H5'	2.02	0.41
43:L6:43:LEU:HD12	43:L6:84:VAL:N	2.35	0.41
10:S8:56:ARG:HH22	1:6:332:U:P	286.81	0.41
7:S5:98:MET:HB2	7:S5:105:GLY:O	2.21	0.41
2:S0:146:LEU:HD12	2:S0:170:ILE:HG23	2.01	0.41
62:N6:122:LYS:HE3	62:N6:122:LYS:HB3	2.72	0.41
2:S0:185:ARG:N	23:D1:44:ARG:HA	2.36	0.41
1:2:542:A:H8	1:2:543:C:H2'	1.85	0.41
61:N5:57:LEU:HA	61:N5:57:LEU:HD12	1.91	0.41
36:1:371:G:H4'	36:1:396:A:N1	2.35	0.41
38:4:141:C:O2'	38:4:142:C:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:123:ARG:NH1	1:6:1546:G:OP1	356.99	0.41
6:S4:141:THR:OG1	6:S4:145:ARG:HB2	2.61	0.41
19:C7:41:ILE:HD13	19:C7:47:ARG:HA	2.03	0.41
48:M1:49:LYS:HA	48:M1:63:GLU:O	4.81	0.41
1:2:702:G:O2'	1:2:703:G:H8	2.03	0.41
1:6:74:U:H5''	1:6:75:U:OP2	2.20	0.41
6:S4:12:LEU:HD22	1:6:756:A:N3	368.67	0.41
62:N6:103:LYS:HZ1	36:5:221:A:N6	79.57	0.41
36:1:3066:U:H2'	36:1:3067:C:H6	1.82	0.41
54:M8:102:ALA:HA	54:M8:122:ILE:O	2.20	0.41
40:L3:224:HIS:HB2	40:L3:270:ARG:O	2.92	0.41
1:2:1214:U:OP1	1:2:1246:C:H1'	2.20	0.41
22:D0:76:SER:OG	1:6:1282:U:OP1	375.80	0.41
22:D0:26:LEU:N	22:D0:89:ARG:O	2.42	0.41
41:L4:11:LEU:HD23	41:L4:11:LEU:HA	1.75	0.41
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	2.12	0.41
51:M5:123:GLN:OE1	51:M5:128:LYS:HD3	2.92	0.41
47:M0:12:GLN:HG2	47:M0:128:ARG:NH2	2.36	0.41
36:1:1020:G:O6	36:1:1032:C:N3	2.53	0.41
36:5:72:C:C2	36:5:74:G:H1'	2.56	0.41
36:5:1394:A:H4'	36:5:1420:C:H4'	2.03	0.41
36:1:1455:U:O2'	67:O1:26:LYS:NZ	2.53	0.41
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.20	0.41
36:5:1560:G:O2'	36:5:1561:G:P	2.79	0.41
51:M5:73:ARG:HD3	51:M5:75:VAL:HG11	2.02	0.41
51:M5:190:THR:HB	51:M5:193:ARG:NH2	2.35	0.41
45:L8:32:LYS:HD3	45:L8:32:LYS:HA	4.36	0.41
45:L8:32:LYS:HD3	45:L8:34:PHE:CZ	2.55	0.41
36:1:123:A:C6	36:1:150:A:C5	3.09	0.41
23:D1:2:GLU:HB3	23:D1:3:ASN:H	1.54	0.41
29:D7:28:PRO:HB3	1:6:959:U:H5''	350.10	0.41
1:2:1474:G:H2'	1:2:1475:A:C8	2.55	0.41
22:D0:25:THR:HG23	22:D0:90:TYR:HB3	4.05	0.41
71:O5:34:GLN:HB3	71:O5:38:ARG:NH1	2.36	0.41
33:E1:82:LYS:O	33:E1:83:LYS:HG3	2.20	0.41
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	3.53	0.41
38:8:36:G:N2	38:8:37:A:N1	2.64	0.41
4:S2:44:LEU:HD12	4:S2:240:LEU:HD12	2.41	0.41
1:6:1535:U:O2'	1:6:1536:G:P	2.78	0.41
51:M5:43:THR:OG1	51:M5:131:GLU:OE2	3.12	0.41
45:L8:156:ASP:HB2	45:L8:157:VAL:H	1.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:74:ASN:HB3	64:N8:115:LYS:HB2	2.02	0.41
27:D5:92:ILE:HG12	27:D5:100:ILE:CG2	2.51	0.41
41:L4:303:GLY:O	41:L4:305:ALA:N	2.53	0.41
48:M1:36:VAL:HG21	48:M1:123:PHE:HD2	1.84	0.41
36:1:2633:U:H2'	36:1:2634:U:O4'	2.21	0.41
36:5:1782:U:H2'	36:5:1783:U:O4'	2.21	0.41
1:6:15:U:C4	1:6:16:G:C5	3.08	0.41
42:L5:114:GLY:C	42:L5:116:ASP:N	2.74	0.41
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	1.71	0.41
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.55	0.41
1:2:827:C:H2'	1:2:828:U:O4'	2.21	0.41
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	5.89	0.41
46:L9:109:ALA:O	46:L9:110:LYS:HB2	2.20	0.41
42:L5:171:LEU:HD23	42:L5:171:LEU:HA	2.29	0.41
36:1:2128:C:OP1	86:1:3956:OHX:N4	2.53	0.41
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.34	0.41
36:1:1344:G:H1	36:1:1360:C:N4	2.18	0.41
11:S9:153:GLU:O	11:S9:156:ILE:HG13	2.20	0.41
36:1:2660:G:H1'	36:1:2744:U:H1'	2.02	0.41
1:2:106:U:H2'	1:2:107:C:O4'	2.20	0.41
1:6:1747:G:O6	86:6:2125:OHX:N5	2.53	0.41
86:1:3959:OHX:N2	86:1:4138:OHX:N6	2.69	0.41
56:N0:45:LEU:HD22	56:N0:45:LEU:HA	1.75	0.41
9:S7:108:GLN:O	1:6:810:G:N2	341.43	0.41
36:5:188:U:H1'	36:5:208:C:C1'	2.51	0.41
36:1:104:G:O2'	36:1:698:U:O2	2.35	0.41
36:1:2554:A:C8	36:1:2554:A:H5'	2.55	0.41
75:O9:25:GLN:O	75:O9:28:ARG:HG3	3.33	0.41
16:C4:44:GLY:CA	16:C4:59:ALA:HB1	3.97	0.41
36:1:3350:C:H4'	36:1:3351:U:OP1	2.20	0.41
61:N5:101:GLU:HG2	61:N5:102:LEU:N	3.43	0.41
36:1:114:A:H2'	36:1:115:A:O4'	2.21	0.41
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	2.64	0.41
15:C3:113:PHE:HA	15:C3:116:ILE:HD12	2.94	0.41
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	2.01	0.41
42:L5:163:LEU:HD21	42:L5:175:HIS:CB	3.19	0.41
36:1:1791:C:H2'	36:1:1792:C:C6	2.56	0.41
36:5:277:G:H2'	36:5:278:U:C6	2.56	0.41
30:D8:5:THR:HA	30:D8:6:PRO:HD3	1.79	0.41
38:8:19:C:H2'	38:8:20:U:O4'	2.20	0.41
36:1:1605:A:O2'	36:1:1607:U:OP2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1354:G:C2	1:2:1372:U:C4	3.08	0.41
1:6:27:U:OP1	86:6:2106:OHX:N3	2.53	0.41
48:M1:116:TYR:HE1	48:M1:118:PRO:HB3	1.91	0.41
36:1:169:U:H4'	36:1:170:G:OP1	2.19	0.41
1:2:1524:A:N3	1:2:1590:G:O2'	2.38	0.41
70:O4:20:ILE:HD12	70:O4:20:ILE:HA	1.63	0.41
36:1:1025:A:OP1	36:1:1025:A:C8	2.74	0.41
57:N1:27:LEU:HD22	57:N1:27:LEU:HA	1.85	0.41
36:5:1852:G:N7	86:5:4033:OHX:N6	2.68	0.41
1:6:1759:C:H2'	1:6:1760:G:O4'	2.20	0.41
36:1:3070:A:C5	36:1:3071:U:C5	3.08	0.41
65:N9:24:PRO:HG2	65:N9:26:THR:HG22	7.03	0.41
2:S0:38:PHE:HB2	2:S0:49:ASN:HB2	3.11	0.41
36:5:1368:U:O2'	36:5:1369:A:H5'	2.20	0.41
42:L5:259:LYS:HB3	42:L5:259:LYS:HE2	1.84	0.41
46:L9:47:LYS:HG3	46:L9:49:ASN:O	4.38	0.41
46:L9:69:ARG:NH1	46:L9:72:LYS:HE2	2.35	0.41
44:L7:159:GLN:HB3	36:5:1362:G:O4'	216.44	0.41
28:D6:71:LEU:N	28:D6:71:LEU:HD22	2.35	0.41
2:S0:163:ASN:HB3	2:S0:169:SER:OG	2.88	0.41
2:S0:30:GLN:NE2	2:S0:32:HIS:HB2	9.01	0.41
12:C0:15:LEU:HD11	12:C0:46:LEU:HD21	6.03	0.41
51:M5:179:LYS:HD3	36:5:287:G:OP1	125.29	0.41
1:6:1133:A:H2'	1:6:1134:C:O4'	2.20	0.41
11:S9:88:GLU:HA	11:S9:91:LYS:HE3	2.01	0.41
11:S9:119:ALA:HA	11:S9:124:HIS:ND1	5.01	0.41
41:L4:324:LEU:O	41:L4:327:LEU:O	2.56	0.41
1:6:139:C:C2	1:6:176:C:C2	3.08	0.41
36:1:2662:G:H2'	36:1:2663:G:O4'	2.21	0.41
1:6:76:A:H3'	86:6:2190:OHX:N2	2.34	0.41
33:E1:97:LYS:HA	33:E1:97:LYS:HD2	2.19	0.41
6:S4:11:ARG:HB2	6:S4:27:TYR:CA	2.99	0.41
18:C6:26:LYS:NZ	1:6:1364:G:O2'	433.09	0.41
64:N8:49:HIS:O	64:N8:50:PRO:C	2.56	0.41
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.21	0.41
4:S2:90:THR:HG22	4:S2:92:ALA:C	2.40	0.41
36:1:2571:U:H2'	36:1:2571:U:OP1	2.20	0.41
70:O4:85:VAL:HA	70:O4:88:ARG:HG2	2.01	0.41
21:C9:118:PRO:O	21:C9:119:LYS:HB2	2.19	0.41
49:M3:176:GLU:HG3	72:O6:11:LEU:HD22	2.47	0.41
55:M9:12:ALA:N	55:M9:22:VAL:HG11	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:130:ARG:NH2	35:SM:66:ALA:HA	3.91	0.41
1:2:953:G:OP2	15:C3:94:LYS:NZ	2.54	0.41
15:C3:94:LYS:HE2	1:6:953:G:P	300.34	0.41
17:C5:85:ILE:HA	17:C5:89:MET:SD	2.61	0.41
24:D2:22:LYS:HA	29:D7:3:LEU:HD22	2.02	0.41
2:S0:50:VAL:HG23	19:C7:109:LEU:HD21	2.99	0.41
1:2:1231:U:H4'	1:2:1258:U:H6	1.85	0.41
36:1:2396:G:OP1	36:1:2397:A:H4'	2.20	0.41
36:5:126:U:H2'	36:5:127:G:O4'	2.21	0.41
63:N7:29:HIS:HB2	63:N7:40:HIS:O	3.05	0.41
1:6:905:A:C2	1:6:906:A:H1'	2.56	0.41
62:N6:101:PRO:HA	62:N6:104:LEU:HD12	2.12	0.41
3:S1:149:GLN:HE22	3:S1:154:SER:HB3	2.76	0.41
56:N0:1:MET:HB3	56:N0:1:MET:HE2	1.56	0.41
64:N8:111:LYS:HA	64:N8:129:PHE:O	2.35	0.41
28:D6:51:ARG:HD2	28:D6:55:GLU:OE1	5.14	0.41
44:L7:60:ARG:HD3	44:L7:60:ARG:HH11	1.74	0.41
36:5:1858:A:O2'	36:5:1859:A:OP2	2.37	0.41
44:L7:147:LEU:HD23	44:L7:147:LEU:HA	1.72	0.41
1:2:1406:A:OP2	7:S5:80:LYS:HE2	2.21	0.41
36:1:1525:G:N2	36:1:1615:C:C2	2.89	0.41
25:D3:22:ASN:HD22	25:D3:22:ASN:H	3.45	0.41
36:1:2383:C:H2'	36:1:2384:A:H5'	2.03	0.41
59:N3:31:ALA:N	59:N3:69:LEU:HD23	2.36	0.41
8:S6:162:VAL:N	8:S6:169:TYR:O	2.70	0.41
3:S1:111:ARG:HD3	3:S1:111:ARG:HA	1.72	0.41
1:2:730:G:H2'	1:2:730:G:N3	2.35	0.41
57:N1:8:ARG:HB3	57:N1:8:ARG:HE	1.59	0.41
1:2:766:U:C4	1:2:769:A:N7	2.89	0.41
1:6:53:G:H2'	1:6:54:C:C6	2.55	0.41
36:5:80:G:H2'	36:5:81:C:H6	1.86	0.41
67:O1:50:ARG:CZ	67:O1:90:PHE:CE2	3.76	0.41
30:D8:64:ARG:HB3	30:D8:65:ARG:H	1.70	0.41
33:E1:90:LYS:HB2	33:E1:93:HIS:HE1	11.39	0.41
1:6:1026:A:C2	1:6:1792:G:C4	3.08	0.41
36:1:2374:C:C4	36:1:2941:A:N3	2.89	0.41
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.76	0.41
34:SR:267:PRO:HD2	34:SR:269:TYR:CE1	3.26	0.41
47:M0:65:LEU:HD23	47:M0:159:PHE:CZ	3.09	0.41
36:5:420:G:O5'	36:5:420:G:OP2	2.36	0.41
1:2:77:U:H4'	1:2:78:A:O5'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1927:G:H3'	36:1:1927:G:N3	2.35	0.41
36:5:3392:U:H2'	36:5:3393:U:C6	2.56	0.41
38:8:1:A:C2	38:8:2:A:C4	3.08	0.41
36:5:1157:G:H2'	36:5:1158:A:O4'	2.20	0.41
36:5:2660:G:O3'	36:5:2749:G:N2	2.54	0.41
36:5:532:A:C8	36:5:555:U:C4	3.08	0.41
51:M5:114:ARG:NH2	51:M5:157:LYS:HG2	3.18	0.41
2:S0:114:SER:O	2:S0:116:LYS:HG2	2.21	0.41
36:1:973:A:P	54:M8:12:ARG:HH12	2.42	0.41
38:8:151:C:H4'	38:8:153:U:O4	2.19	0.41
1:2:143:G:N7	8:S6:177:ARG:NH2	2.69	0.41
36:1:1178:G:O6	69:O3:20:LYS:HD3	2.21	0.41
40:L3:211:GLN:C	40:L3:213:GLU:H	2.33	0.41
41:L4:328:ASN:OD1	41:L4:328:ASN:C	2.69	0.41
9:S7:110:GLN:HB3	9:S7:110:GLN:HE21	4.07	0.41
45:L8:70:LYS:HD2	45:L8:70:LYS:HA	1.77	0.41
25:D3:132:LEU:HD23	25:D3:132:LEU:HA	3.41	0.41
29:D7:81:ARG:O	29:D7:82:LYS:HG3	2.41	0.41
36:5:2801:A:O2'	36:5:2802:A:H2'	2.19	0.41
6:S4:77:ARG:HA	6:S4:77:ARG:HD3	4.11	0.41
1:6:1010:C:OP2	86:6:2118:OHX:N6	2.54	0.41
8:S6:159:ARG:NH2	1:6:79:C:OP1	348.25	0.41
21:C9:34:VAL:HG22	21:C9:53:TRP:CZ2	4.22	0.41
45:L8:74:THR:HG22	45:L8:230:LYS:HE3	2.02	0.41
1:6:1698:G:O2'	1:6:1699:G:P	2.78	0.41
43:L6:65:ILE:HG12	43:L6:66:SER:N	2.30	0.41
28:D6:75:VAL:O	28:D6:79:ILE:N	2.41	0.41
21:C9:57:ARG:HG3	21:C9:57:ARG:NH1	2.77	0.41
75:O9:9:ILE:CG2	75:O9:13:MET:HE2	2.64	0.41
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	1.86	0.41
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.53	0.41
3:S1:51:SER:HA	3:S1:57:ALA:H	1.86	0.41
36:1:1171:G:N7	86:1:3957:OHX:N2	2.68	0.41
1:6:1114:G:O6	86:6:2111:OHX:N4	2.54	0.41
11:S9:124:HIS:CD2	11:S9:128:LEU:HD11	2.56	0.41
1:6:595:G:H2'	1:6:596:C:C6	2.56	0.41
53:M7:108:ASP:OD2	53:M7:110:THR:HG23	2.21	0.41
57:N1:101:CYS:O	57:N1:104:GLU:HG3	5.43	0.41
40:L3:214:MET:HE3	40:L3:214:MET:HB3	2.44	0.41
16:C4:29:HIS:CG	16:C4:29:HIS:O	2.74	0.41
32:E0:13:LYS:HE3	32:E0:13:LYS:HB3	4.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:71:ARG:HD3	78:Q2:80:ARG:HB3	4.11	0.41
37:7:79:A:OP2	86:7:219:OHX:N3	2.53	0.41
36:5:2101:C:O2'	36:5:2102:U:P	2.78	0.41
1:6:1211:A:N6	1:6:1453:G:O6	2.54	0.41
36:5:675:C:O2'	36:5:679:U:OP1	2.32	0.41
4:S2:94:GLN:HG2	4:S2:95:ARG:H	4.62	0.41
68:O2:123:LYS:CA	68:O2:126:LEU:HD12	3.99	0.41
64:N8:59:ARG:HB2	64:N8:59:ARG:HE	1.55	0.41
48:M1:150:ASN:O	48:M1:152:HIS:O	4.91	0.41
1:6:1762:A:O2'	1:6:1783:C:H5'	2.20	0.41
59:N3:35:TYR:CG	59:N3:63:LYS:HE2	2.56	0.41
48:M1:139:THR:O	48:M1:140:ARG:HB2	2.19	0.41
50:M4:23:ILE:HD11	50:M4:53:VAL:HG21	2.69	0.41
62:N6:27:ARG:HD3	62:N6:75:ARG:O	2.47	0.41
36:1:1688:U:H2'	36:1:1689:U:H6	1.83	0.41
51:M5:37:HIS:CD2	51:M5:63:ARG:HB3	2.54	0.41
36:1:2593:A:H4'	36:1:2594:C:O5'	2.20	0.41
36:1:1710:C:H2'	36:1:1711:C:C6	2.56	0.41
1:6:1176:G:C6	1:6:1464:G:C6	3.09	0.41
36:1:378:A:H3'	36:1:379:C:C6	2.56	0.41
52:M6:182:ASN:O	52:M6:185:ALA:N	3.32	0.41
60:N4:4:GLU:HG2	60:N4:30:ARG:NE	2.35	0.41
36:1:995:U:C2	36:1:2637:A:C8	3.09	0.41
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.21	0.41
36:5:3188:G:C2	36:5:3205:G:N1	2.89	0.41
36:5:3340:G:H5''	36:5:3341:U:OP2	2.21	0.41
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	3.40	0.41
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.80	0.41
36:1:1322:U:H2'	36:1:1323:G:C8	2.56	0.41
41:L4:351:PRO:HA	44:L7:71:ALA:HA	2.37	0.41
1:2:1660:A:H2'	1:2:1661:U:H6	1.84	0.41
36:1:579:G:C2	36:1:580:C:C2	3.09	0.41
38:4:155:A:H5'	45:L8:185:ARG:NE	2.35	0.41
73:O7:13:ASN:O	36:5:817:A:C4	139.23	0.41
3:S1:216:LYS:HZ1	1:6:886:U:P	276.63	0.41
36:5:1807:G:C6	36:5:1808:G:N1	2.88	0.41
55:M9:10:LEU:HD21	36:5:1602:A:H4'	103.54	0.41
30:D8:21:SER:CB	30:D8:67:ARG:HG2	7.61	0.41
1:6:1001:A:N6	1:6:1002:G:C6	2.89	0.41
36:5:1317:A:C4	36:5:1319:G:N7	2.88	0.41
34:SR:95:ALA:C	34:SR:97:GLY:H	3.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:189:ILE:HG12	44:L7:189:ILE:O	2.32	0.41
1:2:1767:G:OP2	1:2:1770:U:O2'	2.32	0.41
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.89	0.41
15:C3:136:PRO:O	15:C3:139:TRP:N	2.48	0.41
36:1:499:G:H2'	36:1:500:C:C6	2.54	0.41
1:2:535:A:C6	1:2:536:C:C4	3.08	0.41
1:2:71:A:H2'	1:2:72:A:O4'	2.20	0.41
36:1:2359:C:H2'	36:1:2360:C:H6	1.85	0.41
56:N0:92:LYS:HE3	56:N0:109:ASP:OD2	2.20	0.41
40:L3:45:SER:HB3	40:L3:339:ARG:HA	2.01	0.41
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	1.92	0.41
46:L9:122:LYS:HG2	46:L9:123:ILE:H	2.74	0.41
36:5:3384:U:H2'	36:5:3385:U:H6	1.84	0.41
36:5:238:A:H2'	36:5:239:G:C8	2.55	0.41
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.20	0.41
36:5:2642:A:C2	36:5:2643:A:C6	3.08	0.41
1:2:763:G:C6	1:2:764:U:C4	3.09	0.41
62:N6:89:LYS:NZ	36:5:375:A:OP2	75.02	0.41
14:C2:23:THR:CB	14:C2:26:ASP:HB2	2.50	0.41
16:C4:20:TYR:CE1	16:C4:22:SER:HB3	2.55	0.41
22:D0:47:GLN:HG2	22:D0:47:GLN:O	2.21	0.41
21:C9:22:LEU:HA	21:C9:22:LEU:HD12	1.91	0.41
54:M8:177:GLY:HA2	54:M8:184:PHE:CE2	2.98	0.41
36:5:2991:A:H2'	36:5:2992:U:H5''	2.03	0.41
5:S3:136:VAL:HG22	5:S3:186:VAL:HG13	2.03	0.41
36:5:2419:A:H1'	36:5:2804:A:O4'	2.21	0.41
36:1:1840:U:OP2	86:1:3977:OHX:N5	2.54	0.41
43:L6:45:GLY:O	43:L6:48:ARG:HD3	4.63	0.41
1:2:1199:G:O6	22:D0:67:THR:HG23	2.20	0.41
1:2:1785:U:H2'	1:2:1786:G:C8	2.54	0.41
24:D2:77:PRO:HG3	25:D3:7:ARG:O	2.21	0.41
64:N8:9:ARG:HE	64:N8:9:ARG:HB3	1.96	0.41
72:O6:59:ASP:O	72:O6:63:ASN:HB2	2.45	0.41
36:5:1502:C:OP2	86:5:3905:OHX:N3	2.54	0.41
64:N8:79:TRP:HE3	64:N8:87:ARG:HG2	3.03	0.41
72:O6:26:ILE:HD13	36:5:155:G:H1'	86.80	0.41
21:C9:76:LEU:HA	21:C9:76:LEU:HD23	1.88	0.41
1:2:1542:G:H5''	21:C9:88:VAL:N	2.36	0.41
12:C0:12:HIS:HD2	12:C0:76:LEU:HD12	1.86	0.41
12:C0:72:GLY:O	12:C0:75:TYR:N	2.53	0.41
53:M7:31:GLU:HG3	53:M7:60:PHE:HA	3.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:67:LEU:HD13	9:S7:71:HIS:CE1	2.55	0.41
34:SR:126:SER:HG	34:SR:127:ARG:H	1.67	0.41
40:L3:140:ASP:OD2	40:L3:141:GLY:N	3.67	0.41
36:1:22:G:H1'	38:4:104:A:N3	2.36	0.41
59:N3:13:ILE:HG13	59:N3:53:SER:HB2	2.03	0.41
40:L3:214:MET:HE2	40:L3:350:ALA:HB2	2.03	0.41
1:6:272:U:H4'	1:6:273:G:O5'	2.21	0.41
1:6:1568:C:H2'	1:6:1568:C:H6	1.76	0.41
3:S1:173:THR:O	3:S1:177:GLN:HB2	5.96	0.41
37:3:45:A:H2'	37:3:46:A:C8	2.55	0.41
44:L7:89:ILE:CG2	44:L7:219:LYS:HE2	2.51	0.41
1:6:219:A:N6	1:6:843:U:C2	2.88	0.41
57:N1:78:LYS:HE2	36:5:2724:U:OP1	221.38	0.41
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	2.03	0.41
6:S4:159:THR:HB	6:S4:227:VAL:HG23	2.03	0.41
55:M9:28:GLU:O	55:M9:32:ILE:HG13	2.69	0.41
55:M9:8:LYS:O	55:M9:11:ALA:HB3	2.21	0.41
21:C9:52:GLY:HA2	21:C9:55:TYR:HD2	1.85	0.41
1:2:1783:C:OP2	77:Q1:1:MET:HB2	2.21	0.41
36:5:2353:G:C6	36:5:2354:C:C4	3.09	0.41
34:SR:228:LYS:O	34:SR:229:LYS:HG3	2.20	0.41
37:3:113:C:H2'	37:3:114:U:O4'	2.20	0.41
52:M6:83:ALA:HB2	36:5:1313:G:H5'	258.52	0.41
77:Q1:4:LYS:O	77:Q1:7:LYS:HB3	2.33	0.41
1:2:1657:U:H1'	1:2:1658:G:OP2	2.21	0.41
15:C3:17:PRO:HD2	15:C3:62:GLN:NE2	2.36	0.41
52:M6:41:LEU:HD21	52:M6:80:PHE:CD1	2.56	0.41
36:1:593:C:C4	36:1:594:U:C5	3.09	0.41
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.55	0.41
62:N6:100:HIS:ND1	62:N6:101:PRO:HD2	2.36	0.41
9:S7:102:PRO:HD3	9:S7:112:ARG:HD3	2.74	0.41
43:L6:26:ARG:HH11	43:L6:26:ARG:HD2	1.64	0.41
34:SR:81:LEU:HD11	34:SR:122:ILE:HG12	2.33	0.41
18:C6:6:SER:HA	18:C6:22:VAL:O	2.21	0.41
28:D6:90:GLU:CD	28:D6:90:GLU:H	4.11	0.41
1:6:181:A:H2'	1:6:182:A:C8	2.56	0.41
16:C4:25:ASP:HA	16:C4:54:GLU:O	2.21	0.41
36:1:776:U:C5	36:1:2719:U:O2	2.73	0.41
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.20	0.41
24:D2:80:ASN:ND2	1:6:747:C:H4'	353.19	0.41
75:O9:21:ARG:NH2	38:8:51:G:OP2	75.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:7:61:G:C6	37:7:62:U:C4	3.09	0.41
36:5:1904:C:N3	36:5:2951:G:H5'	2.36	0.41
50:M4:108:ARG:NH1	50:M4:112:LEU:HD23	2.74	0.41
13:C1:40:LEU:HD22	1:6:246:G:C2	325.93	0.41
36:1:1504:A:C5	36:1:1505:C:C5	3.09	0.41
1:2:1163:A:C6	1:2:1164:G:C5	3.08	0.41
1:6:607:G:OP2	1:6:613:G:N1	2.53	0.41
40:L3:358:TRP:CZ2	40:L3:360:ASP:HA	2.59	0.41
38:4:121:U:H2'	38:4:122:U:H6	1.85	0.41
41:L4:72:ALA:O	41:L4:76:ARG:NH1	2.53	0.41
17:C5:67:ALA:C	17:C5:69:GLU:H	2.23	0.41
86:1:3959:OHX:N5	86:1:4138:OHX:N6	2.69	0.41
40:L3:215:ILE:HD13	40:L3:282:ILE:HD11	2.26	0.41
36:1:1579:C:H42	36:1:1580:A:H62	1.69	0.41
36:5:1057:A:C5	36:5:1058:U:C5	3.09	0.41
36:1:965:A:O4'	64:N8:41:HIS:HD2	2.04	0.41
11:S9:49:LEU:HD23	11:S9:104:PHE:HE2	1.85	0.41
1:6:706:A:H2'	1:6:707:A:O4'	2.21	0.41
9:S7:137:GLY:H	9:S7:153:LEU:HB2	1.86	0.41
1:6:1171:A:C6	1:6:1172:G:C6	3.09	0.41
36:5:645:A:H4'	36:5:647:A:H62	1.85	0.41
36:1:3113:A:OP1	46:L9:73:SER:OG	2.32	0.41
36:1:2280:A:H5''	36:1:2281:A:OP2	2.20	0.41
13:C1:87:ARG:HH21	13:C1:104:HIS:CE1	2.99	0.41
36:5:2097:U:O5'	36:5:2097:U:H6	2.04	0.41
45:L8:233:TRP:CD1	45:L8:233:TRP:N	3.16	0.41
16:C4:26:THR:HG21	16:C4:97:GLY:CA	2.51	0.41
36:1:1846:C:OP1	36:1:1849:C:N4	2.45	0.41
3:S1:77:GLU:C	3:S1:79:HIS:H	2.24	0.41
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.51	0.41
55:M9:75:HIS:ND1	36:5:1940:G:OP1	205.69	0.41
70:O4:3:GLN:OE1	70:O4:30:LEU:HB2	2.20	0.41
42:L5:107:ARG:HH22	42:L5:120:LYS:CA	2.26	0.41
30:D8:25:VAL:HG13	30:D8:44:VAL:O	2.49	0.41
8:S6:67:VAL:HG23	8:S6:100:ALA:H	1.86	0.41
1:2:319:U:H1'	1:2:323:A:C4	2.55	0.41
14:C2:89:ILE:HG23	14:C2:90:LYS:N	2.23	0.41
66:O0:10:ILE:HA	66:O0:10:ILE:HD12	2.26	0.41
1:6:301:A:H2'	1:6:302:U:O4'	2.21	0.41
34:SR:179:LYS:HD2	34:SR:181:TRP:CZ2	4.26	0.41
3:S1:61:LEU:H	3:S1:61:LEU:HD22	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:169:A:OP2	1:2:169:A:H8	2.04	0.41
9:S7:75:THR:O	9:S7:79:ARG:HB2	2.20	0.41
41:L4:140:HIS:CD2	41:L4:247:PHE:H	2.65	0.41
2:S0:16:LEU:HB3	2:S0:172:LEU:HD11	2.24	0.41
51:M5:188:ARG:HH11	51:M5:188:ARG:HD3	1.68	0.41
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.64	0.41
41:L4:182:LEU:C	41:L4:184:SER:H	2.24	0.41
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.21	0.41
37:7:8:G:C6	37:7:9:C:C4	3.08	0.41
36:1:542:G:H2'	36:1:543:C:C6	2.55	0.41
3:S1:37:THR:HG21	3:S1:185:THR:HB	4.73	0.41
40:L3:233:TRP:CG	40:L3:265:ALA:HB1	2.54	0.41
35:SM:34:LYS:H	35:SM:34:LYS:HG2	1.69	0.41
1:2:198:A:H2'	1:2:198:A:N3	2.35	0.41
1:2:651:G:C2	1:2:684:A:C6	3.09	0.41
44:L7:208:SER:O	44:L7:243:MET:HB3	2.21	0.41
55:M9:23:TRP:CH2	55:M9:25:ASP:HA	3.12	0.41
55:M9:7:GLN:HG2	55:M9:32:ILE:HG22	2.03	0.41
1:6:681:U:H4'	1:6:682:C:OP1	2.19	0.41
17:C5:128:HIS:O	17:C5:130:ARG:HG2	2.21	0.41
41:L4:193:LYS:HB3	41:L4:193:LYS:HE3	2.66	0.41
34:SR:222:LEU:HD23	34:SR:234:LEU:CD1	2.51	0.41
51:M5:24:ARG:O	51:M5:27:VAL:HG12	2.42	0.41
12:C0:2:LEU:HD22	12:C0:2:LEU:HA	4.29	0.41
2:S0:110:TYR:HA	2:S0:115:PHE:CE2	2.56	0.41
2:S0:110:TYR:HA	2:S0:115:PHE:CZ	2.55	0.41
2:S0:193:GLN:N	2:S0:194:PRO:HD3	2.35	0.41
20:C8:73:MET:HG2	20:C8:101:LEU:HD13	3.94	0.41
26:D4:12:VAL:HG22	26:D4:23:PHE:CB	2.70	0.41
12:C0:14:TYR:CD2	12:C0:35:ILE:HD11	2.56	0.41
48:M1:13:LYS:O	48:M1:131:MET:HE3	2.20	0.41
46:L9:165:CYS:SG	46:L9:179:ILE:HG13	3.39	0.41
1:2:966:A:P	15:C3:124:ARG:HH21	2.44	0.41
42:L5:48:LYS:HE3	42:L5:145:PHE:CE2	2.55	0.41
45:L8:82:LEU:HD13	45:L8:222:PHE:HE2	1.84	0.41
45:L8:109:LEU:HD13	45:L8:109:LEU:HA	3.99	0.41
36:1:2581:U:H2'	36:1:2582:C:H6	1.86	0.41
36:5:3220:G:C5	36:5:3266:G:C2	3.08	0.41
36:5:1348:U:C6	36:5:1355:A:C5	3.08	0.41
14:C2:132:GLU:H	14:C2:132:GLU:HG2	1.87	0.41
1:6:1438:G:H2'	1:6:1439:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1668:G:H2'	36:1:1669:C:O4'	2.20	0.41
75:O9:23:LEU:HD22	75:O9:24:PRO:CD	2.54	0.41
4:S2:63:VAL:HG12	4:S2:134:LEU:HD12	2.02	0.41
36:1:3217:C:C4	53:M7:182:ILE:HG23	2.55	0.41
1:2:1402:G:H2'	1:2:1403:C:C6	2.56	0.41
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	2.57	0.41
72:O6:9:ILE:HG12	72:O6:10:GLY:N	4.36	0.41
36:1:2278:C:H2'	36:1:2279:A:H5''	2.02	0.41
64:N8:27:LYS:O	64:N8:28:HIS:HB2	4.31	0.41
48:M1:85:LYS:HB2	48:M1:85:LYS:HE3	1.94	0.41
69:O3:88:ASN:HB2	36:5:429:U:H4'	214.68	0.41
1:2:892:A:C6	1:2:893:U:C4	3.09	0.41
86:1:4192:OHX:N4	43:L6:129:GLU:HA	2.35	0.41
36:5:2664:C:O2'	36:5:2665:U:H5'	2.21	0.41
45:L8:134:TYR:CD1	45:L8:190:VAL:HG11	3.56	0.41
1:6:838:G:C6	1:6:839:U:C4	3.08	0.41
1:2:1739:C:H2'	1:2:1740:A:O4'	2.20	0.41
50:M4:20:VAL:CG2	50:M4:68:LEU:HB2	2.70	0.41
13:C1:104:HIS:O	13:C1:105:LYS:HG3	2.21	0.41
36:5:2168:A:C6	36:5:2170:U:H1'	2.56	0.41
36:1:1129:A:OP1	47:M0:13:LYS:NZ	2.31	0.41
44:L7:86:VAL:O	44:L7:114:GLY:HA2	2.21	0.41
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.46	0.41
53:M7:80:LYS:NZ	36:5:2389:C:OP1	178.52	0.41
48:M1:108:GLU:HA	48:M1:122:ILE:HG23	3.39	0.41
37:7:102:A:H4'	37:7:102:A:OP1	2.19	0.41
44:L7:82:LYS:HB3	44:L7:82:LYS:HE2	1.82	0.41
34:SR:117:LYS:N	34:SR:117:LYS:HD2	2.36	0.41
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.69	0.41
5:S3:109:LEU:HA	5:S3:109:LEU:HD23	1.97	0.41
16:C4:15:GLY:O	16:C4:79:VAL:HA	2.45	0.41
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	2.02	0.41
36:1:981:U:HO2'	36:1:982:C:P	2.44	0.41
8:S6:174:LYS:HD3	1:6:65:A:OP1	339.91	0.41
1:2:1102:G:OP1	24:D2:76:SER:OG	2.38	0.41
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	2.03	0.41
36:1:1103:A:N6	36:1:1363:A:H1'	2.35	0.41
44:L7:157:ASN:C	44:L7:159:GLN:H	3.91	0.41
1:6:333:A:N1	1:6:334:G:N1	2.69	0.41
7:S5:166:ARG:HD2	30:D8:46:GLY:CA	2.51	0.41
1:6:1793:G:H1'	1:6:1794:A:H2'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:70:LYS:HG3	27:D5:71:ILE:H	1.85	0.41
20:C8:24:GLY:O	20:C8:59:GLY:N	3.16	0.41
14:C2:89:ILE:O	14:C2:90:LYS:HB2	2.19	0.41
1:2:1481:C:HO2'	1:2:1482:C:P	2.43	0.41
21:C9:63:ARG:HG2	21:C9:67:MET:HE1	5.50	0.41
12:C0:77:ARG:HG3	12:C0:82:LEU:O	2.20	0.41
36:1:76:G:H3'	49:M3:73:ARG:HD2	2.03	0.41
38:8:103:G:O6	86:8:219:OHX:N5	2.54	0.41
11:S9:133:HIS:O	11:S9:134:ILE:HD13	2.21	0.41
21:C9:105:LEU:HD13	21:C9:122:ARG:NE	2.35	0.41
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.85	0.41
1:2:103:A:H1'	1:2:308:C:N4	2.35	0.41
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.59	0.41
53:M7:84:PRO:HB2	53:M7:87:SER:HB2	2.12	0.41
53:M7:32:THR:HG21	53:M7:87:SER:HB3	2.15	0.41
71:O5:86:ARG:HG3	71:O5:90:ARG:CZ	2.87	0.41
9:S7:41:LEU:HB3	9:S7:70:PHE:CE1	2.55	0.41
9:S7:41:LEU:HD13	9:S7:70:PHE:CD1	2.55	0.41
38:8:85:G:OP2	38:8:85:G:H3'	2.21	0.41
1:2:735:C:OP2	1:2:735:C:H2'	2.21	0.41
10:S8:76:THR:HB	10:S8:105:ASP:CB	2.51	0.41
36:5:1307:G:H1'	36:5:1308:A:C5	2.55	0.41
55:M9:43:LYS:HE3	55:M9:46:LYS:HE2	7.44	0.41
3:S1:222:LYS:HA	3:S1:222:LYS:HD3	1.89	0.41
50:M4:123:LEU:HB3	52:M6:194:LEU:HD11	2.03	0.41
1:2:93:A:H4'	1:2:94:U:OP2	2.21	0.41
17:C5:95:GLY:O	17:C5:102:PHE:HB3	2.21	0.41
1:2:1617:U:O2'	1:2:1618:C:H5'	2.20	0.41
33:E1:87:THR:HA	1:6:1445:G:C6	378.94	0.41
34:SR:38:ARG:C	34:SR:40:LYS:H	2.54	0.41
34:SR:38:ARG:NE	34:SR:67:ILE:HD13	2.45	0.41
34:SR:19:TRP:H	34:SR:38:ARG:HB2	2.43	0.41
71:O5:85:THR:O	71:O5:89:ARG:HB2	2.21	0.41
5:S3:162:GLN:N	5:S3:163:PRO:CD	2.85	0.41
18:C6:138:PHE:HB3	18:C6:139:GLN:H	1.66	0.41
2:S0:141:ILE:HA	2:S0:142:PRO:HD3	2.03	0.41
2:S0:160:ILE:HA	2:S0:161:PRO:HD2	2.01	0.41
53:M7:128:ARG:NH2	53:M7:136:ILE:HD13	2.36	0.41
63:N7:46:ILE:HD13	63:N7:68:ILE:CG2	2.47	0.41
36:1:3344:A:H2	36:1:3361:G:N2	2.11	0.41
30:D8:32:PHE:CD2	30:D8:32:PHE:N	2.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:11:GLN:HG2	51:M5:44:ARG:NH2	2.65	0.41
17:C5:37:ALA:HB1	17:C5:38:PRO:HD2	2.03	0.41
39:L2:68:LYS:HD3	39:L2:70:ARG:HE	2.46	0.41
33:E1:126:CYS:CB	33:E1:130:VAL:HG21	3.17	0.41
35:SM:61:ILE:HG13	35:SM:61:ILE:H	1.54	0.41
2:S0:56:LYS:HD2	2:S0:56:LYS:HA	1.92	0.41
1:2:190:C:N4	1:2:196:G:C6	2.89	0.41
1:2:196:G:O2'	1:2:197:A:P	2.79	0.41
7:S5:144:GLU:HG3	7:S5:221:ALA:HB1	2.03	0.41
6:S4:123:LEU:HD21	6:S4:235:TYR:HB2	2.36	0.41
36:1:786:A:H4'	36:1:787:G:OP1	2.21	0.41
55:M9:25:ASP:HA	55:M9:26:PRO:HD2	2.04	0.41
69:O3:8:TYR:CD2	69:O3:99:ARG:HG2	2.59	0.41
72:O6:45:ARG:NH2	72:O6:50:LEU:HA	3.42	0.41
45:L8:36:ILE:HG22	45:L8:37:GLY:H	1.84	0.41
35:SM:74:LYS:HB2	35:SM:74:LYS:HE2	4.54	0.41
1:6:648:G:C2	1:6:687:G:C2	3.09	0.41
6:S4:187:ARG:O	6:S4:187:ARG:HD3	2.21	0.41
15:C3:114:ARG:HG3	1:6:952:A:O2'	298.18	0.41
36:5:846:A:H2'	36:5:847:A:O4'	2.21	0.41
36:5:848:A:C4	36:5:849:C:H1'	2.56	0.41
36:1:971:G:H2'	36:1:972:A:O4'	2.20	0.41
1:2:926:A:H1'	1:2:988:A:C2	2.56	0.41
1:6:193:U:C2	1:6:195:G:H1'	2.55	0.41
36:5:339:C:OP1	36:5:1380:G:O2'	2.34	0.41
36:1:2244:A:HO2'	39:L2:223:SER:HB3	1.85	0.41
15:C3:115:LEU:HD22	15:C3:119:GLU:OE1	3.42	0.41
40:L3:221:THR:HG22	40:L3:222:LYS:O	2.21	0.41
1:2:499:U:O2'	1:2:500:C:H5"	2.21	0.41
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.21	0.41
36:5:1063:G:H2'	36:5:1097:G:N2	2.36	0.41
1:2:1680:G:C2	1:2:1720:G:C2	3.09	0.41
51:M5:21:PHE:O	51:M5:25:VAL:HG23	3.09	0.41
51:M5:19:LEU:HD12	51:M5:19:LEU:HA	1.79	0.41
36:1:1740:U:H4'	36:1:1741:A:H5'	2.02	0.41
52:M6:3:VAL:CG1	52:M6:4:GLU:H	2.33	0.41
36:1:1541:G:H22	36:1:1556:C:H3'	1.86	0.41
58:N2:98:THR:HG21	58:N2:104:ARG:HE	6.17	0.41
59:N3:6:ALA:HB2	59:N3:126:TRP:CH2	3.63	0.41
1:2:1321:A:N6	2:S0:135:GLU:OE1	2.54	0.41
88:5:4246:3L2:H26	88:5:4246:3L2:H8	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1731:A:C5	36:1:1732:U:C5	3.09	0.41
33:E1:96:LYS:HD2	33:E1:96:LYS:HA	1.88	0.41
4:S2:81:MET:HG3	4:S2:103:VAL:HG23	2.03	0.41
66:O0:68:TYR:CD2	66:O0:68:TYR:C	3.45	0.41
66:O0:68:TYR:HD2	66:O0:68:TYR:C	3.36	0.41
36:1:999:G:O2'	36:1:1000:C:H5'	2.21	0.41
36:5:3242:G:N2	36:5:3245:A:H5''	2.36	0.41
36:1:3140:G:OP1	40:L3:20:LYS:NZ	2.52	0.41
36:5:244:G:C6	36:5:245:U:C4	3.09	0.41
38:8:104:A:O5'	38:8:105:A:H5''	2.20	0.41
46:L9:75:VAL:HA	46:L9:78:MET:CE	2.68	0.41
1:6:901:G:N1	1:6:902:G:C6	2.89	0.41
36:5:2434:U:C4'	36:5:2435:G:H5''	2.51	0.41
39:L2:187:HIS:ND1	39:L2:190:ARG:NH2	2.68	0.41
78:Q2:65:THR:HG21	78:Q2:89:LYS:HA	2.78	0.41
36:5:1650:G:H2'	36:5:1651:U:O4'	2.21	0.41
1:2:626:U:H2'	1:2:627:C:H6	1.86	0.41
9:S7:157:LYS:O	9:S7:158:ASP:HB2	2.46	0.41
1:2:1378:U:H1'	18:C6:8:GLN:HG3	2.03	0.41
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.56	0.41
48:M1:23:VAL:HG11	48:M1:29:ARG:HG2	2.03	0.41
36:1:1048:A:N1	36:1:2646:C:O2'	2.44	0.41
25:D3:133:LEU:HD13	25:D3:137:LYS:HE3	3.57	0.41
67:O1:74:ARG:HH21	67:O1:109:VAL:HG21	3.01	0.41
41:L4:10:SER:OG	41:L4:13:GLY:O	2.32	0.41
36:1:2882:U:H2'	36:1:2883:U:O4'	2.21	0.41
36:5:731:U:O5'	36:5:731:U:H6	2.04	0.41
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	2.03	0.41
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.20	0.41
10:S8:184:LEU:O	10:S8:189:LEU:HD22	3.59	0.41
44:L7:154:GLY:O	44:L7:160:ARG:HA	2.21	0.41
41:L4:81:GLY:HA3	36:5:357:A:O4'	128.86	0.41
3:S1:103:MET:HB3	3:S1:215:VAL:CG1	2.51	0.41
1:6:1003:A:H1'	1:6:1005:A:N7	2.36	0.41
36:1:2613:U:O2	36:1:2804:A:C8	2.74	0.41
15:C3:81:ALA:HA	15:C3:82:PRO:HD2	2.09	0.41
36:5:2318:U:H2'	36:5:2319:U:O4'	2.20	0.41
77:Q1:14:LYS:HE3	1:6:1116:A:OP2	291.90	0.41
25:D3:17:VAL:HG23	25:D3:20:ARG:HH22	3.86	0.41
69:O3:19:SER:HB3	36:5:1330:A:OP1	232.68	0.41
1:2:1649:G:N7	86:2:2050:OHX:N1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:759:U:O4	36:5:760:G:C6	2.74	0.41
68:O2:57:TYR:CE1	36:5:1162:U:H4'	197.41	0.41
37:3:39:C:N3	48:M1:70:THR:HG23	2.36	0.41
1:6:643:G:H1	1:6:691:C:N4	2.18	0.41
36:5:873:C:H2'	36:5:875:G:O4'	2.21	0.41
36:1:2775:U:H2'	36:1:2776:C:H6	1.85	0.41
1:2:1344:A:H2'	1:2:1345:A:C8	2.55	0.41
42:L5:99:TYR:CD2	42:L5:199:ILE:HG23	2.91	0.41
37:7:112:G:H2'	37:7:113:C:C6	2.56	0.41
36:1:2628:A:C5	36:1:2798:C:N4	2.88	0.41
40:L3:308:MET:O	40:L3:363:SER:HB2	3.05	0.41
16:C4:103:ARG:HH12	28:D6:48:ALA:HB3	3.33	0.41
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.85	0.41
1:6:1621:U:H2'	1:6:1622:G:C8	2.56	0.41
11:S9:86:LEU:HA	11:S9:86:LEU:HD12	1.93	0.41
50:M4:20:VAL:HG22	50:M4:68:LEU:HB2	2.12	0.41
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	2.06	0.41
36:1:180:C:H2'	36:1:181:U:C6	2.56	0.41
1:2:375:U:C4	1:2:376:C:C5	3.09	0.41
36:1:2142:A:H4'	36:1:2143:A:O5'	2.21	0.41
42:L5:119:TYR:OH	42:L5:141:PRO:HD3	2.21	0.41
36:1:1787:A:N6	36:1:1788:C:C4	2.89	0.41
73:O7:12:HIS:HE1	36:5:901:G:OP1	148.99	0.41
1:6:255:U:H2'	1:6:256:A:C8	2.56	0.41
58:N2:32:SER:HA	58:N2:35:LYS:HB3	2.01	0.41
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.56	0.41
36:5:1152:G:H22	36:5:1200:A:H61	1.69	0.41
22:D0:108:ILE:HG13	22:D0:108:ILE:H	1.63	0.41
7:S5:156:ARG:H	7:S5:156:ARG:HG3	1.64	0.41
17:C5:84:ILE:HD12	17:C5:84:ILE:H	4.26	0.41
44:L7:175:LYS:HE2	44:L7:175:LYS:HB2	1.76	0.41
1:2:552:G:C6	1:2:553:G:C6	3.09	0.41
36:1:1487:G:H1	36:1:1855:U:H3	1.69	0.41
36:1:1112:A:P	49:M3:5:LYS:HE3	2.60	0.41
1:6:1708:U:H2'	1:6:1709:C:C6	2.56	0.41
36:5:2842:U:C2	36:5:2843:U:C6	3.08	0.41
36:5:1822:C:H2'	36:5:1823:A:H8	1.85	0.41
4:S2:106:ASP:OD1	4:S2:107:SER:N	2.54	0.41
36:1:424:G:O2'	68:O2:23:ASP:OD2	2.32	0.41
36:5:747:A:H2'	36:5:748:U:O4'	2.21	0.41
1:6:751:G:H2'	1:6:752:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3218:A:H4'	36:1:3219:G:O5'	2.21	0.41
40:L3:122:TRP:CZ2	40:L3:127:LYS:HD3	2.55	0.41
61:N5:109:LYS:HB2	61:N5:109:LYS:HE2	1.82	0.41
48:M1:37:LEU:HA	48:M1:37:LEU:HD23	1.87	0.41
36:5:764:U:O4	86:5:4032:OHX:N4	2.54	0.41
11:S9:23:ARG:O	11:S9:26:ALA:HB3	2.21	0.41
8:S6:24:ILE:HD13	8:S6:24:ILE:HG21	1.84	0.41
1:2:1785:U:OP1	16:C4:136:ARG:NH1	2.53	0.41
1:6:992:A:H5'	1:6:992:A:H8	1.86	0.41
36:5:2255:A:OP2	36:5:2261:G:N1	2.40	0.41
36:5:2261:G:O2'	36:5:2263:C:N4	2.54	0.41
47:M0:170:LYS:HD3	47:M0:170:LYS:HA	2.17	0.41
2:S0:124:THR:O	2:S0:146:LEU:HB2	2.20	0.41
21:C9:15:ILE:HD11	21:C9:63:ARG:HD3	4.36	0.41
36:5:644:G:H2'	36:5:2372:A:N7	2.36	0.41
11:S9:107:ARG:O	11:S9:147:MET:HA	2.21	0.41
36:5:3197:G:H2'	36:5:3198:U:H5''	2.02	0.41
55:M9:101:VAL:HG22	36:5:1949:G:OP1	219.95	0.41
44:L7:217:PRO:O	44:L7:218:ARG:HG2	2.21	0.41
5:S3:156:PHE:C	5:S3:157:LEU:HD12	2.41	0.41
37:3:3:U:H2'	37:3:4:U:H6	1.83	0.41
1:2:795:U:H6	1:2:795:U:H2'	1.66	0.41
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.61	0.41
36:1:1631:C:C2	36:1:1812:G:N2	2.89	0.41
22:D0:100:VAL:HA	22:D0:103:ILE:HG22	2.02	0.41
16:C4:117:ASP:OD1	16:C4:119:THR:HG22	3.84	0.41
16:C4:82:LYS:HD3	16:C4:118:VAL:HG11	2.03	0.41
36:1:1820:U:H1'	36:1:1821:U:OP2	2.21	0.41
45:L8:68:ARG:NE	45:L8:237:ILE:O	2.83	0.41
45:L8:68:ARG:H	45:L8:68:ARG:HG2	2.50	0.41
1:2:1459:C:H4'	17:C5:126:VAL:HG11	2.03	0.41
13:C1:109:VAL:CG2	13:C1:139:VAL:HG23	2.51	0.41
1:6:647:G:H22	1:6:687:G:N2	2.19	0.41
41:L4:362:ASP:H	56:N0:26:ARG:HH12	2.97	0.41
11:S9:171:ARG:HH11	11:S9:174:ARG:HB3	4.03	0.41
17:C5:15:HIS:CG	17:C5:16:SER:N	2.93	0.41
36:1:1230:G:OP2	86:1:4083:OHX:N2	2.54	0.41
6:S4:66:MET:HG3	1:6:454:U:N1	373.77	0.41
45:L8:155:ASN:OD1	45:L8:181:LYS:HA	2.21	0.41
19:C7:104:ASN:C	19:C7:106:THR:N	3.20	0.41
38:8:29:U:O2'	38:8:30:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:173:LEU:HB3	44:L7:178:ILE:HB	2.07	0.41
23:D1:3:ASN:C	23:D1:3:ASN:OD1	3.24	0.41
36:5:1208:U:H6	36:5:3115:C:H42	1.68	0.41
1:2:1474:G:O5'	1:2:1474:G:H8	2.04	0.41
48:M1:65:ILE:HG21	48:M1:65:ILE:HD13	1.87	0.41
42:L5:290:ILE:O	42:L5:294:ALA:HB3	2.20	0.41
1:6:1623:C:H2'	1:6:1624:C:H6	1.84	0.41
67:O1:20:LEU:O	67:O1:23:VAL:HG23	2.77	0.41
64:N8:14:HIS:O	64:N8:16:SER:N	2.54	0.41
36:1:715:A:H5''	64:N8:114:GLY:O	2.21	0.41
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.60	0.41
43:L6:18:LEU:HD22	36:5:591:G:C2	216.09	0.41
19:C7:5:ARG:O	19:C7:10:LYS:HE2	2.32	0.41
36:1:352:A:N6	36:1:365:A:H5''	2.36	0.41
69:O3:89:LEU:HA	69:O3:90:PRO:HD2	3.08	0.41
57:N1:79:MET:HA	57:N1:84:TYR:HA	2.03	0.41
46:L9:4:ILE:N	56:N0:142:GLN:OE1	3.01	0.41
36:5:2949:U:C5	36:5:2950:G:C6	3.09	0.41
6:S4:42:LEU:HD12	6:S4:109:PHE:HB2	2.03	0.41
43:L6:80:ASN:C	43:L6:82:ARG:H	2.25	0.41
46:L9:92:TYR:CD1	46:L9:92:TYR:N	2.87	0.41
1:2:1650:U:H2'	1:2:1651:A:C8	2.56	0.41
20:C8:112:ASP:OD2	1:6:1547:A:H5'	356.47	0.41
36:5:163:C:H2'	36:5:164:A:C8	2.55	0.41
36:5:3203:U:C2	36:5:3204:C:C5	3.09	0.41
36:1:2660:G:O2'	36:1:2744:U:O2	2.39	0.41
36:1:2993:G:H2'	36:1:3142:A:H61	1.86	0.41
36:1:1070:U:O4	86:1:4098:OHX:N3	2.53	0.41
1:6:445:A:H1'	1:6:525:A:H5'	2.02	0.41
42:L5:219:PHE:C	42:L5:221:GLU:H	3.50	0.41
9:S7:143:LEU:H	9:S7:143:LEU:CD2	2.34	0.41
36:1:3275:U:O4'	69:O3:66:VAL:HG21	2.21	0.41
70:O4:19:LYS:HZ1	70:O4:38:LEU:HD13	3.13	0.41
8:S6:43:ASP:O	8:S6:46:LYS:HB2	3.47	0.41
36:1:3220:G:C5	36:1:3266:G:C2	3.09	0.41
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	2.03	0.41
1:2:1393:C:H2'	1:2:1394:G:O4'	2.21	0.41
1:2:1612:U:H4'	7:S5:96:SER:OG	2.21	0.41
36:1:2626:A:H5'	36:1:2627:C:H5''	2.03	0.41
39:L2:54:ARG:HG2	39:L2:55:GLY:O	4.49	0.41
36:1:2150:G:O2'	36:1:2189:U:OP1	2.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1611:G:H2'	36:1:1612:A:O4'	2.20	0.41
48:M1:86:VAL:HG22	48:M1:111:ASP:O	2.21	0.41
19:C7:66:VAL:O	19:C7:68:GLY:N	3.93	0.41
36:1:165:A:H2'	36:1:166:C:C6	2.56	0.41
64:N8:91:LEU:HD12	64:N8:121:VAL:HG21	2.17	0.41
40:L3:59:ASP:OD1	40:L3:71:GLU:HG3	3.26	0.41
53:M7:10:ASN:HD22	53:M7:13:LYS:NZ	2.19	0.41
20:C8:74:GLN:HB2	20:C8:74:GLN:HE21	2.28	0.41
16:C4:129:LYS:HE3	16:C4:129:LYS:HB2	1.74	0.41
1:6:475:A:H2'	1:6:476:U:O4'	2.21	0.40
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.86	0.40
1:2:1432:U:H4'	1:2:1433:G:O5'	2.21	0.40
1:6:1636:C:C2	1:6:1638:G:C5	3.09	0.40
36:5:1015:U:O3'	36:5:1016:C:H2'	2.21	0.40
7:S5:42:LEU:HD21	7:S5:45:LYS:HE2	2.03	0.40
21:C9:37:VAL:O	21:C9:46:PRO:HB3	2.48	0.40
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	6.05	0.40
8:S6:64:LYS:CB	8:S6:97:VAL:HG11	2.51	0.40
28:D6:6:ALA:C	28:D6:8:ASN:H	2.24	0.40
36:1:155:G:H4'	36:1:156:G:H2'	2.03	0.40
2:S0:184:LEU:HA	2:S0:184:LEU:HD13	2.10	0.40
36:5:2407:C:H1'	36:5:2818:U:C2	2.56	0.40
39:L2:172:GLY:HA3	79:Q3:68:ALA:N	4.95	0.40
1:6:1394:G:H2'	1:6:1395:G:C8	2.56	0.40
1:2:701:U:C2	1:2:738:G:N2	2.89	0.40
2:S0:9:LEU:HD23	2:S0:54:TRP:CD2	2.56	0.40
18:C6:99:GLU:OE1	34:SR:60:SER:N	2.53	0.40
46:L9:171:ASP:C	46:L9:171:ASP:OD1	2.72	0.40
51:M5:138:GLN:HA	51:M5:143:ARG:HD2	2.08	0.40
36:1:2571:U:H1'	36:1:2572:C:H5'	2.03	0.40
21:C9:115:GLU:O	21:C9:117:SER:N	2.54	0.40
72:O6:70:ARG:NH1	72:O6:84:LYS:HD3	2.36	0.40
39:L2:169:ILE:HG22	39:L2:170:ALA:O	2.70	0.40
11:S9:3:ARG:HG2	11:S9:3:ARG:NH2	3.89	0.40
3:S1:97:LEU:HD22	3:S1:97:LEU:HA	1.94	0.40
61:N5:135:ILE:HD13	61:N5:135:ILE:O	2.48	0.40
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.21	0.40
1:6:192:U:HO2'	1:6:193:U:P	2.44	0.40
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.21	0.40
68:O2:109:LEU:HA	68:O2:109:LEU:HD22	3.43	0.40
18:C6:41:PRO:O	18:C6:42:GLU:HB3	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:133:ARG:HD3	52:M6:133:ARG:HH11	2.33	0.40
36:1:1094:U:H4'	36:1:1095:U:OP1	2.19	0.40
58:N2:18:ASP:HB3	58:N2:104:ARG:HB2	2.03	0.40
77:Q1:7:LYS:O	77:Q1:11:ARG:HB2	2.21	0.40
1:2:218:A:N1	1:2:843:U:O2'	2.48	0.40
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.51	0.40
86:1:4108:OHX:N4	65:N9:6:ASN:OD1	2.54	0.40
11:S9:97:LEU:HD23	11:S9:97:LEU:HA	1.94	0.40
35:SM:48:ARG:H	35:SM:48:ARG:HG3	1.46	0.40
14:C2:67:THR:O	14:C2:69:ALA:N	2.53	0.40
6:S4:176:ASP:H	6:S4:179:LYS:HG3	1.86	0.40
4:S2:44:LEU:HD23	4:S2:44:LEU:HA	2.13	0.40
21:C9:65:ILE:HG12	21:C9:71:VAL:HG21	2.03	0.40
34:SR:153:GLN:HG2	34:SR:202:LEU:HD23	2.03	0.40
4:S2:153:SER:HA	4:S2:195:ASP:O	2.45	0.40
36:1:2229:A:OP1	86:1:4190:OHX:N3	2.54	0.40
1:2:1681:A:H2'	1:2:1682:U:H5'	2.02	0.40
59:N3:23:MET:HG2	59:N3:23:MET:H	1.76	0.40
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.57	0.40
19:C7:34:LEU:O	19:C7:38:ILE:HG12	5.73	0.40
36:1:626:U:H2'	36:1:627:U:O4'	2.20	0.40
41:L4:230:VAL:HG13	41:L4:254:ALA:HB1	3.06	0.40
13:C1:83:THR:HB	13:C1:110:HIS:HA	2.03	0.40
36:1:1175:C:O3'	52:M6:25:LYS:HE2	2.20	0.40
42:L5:209:GLU:OE1	42:L5:233:ALA:HB3	2.22	0.40
17:C5:52:LYS:HA	17:C5:52:LYS:HD2	4.47	0.40
36:5:1471:U:H2'	36:5:1472:U:C6	2.56	0.40
26:D4:77:ASN:O	26:D4:78:SER:OG	4.30	0.40
36:1:3153:U:O2	36:1:3158:G:N1	2.54	0.40
6:S4:42:LEU:N	6:S4:84:ALA:O	2.54	0.40
38:4:106:C:O2'	86:4:235:OHX:N4	2.54	0.40
36:1:2623:G:C5	36:1:2624:G:N7	2.90	0.40
36:5:2439:A:N6	36:5:2508:U:H3	2.17	0.40
49:M3:35:ARG:NH1	36:5:685:G:P	82.55	0.40
36:1:3178:A:C5	52:M6:6:VAL:HB	2.56	0.40
1:2:1742:U:H2'	1:2:1743:U:O4'	2.21	0.40
1:6:1388:A:C5	1:6:1411:A:C6	3.09	0.40
79:Q3:36:ARG:HG2	79:Q3:48:LYS:HG3	2.02	0.40
1:2:1603:U:H2'	1:2:1604:U:C6	2.56	0.40
1:6:988:A:C6	1:6:989:U:C2	3.09	0.40
65:N9:41:ARG:O	65:N9:44:LYS:HB3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1796:G:H5''	36:1:1797:A:OP1	2.21	0.40
86:1:3903:OHX:N3	38:4:7:U:O4	2.54	0.40
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.58	0.40
36:5:739:G:O6	86:5:3959:OHX:N6	2.54	0.40
1:6:1107:G:C5	1:6:1108:G:C6	3.09	0.40
48:M1:61:ARG:HD2	48:M1:61:ARG:HH21	1.86	0.40
36:5:196:G:C2	36:5:199:A:C8	3.09	0.40
36:1:538:G:H2'	36:1:539:C:C6	2.56	0.40
37:3:97:A:H2'	37:3:98:C:C6	2.56	0.40
36:1:2578:U:OP1	86:1:4147:OHX:N5	2.54	0.40
64:N8:15:VAL:HG23	64:N8:15:VAL:H	1.72	0.40
44:L7:124:LEU:HA	44:L7:124:LEU:HD22	2.35	0.40
38:4:152:G:H2'	38:4:153:U:O4'	2.21	0.40
36:5:3275:U:H4'	36:5:3276:G:OP2	2.17	0.40
52:M6:36:VAL:HG11	52:M6:108:ILE:HG23	2.02	0.40
47:M0:30:LYS:HG3	47:M0:63:GLU:OE1	4.88	0.40
39:L2:209:HIS:ND1	39:L2:210:PRO:HD2	2.47	0.40
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	2.02	0.40
20:C8:26:ILE:HD11	20:C8:30:TYR:HB2	2.03	0.40
64:N8:133:LEU:CD1	64:N8:137:LYS:HE3	3.39	0.40
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.37	0.40
1:2:531:C:OP2	86:2:2069:OHX:N4	2.54	0.40
16:C4:123:SER:HA	1:6:929:A:C4	294.01	0.40
26:D4:34:ASN:OD1	26:D4:62:THR:HG21	4.82	0.40
71:O5:83:LYS:O	71:O5:89:ARG:NE	2.60	0.40
1:2:304:U:C2	1:2:305:C:C5	3.09	0.40
7:S5:113:ILE:HG21	7:S5:190:ILE:HB	3.32	0.40
79:Q3:33:GLN:HB3	79:Q3:69:TYR:HB3	2.03	0.40
50:M4:25:LYS:HG2	50:M4:62:GLN:HB3	2.04	0.40
22:D0:105:GLN:HG3	22:D0:106:ILE:H	1.86	0.40
22:D0:15:GLN:O	22:D0:16:GLN:HB2	4.00	0.40
22:D0:22:ILE:HD12	22:D0:22:ILE:HA	1.82	0.40
48:M1:162:TRP:O	48:M1:165:GLN:HB3	2.98	0.40
36:1:413:U:P	53:M7:30:ARG:HH21	2.44	0.40
36:5:832:G:C2	36:5:863:C:C2	3.08	0.40
5:S3:58:VAL:O	5:S3:65:ARG:HB3	2.41	0.40
79:Q3:62:LYS:HZ2	36:5:2554:A:H62	217.61	0.40
26:D4:94:TYR:HB2	26:D4:96:LEU:HD12	2.02	0.40
7:S5:146:THR:HG23	7:S5:221:ALA:HA	2.02	0.40
45:L8:38:GLN:HB2	36:5:2557:A:H2	206.58	0.40
1:2:1459:C:H6	1:2:1459:C:OP2	2.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:115:GLU:HG2	24:D2:119:LYS:HD2	4.97	0.40
3:S1:72:ASP:OD2	28:D6:59:TYR:OH	2.31	0.40
61:N5:135:ILE:O	61:N5:139:ILE:HG13	5.89	0.40
7:S5:117:THR:HA	7:S5:120:ILE:HD12	2.03	0.40
1:6:1276:U:OP2	1:6:1427:A:H2	2.04	0.40
72:O6:53:TYR:O	72:O6:57:LEU:HB2	2.21	0.40
36:1:422:A:C2	36:1:2363:A:H4'	2.56	0.40
1:2:1217:A:C5'	12:C0:1:MET:HG3	2.51	0.40
2:S0:88:LYS:O	2:S0:92:HIS:ND1	3.41	0.40
3:S1:134:VAL:O	3:S1:218:LEU:HD22	2.22	0.40
1:6:313:U:C6	1:6:1118:G:N2	2.90	0.40
33:E1:95:HIS:CE1	1:6:1245:G:N2	420.90	0.40
1:6:1244:A:H4'	1:6:1245:G:OP1	2.20	0.40
48:M1:59:ILE:HD13	36:5:2680:A:N3	305.11	0.40
36:1:208:C:H2'	36:1:209:A:O4'	2.21	0.40
68:O2:82:LEU:HD12	68:O2:108:ILE:HG23	2.96	0.40
36:5:2537:U:O2'	36:5:2538:U:O5'	2.38	0.40
28:D6:41:ILE:HG12	28:D6:41:ILE:O	2.20	0.40
72:O6:10:GLY:O	72:O6:13:LYS:HB2	2.21	0.40
36:1:1619:A:C2	36:1:1826:C:C2	3.10	0.40
36:1:216:G:H4'	62:N6:19:TYR:CZ	2.57	0.40
44:L7:144:ILE:HD12	44:L7:189:ILE:HG13	2.03	0.40
1:2:839:U:H2'	1:2:840:U:H5'	2.03	0.40
1:2:958:U:OP2	29:D7:20:LYS:HE3	2.21	0.40
29:D7:19:HIS:CE1	29:D7:20:LYS:HB3	4.54	0.40
1:2:27:U:H2'	1:2:28:A:O4'	2.21	0.40
71:O5:4:VAL:HG13	71:O5:50:SER:HB3	2.48	0.40
7:S5:109:LYS:NZ	1:6:1474:G:OP1	364.12	0.40
1:6:1028:C:C4	1:6:1030:A:H1'	2.56	0.40
76:Q0:85:LEU:HD23	76:Q0:85:LEU:HA	1.96	0.40
36:1:2539:C:H5'	36:1:2541:U:O4	2.21	0.40
36:5:2926:A:O2'	36:5:2927:C:H5'	2.20	0.40
18:C6:13:LYS:HG3	18:C6:76:SER:HB2	5.77	0.40
40:L3:259:HIS:HE1	36:5:2366:C:H5'	218.47	0.40
18:C6:4:VAL:HG12	18:C6:23:LYS:HB2	6.23	0.40
4:S2:212:LYS:O	4:S2:216:VAL:HG23	2.22	0.40
36:5:641:C:N4	36:5:645:A:C8	2.89	0.40
1:2:553:G:C6	1:2:554:C:N3	2.89	0.40
36:1:1855:U:O2'	36:1:1856:C:H5'	2.21	0.40
48:M1:52:TYR:HA	48:M1:61:ARG:HG3	2.41	0.40
51:M5:191:TRP:NE1	51:M5:195:ASN:OD1	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1517:G:O2'	36:5:1518:U:H5'	2.21	0.40
36:5:1617:G:H2'	36:5:1618:G:O4'	2.22	0.40
65:N9:28:LYS:HD3	65:N9:29:TYR:H	1.86	0.40
17:C5:55:GLY:O	17:C5:58:LYS:HB2	2.22	0.40
44:L7:81:HIS:CD2	44:L7:138:TYR:CG	3.09	0.40
8:S6:216:LEU:HD11	1:6:242:U:P	337.46	0.40
37:3:57:G:H3'	37:3:58:C:H6	1.86	0.40
41:L4:263:GLY:HA3	41:L4:268:ALA:O	2.21	0.40
55:M9:116:ASP:OD1	55:M9:118:HIS:N	2.47	0.40
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.03	0.40
36:5:579:G:O2'	36:5:580:C:H5'	2.22	0.40
1:2:432:G:C2	1:2:433:C:C2	3.09	0.40
36:1:815:G:C6	36:1:906:A:C4	3.09	0.40
1:6:1007:C:O2'	1:6:1008:G:H5'	2.21	0.40
39:L2:17:THR:HG23	39:L2:17:THR:H	1.57	0.40
25:D3:54:LEU:HD23	25:D3:54:LEU:HA	2.12	0.40
24:D2:75:ILE:HA	24:D2:75:ILE:HD13	1.83	0.40
56:N0:62:ASN:OD1	56:N0:62:ASN:N	2.54	0.40
57:N1:106:LEU:HA	57:N1:106:LEU:HD23	4.29	0.40
11:S9:21:SER:HA	11:S9:24:LEU:HD12	2.03	0.40
36:5:3386:G:H2'	36:5:3387:U:H6	1.87	0.40
36:5:1638:A:H5''	36:5:1639:C:OP2	2.21	0.40
40:L3:76:VAL:HG11	40:L3:323:MET:CE	3.15	0.40
68:O2:43:ARG:HH11	36:5:1368:U:H5'	191.93	0.40
36:1:1940:G:OP1	55:M9:75:HIS:ND1	2.50	0.40
36:5:3344:A:C2	36:5:3362:A:N7	2.89	0.40
42:L5:34:LYS:HD3	57:N1:30:TYR:CE2	2.56	0.40
1:2:392:G:OP1	10:S8:24:LYS:NZ	2.52	0.40
30:D8:44:VAL:HG21	30:D8:48:VAL:HG21	3.22	0.40
24:D2:98:GLN:O	24:D2:99:PHE:HB3	3.30	0.40
1:6:485:A:C5	1:6:486:G:H1'	2.56	0.40
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.21	0.40
60:N4:8:PHE:CE2	60:N4:46:PRO:HD3	2.56	0.40
50:M4:19:ARG:HA	50:M4:19:ARG:HD3	2.70	0.40
1:2:823:G:O2'	1:2:824:G:O4'	2.24	0.40
41:L4:219:LEU:O	41:L4:220:ARG:C	2.59	0.40
11:S9:123:HIS:CE1	32:E0:37:ARG:HD2	3.03	0.40
1:6:1041:G:H2'	1:6:1042:G:C8	2.56	0.40
38:4:79:A:O5'	38:4:79:A:H8	2.05	0.40
6:S4:20:LEU:HD23	6:S4:20:LEU:HA	1.88	0.40
1:6:271:A:H5'	1:6:272:U:P	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:547:G:O2'	36:1:548:G:O4'	2.39	0.40
86:7:219:OHX:N4	86:7:227:OHX:N6	2.69	0.40
50:M4:24:LYS:HG2	50:M4:62:GLN:C	2.40	0.40
50:M4:59:ASN:C	50:M4:61:GLY:H	2.25	0.40
50:M4:59:ASN:O	50:M4:61:GLY:N	2.53	0.40
3:S1:179:SER:HB3	3:S1:183:GLN:HB2	2.02	0.40
22:D0:97:VAL:HG22	22:D0:98:GLN:N	3.11	0.40
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	2.19	0.40
36:5:3057:U:H5'	36:5:3086:A:H61	1.87	0.40
47:M0:77:THR:HG22	47:M0:85:PHE:CE2	3.11	0.40
36:5:1658:G:H2'	36:5:1659:U:C6	2.56	0.40
10:S8:138:ASN:HA	10:S8:141:ARG:CD	3.22	0.40
49:M3:180:ARG:NH2	36:5:2780:A:H4'	130.34	0.40
39:L2:114:SER:O	39:L2:115:ASN:C	2.84	0.40
21:C9:52:GLY:HA2	21:C9:55:TYR:CD2	2.56	0.40
86:5:4004:OHX:N4	86:5:4194:OHX:N2	2.69	0.40
43:L6:100:LYS:HE2	43:L6:105:TYR:CE2	3.41	0.40
72:O6:34:SER:O	72:O6:38:LYS:HG3	2.22	0.40
36:1:2308:C:N4	36:1:2309:A:C2	2.89	0.40
36:1:1093:A:H4'	36:1:1093:A:OP1	2.21	0.40
36:1:1093:A:O2'	36:1:1094:U:O5'	2.35	0.40
17:C5:63:ALA:HA	17:C5:66:ALA:CB	3.54	0.40
1:6:1458:G:H5''	1:6:1459:C:OP2	2.21	0.40
4:S2:175:GLY:HA3	11:S9:53:ARG:NH2	2.60	0.40
36:1:2630:C:H3'	57:N1:4:SER:OG	2.20	0.40
43:L6:26:ARG:HB2	36:5:502:U:O2'	252.53	0.40
42:L5:95:TRP:CZ2	42:L5:181:PRO:HD3	3.38	0.40
29:D7:67:THR:HB	29:D7:68:GLY:H	1.69	0.40
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.62	0.40
5:S3:208:ILE:HD12	19:C7:16:LEU:CD2	2.50	0.40
72:O6:60:LEU:HD22	72:O6:60:LEU:HA	1.94	0.40
36:5:2881:C:H2'	36:5:2882:U:C6	2.57	0.40
64:N8:72:VAL:HB	64:N8:113:LEU:HG	2.69	0.40
69:O3:51:TYR:CE2	69:O3:53:TYR:HB3	3.04	0.40
4:S2:36:VAL:HA	4:S2:37:PRO:HD2	2.31	0.40
19:C7:10:LYS:HD3	19:C7:53:TYR:CZ	2.56	0.40
36:1:2948:C:H2'	36:1:2949:U:C6	2.57	0.40
1:2:1614:A:C6	1:2:1615:C:C4	3.09	0.40
1:6:209:U:H2'	1:6:210:A:H8	1.83	0.40
1:2:882:U:H2'	1:2:883:C:C6	2.56	0.40
1:2:462:G:C5	1:2:463:U:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:31:ARG:HG3	41:L4:31:ARG:NH1	2.36	0.40
1:6:674:C:H2'	1:6:675:U:C6	2.57	0.40
16:C4:102:LEU:HD23	16:C4:102:LEU:HA	2.65	0.40
20:C8:142:GLY:HA2	1:6:1173:C:OP1	340.54	0.40
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.56	0.40
48:M1:18:VAL:HG13	48:M1:70:THR:HG22	2.04	0.40
8:S6:14:LYS:HB2	8:S6:124:LEU:HD13	2.94	0.40
1:2:74:U:C1'	1:2:75:U:H5'	2.51	0.40
6:S4:131:LEU:O	1:6:252:U:H5'	325.42	0.40
1:6:386:G:C6	1:6:387:A:N6	2.90	0.40
67:O1:9:THR:OG1	67:O1:76:SER:HB3	2.56	0.40
40:L3:339:ARG:CZ	40:L3:342:LEU:HD21	3.28	0.40
52:M6:159:LYS:O	52:M6:162:VAL:HB	2.21	0.40
36:1:661:G:C5	36:1:802:C:C6	3.10	0.40
1:2:99:C:H2'	1:2:378:A:H4'	2.03	0.40
36:5:791:A:H2'	36:5:792:G:C8	2.55	0.40
36:5:1610:G:H2'	36:5:1611:G:C8	2.56	0.40
36:1:1864:A:H2'	36:1:1865:A:C8	2.57	0.40
50:M4:109:ARG:NH1	36:5:3210:A:OP1	291.08	0.40
36:5:2322:C:OP1	86:5:4153:OHX:N6	2.54	0.40
50:M4:106:ARG:NH2	36:5:3207:U:OP1	301.50	0.40
48:M1:48:SER:HB2	48:M1:66:ALA:HB3	2.04	0.40
76:Q0:92:ASP:O	76:Q0:105:PRO:HG3	2.21	0.40
36:5:3045:G:H2'	36:5:3046:A:O4'	2.21	0.40
36:1:27:C:H1'	36:1:328:U:H1'	2.04	0.40
69:O3:77:ASN:HB2	36:5:1180:A:OP1	263.35	0.40
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	2.84	0.40
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.56	0.40
20:C8:57:ARG:HG2	20:C8:60:GLU:OE1	2.20	0.40
41:L4:334:PHE:CE1	36:5:578:A:C6	276.69	0.40
49:M3:93:ILE:HD13	49:M3:93:ILE:HA	1.77	0.40
49:M3:93:ILE:HG23	49:M3:93:ILE:HD12	1.79	0.40
40:L3:17:LEU:HD12	40:L3:17:LEU:HA	1.97	0.40
36:1:1650:G:O6	86:1:4136:OHX:N2	2.55	0.40
36:1:3049:A:H5''	40:L3:364:LYS:HG2	2.03	0.40
40:L3:284:ARG:HH22	40:L3:296:THR:HG23	1.85	0.40
8:S6:175:ILE:HB	8:S6:178:LEU:HD22	2.09	0.40
26:D4:56:SER:HB3	26:D4:74:LEU:HB2	2.96	0.40
64:N8:6:THR:CG2	64:N8:8:THR:HG23	3.03	0.40
1:2:1546:G:H2'	1:2:1547:A:C8	2.56	0.40
30:D8:42:ARG:NH2	30:D8:58:GLU:O	5.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:37:LYS:HA	28:D6:71:LEU:O	2.20	0.40
7:S5:187:ILE:H	7:S5:187:ILE:HD12	1.87	0.40
36:5:1657:C:H2'	36:5:1657:C:H6	1.70	0.40
38:4:85:G:C8	38:4:85:G:C3'	3.05	0.40
47:M0:142:ASP:CG	47:M0:178:ARG:HH22	2.57	0.40
36:1:156:G:O2'	36:1:157:A:H4'	2.22	0.40
1:2:1172:G:H4'	1:2:1569:A:H2	1.85	0.40
38:4:140:G:C5	38:4:141:C:C5	3.10	0.40
36:1:2767:U:O4	86:1:4036:OHX:N6	2.54	0.40
36:5:1855:U:H2'	36:5:1856:C:C6	2.57	0.40
1:6:1544:U:H2'	1:6:1545:A:O4'	2.21	0.40
11:S9:96:VAL:HA	11:S9:99:LEU:CD2	2.51	0.40
40:L3:3:HIS:ND1	40:L3:3:HIS:C	2.75	0.40
41:L4:141:ARG:O	41:L4:144:LYS:NZ	8.20	0.40
42:L5:152:ARG:NH1	42:L5:152:ARG:HG3	2.85	0.40
7:S5:82:PHE:CD1	30:D8:49:ARG:HD2	3.28	0.40
57:N1:105:PHE:O	57:N1:108:ARG:N	2.54	0.40
62:N6:60:ARG:HB2	62:N6:103:LYS:HB3	2.03	0.40
18:C6:37:THR:HA	18:C6:49:TYR:OH	2.79	0.40
3:S1:133:TYR:CD2	3:S1:181:LEU:HD11	2.57	0.40
40:L3:226:PHE:HD2	40:L3:227:GLU:N	2.19	0.40
36:1:2103:U:H2'	36:1:2104:A:C8	2.57	0.40
36:1:1719:G:H2'	36:1:1720:U:O4'	2.22	0.40
2:S0:157:ASP:O	2:S0:158:VAL:C	2.74	0.40
51:M5:125:SER:HB3	36:5:2433:U:C1'	160.59	0.40
46:L9:68:LEU:O	46:L9:71:VAL:HB	2.40	0.40
51:M5:67:ARG:O	51:M5:68:ARG:HB3	4.66	0.40
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.22	0.40
36:5:830:A:OP1	86:5:4056:OHX:N5	2.54	0.40
1:6:1755:A:C2	1:6:1756:A:C8	3.10	0.40
2:S0:175:TYR:OH	2:S0:195:TRP:HB3	2.82	0.40
40:L3:166:ILE:CD1	40:L3:173:GLN:HG2	2.48	0.40
33:E1:95:HIS:HD1	33:E1:96:LYS:H	1.69	0.40
42:L5:148:ILE:HG13	42:L5:159:VAL:HG11	3.78	0.40
36:1:1000:C:H2'	36:1:1000:C:H6	1.50	0.40
43:L6:46:ARG:HG2	43:L6:47:PHE:CE2	3.12	0.40
1:2:141:U:OP2	8:S6:149:LYS:HD2	2.22	0.40
21:C9:111:ILE:HD12	21:C9:111:ILE:HA	1.88	0.40
28:D6:88:SER:OG	28:D6:90:GLU:N	2.54	0.40
52:M6:125:ARG:HD3	52:M6:125:ARG:HH11	1.76	0.40
61:N5:110:VAL:HG22	61:N5:124:VAL:HG13	3.12	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:715:A:C2	36:5:781:G:N3	2.90	0.40
26:D4:116:LYS:HE2	26:D4:116:LYS:HB3	1.93	0.40
1:2:980:G:O6	86:2:2044:OHX:N2	2.54	0.40
1:6:881:A:C2	1:6:948:G:C2	3.09	0.40
1:6:754:A:H4'	1:6:754:A:OP1	2.22	0.40
1:6:793:A:H2'	1:6:793:A:OP2	2.21	0.40
36:5:3192:U:H2'	36:5:3193:C:C6	2.56	0.40
36:1:1295:G:H2'	36:1:1296:C:C6	2.56	0.40
7:S5:134:VAL:O	7:S5:137:ILE:N	3.34	0.40
51:M5:148:TYR:HA	51:M5:150:TRP:CD1	3.07	0.40
36:1:2424:A:H5''	51:M5:90:ASN:ND2	2.37	0.40
8:S6:69:LEU:HA	8:S6:70:PRO:HD3	1.77	0.40
1:6:892:A:H2'	1:6:893:U:O4'	2.22	0.40
36:5:255:A:H2'	36:5:256:G:H8	1.87	0.40
1:2:1636:C:C2	1:2:1638:G:C5	3.09	0.40
38:4:126:A:O2'	38:4:128:U:OP1	2.39	0.40
54:M8:165:ILE:HG21	54:M8:165:ILE:HD13	1.81	0.40
6:S4:7:LYS:HD2	6:S4:7:LYS:N	2.36	0.40
36:5:1544:G:O6	86:5:4195:OHX:N5	2.54	0.40
1:6:223:U:H2'	1:6:224:C:C6	2.57	0.40
40:L3:339:ARG:NH1	40:L3:342:LEU:HD21	2.97	0.40
34:SR:305:TYR:CD2	34:SR:311:ARG:HD2	2.57	0.40
1:6:1164:G:H2'	1:6:1165:G:C8	2.56	0.40
1:6:1107:G:C6	1:6:1108:G:C6	3.10	0.40
59:N3:127:PRO:O	59:N3:131:SER:N	2.86	0.40
36:1:2977:G:OP1	86:1:4117:OHX:N5	2.54	0.40
24:D2:106:THR:HG21	24:D2:121:VAL:HG23	3.73	0.40
33:E1:127:GLY:O	33:E1:129:GLY:N	2.54	0.40
1:6:616:G:C2	1:6:622:A:N7	2.89	0.40
20:C8:28:ILE:O	20:C8:32:LEU:HG	2.54	0.40
1:6:1799:U:H4'	1:6:1800:A:H2'	2.04	0.40
47:M0:208:ASN:O	47:M0:212:GLU:HB2	2.49	0.40
38:4:58:G:O6	73:O7:63:ARG:NH2	2.51	0.40
2:S0:129:ASP:O	2:S0:132:ALA:N	2.55	0.40
60:N4:17:ARG:HA	60:N4:17:ARG:HD3	2.32	0.40
60:N4:14:TYR:O	60:N4:17:ARG:HB3	2.22	0.40
41:L4:208:VAL:HA	41:L4:228:ALA:O	2.21	0.40
37:7:40:C:H5''	37:7:41:G:OP2	2.22	0.40
70:O4:7:PHE:HA	70:O4:7:PHE:HD1	1.74	0.40
1:6:141:U:H2'	1:6:141:U:H6	1.76	0.40
42:L5:150:LEU:HD23	42:L5:150:LEU:HA	2.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:93:ASN:N	44:L7:93:ASN:OD1	2.53	0.40
44:L7:163:LEU:HA	44:L7:163:LEU:HD23	1.71	0.40
15:C3:46:THR:O	15:C3:50:ILE:HG13	3.07	0.40
36:1:3072:C:H2'	36:1:3073:A:O4'	2.21	0.40
36:1:1072:G:H21	65:N9:50:THR:HB	1.87	0.40
36:5:1017:C:H2'	36:5:1017:C:P	2.62	0.40
26:D4:17:LEU:H	26:D4:17:LEU:HG	1.54	0.40
1:2:1555:A:OP1	17:C5:47:ARG:HD3	2.22	0.40
36:1:1103:A:H62	36:1:1363:A:H1'	1.86	0.40
28:D6:87:ARG:HD2	1:6:1797:A:N1	344.30	0.40
11:S9:162:SER:HA	11:S9:163:PRO:HD2	2.64	0.40
34:SR:69:GLN:OE1	34:SR:85:TRP:NE1	2.49	0.40
46:L9:31:ARG:HB2	46:L9:82:VAL:O	3.00	0.40
9:S7:38:LEU:HD21	9:S7:77:LEU:HD11	2.03	0.40
20:C8:127:HIS:NE2	20:C8:133:VAL:HG11	2.53	0.40
41:L4:217:LYS:HE2	41:L4:220:ARG:NH2	2.37	0.40
41:L4:260:GLN:O	41:L4:270:SER:HB3	2.22	0.40
1:2:476:U:H5''	1:2:477:A:O4'	2.21	0.40
19:C7:45:ARG:HD2	19:C7:45:ARG:HH11	1.86	0.40
36:5:980:A:H2'	36:5:981:U:N1	2.35	0.40
23:D1:36:VAL:HG11	23:D1:78:LEU:HD13	2.03	0.40
11:S9:78:ARG:NH1	1:6:764:U:OP1	420.09	0.40
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	2.57	0.40
36:1:550:A:N6	36:1:551:A:N6	2.70	0.40
57:N1:68:THR:HG23	57:N1:69:LYS:N	2.86	0.40
36:1:3155:U:O2'	36:1:3156:U:OP1	2.35	0.40
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.43	0.40
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	2.04	0.40
2:S0:56:LYS:HZ1	2:S0:159:ALA:N	2.20	0.40
21:C9:123:ARG:HG2	21:C9:124:ILE:N	2.36	0.40
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	2.21	0.40
36:1:2232:A:N3	36:1:2428:U:O2'	2.42	0.40
52:M6:27:LEU:HA	52:M6:27:LEU:HD23	2.10	0.40
36:1:2513:U:H2'	36:1:2513:U:H6	1.63	0.40
39:L2:20:THR:OG1	39:L2:20:THR:O	2.40	0.40
3:S1:32:ILE:HG22	3:S1:43:VAL:HB	2.02	0.40
51:M5:68:ARG:HD2	51:M5:128:LYS:CG	4.71	0.40
36:1:2199:G:C4	36:1:2200:U:C5	3.09	0.40
36:5:1715:A:C8	36:5:1717:U:H5''	2.56	0.40
1:2:1493:A:H4'	1:2:1494:C:O5'	2.21	0.40
29:D7:62:ILE:HG23	29:D7:63:LEU:N	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:376:LYS:O	40:L3:378:ALA:N	2.55	0.40
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	2.03	0.40
55:M9:90:PRO:O	55:M9:94:VAL:HG23	2.22	0.40
9:S7:46:ILE:HD13	9:S7:59:ALA:O	2.21	0.40
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.64	0.40
66:O0:57:GLU:O	66:O0:60:ALA:HB3	2.22	0.40
45:L8:79:GLN:O	45:L8:81:THR:HG22	2.21	0.40
1:2:301:A:C5	1:2:302:U:C5	3.10	0.40
48:M1:138:VAL:HG22	48:M1:141:ARG:CZ	2.51	0.40
36:5:1491:A:O2'	36:5:1843:C:O2'	2.29	0.40
1:2:646:C:H2'	1:2:647:G:C8	2.56	0.40
37:3:62:U:OP1	42:L5:277:LEU:HB2	2.21	0.40
36:1:2157:G:O6	39:L2:151:PRO:HD2	2.21	0.40
36:1:1667:A:H2'	36:1:1668:G:H8	1.85	0.40
45:L8:87:ALA:O	45:L8:91:PHE:HB2	2.88	0.40
73:O7:15:SER:OG	36:5:817:A:H8	140.51	0.40
36:1:384:A:H2'	36:1:385:A:O4'	2.22	0.40
19:C7:19:ARG:HG3	19:C7:20:TYR:CE1	2.71	0.40
19:C7:34:LEU:O	19:C7:38:ILE:HG22	2.22	0.40
46:L9:174:LYS:HG2	36:5:2900:A:O2'	333.65	0.40
40:L3:42:ALA:O	40:L3:183:LEU:HD12	2.92	0.40
34:SR:9:LEU:HD12	34:SR:312:VAL:O	2.20	0.40
36:1:708:G:H8	36:1:708:G:H5''	1.87	0.40
36:5:1471:U:H2'	36:5:1472:U:H6	1.86	0.40
60:N4:21:PHE:CE2	60:N4:23:ARG:HG3	3.69	0.40
36:1:3028:G:H2'	36:1:3029:A:C8	2.57	0.40
59:N3:92:PHE:CE1	36:5:3051:U:H1'	245.50	0.40
69:O3:2:ALA:HB2	36:5:3216:G:OP2	264.84	0.40
16:C4:12:GLN:HB3	16:C4:77:THR:OG1	2.21	0.40
52:M6:57:PHE:CE2	52:M6:72:HIS:HD2	2.40	0.40
1:2:1651:A:C2	1:2:1750:A:C2	3.09	0.40
1:2:249:U:H3'	1:2:250:C:H5'	2.03	0.40
38:4:125:U:O2'	38:4:126:A:OP2	2.38	0.40
68:O2:3:SER:HB3	68:O2:71:HIS:CE1	2.71	0.40
68:O2:57:TYR:O	68:O2:58:GLY:C	2.66	0.40
1:2:1160:A:OP2	18:C6:142:TYR:OH	2.38	0.40
36:5:873:C:H5''	36:5:874:U:O5'	2.22	0.40
8:S6:27:PHE:O	8:S6:30:LYS:HG3	3.49	0.40
1:2:535:A:N6	1:2:536:C:C4	2.89	0.40
73:O7:26:SER:O	73:O7:34:CYS:HA	2.22	0.40
45:L8:200:LEU:H	45:L8:200:LEU:HG	3.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2609:A:C2	36:5:2610:G:C5	3.09	0.40
42:L5:195:LEU:O	42:L5:199:ILE:HG13	2.53	0.40
36:1:2118:C:H2'	36:1:2119:A:O4'	2.21	0.40
3:S1:36:SER:HB3	3:S1:231:LEU:HD13	2.03	0.40
1:6:1079:U:C4	1:6:1080:U:C4	3.10	0.40
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HG3	4.90	0.40
36:1:806:A:C5	36:1:936:A:C2	3.10	0.40
1:2:1476:C:H5''	21:C9:44:GLU:OE1	2.22	0.40
69:O3:72:THR:HG23	69:O3:83:ALA:HA	2.04	0.40
36:1:2891:U:O2'	36:1:3014:U:H5''	2.21	0.40
36:1:2112:U:H4'	36:1:2113:A:H5'	2.04	0.40
2:S0:153:SER:O	2:S0:156:VAL:HG22	3.38	0.40
1:6:1529:C:H2'	1:6:1530:C:C6	2.57	0.40
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.34	0.40
36:5:2213:A:N1	36:5:2429:G:H1'	2.36	0.40
36:1:3046:A:H2'	36:1:3047:U:O4'	2.22	0.40
11:S9:16:LYS:HB3	11:S9:16:LYS:HE3	4.72	0.40
36:5:2714:G:N3	36:5:2714:G:H5''	2.37	0.40
43:L6:155:LEU:HD23	43:L6:155:LEU:HA	1.93	0.40
36:1:1152:G:N3	36:1:1152:G:H2'	2.36	0.40
1:2:240:U:H4'	1:2:240:U:OP1	2.20	0.40
44:L7:184:LEU:HD23	44:L7:184:LEU:HA	1.77	0.40
1:6:1475:A:H2'	1:6:1476:C:O4'	2.21	0.40
36:5:2808:A:N7	36:5:2955:U:H4'	2.36	0.40
36:1:274:G:H2'	36:1:275:U:O4'	2.21	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:531:G:OP1	86:S6:301:OHX:N1[2_545]	2.17	0.03

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	S0	204/251 (81%)	150 (74%)	31 (15%)	23 (11%)	0	3
2	s0	204/251 (81%)	156 (76%)	28 (14%)	20 (10%)	1	4
3	S1	212/254 (84%)	148 (70%)	40 (19%)	24 (11%)	0	3
3	s1	214/254 (84%)	171 (80%)	31 (14%)	12 (6%)	2	18
4	S2	215/253 (85%)	180 (84%)	24 (11%)	11 (5%)	2	20
4	s2	215/253 (85%)	177 (82%)	28 (13%)	10 (5%)	3	22
5	S3	221/239 (92%)	183 (83%)	27 (12%)	11 (5%)	3	21
5	s3	221/239 (92%)	170 (77%)	35 (16%)	16 (7%)	1	10
6	S4	258/260 (99%)	205 (80%)	43 (17%)	10 (4%)	4	28
6	s4	258/260 (99%)	209 (81%)	28 (11%)	21 (8%)	1	7
7	S5	204/224 (91%)	156 (76%)	30 (15%)	18 (9%)	1	5
7	s5	204/224 (91%)	158 (78%)	27 (13%)	19 (9%)	1	5
8	S6	224/236 (95%)	192 (86%)	21 (9%)	11 (5%)	3	22
8	s6	216/236 (92%)	186 (86%)	18 (8%)	12 (6%)	2	18
9	S7	182/189 (96%)	132 (72%)	29 (16%)	21 (12%)	0	3
9	s7	184/189 (97%)	148 (80%)	24 (13%)	12 (6%)	1	13
10	S8	184/200 (92%)	153 (83%)	19 (10%)	12 (6%)	1	13
10	s8	184/200 (92%)	163 (89%)	16 (9%)	5 (3%)	6	39
11	S9	183/196 (93%)	147 (80%)	25 (14%)	11 (6%)	2	16
11	s9	183/196 (93%)	149 (81%)	24 (13%)	10 (6%)	2	18
12	C0	94/105 (90%)	72 (77%)	12 (13%)	10 (11%)	0	3
12	c0	92/105 (88%)	67 (73%)	11 (12%)	14 (15%)	0	1
13	C1	153/155 (99%)	119 (78%)	22 (14%)	12 (8%)	1	8
13	c1	144/155 (93%)	118 (82%)	17 (12%)	9 (6%)	2	13
14	C2	122/142 (86%)	68 (56%)	29 (24%)	25 (20%)	0	0
14	c2	122/142 (86%)	64 (52%)	36 (30%)	22 (18%)	0	0
15	C3	148/150 (99%)	122 (82%)	17 (12%)	9 (6%)	2	15
15	c3	148/150 (99%)	111 (75%)	28 (19%)	9 (6%)	2	15
16	C4	125/136 (92%)	88 (70%)	25 (20%)	12 (10%)	1	5
16	c4	126/136 (93%)	97 (77%)	19 (15%)	10 (8%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	C5	122/141 (86%)	86 (70%)	24 (20%)	12 (10%)	1	4
17	c5	133/141 (94%)	90 (68%)	27 (20%)	16 (12%)	0	2
18	C6	139/142 (98%)	119 (86%)	11 (8%)	9 (6%)	1	13
18	c6	140/142 (99%)	113 (81%)	17 (12%)	10 (7%)	1	10
19	C7	116/136 (85%)	90 (78%)	15 (13%)	11 (10%)	1	5
19	c7	113/136 (83%)	85 (75%)	17 (15%)	11 (10%)	1	4
20	C8	143/145 (99%)	112 (78%)	19 (13%)	12 (8%)	1	6
20	c8	143/145 (99%)	112 (78%)	23 (16%)	8 (6%)	2	18
21	C9	141/143 (99%)	122 (86%)	11 (8%)	8 (6%)	2	17
21	c9	141/143 (99%)	118 (84%)	18 (13%)	5 (4%)	4	31
22	D0	105/120 (88%)	81 (77%)	17 (16%)	7 (7%)	1	12
22	d0	108/120 (90%)	85 (79%)	12 (11%)	11 (10%)	1	4
23	D1	85/87 (98%)	59 (69%)	15 (18%)	11 (13%)	0	2
23	d1	85/87 (98%)	69 (81%)	11 (13%)	5 (6%)	2	16
24	D2	127/129 (98%)	108 (85%)	16 (13%)	3 (2%)	7	43
24	d2	127/129 (98%)	109 (86%)	17 (13%)	1 (1%)	24	69
25	D3	142/144 (99%)	109 (77%)	18 (13%)	15 (11%)	0	3
25	d3	142/144 (99%)	123 (87%)	15 (11%)	4 (3%)	6	37
26	D4	132/134 (98%)	107 (81%)	17 (13%)	8 (6%)	2	15
26	d4	132/134 (98%)	102 (77%)	17 (13%)	13 (10%)	1	4
27	D5	68/107 (64%)	45 (66%)	14 (21%)	9 (13%)	0	1
27	d5	67/107 (63%)	53 (79%)	10 (15%)	4 (6%)	2	16
28	D6	95/97 (98%)	59 (62%)	16 (17%)	20 (21%)	0	0
28	d6	95/97 (98%)	74 (78%)	13 (14%)	8 (8%)	1	6
29	D7	79/81 (98%)	63 (80%)	12 (15%)	4 (5%)	2	20
29	d7	79/81 (98%)	61 (77%)	13 (16%)	5 (6%)	2	13
30	D8	61/66 (92%)	50 (82%)	9 (15%)	2 (3%)	5	32
30	d8	61/66 (92%)	40 (66%)	15 (25%)	6 (10%)	1	4
31	D9	51/55 (93%)	41 (80%)	7 (14%)	3 (6%)	2	16
31	d9	51/55 (93%)	43 (84%)	4 (8%)	4 (8%)	1	8
32	E0	58/60 (97%)	46 (79%)	9 (16%)	3 (5%)	2	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	E1	69/76 (91%)	38 (55%)	13 (19%)	18 (26%)	0	0
33	e1	74/76 (97%)	35 (47%)	19 (26%)	20 (27%)	0	0
34	SR	316/318 (99%)	277 (88%)	28 (9%)	11 (4%)	4	31
34	sR	316/318 (99%)	274 (87%)	31 (10%)	11 (4%)	4	31
35	SM	155/273 (57%)	106 (68%)	30 (19%)	19 (12%)	0	2
35	sM	98/273 (36%)	63 (64%)	18 (18%)	17 (17%)	0	0
39	L2	250/253 (99%)	220 (88%)	20 (8%)	10 (4%)	4	27
39	l2	250/253 (99%)	207 (83%)	31 (12%)	12 (5%)	3	22
40	L3	384/386 (100%)	326 (85%)	42 (11%)	16 (4%)	3	26
40	l3	384/386 (100%)	344 (90%)	31 (8%)	9 (2%)	8	44
41	L4	359/361 (99%)	286 (80%)	46 (13%)	27 (8%)	1	9
41	l4	359/361 (99%)	297 (83%)	36 (10%)	26 (7%)	1	10
42	L5	294/296 (99%)	245 (83%)	27 (9%)	22 (8%)	1	9
42	l5	292/296 (99%)	243 (83%)	39 (13%)	10 (3%)	5	31
43	L6	152/175 (87%)	133 (88%)	15 (10%)	4 (3%)	7	40
43	l6	153/175 (87%)	131 (86%)	17 (11%)	5 (3%)	5	32
44	L7	220/243 (90%)	189 (86%)	24 (11%)	7 (3%)	5	33
44	l7	221/243 (91%)	194 (88%)	18 (8%)	9 (4%)	3	27
45	L8	231/255 (91%)	181 (78%)	35 (15%)	15 (6%)	1	13
45	l8	229/255 (90%)	166 (72%)	45 (20%)	18 (8%)	1	8
46	L9	189/191 (99%)	156 (82%)	25 (13%)	8 (4%)	3	26
46	l9	189/191 (99%)	163 (86%)	19 (10%)	7 (4%)	4	29
47	M0	207/220 (94%)	166 (80%)	33 (16%)	8 (4%)	4	28
47	m0	209/220 (95%)	163 (78%)	32 (15%)	14 (7%)	1	12
48	M1	167/173 (96%)	127 (76%)	19 (11%)	21 (13%)	0	2
48	m1	167/173 (96%)	138 (83%)	20 (12%)	9 (5%)	2	19
49	M3	191/198 (96%)	155 (81%)	23 (12%)	13 (7%)	1	11
49	m3	192/198 (97%)	151 (79%)	22 (12%)	19 (10%)	1	4
50	M4	134/137 (98%)	115 (86%)	12 (9%)	7 (5%)	2	19
50	m4	135/137 (98%)	119 (88%)	13 (10%)	3 (2%)	8	45
51	M5	201/203 (99%)	181 (90%)	12 (6%)	8 (4%)	4	27

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	m5	201/203 (99%)	175 (87%)	21 (10%)	5 (2%)	7	41
52	M6	195/198 (98%)	181 (93%)	11 (6%)	3 (2%)	13	55
52	m6	195/198 (98%)	171 (88%)	17 (9%)	7 (4%)	4	30
53	M7	181/183 (99%)	151 (83%)	21 (12%)	9 (5%)	3	21
53	m7	153/183 (84%)	137 (90%)	14 (9%)	2 (1%)	15	59
54	M8	183/185 (99%)	156 (85%)	21 (12%)	6 (3%)	5	32
54	m8	183/185 (99%)	155 (85%)	23 (13%)	5 (3%)	6	39
55	M9	186/188 (99%)	163 (88%)	21 (11%)	2 (1%)	17	62
55	m9	186/188 (99%)	158 (85%)	26 (14%)	2 (1%)	17	62
56	N0	170/172 (99%)	157 (92%)	8 (5%)	5 (3%)	6	36
56	n0	170/172 (99%)	158 (93%)	11 (6%)	1 (1%)	30	75
57	N1	157/159 (99%)	136 (87%)	16 (10%)	5 (3%)	5	33
57	n1	157/159 (99%)	134 (85%)	18 (12%)	5 (3%)	5	33
58	N2	98/120 (82%)	72 (74%)	22 (22%)	4 (4%)	3	27
58	n2	96/120 (80%)	79 (82%)	12 (12%)	5 (5%)	2	19
59	N3	134/136 (98%)	122 (91%)	9 (7%)	3 (2%)	8	45
59	n3	134/136 (98%)	122 (91%)	10 (8%)	2 (2%)	13	55
60	N4	96/155 (62%)	70 (73%)	21 (22%)	5 (5%)	2	19
60	n4	133/155 (86%)	109 (82%)	14 (10%)	10 (8%)	1	9
61	N5	119/141 (84%)	107 (90%)	12 (10%)	0	100	100
61	n5	118/141 (84%)	97 (82%)	9 (8%)	12 (10%)	1	4
62	N6	124/126 (98%)	110 (89%)	11 (9%)	3 (2%)	7	43
62	n6	124/126 (98%)	102 (82%)	17 (14%)	5 (4%)	4	27
63	N7	133/135 (98%)	113 (85%)	12 (9%)	8 (6%)	2	16
63	n7	133/135 (98%)	111 (84%)	11 (8%)	11 (8%)	1	7
64	N8	146/148 (99%)	117 (80%)	19 (13%)	10 (7%)	1	11
64	n8	146/148 (99%)	113 (77%)	23 (16%)	10 (7%)	1	11
65	N9	56/58 (97%)	49 (88%)	6 (11%)	1 (2%)	11	51
65	n9	56/58 (97%)	43 (77%)	8 (14%)	5 (9%)	1	5
66	O0	95/104 (91%)	88 (93%)	6 (6%)	1 (1%)	17	62
66	o0	98/104 (94%)	85 (87%)	8 (8%)	5 (5%)	2	20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
67	O1	107/112 (96%)	88 (82%)	11 (10%)	8 (8%)	1	9
67	o1	107/112 (96%)	89 (83%)	12 (11%)	6 (6%)	2	18
68	O2	125/129 (97%)	111 (89%)	12 (10%)	2 (2%)	12	54
68	o2	125/129 (97%)	105 (84%)	16 (13%)	4 (3%)	5	33
69	O3	104/106 (98%)	94 (90%)	7 (7%)	3 (3%)	6	36
69	o3	104/106 (98%)	93 (89%)	7 (7%)	4 (4%)	4	28
70	O4	110/120 (92%)	96 (87%)	13 (12%)	1 (1%)	21	67
70	o4	110/120 (92%)	92 (84%)	14 (13%)	4 (4%)	4	30
71	O5	117/119 (98%)	104 (89%)	9 (8%)	4 (3%)	5	31
71	o5	117/119 (98%)	102 (87%)	12 (10%)	3 (3%)	7	40
72	O6	97/99 (98%)	73 (75%)	17 (18%)	7 (7%)	1	10
72	o6	97/99 (98%)	80 (82%)	11 (11%)	6 (6%)	2	14
73	O7	85/87 (98%)	73 (86%)	12 (14%)	0	100	100
73	o7	85/87 (98%)	71 (84%)	12 (14%)	2 (2%)	7	43
74	O8	75/77 (97%)	63 (84%)	11 (15%)	1 (1%)	15	59
74	o8	75/77 (97%)	59 (79%)	11 (15%)	5 (7%)	1	12
75	O9	48/50 (96%)	38 (79%)	9 (19%)	1 (2%)	9	46
75	o9	48/50 (96%)	43 (90%)	3 (6%)	2 (4%)	3	26
76	Q0	50/52 (96%)	42 (84%)	5 (10%)	3 (6%)	2	16
76	q0	50/52 (96%)	47 (94%)	1 (2%)	2 (4%)	4	27
77	Q1	23/25 (92%)	21 (91%)	2 (9%)	0	100	100
77	q1	23/25 (92%)	17 (74%)	6 (26%)	0	100	100
78	Q2	103/105 (98%)	79 (77%)	15 (15%)	9 (9%)	1	5
78	q2	103/105 (98%)	90 (87%)	10 (10%)	3 (3%)	6	36
79	Q3	89/91 (98%)	77 (86%)	11 (12%)	1 (1%)	17	62
79	q3	89/91 (98%)	80 (90%)	8 (9%)	1 (1%)	17	62
80	e0	60/62 (97%)	44 (73%)	12 (20%)	4 (7%)	1	12
81	p0	139/311 (45%)	120 (86%)	16 (12%)	3 (2%)	8	45
All	All	22333/24143 (92%)	18254 (82%)	2761 (12%)	1318 (6%)	2	16

All (1318) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	39	ASN
2	S0	66	ALA
2	S0	95	ALA
2	S0	139	VAL
2	S0	158	VAL
2	S0	185	ARG
2	S0	190	ASP
2	S0	191	ARG
3	S1	49	ASN
3	S1	58	SER
3	S1	63	GLY
3	S1	148	ASN
3	S1	177	GLN
3	S1	179	SER
3	S1	206	PRO
4	S2	135	SER
4	S2	148	LEU
5	S3	62	ASN
5	S3	93	ASP
5	S3	211	PRO
5	S3	220	PRO
6	S4	242	LYS
7	S5	35	GLN
7	S5	39	GLU
7	S5	63	GLN
7	S5	101	GLY
8	S6	154	ARG
8	S6	173	PRO
8	S6	174	LYS
9	S7	29	ASN
9	S7	31	SER
9	S7	32	PRO
9	S7	64	VAL
9	S7	67	LEU
9	S7	111	LYS
9	S7	112	ARG
9	S7	131	PHE
9	S7	133	THR
9	S7	134	GLU
9	S7	155	ASP
10	S8	149	SER
11	S9	134	ILE

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Mol	Chain	Res	Type
12	C0	54	TYR
12	C0	60	SER
12	C0	64	TYR
12	C0	81	ASN
12	C0	87	VAL
12	C0	88	PRO
13	C1	7	VAL
13	C1	30	ARG
13	C1	147	ALA
14	C2	89	ILE
14	C2	90	LYS
14	C2	91	VAL
14	C2	93	ASP
14	C2	126	TRP
15	C3	27	LYS
15	C3	28	LEU
15	C3	138	ASN
16	C4	39	ILE
16	C4	50	ALA
16	C4	92	LYS
16	C4	124	ASP
16	C4	125	SER
16	C4	126	THR
17	C5	54	ALA
17	C5	125	PRO
17	C5	126	VAL
18	C6	40	GLU
18	C6	41	PRO
18	C6	114	ARG
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	82	PRO
20	C8	91	ASP
20	C8	92	ILE
21	C9	31	PRO
21	C9	53	TRP
22	D0	17	GLN
23	D1	7	GLN

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Mol	Chain	Res	Type
24	D2	83	ILE
25	D3	3	LYS
25	D3	131	SER
25	D3	138	GLU
26	D4	36	SER
27	D5	39	ALA
27	D5	43	ASP
27	D5	71	ILE
27	D5	97	LYS
28	D6	18	VAL
28	D6	45	VAL
28	D6	65	PRO
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	47	VAL
33	E1	84	VAL
33	E1	102	VAL
33	E1	103	LEU
33	E1	106	TYR
33	E1	111	GLU
33	E1	138	ARG
34	SR	51	ASP
34	SR	161	LYS
34	SR	318	ALA
35	SM	52	PRO
35	SM	82	THR
35	SM	87	THR
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	13	GLY
40	L3	3	HIS
40	L3	140	ASP
40	L3	155	ALA
40	L3	212	ASN
40	L3	347	SER
41	L4	24	ALA

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Mol	Chain	Res	Type
41	L4	90	PHE
41	L4	220	ARG
41	L4	268	ALA
41	L4	338	LYS
42	L5	7	ALA
42	L5	85	ARG
42	L5	233	ALA
42	L5	234	ASP
42	L5	253	PHE
42	L5	258	LYS
43	L6	98	VAL
44	L7	24	GLU
44	L7	26	VAL
45	L8	25	PRO
45	L8	31	PRO
45	L8	36	ILE
45	L8	76	ALA
46	L9	50	ASN
47	M0	113	GLN
47	M0	189	GLU
47	M0	194	GLY
48	M1	8	PRO
48	M1	65	ILE
48	M1	74	PRO
48	M1	94	ARG
48	M1	115	LYS
48	M1	140	ARG
48	M1	165	GLN
49	M3	13	HIS
49	M3	47	ALA
49	M3	51	LEU
49	M3	76	THR
49	M3	129	ASN
49	M3	131	LYS
49	M3	166	ALA
49	M3	193	ALA
50	M4	8	LYS
50	M4	9	ALA
50	M4	136	ALA
51	M5	74	PRO
52	M6	16	VAL
52	M6	110	PRO

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Mol	Chain	Res	Type
52	M6	111	PRO
53	M7	157	VAL
54	M8	41	ASP
54	M8	99	THR
54	M8	147	ARG
55	M9	53	LYS
56	N0	167	ARG
60	N4	46	PRO
60	N4	64	THR
60	N4	81	PRO
62	N6	84	LYS
62	N6	126	LEU
63	N7	17	ARG
63	N7	30	ASP
63	N7	129	TRP
64	N8	76	ASP
67	O1	5	LYS
67	O1	83	GLU
67	O1	84	ASP
68	O2	123	LYS
71	O5	119	LYS
72	O6	33	ALA
76	Q0	78	ILE
78	Q2	17	CYS
78	Q2	100	LYS
2	s0	4	PRO
2	s0	23	HIS
2	s0	29	VAL
2	s0	92	HIS
2	s0	95	ALA
2	s0	158	VAL
2	s0	164	ASN
2	s0	189	VAL
2	s0	192	THR
2	s0	194	PRO
2	s0	206	ASP
3	s1	81	PHE
3	s1	147	ALA
3	s1	154	SER
3	s1	206	PRO
3	s1	223	PHE
4	s2	92	ALA

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Mol	Chain	Res	Type
4	s2	106	ASP
5	s3	115	ILE
5	s3	179	GLN
5	s3	211	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	12	LEU
6	s4	24	SER
6	s4	104	ASP
6	s4	119	ALA
6	s4	163	ASP
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	39	GLU
7	s5	43	PHE
7	s5	98	MET
7	s5	184	PHE
7	s5	204	GLY
7	s5	209	TYR
8	s6	25	ARG
8	s6	70	PRO
8	s6	122	GLU
8	s6	153	VAL
8	s6	154	ARG
8	s6	173	PRO
8	s6	174	LYS
9	s7	11	GLN
9	s7	64	VAL
9	s7	67	LEU
9	s7	131	PHE
10	s8	62	THR
10	s8	100	ALA
10	s8	101	ILE
11	s9	121	SER
12	c0	31	LYS
12	c0	83	PRO
12	c0	88	PRO
12	c0	94	GLU
12	c0	97	PRO
13	c1	114	ALA
13	c1	129	ARG

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Mol	Chain	Res	Type
13	c1	133	LYS
14	c2	82	PRO
14	c2	89	ILE
14	c2	93	ASP
14	c2	131	ASP
15	c3	19	SER
15	c3	66	ILE
15	c3	108	ASP
16	c4	91	THR
16	c4	132	ARG
17	c5	11	VAL
17	c5	51	SER
17	c5	52	LYS
17	c5	68	PRO
17	c5	125	PRO
17	c5	126	VAL
17	c5	132	GLY
18	c6	40	GLU
18	c6	42	GLU
18	c6	116	LEU
19	c7	67	ARG
19	c7	88	VAL
19	c7	99	VAL
20	c8	91	ASP
20	c8	135	GLY
21	c9	33	TYR
21	c9	34	VAL
22	d0	15	GLN
22	d0	49	ASN
22	d0	96	PRO
22	d0	97	VAL
22	d0	112	VAL
22	d0	118	VAL
26	d4	30	PRO
26	d4	32	ARG
26	d4	33	ALA
26	d4	35	VAL
26	d4	121	THR
26	d4	123	LYS
27	d5	85	LYS
27	d5	104	ALA
28	d6	8	ASN

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Mol	Chain	Res	Type
28	d6	47	ALA
28	d6	63	ALA
29	d7	60	SER
30	d8	57	MET
31	d9	6	VAL
31	d9	11	PRO
80	e0	60	PRO
33	e1	83	LYS
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	103	LEU
33	e1	106	TYR
34	sR	4	ASN
34	sR	161	LYS
34	sR	163	ASP
34	sR	165	ASP
34	sR	318	ALA
35	sM	50	ASN
35	sM	120	GLU
35	sM	167	PRO
39	l2	96	LEU
39	l2	144	ASN
40	l3	142	ALA
40	l3	187	SER
40	l3	235	THR
40	l3	347	SER
41	l4	15	ALA
41	l4	90	PHE
41	l4	142	VAL
41	l4	145	ILE
41	l4	233	LEU
41	l4	301	PRO
41	l4	302	ALA
41	l4	329	PRO
41	l4	330	TYR
41	l4	339	LEU
41	l4	353	ALA
42	l5	260	PHE
43	l6	98	VAL
44	l7	178	ILE
44	l7	193	PRO

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Mol	Chain	Res	Type
44	l7	229	PHE
45	l8	25	PRO
45	l8	122	LYS
45	l8	133	LYS
46	l9	139	ASN
46	l9	144	ILE
47	m0	3	ARG
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	94	ARG
48	m1	108	GLU
48	m1	111	ASP
49	m3	44	ALA
49	m3	45	LYS
49	m3	47	ALA
49	m3	50	PRO
49	m3	121	SER
49	m3	134	GLU
49	m3	141	ALA
50	m4	135	LEU
51	m5	81	TYR
51	m5	183	THR
51	m5	187	ARG
52	m6	12	LYS
52	m6	16	VAL
52	m6	110	PRO
54	m8	99	THR
54	m8	112	ALA
54	m8	113	LYS
56	n0	2	ALA
57	n1	135	PRO
58	n2	50	LEU
60	n4	26	SER
60	n4	63	ILE
60	n4	71	ARG
60	n4	76	VAL
61	n5	38	LEU
61	n5	40	LEU
61	n5	44	PRO
61	n5	45	LYS
62	n6	83	ASP

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Mol	Chain	Res	Type
62	n6	84	LYS
62	n6	125	LYS
63	n7	5	LEU
63	n7	7	ALA
63	n7	29	HIS
63	n7	125	GLY
63	n7	129	TRP
64	n8	28	HIS
64	n8	76	ASP
65	n9	23	LYS
65	n9	39	PHE
66	o0	100	ILE
67	o1	5	LYS
67	o1	7	VAL
67	o1	45	GLY
68	o2	4	LEU
68	o2	5	PRO
69	o3	90	PRO
70	o4	79	SER
72	o6	33	ALA
72	o6	64	SER
72	o6	98	ARG
74	o8	18	ALA
81	p0	93	LEU
2	S0	5	ALA
2	S0	49	ASN
2	S0	68	PRO
2	S0	94	GLY
2	S0	195	TRP
3	S1	26	ARG
3	S1	60	ALA
3	S1	62	LYS
3	S1	81	PHE
3	S1	82	ARG
3	S1	93	GLY
3	S1	130	SER
3	S1	132	ASP
3	S1	158	SER
3	S1	221	PRO
4	S2	91	ARG
4	S2	236	PRO
5	S3	65	ARG

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Mol	Chain	Res	Type
5	S3	216	PRO
6	S4	12	LEU
6	S4	237	SER
7	S5	58	LEU
7	S5	148	ARG
7	S5	150	GLY
7	S5	153	GLY
8	S6	25	ARG
8	S6	138	ALA
9	S7	5	GLN
9	S7	73	VAL
9	S7	125	ILE
9	S7	159	VAL
10	S8	40	ALA
10	S8	52	ASN
10	S8	120	THR
10	S8	186	GLY
11	S9	98	ALA
11	S9	117	GLY
11	S9	163	PRO
11	S9	164	PHE
12	C0	25	LYS
12	C0	89	ALA
12	C0	93	GLN
12	C0	94	GLU
13	C1	154	ALA
14	C2	21	GLU
14	C2	55	GLY
14	C2	66	VAL
14	C2	119	SER
14	C2	127	GLY
14	C2	131	ASP
15	C3	22	ALA
15	C3	68	GLY
16	C4	42	VAL
16	C4	51	ASP
17	C5	11	VAL
17	C5	80	MET
18	C6	32	ASN
18	C6	138	PHE
19	C7	23	LYS
19	C7	113	LEU

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Mol	Chain	Res	Type
20	C8	25	ASN
20	C8	61	LEU
20	C8	80	LYS
20	C8	83	ALA
20	C8	142	GLY
22	D0	118	VAL
23	D1	4	ASP
23	D1	12	TYR
23	D1	15	ARG
23	D1	44	ARG
25	D3	70	LYS
25	D3	114	LYS
26	D4	4	ALA
26	D4	5	VAL
26	D4	51	GLU
28	D6	32	LYS
28	D6	47	ALA
28	D6	63	ALA
29	D7	63	LEU
30	D8	36	THR
31	D9	6	VAL
33	E1	98	VAL
33	E1	127	GLY
34	SR	238	ASP
35	SM	47	ALA
35	SM	86	ASN
35	SM	89	ARG
35	SM	97	THR
35	SM	111	GLY
35	SM	153	ASP
35	SM	173	GLU
39	L2	144	ASN
39	L2	234	LYS
39	L2	246	LEU
39	L2	250	GLN
39	L2	251	LYS
40	L3	4	ARG
40	L3	5	LYS
40	L3	138	ALA
40	L3	139	GLN
40	L3	351	LEU
40	L3	386	ASP

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Mol	Chain	Res	Type
41	L4	25	VAL
41	L4	146	PRO
41	L4	190	GLY
41	L4	232	SER
41	L4	292	SER
41	L4	311	HIS
42	L5	202	GLY
42	L5	228	ALA
42	L5	260	PHE
45	L8	37	GLY
45	L8	119	GLY
45	L8	136	LEU
45	L8	156	ASP
45	L8	254	ASP
46	L9	59	ASN
46	L9	169	ASN
46	L9	190	ASP
47	M0	117	GLY
48	M1	11	ASP
48	M1	95	ASN
48	M1	114	ILE
48	M1	152	HIS
48	M1	167	TYR
49	M3	141	ALA
50	M4	36	VAL
50	M4	135	LEU
51	M5	40	ALA
51	M5	144	ARG
51	M5	184	LYS
53	M7	51	VAL
57	N1	16	GLN
57	N1	124	VAL
58	N2	11	ILE
58	N2	60	GLY
63	N7	35	SER
63	N7	102	GLU
64	N8	66	ALA
64	N8	78	LEU
64	N8	93	SER
64	N8	96	LYS
67	O1	6	ASP
69	O3	14	LEU

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Mol	Chain	Res	Type
70	O4	77	GLY
72	O6	34	SER
74	O8	33	LYS
78	Q2	33	ALA
2	s0	8	ASP
2	s0	30	GLN
2	s0	44	GLY
2	s0	185	ARG
2	s0	186	GLY
3	s1	26	ARG
3	s1	82	ARG
3	s1	93	GLY
3	s1	106	THR
3	s1	179	SER
4	s2	163	GLY
4	s2	218	ILE
5	s3	61	GLU
5	s3	76	ARG
5	s3	216	PRO
5	s3	219	ALA
6	s4	95	THR
6	s4	135	GLY
6	s4	164	LEU
7	s5	35	GLN
7	s5	36	ALA
7	s5	55	ASP
7	s5	59	VAL
7	s5	60	ASP
9	s7	74	GLN
9	s7	111	LYS
11	s9	117	GLY
12	c0	4	PRO
12	c0	23	ALA
12	c0	92	ILE
13	c1	7	VAL
14	c2	22	VAL
14	c2	66	VAL
14	c2	87	PRO
14	c2	101	ALA
14	c2	115	VAL
14	c2	119	SER
14	c2	127	GLY

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Mol	Chain	Res	Type
15	c3	139	TRP
15	c3	140	LYS
16	c4	35	GLY
16	c4	50	ALA
16	c4	51	ASP
17	c5	127	ARG
18	c6	113	ASP
18	c6	115	THR
19	c7	62	GLN
19	c7	98	GLY
19	c7	104	ASN
20	c8	55	HIS
20	c8	92	ILE
21	c9	29	GLU
22	d0	17	GLN
23	d1	43	GLY
26	d4	49	LYS
26	d4	54	ALA
28	d6	13	LYS
28	d6	56	ALA
30	d8	61	ARG
31	d9	7	TRP
80	e0	51	ASN
33	e1	79	LYS
33	e1	84	VAL
33	e1	100	LEU
33	e1	102	VAL
33	e1	136	LYS
34	sR	97	GLY
34	sR	160	GLU
34	sR	237	GLN
35	sM	47	ALA
35	sM	64	LYS
35	sM	67	GLY
35	sM	122	GLU
39	l2	212	GLY
40	l3	140	ASP
41	l4	146	PRO
41	l4	190	GLY
41	l4	311	HIS
41	l4	361	HIS
42	l5	168	ASP

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Mol	Chain	Res	Type
42	l5	294	ALA
44	l7	56	GLU
45	l8	34	PHE
45	l8	39	ALA
45	l8	81	THR
45	l8	202	GLU
45	l8	203	VAL
45	l8	239	GLY
45	l8	240	ASN
46	l9	2	LYS
47	m0	82	ARG
47	m0	145	LYS
47	m0	194	GLY
48	m1	114	ILE
48	m1	167	TYR
49	m3	51	LEU
49	m3	62	THR
49	m3	93	ILE
49	m3	101	ARG
49	m3	129	ASN
49	m3	135	ALA
49	m3	152	THR
49	m3	177	LYS
49	m3	178	LYS
50	m4	17	VAL
50	m4	136	ALA
51	m5	184	LYS
52	m6	183	ALA
58	n2	44	GLU
58	n2	91	ASP
60	n4	133	THR
61	n5	24	LEU
61	n5	55	ASN
61	n5	101	GLU
61	n5	102	LEU
61	n5	108	LEU
63	n7	16	GLY
63	n7	17	ARG
65	n9	21	ILE
67	o1	83	GLU
67	o1	84	ASP
68	o2	124	GLY

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Mol	Chain	Res	Type
71	o5	82	ALA
72	o6	9	ILE
72	o6	20	MET
72	o6	34	SER
73	o7	12	HIS
74	o8	60	GLY
74	o8	61	LYS
75	o9	3	ALA
78	q2	17	CYS
78	q2	33	ALA
2	S0	103	THR
2	S0	163	ASN
2	S0	164	ASN
3	S1	54	LEU
3	S1	154	SER
3	S1	209	ASN
4	S2	39	THR
4	S2	107	SER
4	S2	150	GLN
5	S3	195	SER
5	S3	196	ARG
6	S4	26	CYS
6	S4	104	ASP
6	S4	164	LEU
6	S4	200	ARG
7	S5	26	ALA
7	S5	54	LYS
7	S5	64	VAL
7	S5	204	GLY
8	S6	70	PRO
9	S7	98	ILE
9	S7	116	ARG
9	S7	132	PRO
9	S7	156	SER
9	S7	186	PRO
10	S8	9	HIS
10	S8	59	ARG
10	S8	154	SER
11	S9	16	LYS
11	S9	118	LEU
13	C1	29	LYS
13	C1	55	ASP

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Mol	Chain	Res	Type
14	C2	25	GLU
14	C2	42	ALA
14	C2	87	PRO
14	C2	101	ALA
14	C2	107	ASP
15	C3	3	ARG
15	C3	19	SER
16	C4	40	ALA
17	C5	51	SER
17	C5	52	LYS
17	C5	69	GLU
18	C6	42	GLU
19	C7	72	LYS
20	C8	79	TYR
20	C8	144	ARG
21	C9	39	THR
21	C9	50	ALA
23	D1	2	GLU
23	D1	10	GLU
23	D1	49	GLU
24	D2	30	SER
24	D2	95	PRO
25	D3	112	LYS
25	D3	144	ARG
26	D4	34	ASN
27	D5	56	THR
27	D5	74	SER
27	D5	88	ILE
28	D6	3	LYS
28	D6	46	GLU
28	D6	62	TYR
29	D7	51	GLN
32	E0	53	LYS
33	E1	83	LYS
33	E1	85	TYR
33	E1	128	ALA
33	E1	145	HIS
34	SR	98	GLU
35	SM	88	ARG
39	L2	104	LEU
39	L2	130	SER
40	L3	385	LYS

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Mol	Chain	Res	Type
41	L4	65	TRP
41	L4	124	SER
41	L4	193	LYS
41	L4	361	HIS
42	L5	137	ASP
42	L5	178	ASN
42	L5	215	ASP
42	L5	259	LYS
42	L5	276	LYS
44	L7	105	LEU
45	L8	75	ILE
45	L8	80	TYR
47	M0	16	PRO
47	M0	218	ALA
48	M1	39	GLN
48	M1	64	LYS
48	M1	145	LYS
49	M3	5	LYS
51	M5	75	VAL
51	M5	81	TYR
53	M7	66	SER
53	M7	160	ALA
53	M7	163	LYS
53	M7	164	LYS
54	M8	176	ARG
55	M9	161	ALA
56	N0	24	LEU
57	N1	159	PHE
58	N2	107	PHE
59	N3	82	ALA
60	N4	97	LYS
64	N8	47	LYS
64	N8	48	TYR
67	O1	60	TRP
71	O5	60	GLU
71	O5	97	ALA
72	O6	3	VAL
72	O6	32	ALA
72	O6	98	ARG
78	Q2	15	LYS
78	Q2	78	LYS
78	Q2	94	GLY

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Mol	Chain	Res	Type
2	s0	10	THR
2	s0	203	PHE
3	s1	177	GLN
3	s1	209	ASN
4	s2	235	LEU
5	s3	90	ARG
5	s3	93	ASP
6	s4	57	ASN
6	s4	168	LYS
8	s6	68	LEU
9	s7	106	SER
10	s8	52	ASN
11	s9	110	GLN
11	s9	167	ALA
12	c0	82	LEU
13	c1	55	ASP
14	c2	45	LEU
14	c2	54	ARG
14	c2	58	LEU
14	c2	106	ILE
15	c3	22	ALA
17	c5	17	TYR
17	c5	130	ARG
18	c6	39	VAL
18	c6	120	ASP
18	c6	142	TYR
19	c7	3	ARG
20	c8	61	LEU
20	c8	90	ASN
21	c9	28	LEU
22	d0	13	GLU
23	d1	4	ASP
23	d1	42	GLU
23	d1	44	ARG
25	d3	128	SER
26	d4	51	GLU
26	d4	58	PHE
27	d5	38	HIS
29	d7	3	LEU
29	d7	38	PRO
30	d8	32	PHE
30	d8	33	LEU

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Mol	Chain	Res	Type
30	d8	65	ARG
31	d9	16	LYS
33	e1	81	LYS
33	e1	112	GLY
33	e1	124	PRO
33	e1	128	ALA
33	e1	131	PHE
33	e1	146	SER
34	sR	186	PHE
34	sR	279	ALA
35	sM	42	ALA
35	sM	63	ASP
35	sM	65	THR
35	sM	84	LYS
39	l2	24	GLN
39	l2	32	LEU
39	l2	127	ALA
39	l2	249	SER
41	l4	14	GLU
41	l4	61	SER
41	l4	132	ALA
41	l4	196	ASN
41	l4	338	LYS
42	l5	270	LYS
43	l6	133	GLU
44	l7	158	LYS
44	l7	191	VAL
44	l7	228	SER
44	l7	234	GLU
45	l8	69	LEU
45	l8	222	PHE
47	m0	25	ALA
47	m0	157	TYR
47	m0	207	GLU
47	m0	219	ALA
47	m0	220	GLN
49	m3	76	THR
52	m6	184	THR
53	m7	3	ARG
55	m9	28	GLU
57	n1	38	ASP
57	n1	127	GLN

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Mol	Chain	Res	Type
59	n3	27	ASP
59	n3	42	SER
60	n4	25	ASP
60	n4	83	THR
60	n4	132	GLY
61	n5	25	LYS
61	n5	39	LYS
63	n7	130	PHE
64	n8	47	LYS
64	n8	120	ASN
65	n9	5	LYS
65	n9	24	PRO
66	o0	103	THR
69	o3	39	GLN
70	o4	47	CYS
81	p0	47	GLY
2	S0	187	ALA
2	S0	194	PRO
3	S1	35	PRO
4	S2	95	ARG
5	S3	217	ILE
6	S4	195	ILE
6	S4	233	LYS
7	S5	31	GLU
7	S5	43	PHE
7	S5	127	GLN
8	S6	20	ASP
8	S6	123	GLY
10	S8	10	LYS
10	S8	152	ILE
11	S9	99	LEU
11	S9	147	MET
13	C1	145	ALA
14	C2	22	VAL
14	C2	39	ASP
14	C2	53	THR
14	C2	106	ILE
14	C2	112	ALA
15	C3	137	PRO
16	C4	123	SER
17	C5	22	LEU
17	C5	101	ALA

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Mol	Chain	Res	Type
17	C5	130	ARG
19	C7	84	TYR
19	C7	87	GLU
19	C7	101	ASN
21	C9	28	LEU
21	C9	116	ILE
22	D0	117	VAL
25	D3	41	SER
25	D3	46	SER
25	D3	96	VAL
25	D3	109	ARG
27	D5	54	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	88	SER
28	D6	97	PRO
31	D9	20	GLN
33	E1	87	THR
33	E1	118	ARG
33	E1	137	ASP
33	E1	146	SER
35	SM	53	ARG
39	L2	201	GLY
40	L3	187	SER
41	L4	4	PRO
41	L4	5	GLN
41	L4	140	HIS
41	L4	304	GLN
42	L5	6	ASP
42	L5	221	GLU
42	L5	252	ALA
43	L6	5	LYS
43	L6	108	LYS
44	L7	163	LEU
45	L8	39	ALA
46	L9	110	LYS
48	M1	24	GLY
48	M1	108	GLU
48	M1	111	ASP
48	M1	117	ASP
48	M1	151	SER
49	M3	50	PRO

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Mol	Chain	Res	Type
49	M3	136	GLU
51	M5	145	ASP
53	M7	37	ASN
56	N0	125	LYS
56	N0	130	GLU
57	N1	18	ASP
58	N2	91	ASP
59	N3	6	ALA
63	N7	36	HIS
64	N8	91	LEU
71	O5	75	TYR
76	Q0	97	ARG
78	Q2	8	ARG
2	s0	103	THR
4	s2	150	GLN
4	s2	238	SER
5	s3	43	PRO
5	s3	44	THR
6	s4	30	ARG
6	s4	31	PRO
7	s5	29	ILE
7	s5	126	ASP
8	s6	152	ASP
8	s6	164	LYS
8	s6	165	GLY
9	s7	155	ASP
9	s7	165	LYS
9	s7	185	ILE
11	s9	147	MET
12	c0	24	LYS
12	c0	35	ILE
13	c1	53	TYR
14	c2	108	ARG
15	c3	29	SER
15	c3	117	LEU
16	c4	12	GLN
16	c4	131	GLY
17	c5	14	THR
17	c5	46	ALA
17	c5	48	GLY
17	c5	50	THR
22	d0	119	ALA

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Mol	Chain	Res	Type
25	d3	70	LYS
25	d3	131	SER
26	d4	52	LYS
26	d4	117	LYS
28	d6	59	TYR
29	d7	59	CYS
30	d8	16	LEU
80	e0	47	VAL
33	e1	85	TYR
35	sM	43	ASP
35	sM	48	ARG
35	sM	55	SER
35	sM	171	LYS
39	l2	56	ALA
39	l2	115	ASN
39	l2	142	ASP
40	l3	129	ALA
40	l3	155	ALA
40	l3	262	TRP
41	l4	63	GLU
41	l4	120	TYR
42	l5	12	TYR
42	l5	237	GLU
42	l5	258	LYS
42	l5	279	LYS
43	l6	10	TYR
45	l8	112	GLU
45	l8	118	GLU
46	l9	189	GLU
47	m0	101	LYS
47	m0	179	PRO
49	m3	13	HIS
52	m6	13	GLY
54	m8	41	ASP
54	m8	84	VAL
57	n1	144	GLU
58	n2	45	GLY
60	n4	72	SER
62	n6	112	ASP
62	n6	126	LEU
63	n7	18	TYR
63	n7	134	LEU

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Mol	Chain	Res	Type
64	n8	129	PHE
66	o0	46	ALA
66	o0	104	LEU
69	o3	40	ASP
70	o4	82	ALA
73	o7	85	LYS
74	o8	35	GLY
76	q0	78	ILE
79	q3	51	ALA
2	S0	77	SER
3	S1	213	ARG
4	S2	248	SER
5	S3	44	THR
6	S4	11	ARG
7	S5	51	VAL
7	S5	65	ARG
8	S6	122	GLU
10	S8	22	ARG
10	S8	105	ASP
13	C1	4	GLU
13	C1	6	THR
14	C2	68	GLU
14	C2	83	GLU
14	C2	113	ARG
15	C3	10	GLY
17	C5	29	SER
18	C6	113	ASP
21	C9	29	GLU
21	C9	69	LYS
22	D0	21	LYS
23	D1	26	ALA
23	D1	81	ASN
25	D3	5	LYS
25	D3	92	CYS
25	D3	128	SER
27	D5	37	GLN
28	D6	36	ILE
28	D6	75	VAL
33	E1	86	THR
33	E1	94	LYS
34	SR	15	GLY
34	SR	105	GLY

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Mol	Chain	Res	Type
34	SR	163	ASP
39	L2	127	ALA
40	L3	317	ILE
40	L3	348	ARG
41	L4	15	ALA
41	L4	130	ALA
41	L4	131	VAL
41	L4	182	LEU
41	L4	270	SER
42	L5	57	ASN
42	L5	115	LEU
43	L6	97	ASN
44	L7	25	GLN
45	L8	150	LEU
45	L8	157	VAL
46	L9	2	LYS
46	L9	109	ALA
47	M0	25	ALA
51	M5	94	TYR
53	M7	161	ALA
54	M8	162	ALA
56	N0	2	ALA
59	N3	54	LEU
62	N6	38	GLU
63	N7	103	GLN
63	N7	128	GLN
64	N8	79	TRP
64	N8	97	GLU
67	O1	97	LEU
72	O6	21	THR
75	O9	3	ALA
76	Q0	79	GLU
78	Q2	30	ALA
78	Q2	77	CYS
79	Q3	51	ALA
5	s3	212	LYS
5	s3	221	SER
6	s4	90	ILE
6	s4	94	ALA
6	s4	118	GLU
6	s4	245	LYS
7	s5	129	PRO

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Mol	Chain	Res	Type
7	s5	142	PRO
7	s5	148	ARG
9	s7	133	THR
10	s8	78	ILE
11	s9	91	LYS
12	c0	95	ARG
14	c2	81	ASP
15	c3	118	ILE
16	c4	48	VAL
16	c4	125	SER
17	c5	6	ASN
17	c5	131	ALA
19	c7	120	SER
20	c8	60	GLU
21	c9	142	GLU
22	d0	51	VAL
22	d0	52	LYS
23	d1	77	GLY
25	d3	101	GLU
26	d4	50	ALA
27	d5	87	GLY
28	d6	35	ALA
80	e0	54	ARG
33	e1	127	GLY
33	e1	137	ASP
35	sM	66	ALA
39	l2	80	GLU
39	l2	133	TYR
40	l3	365	PHE
41	l4	23	PRO
41	l4	305	ALA
41	l4	328	ASN
41	l4	342	LYS
45	l8	121	SER
45	l8	223	ALA
45	l8	237	ILE
46	l9	110	LYS
47	m0	174	THR
47	m0	176	LEU
48	m1	95	ASN
49	m3	60	ALA
51	m5	68	ARG

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Mol	Chain	Res	Type
52	m6	111	PRO
55	m9	133	LYS
58	n2	27	VAL
60	n4	64	THR
61	n5	47	ALA
63	n7	103	GLN
64	n8	24	LYS
64	n8	110	GLY
66	o0	101	LEU
67	o1	82	GLU
69	o3	59	VAL
70	o4	59	PRO
71	o5	40	SER
71	o5	119	LYS
74	o8	37	PRO
81	p0	33	VAL
2	S0	202	TYR
4	S2	36	VAL
4	S2	106	ASP
8	S6	153	VAL
9	S7	110	GLN
11	S9	136	VAL
13	C1	51	GLY
13	C1	146	ALA
18	C6	33	GLY
19	C7	24	LEU
26	D4	47	VAL
26	D4	60	PHE
28	D6	10	ARG
35	SM	12	VAL
35	SM	102	THR
41	L4	14	GLU
42	L5	295	GLY
44	L7	178	ILE
46	L9	187	ILE
49	M3	130	GLY
50	M4	6	ILE
54	M8	43	PRO
67	O1	7	VAL
68	O2	13	HIS
69	O3	94	PHE
2	s0	157	ASP

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Mol	Chain	Res	Type
4	s2	93	GLY
5	s3	113	LEU
6	s4	242	LYS
7	s5	127	GLN
11	s9	162	SER
11	s9	169	PRO
12	c0	26	ASP
13	c1	144	ALA
14	c2	103	LEU
14	c2	118	ALA
16	c4	124	ASP
18	c6	4	VAL
19	c7	105	GLN
20	c8	14	ILE
29	d7	62	ILE
34	sR	96	THR
46	l9	167	VAL
76	q0	80	PRO
78	q2	78	LYS
3	S1	210	ILE
7	S5	33	VAL
13	C1	76	VAL
14	C2	75	VAL
22	D0	55	PRO
22	D0	106	ILE
23	D1	82	VAL
26	D4	95	GLY
34	SR	6	VAL
34	SR	194	GLY
41	L4	328	ASN
57	N1	126	VAL
72	O6	52	PRO
12	c0	3	MET
13	c1	130	PRO
18	c6	5	PRO
24	d2	6	VAL
42	l5	125	VAL
43	l6	36	PRO
44	l7	217	PRO
46	l9	4	ILE
68	o2	6	HIS
75	o9	24	PRO

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Mol	Chain	Res	Type
16	C4	48	VAL
16	C4	96	PRO
40	L3	141	GLY
42	L5	125	VAL
53	M7	84	PRO
65	N9	21	ILE
69	O3	59	VAL
6	s4	260	GLY
7	s5	151	GLY
11	s9	168	ARG
14	c2	91	VAL
64	n8	70	LYS
2	S0	126	PRO
2	S0	189	VAL
3	S1	21	VAL
25	D3	143	PRO
35	SM	172	VAL
42	L5	84	PRO
45	L8	30	THR
50	M4	39	ILE
60	N4	82	ILE
4	s2	85	PRO
4	s2	234	PRO
11	s9	134	ILE
14	c2	40	GLY
14	c2	63	VAL
19	c7	117	LEU
35	sM	51	ARG
57	n1	126	VAL
64	n8	148	ILE
5	S3	81	PRO
8	S6	69	LEU
11	S9	162	SER
18	C6	39	VAL
22	D0	19	ILE
30	D8	20	GLY
32	E0	60	PRO
34	SR	94	VAL
41	L4	230	VAL
47	M0	91	VAL
48	M1	148	VAL
66	O0	96	GLY

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Mol	Chain	Res	Type
67	O1	59	ILE
6	s4	243	GLY
8	s6	69	LEU
9	s7	112	ARG
13	c1	113	PRO
19	c7	50	ILE
28	d6	20	PRO
42	l5	156	GLY
43	l6	171	PRO
45	l8	163	VAL
47	m0	204	GLY
64	n8	56	VAL
35	SM	17	VAL
44	L7	91	GLY
53	m7	84	PRO

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%)	133 (81%)	31 (19%)	2	10
2	s0	165/209 (79%)	132 (80%)	33 (20%)	1	8
3	S1	191/223 (86%)	146 (76%)	45 (24%)	1	4
3	s1	192/223 (86%)	146 (76%)	46 (24%)	1	3
4	S2	176/204 (86%)	138 (78%)	38 (22%)	1	6
4	s2	176/204 (86%)	126 (72%)	50 (28%)	0	1
5	S3	182/194 (94%)	146 (80%)	36 (20%)	1	8
5	s3	182/194 (94%)	144 (79%)	38 (21%)	1	7
6	S4	221/221 (100%)	175 (79%)	46 (21%)	1	7
6	s4	221/221 (100%)	189 (86%)	32 (14%)	4	19
7	S5	173/190 (91%)	142 (82%)	31 (18%)	2	11
7	s5	173/190 (91%)	139 (80%)	34 (20%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	S6	188/201 (94%)	154 (82%)	34 (18%)	2	11
8	s6	187/201 (93%)	149 (80%)	38 (20%)	1	7
9	S7	165/169 (98%)	134 (81%)	31 (19%)	2	10
9	s7	165/169 (98%)	135 (82%)	30 (18%)	2	10
10	S8	150/161 (93%)	126 (84%)	24 (16%)	3	14
10	s8	150/161 (93%)	122 (81%)	28 (19%)	2	10
11	S9	158/165 (96%)	127 (80%)	31 (20%)	1	9
11	s9	158/165 (96%)	124 (78%)	34 (22%)	1	6
12	C0	77/98 (79%)	63 (82%)	14 (18%)	2	10
12	c0	73/98 (74%)	61 (84%)	12 (16%)	3	13
13	C1	129/136 (95%)	109 (84%)	20 (16%)	3	15
13	c1	129/136 (95%)	101 (78%)	28 (22%)	1	6
14	C2	88/118 (75%)	63 (72%)	25 (28%)	0	1
14	c2	88/118 (75%)	60 (68%)	28 (32%)	0	0
15	C3	127/127 (100%)	99 (78%)	28 (22%)	1	6
15	c3	127/127 (100%)	101 (80%)	26 (20%)	1	7
16	C4	81/104 (78%)	62 (76%)	19 (24%)	1	4
16	c4	97/104 (93%)	73 (75%)	24 (25%)	1	3
17	C5	101/117 (86%)	80 (79%)	21 (21%)	1	7
17	c5	103/117 (88%)	79 (77%)	24 (23%)	1	4
18	C6	117/118 (99%)	90 (77%)	27 (23%)	1	4
18	c6	118/118 (100%)	99 (84%)	19 (16%)	3	14
19	C7	94/124 (76%)	75 (80%)	19 (20%)	1	7
19	c7	92/124 (74%)	73 (79%)	19 (21%)	1	7
20	C8	128/128 (100%)	96 (75%)	32 (25%)	1	2
20	c8	128/128 (100%)	102 (80%)	26 (20%)	1	7
21	C9	115/115 (100%)	92 (80%)	23 (20%)	1	8
21	c9	115/115 (100%)	97 (84%)	18 (16%)	3	15
22	D0	100/113 (88%)	77 (77%)	23 (23%)	1	4
22	d0	103/113 (91%)	80 (78%)	23 (22%)	1	5
23	D1	74/74 (100%)	58 (78%)	16 (22%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	d1	74/74 (100%)	61 (82%)	13 (18%)	2	11
24	D2	110/110 (100%)	88 (80%)	22 (20%)	1	8
24	d2	110/110 (100%)	96 (87%)	14 (13%)	5	25
25	D3	119/119 (100%)	97 (82%)	22 (18%)	2	10
25	d3	119/119 (100%)	98 (82%)	21 (18%)	2	11
26	D4	112/112 (100%)	93 (83%)	19 (17%)	2	12
26	d4	112/112 (100%)	90 (80%)	22 (20%)	1	9
27	D5	61/88 (69%)	47 (77%)	14 (23%)	1	4
27	d5	61/88 (69%)	52 (85%)	9 (15%)	4	18
28	D6	83/83 (100%)	63 (76%)	20 (24%)	1	3
28	d6	83/83 (100%)	70 (84%)	13 (16%)	3	15
29	D7	70/70 (100%)	64 (91%)	6 (9%)	13	46
29	d7	70/70 (100%)	55 (79%)	15 (21%)	1	6
30	D8	56/59 (95%)	42 (75%)	14 (25%)	1	2
30	d8	56/59 (95%)	39 (70%)	17 (30%)	0	1
31	D9	47/48 (98%)	34 (72%)	13 (28%)	0	1
31	d9	47/48 (98%)	35 (74%)	12 (26%)	1	2
32	E0	51/51 (100%)	43 (84%)	8 (16%)	3	15
33	E1	62/66 (94%)	47 (76%)	15 (24%)	1	3
33	e1	66/66 (100%)	52 (79%)	14 (21%)	1	7
34	SR	260/261 (100%)	228 (88%)	32 (12%)	6	27
34	sR	260/261 (100%)	227 (87%)	33 (13%)	5	25
35	SM	97/228 (42%)	77 (79%)	20 (21%)	1	7
35	sM	54/228 (24%)	45 (83%)	9 (17%)	3	13
39	L2	193/195 (99%)	161 (83%)	32 (17%)	3	13
39	l2	192/195 (98%)	152 (79%)	40 (21%)	1	7
40	L3	321/322 (100%)	249 (78%)	72 (22%)	1	5
40	l3	318/322 (99%)	256 (80%)	62 (20%)	2	9
41	L4	288/288 (100%)	231 (80%)	57 (20%)	1	8
41	l4	288/288 (100%)	231 (80%)	57 (20%)	1	8
42	L5	244/244 (100%)	197 (81%)	47 (19%)	2	9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	l5	243/244 (100%)	195 (80%)	48 (20%)	1	8
43	L6	134/152 (88%)	111 (83%)	23 (17%)	2	12
43	l6	135/152 (89%)	113 (84%)	22 (16%)	3	14
44	L7	186/204 (91%)	160 (86%)	26 (14%)	4	20
44	l7	187/204 (92%)	155 (83%)	32 (17%)	2	12
45	L8	187/207 (90%)	156 (83%)	31 (17%)	3	13
45	l8	177/207 (86%)	146 (82%)	31 (18%)	2	12
46	L9	171/171 (100%)	131 (77%)	40 (23%)	1	4
46	l9	171/171 (100%)	131 (77%)	40 (23%)	1	4
47	M0	177/186 (95%)	140 (79%)	37 (21%)	1	7
47	m0	179/186 (96%)	141 (79%)	38 (21%)	1	7
48	M1	147/150 (98%)	120 (82%)	27 (18%)	2	10
48	m1	147/150 (98%)	115 (78%)	32 (22%)	1	6
49	M3	154/158 (98%)	125 (81%)	29 (19%)	2	10
49	m3	154/158 (98%)	125 (81%)	29 (19%)	2	10
50	M4	107/108 (99%)	89 (83%)	18 (17%)	2	13
50	m4	108/108 (100%)	89 (82%)	19 (18%)	2	11
51	M5	175/175 (100%)	145 (83%)	30 (17%)	2	12
51	m5	175/175 (100%)	150 (86%)	25 (14%)	4	19
52	M6	160/161 (99%)	140 (88%)	20 (12%)	6	26
52	m6	160/161 (99%)	126 (79%)	34 (21%)	1	7
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%)	125 (83%)	25 (17%)	3	13
54	m8	150/150 (100%)	123 (82%)	27 (18%)	2	11
55	M9	153/153 (100%)	132 (86%)	21 (14%)	4	21
55	m9	153/153 (100%)	119 (78%)	34 (22%)	1	5
56	N0	156/156 (100%)	124 (80%)	32 (20%)	1	7
56	n0	156/156 (100%)	130 (83%)	26 (17%)	3	13
57	N1	136/136 (100%)	110 (81%)	26 (19%)	2	10
57	n1	136/136 (100%)	109 (80%)	27 (20%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
58	N2	87/106 (82%)	69 (79%)	18 (21%)	1	7
58	n2	85/106 (80%)	66 (78%)	19 (22%)	1	5
59	N3	104/104 (100%)	85 (82%)	19 (18%)	2	10
59	n3	104/104 (100%)	93 (89%)	11 (11%)	8	34
60	N4	57/129 (44%)	51 (90%)	6 (10%)	8	35
60	n4	100/129 (78%)	85 (85%)	15 (15%)	3	17
61	N5	104/117 (89%)	82 (79%)	22 (21%)	1	7
61	n5	104/117 (89%)	87 (84%)	17 (16%)	3	14
62	N6	109/109 (100%)	87 (80%)	22 (20%)	1	7
62	n6	109/109 (100%)	81 (74%)	28 (26%)	0	2
63	N7	115/115 (100%)	93 (81%)	22 (19%)	2	10
63	n7	115/115 (100%)	94 (82%)	21 (18%)	2	10
64	N8	118/118 (100%)	95 (80%)	23 (20%)	2	9
64	n8	118/118 (100%)	99 (84%)	19 (16%)	3	14
65	N9	46/46 (100%)	37 (80%)	9 (20%)	1	9
65	n9	46/46 (100%)	38 (83%)	8 (17%)	2	12
66	O0	81/87 (93%)	64 (79%)	17 (21%)	1	7
66	o0	84/87 (97%)	69 (82%)	15 (18%)	2	11
67	O1	92/96 (96%)	74 (80%)	18 (20%)	1	9
67	o1	94/96 (98%)	77 (82%)	17 (18%)	2	11
68	O2	109/110 (99%)	85 (78%)	24 (22%)	1	6
68	o2	109/110 (99%)	87 (80%)	22 (20%)	1	7
69	O3	90/90 (100%)	79 (88%)	11 (12%)	6	27
69	o3	90/90 (100%)	73 (81%)	17 (19%)	2	10
70	O4	95/102 (93%)	76 (80%)	19 (20%)	1	8
70	o4	95/102 (93%)	74 (78%)	21 (22%)	1	5
71	O5	104/104 (100%)	82 (79%)	22 (21%)	1	7
71	o5	103/104 (99%)	78 (76%)	25 (24%)	1	3
72	O6	81/81 (100%)	61 (75%)	20 (25%)	1	3
72	o6	80/81 (99%)	55 (69%)	25 (31%)	0	1
73	O7	70/70 (100%)	57 (81%)	13 (19%)	2	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
73	o7	70/70 (100%)	60 (86%)	10 (14%)	4	19
74	O8	68/68 (100%)	51 (75%)	17 (25%)	1	2
74	o8	67/68 (98%)	56 (84%)	11 (16%)	3	13
75	O9	45/45 (100%)	38 (84%)	7 (16%)	3	15
75	o9	45/45 (100%)	37 (82%)	8 (18%)	2	11
76	Q0	47/47 (100%)	35 (74%)	12 (26%)	1	2
76	q0	47/47 (100%)	36 (77%)	11 (23%)	1	4
77	Q1	23/23 (100%)	16 (70%)	7 (30%)	0	1
77	q1	23/23 (100%)	16 (70%)	7 (30%)	0	1
78	Q2	90/90 (100%)	72 (80%)	18 (20%)	1	8
78	q2	90/90 (100%)	70 (78%)	20 (22%)	1	5
79	Q3	71/71 (100%)	59 (83%)	12 (17%)	2	13
79	q3	71/71 (100%)	55 (78%)	16 (22%)	1	5
80	e0	53/53 (100%)	39 (74%)	14 (26%)	0	2
81	p0	105/253 (42%)	85 (81%)	20 (19%)	2	10
All	All	18727/20241 (92%)	15073 (80%)	3654 (20%)	2	9

All (3654) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	10	THR
2	S0	24	LEU
2	S0	32	HIS
2	S0	37	VAL
2	S0	43	ASP
2	S0	47	VAL
2	S0	49	ASN
2	S0	50	VAL
2	S0	56	LYS
2	S0	57	LEU
2	S0	59	LEU
2	S0	62	ARG
2	S0	68	PRO
2	S0	80	THR
2	S0	84	ARG
2	S0	87	LEU
2	S0	88	LYS

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Mol	Chain	Res	Type
2	S0	96	THR
2	S0	101	ARG
2	S0	103	THR
2	S0	110	TYR
2	S0	111	ILE
2	S0	119	ARG
2	S0	154	GLU
2	S0	157	ASP
2	S0	170	ILE
2	S0	172	LEU
2	S0	177	LEU
2	S0	185	ARG
2	S0	196	SER
2	S0	200	ASP
3	S1	21	VAL
3	S1	22	ASP
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	38	PHE
3	S1	46	THR
3	S1	51	SER
3	S1	55	LYS
3	S1	61	LEU
3	S1	70	LEU
3	S1	73	LEU
3	S1	77	GLU
3	S1	78	ASP
3	S1	81	PHE
3	S1	89	ASP
3	S1	91	VAL
3	S1	95	ASN
3	S1	96	LEU
3	S1	97	LEU
3	S1	105	PHE
3	S1	108	ASP
3	S1	110	LEU
3	S1	111	ARG
3	S1	112	SER
3	S1	117	TRP
3	S1	119	THR
3	S1	126	THR

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Mol	Chain	Res	Type
3	S1	131	ASP
3	S1	148	ASN
3	S1	169	SER
3	S1	170	GLU
3	S1	177	GLN
3	S1	180	THR
3	S1	181	LEU
3	S1	193	ILE
3	S1	198	GLU
3	S1	202	LYS
3	S1	214	LYS
3	S1	215	VAL
3	S1	218	LEU
3	S1	219	LYS
3	S1	220	GLN
3	S1	222	LYS
3	S1	223	PHE
4	S2	41	LEU
4	S2	50	ILE
4	S2	53	ILE
4	S2	58	LEU
4	S2	60	SER
4	S2	69	ILE
4	S2	73	LEU
4	S2	77	GLN
4	S2	87	GLN
4	S2	90	THR
4	S2	91	ARG
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	111	VAL
4	S2	113	LEU
4	S2	116	LYS
4	S2	117	THR
4	S2	119	LYS
4	S2	134	LEU
4	S2	139	ILE
4	S2	140	ARG
4	S2	141	ARG
4	S2	148	LEU
4	S2	153	SER

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Mol	Chain	Res	Type
4	S2	159	THR
4	S2	166	THR
4	S2	174	ARG
4	S2	207	LEU
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	235	LEU
4	S2	237	VAL
4	S2	245	ASP
5	S3	4	LEU
5	S3	7	LYS
5	S3	9	ARG
5	S3	14	ASP
5	S3	21	LEU
5	S3	23	GLU
5	S3	37	VAL
5	S3	41	VAL
5	S3	65	ARG
5	S3	66	ILE
5	S3	76	ARG
5	S3	84	ILE
5	S3	89	GLU
5	S3	92	GLN
5	S3	94	ARG
5	S3	103	GLU
5	S3	104	SER
5	S3	117	ARG
5	S3	127	MET
5	S3	143	ARG
5	S3	146	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	181	VAL
5	S3	182	LEU

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Mol	Chain	Res	Type
5	S3	189	MET
5	S3	190	ARG
5	S3	200	LYS
5	S3	207	THR
5	S3	209	ILE
5	S3	218	LEU
5	S3	222	VAL
6	S4	6	LYS
6	S4	7	LYS
6	S4	9	LEU
6	S4	12	LEU
6	S4	26	CYS
6	S4	38	LEU
6	S4	45	ILE
6	S4	48	LEU
6	S4	65	LEU
6	S4	67	GLN
6	S4	68	ARG
6	S4	77	ARG
6	S4	78	THR
6	S4	105	VAL
6	S4	115	THR
6	S4	117	GLU
6	S4	120	SER
6	S4	123	LEU
6	S4	128	LYS
6	S4	131	LEU
6	S4	142	HIS
6	S4	151	ASP
6	S4	155	LYS
6	S4	158	ASP
6	S4	160	VAL
6	S4	164	LEU
6	S4	168	LYS
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

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Mol	Chain	Res	Type
6	S4	221	ARG
6	S4	222	LEU
6	S4	226	PHE
6	S4	227	VAL
6	S4	231	GLN
6	S4	236	ILE
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	258	GLN
6	S4	259	GLN
7	S5	25	LEU
7	S5	32	GLU
7	S5	34	GLN
7	S5	38	THR
7	S5	41	LYS
7	S5	43	PHE
7	S5	45	LYS
7	S5	53	VAL
7	S5	63	GLN
7	S5	76	ARG
7	S5	79	ASN
7	S5	86	GLN
7	S5	89	ILE
7	S5	90	ILE
7	S5	93	LEU
7	S5	94	THR
7	S5	119	ASP
7	S5	123	VAL
7	S5	126	ASP
7	S5	131	GLN
7	S5	139	ASN
7	S5	147	THR
7	S5	156	ARG
7	S5	157	ARG
7	S5	158	GLN
7	S5	163	SER
7	S5	166	ARG
7	S5	194	LEU
7	S5	203	LYS
7	S5	216	GLU
7	S5	225	ARG

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Mol	Chain	Res	Type
8	S6	5	ILE
8	S6	6	SER
8	S6	7	TYR
8	S6	13	GLN
8	S6	21	GLU
8	S6	25	ARG
8	S6	30	LYS
8	S6	45	PHE
8	S6	51	LYS
8	S6	58	LYS
8	S6	67	VAL
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	82	SER
8	S6	89	ASP
8	S6	98	ARG
8	S6	126	ASP
8	S6	127	THR
8	S6	128	THR
8	S6	129	VAL
8	S6	133	LEU
8	S6	143	LYS
8	S6	150	GLU
8	S6	151	ASP
8	S6	154	ARG
8	S6	155	ASP
8	S6	169	TYR
8	S6	175	ILE
8	S6	177	ARG
8	S6	193	LEU
8	S6	216	LEU
8	S6	217	SER
8	S6	223	LYS
9	S7	37	GLU
9	S7	38	LEU
9	S7	46	ILE
9	S7	50	ASP
9	S7	51	VAL
9	S7	55	LYS
9	S7	67	LEU
9	S7	70	PHE

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Mol	Chain	Res	Type
9	S7	71	HIS
9	S7	75	THR
9	S7	77	LEU
9	S7	79	ARG
9	S7	85	PHE
9	S7	87	ASP
9	S7	97	ARG
9	S7	99	LEU
9	S7	104	ARG
9	S7	105	THR
9	S7	110	GLN
9	S7	114	ARG
9	S7	116	ARG
9	S7	126	LEU
9	S7	129	LEU
9	S7	130	VAL
9	S7	134	GLU
9	S7	143	LEU
9	S7	144	VAL
9	S7	147	ASN
9	S7	167	GLU
9	S7	185	ILE
9	S7	186	PRO
10	S8	4	SER
10	S8	8	ARG
10	S8	21	PHE
10	S8	22	ARG
10	S8	29	LEU
10	S8	36	THR
10	S8	46	VAL
10	S8	56	ARG
10	S8	66	SER
10	S8	74	LYS
10	S8	86	SER
10	S8	98	LYS
10	S8	135	LYS
10	S8	138	ASN
10	S8	140	GLU
10	S8	151	LYS
10	S8	152	ILE
10	S8	155	SER
10	S8	158	SER

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Mol	Chain	Res	Type
10	S8	164	ARG
10	S8	184	LEU
10	S8	187	GLU
10	S8	196	LEU
10	S8	199	LYS
11	S9	3	ARG
11	S9	7	THR
11	S9	14	THR
11	S9	21	SER
11	S9	28	LEU
11	S9	40	LYS
11	S9	50	SER
11	S9	60	LEU
11	S9	78	ARG
11	S9	79	ARG
11	S9	82	ARG
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	94	ASP
11	S9	99	LEU
11	S9	105	LEU
11	S9	109	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	145	SER
11	S9	149	ARG
11	S9	157	ASP
11	S9	161	THR
11	S9	171	ARG
11	S9	172	VAL
11	S9	182	GLU
12	C0	5	LYS
12	C0	8	ARG
12	C0	27	PHE
12	C0	29	GLN
12	C0	32	HIS
12	C0	46	LEU

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Mol	Chain	Res	Type
12	C0	55	VAL
12	C0	56	LYS
12	C0	67	THR
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	8	GLN
13	C1	21	ASN
13	C1	37	ASN
13	C1	40	LEU
13	C1	44	THR
13	C1	56	LYS
13	C1	63	LEU
13	C1	67	ARG
13	C1	69	LYS
13	C1	72	THR
13	C1	74	THR
13	C1	79	LYS
13	C1	80	MET
13	C1	83	THR
13	C1	99	ARG
13	C1	109	VAL
13	C1	118	GLN
13	C1	131	ILE
13	C1	136	ARG
14	C2	28	LEU
14	C2	33	ARG
14	C2	36	LEU
14	C2	37	VAL
14	C2	38	HIS
14	C2	43	ARG
14	C2	45	LEU
14	C2	46	ARG
14	C2	50	LYS
14	C2	58	LEU
14	C2	61	VAL
14	C2	66	VAL
14	C2	71	ILE
14	C2	83	GLU

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Mol	Chain	Res	Type
14	C2	85	LYS
14	C2	86	VAL
14	C2	89	ILE
14	C2	103	LEU
14	C2	119	SER
14	C2	121	VAL
14	C2	126	TRP
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	9	LYS
15	C3	16	ILE
15	C3	27	LYS
15	C3	39	LYS
15	C3	56	ASP
15	C3	58	HIS
15	C3	62	GLN
15	C3	64	ARG
15	C3	66	ILE
15	C3	67	THR
15	C3	72	MET
15	C3	75	LEU
15	C3	76	LYS
15	C3	88	LEU
15	C3	99	ARG
15	C3	102	LEU
15	C3	110	ASP
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	127	ARG
15	C3	140	LYS
15	C3	143	SER
15	C3	145	THR
15	C3	150	VAL
15	C3	151	ASN
16	C4	13	VAL
16	C4	16	VAL
16	C4	20	TYR

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Mol	Chain	Res	Type
16	C4	24	ASN
16	C4	26	THR
16	C4	29	HIS
16	C4	31	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	52	ARG
16	C4	89	THR
16	C4	92	LYS
16	C4	93	THR
16	C4	102	LEU
16	C4	118	VAL
16	C4	125	SER
16	C4	127	ARG
16	C4	136	ARG
16	C4	137	LEU
17	C5	22	LEU
17	C5	26	LEU
17	C5	31	GLU
17	C5	34	VAL
17	C5	35	LYS
17	C5	36	LEU
17	C5	40	ARG
17	C5	44	ARG
17	C5	52	LYS
17	C5	60	LEU
17	C5	69	GLU
17	C5	84	ILE
17	C5	86	VAL
17	C5	89	MET
17	C5	100	LYS
17	C5	110	GLU
17	C5	116	LEU
17	C5	121	ILE
17	C5	124	THR
17	C5	125	PRO
17	C5	128	HIS
18	C6	4	VAL
18	C6	8	GLN
18	C6	12	LYS
18	C6	19	VAL
18	C6	26	LYS

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Mol	Chain	Res	Type
18	C6	29	ILE
18	C6	31	VAL
18	C6	36	ILE
18	C6	43	ILE
18	C6	44	LEU
18	C6	52	LEU
18	C6	54	LEU
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	94	GLN
18	C6	98	ASP
18	C6	106	LYS
18	C6	116	LEU
18	C6	123	ARG
18	C6	127	LYS
18	C6	128	LYS
18	C6	137	ARG
18	C6	138	PHE
18	C6	140	LYS
18	C6	141	SER
18	C6	143	ARG
19	C7	3	ARG
19	C7	5	ARG
19	C7	25	THR
19	C7	30	THR
19	C7	34	LEU
19	C7	38	ILE
19	C7	40	THR
19	C7	49	LYS
19	C7	54	THR
19	C7	69	ILE
19	C7	71	PHE
19	C7	72	LYS
19	C7	78	ARG
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

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Mol	Chain	Res	Type
20	C8	5	VAL
20	C8	8	GLN
20	C8	11	PHE
20	C8	12	GLN
20	C8	13	HIS
20	C8	14	ILE
20	C8	17	LEU
20	C8	18	LEU
20	C8	20	THR
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	34	THR
20	C8	40	ARG
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	86	LEU
20	C8	92	ILE
20	C8	93	THR
20	C8	97	ASP
20	C8	113	LEU
20	C8	116	LEU
20	C8	132	ARG
20	C8	136	GLN
20	C8	138	THR
20	C8	141	THR
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
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	35	ASP
21	C9	37	VAL
21	C9	41	SER

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Mol	Chain	Res	Type
21	C9	57	ARG
21	C9	63	ARG
21	C9	67	MET
21	C9	84	LYS
21	C9	86	ARG
21	C9	88	VAL
21	C9	94	ILE
21	C9	116	ILE
21	C9	130	ARG
21	C9	131	ASP
21	C9	133	ASP
21	C9	144	GLU
22	D0	15	GLN
22	D0	17	GLN
22	D0	18	GLN
22	D0	19	ILE
22	D0	22	ILE
22	D0	23	ARG
22	D0	25	THR
22	D0	27	THR
22	D0	30	LYS
22	D0	34	LEU
22	D0	41	ILE
22	D0	42	VAL
22	D0	47	GLN
22	D0	48	HIS
22	D0	51	VAL
22	D0	57	ARG
22	D0	66	SER
22	D0	74	GLU
22	D0	81	THR
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	121	ASN
23	D1	3	ASN
23	D1	7	GLN
23	D1	9	VAL
23	D1	11	LEU
23	D1	32	VAL
23	D1	33	GLN
23	D1	41	GLU

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Mol	Chain	Res	Type
23	D1	52	THR
23	D1	60	ARG
23	D1	61	SER
23	D1	69	LEU
23	D1	76	ASP
23	D1	80	LYS
23	D1	84	SER
23	D1	86	SER
23	D1	87	ARG
24	D2	4	SER
24	D2	7	LEU
24	D2	12	ASN
24	D2	22	LYS
24	D2	23	ARG
24	D2	24	GLN
24	D2	25	VAL
24	D2	27	ILE
24	D2	28	ARG
24	D2	49	GLU
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	81	VAL
24	D2	93	LEU
24	D2	97	ARG
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR
24	D2	121	VAL
24	D2	129	VAL
25	D3	7	ARG
25	D3	16	ARG
25	D3	18	HIS
25	D3	19	ARG
25	D3	28	ASN
25	D3	31	LYS
25	D3	33	LEU
25	D3	47	SER
25	D3	69	ARG
25	D3	73	ARG
25	D3	78	LYS

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Mol	Chain	Res	Type
25	D3	82	LYS
25	D3	84	THR
25	D3	103	LEU
25	D3	107	PHE
25	D3	109	ARG
25	D3	110	LYS
25	D3	114	LYS
25	D3	117	ILE
25	D3	132	LEU
25	D3	140	LYS
25	D3	144	ARG
26	D4	2	SER
26	D4	14	SER
26	D4	17	LEU
26	D4	21	LYS
26	D4	29	HIS
26	D4	32	ARG
26	D4	34	ASN
26	D4	40	LEU
26	D4	46	GLU
26	D4	47	VAL
26	D4	57	VAL
26	D4	61	ARG
26	D4	84	LYS
26	D4	96	LEU
26	D4	99	LYS
26	D4	102	LYS
26	D4	124	ARG
26	D4	128	LYS
26	D4	129	VAL
27	D5	38	HIS
27	D5	40	VAL
27	D5	42	LEU
27	D5	49	ARG
27	D5	58	ARG
27	D5	59	TYR
27	D5	63	SER
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	85	LYS
27	D5	92	ILE

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Mol	Chain	Res	Type
27	D5	95	HIS
27	D5	100	ILE
28	D6	15	ARG
28	D6	18	VAL
28	D6	34	LYS
28	D6	36	ILE
28	D6	38	ARG
28	D6	41	ILE
28	D6	44	ILE
28	D6	45	VAL
28	D6	58	VAL
28	D6	61	GLU
28	D6	66	LYS
28	D6	68	TYR
28	D6	69	ASN
28	D6	70	LYS
28	D6	76	SER
28	D6	82	ARG
28	D6	83	ILE
28	D6	85	ARG
28	D6	86	VAL
28	D6	88	SER
29	D7	3	LEU
29	D7	4	VAL
29	D7	20	LYS
29	D7	33	LEU
29	D7	34	ASP
29	D7	61	THR
30	D8	13	ILE
30	D8	15	VAL
30	D8	19	THR
30	D8	32	PHE
30	D8	33	LEU
30	D8	34	GLU
30	D8	35	ASP
30	D8	36	THR
30	D8	39	THR
30	D8	49	ARG
30	D8	54	LEU
30	D8	57	MET
30	D8	58	GLU
30	D8	64	ARG

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Mol	Chain	Res	Type
31	D9	5	ASN
31	D9	6	VAL
31	D9	9	SER
31	D9	19	ARG
31	D9	22	ARG
31	D9	23	VAL
31	D9	25	SER
31	D9	30	LEU
31	D9	32	ARG
31	D9	36	LEU
31	D9	39	CYS
31	D9	40	ARG
31	D9	49	ASP
32	E0	20	LYS
32	E0	21	VAL
32	E0	22	GLU
32	E0	25	GLU
32	E0	28	LYS
32	E0	39	LEU
32	E0	42	ARG
32	E0	47	VAL
33	E1	86	THR
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	96	LYS
33	E1	97	LYS
33	E1	100	LEU
33	E1	108	VAL
33	E1	120	GLU
33	E1	126	CYS
33	E1	130	VAL
33	E1	139	LEU
33	E1	147	VAL
33	E1	150	VAL
33	E1	151	ASN
34	SR	3	SER
34	SR	6	VAL
34	SR	10	ARG
34	SR	17	ASN
34	SR	29	GLN
34	SR	44	SER

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Mol	Chain	Res	Type
34	SR	52	GLN
34	SR	59	ARG
34	SR	66	HIS
34	SR	76	ASP
34	SR	82	SER
34	SR	102	ARG
34	SR	117	LYS
34	SR	118	LYS
34	SR	136	ILE
34	SR	141	LEU
34	SR	144	LEU
34	SR	145	LEU
34	SR	149	ASP
34	SR	153	GLN
34	SR	163	ASP
34	SR	165	ASP
34	SR	191	ASP
34	SR	232	TYR
34	SR	238	ASP
34	SR	256	THR
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	24	GLU
35	SM	34	LYS
35	SM	46	LYS
35	SM	48	ARG
35	SM	51	ARG
35	SM	55	SER
35	SM	61	ILE
35	SM	62	ARG
35	SM	64	LYS
35	SM	68	ARG
35	SM	74	LYS
35	SM	75	ASP
35	SM	77	THR
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR

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Mol	Chain	Res	Type
35	SM	100	THR
35	SM	102	THR
35	SM	116	GLU
35	SM	130	GLU
39	L2	10	LYS
39	L2	32	LEU
39	L2	44	ILE
39	L2	48	ILE
39	L2	49	VAL
39	L2	62	VAL
39	L2	70	ARG
39	L2	73	GLU
39	L2	74	GLU
39	L2	96	LEU
39	L2	98	VAL
39	L2	101	VAL
39	L2	104	LEU
39	L2	112	ILE
39	L2	116	VAL
39	L2	118	GLU
39	L2	126	LEU
39	L2	134	VAL
39	L2	142	ASP
39	L2	143	GLU
39	L2	158	ILE
39	L2	160	SER
39	L2	179	LEU
39	L2	181	LYS
39	L2	202	VAL
39	L2	204	MET
39	L2	225	ILE
39	L2	227	ARG
39	L2	230	VAL
39	L2	231	SER
39	L2	238	ILE
39	L2	247	ARG
40	L3	2	SER
40	L3	7	GLU
40	L3	17	LEU
40	L3	19	ARG
40	L3	24	SER
40	L3	25	ILE

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Mol	Chain	Res	Type
40	L3	37	ARG
40	L3	45	SER
40	L3	47	LEU
40	L3	55	THR
40	L3	56	ILE
40	L3	66	LYS
40	L3	73	VAL
40	L3	79	VAL
40	L3	81	THR
40	L3	84	VAL
40	L3	85	VAL
40	L3	90	VAL
40	L3	93	VAL
40	L3	100	ARG
40	L3	102	LEU
40	L3	103	THR
40	L3	104	THR
40	L3	110	LEU
40	L3	114	VAL
40	L3	126	LYS
40	L3	136	LYS
40	L3	139	GLN
40	L3	146	ARG
40	L3	148	LEU
40	L3	150	ARG
40	L3	156	SER
40	L3	157	VAL
40	L3	160	VAL
40	L3	162	VAL
40	L3	167	ARG
40	L3	169	THR
40	L3	178	LEU
40	L3	188	ILE
40	L3	189	SER
40	L3	196	ARG
40	L3	202	THR
40	L3	205	VAL
40	L3	207	SER
40	L3	208	VAL
40	L3	212	ASN
40	L3	226	PHE
40	L3	232	ARG

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Mol	Chain	Res	Type
40	L3	235	THR
40	L3	238	LEU
40	L3	241	LYS
40	L3	244	ARG
40	L3	252	ILE
40	L3	261	MET
40	L3	266	ARG
40	L3	284	ARG
40	L3	287	LYS
40	L3	289	ASP
40	L3	296	THR
40	L3	300	ARG
40	L3	305	ILE
40	L3	308	MET
40	L3	319	ASN
40	L3	320	ASP
40	L3	324	VAL
40	L3	328	ILE
40	L3	332	ARG
40	L3	338	LEU
40	L3	343	TYR
40	L3	347	SER
40	L3	372	THR
40	L3	382	THR
41	L4	21	PRO
41	L4	25	VAL
41	L4	37	THR
41	L4	40	THR
41	L4	41	SER
41	L4	60	THR
41	L4	69	ARG
41	L4	71	VAL
41	L4	73	ARG
41	L4	74	ILE
41	L4	92	ASN
41	L4	93	MET
41	L4	99	MET
41	L4	112	LYS
41	L4	120	TYR
41	L4	124	SER
41	L4	138	ARG
41	L4	148	ILE

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Mol	Chain	Res	Type
41	L4	150	LEU
41	L4	156	LEU
41	L4	161	LYS
41	L4	170	LYS
41	L4	172	VAL
41	L4	185	LYS
41	L4	186	LYS
41	L4	187	LEU
41	L4	193	LYS
41	L4	194	TYR
41	L4	200	THR
41	L4	202	ARG
41	L4	203	ARG
41	L4	206	LEU
41	L4	215	ILE
41	L4	217	LYS
41	L4	220	ARG
41	L4	222	VAL
41	L4	230	VAL
41	L4	246	ARG
41	L4	256	THR
41	L4	259	ASP
41	L4	267	VAL
41	L4	270	SER
41	L4	275	THR
41	L4	287	THR
41	L4	292	SER
41	L4	293	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	308	LYS
41	L4	313	LEU
41	L4	323	VAL
41	L4	327	LEU
41	L4	332	LYS
41	L4	333	VAL
41	L4	339	LEU
41	L4	346	LYS
41	L4	347	THR
42	L5	5	LYS
42	L5	10	SER
42	L5	22	ARG

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Mol	Chain	Res	Type
42	L5	23	ARG
42	L5	35	ARG
42	L5	41	LYS
42	L5	64	ILE
42	L5	66	SER
42	L5	67	SER
42	L5	70	THR
42	L5	92	LEU
42	L5	93	THR
42	L5	105	ILE
42	L5	110	LEU
42	L5	111	GLN
42	L5	112	LYS
42	L5	115	LEU
42	L5	117	GLU
42	L5	118	THR
42	L5	123	GLU
42	L5	124	GLU
42	L5	128	GLU
42	L5	131	LEU
42	L5	132	THR
42	L5	137	ASP
42	L5	140	ARG
42	L5	144	VAL
42	L5	146	LEU
42	L5	151	GLN
42	L5	155	THR
42	L5	163	LEU
42	L5	177	GLU
42	L5	185	PHE
42	L5	187	THR
42	L5	189	GLU
42	L5	206	GLN
42	L5	218	ARG
42	L5	222	LEU
42	L5	227	LEU
42	L5	232	ASP
42	L5	238	ASP
42	L5	242	SER
42	L5	257	GLU
42	L5	259	LYS
42	L5	263	GLU

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Mol	Chain	Res	Type
42	L5	273	ARG
42	L5	293	LEU
43	L6	2	SER
43	L6	5	LYS
43	L6	15	VAL
43	L6	21	THR
43	L6	41	ILE
43	L6	50	LYS
43	L6	52	VAL
43	L6	62	THR
43	L6	64	LEU
43	L6	65	ILE
43	L6	66	SER
43	L6	76	LEU
43	L6	78	ARG
43	L6	79	VAL
43	L6	88	SER
43	L6	89	THR
43	L6	92	SER
43	L6	98	VAL
43	L6	129	GLU
43	L6	134	ARG
43	L6	152	THR
43	L6	155	LEU
43	L6	173	MET
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	39	GLU
44	L7	40	LYS
44	L7	60	ARG
44	L7	80	GLN
44	L7	82	LYS
44	L7	92	ILE
44	L7	93	ASN
44	L7	98	LYS
44	L7	100	ARG
44	L7	109	THR
44	L7	124	LEU
44	L7	128	LYS
44	L7	133	TYR
44	L7	151	ARG

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Mol	Chain	Res	Type
44	L7	162	PRO
44	L7	175	LYS
44	L7	178	ILE
44	L7	179	LEU
44	L7	184	LEU
44	L7	207	LEU
44	L7	229	PHE
44	L7	234	GLU
44	L7	239	LEU
45	L8	26	LEU
45	L8	27	THR
45	L8	38	GLN
45	L8	41	GLN
45	L8	63	LYS
45	L8	65	LEU
45	L8	74	THR
45	L8	79	GLN
45	L8	81	THR
45	L8	84	ARG
45	L8	92	LYS
45	L8	101	THR
45	L8	118	GLU
45	L8	124	ASP
45	L8	132	VAL
45	L8	136	LEU
45	L8	150	LEU
45	L8	156	ASP
45	L8	169	LEU
45	L8	181	LYS
45	L8	183	LYS
45	L8	185	ARG
45	L8	189	LEU
45	L8	203	VAL
45	L8	218	ILE
45	L8	230	LYS
45	L8	238	LEU
45	L8	241	LYS
45	L8	246	MET
45	L8	248	LYS
45	L8	251	LYS
46	L9	5	GLN
46	L9	9	GLN

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Mol	Chain	Res	Type
46	L9	14	GLU
46	L9	18	VAL
46	L9	19	SER
46	L9	20	ILE
46	L9	24	ILE
46	L9	33	THR
46	L9	41	ILE
46	L9	42	ASP
46	L9	48	VAL
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
46	L9	82	VAL
46	L9	91	ARG
46	L9	92	TYR
46	L9	118	LEU
46	L9	120	ASP
46	L9	121	LYS
46	L9	135	GLU
46	L9	137	SER
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	163	GLN
46	L9	164	ILE
46	L9	172	ILE
46	L9	173	ARG
46	L9	189	GLU
46	L9	190	ASP
46	L9	191	LEU
47	M0	3	ARG
47	M0	7	ARG
47	M0	20	SER
47	M0	21	ARG

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Mol	Chain	Res	Type
47	M0	24	ARG
47	M0	26	VAL
47	M0	30	LYS
47	M0	32	ARG
47	M0	33	ILE
47	M0	36	LEU
47	M0	39	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	63	GLU
47	M0	74	LYS
47	M0	87	LEU
47	M0	116	ARG
47	M0	128	ARG
47	M0	130	ASP
47	M0	133	GLN
47	M0	139	ARG
47	M0	143	SER
47	M0	156	ARG
47	M0	163	GLN
47	M0	165	ILE
47	M0	167	LEU
47	M0	168	SER
47	M0	169	LYS
47	M0	174	THR
47	M0	177	ASP
47	M0	184	LYS
47	M0	197	VAL
47	M0	200	LEU
47	M0	203	LYS
47	M0	205	SER
47	M0	207	GLU
48	M1	6	GLN
48	M1	9	MET
48	M1	10	ARG
48	M1	11	ASP
48	M1	12	LEU
48	M1	13	LYS
48	M1	23	VAL
48	M1	26	SER
48	M1	44	THR

Continued on next page...

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Mol	Chain	Res	Type
48	M1	46	VAL
48	M1	65	ILE
48	M1	80	LEU
48	M1	82	ARG
48	M1	94	ARG
48	M1	106	ILE
48	M1	107	ASP
48	M1	111	ASP
48	M1	120	ILE
48	M1	130	VAL
48	M1	137	ARG
48	M1	140	ARG
48	M1	142	LYS
48	M1	147	THR
48	M1	155	THR
48	M1	166	LYS
48	M1	168	ASP
48	M1	171	VAL
49	M3	23	LYS
49	M3	24	VAL
49	M3	32	LYS
49	M3	41	THR
49	M3	53	LEU
49	M3	54	LEU
49	M3	55	ARG
49	M3	58	VAL
49	M3	59	ARG
49	M3	67	ARG
49	M3	70	ARG
49	M3	85	LEU
49	M3	91	ARG
49	M3	107	GLU
49	M3	108	ILE
49	M3	114	GLN
49	M3	115	ARG
49	M3	124	ILE
49	M3	131	LYS
49	M3	139	LEU
49	M3	154	VAL
49	M3	157	ARG
49	M3	164	GLU
49	M3	168	ARG

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Mol	Chain	Res	Type
49	M3	170	LEU
49	M3	171	ARG
49	M3	176	GLU
49	M3	182	ILE
49	M3	190	LYS
50	M4	8	LYS
50	M4	10	SER
50	M4	13	ARG
50	M4	27	GLN
50	M4	38	ILE
50	M4	53	VAL
50	M4	58	ILE
50	M4	62	GLN
50	M4	63	VAL
50	M4	64	VAL
50	M4	66	THR
50	M4	74	ARG
50	M4	90	VAL
50	M4	91	CYS
50	M4	93	LYS
50	M4	102	LYS
50	M4	125	LYS
50	M4	135	LEU
51	M5	10	LEU
51	M5	18	VAL
51	M5	19	LEU
51	M5	22	LEU
51	M5	38	ARG
51	M5	41	ARG
51	M5	49	ARG
51	M5	50	ARG
51	M5	56	LYS
51	M5	80	THR
51	M5	83	LYS
51	M5	85	THR
51	M5	96	ARG
51	M5	97	SER
51	M5	98	LEU
51	M5	109	ARG
51	M5	113	LEU
51	M5	117	ASN
51	M5	125	SER

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Mol	Chain	Res	Type
51	M5	133	ILE
51	M5	144	ARG
51	M5	151	ILE
51	M5	159	ARG
51	M5	167	THR
51	M5	170	LYS
51	M5	171	SER
51	M5	183	THR
51	M5	190	THR
51	M5	198	SER
51	M5	204	LYS
52	M6	34	VAL
52	M6	36	VAL
52	M6	41	LEU
52	M6	67	THR
52	M6	78	ARG
52	M6	84	LEU
52	M6	85	ARG
52	M6	88	VAL
52	M6	94	ARG
52	M6	106	GLU
52	M6	110	PRO
52	M6	116	LYS
52	M6	117	ARG
52	M6	122	GLN
52	M6	128	ARG
52	M6	143	THR
52	M6	155	LYS
52	M6	175	THR
52	M6	180	SER
52	M6	184	THR
53	M7	9	THR
53	M7	10	ASN
53	M7	14	SER
53	M7	20	SER
53	M7	23	ARG
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	36	ILE
53	M7	42	THR
53	M7	52	LEU

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Mol	Chain	Res	Type
53	M7	53	ASP
53	M7	69	ARG
53	M7	91	VAL
53	M7	111	LYS
53	M7	112	LEU
53	M7	114	VAL
53	M7	119	VAL
53	M7	126	ARG
53	M7	127	ARG
53	M7	128	ARG
53	M7	141	SER
53	M7	142	SER
53	M7	144	SER
53	M7	153	LYS
53	M7	157	VAL
53	M7	168	LEU
53	M7	173	ARG
53	M7	180	LYS
53	M7	181	ARG
53	M7	182	ILE
54	M8	3	ILE
54	M8	6	THR
54	M8	11	LYS
54	M8	21	SER
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	39	ARG
54	M8	41	ASP
54	M8	63	SER
54	M8	64	VAL
54	M8	69	ARG
54	M8	86	THR
54	M8	95	GLU
54	M8	100	THR
54	M8	111	ARG
54	M8	113	LYS
54	M8	125	ASP
54	M8	135	GLN
54	M8	138	LEU
54	M8	146	SER
54	M8	147	ARG

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Mol	Chain	Res	Type
54	M8	168	THR
54	M8	174	ARG
54	M8	180	ARG
55	M9	25	ASP
55	M9	29	THR
55	M9	41	ILE
55	M9	51	VAL
55	M9	52	LYS
55	M9	55	VAL
55	M9	71	ARG
55	M9	99	LEU
55	M9	100	ARG
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	116	ASP
55	M9	127	SER
55	M9	134	HIS
55	M9	138	LEU
55	M9	144	GLN
55	M9	164	LEU
55	M9	175	GLN
55	M9	180	LYS
55	M9	182	ASP
56	N0	1	MET
56	N0	8	GLN
56	N0	34	GLU
56	N0	40	ARG
56	N0	45	LEU
56	N0	57	GLU
56	N0	59	VAL
56	N0	62	ASN
56	N0	71	LYS
56	N0	79	VAL
56	N0	80	ARG
56	N0	87	THR
56	N0	97	VAL
56	N0	103	VAL
56	N0	105	THR
56	N0	106	LEU
56	N0	115	ARG
56	N0	117	ARG

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Mol	Chain	Res	Type
56	N0	125	LYS
56	N0	130	GLU
56	N0	131	LYS
56	N0	132	THR
56	N0	137	ARG
56	N0	138	GLN
56	N0	142	GLN
56	N0	145	THR
56	N0	155	ARG
56	N0	156	VAL
56	N0	158	LYS
56	N0	160	THR
56	N0	162	THR
56	N0	167	ARG
57	N1	12	ARG
57	N1	26	HIS
57	N1	27	LEU
57	N1	31	LEU
57	N1	55	LYS
57	N1	68	THR
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	80	VAL
57	N1	83	ARG
57	N1	92	ARG
57	N1	96	ILE
57	N1	97	LYS
57	N1	104	GLU
57	N1	106	LEU
57	N1	124	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	139	ARG
57	N1	143	THR
57	N1	144	GLU
57	N1	149	GLN
57	N1	154	VAL
57	N1	158	THR
57	N1	160	ILE
58	N2	10	LYS
58	N2	21	SER

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Mol	Chain	Res	Type
58	N2	29	ASP
58	N2	38	ILE
58	N2	39	ASP
58	N2	43	VAL
58	N2	52	ASN
58	N2	54	VAL
58	N2	66	VAL
58	N2	80	THR
58	N2	81	LYS
58	N2	82	LYS
58	N2	88	GLN
58	N2	93	ILE
58	N2	95	PHE
58	N2	96	VAL
58	N2	100	THR
58	N2	104	ARG
59	N3	4	ASN
59	N3	9	THR
59	N3	12	ARG
59	N3	13	ILE
59	N3	45	ARG
59	N3	48	ARG
59	N3	64	LYS
59	N3	69	LEU
59	N3	72	LYS
59	N3	73	VAL
59	N3	74	MET
59	N3	83	LYS
59	N3	84	SER
59	N3	88	ARG
59	N3	98	ASN
59	N3	102	ILE
59	N3	112	SER
59	N3	115	THR
59	N3	120	LYS
60	N4	5	ILE
60	N4	19	THR
60	N4	34	SER
60	N4	39	LEU
60	N4	47	ARG
60	N4	52	THR
61	N5	27	ARG

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Mol	Chain	Res	Type
61	N5	38	LEU
61	N5	39	LYS
61	N5	40	LEU
61	N5	45	LYS
61	N5	56	ARG
61	N5	63	ILE
61	N5	71	THR
61	N5	74	LYS
61	N5	81	ILE
61	N5	86	VAL
61	N5	92	LYS
61	N5	108	LEU
61	N5	115	ARG
61	N5	125	ARG
61	N5	127	THR
61	N5	133	LEU
61	N5	134	ASP
61	N5	135	ILE
61	N5	137	ASN
61	N5	139	ILE
61	N5	142	ILE
62	N6	5	SER
62	N6	10	SER
62	N6	13	ARG
62	N6	17	LYS
62	N6	26	GLN
62	N6	28	ARG
62	N6	36	SER
62	N6	37	LYS
62	N6	38	GLU
62	N6	42	GLN
62	N6	45	ILE
62	N6	56	VAL
62	N6	57	LEU
62	N6	72	SER
62	N6	74	TYR
62	N6	84	LYS
62	N6	94	SER
62	N6	95	VAL
62	N6	97	ILE
62	N6	99	LEU
62	N6	105	VAL

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Mol	Chain	Res	Type
62	N6	115	ARG
63	N7	14	VAL
63	N7	17	ARG
63	N7	24	VAL
63	N7	42	LEU
63	N7	46	ILE
63	N7	54	THR
63	N7	57	HIS
63	N7	64	LYS
63	N7	72	ILE
63	N7	73	LYS
63	N7	81	LEU
63	N7	87	LEU
63	N7	90	GLU
63	N7	99	GLU
63	N7	103	GLN
63	N7	105	SER
63	N7	106	GLN
63	N7	107	ARG
63	N7	109	GLU
63	N7	123	GLN
63	N7	127	ASN
63	N7	135	ARG
64	N8	4	ARG
64	N8	8	THR
64	N8	10	LYS
64	N8	14	HIS
64	N8	15	VAL
64	N8	16	SER
64	N8	26	ARG
64	N8	34	MET
64	N8	42	ARG
64	N8	46	ASP
64	N8	60	TYR
64	N8	63	LYS
64	N8	65	GLN
64	N8	70	LYS
64	N8	78	LEU
64	N8	88	ASP
64	N8	91	LEU
64	N8	92	LYS
64	N8	115	LYS

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Mol	Chain	Res	Type
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
64	N8	139	ARG
65	N9	13	THR
65	N9	18	ARG
65	N9	22	LYS
65	N9	25	LYS
65	N9	40	ARG
65	N9	47	LEU
65	N9	50	THR
65	N9	54	LEU
65	N9	59	LYS
66	O0	14	LEU
66	O0	16	LEU
66	O0	34	LEU
66	O0	36	GLN
66	O0	40	LYS
66	O0	41	LEU
66	O0	44	ILE
66	O0	54	SER
66	O0	61	MET
66	O0	66	LYS
66	O0	76	GLU
66	O0	79	THR
66	O0	83	LYS
66	O0	87	VAL
66	O0	99	ASP
66	O0	101	LEU
66	O0	104	LEU
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	28	ARG
67	O1	31	ARG
67	O1	64	VAL
67	O1	68	GLU
67	O1	73	LEU
67	O1	79	ARG
67	O1	82	GLU
67	O1	83	GLU
67	O1	84	ASP

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Mol	Chain	Res	Type
67	O1	86	LYS
67	O1	87	ASN
67	O1	94	GLU
67	O1	96	VAL
67	O1	106	THR
67	O1	107	VAL
68	O2	4	LEU
68	O2	19	ARG
68	O2	27	ARG
68	O2	33	ARG
68	O2	35	GLN
68	O2	40	SER
68	O2	41	VAL
68	O2	44	ARG
68	O2	51	SER
68	O2	52	GLN
68	O2	54	LYS
68	O2	62	LYS
68	O2	67	SER
68	O2	73	THR
68	O2	75	LEU
68	O2	81	ASP
68	O2	82	LEU
68	O2	86	THR
68	O2	91	THR
68	O2	103	LYS
68	O2	109	LEU
68	O2	125	ARG
68	O2	126	LEU
68	O2	128	LEU
69	O3	15	SER
69	O3	28	SER
69	O3	31	LYS
69	O3	48	ARG
69	O3	49	ILE
69	O3	59	VAL
69	O3	70	LYS
69	O3	81	VAL
69	O3	93	THR
69	O3	98	VAL
69	O3	106	ASN
70	O4	5	VAL

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Mol	Chain	Res	Type
70	O4	7	PHE
70	O4	8	ARG
70	O4	20	ILE
70	O4	21	LYS
70	O4	24	LYS
70	O4	31	ARG
70	O4	49	SER
70	O4	51	LEU
70	O4	57	LEU
70	O4	58	ARG
70	O4	65	VAL
70	O4	66	SER
70	O4	71	THR
70	O4	81	CYS
70	O4	86	LYS
70	O4	87	GLU
70	O4	102	LYS
70	O4	104	VAL
71	O5	15	GLU
71	O5	20	GLN
71	O5	21	LEU
71	O5	27	GLU
71	O5	40	SER
71	O5	43	LYS
71	O5	44	ILE
71	O5	47	VAL
71	O5	48	ARG
71	O5	50	SER
71	O5	62	GLN
71	O5	69	LEU
71	O5	71	LYS
71	O5	73	LYS
71	O5	84	LYS
71	O5	85	THR
71	O5	89	ARG
71	O5	90	ARG
71	O5	101	THR
71	O5	103	LYS
71	O5	107	LYS
71	O5	119	LYS
72	O6	11	LEU
72	O6	21	THR

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Mol	Chain	Res	Type
72	O6	26	ILE
72	O6	34	SER
72	O6	36	ARG
72	O6	43	LEU
72	O6	45	ARG
72	O6	52	PRO
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	62	ARG
72	O6	64	SER
72	O6	68	ARG
72	O6	70	ARG
72	O6	71	LYS
72	O6	76	ARG
72	O6	79	SER
72	O6	81	THR
72	O6	99	ARG
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	26	SER
73	O7	33	THR
73	O7	58	THR
73	O7	59	THR
73	O7	64	MET
73	O7	65	ARG
73	O7	67	LEU
73	O7	75	LYS
73	O7	80	THR
73	O7	82	SER
74	O8	3	ARG
74	O8	5	ILE
74	O8	17	ARG
74	O8	24	THR
74	O8	29	LYS
74	O8	31	LEU
74	O8	32	ASN
74	O8	39	ARG
74	O8	41	THR
74	O8	45	VAL
74	O8	46	ARG

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Mol	Chain	Res	Type
74	O8	53	THR
74	O8	55	VAL
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	77	ARG
75	O9	4	GLN
75	O9	21	ARG
75	O9	23	LEU
75	O9	25	GLN
75	O9	29	LEU
75	O9	34	THR
75	O9	45	ARG
76	Q0	77	ILE
76	Q0	78	ILE
76	Q0	83	LYS
76	Q0	85	LEU
76	Q0	88	LYS
76	Q0	92	ASP
76	Q0	94	SER
76	Q0	108	THR
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	127	LEU
77	Q1	4	LYS
77	Q1	6	ARG
77	Q1	9	ARG
77	Q1	11	ARG
77	Q1	16	LYS
77	Q1	19	LYS
77	Q1	25	LYS
78	Q2	9	LYS
78	Q2	16	THR
78	Q2	26	THR
78	Q2	35	LEU
78	Q2	45	ARG
78	Q2	47	GLN
78	Q2	70	LEU
78	Q2	71	ARG
78	Q2	76	LYS
78	Q2	80	ARG

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Mol	Chain	Res	Type
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	87	ARG
78	Q2	88	CYS
78	Q2	100	LYS
78	Q2	104	LEU
78	Q2	105	GLN
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	21	SER
79	Q3	25	GLN
79	Q3	45	LYS
79	Q3	49	ARG
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	73	THR
79	Q3	78	THR
79	Q3	84	ARG
79	Q3	91	GLU
2	s0	6	THR
2	s0	9	LEU
2	s0	12	GLU
2	s0	22	THR
2	s0	29	VAL
2	s0	30	GLN
2	s0	41	ARG
2	s0	43	ASP
2	s0	45	VAL
2	s0	50	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	87	LEU
2	s0	88	LYS
2	s0	93	THR
2	s0	96	THR
2	s0	101	ARG
2	s0	106	SER
2	s0	110	TYR
2	s0	111	ILE
2	s0	119	ARG
2	s0	122	ILE

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Mol	Chain	Res	Type
2	s0	144	ILE
2	s0	153	SER
2	s0	158	VAL
2	s0	162	CYS
2	s0	170	ILE
2	s0	172	LEU
2	s0	180	GLU
2	s0	184	LEU
2	s0	185	ARG
2	s0	188	LEU
2	s0	189	VAL
3	s1	21	VAL
3	s1	25	THR
3	s1	37	THR
3	s1	47	LEU
3	s1	48	VAL
3	s1	49	ASN
3	s1	51	SER
3	s1	55	LYS
3	s1	56	SER
3	s1	61	LEU
3	s1	62	LYS
3	s1	68	VAL
3	s1	70	LEU
3	s1	73	LEU
3	s1	74	GLN
3	s1	81	PHE
3	s1	82	ARG
3	s1	83	LYS
3	s1	96	LEU
3	s1	105	PHE
3	s1	110	LEU
3	s1	116	LYS
3	s1	120	LEU
3	s1	126	THR
3	s1	129	THR
3	s1	130	SER
3	s1	131	ASP
3	s1	137	ILE
3	s1	159	SER
3	s1	169	SER
3	s1	170	GLU

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Mol	Chain	Res	Type
3	s1	175	GLU
3	s1	177	GLN
3	s1	180	THR
3	s1	181	LEU
3	s1	184	LEU
3	s1	185	THR
3	s1	188	LEU
3	s1	193	ILE
3	s1	195	LYS
3	s1	202	LYS
3	s1	203	ASP
3	s1	222	LYS
3	s1	223	PHE
3	s1	228	LEU
3	s1	231	LEU
4	s2	41	LEU
4	s2	53	ILE
4	s2	54	GLU
4	s2	58	LEU
4	s2	60	SER
4	s2	61	LEU
4	s2	69	ILE
4	s2	70	ASP
4	s2	72	LEU
4	s2	73	LEU
4	s2	80	VAL
4	s2	81	MET
4	s2	83	ILE
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	95	ARG
4	s2	96	THR
4	s2	97	ARG
4	s2	102	VAL
4	s2	111	VAL
4	s2	117	THR
4	s2	130	ILE
4	s2	134	LEU
4	s2	139	ILE
4	s2	141	ARG

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Mol	Chain	Res	Type
4	s2	146	THR
4	s2	148	LEU
4	s2	150	GLN
4	s2	153	SER
4	s2	157	LYS
4	s2	159	THR
4	s2	164	SER
4	s2	166	THR
4	s2	170	ILE
4	s2	185	LYS
4	s2	194	GLU
4	s2	206	THR
4	s2	207	LEU
4	s2	222	TYR
4	s2	224	PHE
4	s2	225	LEU
4	s2	226	THR
4	s2	229	LEU
4	s2	233	GLN
4	s2	237	VAL
4	s2	238	SER
4	s2	244	SER
4	s2	250	GLN
5	s3	4	LEU
5	s3	9	ARG
5	s3	21	LEU
5	s3	32	GLU
5	s3	34	TYR
5	s3	37	VAL
5	s3	39	VAL
5	s3	41	VAL
5	s3	44	THR
5	s3	55	THR
5	s3	61	GLU
5	s3	69	LEU
5	s3	83	THR
5	s3	84	ILE
5	s3	90	ARG
5	s3	94	ARG
5	s3	111	ASN
5	s3	115	ILE
5	s3	116	ARG

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Mol	Chain	Res	Type
5	s3	125	TYR
5	s3	127	MET
5	s3	128	GLU
5	s3	132	LYS
5	s3	135	GLU
5	s3	142	LEU
5	s3	148	LYS
5	s3	154	ASP
5	s3	162	GLN
5	s3	168	ILE
5	s3	169	ASP
5	s3	178	ARG
5	s3	185	LYS
5	s3	187	LYS
5	s3	189	MET
5	s3	208	ILE
5	s3	212	LYS
5	s3	213	GLU
5	s3	224	ASP
6	s4	6	LYS
6	s4	7	LYS
6	s4	12	LEU
6	s4	23	LEU
6	s4	26	CYS
6	s4	38	LEU
6	s4	40	GLU
6	s4	42	LEU
6	s4	49	ARG
6	s4	51	ARG
6	s4	67	GLN
6	s4	75	LYS
6	s4	104	ASP
6	s4	116	ASP
6	s4	126	VAL
6	s4	130	GLN
6	s4	131	LEU
6	s4	146	THR
6	s4	148	ARG
6	s4	159	THR
6	s4	164	LEU
6	s4	176	ASP
6	s4	180	LEU

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Mol	Chain	Res	Type
6	s4	182	TYR
6	s4	215	ASP
6	s4	221	ARG
6	s4	222	LEU
6	s4	227	VAL
6	s4	236	ILE
6	s4	245	LYS
6	s4	247	SER
6	s4	254	ARG
7	s5	23	VAL
7	s5	25	LEU
7	s5	27	THR
7	s5	31	GLU
7	s5	38	THR
7	s5	40	ILE
7	s5	41	LYS
7	s5	45	LYS
7	s5	58	LEU
7	s5	59	VAL
7	s5	63	GLN
7	s5	64	VAL
7	s5	66	GLN
7	s5	68	ILE
7	s5	81	ARG
7	s5	89	ILE
7	s5	93	LEU
7	s5	99	MET
7	s5	102	ARG
7	s5	122	ASN
7	s5	124	LEU
7	s5	125	THR
7	s5	127	GLN
7	s5	148	ARG
7	s5	157	ARG
7	s5	163	SER
7	s5	166	ARG
7	s5	170	GLN
7	s5	172	ILE
7	s5	194	LEU
7	s5	203	LYS
7	s5	213	LYS
7	s5	216	GLU

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Mol	Chain	Res	Type
7	s5	219	ARG
8	s6	6	SER
8	s6	10	ASN
8	s6	12	SER
8	s6	15	THR
8	s6	21	GLU
8	s6	25	ARG
8	s6	34	GLN
8	s6	56	ASN
8	s6	67	VAL
8	s6	71	THR
8	s6	76	LEU
8	s6	78	THR
8	s6	89	ASP
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	126	ASP
8	s6	127	THR
8	s6	128	THR
8	s6	129	VAL
8	s6	133	LEU
8	s6	143	LYS
8	s6	150	GLU
8	s6	151	ASP
8	s6	153	VAL
8	s6	154	ARG
8	s6	155	ASP
8	s6	156	PHE
8	s6	170	THR
8	s6	177	ARG
8	s6	182	GLN
8	s6	193	LEU
8	s6	212	LEU
8	s6	215	ARG
9	s7	11	GLN
9	s7	24	PHE
9	s7	28	GLU

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Mol	Chain	Res	Type
9	s7	33	GLU
9	s7	39	ARG
9	s7	41	LEU
9	s7	44	LYS
9	s7	49	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	86	GLN
9	s7	97	ARG
9	s7	105	THR
9	s7	110	GLN
9	s7	114	ARG
9	s7	115	SER
9	s7	116	ARG
9	s7	117	THR
9	s7	123	ASP
9	s7	124	LYS
9	s7	126	LEU
9	s7	144	VAL
9	s7	150	GLN
9	s7	160	GLN
9	s7	166	LEU
9	s7	185	ILE
10	s8	7	SER
10	s8	18	ARG
10	s8	20	GLN
10	s8	25	ARG
10	s8	26	LYS
10	s8	29	LEU
10	s8	36	THR
10	s8	46	VAL
10	s8	58	LEU
10	s8	59	ARG
10	s8	62	THR
10	s8	73	SER
10	s8	74	LYS
10	s8	76	THR
10	s8	77	ARG

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Mol	Chain	Res	Type
10	s8	78	ILE
10	s8	89	GLU
10	s8	93	THR
10	s8	111	GLN
10	s8	121	LEU
10	s8	138	ASN
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER
10	s8	161	SER
10	s8	171	SER
10	s8	183	ILE
10	s8	184	LEU
11	s9	3	ARG
11	s9	6	ARG
11	s9	7	THR
11	s9	9	SER
11	s9	21	SER
11	s9	22	SER
11	s9	28	LEU
11	s9	33	GLU
11	s9	39	LYS
11	s9	45	ILE
11	s9	49	LEU
11	s9	63	ASP
11	s9	78	ARG
11	s9	83	VAL
11	s9	90	LYS
11	s9	93	LEU
11	s9	96	VAL
11	s9	101	VAL
11	s9	109	LEU
11	s9	110	GLN
11	s9	115	LYS
11	s9	121	SER
11	s9	126	ARG
11	s9	127	VAL
11	s9	130	THR
11	s9	134	ILE
11	s9	142	ASN
11	s9	145	SER
11	s9	149	ARG

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Mol	Chain	Res	Type
11	s9	150	LEU
11	s9	151	ASP
11	s9	161	THR
11	s9	172	VAL
11	s9	180	LYS
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	36	ASP
12	c0	47	GLN
12	c0	50	THR
12	c0	55	VAL
12	c0	57	THR
12	c0	71	GLU
13	c1	3	THR
13	c1	5	LEU
13	c1	10	GLU
13	c1	21	ASN
13	c1	22	ASN
13	c1	30	ARG
13	c1	32	LYS
13	c1	33	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	52	SER
13	c1	60	PHE
13	c1	63	LEU
13	c1	67	ARG
13	c1	69	LYS
13	c1	74	THR
13	c1	76	VAL
13	c1	77	SER
13	c1	80	MET
13	c1	82	ARG
13	c1	83	THR
13	c1	87	ARG
13	c1	117	VAL
13	c1	122	ILE
13	c1	129	ARG

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Mol	Chain	Res	Type
13	c1	131	ILE
13	c1	133	LYS
13	c1	140	VAL
14	c2	28	LEU
14	c2	30	VAL
14	c2	36	LEU
14	c2	39	ASP
14	c2	43	ARG
14	c2	52	LEU
14	c2	58	LEU
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	66	VAL
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	116	VAL
14	c2	119	SER
14	c2	121	VAL
14	c2	125	ASN
14	c2	129	GLU
14	c2	132	GLU
14	c2	136	ILE
14	c2	138	GLU
14	c2	139	HIS
14	c2	140	PHE
15	c3	4	MET
15	c3	6	SER
15	c3	12	SER
15	c3	14	SER
15	c3	20	ARG
15	c3	21	ASN
15	c3	28	LEU
15	c3	39	LYS
15	c3	46	THR
15	c3	53	LEU
15	c3	60	VAL

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Mol	Chain	Res	Type
15	c3	66	ILE
15	c3	70	LYS
15	c3	76	LYS
15	c3	80	LEU
15	c3	84	ILE
15	c3	87	ASP
15	c3	97	SER
15	c3	99	ARG
15	c3	102	LEU
15	c3	104	ARG
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	138	ASN
15	c3	143	SER
16	c4	13	VAL
16	c4	18	ARG
16	c4	24	ASN
16	c4	26	THR
16	c4	31	THR
16	c4	32	ASP
16	c4	33	LEU
16	c4	52	ARG
16	c4	79	VAL
16	c4	81	VAL
16	c4	84	ARG
16	c4	92	LYS
16	c4	93	THR
16	c4	102	LEU
16	c4	107	ARG
16	c4	110	LEU
16	c4	114	ARG
16	c4	118	VAL
16	c4	119	THR
16	c4	123	SER
16	c4	125	SER
16	c4	129	LYS
16	c4	136	ARG
16	c4	137	LEU
17	c5	12	PHE
17	c5	21	ASP
17	c5	24	LYS

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Mol	Chain	Res	Type
17	c5	27	GLU
17	c5	29	SER
17	c5	36	LEU
17	c5	43	ARG
17	c5	44	ARG
17	c5	49	MET
17	c5	52	LYS
17	c5	69	GLU
17	c5	71	GLU
17	c5	83	MET
17	c5	84	ILE
17	c5	92	SER
17	c5	97	TYR
17	c5	100	LYS
17	c5	107	ILE
17	c5	110	GLU
17	c5	112	LEU
17	c5	121	ILE
17	c5	125	PRO
17	c5	127	ARG
17	c5	128	HIS
18	c6	6	SER
18	c6	23	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	43	ILE
18	c6	47	LYS
18	c6	53	LEU
18	c6	57	LEU
18	c6	63	ILE
18	c6	68	ARG
18	c6	69	VAL
18	c6	83	GLN
18	c6	94	GLN
18	c6	98	ASP
18	c6	110	THR
18	c6	114	ARG
18	c6	128	LYS
18	c6	136	SER
18	c6	137	ARG
19	c7	3	ARG
19	c7	6	THR

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Mol	Chain	Res	Type
19	c7	25	THR
19	c7	29	GLN
19	c7	34	LEU
19	c7	46	LEU
19	c7	47	ARG
19	c7	49	LYS
19	c7	56	HIS
19	c7	62	GLN
19	c7	69	ILE
19	c7	85	VAL
19	c7	88	VAL
19	c7	89	SER
19	c7	104	ASN
19	c7	108	ASP
19	c7	110	VAL
19	c7	112	SER
19	c7	113	LEU
20	c8	3	LEU
20	c8	4	VAL
20	c8	5	VAL
20	c8	6	GLN
20	c8	13	HIS
20	c8	15	LEU
20	c8	25	ASN
20	c8	26	ILE
20	c8	28	ILE
20	c8	33	THR
20	c8	34	THR
20	c8	36	LYS
20	c8	38	VAL
20	c8	40	ARG
20	c8	61	LEU
20	c8	63	GLN
20	c8	68	ARG
20	c8	85	PHE
20	c8	86	LEU
20	c8	94	ASP
20	c8	116	LEU
20	c8	120	ARG
20	c8	131	LEU
20	c8	133	VAL
20	c8	138	THR

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Mol	Chain	Res	Type
20	c8	144	ARG
21	c9	6	VAL
21	c9	25	GLN
21	c9	28	LEU
21	c9	34	VAL
21	c9	39	THR
21	c9	57	ARG
21	c9	68	ARG
21	c9	86	ARG
21	c9	91	TYR
21	c9	116	ILE
21	c9	123	ARG
21	c9	131	ASP
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	22	ILE
22	d0	23	ARG
22	d0	27	THR
22	d0	30	LYS
22	d0	31	VAL
22	d0	34	LEU
22	d0	44	ASN
22	d0	47	GLN
22	d0	57	ARG
22	d0	61	LYS
22	d0	63	LEU
22	d0	67	THR
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU
22	d0	76	SER
22	d0	81	THR
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	105	GLN
22	d0	108	ILE
22	d0	113	ASP

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Mol	Chain	Res	Type
23	d1	2	GLU
23	d1	5	LYS
23	d1	8	LEU
23	d1	10	GLU
23	d1	11	LEU
23	d1	12	TYR
23	d1	32	VAL
23	d1	38	LYS
23	d1	41	GLU
23	d1	50	TYR
23	d1	52	THR
23	d1	68	SER
23	d1	78	LEU
24	d2	6	VAL
24	d2	7	LEU
24	d2	15	ASN
24	d2	20	THR
24	d2	23	ARG
24	d2	25	VAL
24	d2	26	LEU
24	d2	43	LYS
24	d2	47	ILE
24	d2	65	LEU
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	129	VAL
25	d3	9	LEU
25	d3	14	LYS
25	d3	17	VAL
25	d3	19	ARG
25	d3	28	ASN
25	d3	33	LEU
25	d3	52	ILE
25	d3	55	GLU
25	d3	73	ARG
25	d3	83	VAL
25	d3	84	THR
25	d3	96	VAL
25	d3	97	ASP
25	d3	100	ASP
25	d3	103	LEU

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Mol	Chain	Res	Type
25	d3	107	PHE
25	d3	109	ARG
25	d3	114	LYS
25	d3	117	ILE
25	d3	125	VAL
25	d3	133	LEU
26	d4	10	ARG
26	d4	21	LYS
26	d4	26	ASP
26	d4	29	HIS
26	d4	34	ASN
26	d4	36	SER
26	d4	38	ASP
26	d4	43	LYS
26	d4	44	LEU
26	d4	47	VAL
26	d4	49	LYS
26	d4	51	GLU
26	d4	53	ASP
26	d4	62	THR
26	d4	77	ASN
26	d4	81	GLU
26	d4	102	LYS
26	d4	104	SER
26	d4	125	LEU
26	d4	128	LYS
26	d4	132	ARG
26	d4	133	ASN
27	d5	41	ILE
27	d5	51	LEU
27	d5	53	GLU
27	d5	57	TYR
27	d5	60	VAL
27	d5	68	ARG
27	d5	81	ARG
27	d5	86	GLU
27	d5	88	ILE
28	d6	10	ARG
28	d6	24	VAL
28	d6	28	LYS
28	d6	34	LYS
28	d6	39	MET

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Mol	Chain	Res	Type
28	d6	44	ILE
28	d6	45	VAL
28	d6	46	GLU
28	d6	51	ARG
28	d6	53	LEU
28	d6	67	THR
28	d6	82	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	4	VAL
29	d7	17	ARG
29	d7	21	LEU
29	d7	26	GLN
29	d7	34	ASP
29	d7	37	CYS
29	d7	41	LEU
29	d7	43	ILE
29	d7	44	THR
29	d7	46	VAL
29	d7	61	THR
29	d7	62	ILE
29	d7	77	THR
29	d7	81	ARG
30	d8	5	THR
30	d8	14	LYS
30	d8	16	LEU
30	d8	21	SER
30	d8	22	ARG
30	d8	28	VAL
30	d8	30	VAL
30	d8	32	PHE
30	d8	33	LEU
30	d8	36	THR
30	d8	40	ILE
30	d8	52	ASP
30	d8	54	LEU
30	d8	58	GLU
30	d8	64	ARG
30	d8	65	ARG
30	d8	66	LEU
31	d9	8	PHE
31	d9	10	HIS

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Mol	Chain	Res	Type
31	d9	18	SER
31	d9	22	ARG
31	d9	24	CYS
31	d9	28	THR
31	d9	30	LEU
31	d9	31	ILE
31	d9	32	ARG
31	d9	36	LEU
31	d9	49	ASP
31	d9	54	LYS
80	e0	13	LYS
80	e0	21	VAL
80	e0	22	GLU
80	e0	23	LYS
80	e0	26	LYS
80	e0	28	LYS
80	e0	29	LYS
80	e0	38	LEU
80	e0	42	ARG
80	e0	44	PHE
80	e0	45	VAL
80	e0	46	ASN
80	e0	54	ARG
80	e0	56	MET
33	e1	78	LYS
33	e1	80	ARG
33	e1	90	LYS
33	e1	96	LYS
33	e1	97	LYS
33	e1	100	LEU
33	e1	102	VAL
33	e1	106	TYR
33	e1	107	LYS
33	e1	113	LYS
33	e1	120	GLU
33	e1	121	CYS
33	e1	135	HIS
33	e1	140	TYR
34	sR	21	THR
34	sR	25	THR
34	sR	29	GLN
34	sR	32	LEU

Continued on next page...

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Mol	Chain	Res	Type
34	sR	37	SER
34	sR	42	LEU
34	sR	58	VAL
34	sR	59	ARG
34	sR	64	HIS
34	sR	65	SER
34	sR	70	ASP
34	sR	76	ASP
34	sR	93	ASP
34	sR	96	THR
34	sR	100	TYR
34	sR	102	ARG
34	sR	123	ILE
34	sR	130	THR
34	sR	145	LEU
34	sR	149	ASP
34	sR	159	ASN
34	sR	176	LYS
34	sR	184	ASN
34	sR	199	ILE
34	sR	202	LEU
34	sR	228	LYS
34	sR	232	TYR
34	sR	266	ASP
34	sR	275	ARG
34	sR	297	ASP
34	sR	310	ILE
34	sR	312	VAL
34	sR	319	ASN
35	sM	23	LYS
35	sM	43	ASP
35	sM	48	ARG
35	sM	53	ARG
35	sM	55	SER
35	sM	61	ILE
35	sM	68	ARG
35	sM	75	ASP
35	sM	77	THR
39	l2	15	ILE
39	l2	19	HIS
39	l2	32	LEU
39	l2	44	ILE

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Mol	Chain	Res	Type
39	12	45	VAL
39	12	48	ILE
39	12	49	VAL
39	12	62	VAL
39	12	64	ARG
39	12	70	ARG
39	12	74	GLU
39	12	80	GLU
39	12	82	VAL
39	12	96	LEU
39	12	98	VAL
39	12	101	VAL
39	12	112	ILE
39	12	113	VAL
39	12	116	VAL
39	12	134	VAL
39	12	137	ILE
39	12	142	ASP
39	12	147	ARG
39	12	155	LYS
39	12	157	VAL
39	12	165	VAL
39	12	179	LEU
39	12	193	ARG
39	12	202	VAL
39	12	204	MET
39	12	205	ASN
39	12	207	VAL
39	12	230	VAL
39	12	233	GLN
39	12	238	ILE
39	12	243	THR
39	12	246	LEU
39	12	249	SER
39	12	250	GLN
39	12	251	LYS
40	13	3	HIS
40	13	4	ARG
40	13	10	ARG
40	13	17	LEU
40	13	19	ARG
40	13	20	LYS

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Mol	Chain	Res	Type
40	l3	25	ILE
40	l3	37	ARG
40	l3	39	LYS
40	l3	44	THR
40	l3	47	LEU
40	l3	50	LYS
40	l3	55	THR
40	l3	69	LYS
40	l3	73	VAL
40	l3	77	THR
40	l3	79	VAL
40	l3	81	THR
40	l3	102	LEU
40	l3	103	THR
40	l3	111	SER
40	l3	114	VAL
40	l3	120	LYS
40	l3	125	SER
40	l3	139	GLN
40	l3	146	ARG
40	l3	148	LEU
40	l3	157	VAL
40	l3	160	VAL
40	l3	161	LEU
40	l3	167	ARG
40	l3	169	THR
40	l3	183	LEU
40	l3	184	ASN
40	l3	192	VAL
40	l3	196	ARG
40	l3	202	THR
40	l3	205	VAL
40	l3	208	VAL
40	l3	214	MET
40	l3	221	THR
40	l3	232	ARG
40	l3	235	THR
40	l3	238	LEU
40	l3	248	LYS
40	l3	249	VAL
40	l3	252	ILE
40	l3	264	VAL

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Mol	Chain	Res	Type
40	l3	266	ARG
40	l3	274	SER
40	l3	287	LYS
40	l3	311	PHE
40	l3	328	ILE
40	l3	332	ARG
40	l3	340	LYS
40	l3	347	SER
40	l3	359	ILE
40	l3	361	THR
40	l3	363	SER
40	l3	367	LYS
40	l3	369	ARG
40	l3	380	MET
41	l4	3	ARG
41	l4	12	THR
41	l4	20	LEU
41	l4	37	THR
41	l4	52	VAL
41	l4	73	ARG
41	l4	90	PHE
41	l4	93	MET
41	l4	99	MET
41	l4	103	THR
41	l4	120	TYR
41	l4	133	SER
41	l4	136	LEU
41	l4	138	ARG
41	l4	144	LYS
41	l4	148	ILE
41	l4	150	LEU
41	l4	154	THR
41	l4	156	LEU
41	l4	158	SER
41	l4	170	LYS
41	l4	172	VAL
41	l4	179	LEU
41	l4	182	LEU
41	l4	183	LYS
41	l4	186	LYS
41	l4	187	LEU
41	l4	191	LYS

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Mol	Chain	Res	Type
41	14	203	ARG
41	14	206	LEU
41	14	220	ARG
41	14	222	VAL
41	14	230	VAL
41	14	246	ARG
41	14	249	ILE
41	14	256	THR
41	14	258	LEU
41	14	259	ASP
41	14	265	GLU
41	14	275	THR
41	14	283	THR
41	14	291	ASN
41	14	295	ILE
41	14	300	ARG
41	14	301	PRO
41	14	304	GLN
41	14	306	THR
41	14	319	LYS
41	14	323	VAL
41	14	327	LEU
41	14	333	VAL
41	14	338	LYS
41	14	342	LYS
41	14	347	THR
41	14	356	THR
41	14	359	LEU
41	14	362	ASP
42	15	4	GLN
42	15	5	LYS
42	15	35	ARG
42	15	41	LYS
42	15	46	THR
42	15	51	LEU
42	15	66	SER
42	15	70	THR
42	15	74	VAL
42	15	109	THR
42	15	110	LEU
42	15	112	LYS
42	15	113	LEU

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Mol	Chain	Res	Type
42	15	118	THR
42	15	132	THR
42	15	133	GLU
42	15	135	VAL
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	148	ILE
42	15	151	GLN
42	15	152	ARG
42	15	154	THR
42	15	155	THR
42	15	158	ARG
42	15	164	LYS
42	15	185	PHE
42	15	189	GLU
42	15	194	LEU
42	15	203	HIS
42	15	211	LEU
42	15	220	SER
42	15	227	LEU
42	15	230	ASP
42	15	232	ASP
42	15	236	LEU
42	15	258	LYS
42	15	259	LYS
42	15	262	LYS
42	15	263	GLU
42	15	268	GLU
42	15	273	ARG
42	15	274	GLN
42	15	279	LYS
42	15	281	GLU
42	15	289	LYS
42	15	293	LEU
43	16	8	LYS
43	16	14	ASP
43	16	15	VAL
43	16	20	LYS
43	16	21	THR
43	16	46	ARG
43	16	50	LYS

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Mol	Chain	Res	Type
43	16	64	LEU
43	16	65	ILE
43	16	76	LEU
43	16	78	ARG
43	16	79	VAL
43	16	82	ARG
43	16	88	SER
43	16	89	THR
43	16	98	VAL
43	16	109	GLU
43	16	131	LYS
43	16	152	THR
43	16	155	LEU
43	16	162	SER
43	16	170	LYS
44	17	22	THR
44	17	26	VAL
44	17	30	ARG
44	17	40	LYS
44	17	41	ARG
44	17	45	LEU
44	17	54	GLU
44	17	60	ARG
44	17	82	LYS
44	17	83	LEU
44	17	88	ARG
44	17	93	ASN
44	17	98	LYS
44	17	101	LYS
44	17	113	SER
44	17	124	LEU
44	17	130	ILE
44	17	145	ARG
44	17	150	LYS
44	17	156	ILE
44	17	158	LYS
44	17	159	GLN
44	17	175	LYS
44	17	179	LEU
44	17	181	ILE
44	17	184	LEU
44	17	189	ILE

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Mol	Chain	Res	Type
44	17	193	PRO
44	17	196	LYS
44	17	208	SER
44	17	229	PHE
44	17	239	LEU
45	18	26	LEU
45	18	41	GLN
45	18	50	VAL
45	18	71	VAL
45	18	74	THR
45	18	79	GLN
45	18	81	THR
45	18	89	GLU
45	18	95	ASN
45	18	98	ARG
45	18	101	THR
45	18	109	LEU
45	18	111	LYS
45	18	136	LEU
45	18	146	LYS
45	18	160	ILE
45	18	163	VAL
45	18	164	VAL
45	18	169	LEU
45	18	172	LYS
45	18	185	ARG
45	18	200	LEU
45	18	206	GLU
45	18	214	LEU
45	18	217	THR
45	18	219	ASP
45	18	222	PHE
45	18	230	LYS
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	5	GLN
46	19	6	THR
46	19	16	VAL
46	19	17	THR
46	19	18	VAL
46	19	31	ARG

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Mol	Chain	Res	Type
46	19	33	THR
46	19	34	LEU
46	19	39	LYS
46	19	44	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	80	THR
46	19	82	VAL
46	19	92	TYR
46	19	103	ILE
46	19	105	GLU
46	19	106	LYS
46	19	107	ASP
46	19	122	LYS
46	19	129	ARG
46	19	132	VAL
46	19	133	THR
46	19	143	GLU
46	19	144	ILE
46	19	149	ASN
46	19	150	SER
46	19	151	VAL
46	19	157	ASN
46	19	161	LEU
46	19	162	GLN
46	19	166	ARG
46	19	177	ASP
46	19	188	THR
46	19	191	LEU
47	m0	4	ARG
47	m0	24	ARG
47	m0	26	VAL
47	m0	28	ASP
47	m0	29	SER
47	m0	31	ILE
47	m0	36	LEU
47	m0	42	THR

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Mol	Chain	Res	Type
47	m0	45	GLU
47	m0	52	LEU
47	m0	53	VAL
47	m0	58	GLU
47	m0	63	GLU
47	m0	71	CYS
47	m0	74	LYS
47	m0	87	LEU
47	m0	90	ARG
47	m0	99	ILE
47	m0	121	LYS
47	m0	143	SER
47	m0	144	ASN
47	m0	148	VAL
47	m0	154	ARG
47	m0	163	GLN
47	m0	166	ILE
47	m0	169	LYS
47	m0	176	LEU
47	m0	177	ASP
47	m0	183	LYS
47	m0	197	VAL
47	m0	200	LEU
47	m0	205	SER
47	m0	206	LEU
47	m0	208	ASN
47	m0	210	ILE
47	m0	211	ARG
47	m0	212	GLU
47	m0	217	PHE
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	16	LYS
48	m1	19	LEU
48	m1	31	THR
48	m1	44	THR
48	m1	46	VAL
48	m1	54	VAL
48	m1	56	THR
48	m1	80	LEU

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Mol	Chain	Res	Type
48	m1	92	ARG
48	m1	95	ASN
48	m1	101	ASN
48	m1	106	ILE
48	m1	107	ASP
48	m1	108	GLU
48	m1	112	LEU
48	m1	119	SER
48	m1	129	VAL
48	m1	130	VAL
48	m1	132	ASN
48	m1	137	ARG
48	m1	140	ARG
48	m1	145	LYS
48	m1	147	THR
48	m1	154	THR
48	m1	155	THR
48	m1	158	ASP
48	m1	159	THR
48	m1	171	VAL
49	m3	19	GLN
49	m3	53	LEU
49	m3	54	LEU
49	m3	58	VAL
49	m3	59	ARG
49	m3	62	THR
49	m3	63	VAL
49	m3	67	ARG
49	m3	69	VAL
49	m3	76	THR
49	m3	85	LEU
49	m3	100	ARG
49	m3	107	GLU
49	m3	114	GLN
49	m3	116	LEU
49	m3	118	GLU
49	m3	120	GLN
49	m3	123	ILE
49	m3	124	ILE
49	m3	131	LYS
49	m3	138	VAL
49	m3	149	GLN

Continued on next page...

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Mol	Chain	Res	Type
49	m3	152	THR
49	m3	165	SER
49	m3	168	ARG
49	m3	171	ARG
49	m3	176	GLU
49	m3	184	GLU
49	m3	194	GLU
50	m4	3	THR
50	m4	4	ASP
50	m4	15	VAL
50	m4	16	GLU
50	m4	20	VAL
50	m4	27	GLN
50	m4	35	ILE
50	m4	53	VAL
50	m4	64	VAL
50	m4	66	THR
50	m4	80	THR
50	m4	106	ARG
50	m4	107	GLU
50	m4	108	ARG
50	m4	109	ARG
50	m4	123	LEU
50	m4	124	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	10	LEU
51	m5	18	VAL
51	m5	22	LEU
51	m5	24	ARG
51	m5	68	ARG
51	m5	71	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	85	THR
51	m5	92	LEU
51	m5	93	LYS
51	m5	96	ARG
51	m5	105	ARG
51	m5	109	ARG
51	m5	138	GLN

Continued on next page...

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Mol	Chain	Res	Type
51	m5	153	ASP
51	m5	155	VAL
51	m5	171	SER
51	m5	176	LYS
51	m5	178	HIS
51	m5	190	THR
51	m5	194	GLN
51	m5	198	SER
51	m5	204	LYS
52	m6	9	ILE
52	m6	12	LYS
52	m6	22	VAL
52	m6	34	VAL
52	m6	41	LEU
52	m6	58	LEU
52	m6	60	LYS
52	m6	66	LYS
52	m6	67	THR
52	m6	78	ARG
52	m6	84	LEU
52	m6	100	GLU
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	122	GLN
52	m6	124	LEU
52	m6	126	VAL
52	m6	128	ARG
52	m6	130	LYS
52	m6	134	LYS
52	m6	142	SER
52	m6	148	LYS
52	m6	152	VAL
52	m6	170	LYS
52	m6	175	THR
52	m6	178	VAL
52	m6	182	ASN
52	m6	184	THR
52	m6	187	GLU

Continued on next page...

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Mol	Chain	Res	Type
52	m6	197	LEU
53	m7	3	ARG
53	m7	7	THR
53	m7	9	THR
53	m7	13	LYS
53	m7	16	SER
53	m7	18	ARG
53	m7	20	SER
53	m7	22	LEU
53	m7	24	VAL
53	m7	29	THR
53	m7	31	GLU
53	m7	32	THR
53	m7	49	GLU
53	m7	52	LEU
53	m7	53	ASP
53	m7	56	ARG
53	m7	78	VAL
53	m7	79	THR
53	m7	80	LYS
53	m7	86	LYS
53	m7	89	LYS
53	m7	97	ASN
53	m7	107	LEU
53	m7	119	VAL
53	m7	120	ASN
53	m7	126	ARG
53	m7	127	ARG
53	m7	136	ILE
53	m7	142	SER
53	m7	150	VAL
53	m7	153	LYS
54	m8	7	SER
54	m8	8	LYS
54	m8	12	ARG
54	m8	17	THR
54	m8	22	ASP
54	m8	26	LEU
54	m8	32	LEU
54	m8	34	THR
54	m8	41	ASP
54	m8	49	LEU

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Mol	Chain	Res	Type
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	93	ILE
54	m8	113	LYS
54	m8	127	LEU
54	m8	135	GLN
54	m8	138	LEU
54	m8	161	LYS
54	m8	165	ILE
54	m8	170	ARG
54	m8	178	ARG
54	m8	180	ARG
54	m8	185	LYS
55	m9	7	GLN
55	m9	10	LEU
55	m9	13	SER
55	m9	20	ARG
55	m9	30	SER
55	m9	31	GLU
55	m9	36	ASN
55	m9	41	ILE
55	m9	43	LYS
55	m9	49	THR
55	m9	52	LYS
55	m9	56	THR
55	m9	57	VAL
55	m9	63	THR
55	m9	70	LYS
55	m9	71	ARG
55	m9	74	ARG
55	m9	88	ARG
55	m9	91	SER
55	m9	99	LEU
55	m9	101	VAL
55	m9	104	ARG
55	m9	114	LYS
55	m9	126	GLU
55	m9	133	LYS

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Mol	Chain	Res	Type
55	m9	138	LEU
55	m9	143	ILE
55	m9	148	ASP
55	m9	152	GLU
55	m9	153	LYS
55	m9	158	GLU
55	m9	164	LEU
55	m9	167	ARG
55	m9	173	ARG
56	n0	13	ARG
56	n0	21	GLU
56	n0	32	SER
56	n0	45	LEU
56	n0	60	SER
56	n0	62	ASN
56	n0	70	THR
56	n0	71	LYS
56	n0	80	ARG
56	n0	87	THR
56	n0	92	LYS
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	117	ARG
56	n0	130	GLU
56	n0	136	LYS
56	n0	137	ARG
56	n0	148	LEU
56	n0	155	ARG
56	n0	157	GLN
56	n0	160	THR
56	n0	162	THR
56	n0	167	ARG
56	n0	171	PHE
56	n0	172	TYR
57	n1	9	SER
57	n1	17	ARG
57	n1	18	ASP
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	35	LYS

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Mol	Chain	Res	Type
57	n1	60	LYS
57	n1	68	THR
57	n1	71	SER
57	n1	78	LYS
57	n1	80	VAL
57	n1	83	ARG
57	n1	96	ILE
57	n1	102	ARG
57	n1	126	VAL
57	n1	127	GLN
57	n1	128	LEU
57	n1	135	PRO
57	n1	139	ARG
57	n1	141	VAL
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR
57	n1	154	VAL
57	n1	157	GLU
57	n1	160	ILE
58	n2	14	THR
58	n2	16	THR
58	n2	19	VAL
58	n2	21	SER
58	n2	27	VAL
58	n2	39	ASP
58	n2	47	VAL
58	n2	50	LEU
58	n2	54	VAL
58	n2	55	THR
58	n2	58	GLU
58	n2	62	VAL
58	n2	63	VAL
58	n2	66	VAL
58	n2	68	THR
58	n2	74	LYS
58	n2	90	ARG
58	n2	98	THR
58	n2	100	THR
59	n3	13	ILE
59	n3	40	LYS
59	n3	45	ARG

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Mol	Chain	Res	Type
59	n3	69	LEU
59	n3	73	VAL
59	n3	74	MET
59	n3	75	PRO
59	n3	86	ARG
59	n3	88	ARG
59	n3	120	LYS
59	n3	125	LEU
60	n4	1	MET
60	n4	19	THR
60	n4	25	ASP
60	n4	34	SER
60	n4	39	LEU
60	n4	54	LEU
60	n4	57	LYS
60	n4	60	LYS
60	n4	63	ILE
60	n4	82	ILE
60	n4	89	LEU
60	n4	96	LEU
60	n4	126	GLU
60	n4	127	LYS
60	n4	130	SER
61	n5	24	LEU
61	n5	27	ARG
61	n5	34	LEU
61	n5	37	THR
61	n5	38	LEU
61	n5	40	LEU
61	n5	56	ARG
61	n5	63	ILE
61	n5	70	GLU
61	n5	71	THR
61	n5	73	MET
61	n5	86	VAL
61	n5	115	ARG
61	n5	125	ARG
61	n5	133	LEU
61	n5	135	ILE
61	n5	142	ILE
62	n6	3	LYS
62	n6	8	VAL

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Mol	Chain	Res	Type
62	n6	10	SER
62	n6	11	ASP
62	n6	12	ARG
62	n6	13	ARG
62	n6	32	SER
62	n6	37	LYS
62	n6	40	ARG
62	n6	45	ILE
62	n6	50	ILE
62	n6	56	VAL
62	n6	57	LEU
62	n6	62	SER
62	n6	66	GLN
62	n6	71	SER
62	n6	74	TYR
62	n6	76	LEU
62	n6	80	VAL
62	n6	82	VAL
62	n6	83	ASP
62	n6	86	THR
62	n6	94	SER
62	n6	105	VAL
62	n6	108	LYS
62	n6	112	ASP
62	n6	115	ARG
62	n6	120	GLN
63	n7	3	LYS
63	n7	15	ARG
63	n7	17	ARG
63	n7	24	VAL
63	n7	34	LYS
63	n7	36	HIS
63	n7	46	ILE
63	n7	57	HIS
63	n7	65	ARG
63	n7	72	ILE
63	n7	81	LEU
63	n7	83	THR
63	n7	95	VAL
63	n7	100	THR
63	n7	102	GLU
63	n7	105	SER

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Mol	Chain	Res	Type
63	n7	121	ARG
63	n7	126	LYS
63	n7	127	ASN
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	26	ARG
64	n8	42	ARG
64	n8	46	ASP
64	n8	47	LYS
64	n8	60	TYR
64	n8	73	LEU
64	n8	76	ASP
64	n8	78	LEU
64	n8	88	ASP
64	n8	91	LEU
64	n8	98	THR
64	n8	130	VAL
64	n8	132	LYS
64	n8	133	LEU
65	n9	6	ASN
65	n9	13	THR
65	n9	26	THR
65	n9	31	SER
65	n9	38	LYS
65	n9	54	LEU
65	n9	58	LYS
65	n9	59	LYS
66	o0	14	LEU
66	o0	18	ILE
66	o0	19	LYS
66	o0	40	LYS
66	o0	41	LEU
66	o0	55	GLU
66	o0	61	MET
66	o0	68	TYR
66	o0	71	GLN
66	o0	74	ASN

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Mol	Chain	Res	Type
66	o0	76	GLU
66	o0	86	ARG
66	o0	87	VAL
66	o0	99	ASP
66	o0	103	THR
67	o1	6	ASP
67	o1	13	THR
67	o1	16	LEU
67	o1	24	SER
67	o1	26	LYS
67	o1	31	ARG
67	o1	34	LYS
67	o1	44	MET
67	o1	55	LEU
67	o1	64	VAL
67	o1	71	LEU
67	o1	76	SER
67	o1	96	VAL
67	o1	102	LYS
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
68	o2	6	HIS
68	o2	16	LYS
68	o2	24	ARG
68	o2	27	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	50	ILE
68	o2	51	SER
68	o2	52	GLN
68	o2	54	LYS
68	o2	61	LYS
68	o2	71	HIS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	84	THR
68	o2	86	THR
68	o2	89	THR
68	o2	109	LEU
68	o2	123	LYS

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Mol	Chain	Res	Type
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	21	ARG
69	o3	31	LYS
69	o3	33	GLU
69	o3	49	ILE
69	o3	56	SER
69	o3	57	LYS
69	o3	58	GLU
69	o3	59	VAL
69	o3	60	ARG
69	o3	70	LYS
69	o3	81	VAL
69	o3	84	THR
69	o3	86	ARG
69	o3	93	THR
69	o3	97	SER
69	o3	98	VAL
70	o4	5	VAL
70	o4	9	ARG
70	o4	16	ARG
70	o4	21	LYS
70	o4	22	VAL
70	o4	25	THR
70	o4	30	LEU
70	o4	31	ARG
70	o4	35	VAL
70	o4	47	CYS
70	o4	49	SER
70	o4	51	LEU
70	o4	58	ARG
70	o4	59	PRO
70	o4	65	VAL
70	o4	66	SER
70	o4	71	THR
70	o4	79	SER
70	o4	85	VAL
70	o4	86	LYS
70	o4	98	GLN
71	o5	4	VAL
71	o5	11	THR

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Mol	Chain	Res	Type
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	31	LEU
71	o5	36	LEU
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL
71	o5	48	ARG
71	o5	53	CYS
71	o5	63	ARG
71	o5	68	GLN
71	o5	69	LEU
71	o5	73	LYS
71	o5	80	LEU
71	o5	85	THR
71	o5	86	ARG
71	o5	89	ARG
71	o5	90	ARG
71	o5	100	VAL
71	o5	107	LYS
71	o5	115	LYS
71	o5	119	LYS
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	12	ASN
72	o6	17	VAL
72	o6	26	ILE
72	o6	29	LYS
72	o6	34	SER
72	o6	35	ASN
72	o6	36	ARG
72	o6	38	LYS
72	o6	43	LEU
72	o6	45	ARG
72	o6	56	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	60	LEU
72	o6	61	ILE

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Mol	Chain	Res	Type
72	o6	70	ARG
72	o6	76	ARG
72	o6	79	SER
72	o6	81	THR
72	o6	94	ILE
72	o6	98	ARG
73	o7	17	THR
73	o7	19	CYS
73	o7	33	THR
73	o7	36	SER
73	o7	54	LYS
73	o7	55	ARG
73	o7	65	ARG
73	o7	67	LEU
73	o7	74	PHE
73	o7	80	THR
74	o8	8	ILE
74	o8	12	LEU
74	o8	17	ARG
74	o8	22	THR
74	o8	24	THR
74	o8	41	THR
74	o8	50	SER
74	o8	53	THR
74	o8	61	LYS
74	o8	64	LYS
74	o8	65	LEU
75	o9	4	GLN
75	o9	5	LYS
75	o9	9	ILE
75	o9	11	GLN
75	o9	15	LYS
75	o9	21	ARG
75	o9	45	ARG
75	o9	48	LYS
76	q0	79	GLU
76	q0	80	PRO
76	q0	85	LEU
76	q0	87	SER
76	q0	88	LYS
76	q0	106	ARG
76	q0	108	THR

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Mol	Chain	Res	Type
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	13	LEU
77	q1	21	ARG
77	q1	23	ARG
77	q1	24	SER
78	q2	2	VAL
78	q2	7	THR
78	q2	8	ARG
78	q2	20	HIS
78	q2	22	GLN
78	q2	26	THR
78	q2	38	GLN
78	q2	45	ARG
78	q2	47	GLN
78	q2	71	ARG
78	q2	78	LYS
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	89	LYS
78	q2	93	LEU
78	q2	98	LYS
78	q2	104	LEU
78	q2	105	GLN
78	q2	106	PHE
79	q3	3	LYS
79	q3	8	VAL
79	q3	16	VAL
79	q3	22	LEU
79	q3	24	ARG
79	q3	33	GLN
79	q3	42	CYS
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR

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Mol	Chain	Res	Type
79	q3	57	CYS
79	q3	58	SER
79	q3	70	THR
79	q3	73	THR
79	q3	81	SER
81	p0	4	ILE
81	p0	5	ARG
81	p0	15	LEU
81	p0	25	LEU
81	p0	30	VAL
81	p0	39	HIS
81	p0	42	ARG
81	p0	55	LYS
81	p0	63	ILE
81	p0	67	LEU
81	p0	70	LEU
81	p0	76	LEU
81	p0	80	VAL
81	p0	81	LYS
81	p0	91	GLU
81	p0	93	LEU
81	p0	96	ILE
81	p0	97	LYS
81	p0	104	ARG
81	p0	185	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (58) such sidechains are listed below:

Mol	Chain	Res	Type
2	S0	163	ASN
2	S0	164	ASN
3	S1	118	GLN
3	S1	177	GLN
3	S1	208	GLN
6	S4	50	ASN
6	S4	231	GLN
6	S4	259	GLN
7	S5	131	GLN
11	S9	110	GLN
12	C0	12	HIS
13	C1	118	GLN
18	C6	83	GLN

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Mol	Chain	Res	Type
21	C9	70	GLN
21	C9	138	GLN
25	D3	75	GLN
27	D5	95	HIS
39	L2	47	GLN
39	L2	83	HIS
41	L4	311	HIS
42	L5	40	HIS
42	L5	81	HIS
46	L9	50	ASN
46	L9	162	GLN
51	M5	194	GLN
53	M7	45	GLN
55	M9	130	ASN
57	N1	49	GLN
62	N6	100	HIS
65	N9	45	HIS
75	O9	4	GLN
2	s0	46	HIS
5	s3	74	GLN
6	s4	209	HIS
6	s4	224	ASN
8	s6	22	HIS
8	s6	119	GLN
9	s7	71	HIS
11	s9	110	GLN
11	s9	124	HIS
21	c9	64	HIS
22	d0	16	GLN
24	d2	56	HIS
26	d4	22	GLN
30	d8	27	GLN
34	sR	29	GLN
39	l2	38	HIS
40	l3	211	GLN
41	l4	279	HIS
41	l4	307	GLN
48	m1	132	ASN
51	m5	15	GLN
51	m5	178	HIS
52	m6	90	HIS
57	n1	16	GLN

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Mol	Chain	Res	Type
59	n3	33	ASN
59	n3	132	ASN
63	n7	127	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	495 (28%)	62 (3%)
1	6	1793/1800 (99%)	481 (26%)	53 (2%)
36	1	3145/3396 (92%)	712 (22%)	87 (2%)
36	5	3145/3396 (92%)	700 (22%)	82 (2%)
37	3	120/121 (99%)	21 (17%)	2 (1%)
37	7	120/121 (99%)	22 (18%)	2 (1%)
38	4	157/158 (99%)	40 (25%)	5 (3%)
38	8	157/158 (99%)	40 (25%)	2 (1%)
All	All	10384/10950 (94%)	2511 (24%)	295 (2%)

All (2511) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	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	45	U
1	2	46	A
1	2	47	A
1	2	57	G
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

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Mol	Chain	Res	Type
1	2	75	U
1	2	76	A
1	2	77	U
1	2	104	A
1	2	114	C
1	2	127	G
1	2	129	U
1	2	130	C
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C
1	2	137	U
1	2	140	A
1	2	141	U
1	2	144	U
1	2	145	A
1	2	146	U
1	2	153	G
1	2	158	U
1	2	159	U
1	2	167	U
1	2	169	A
1	2	174	U
1	2	178	U
1	2	179	A
1	2	185	U
1	2	186	C
1	2	188	A
1	2	190	C
1	2	191	C
1	2	192	U
1	2	193	U
1	2	194	U
1	2	195	G
1	2	196	G
1	2	197	A
1	2	198	A
1	2	200	A
1	2	215	A

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Mol	Chain	Res	Type
1	2	218	A
1	2	219	A
1	2	220	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	242	U
1	2	250	C
1	2	260	U
1	2	261	U
1	2	265	A
1	2	271	A
1	2	272	U
1	2	274	G
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	284	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	308	C
1	2	309	C
1	2	313	U
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C

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Mol	Chain	Res	Type
1	2	322	G
1	2	332	U
1	2	337	G
1	2	338	C
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	363	G
1	2	387	A
1	2	390	G
1	2	393	C
1	2	399	A
1	2	400	A
1	2	402	C
1	2	404	G
1	2	416	A
1	2	418	G
1	2	419	G
1	2	423	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	439	U
1	2	444	C
1	2	446	A
1	2	448	C
1	2	468	A
1	2	470	A
1	2	477	A
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G

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Mol	Chain	Res	Type
1	2	499	U
1	2	500	C
1	2	501	U
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	510	G
1	2	511	A
1	2	513	U
1	2	514	G
1	2	515	A
1	2	516	G
1	2	519	C
1	2	525	A
1	2	527	A
1	2	532	U
1	2	536	C
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	546	U
1	2	548	G
1	2	555	A
1	2	556	A
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	571	G
1	2	579	A
1	2	580	A
1	2	585	A
1	2	594	A
1	2	595	G
1	2	597	G

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Mol	Chain	Res	Type
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	639	U
1	2	640	U
1	2	650	U
1	2	653	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
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	706	A
1	2	707	A
1	2	708	C
1	2	709	C
1	2	710	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C

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Mol	Chain	Res	Type
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
1	2	756	A
1	2	759	U
1	2	765	G
1	2	766	U
1	2	771	A
1	2	774	A
1	2	775	G
1	2	778	G
1	2	779	U
1	2	781	U
1	2	782	U
1	2	783	G
1	2	784	C
1	2	787	G
1	2	789	A
1	2	793	A
1	2	794	U
1	2	795	U
1	2	812	A

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Mol	Chain	Res	Type
1	2	815	G
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	822	U
1	2	823	G
1	2	824	G
1	2	829	A
1	2	830	U
1	2	831	U
1	2	833	U
1	2	837	G
1	2	840	U
1	2	846	G
1	2	852	C
1	2	854	U
1	2	856	A
1	2	860	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	881	A
1	2	886	U
1	2	898	A
1	2	912	U
1	2	913	G
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	966	A
1	2	975	C
1	2	984	G
1	2	988	A
1	2	992	A

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Mol	Chain	Res	Type
1	2	993	A
1	2	995	A
1	2	997	G
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1026	A
1	2	1028	C
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1064	G
1	2	1074	G
1	2	1076	A
1	2	1080	U
1	2	1082	C
1	2	1083	G
1	2	1086	A
1	2	1091	A
1	2	1092	A
1	2	1096	C
1	2	1097	U
1	2	1100	G
1	2	1109	G
1	2	1119	G
1	2	1138	A
1	2	1146	G
1	2	1150	G
1	2	1151	A
1	2	1155	G
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1167	G
1	2	1169	G
1	2	1185	U
1	2	1191	U

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Mol	Chain	Res	Type
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	1209	C
1	2	1212	G
1	2	1217	A
1	2	1218	G
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1251	U
1	2	1255	G
1	2	1257	U
1	2	1258	U
1	2	1259	U
1	2	1263	G
1	2	1276	U
1	2	1286	U
1	2	1287	A
1	2	1288	G
1	2	1300	A
1	2	1301	U
1	2	1314	U
1	2	1315	U
1	2	1320	U
1	2	1321	A
1	2	1329	A
1	2	1338	C
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	1349	G

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Mol	Chain	Res	Type
1	2	1354	G
1	2	1355	C
1	2	1362	U
1	2	1363	U
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1383	G
1	2	1388	A
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1407	U
1	2	1412	G
1	2	1413	U
1	2	1414	U
1	2	1415	U
1	2	1425	A
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1433	G
1	2	1435	G
1	2	1445	G
1	2	1446	A
1	2	1448	G
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1461	C
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1475	A
1	2	1482	C
1	2	1486	G
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A

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Mol	Chain	Res	Type
1	2	1499	G
1	2	1503	A
1	2	1506	G
1	2	1514	U
1	2	1516	A
1	2	1517	U
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1530	C
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1542	G
1	2	1550	A
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1572	G
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1618	C
1	2	1625	C
1	2	1631	A
1	2	1652	C
1	2	1657	U
1	2	1658	G
1	2	1666	U
1	2	1680	G
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1731	A
1	2	1750	A
1	2	1760	G
1	2	1762	A
1	2	1766	A

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Mol	Chain	Res	Type
1	2	1769	U
1	2	1770	U
1	2	1772	C
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
1	2	1798	U
36	1	13	A
36	1	14	U
36	1	15	C
36	1	26	A
36	1	40	A
36	1	49	A
36	1	57	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	73	C
36	1	76	G
36	1	87	U
36	1	92	G
36	1	93	C
36	1	94	G
36	1	99	A
36	1	109	A
36	1	110	G
36	1	111	C
36	1	113	C
36	1	117	U
36	1	121	A
36	1	122	A
36	1	133	U
36	1	135	C
36	1	136	G
36	1	156	G
36	1	157	A

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Mol	Chain	Res	Type
36	1	161	G
36	1	166	C
36	1	169	U
36	1	170	G
36	1	173	G
36	1	182	U
36	1	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	210	U
36	1	211	A
36	1	218	G
36	1	219	A
36	1	232	G
36	1	236	G
36	1	238	A
36	1	240	U
36	1	241	G
36	1	243	G
36	1	245	U
36	1	246	U
36	1	247	C
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	269	G
36	1	270	U
36	1	282	G
36	1	283	G
36	1	286	U
36	1	289	A
36	1	295	A
36	1	298	U
36	1	305	U
36	1	311	C
36	1	315	C
36	1	323	A
36	1	329	U
36	1	339	C
36	1	349	A

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Mol	Chain	Res	Type
36	1	350	C
36	1	370	U
36	1	375	A
36	1	376	G
36	1	390	G
36	1	395	A
36	1	398	A
36	1	399	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	404	G
36	1	420	G
36	1	421	G
36	1	422	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	497	C
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	543	C
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	555	U
36	1	557	A
36	1	559	A
36	1	568	G
36	1	578	A
36	1	579	G
36	1	589	A
36	1	592	A
36	1	599	C

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Mol	Chain	Res	Type
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	636	C
36	1	637	C
36	1	643	U
36	1	648	C
36	1	649	A
36	1	651	G
36	1	658	G
36	1	660	A
36	1	662	U
36	1	667	C
36	1	677	A
36	1	681	U
36	1	691	A
36	1	692	A
36	1	705	A
36	1	708	G
36	1	712	G
36	1	715	A
36	1	716	A
36	1	718	G
36	1	725	G
36	1	726	G
36	1	733	G
36	1	758	C
36	1	764	U
36	1	766	U
36	1	767	U
36	1	768	C
36	1	776	U
36	1	777	U
36	1	780	A
36	1	781	G
36	1	785	G
36	1	803	C
36	1	806	A
36	1	817	A

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Mol	Chain	Res	Type
36	1	830	A
36	1	842	G
36	1	849	C
36	1	861	C
36	1	864	G
36	1	869	G
36	1	874	U
36	1	879	U
36	1	896	A
36	1	897	U
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	921	A
36	1	923	C
36	1	924	G
36	1	929	A
36	1	937	G
36	1	938	C
36	1	943	U
36	1	944	C
36	1	953	G
36	1	959	C
36	1	960	U
36	1	961	C
36	1	962	A
36	1	974	G
36	1	979	U
36	1	980	A
36	1	981	U
36	1	982	C
36	1	993	G
36	1	994	G
36	1	1001	G
36	1	1002	A
36	1	1006	A
36	1	1010	G
36	1	1017	C
36	1	1018	G
36	1	1020	G

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Mol	Chain	Res	Type
36	1	1021	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1035	G
36	1	1037	C
36	1	1041	U
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	1069	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	1128	U
36	1	1129	A
36	1	1131	G
36	1	1153	A
36	1	1159	A
36	1	1160	C
36	1	1168	U
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1190	A
36	1	1191	U
36	1	1192	C

Continued on next page...

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Mol	Chain	Res	Type
36	1	1201	C
36	1	1202	A
36	1	1209	G
36	1	1212	A
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1221	A
36	1	1222	G
36	1	1225	A
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	1238	C
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	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	1272	C
36	1	1274	A
36	1	1278	A
36	1	1279	C
36	1	1281	G
36	1	1285	G
36	1	1287	A

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Mol	Chain	Res	Type
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1325	U
36	1	1330	A
36	1	1331	U
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	1354	G
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1386	A
36	1	1399	A
36	1	1400	G
36	1	1418	A
36	1	1419	A
36	1	1431	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	1467	A
36	1	1481	A
36	1	1482	A
36	1	1485	G
36	1	1487	G
36	1	1490	A
36	1	1508	C
36	1	1527	C
36	1	1529	A
36	1	1531	C
36	1	1536	G
36	1	1555	U
36	1	1556	C

Continued on next page...

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Mol	Chain	Res	Type
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	1572	U
36	1	1576	G
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1593	A
36	1	1607	U
36	1	1613	A
36	1	1617	G
36	1	1620	U
36	1	1621	A
36	1	1629	U
36	1	1639	C
36	1	1641	U
36	1	1642	A
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1673	G
36	1	1683	A
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1725	C
36	1	1741	A
36	1	1742	U
36	1	1750	A
36	1	1751	G

Continued on next page...

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Mol	Chain	Res	Type
36	1	1752	A
36	1	1760	A
36	1	1761	C
36	1	1762	C
36	1	1764	U
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1769	G
36	1	1770	G
36	1	1775	G
36	1	1779	C
36	1	1780	G
36	1	1788	C
36	1	1797	A
36	1	1809	A
36	1	1810	A
36	1	1813	A
36	1	1814	A
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	1840	U
36	1	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1849	C
36	1	1850	A
36	1	1851	G
36	1	1855	U
36	1	1857	C
36	1	1858	A
36	1	1871	U
36	1	1879	A
36	1	1880	U
36	1	1886	A
36	1	1893	A

Continued on next page...

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Mol	Chain	Res	Type
36	1	1895	A
36	1	1896	A
36	1	1906	G
36	1	1927	G
36	1	1931	U
36	1	1935	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2121	G
36	1	2122	G
36	1	2130	G
36	1	2131	A
36	1	2134	G
36	1	2140	U
36	1	2144	A
36	1	2158	A
36	1	2165	G
36	1	2169	G
36	1	2170	U
36	1	2177	G
36	1	2194	G
36	1	2205	U
36	1	2206	G
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2223	A
36	1	2225	U
36	1	2239	G
36	1	2243	A
36	1	2244	A
36	1	2245	C
36	1	2249	G
36	1	2250	G
36	1	2255	A

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Mol	Chain	Res	Type
36	1	2256	A
36	1	2272	G
36	1	2273	G
36	1	2281	A
36	1	2282	U
36	1	2288	G
36	1	2298	U
36	1	2303	A
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2319	U
36	1	2334	U
36	1	2336	U
36	1	2362	C
36	1	2365	C
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2378	C
36	1	2379	U
36	1	2385	G
36	1	2392	C
36	1	2393	G
36	1	2394	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2404	A
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2435	G
36	1	2437	G
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G

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Mol	Chain	Res	Type
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	2526	C
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	2547	A
36	1	2548	C
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
36	1	2576	G
36	1	2581	U
36	1	2585	G
36	1	2586	G
36	1	2588	U
36	1	2593	A
36	1	2594	C
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2618	G
36	1	2621	G
36	1	2626	A

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Mol	Chain	Res	Type
36	1	2637	A
36	1	2638	C
36	1	2639	G
36	1	2652	U
36	1	2656	A
36	1	2657	A
36	1	2671	A
36	1	2672	G
36	1	2674	A
36	1	2677	G
36	1	2689	A
36	1	2691	A
36	1	2693	C
36	1	2694	A
36	1	2696	A
36	1	2705	A
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2734	A
36	1	2737	C
36	1	2746	A
36	1	2748	A
36	1	2751	G
36	1	2752	U
36	1	2753	G
36	1	2762	A
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2779	A
36	1	2780	A
36	1	2788	C
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2803	A
36	1	2810	C
36	1	2814	G

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Mol	Chain	Res	Type
36	1	2817	A
36	1	2818	U
36	1	2822	U
36	1	2829	U
36	1	2836	C
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2860	U
36	1	2871	G
36	1	2872	A
36	1	2875	U
36	1	2876	C
36	1	2887	A
36	1	2889	C
36	1	2899	C
36	1	2912	G
36	1	2923	U
36	1	2925	C
36	1	2927	C
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2954	U
36	1	2955	U
36	1	2971	A
36	1	2974	U
36	1	2978	U
36	1	2979	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3012	A
36	1	3055	U
36	1	3056	U
36	1	3057	U
36	1	3058	U
36	1	3059	G

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Mol	Chain	Res	Type
36	1	3078	U
36	1	3079	U
36	1	3080	G
36	1	3086	A
36	1	3087	A
36	1	3090	U
36	1	3091	A
36	1	3092	C
36	1	3094	A
36	1	3119	U
36	1	3122	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	3168	A
36	1	3169	U
36	1	3170	A
36	1	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3181	C
36	1	3187	A
36	1	3196	U
36	1	3199	G
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3220	G

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Mol	Chain	Res	Type
36	1	3221	C
36	1	3223	A
36	1	3228	C
36	1	3229	G
36	1	3235	C
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3261	C
36	1	3268	A
36	1	3269	U
36	1	3270	U
36	1	3272	C
36	1	3276	G
36	1	3277	U
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3289	G
36	1	3294	A
36	1	3295	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	3335	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3347	A
36	1	3351	U
36	1	3352	U
36	1	3353	G
36	1	3354	U
36	1	3355	U
36	1	3356	G

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Mol	Chain	Res	Type
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	3384	U
36	1	3389	U
36	1	3390	G
37	3	7	G
37	3	13	A
37	3	14	U
37	3	17	A
37	3	21	G
37	3	22	A
37	3	26	C
37	3	41	G
37	3	42	A
37	3	45	A
37	3	53	U
37	3	54	U
37	3	63	A
37	3	65	G
37	3	74	C
37	3	76	A
37	3	78	U
37	3	95	A
37	3	101	G
37	3	102	A
37	3	112	G
38	4	2	A
38	4	9	A
38	4	26	U
38	4	34	U
38	4	35	C
38	4	43	A
38	4	48	A
38	4	50	C
38	4	52	A
38	4	53	A
38	4	58	G

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Mol	Chain	Res	Type
38	4	59	A
38	4	62	C
38	4	63	G
38	4	75	G
38	4	79	A
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C
38	4	85	G
38	4	86	U
38	4	87	G
38	4	90	U
38	4	95	G
38	4	97	A
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	138	A
38	4	142	C
38	4	148	G
38	4	152	G
38	4	158	U
1	6	2	A
1	6	4	C
1	6	17	C
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	46	A
1	6	47	A
1	6	57	G
1	6	61	A
1	6	66	U
1	6	67	A

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Mol	Chain	Res	Type
1	6	68	A
1	6	69	G
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	78	A
1	6	100	A
1	6	103	A
1	6	104	A
1	6	114	C
1	6	127	G
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	144	U
1	6	145	A
1	6	153	G
1	6	158	U
1	6	159	U
1	6	165	G
1	6	166	C
1	6	178	U
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	195	G
1	6	196	G
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

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Mol	Chain	Res	Type
1	6	222	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	229	U
1	6	230	C
1	6	232	U
1	6	233	C
1	6	234	G
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	277	U
1	6	278	U
1	6	280	U
1	6	285	G
1	6	292	U
1	6	298	C
1	6	299	A
1	6	304	U
1	6	309	C
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C
1	6	322	G
1	6	333	A
1	6	337	G
1	6	338	C
1	6	341	A
1	6	346	G
1	6	352	A

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Mol	Chain	Res	Type
1	6	359	A
1	6	360	A
1	6	361	C
1	6	369	A
1	6	390	G
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	416	A
1	6	418	G
1	6	419	G
1	6	421	A
1	6	424	C
1	6	425	A
1	6	426	G
1	6	428	A
1	6	434	G
1	6	439	U
1	6	444	C
1	6	448	C
1	6	452	A
1	6	454	U
1	6	468	A
1	6	475	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
1	6	496	G
1	6	497	G
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A

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Mol	Chain	Res	Type
1	6	506	A
1	6	508	U
1	6	510	G
1	6	511	A
1	6	512	A
1	6	513	U
1	6	514	G
1	6	516	G
1	6	519	C
1	6	527	A
1	6	536	C
1	6	538	A
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	544	A
1	6	548	G
1	6	555	A
1	6	556	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	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	597	G
1	6	609	U
1	6	610	G
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G
1	6	634	G

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Mol	Chain	Res	Type
1	6	637	C
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	654	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	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	696	C
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	742	U
1	6	745	U

Continued on next page...

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Mol	Chain	Res	Type
1	6	751	G
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	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	795	U
1	6	803	A
1	6	806	A
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	856	A
1	6	861	U
1	6	862	A
1	6	863	A
1	6	873	U
1	6	898	A

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Mol	Chain	Res	Type
1	6	906	A
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U
1	6	942	G
1	6	944	A
1	6	951	A
1	6	959	U
1	6	960	U
1	6	966	A
1	6	969	C
1	6	970	A
1	6	971	A
1	6	976	G
1	6	985	G
1	6	992	A
1	6	993	A
1	6	997	G
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1020	A
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1029	U
1	6	1036	A
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1063	U
1	6	1072	C
1	6	1073	G
1	6	1074	G
1	6	1082	C

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Mol	Chain	Res	Type
1	6	1083	G
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1109	G
1	6	1137	A
1	6	1138	A
1	6	1146	G
1	6	1151	A
1	6	1154	G
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	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1208	A
1	6	1213	G
1	6	1214	U
1	6	1217	A
1	6	1218	G
1	6	1219	A
1	6	1226	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
1	6	1243	G
1	6	1244	A
1	6	1245	G

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Mol	Chain	Res	Type
1	6	1246	C
1	6	1248	C
1	6	1250	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	1275	A
1	6	1285	U
1	6	1286	U
1	6	1291	G
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	1354	G
1	6	1355	C
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1370	U
1	6	1371	A
1	6	1372	U
1	6	1383	G
1	6	1388	A
1	6	1390	U
1	6	1397	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1412	G
1	6	1413	U
1	6	1415	U

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Mol	Chain	Res	Type
1	6	1422	A
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1431	C
1	6	1432	U
1	6	1433	G
1	6	1435	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1451	C
1	6	1458	G
1	6	1459	C
1	6	1460	A
1	6	1461	C
1	6	1471	A
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	1496	U
1	6	1506	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1517	U
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1569	A

Continued on next page...

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Mol	Chain	Res	Type
1	6	1573	A
1	6	1574	G
1	6	1577	A
1	6	1584	G
1	6	1590	G
1	6	1596	C
1	6	1601	G
1	6	1616	G
1	6	1621	U
1	6	1622	G
1	6	1637	C
1	6	1638	G
1	6	1656	U
1	6	1657	U
1	6	1658	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	1715	G
1	6	1716	C
1	6	1717	G
1	6	1731	A
1	6	1736	G
1	6	1742	U
1	6	1754	A
1	6	1755	A
1	6	1760	G
1	6	1762	A
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1789	G
1	6	1792	G

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Mol	Chain	Res	Type
1	6	1793	G
1	6	1794	A
1	6	1795	U
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	21	G
36	5	26	A
36	5	40	A
36	5	43	A
36	5	44	U
36	5	49	A
36	5	57	A
36	5	60	A
36	5	62	A
36	5	65	A
36	5	66	A
36	5	76	G
36	5	84	U
36	5	93	C
36	5	94	G
36	5	96	G
36	5	99	A
36	5	109	A
36	5	110	G
36	5	111	C
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	142	C
36	5	156	G
36	5	157	A
36	5	161	G
36	5	165	A
36	5	166	C
36	5	170	G

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Mol	Chain	Res	Type
36	5	171	G
36	5	172	G
36	5	174	C
36	5	178	U
36	5	180	C
36	5	182	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	200	C
36	5	206	G
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	231	G
36	5	234	G
36	5	236	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	242	C
36	5	244	G
36	5	246	U
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	265	A
36	5	267	G
36	5	269	G
36	5	274	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	305	U
36	5	311	C

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Mol	Chain	Res	Type
36	5	315	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	376	G
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	417	A
36	5	421	G
36	5	422	A
36	5	436	A
36	5	437	G
36	5	439	C
36	5	441	U
36	5	442	G
36	5	492	U
36	5	495	G
36	5	512	U
36	5	521	A
36	5	523	A
36	5	542	G
36	5	546	C
36	5	547	G
36	5	548	G
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	578	A
36	5	579	G
36	5	592	A
36	5	594	U
36	5	604	G

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Mol	Chain	Res	Type
36	5	609	G
36	5	610	G
36	5	611	A
36	5	619	A
36	5	620	U
36	5	621	A
36	5	636	C
36	5	642	U
36	5	649	A
36	5	660	A
36	5	677	A
36	5	681	U
36	5	692	A
36	5	705	A
36	5	708	G
36	5	712	G
36	5	715	A
36	5	716	A
36	5	725	G
36	5	727	G
36	5	735	A
36	5	736	A
36	5	758	C
36	5	766	U
36	5	767	U
36	5	774	G
36	5	776	U
36	5	777	U
36	5	780	A
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	817	A
36	5	830	A
36	5	836	A
36	5	855	U
36	5	857	G
36	5	861	C
36	5	869	G
36	5	874	U
36	5	876	A

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Mol	Chain	Res	Type
36	5	877	C
36	5	879	U
36	5	890	C
36	5	895	A
36	5	896	A
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	923	C
36	5	924	G
36	5	937	G
36	5	944	C
36	5	959	C
36	5	960	U
36	5	963	G
36	5	964	G
36	5	979	U
36	5	980	A
36	5	981	U
36	5	993	G
36	5	994	G
36	5	1000	C
36	5	1001	G
36	5	1002	A
36	5	1005	G
36	5	1006	A
36	5	1010	G
36	5	1015	U
36	5	1017	C
36	5	1018	G
36	5	1019	G
36	5	1020	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1027	A

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Mol	Chain	Res	Type
36	5	1028	U
36	5	1029	G
36	5	1034	U
36	5	1035	G
36	5	1041	U
36	5	1047	A
36	5	1049	C
36	5	1057	A
36	5	1064	A
36	5	1065	A
36	5	1072	G
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	1117	G
36	5	1131	G
36	5	1152	G
36	5	1153	A
36	5	1154	A
36	5	1159	A
36	5	1161	G
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	1196	C
36	5	1201	C
36	5	1209	G
36	5	1221	A
36	5	1222	G

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Mol	Chain	Res	Type
36	5	1223	A
36	5	1224	C
36	5	1232	C
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1243	G
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1254	C
36	5	1258	U
36	5	1259	A
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1285	G
36	5	1308	A
36	5	1309	U
36	5	1313	G
36	5	1329	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	1356	U
36	5	1357	G
36	5	1363	A
36	5	1368	U
36	5	1385	C
36	5	1386	A
36	5	1398	U
36	5	1399	A
36	5	1400	G

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Mol	Chain	Res	Type
36	5	1418	A
36	5	1419	A
36	5	1428	A
36	5	1431	G
36	5	1433	A
36	5	1434	G
36	5	1437	C
36	5	1438	U
36	5	1443	G
36	5	1446	A
36	5	1450	G
36	5	1451	C
36	5	1455	U
36	5	1460	A
36	5	1480	G
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1492	G
36	5	1503	A
36	5	1508	C
36	5	1527	C
36	5	1528	G
36	5	1533	U
36	5	1536	G
36	5	1541	G
36	5	1542	G
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1557	A
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1563	C
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

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Mol	Chain	Res	Type
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	1582	C
36	5	1583	A
36	5	1589	A
36	5	1607	U
36	5	1618	G
36	5	1620	U
36	5	1629	U
36	5	1632	A
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1646	G
36	5	1655	G
36	5	1657	C
36	5	1658	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	1736	G
36	5	1750	A
36	5	1751	G
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1767	C
36	5	1770	G
36	5	1780	G
36	5	1793	C

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Mol	Chain	Res	Type
36	5	1795	U
36	5	1797	A
36	5	1810	A
36	5	1813	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1820	U
36	5	1821	U
36	5	1839	A
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	1847	A
36	5	1849	C
36	5	1850	A
36	5	1864	A
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1893	A
36	5	1901	A
36	5	1904	C
36	5	1906	G
36	5	1952	G
36	5	1953	G
36	5	2100	A
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	2139	A
36	5	2140	U
36	5	2146	C
36	5	2155	G
36	5	2158	A

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Mol	Chain	Res	Type
36	5	2168	A
36	5	2169	G
36	5	2171	G
36	5	2179	C
36	5	2184	U
36	5	2187	G
36	5	2188	A
36	5	2192	C
36	5	2198	A
36	5	2205	U
36	5	2210	G
36	5	2223	A
36	5	2225	U
36	5	2228	A
36	5	2244	A
36	5	2250	G
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	2273	G
36	5	2278	C
36	5	2279	A
36	5	2281	A
36	5	2288	G
36	5	2303	A
36	5	2306	C
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2324	A
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2367	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2385	G

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Mol	Chain	Res	Type
36	5	2392	C
36	5	2393	G
36	5	2397	A
36	5	2403	G
36	5	2404	A
36	5	2411	U
36	5	2418	G
36	5	2435	G
36	5	2437	G
36	5	2439	A
36	5	2440	G
36	5	2441	A
36	5	2443	A
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2511	A
36	5	2512	C
36	5	2514	U
36	5	2515	A
36	5	2518	C
36	5	2519	A
36	5	2522	G
36	5	2523	A
36	5	2526	C
36	5	2530	G
36	5	2531	C
36	5	2532	U
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	2566	C
36	5	2567	C
36	5	2568	C
36	5	2569	A

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Mol	Chain	Res	Type
36	5	2570	U
36	5	2571	U
36	5	2572	C
36	5	2573	G
36	5	2574	G
36	5	2584	G
36	5	2585	G
36	5	2589	G
36	5	2593	A
36	5	2594	C
36	5	2606	G
36	5	2607	G
36	5	2609	A
36	5	2610	G
36	5	2614	G
36	5	2618	G
36	5	2625	C
36	5	2639	G
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	2681	U
36	5	2683	U
36	5	2689	A
36	5	2690	G
36	5	2691	A
36	5	2693	C
36	5	2694	A
36	5	2696	A
36	5	2705	A
36	5	2706	G
36	5	2707	C
36	5	2714	G
36	5	2716	U
36	5	2727	A
36	5	2728	G
36	5	2729	U
36	5	2742	C
36	5	2752	U

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Mol	Chain	Res	Type
36	5	2753	G
36	5	2755	C
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2778	G
36	5	2783	U
36	5	2796	G
36	5	2800	G
36	5	2801	A
36	5	2802	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2821	C
36	5	2829	U
36	5	2839	G
36	5	2840	C
36	5	2842	U
36	5	2843	U
36	5	2845	A
36	5	2847	A
36	5	2853	A
36	5	2860	U
36	5	2867	C
36	5	2871	G
36	5	2872	A
36	5	2873	U
36	5	2875	U
36	5	2877	G
36	5	2887	A
36	5	2889	C
36	5	2899	C
36	5	2912	G
36	5	2920	U
36	5	2921	U
36	5	2922	G
36	5	2923	U
36	5	2924	U
36	5	2935	U
36	5	2936	A

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Mol	Chain	Res	Type
36	5	2939	G
36	5	2942	C
36	5	2944	U
36	5	2947	G
36	5	2957	G
36	5	2967	A
36	5	2971	A
36	5	2972	G
36	5	2979	U
36	5	2980	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	3013	U
36	5	3028	G
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	3104	U
36	5	3122	A
36	5	3127	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3159	C
36	5	3164	C
36	5	3165	A

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Mol	Chain	Res	Type
36	5	3166	C
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	3179	U
36	5	3181	C
36	5	3184	A
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3197	G
36	5	3198	U
36	5	3207	U
36	5	3208	G
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3223	A
36	5	3228	C
36	5	3229	G
36	5	3238	G
36	5	3239	G
36	5	3242	G
36	5	3243	A
36	5	3244	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3270	U
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3280	U
36	5	3282	U
36	5	3285	C
36	5	3286	G

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Mol	Chain	Res	Type
36	5	3289	G
36	5	3290	G
36	5	3292	A
36	5	3294	A
36	5	3304	U
36	5	3309	G
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	3330	A
36	5	3333	G
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3348	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	3383	G
36	5	3389	U
36	5	3390	G
36	5	3391	A
36	5	3393	U
36	5	3396	U
37	7	7	G
37	7	19	C
37	7	22	A
37	7	27	A
37	7	45	A
37	7	49	G
37	7	52	G
37	7	54	U

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Mol	Chain	Res	Type
37	7	58	C
37	7	60	G
37	7	62	U
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	78	U
37	7	93	C
37	7	101	G
37	7	102	A
37	7	103	A
37	7	104	A
37	7	112	G
38	8	14	C
38	8	21	C
38	8	34	U
38	8	35	C
38	8	43	A
38	8	48	A
38	8	51	G
38	8	53	A
38	8	57	C
38	8	59	A
38	8	60	U
38	8	62	C
38	8	63	G
38	8	69	U
38	8	79	A
38	8	80	A
38	8	81	U
38	8	82	U
38	8	84	C
38	8	85	G
38	8	86	U
38	8	87	G
38	8	90	U
38	8	95	G
38	8	97	A
38	8	104	A
38	8	105	A
38	8	106	C

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Mol	Chain	Res	Type
38	8	111	A
38	8	113	U
38	8	122	U
38	8	123	G
38	8	125	U
38	8	126	A
38	8	127	U
38	8	138	A
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

All (295) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	68	A
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	132	U
1	2	133	U
1	2	139	C
1	2	144	U
1	2	158	U
1	2	187	G
1	2	217	A
1	2	218	A
1	2	239	C
1	2	240	U
1	2	278	U
1	2	280	U
1	2	321	C
1	2	417	A
1	2	497	G
1	2	499	U

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Mol	Chain	Res	Type
1	2	501	U
1	2	503	G
1	2	512	A
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	781	U
1	2	782	U
1	2	794	U
1	2	811	A
1	2	829	A
1	2	913	G
1	2	1051	G
1	2	1058	U
1	2	1081	A
1	2	1157	A
1	2	1196	A
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	1490	C
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	210	U
36	1	239	G
36	1	282	G

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Mol	Chain	Res	Type
36	1	547	G
36	1	715	A
36	1	726	G
36	1	763	G
36	1	873	C
36	1	896	A
36	1	916	G
36	1	937	G
36	1	961	C
36	1	979	U
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1094	U
36	1	1097	G
36	1	1103	A
36	1	1196	C
36	1	1273	A
36	1	1307	G
36	1	1317	A
36	1	1329	U
36	1	1331	U
36	1	1352	A
36	1	1355	A
36	1	1467	A
36	1	1484	U
36	1	1554	U
36	1	1556	C
36	1	1562	C
36	1	1589	A
36	1	1716	U
36	1	1724	U
36	1	1751	G
36	1	1778	G
36	1	1815	U
36	1	1816	A
36	1	1820	U
36	1	1846	C
36	1	1849	C
36	1	1858	A
36	1	1931	U
36	1	2101	C

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Mol	Chain	Res	Type
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	2443	A
36	1	2513	U
36	1	2523	A
36	1	2525	G
36	1	2537	U
36	1	2538	U
36	1	2541	U
36	1	2554	A
36	1	2585	G
36	1	2593	A
36	1	2677	G
36	1	2689	A
36	1	2704	A
36	1	2728	G
36	1	2752	U
36	1	2772	C
36	1	2801	A
36	1	2818	U
36	1	2954	U
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3139	A
36	1	3195	U
36	1	3218	A
36	1	3228	C
36	1	3269	U
36	1	3275	U
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
36	1	3375	A
37	3	13	A
37	3	52	G
38	4	59	A

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Mol	Chain	Res	Type
38	4	82	U
38	4	85	G
38	4	111	A
38	4	125	U
1	6	25	C
1	6	66	U
1	6	75	U
1	6	76	A
1	6	103	A
1	6	114	C
1	6	136	C
1	6	139	C
1	6	158	U
1	6	187	G
1	6	192	U
1	6	217	A
1	6	240	U
1	6	272	U
1	6	277	U
1	6	345	U
1	6	400	A
1	6	417	A
1	6	454	U
1	6	512	A
1	6	542	A
1	6	543	C
1	6	555	A
1	6	557	G
1	6	558	U
1	6	651	G
1	6	667	U
1	6	678	A
1	6	697	C
1	6	717	C
1	6	755	A
1	6	829	A
1	6	1051	G
1	6	1058	U
1	6	1081	A
1	6	1097	U
1	6	1137	A
1	6	1227	A

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Mol	Chain	Res	Type
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	122	A
36	5	210	U
36	5	238	A
36	5	264	G
36	5	546	C
36	5	648	C
36	5	715	A
36	5	765	C
36	5	873	C
36	5	896	A
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	1094	U
36	5	1152	G
36	5	1160	C
36	5	1181	U
36	5	1222	G
36	5	1238	C
36	5	1241	U
36	5	1307	G
36	5	1329	U
36	5	1331	U

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Mol	Chain	Res	Type
36	5	1352	A
36	5	1355	A
36	5	1481	A
36	5	1507	G
36	5	1554	U
36	5	1560	G
36	5	1574	C
36	5	1580	A
36	5	1716	U
36	5	1724	U
36	5	1751	G
36	5	1792	C
36	5	1816	A
36	5	1819	U
36	5	1841	A
36	5	1846	C
36	5	1879	A
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2209	U
36	5	2249	G
36	5	2255	A
36	5	2257	C
36	5	2281	A
36	5	2309	A
36	5	2372	A
36	5	2374	C
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2531	C
36	5	2583	C
36	5	2593	A
36	5	2728	G
36	5	2772	C
36	5	2801	A
36	5	2818	U
36	5	2872	A
36	5	2970	C
36	5	2971	A
36	5	3078	U

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Mol	Chain	Res	Type
36	5	3121	U
36	5	3154	C
36	5	3167	A
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
37	7	77	G
38	8	89	A
38	8	126	A

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 2560 ligands modelled in this entry, 1426 are monoatomic - leaving 1134 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	3863	-	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	3864	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-
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	-

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

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

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

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

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	3L2	1	4212	-	40,40,40	0.66	1 (2%)	55,62,62	1.25	7 (12%)
86	OHX	2	2022	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-
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	-

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	226	-	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	4	239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	240	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	241	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
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	-

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

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

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

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

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	-
88	3L2	5	4246	-	40,40,40	1.15	6 (15%)	55,62,62	1.48	7 (12%)
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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	1	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	-

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	-
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	1	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	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	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	217	-	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	-
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	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	8	231	-	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	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	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	L3	405	-	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	M0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	205	-	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	103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	104	-	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	S6	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S8	302	-	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	-
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	202	-	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	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	406	-	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	l4	404	-	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	l9	600	-	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	203	-	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	202	-	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	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
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	n6	202	-	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	o7	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o7	503	-	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	303	-	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	3863	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3864	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3865	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3866	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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	3L2	1	4212	-	-	0/31/89/89	0/1/5/5
86	OHX	2	2022	-	-	0/0/0/0	0/0/0/0
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	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	3	226	-	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	4	239	-	-	0/0/0/0	0/0/0/0
86	OHX	4	240	-	-	0/0/0/0	0/0/0/0
86	OHX	4	241	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3892	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3896	-	-	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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
86	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
88	3L2	5	4246	-	-	0/31/89/89	0/1/5/5
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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	1	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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
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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	1	-	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	6	2201	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
86	OHX	7	217	-	-	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
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	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
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	8	231	-	-	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	403	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	302	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	204	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	205	-	-	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	103	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
86	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0
86	OHX	S6	301	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	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	202	-	-	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	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	406	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	404	-	-	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	l9	600	-	-	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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	m1	203	-	-	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	202	-	-	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	n6	202	-	-	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	o7	502	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	503	-	-	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	303	-	-	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

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
88	5	4246	3L2	O8-C13	-2.45	1.39	1.44
88	5	4246	3L2	C25-C14	-2.40	1.47	1.52
88	5	4246	3L2	O3-C9	-2.30	1.29	1.34
88	5	4246	3L2	C8-C9	-2.01	1.43	1.48
88	5	4246	3L2	O5-C22	2.12	1.49	1.45
88	5	4246	3L2	C22-C15	2.27	1.57	1.53
88	1	4212	3L2	O8-C13	2.40	1.49	1.44

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
88	5	4246	3L2	O7-C24-C1	-5.82	98.81	110.50
88	1	4212	3L2	C11-C10-C14	-3.18	104.04	106.10
88	1	4212	3L2	O3-C10-C11	-2.51	104.34	111.10
88	1	4212	3L2	O-C4-C5	-2.33	103.98	111.64
88	5	4246	3L2	C10-C11-C12	-2.24	102.24	104.76
88	1	4212	3L2	O8-C26-C13	2.00	61.51	59.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
88	1	4212	3L2	C10-C11-C12	2.01	107.02	104.76
88	5	4246	3L2	C11-C12-C13	2.02	103.34	101.61
88	5	4246	3L2	O4-C12-C13	2.37	111.28	108.49
88	1	4212	3L2	O-C4-O1	2.57	129.61	122.89
88	5	4246	3L2	C14-C15-C20	2.64	111.52	109.26
88	5	4246	3L2	C25-C14-C15	3.26	117.51	113.58
88	5	4246	3L2	C11-C10-C14	3.38	108.30	106.10
88	1	4212	3L2	C7-C8-C9	3.94	133.81	123.54

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

491 monomers are involved in 749 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3865	OHX	1	0
86	1	3866	OHX	1	0
86	1	3867	OHX	1	0
86	1	3868	OHX	5	0
86	1	3870	OHX	1	0
86	1	3871	OHX	1	0
86	1	3872	OHX	1	0
86	1	3873	OHX	1	0
86	1	3877	OHX	2	0
86	1	3878	OHX	1	0
86	1	3879	OHX	1	0
86	1	3880	OHX	2	0
86	1	3882	OHX	1	0
86	1	3883	OHX	2	0
86	1	3884	OHX	1	0
86	1	3885	OHX	1	0
86	1	3888	OHX	1	0
86	1	3889	OHX	1	0
86	1	3891	OHX	1	0
86	1	3892	OHX	1	0
86	1	3894	OHX	1	0
86	1	3898	OHX	1	0
86	1	3900	OHX	1	0
86	1	3903	OHX	1	0
86	1	3904	OHX	1	0
86	1	3910	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3918	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	2	0
86	1	3931	OHX	2	0
86	1	3932	OHX	2	0
86	1	3937	OHX	6	0
86	1	3939	OHX	1	0
86	1	3940	OHX	1	0
86	1	3941	OHX	2	0
86	1	3942	OHX	1	0
86	1	3946	OHX	1	0
86	1	3950	OHX	1	0
86	1	3953	OHX	1	0
86	1	3956	OHX	2	0
86	1	3957	OHX	6	0
86	1	3959	OHX	4	0
86	1	3962	OHX	1	0
86	1	3964	OHX	1	0
86	1	3965	OHX	1	0
86	1	3966	OHX	1	0
86	1	3968	OHX	1	0
86	1	3969	OHX	1	0
86	1	3971	OHX	6	0
86	1	3972	OHX	2	0
86	1	3974	OHX	1	0
86	1	3976	OHX	1	0
86	1	3977	OHX	1	0
86	1	3980	OHX	2	0
86	1	3981	OHX	1	0
86	1	3982	OHX	2	0
86	1	3983	OHX	1	0
86	1	3985	OHX	1	0
86	1	3986	OHX	1	0
86	1	3994	OHX	1	0
86	1	3996	OHX	1	0
86	1	4000	OHX	1	0
86	1	4001	OHX	1	0
86	1	4002	OHX	7	0
86	1	4005	OHX	2	0
86	1	4006	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4007	OHX	1	0
86	1	4009	OHX	1	0
86	1	4012	OHX	1	0
86	1	4014	OHX	1	0
86	1	4016	OHX	1	0
86	1	4022	OHX	3	0
86	1	4026	OHX	2	0
86	1	4028	OHX	1	0
86	1	4030	OHX	5	0
86	1	4031	OHX	1	0
86	1	4036	OHX	2	0
86	1	4037	OHX	2	0
86	1	4039	OHX	2	0
86	1	4042	OHX	2	0
86	1	4043	OHX	6	0
86	1	4045	OHX	2	0
86	1	4046	OHX	1	0
86	1	4053	OHX	2	0
86	1	4054	OHX	4	0
86	1	4055	OHX	3	0
86	1	4059	OHX	1	0
86	1	4060	OHX	1	0
86	1	4061	OHX	1	0
86	1	4062	OHX	1	0
86	1	4064	OHX	1	0
86	1	4071	OHX	1	0
86	1	4072	OHX	1	0
86	1	4073	OHX	1	0
86	1	4074	OHX	1	0
86	1	4078	OHX	2	0
86	1	4080	OHX	1	0
86	1	4082	OHX	1	0
86	1	4083	OHX	2	0
86	1	4085	OHX	1	0
86	1	4086	OHX	2	0
86	1	4088	OHX	2	0
86	1	4093	OHX	1	0
86	1	4096	OHX	1	0
86	1	4097	OHX	1	0
86	1	4098	OHX	1	0
86	1	4104	OHX	1	0
86	1	4105	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4107	OHX	1	0
86	1	4108	OHX	1	0
86	1	4116	OHX	1	0
86	1	4117	OHX	1	0
86	1	4120	OHX	1	0
86	1	4123	OHX	1	0
86	1	4130	OHX	2	0
86	1	4131	OHX	1	0
86	1	4132	OHX	1	0
86	1	4133	OHX	1	0
86	1	4136	OHX	1	0
86	1	4137	OHX	3	0
86	1	4138	OHX	4	0
86	1	4140	OHX	1	0
86	1	4142	OHX	2	0
86	1	4146	OHX	1	0
86	1	4147	OHX	1	0
86	1	4148	OHX	1	0
86	1	4149	OHX	2	0
86	1	4155	OHX	7	0
86	1	4159	OHX	1	0
86	1	4162	OHX	2	0
86	1	4163	OHX	2	0
86	1	4164	OHX	1	0
86	1	4165	OHX	1	0
86	1	4166	OHX	1	0
86	1	4167	OHX	4	0
86	1	4170	OHX	1	0
86	1	4171	OHX	8	0
86	1	4178	OHX	1	0
86	1	4179	OHX	1	0
86	1	4180	OHX	4	0
86	1	4182	OHX	1	0
86	1	4190	OHX	1	0
86	1	4191	OHX	1	0
86	1	4192	OHX	2	0
86	1	4193	OHX	1	0
86	1	4194	OHX	1	0
86	1	4195	OHX	1	0
86	1	4196	OHX	7	0
86	1	4197	OHX	1	0
86	1	4201	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4204	OHX	1	0
86	1	4206	OHX	1	0
88	1	4212	3L2	3	0
86	2	2022	OHX	1	0
86	2	2025	OHX	2	0
86	2	2026	OHX	1	0
86	2	2030	OHX	8	0
86	2	2031	OHX	1	0
86	2	2033	OHX	1	0
86	2	2034	OHX	1	0
86	2	2035	OHX	2	0
86	2	2037	OHX	1	0
86	2	2038	OHX	2	0
86	2	2043	OHX	6	0
86	2	2044	OHX	2	0
86	2	2046	OHX	1	0
86	2	2047	OHX	1	0
86	2	2050	OHX	1	0
86	2	2051	OHX	1	0
86	2	2053	OHX	1	0
86	2	2055	OHX	1	0
86	2	2063	OHX	1	0
86	2	2064	OHX	1	0
86	2	2066	OHX	1	0
86	2	2069	OHX	3	0
86	2	2070	OHX	1	0
86	2	2071	OHX	1	0
86	2	2072	OHX	1	0
86	2	2073	OHX	1	0
86	2	2075	OHX	1	0
86	2	2077	OHX	2	0
86	2	2081	OHX	1	0
86	2	2083	OHX	1	0
86	2	2085	OHX	1	0
86	2	2088	OHX	1	0
86	2	2089	OHX	2	0
86	2	2090	OHX	1	0
86	2	2092	OHX	1	0
86	2	2094	OHX	1	0
86	2	2096	OHX	1	0
86	2	2098	OHX	7	0
86	2	2100	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2103	OHX	1	0
86	2	2104	OHX	1	0
86	2	2105	OHX	1	0
86	2	2109	OHX	2	0
86	2	2110	OHX	4	0
86	2	2114	OHX	2	0
86	2	2120	OHX	3	0
86	2	2122	OHX	1	0
86	2	2123	OHX	1	0
86	2	2125	OHX	1	0
86	2	2126	OHX	1	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	4	0
86	2	2132	OHX	1	0
86	2	2134	OHX	1	0
86	2	2136	OHX	3	0
86	2	2138	OHX	1	0
86	2	2144	OHX	1	0
86	2	2145	OHX	2	0
86	2	2146	OHX	6	0
86	2	2147	OHX	1	0
86	2	2148	OHX	1	0
86	2	2154	OHX	3	0
86	2	2155	OHX	1	0
86	2	2156	OHX	1	0
86	2	2157	OHX	3	0
86	2	2159	OHX	1	0
86	2	2160	OHX	1	0
86	2	2164	OHX	1	0
86	2	2165	OHX	2	0
86	2	2167	OHX	1	0
86	2	2170	OHX	1	0
86	2	2171	OHX	1	0
86	3	218	OHX	1	0
86	3	220	OHX	1	0
86	3	221	OHX	2	0
86	4	226	OHX	1	0
86	4	227	OHX	1	0
86	4	228	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	4	230	OHX	1	0
86	4	231	OHX	1	0
86	4	232	OHX	1	0
86	4	235	OHX	2	0
86	4	240	OHX	3	0
86	4	241	OHX	1	0
86	5	3892	OHX	1	0
86	5	3896	OHX	1	0
86	5	3899	OHX	3	0
86	5	3900	OHX	1	0
86	5	3901	OHX	2	0
86	5	3902	OHX	1	0
86	5	3903	OHX	2	0
86	5	3905	OHX	2	0
86	5	3908	OHX	1	0
86	5	3909	OHX	2	0
86	5	3910	OHX	1	0
86	5	3912	OHX	1	0
86	5	3915	OHX	1	0
86	5	3917	OHX	3	0
86	5	3919	OHX	1	0
86	5	3932	OHX	1	0
86	5	3935	OHX	7	0
86	5	3938	OHX	1	0
86	5	3941	OHX	1	0
86	5	3943	OHX	1	0
86	5	3946	OHX	4	0
86	5	3949	OHX	1	0
86	5	3950	OHX	1	0
86	5	3951	OHX	1	0
86	5	3952	OHX	1	0
86	5	3953	OHX	2	0
86	5	3955	OHX	4	0
86	5	3956	OHX	1	0
86	5	3959	OHX	1	0
86	5	3962	OHX	1	0
86	5	3965	OHX	1	0
86	5	3966	OHX	2	0
86	5	3968	OHX	1	0
86	5	3969	OHX	1	0
86	5	3971	OHX	7	0
86	5	3975	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3976	OHX	1	0
86	5	3979	OHX	1	0
86	5	3982	OHX	1	0
86	5	3984	OHX	1	0
86	5	3989	OHX	1	0
86	5	3990	OHX	1	0
86	5	3994	OHX	6	0
86	5	3995	OHX	7	0
86	5	3996	OHX	1	0
86	5	4000	OHX	2	0
86	5	4002	OHX	1	0
86	5	4004	OHX	6	0
86	5	4006	OHX	2	0
86	5	4007	OHX	1	0
86	5	4008	OHX	1	0
86	5	4011	OHX	1	0
86	5	4014	OHX	6	0
86	5	4017	OHX	1	0
86	5	4018	OHX	2	0
86	5	4020	OHX	1	0
86	5	4022	OHX	1	0
86	5	4025	OHX	1	0
86	5	4029	OHX	1	0
86	5	4031	OHX	1	0
86	5	4032	OHX	1	0
86	5	4033	OHX	1	0
86	5	4035	OHX	1	0
86	5	4040	OHX	1	0
86	5	4045	OHX	1	0
86	5	4048	OHX	1	0
86	5	4049	OHX	5	0
86	5	4050	OHX	1	0
86	5	4053	OHX	1	0
86	5	4056	OHX	1	0
86	5	4060	OHX	7	0
86	5	4061	OHX	1	0
86	5	4062	OHX	2	0
86	5	4066	OHX	1	0
86	5	4067	OHX	1	0
86	5	4068	OHX	1	0
86	5	4069	OHX	1	0
86	5	4073	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4081	OHX	2	0
86	5	4083	OHX	6	0
86	5	4085	OHX	1	0
86	5	4087	OHX	2	0
86	5	4090	OHX	1	0
86	5	4091	OHX	1	0
86	5	4093	OHX	1	0
86	5	4096	OHX	4	0
86	5	4099	OHX	2	0
86	5	4100	OHX	2	0
86	5	4107	OHX	1	0
86	5	4110	OHX	1	0
86	5	4112	OHX	1	0
86	5	4113	OHX	1	0
86	5	4114	OHX	1	0
86	5	4119	OHX	1	0
86	5	4123	OHX	1	0
86	5	4124	OHX	1	0
86	5	4126	OHX	1	0
86	5	4130	OHX	1	0
86	5	4131	OHX	2	0
86	5	4133	OHX	1	0
86	5	4136	OHX	6	0
86	5	4137	OHX	2	0
86	5	4140	OHX	1	0
86	5	4146	OHX	1	0
86	5	4152	OHX	1	0
86	5	4153	OHX	1	0
86	5	4156	OHX	1	0
86	5	4160	OHX	1	0
86	5	4162	OHX	1	0
86	5	4166	OHX	3	0
86	5	4167	OHX	1	0
86	5	4170	OHX	1	0
86	5	4174	OHX	1	0
86	5	4175	OHX	1	0
86	5	4176	OHX	1	0
86	5	4178	OHX	1	0
86	5	4179	OHX	1	0
86	5	4181	OHX	1	0
86	5	4183	OHX	2	0
86	5	4185	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4186	OHX	1	0
86	5	4187	OHX	1	0
86	5	4188	OHX	1	0
86	5	4191	OHX	3	0
86	5	4192	OHX	9	0
86	5	4193	OHX	5	0
86	5	4194	OHX	7	0
86	5	4195	OHX	2	0
86	5	4198	OHX	1	0
86	5	4199	OHX	1	0
86	5	4201	OHX	1	0
86	5	4202	OHX	1	0
86	5	4210	OHX	6	0
86	5	4212	OHX	1	0
86	5	4214	OHX	1	0
86	5	4216	OHX	1	0
86	5	4217	OHX	1	0
86	5	4218	OHX	1	0
86	5	4219	OHX	1	0
86	5	4221	OHX	1	0
86	5	4227	OHX	8	0
86	5	4231	OHX	2	0
86	5	4233	OHX	1	0
86	5	4236	OHX	2	0
86	5	4237	OHX	1	0
86	5	4242	OHX	1	0
88	5	4246	3L2	4	0
86	6	2048	OHX	1	0
86	6	2053	OHX	1	0
86	6	2058	OHX	6	0
86	6	2060	OHX	1	0
86	6	2061	OHX	1	0
86	6	2064	OHX	1	0
86	6	2067	OHX	1	0
86	6	2069	OHX	1	0
86	6	2072	OHX	1	0
86	6	2073	OHX	1	0
86	6	2074	OHX	1	0
86	6	2078	OHX	1	0
86	6	2085	OHX	2	0
86	6	2087	OHX	1	0
86	6	2088	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2091	OHX	1	0
86	6	2095	OHX	4	0
86	6	2096	OHX	2	0
86	6	2099	OHX	3	0
86	6	2101	OHX	2	0
86	6	2102	OHX	1	0
86	6	2103	OHX	2	0
86	6	2104	OHX	1	0
86	6	2106	OHX	1	0
86	6	2107	OHX	1	0
86	6	2108	OHX	1	0
86	6	2110	OHX	1	0
86	6	2111	OHX	2	0
86	6	2113	OHX	1	0
86	6	2117	OHX	2	0
86	6	2118	OHX	8	0
86	6	2119	OHX	1	0
86	6	2121	OHX	2	0
86	6	2122	OHX	1	0
86	6	2124	OHX	3	0
86	6	2125	OHX	2	0
86	6	2128	OHX	4	0
86	6	2129	OHX	1	0
86	6	2134	OHX	1	0
86	6	2135	OHX	2	0
86	6	2136	OHX	1	0
86	6	2141	OHX	1	0
86	6	2142	OHX	1	0
86	6	2144	OHX	1	0
86	6	2145	OHX	7	0
86	6	2146	OHX	1	0
86	6	2147	OHX	1	0
86	6	2148	OHX	1	0
86	6	2149	OHX	1	0
86	6	2152	OHX	1	0
86	6	2154	OHX	1	0
86	6	2157	OHX	1	0
86	6	2158	OHX	1	0
86	6	2163	OHX	1	0
86	6	2166	OHX	1	0
86	6	2168	OHX	1	0
86	6	2169	OHX	8	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2171	OHX	1	0
86	6	2173	OHX	1	0
86	6	2174	OHX	1	0
86	6	2177	OHX	1	0
86	6	2178	OHX	1	0
86	6	2180	OHX	3	0
86	6	2181	OHX	1	0
86	6	2182	OHX	3	0
86	6	2184	OHX	2	0
86	6	2185	OHX	1	0
86	6	2186	OHX	2	0
86	6	2187	OHX	4	0
86	6	2188	OHX	3	0
86	6	2190	OHX	2	0
86	6	2191	OHX	1	0
86	6	2192	OHX	1	0
86	6	2200	OHX	2	0
86	6	2202	OHX	1	0
86	7	219	OHX	2	0
86	7	220	OHX	1	0
86	7	227	OHX	2	0
86	8	216	OHX	1	0
86	8	217	OHX	1	0
86	8	218	OHX	7	0
86	8	219	OHX	1	0
86	8	221	OHX	1	0
86	8	222	OHX	1	0
86	8	225	OHX	6	0
86	8	226	OHX	1	0
86	8	230	OHX	2	0
86	C3	201	OHX	1	0
86	C5	201	OHX	3	0
86	D9	102	OHX	1	0
86	L3	404	OHX	2	0
86	L3	405	OHX	2	0
86	L4	403	OHX	2	0
86	M7	204	OHX	1	0
86	M7	205	OHX	1	0
86	M9	202	OHX	1	0
86	N1	201	OHX	1	0
86	O3	201	OHX	1	0
86	O7	103	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	O7	104	OHX	1	0
86	Q2	503	OHX	2	0
86	S6	301	OHX	2	1

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 ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

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

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

6.3 Carbohydrates ⓘ

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

6.4 Ligands ⓘ

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

6.5 Other polymers ⓘ

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